114 Whitwell

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Section 1
Project Narrative

General Design Approach

Through the 114 Whitwell Development Plan, the Developer, FRP Quincy Development LLC, proposes the construction of 598 housing units, supported by a range of amenity spaces and landscapes, achieving 63% open space over the 14.97 acre site. The plan allows for residential uses, assisted living, long-term care, and senior independent living. Buildings will all be designed with dedicated loading, trash and service areas so they can operate independently and maintain a tidy appearance at all times.

Since the acquisition of the property, the Developer has engaged the neighborhood and general public through a collaborative process with three public meetings to discuss the future use of the site. In December of 2017, the City Council passed an order, amending the zoning for the site - Title 17, Section 8.4.13 and 8.4.14. In compliance with the amended zoning, FRP Quincy Development LLC and their design team present this development plan proposal to create a unique, high quality, sustainable community for Quincy.

This project will become an integral part of the surrounding neighborhoods, providing a unique blend of building typologies within the site, and multiple unit types to meet market demands.

Existing Conditions

The project site consists of 14.97 acres atop Quincy's Hospital/President's Hill, which has served as the location for the former Quincy Medical Center. After multiple turn-around attempts the facility closed in 2014. The significant burdens of the failing building systems were a factor in this decision. Property condition analysis conducted in 2011 and 2016 confirmed that continued use of the existing buildings as a medical facility was prohibitive and would not meet modern standards of care.

Efforts continue to understand the redevelopment opportunities of the Classical Revival three-story brick structure facing Whitwell, referred to throughout as the Administration Building. In this proposed site plan, the Administration Building is shown as being reused to provide amenity spaces, management office space, and a small ancillary retail space open to the community.

FRP Quincy Development LLC is committed to making improvements to the existing open space at the northernmost edge of the site. The Developer will create an operations and maintenance plan incorporating input from the neighbors, allowing continued upgrades and long-term maintenance. The existing 1.14 acre open space district, which comprises 7.6% of the overall site, will remain open to the public.

Context

The site is surrounded by residential communities developed over the course of the 20th century. The immediate abutting properties include single family homes to the West on Colonial Drive (1970-80s) and to the North on Glendale Road (1910-20s). Single, two, and three family houses to the East on Roselin/Euclid and to the South on Whitwell built circa 1900.

Located on the next hilltop to the south are the multi-family developments HighPoint, Avalon Quincy, and Eaves Quincy. To the east down Whitwell Street are the Cranch School Condominiums, and the senior community at Granite Place Apartments on Granite Street.

The Whitwell Street Playground neighbors the property to the south on the opposite side of Whitwell Street. At the Northernmost end of the site, the Neighborhood Club of Quincy abuts Glendale Park and has been a community institution since 1917.

The site is located less than ½ a mile from the Quincy Center MBTA station and is serviced by the #245 MBTA

bus route along Whitwell. Pedestrian and bicycle access to downtown Quincy is available via multiple routes.

Open Space and Parking

As designed, the overall project accomplishes 9.43 acres of open space (63% of the overall site) and reduces pavement and impervious surfaces from present conditions by 1.65 acres, while providing sufficient on-site parking– primarily within the footprints of the buildings.

The site will establish a network of open spaces for recreational uses available to residents and the neighborhood at large. The project includes a large central green which will have a variety of programmed and non-programmed landscapes along it's length, connecting the buildings and creating a series of public, semi-private, and private green spaces. These are in addition to the publicly accessible open space in Glendale Park.

All site drives are proposed as private ways, as defined by the City of Quincy Municipal Code, and will be named to provide appropriate E911 and USPS street addresses.

Architectural Design

The design of the 114 Whitwell Development Plan has been a collaborative effort between master planners, architects, landscape architects, and civil engineers with input and feedback from the Developer, City officials, and the surrounding community.

FRP Quincy Development LLC held three public meetings in 2017 to discuss the different development options for the site and to listen to public feedback. In 2018, the Developer and the landscape architects held an additional three meetings to discuss the different types of uses and possible improvements for the open space district. The information and ideas gathered through this process have informed this proposal.

Each building will be designed within the development envelopes established by this master plan. The building exteriors have been designed with an awareness of the overall site as well as the character and material composition of the other buildings on the campus. Each building will have a unique appearance. Careful balancing of consistency and variety across the site serves to create a strong sense of place.

View from Whitwell

Public Benefits

The proposed project will improve the conditions on the site, enhance the quality of its environment, and expand the economy of the City of Quincy in the following ways:

- Remove roughly 345,000 sf of vacant, blighted, and functionally obsolete buildings
- Replace approximately 4 acres of asphalt with vital, active, and engaging living and outdoor spaces
- Increase the City's real estate tax base by adding new development
- Achieve 63% open space, including Glendale Park which will be maintained for community use in perpetuity
- Create hundreds of construction jobs for the duration of the development

Sustainability

The development will pursue the highest feasible standards for the project's resiliency and impact on the environment. The proposed master plan for the site greatly exceeds the commitment to provide a minimum of 20% of the aggregate land area as open space by a factor of three (63% open space).

Rainwater runoff volume will decrease from the current conditions through increased permeable surface area and groundwater management structures located across the site. Outdoor water use will be reduced by the selection of plantings native to the region, limiting the demand for irrigation.

The increased open space will reduce the heat islands on the site. Urban heat island effects will also be mitigated through the use of light colored roofing materials as well as rooftop terraces with extensive planted areas. Site lighting will provide adequate ambient light without increased light shed on the surrounding properties and minimize its impact on the night sky.

The site's unique location provides inherent sustainability benefits. A short walk to the Quincy Center MBTA Station, the site enjoys easy access to public transportation. Electric vehicle charging stations will be provided for each building, further reducing the carbon emissions generated by the tenants.

All proposed buildings will meet the Massachusetts Stretch Energy Code. The heating and cooling energy demands will be reduced through high performance insulation strategies, carefully selected glazing specifications, and reduced water use fixtures. Building systems across the site will be designed to enable the tenant to pay gas and electric directly to the utility, creating an incentive to conserve energy.

Each unit will be served by its own mechanical equipment, specified to maximize building energy efficiency. The project will provide high efficiency instantaneous hot water heaters for both unit domestic hot water and space heating. Cooling will be accomplished through high efficiency split DX/condensers serving indoor air handling units with ECM motors.

Energy modeling will be utilized to optimize the performance of the exterior envelope and the required mechanical equipment capacity. At start up, building systems will be commissioned to ensure the specified equipment performance standards are met by the installation.

Indoor air quality will be controlled through energy recovery ventilators, providing tempered outdoor air to all habitable spaces. In addition to increased indoor air quality the energy recovery equipment will reduce the heating and cooling demands by utilizing an enthalpy wheel to preheat/pre-cool the outdoor air with already tempered exhaust air from each space.

The interior finishes will be selected to establish and maintain high indoor air quality. Special attention will be paid to the compartmentalization of the units, enhancing energy efficiency, acoustics, and the indoor air quality of each unit. Appliances specified for each unit will be Energy Star certified.

Electrical energy demands will be reduced by selecting and installing efficient lighting for both indoor lighting and outdoor site lighting. Lighting controls will be introduced when appropriate to reduce electrical demands. Lighting design will include the use of automatic on/off, occupancy control, and daylight dimming.

Potable water usage will be reduced through the specification and installation of low flow plumbing fixtures. In addition to lowering water use, energy demands to heat the water will be further reduced.

The project will provide internal space for the storage of trash and recycling. The construction waste management program, including demolition waste, will aim to divert as much material from landfills as possible. To reduce long-term waste generated by the development, all finish materials will be selected for long-term durability, recycled content, and ease of maintenance.

Construction Management Plan

The Developer understands the many ways new construction affects the neighborhood surrounding a project site. Construction will proceed with the intent to minimize these effects.

Public Safety & Police Details

Police details will be provided during construction activities as required to facilitate traffic flow and pedestrian safety. Construction procedures will be designed to meet all Occupational Safety and Health Administration (OSHA) safety standards for specific site construction activities.

Perimeter Protection

Secure fencing and barricades will be used to isolate construction areas from pedestrian traffic around the site. In addition, sidewalk areas and walkways near construction activities will be well marked to protect pedestrians and ensure their safety. Directional signage will be installed and regularly updated as site conditions change during construction, if required. Overhead protection will be used to isolate and safeguard pedestrians during all phases of construction, as required.

Emergency Site Access

Access to the site for emergency vehicles will be maintained at all times. The site will be available for inspection by the police and fire departments upon completion of the site preparation and mobilization phase to ensure compliance of all emergency access and safety. The existing Emergency Department will not be disrupted.

Snow Removal

The Construction Manager will be responsible for removing snow, as required, from sidewalks immediately adjacent to the Project. This will be done to ensure that all sidewalks are clear of snow and ice. Under no condition will the removed snow be disposed of on public property.

Street Cleaning

Street cleaning will occur as required.

Abutter and Agency Coordination

Abutter Coordination

At all times during construction activity there will be management staff on-site and available for assistance.

Signage and Distribution of Information

Signage will direct pedestrians around the site as well as direct truck traffic and deliveries. Signage will be placed at each corner of the site as well as areas that may be confusing to pedestrians and automobile traffic. The construction site will have a sign indicating the name of the Developer and its contact information including phone number and internet address.

Utility Connections

Lateral utility connections into Whitwell Street, Euclid Avenue, and via the existing utility easement running through the wooded area between Euclid Avenue and Glendale Road will be coordinated with the City of Quincy. All applicable permits will be pulled and necessary traffic controls will be implemented.

Construction Logistics

Material Handling

Construction material delivery trucks will be loaded and unloaded inside the construction fence (or at curbside, with applicable permits, when onsite loading or unloading is impractical). On-site locations will be designated for temporary storage of construction materials (storage containers, palletized shipments, etc.). On-site locations may change to accommodate construction phasing. Trucks and equipment will follow designated truck routes and be staged as indicated at the traffic management plans. After structural and façade work is completed, building loading bays will be the primary locations for loading and unloading.

Construction Waste

The Construction Manager will be responsible for processing and recycling of construction waste and will contract with a licensed waste hauler having off-site sorting capabilities. All construction debris will be taken off site by the waste hauler, sorted as either recycled debris or waste debris and sent to the proper recycling center or waste facility. As necessary, construction debris will be wetted and covered to minimize air born dust particles.

Construction Hours

The construction hours will be established for each phase of the project. After hours or holiday work will be performed only with required permits.

Truck Movements During Construction

Truck traffic related to this construction site will vary throughout the construction period. “Real-time” management practices will be employed for deliveries. Local streets will not be used for staging delivery trucks. Construction contracts will include provisions restricting truck travel to approved routes. The impact of construction trucks in the evening peak hour is expected to be insignificant because most deliveries are completed prior to the end of the typical construction work day. Trucks coming to and from the site will be required to use major arterial roadways or highways and not local streets. The selection of proposed truck routes is based on the following criteria:

View of Entry Plaza and Central Green

- Minimizing truck activity in the residential neighborhoods
- Designating specific roads where trucks are permitted
- Providing access to and from the major arteries

Trucks accessing the site will follow established routes that will be submitted for each phase of the project.

Construction Employee Trip Generation

Trip Generation by construction workers is directly related to the number of workers of the site at a given time. The number of workers per day will vary as construction proceeds by phase. The site has access to public transportation and some workers may use this transit option. The Construction Manager will provide secure on-site storage areas for workers' equipment to facilitate use of the "T". In addition to these factors, construction workers generally travel before the morning peak hour further lessening the impact that these workers will have on the adjacent street network during the morning and evening peak hours.

Construction Worker Parking

On-site construction worker parking areas will be designated for each phase.

Portable Sanitary Facilities

Portable sanitary facilities will be provided on-site as required by applicable codes at locations appropriate to the stage of construction. The facilities will be maintained on a regular basis to prevent offsite odor migration.

Mitigation Measures

Environmental

Any environmental remediation will be supervised by a Licensed Site Professional (LSP), hired by the owner. The LSP will oversee the environmental aspects of the project that are governed by the MCP. Abatement of hazardous building materials will follow the established regulatory protocols. A licensed regulated materials removal contractor will remove and legally dispose of all such identified materials prior to the start of demolition activities in accordance with all applicable federal, state and local regulations. Inspection of the removal work and air monitoring will be performed by an independent, licensed environmental consultant. All applicable permits will be pulled to notify the regulatory agencies of the activity at the site.

Air Quality, Dust and Odor Control

If action levels are exceeded, the Construction Manager will perform all required additional measures to control dust and limit production of vapors. Such measures may include covering the excavation face, spraying water to control dust, and use of other cover measures to limit dust generation.

On-site Dewatering and Drainage during Construction

Site dewatering is expected to be limited and will be conducted in accordance with the applicable Stormwater Pollution Prevention Plan (SWPPP) or National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) requirements for sedimentation control and treatment prior to discharge. Effluent from construction dewatering will either be allowed to recharge on-site in accordance with the MCP or will be discharged to the storm drain under an RGP. In the event that an RGP is needed, treatment will likely include sedimentation control through use of frac tanks and bag filters, carbon vessels and other treatment components as needed to remove contaminants to acceptable levels in accordance with the RGP.

Rodent Control

The Construction Manager will contract with a licensed pest control contractor. Rodent control measures are currently in-place, and will be expanded prior to and during demolition and construction activities. The program will include performance of extermination and control procedures.

Noise Control

All work will be performed in conformance with the Noise Control Ordinance for the City of Quincy. Noise mitigation measures to be undertaken include:

- Performing work only during permitted hours
- Use of appropriate mufflers on equipment and ongoing maintenance of intake and exhaust mufflers
- Prohibit idling of equipment
- Use of saw-cutting methods in lieu of jack hammering where feasible

Easements and Encumbrances

Please refer to the ALTA / ACSM Title Survey drawings in Section 6 of this document.

East-West Drive - View Looking West

Accessibility

The development of the site will comply with the requirements of the Design and Construction Requirements of the Fair Housing Act (FHA), the Americans with Disabilities Act *2010 ADA Standards* (ADA), and 521 CMR: *The Rules and Regulations of the Massachusetts Architectural Access Board* (MAAB). 521 CMR and the FHA cover units and common use spaces. The 2010 ADA Standards only apply to places of public accommodation (leasing office, retail spaces, etc.). The solutions to the challenges presented by the contours of the site may require approval by the MAAB.

Site Accessibility

The project site is located on hilly terrain with the maximum difference between the highest and lowest existing elevations for the developed area of approximately 40 feet. Accessibility is a primary goal of the proposed master plan, and a requirement of the above-referenced codes and standards. The proposed plan provides access compliant with the FHA, 521 CMR, and the 2010 ADA Standards by providing the required accessible circulation between all buildings, a connection to Whitwell Street. parking structures, and parallel spaces along development driveways. Pedestrian walkways are generally sloped less than 5%, which precludes the need for handrails.

Due to pronounced change in elevation on the north end of the developed area of the site, a grade steeper than allowed by accessibility standards exists along the north-south driveway. A proposed cul-de-sac, terminating the north-south driveway at its northern end, is separated by a steep slope from the remainder of the driveway. Site constraints of adjacent buildings, driveway widths, and existing topography do not spatially allow an economically feasible strategy to comply with the accessibility requirements of 521 CMR or the FHA in this location. A proposed solution to mitigate this condition is to provide an accessible route to the residents of the development through Building D. The elevators in the lobby will bring occupants to the lower grade elevation, providing access to the cul-de-sac and residences facing that drive surface and walkway at the lower elevation. This proposed solution will require a variance from the MAAB prior to construction.

Public and Common Use Spaces:

All public use and common use spaces will meet the requirements of 521 CMR, the FHA, and the 2010 ADA Standards. Public and common areas of the project will include all building lobbies, amenity spaces, and toilets serving common areas.

Unit Accessibility

As proposed, all units will comply with both the FHA and 521 CMR as required. 521 CMR has more stringent requirements for units than the FHA. 521 CMR requires units to be designed as either Group 1 or Group 2A. Five percent of the total number of dwelling units will be designed to meet the Group 2A requirements and the rest will be designed to meet Group 1/FHA requirements.

The Rowhouses and townhouses will not be designed to meet the Group 1 requirements, which is allowed under the current version of 521 CMR and the FHA Design Manual. Please note, to provide the required number of Group 2A units of similar size, type, and quality, as required by 521 CMR, flats will be designated in the corridor buildings.

Natural Resources and Open Space Design Approach

For the past century this site has operated as a medical center. As the hospital capacity and twentieth century pressures for on-site parking increased, the site converted mostly to impervious asphalt parking lots. Vegetation was pushed to the edges with the only semi-intact landscape spaces being the southern edge along Whitwell Street and the wooded area along Glendale Road. Few trees are present within the parking lot zones. These few trees are highly compromised due to the stresses of small soil volumes, limited water infiltration, and reflective heat from the asphalt pavement. Currently, rain water either runs off site or is collected in a piped system and sent off site.

Landscape spaces are an important element of the master plan and allow for separation between buildings, provide space for recreation and respite, and help to integrate buildings with their environment. This plan's primary goals for natural resources and open spaces are as follows:

1. Provide a diversity of landscaped spaces that respond to various conditions of the plan such as screening drifts of trees between rowhouse terraces, front gardens for Rowhouses and Townhouses, and common garden courtyard spaces at multifamily buildings.

2. Provide enhanced streetscapes at the development entry and retail spaces at the core of the project. Specify and design paving systems that will help define the character of the development and prioritize walking on the site.

3. Provide a diversity of social spaces that include a designated playground space, and spaces for exterior gathering within the open space, on roof tops, and adjacent to major building entries.

4. Create a network of engaging open spaces that allow and promote pedestrian connections between buildings, shared amenities, and the central landscape space at the master plan's core.

North-South Drive - View Looking North

5. Provide a large central green space in the north-south orientation, which serves as the connector between the east and west sides of the project and provides passive recreation opportunities for people of all ages.

6. Continue the character of contextual 'front yard' landscapes along Whitwell Street with flowering under-story trees and a low hedge separating residential units from the street.

7. Maintain the civic nature of the Administration Building's formality through low hedges, planting large trees, and the use of appropriate pavement types.

8. Retain as many existing large trees as possible. Use existing natural resources such as the wooded, north-facing slope of the property as landscape habitat for visual interest and as a buffer to adjacent properties.

9. Shade vehicular driveways with street trees to reduce urban heat island effect, enhance the visual appeal of roadways, and create a village-like character for the adjacent sidewalks to encourage walking. To ensure the longevity and health of the trees planted under sidewalk pavement, structural soil will be used as the planting medium.

10. Provide adequate visual screening between the project and abutting properties with periodic plantings of both deciduous and evergreen tall shrubs and trees to ensure diversity of height and visual appeal.

By adhering to these goals, the landscape design will help define the overall character of the site and establish a strong sense of place. New plantings will be selected for their compatibility with the site's soils, sun exposure and available water in non-irrigated areas. Species will be selected that are either native to New England or are naturalized in New England. No invasive species will be used. Minimal use of lawn turf is a goal, opting instead for swaths of native meadow to provide seasonal character, beauty, and a supportive habitat to many important birds and insects.

Irrigation Design

All landscaped areas surrounding the buildings, the street trees along the roadways, and any landscaped roof terraces will be irrigated. Areas that will not be irrigated are the Glendale parcel, the areas behind Buildings A and B, and the rear yards of the townhouses on the east edge of the site.The total irrigated area on the site will be roughly 106,000 square feet.

The irrigation system will employ a smart, automatic weather adjusting controller to maximize water efficiency and to respond to local weather conditions.

Existing Tree Canopy

To the extent possible, the existing 'Significant Trees' as defined by the Tree Protection Ordinance of the City of Quincy will be protected and retained on the site. Assessment of 'Significant Trees" has been done by the landscape architect and the findings have been

summarized in a chart on sheets L-1 and L-2 of the drawing set.

Invasive species and dead trees will be removed and the caliper inches of remaining Significant Trees which will need to be removed as the result of construction activity will be replaced in accordance with the Tree Protection Ordinance.

Site Lighting Design

Lighting of the site will meet the IES RP-8-14 standard for roadways along the vehicular pavement on the site, and the IES RP-20-14 standard for parking lots at the at-grade, where applicable.

Lighting will be provided by vehicular poles along the roadways, pedestrian poles along the central greenspace path, and by bollards along walkways between structures and landscape elements. Fixtures will be specified and located to achieve uniformity of light levels. There will be no lighting spillover into adjacent property. All lights will be LED fixtures.

Proposed Schedule

The project will be built across two phases. The first phase will be completed while the majority of the existing hospital remains standing. The remediation and demolition of the former Hospital facilities will be phased to avoid an interruption of service for the emergency department. The second phase of construction will require the demolition of the remaining hospital facility. The permitting process will guide the commencement of construction, which will be governed by a design phase of approximately 10-12 months. The project will go through the appropriate Quincy Planning and Construction permitting processes for each building. Each phase will take approximately 18-22 months to construct.

Requested Relief

The proposed master plan conforms to all dimensional, parking, and loading requirements as indicated in Section 8.4.13 and 8.4.14 of the Quincy Municipal Code, Title 17 - Zoning.

MEPA Permitting Requirements

According to 301 CMR 11.01 (2) (a) 1. "MEPA establishes jurisdiction over: a Project undertaken by an Agency; those aspects of a Project within the subject matter of any required Permit; a Project involving Financial Assistance; and those aspects of a Project within the area of any Land Transfer." A Project is defined as "Any work or activity that is undertaken by: (a) an Agency; or (b) a Person and requires a Permit or involves Financial Assistance or a Land Transfer."

Based on FRP Quincy Development LLC's current building program and the above referenced regulations, the project does not require review under the MEPA regulations.

Water and Sewer Summary

Water Supply

A new site domestic water distribution and fire protection system will be constructed for the proposed development consisting of 12" Cement Lined Ductile Iron (CLDI) AWWA C151, Class 52 water mains; 6" domestic and 8" fire CLDI building services; gate valves and fittings; and 6 new hydrants dispersed throughout the site, in addition to the 3 existing hydrants fronting the site on Whitwell Street. The site water mains will connect to the existing 12" main in Whitwell Street in two locations and to the 12" main in Euclid Avenue. The distribution system is designed to "loop" the site with no "dead-ends" to ensure evenly distributed pressure and the ability to isolate flows for potential repairs without shutting down domestic or fire services to the residential units. The design conforms to the requirements of the American Water Works Association (AWWA) and National Fire Protection Association (NFPA).

Sanitary Sewer System

The project is served by the City of Quincy municipal sewer system. Wastewater flows via gravity sewer pipe and connections to the City's system are made in Whitwell Street and Glendale Road. Quincy is one of the many

Existing And Proposed Wastewater Flows

Project Component	Generation Rate	Existing Flows (GPD)	Proposed Flows (GPD)	Net New Flows (GPD)
Quincy Medical Center - Hospital Use				
217 beds	200 GPD/Bed	43,400	-	-
114 Whitwell Master Plan Project - Proposed Residential Use				
598 Units - 3, 2, 1-Bedroom & Studio – 877 Bedrooms Total	110 GPD/bedroom	-	96,470	-
Proposed Retail Use - 5,000 sf Retail Amenity	50 GPD/1,000 sf	-	250	-
Total		43,400	96,720	53,320

Eastern Massachusetts communities that is served by the Massachusetts Water Resources Authority (MWRA) regional system; therefore, sewage from the site ultimately discharges to the MWRA's Deer Island Wastewater Treatment Plant for final treatment and disposal in Boston Harbor. The project's wastewater collection system meets all applicable local and state design requirements and complies with all applicable local, regional and state policies related to wastewater management.

Project Generated Wastewater Flow

Wastewater generation flow calculations for the proposed development are based on the requirements of 314 CMR 7.15, Massachusetts Division of Water Pollution Control Sewer Extension and Connection Permit as well as 310 CMR 15.203, Massachusetts Department of Environmental Protection State Environmental Code. Both sections provide guidelines on calculating wastewater flows. While these flow rates are generally considered conservative values for new construction given current technologies in water demand and wastewater generation, they are the accepted standard for determination of permitting thresholds and hydraulic capacity design.

The Wastewater Flows Table provides existing and proposed uses with the standard generation rates, existing and proposed use-specific sewage flows and the net increase of approximately 53,320 gallons per day to the municipal system resulting from the project.

Development Summary

The site will be owned and operated by the proponent.

Site Area:	14.97 ac / 652,069 SF
Proposed Open Space:	9.43 ac / 410,435 SF
Proposed Building Area:	672,000 GSF
Retail Area:	5,000 SF
Floor Area Ratio:	1.03
Number of Dwelling Units:	598
Units per Acre	39.4
Number of Parking Spaces:	802
Number of Stories (maximum)	6
Front Yard Setback:	25 feet min.
Rear Yard Setback:	25 feet min.
Side Yard Setback:	25 feet min.

Aerial View - Looking Northeast

Section 2
Development Plan Set

Drawing List

SITE DEVELOPMENT PLANS

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Section 3
Stormwater Management Summary

The attached Stormwater Management Report, prepared in accordance with Massachusetts Department of Environmental Protection (MassDEP) Stormwater Standards, is submitted on behalf of the applicant, FRP Quincy Development LLC. The report summarizes the drainage analysis and Stormwater Management Plan for the proposed residential/retail mixed use development at the former Quincy Medical Center site, 114 Whitwell Street Quincy. See Figure 1, USGS Locus Map.

The purpose of the Stormwater Management Plan is to provide a comprehensive framework for the long-term protection of natural resources in and around the site from degradation as a result of stormwater discharges. This is achieved through the use of water quality and quantity control measures designed to decrease the amount of pollutants discharged from the site and control discharge rates and volumes.

The following sections describe the regulations pertinent to stormwater management and the specific components of the Stormwater Management Plan to be implemented at the Site.

Pre-Development Conditions

The former Quincy Medical Center site is 14.97 acres. Of that total area, 11.4 acres fronting on Whitwell Street is developed with several hospital buildings, expansive paved parking areas, site drive and entrances. The other 3.57 acres is undeveloped woodlands at the northern end of the site, including 1.14 acres in the open space district that is commonly known as Glendale Park. The overall 14.97 acres of property comprises 42.6% open space and 57.4% impervious area; however, it is important to note that 75% of the "developed" front portion of the site is impervious buildings and paved areas. The majority of runoff from the roofs and paved areas is currently collected in catch basins and roof drains that discharge directly to the City of Quincy municipal drainage system in either Whitwell Street, Colonial Drive, or Glendale Road. The existing site drainage system is old and outdated; catch basins are not equipped with deep sumps to allow settling of sediment or with hooded outlets to capture floatable oils and greases. There are no Best Management Practices (BMPs) providing water quality treatment measures or promoting stormwater infiltration and groundwater recharge. Essentially, all runoff generated by the hospital site discharges untreated to the municipal drainage system. This site redevelopment project will significantly improve the existing conditions by creating usable, pervious open space, utilizing permeable pavement and implementing stormwater quality treatment devices and subsurface infiltration systems.

Post-Development Conditions

The primary design intent of the proposed site grading and stormwater management system is to collect, treat and infiltrate runoff from all proposed impervious pavement areas and collect and infiltrate "clean" runoff from landscape and building roof areas. The proposed system consists of deep sump hooded catch basins, drain manholes, HDPE pipe, permeable pavement, fourteen (14) water quality treatment units and six (6) areas with subsurface infiltration chamber systems.

The proposed stormwater system has been designed in accordance with DEP Stormwater Management Standards and the Project falls under the definition of a Redevelopment Project. The Project's stormwater management design reduces the quantity of and improves the quality of stormwater runoff at the site, and provides significant recharge benefits where none exists today. The landscape design integrates pervious planting, pedestrian friendly open space and courtyard plaza areas using permeable pavers that results in 1.67 acre reduction in impervious areas and a corresponding reduction in runoff generated by the site.

Of the 14.97-acre site area, building roof area is 4.16 acres (27.8%); impervious pavement parking and vehicular drive area is 1.39 acres (9.25%); pedestrian walkway area and terrace area is 1.40 acres (9.35%); pervious paver area is 0.65 acres (4.3%); and landscape area is 7.37 acres (49.3%). The total Open Space area for the site is 9.42 acres (63%) comprising gardens and landscape areas, swimming pools, walks, terraces and parkland as defined in Section 10.0 of the Quincy Zoning Ordinances. Runoff from essentially 100% of the pavement areas will be treated by one of fourteen (14) water quality devices prior to

discharge to one of six (6) subsurface infiltration/recharge systems. Runoff from 95% of the total building roof areas is collected by roof drains and discharged to one of the subsurface recharge areas as well. Most of the site's landscaped and pedestrian areas will also go through the same stormwater treatment train and are infiltrated. The small areas of pedestrian walkway and landscaping with runoff not captured by the proposed on-site drainage system are along some of the campus perimeter.

Ground Cover

The overall hydrologic study area for the proposed site is 14.97 acres. Table 1, below, summarizes the ground cover distribution for the hydrologic study area for pre- and post-conditions. There is a decrease of approximately 1.65 acres in impervious area under the post-development conditions.

Table 1 - Ground Cover Distribution

Ground Cover Type	Pre-Development Conditions (acres)	Post-Development Conditions (acres)
Impervious Pavement	6.21	2.79
Impervious Roof	2.39	4.16
Pervious Areas	6.37	8.02
Total	14.97	14.97

Method Of Calculations

The hydrologic model created to analyze the hydrology of the site was developed using the Soil Conservation Service (SCS) Technical Release No. 20 (SCS unit hydrograph procedures) and SCS Technical Release No. 55 (for Times of Concentration and Runoff Curve Numbers). The stormwater facilities were modeled using the Simultaneous Routing Method.

The hydrologic model was created and calculated with HydroCAD, Version 10.0 software, developed by Applied Microcomputer Systems. The runoff from the sub-drainage areas (HydroCAD subcatchments) is calculated based on rainfall and the watershed characteristics, and a runoff hydrograph (a runoff rate versus time curve) is developed. The stage-storage-discharge curve for a specific detention area (i.e., an infiltration basin) is used to compute an outflow hydrograph by hydraulically routing an inflow hydrograph through the detention facilities. This procedure calculates the relationship of the inflow hydrograph with the characteristics of the detention basin systems to determine the outflow, stage, and storage capacity of the detention systems for a given time during the specified storm event.

The existing watershed boundaries for the site were determined based on the topography obtained through an on-the-ground survey performed by Precision Land Surveying, Inc.

Rainfall Depths

In accordance with the Massachusetts Department of Environmental Protection Stormwater Management Guidelines, the 2, 10, 25, and 100-year storm events were analyzed. Type III-24 hour storms were used for the stormwater runoff calculations. The following are the rainfall depths used for each storm event.

The rainfall amounts summarized in Table 2 are based on review of the precipitation values for Massachusetts contained in the Massachusetts Supplement for the TR-55 Hydrology Procedure (210-EFM, Amend. MA April 1990), Technical Publication, TP-40.

Table 2 - Rainfall Depths

Storm Event	24-Hour Rainfall Depth (inches)
2-year	3.2
10-year	4.7
25-year	5.5
100-year	6.7

Soil Conditions

Natural Resources Conservation Service (NRCS) Norfolk and Suffolk Counties Soil Survey indicates that soils onsite consist of the following Hydrologic Soil Groups (HSG):

- 325B Newport Silt Loam, 3-8% slopes, HSG B
- 325C Newport Silt Loam, 8-15% slopes, HSG B
- 602 Urban Land complex, 3-15% slopes
- 627C Newport Urban Land complex, 3-15% slopes, HSG B

Urban land consists of areas where 75% or more of the land is covered with impervious surfaces, such as buildings, pavement, industrial parks, and railroad yards. Urban land, by definition, does not have a designated HSG; however, for the purposes of the stormwater calculations HSG B is used which is based on the surrounding parent soil conditions.

Proposed Stormwater Management

The proposed project incorporates a stormwater management system that meets the guidelines in the 2008 MassDEP Stormwater Management Policy. Stormwater quality and quantity on the site will be managed by

implementing a series of best management practices (BMPs) that will include deep sump/hooded catch basins, water quality devices, and subsurface infiltration basins. The proposed BMPs are anticipated to remove a minimum 80% of total suspended solids from stormwater runoff, maintain the peak flow rates of stormwater runoff, and maintain the recharge rates to groundwater to the maximum extent practicable, as described in the MassDEP Stormwater Standards section of this report.

Site Hydraulics

The proposed drain pipe network is composed of catch basins, area drains, water quality inlets and manholes that will collect runoff from the roadway, parking, building rooftop and landscaped areas within the proposed development and discharge to subsurface infiltration chambers.

The proposed storm drainage collection system has been designed for a 25-year storm frequency utilizing the Rational Method. StormCAD© was used to perform the hydraulic analysis for the storm drainage system (refer to Appendix F for the StormCAD© Report).

The following criteria were used to design the pipe network:

- Pipes shall be sized to convey the 25-year storm event
- All drainage pipes shall be high density polyethylene (HDPE) with minimum cover of 2 feet
- Rainfall intensity of 6.0 inches per hour for a 5-minute duration for the 25-year storm frequency
- Manning's coefficient (n) of 0.012 for HDPE
- Manholes shall be provided at all changes in direction or changes in pipe size

DEP Stormwater Standards

The purpose of the Stormwater Management Plan is to provide a comprehensive framework for the long-term protection of natural resources in and around the site from degradation as a result of stormwater discharges. This is achieved through the use of a variety of water quality and quantity control measures designed to decrease the amount of pollutants discharged from the site and control discharge rates and volumes.

The following sections describe the regulations pertinent to stormwater management and the specific components of the Stormwater Management Plan to be implemented at the site.

The ten standards contained in the MassDEP Stormwater Management policy relate to the protection of wetlands and water bodies, control of water quantity, recharge to groundwater, water quality and protection of critical areas, erosion/sedimentation control and stormwater maintenance. The following summarizes the project's compliance with the Stormwater Management Standards.

Standard 1 – Untreated Stormwater

Standard 1 requires that no new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth. No new stormwater conveyances or discharges are proposed for this project. The project will treat all stormwater runoff from the site where none exist today.

Standard 2 – Post-Development Peak Discharge Rates

Standard 2 requires stormwater management systems to be designed so that the post-development peak discharge rates do not exceed pre-development peak discharge rates. This standard may be waived for discharges to land subject to coastal storm flowage as defined in 310 CMR 10.04 and for redevelopment projects this standard must be met only to the maximum extent practicable.

In order to determine the peak rate of discharge for existing and proposed conditions, runoff hydrographs were generated for the storm events using the SCS TR-20 Method (refer to Appendix B for HydroCAD® Report). Under the proposed conditions, the post-development runoff hydrographs were routed through the proposed drainage system and into the proposed stormwater management system.

The following table summarizes the pre- and post-development peak runoff discharge rates determined in the hydrologic/hydraulic analyses performed for the Project site.

As shown in Table 3, proposed peak runoff rates for the Project are less than existing conditions for each storm event. The proposed site development will not increase the runoff to the existing drainage collection systems located within Whitwell Street, Colonial Drive, and Glendale Road or adjacent properties.

Standard 3 - Recharge To Groundwater

Standard 3 requires that the loss of annual recharge to groundwater be eliminated or minimized through the use of environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance. At a minimum, the annual recharge from the post- development site shall approximate the annual recharge from pre-development conditions based on soil type. This Standard is met when the stormwater management system is designed to infiltrate the required recharge volume as determined in accordance with the Massachusetts

Stormwater Handbook.

Although redevelopment projects only need to meet Standard 3 to the maximum extent practicable, it should be noted that there will be no loss of annual recharge to groundwater since the project results in a net reduction of impervious surface. That said, the Project has been designed with 6 areas of subsurface infiltration/recharge systems to provide a total recharge volume that exceeds 0.35 inch of precipitation runoff times the total impervious area of the post-development Project site. (Refer to the Stormwater Management Report - Appendix C for Groundwater Recharge Calculations).

Standard 4 - TSS Removal

Standard 4 requires that stormwater management systems for new construction projects be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). Depending on whether or not the site's stormwater discharge is from a land use with a higher potential pollutant load, within an area with a rapid infiltration rate, a Zone II or Wellhead Protection Area or to an environmentally-sensitive critical area, the required water quality volume equals 1.0 inch or 0.5 inches of runoff times the total impervious area of the post-development site. Standard 4 also requires that the development and implementation of suitable practices for source control and pollution prevention be identified in a long-term pollution prevention plan.

Although redevelopment projects are not necessarily required to achieve 80% removal of TSS (i.e., only to the maximum extent practicable), the incorporation of the following stormwater best management practices (BMPs) will achieve a cumulative TSS removal rate greater than 80%. Refer to Appendix D for Water Quality Calculations and a copy of the Long-Term Pollution Prevention Plan.

Deep Sump/Hooded Catch Basins

All proposed catch basins will be deep sump/hooded catch basins, which will serve to trap sediment and floatables before entering the stormwater management system. Sumps will be 4-feet deep. Catch basins will be inspected twice a year and, if necessary, cleaned when sediment reaches half-full depth to ensure that they are working in their intended fashion and are free of debris. Sediments and hydrocarbons shall be properly handled and disposed of, in accordance with local, state, and federal requirements. In accordance with MassDEP Standards a 25% TSS removal rate is credited for this BMP.

Water Quality Units

The stormwater management system incorporates CDS® Hydrodynamic Separators and VortSentry® HS units prior to discharging into the subsurface recharge chambers or off-site. All units have been sized to treat the water quality flow rate derived from the first 1.0 inch of runoff and will achieve TSS removal rates in excess of 80%.

Subsurface Infiltration Basin

The stormwater management system includes 6 subsurface infiltration basins to treat runoff prior to discharging into the existing drainage collection system. The infiltration basins consist of a series of chambers surrounded with drain rock and filter fabric. Runoff from paved areas is directed through deep sump/hooded catch basins and water quality treatment units prior to discharging into the infiltration basin. In accordance with MassDEP Standards a 80% TSS removal rate is credited for this BMP.

Standard 5 - Higher Potential Pollutant Loads

Standard 5 requires that source control and pollution prevention be implemented to eliminate or reduce the discharge of stormwater runoff from land uses with higher potential pollutant loads (LUHPPL) to the maximum extent practicable. If, through source control and/or pollution prevention, all LUHPPL cannot be completely protected from exposure to rain, snow, snow melt and stormwater runoff, then specific structural BMPs as outlined in the MassDEP Stormwater Handbook are suitable for such uses.

Like all stormwater discharges, stormwater discharges

Table 3 - Comparison of Peak Runoff Rates

Point of Analysis	2-Year Storm Event (cfs)			10-Year Storm Event (cfs)			25-Year Storm Event (cfs)			100-Year Storm Event (cfs)		
	Pre	Post	△	Pre	Post	△	Pre	Post	△	Pre	Post	△
1R	15.98	3.04	-12.94	25.88	10.03	-15.85	31.13	15.33	-15.80	38.96	25.50	-13.46
2R	4.43	0.57	-3.86	7.07	3.31	-3.76	8.47	7.21	-1.26	10.55	10.13	-0.42
3R	7.91	0.89	-7.02	12.31	8.70	-3.61	14.63	13.15	-0.48	18.09	17.64	-0.45
4R	1.96	1.35	-0.61	5.77	4.79	-0.98	8.15	7.00	-1.15	12.02	10.65	-1.37

*cfs = cubic feet per second

from LUHPPL require the use of a treatment train that provides 80% TSS removal prior to discharge. This treatment train shall provide for at least 44% TSS removal prior to discharge to the infiltration BMP and shall also be designed to treat 1.0 inch of runoff times the total impervious area at the post-development site.

Standard 5 is applicable to the project as it relates to "parking lots with high-intensity-uses (1,000 vehicle trips per day or more). The Project's stormwater management system is designed with BMPs listed in Table LUHPPL, providing the required pre-treatment and infiltration measures to adequately address Standard 5.

Standard 6 - Protection Of Critical Areas

Standard 6 requires stormwater discharges within a Zone II or Interim Wellhead Protection Area of a public water supply and stormwater discharges near or to any other critical area require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by MassDEP to be suitable for managing discharges to such areas.

Standard 6 is not applicable to the project. The project site is not located within a Zone II or interim Wellhead Protection Area of a public water supply, nor is it located within or near a critical area.

Standard 7 - Redevelopment Projects

Standard 7 requires redevelopment projects to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural stormwater best management practice requirements of Standards 4, 5, and 6. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.

Redevelopment projects include development, rehabilitation, expansion and phased projects on previously developed sites, provided the redevelopment results in no net increase in impervious area. The project results in a net reduction of impervious surface of approximately 1.65 acres and as such, qualifies as a redevelopment project. The project's stormwater management system has been designed to provide stormwater runoff treatment to improve runoff quality and infiltration to significantly decrease runoff quantity compared to the existing condition.

Standard 8 - Erosion/Sediment Control

Standard 8 requires a plan to control construction-related impacts, including erosion, sedimentation, and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.

The Project will result in the disturbance of greater than 1 acre of land and discharges to a Water of the U.S. and therefore requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the EPA NPDES General Permit for Discharges from Construction Activities, effective date February 16, 2017. A SWPPP has not been included in the Stormwater Report but will be submitted before land disturbance begins.

The SWPPP will be prepared describing the specific practices, installation methods and inspection requirements for temporary and permanent erosion prevention and sediment control practices. The SWPPP will follow the template developed by the U.S. EPA and filed with the Conservation Commission. At a minimum, the SWPPP will include the following measures:

- Minimize the extent and time of exposed soils
- Provide perimeter sediment control including silt fence and/or compost filter tubes
- Provide catch basin inlet protection including geotextile filter fabric and gravel drop
- Minimize sediment track out with stabilized construction exits
- Dedicated concrete washout areas
- Control discharges from soil stockpiles include temporary erosion control measures and perimeter sediment controls
- Minimize dust and soil compaction
- Temporary stormwater management practices including basins, traps and swales
- Dewatering requirements
- Temporary and permanent stabilization requirements, including seeding, mulching and matting
- Good housekeeping pollution prevention measures
- Maintenance requirements
- Inspection, recordkeeping, and reporting requirements

The Project's SWPPP will be submitted as part of the Building Permit application and before land disturbance begins.

Standard 9 – Operation And Maintenance Plan

Standard 9 requires a Long -Term Operation and Maintenance (O&M) Plan be developed and implemented to ensure that stormwater management systems

function as designed. The Operation and Maintenance Plan also identifies best management practices for implementing maintenance activities in a manner that minimizes impacts to wetland resource areas. (Refer to the Stormwater Management Plan - Appendix E for the Project's Operation and Maintenance Plan).

Standard 10 - Illicit Discharge

Standard 10 prohibits all illicit discharges to the stormwater management system. Illicit discharges to the stormwater management system are discharges that are not entirely comprised of stormwater. To the best of the owner's and engineer's knowledge, no illicit discharges exist on site and no illicit discharges will be incorporated as part of the proposed redevelopment project into the proposed stormwater management system.

Conclusion

The proposed stormwater management system addresses both the quantity and quality of stormwater runoff from the site and conforms to the 10 standards outlined by the Massachusetts Department of Environmental Protection Stormwater Policy. The proposed improvements result in a reduction in peak runoff rates and volumes for all stormwater design events. Water quality is improved with the implementation of water quality treatment units and infiltration.

Section 4
Transportation Impact and Site Analysis

Tetra Tech has reviewed the potential traffic impacts associated with the proposed redevelopment of the former Quincy Medical Center site located at 114 Whitwell Street in Quincy, Massachusetts. The project site had supported the 370,000 + square foot (196 bed) hospital which closed in December of 2014 and currently supports a 35,000 square-foot emergency room facility. As currently proposed the project would zinclude a mix of housing including apartments, Rowhouses and Townhouses for a total of up to 598 residential units, supporting amenities, and approximately 5,000 square feet of ground floor supporting retail amenities.

The study methodology was developed in consultation with the City of Quincy traffic and planning Staff and is consistent with the procedures outlined in the (MassDOT) Traffic Impact Study Guidelines. The study evaluates existing and future traffic operations (with and without the proposed project) at the site driveways and key study intersections on the surrounding area roadways identified by City staff. The study provides a detailed analysis of intersection capacity during the weekday morning and weekday evening commuter peak hours, when the combination of existing traffic on the surrounding area roadways and new traffic associated with the proposed development would be greatest.

Vehicular access to the site is currently provided by three site driveways located on the north side of Whitwell Street and a fourth site driveway on the northwest end of Euclid Avenue (which is currently gated closed and infrequently used). The existing central (ambulance) and easternmost site driveways on Whitwell Street will be reconfigured to better serve the proposed building program and the existing westernmost driveway is proposed to be closed. The Euclid Avenue driveway will be converted to an emergency access only drive with retractable bollards that will prohibit general vehicular access to the abutting residential neighborhood.

The project site provides convenient access to public transportation with MBTA bus service on Whitwell Street directly adjacent to the site. Additionally, the Quincy Center MBTA station is located within a 5-to 10-minute walk or bike ride and provides access to the Red Line subway service and Commuter Rail service.

The US census data for census tract #4181.01, which encompasses the project site, indicates that approximately 33 % of the of the population located within the census tract use public transportation to commute to work.

Vehicle trip estimates for the former hospital use and the currently proposed project were developed based on data presented in the Institute of Transportation Engineers (ITE) publication Trip Generation Manual, 10th Edition for the closest available land uses. The ITE data indicates that, at full occupancy, the former hospital generated up to 384 vehicle trips (276 entering trips and 108 exiting trips) during the weekday morning peak hour and 304 vehicle trips (85 entering trips and 219 exiting trips) during the weekday evening peak hour. In comparison the proposed project is expected to generate approximately 160 vehicle trips (43 entering trips and 117 exiting trips) during the weekday morning peak hour, 211 vehicle trips (127 entering trips and 84 exiting trips) during the weekday evening peak.

As indicated above, the proposed project will result in significantly lower traffic levels than the former hospital at full occupancy. However, for the purposes of this traffic study, the potential traffic increases and projected future traffic operations associated with the proposed project were compared to the current active (emergency room) use on the site. Vehicle trip estimates for the existing 35,000 square foot emergency room facility were determined based on recent traffic counts collected at the project site driveways. The driveway counts indicate that the existing emergency room facility currently generates approximately 18 vehicle trips (8 entering trip and 10 exiting trips) during the weekday morning peak hour and 18 vehicle trips (8 entering trips and 10 exiting trips) during the weekday evening peak hour.

The proposed project will result in a net increase of approximately 142 vehicle trips (35 entering trips and 107 exiting trips) during the weekday morning peak hour and 193 vehicle trips (119 entering trips and 74 exiting trips)

during the weekday evening commuter peak hours relative to the active use currently on site.

A detailed Traffic Impact and Access Study is provided in the Appendix of this report. A summary of the study methodology and key findings is presented below.

Project Description

The project site consists of approximately 14.97 + acres of land located on the north side of Whitwell Street. The project site had supported the 370,000 + square foot (196-bed) hospital which closed in December of 2014 and currently supports a 35,000 square foot emergency room facility. The proposed project calls for the demolition of the existing buildings on site. Only the former hospital administration building will likely remain and be repurposed and incorporated into the proposed development.

As currently envisioned, the project would include a variety of multifamily residential offerings including Rowhouses, townhomes, and multistory apartments for a maximum total of 598 residential units. The project will also include on-site amenities for the exclusive use of future tenants and supporting retail (approximately 5,000 GSF) which will be open to the general public.

The anticipated parking demands associated with the proposed development will be accommodated through a combination of below grade parking garages, and surface parking along the internal site circulation roadways and individual driveways, providing a total of 802 off-street parking spaces.

Study Methodology

The study evaluates existing and future (with and without the proposed project) traffic operations at the project site driveways and key study intersections identified by the City of Quincy planning staff. The study provides a detailed analysis of intersection capacity during the weekday morning and weekday evening commuter peak hours, when the combination of existing traffic on the surrounding area roadways and new traffic associated with the proposed development would be greatest.

The 2018 existing weekday morning and weekday evening peak hours peak hour traffic volumes at the study area intersections were established based on recent traffic counts collected in June 2017 and April 2018. The 2017 existing traffic counts were grown by 1 % and then balanced upwardly with the 2018 traffic counts to establish the 2018 Existing conditions weekday morning and weekday evening peak hour volumes. The 2018 Existing peak hour traffic volumes were then projected to the future design year of 2025, by which time the proposed project is expected to be built and occupied. The 2018 Existing traffic volumes were grown by 1% per year for the seven-year forecast period (2018 to 2025) to reflect the 2025 No Build (Without Project). The traffic increases associated with the currently proposed project were then added to the 2025 No Build peak hour traffic volumes and the existing traffic associated with the emergency room were removed to reflect the future 2025 Build (With Project) conditions.

Intersection capacity analyses were then conducted for each of the study intersections for the 2018 Existing, 2025 No Build (Without Project) and 2025 Build (With Project) weekday morning and weekday evening peak hour traffic volumes to identify existing and projected traffic deficiencies near the project site.

Historic Site-Generated Traffic - Former Quincy Medical Center Hospital

To provide an appropriate context of the vehicle trip generating potential for the project site, TT reviewed the historic use of the site. The project site had once supported the 370,000 + square foot, (196-bed), Quincy Medical Center, which closed in December of 2014. Vehicle trip generation estimates for the historic use of the site were developed based on data presented in the The Institute of Traffic Engineer's (ITE) publication Trip Generation Manual, 10th Edition. This reference provides vehicle trip data for various land uses based on actual traffic counts at existing facilities through the US. For this study, the trip generation data for land Use 610 (Hospital) assuming 196 beds was used to estimate the historic traffic levels.

The ITE data indicates that, at full occupancy, Quincy Medical Center generated up to 4,376 vehicle trips per day with 384 vehicle trips (276 entering trips and 108 exiting trips) during the weekday morning peak hour and 304 vehicle trips (85 entering trips and 219 exiting trips) during the weekday evening peak hour.

Existing Site-Generated Traffic - Emergency Room Facility

Since the closing of Quincy Medical Center, the project site has remained largely vacant, except for the 35,000 square foot emergency room facility. As part of the data collection effort for this project and to establish the existing site-generated traffic levels, TT collected 24-hour traffic volume counts at each of the site driveways. The driveway counts indicate that the existing emergency room currently generates approximately 412 vehicle trips per day, with 18 vehicle trips (8 entering trip and 10 exiting Trips) during the weekday morning peak hour and 18 vehicle trips (8 entering trips and 10 exiting trips) during the weekday evening peak hour. For this traffic study, it is assumed that if the currently proposed project does not move forward then the project site would continue to support the existing emergency room facility.

Future Site-Generated Traffic - Proposed 114 Whitwell Street Development Plan

Vehicle trip generation estimates for the currently proposed project were developed based on data presented in the Institute of Transportation Engineers' (ITE) publication Trip Generation Manual, 10th Edition for the closest available land uses. The proposed project will include up to 598 residential units with approximately 5,000 square feet of supporting ground floor retail.

The project site provides convenient access to public transportation with existing Massachusetts Bay Transportation Authority (MBTA) bus service on Whitwell Street. Additionally, the Quincy Center MBTA station is located within a 5-to 10-minute walk or bike ride and provides access to the Red Line subway and commuter rail services. The US census data for census tract # 4181.01 indicates that approximately 33 % of the of the population located within the census tract uses public transportation to commute to work. For this study a transit reduction of 30 % was applied to the ITE vehicle trip estimates.

Accounting for transit use, the proposed project is expected to generate approximately 16 vehicle trips (43 entering trips and 117 exiting trips) during the weekday morning peak hour and 211 vehicle trips (127 entering trips and 84 exiting trips) during the weekday evening peak.

Project Trip Distribution Patterns

The project vehicle trips will be distributed to the surrounding roadway network via 2 proposed site driveways on Whitwell Street, thus limiting potential traffic increases at any one driveway location. The proposed project vehicle trips were assigned to the site driveways and surrounding area roadways (remaining study area intersections) based on a review of the internal site circulation roadways and distribution of off-street parking within the site, and on the observed travel patterns of the existing adjacent residential neighborhoods.

Intersection Capacity Analysis

To quantify potential traffic impacts associated with the proposed development, TT conducted intersection capacity analyses at key intersections near the project site for the 2018 Existing, 2025 No Build (Without Project), and 2025 Build (With Project) weekday morning and weekday evening peak hour traffic conditions. The capacity analyses indicate that the majority of the study area intersections currently operate well below capacity with acceptable delays and operating levels of service and will maintain these same operating levels of services through the projected 2025 Build (With Project) weekday morning and weekday evening commuter peak hour conditions. This indicates that the potential traffic increases associated with the proposed project will have no noticeable impact on future traffic operations at the study area intersections, relative to the 2025 No Build (without project) conditions.

The one exception is the intersection of Adams Street and Whitwell Street. The capacity analyses indicate that the exiting movements from Whitwell Street onto Adams Street currently experience long delays and vehicle queues during the weekday morning peak hour. It is anticipated that traffic increases associated with general background traffic growth and new traffic associated with the proposed project will further exacerbate the existing delays at the intersection.

With or without the proposed project, the exiting movements from the Whitwell Street minor street approach will continue to experience delays during the weekday commuter peak hours. While the proposed project will result in minor traffic increases relative to the existing emergency room use, it is expected to result in significantly less traffic than the former Quincy Medical Center use of the site. Consequently, no improvements are proposed at this intersection as part of the currently proposed project.

Site Access Improvements

The existing central (ambulance) and easternmost driveways on Whitwell Street will be reconfigured to better serve the proposed building program and the existing westernmost driveway is proposed to be closed. The Euclid Avenue driveway will be converted to an emergency access only drive. A brief description of the proposed site access modifications is provided below.

Whitwell Street - Westerly Site Driveway

The existing westerly driveway is proposed to be removed.

Whitwell Street - Central Driveway (Former Ambulance Driveway)

The former ambulance driveway will be reconstructed at its present location to improve entrance and exit radii at the tie in to Whitwell Street. The driveway will provide a 24-foot wide full access driveway under "STOP" sign control. The Whitwell Street Central Driveway will provide access to the proposed subsurface (below grade) interconnected parking garage serving several of the proposed buildings.

Whitwell Street - Easterly Site Driveway

As part of the proposed project, the existing easterly site driveway on Whitwell Street (across from Nilsen Avenue) will be closed, and a new easterly driveway will be constructed approximately 110 feet west of the existing driveway (between Ryden Street and Nilsen Avenue) to provide a 24-foot wide full access driveway under "STOP" sign control. The new easterly side driveway will provide access to the internal site circulation surface roadway,

which in turn provides access to the proposed subsurface (below grade) parking garages serving several of the proposed buildings.

Euclid Avenue - Emergency Access Only Driveway

The existing access off Euclid Avenue will be converted to an emergency access only drive. The 24-foot wide paved accessway will provide emergency vehicle access to the internal site circulation surface roadway serving the entire development. The access will be controlled with removeable/retractable bollards that will prohibit general vehicular access but will provide a convenient connection for pedestrians and bicyclists within the site to the abutting residential neighborhood.

Section 5
Photographs of Existing Conditions

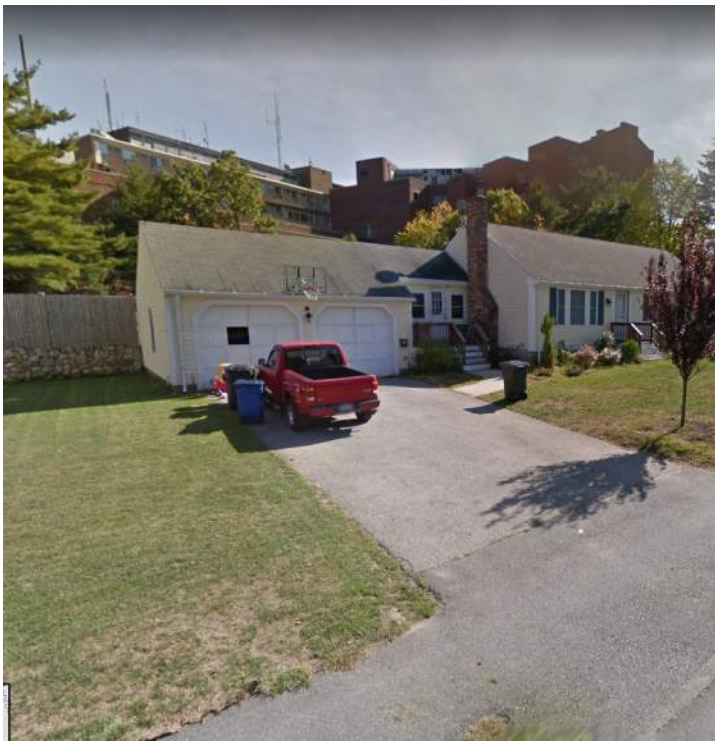
114 Whitwell Street, at the top of President's Hill, is bordered by neighborhoods consisting of single and two-family houses. The existing facility includes 7-story structures roughly 80 feet above grade.

View from 89 Whitwell Street - Looking East

View from 101 Whitwell Street - Looking East

View from 137 Whitwell Street - Looking West

55 Colonial Drive - looking Southeast



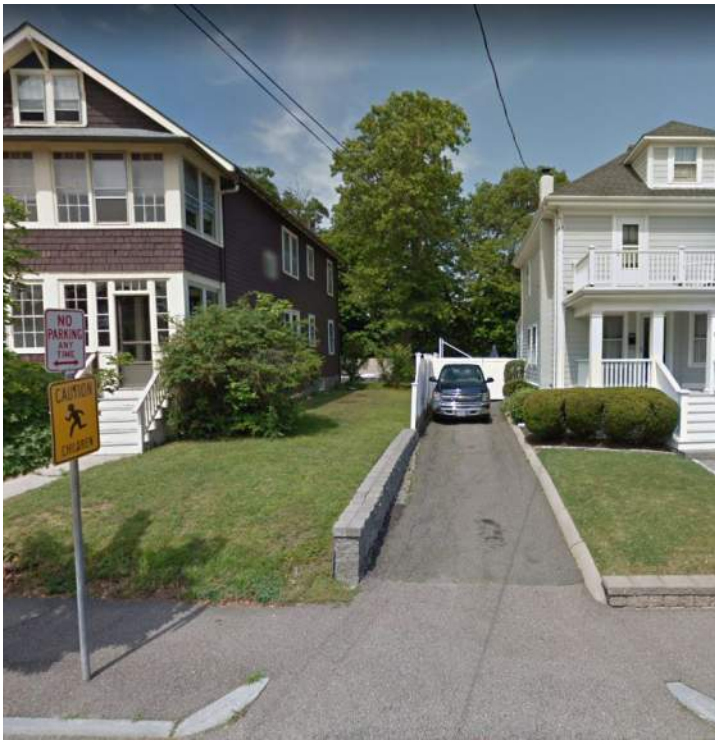
78 Colonial Drive - looking South

95 Colonial Drive - looking Southeast

114 Colonial Drive - looking South

View from Nilsen Avenue - Looking North

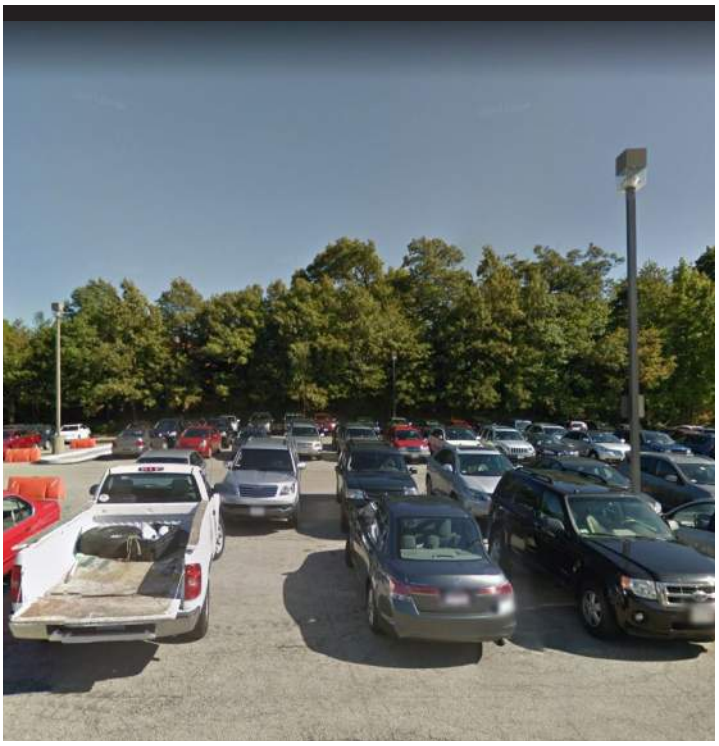
Roselin Avenue - Looking West



Roselin Avenue - Looking West

Roselin Avenue - Looking West

Glendale Road - LookingNorthwest



114 Whitwell - View from Existing Parking - Looking East - toward Roselin Avenue

114 Whitwell - View from Existing Parking - Looking North - toward Glendale Road

114 Whitwell - View from Existing Parking - Looking South - toward Whitwell Street

Section 6
Supplemental Information

Section 6.1

ALTA / ACSM Land Title Survey

Section 6.2

MACRIS Scanned Records

Section 6.3
Foundation Engineering Report

Section 6.4
Site Assessment Report

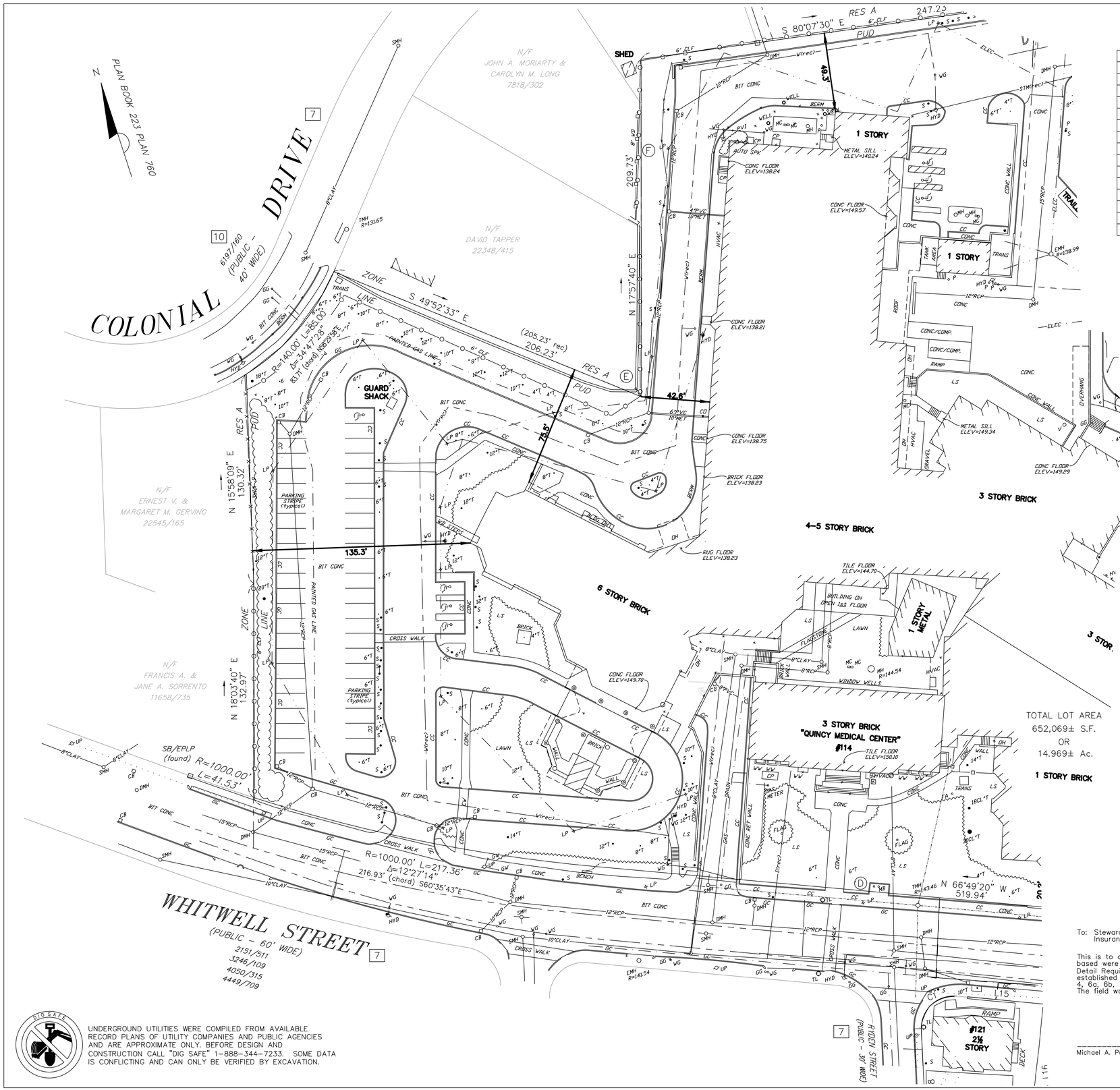
Section 6.5

MEP Concept Specifications

Section 6.6

Stormwater Management Report

Section 6.7
Traffic Impact and Access Study



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L5	60.00	S16°50'54"W	–
L6	60.00	S16°05'38"W	–
L7	60.00	S16°10'48"W	–
L8	60.01	S14°45'26"W	–
L9	59.02	S14°31'51"W	–
L10	55.05	S18°41'49"W	–
L11	53.37	S17°34'55"W	–
L12	50.00	N70°37'50"W	–
L13	93.93	S16°38'39"W	93.95
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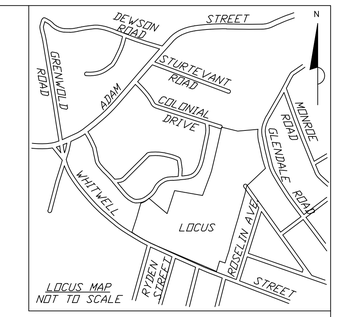

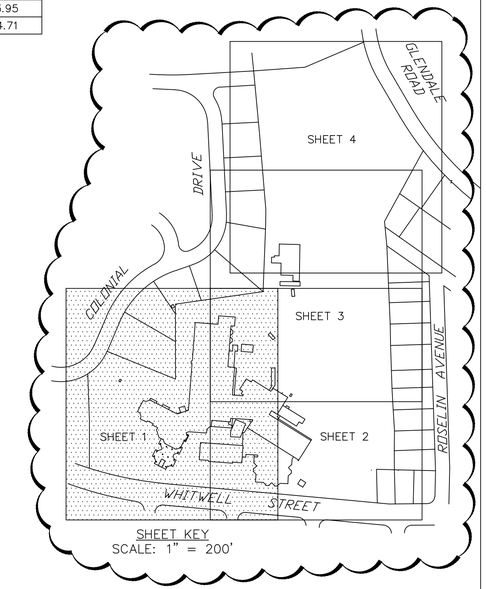

LEGEND

BERM	BITUMINOUS CONCRETE BERM
BIT CONC	BITUMINOUS CONCRETE
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CLF	CHAIN LINK FENCE
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CP	CONCRETE PAD
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OH	OVERHANG
P	POST
RCP	REINFORCED CONCRETE PIPE
RET	RETAINING
(rec)	RECORD
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–S–	SEWER LINE
SMH	SEWER MANHOLE
–T–	TELECOM LINE
TD	TRENCH DRAIN
TL	TRAFFIC LIGHT
TMH	TELEPHONE MANHOLE
TR	TRANSFORMER
V	VENT
–W–	WATER LINE
WF	WOOD FENCE
WG	WATER GATE
WMH	WATER MANHOLE
WSF	WOOD STOCKADE FENCE
WW	WINDOW WELL
10"T	10" TREE
♿	HANDICAP PARKING
.....	OVERHEAD WIRE

NOTES

1) THE PARCEL SHOWN HEREON DEPICTS THE SAME PROPERTY AS CONTAINED WITHIN FIDELITY NATIONAL TITLE INSURANCE COMPANY'S COMMITMENT FOR TITLE INSURANCE, OFFICE FILE NO. 16–06211N–FN, SV# 23744350. EFFECTIVE DATE SEPTEMBER 9, 2016.

2) OWNER: QUINCY MEDICAL CENTER, A STEWARD FAMILY HOSPITAL, INC.DEED BOOK 29181 PAGE 64

Surveyor's Certification

To: Steward Healthcare System, LLC and Fidelity National Title Insurance Company:

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_____

Michael A. Pustizzi, PLS No. 46505 Date

UNDERGROUND UTILITIES WERE COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. BEFORE DESIGN AND CONSTRUCTION CALL "DIG SAFE" 1-888-344-7233. SOME DATA IS CONFLICTING AND CAN ONLY BE VERIFIED BY EXCAVATION.

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QUINCY MEDICAL CENTER

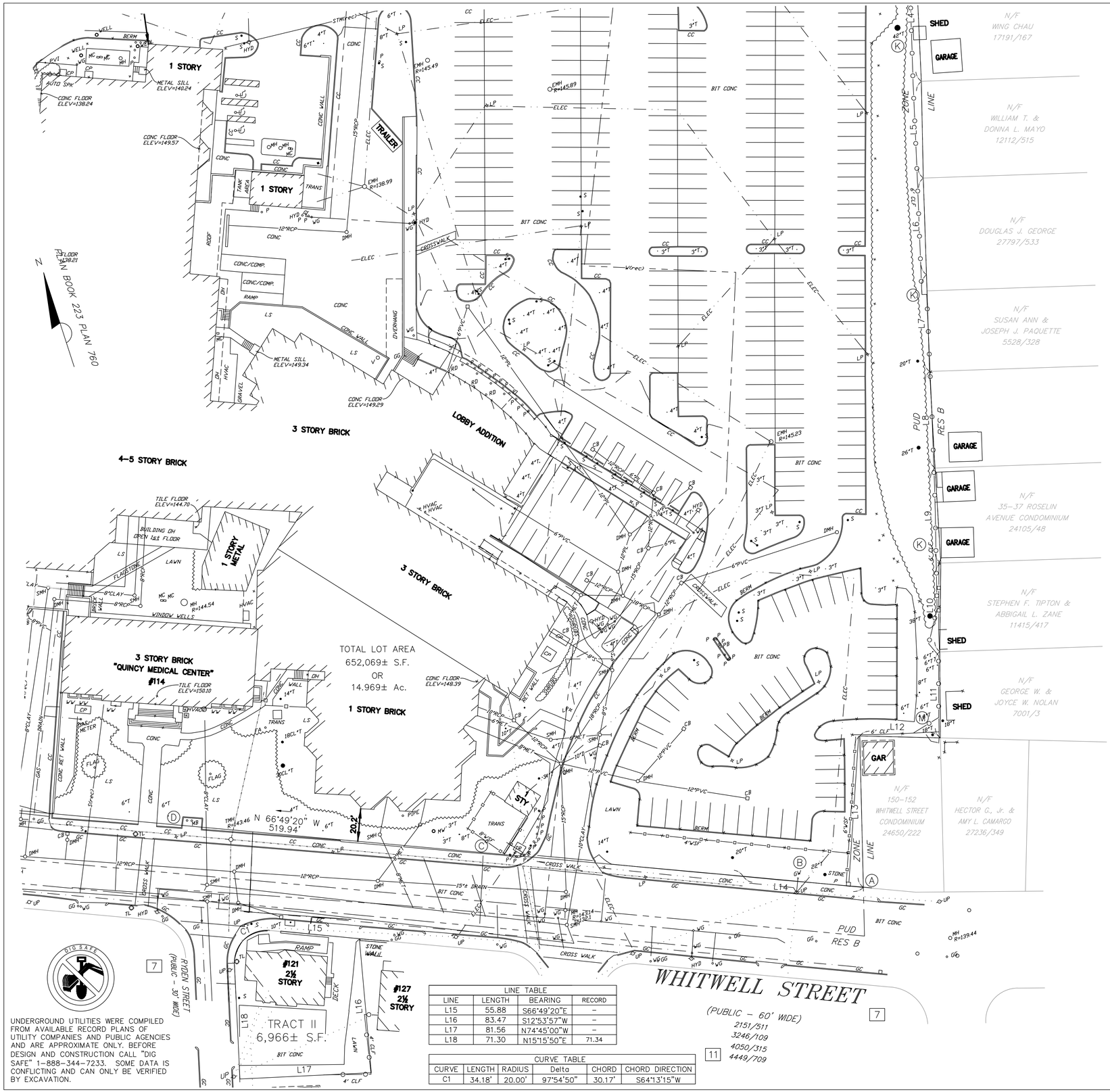
ALTA/ACSM LAND TITLE SURVEY
IN
QUINCY, MA
(NORFOLK COUNTY)

SCALE: 1"= 30' DATE: SEPTEMBER 8, 2016

0 30 60 90 120 ft

Precision Land Surveying, Inc.
32 Turnpike Road
Southborough, Massachusetts 01772
TELE NO.: (508) 460-1789 FAX NO.:(508) 970-0096

SHEET 1 OF 5 399007T11.DWG



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LINE TABLE			
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L15	55.88	S66°49'20"E	–
L16	83.47	S12°53'57"W	–
L17	81.56	N74°45'00"W	–
L18	71.30	N15°15'50"E	71.34

CURVE TABLE					
CURVE	LENGTH	RADIUS	Delta	CHORD	CHORD DIRECTION
C1	34.18'	20.00'	97°54'50"	30.17'	S64°13'15"W

Surveyor's Certification

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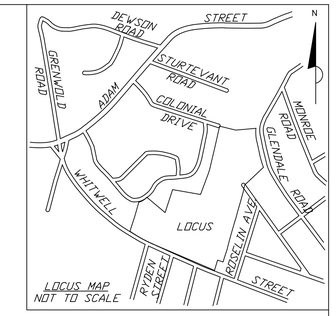
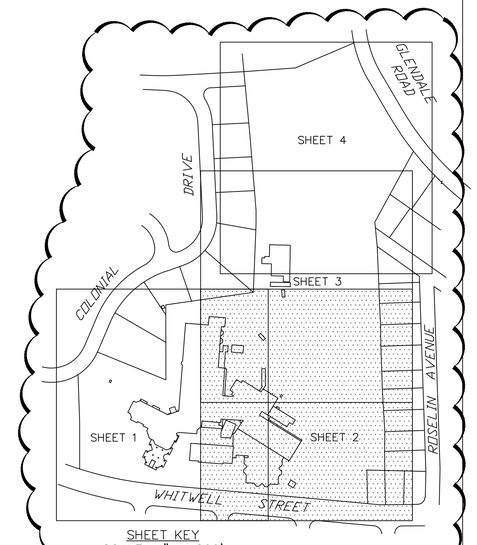
Michael A. Pustizzi, PLS No. 46505 Date



LOCUS MAP
NOT TO SCALE



SHEET KEY
SCALE: 1" = 200'

LEGEND

BERM	BITUMINOUS CONCRETE BERM
BIT CONC	BITUMINOUS CONCRETE
CB	CATCH BASIN
CC	CONCRETE CURB
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CONC	CONCRETE
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–D–	DRAIN LINE
DMH	DRAIN MANHOLE
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MH	MANHOLE
OH	OVERHANG
P	POST
RCP	REINFORCED CONCRETE PIPE
RET	RETAINING
(rec)	RECORD
S	SIGN
–S–	SEWER LINE
SMH	SEWER MANHOLE
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TD	TRENCH DRAIN
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TMH	TELEPHONE MANHOLE
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WMH	WATER MANHOLE
WSF	WOOD STOCKADE FENCE
WW	WINDOW WELL
10"T	10" TREE
♿	HANDICAP PARKING
.....	OVERHEAD WIRE

NOTES

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2) OWNER: QUINCY MEDICAL CENTER, A STEWARD FAMILY HOSPITAL, INC.DEED BOOK 29181 PAGE 64

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QUINCY MEDICAL CENTER

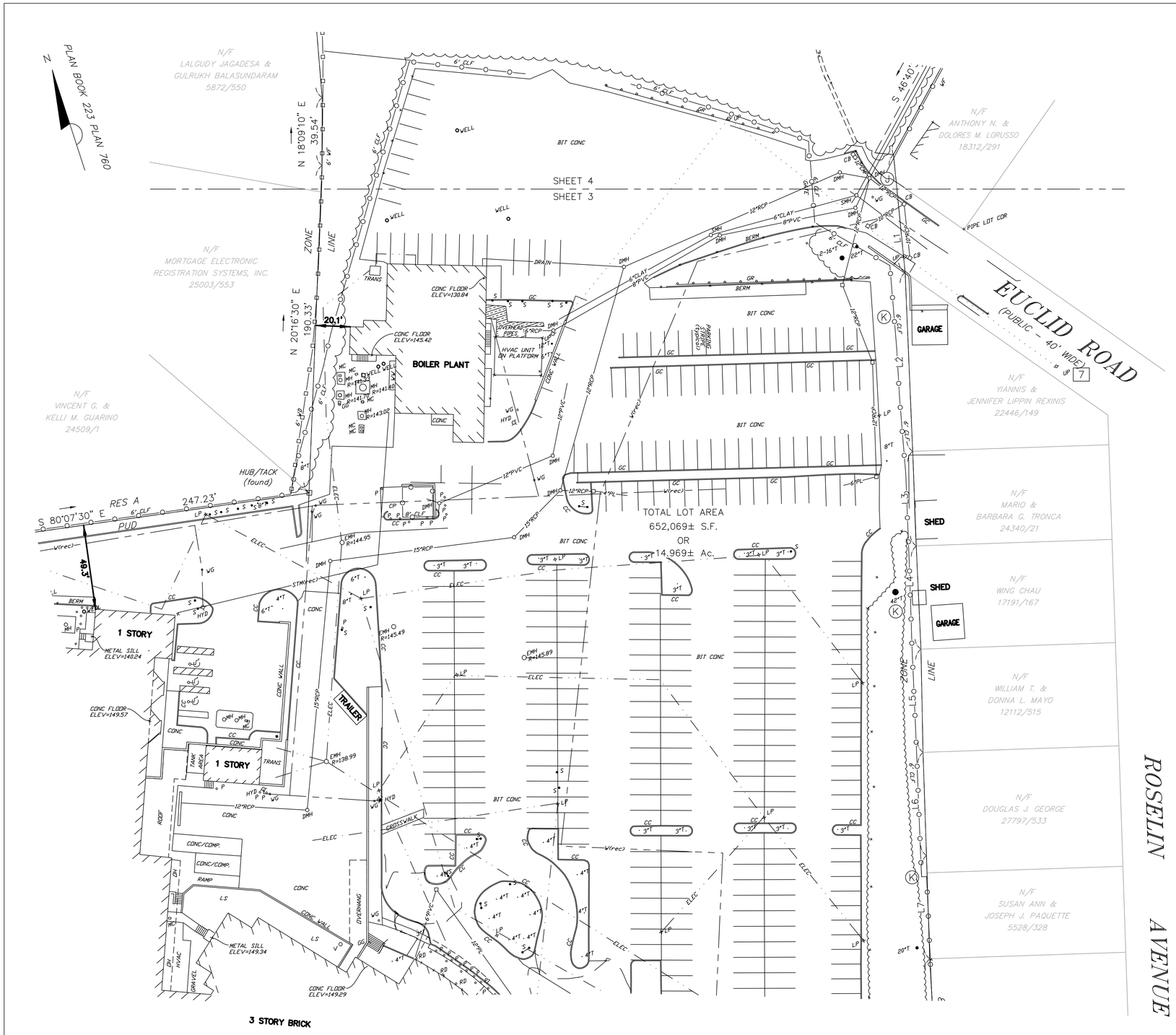
ALTA/ACSM LAND TITLE SURVEY
IN
QUINCY, MA
(NORFOLK COUNTY)

SCALE: 1"= 30' DATE: SEPTEMBER 8, 2016

0 30 60 90 120 ft

Precision Land Surveying, Inc.
32 Turnpike Road
Southborough, Massachusetts 01772
TELE NO.: (508) 460–1789 FAX NO.:(508) 970–0096

SHEET 2 OF 5 3990071I.DWG



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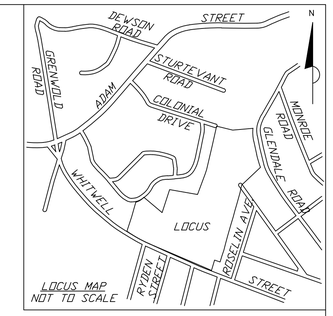

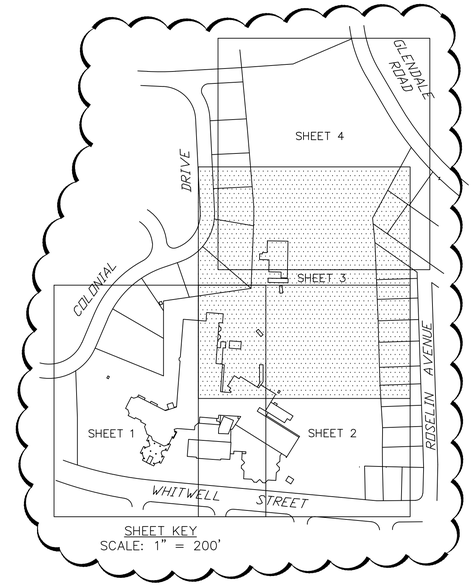

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SCALE: 1" = 200'

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2) OWNER: QUINCY MEDICAL CENTER, A STEWARD FAMILY HOSPITAL, INC.DEED BOOK 29181 PAGE 64

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J:\Sdskproj\3968\Documents\STEWARD LOGO.jpg

QUINCY MEDICAL CENTER

ALTA/ACSM LAND TITLE SURVEY
IN
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(NORFOLK COUNTY)

SCALE: 1"= 30' DATE: SEPTEMBER 8, 2016

0 30 60 90 120 ft

Precision Land Surveying, Inc.
32 Turnpike Road
Southborough, Massachusetts 01772
TELE NO.: (508) 460–1789 FAX NO.:(508) 970–0096

SHEET 3 OF 5 399007TI1.DWG

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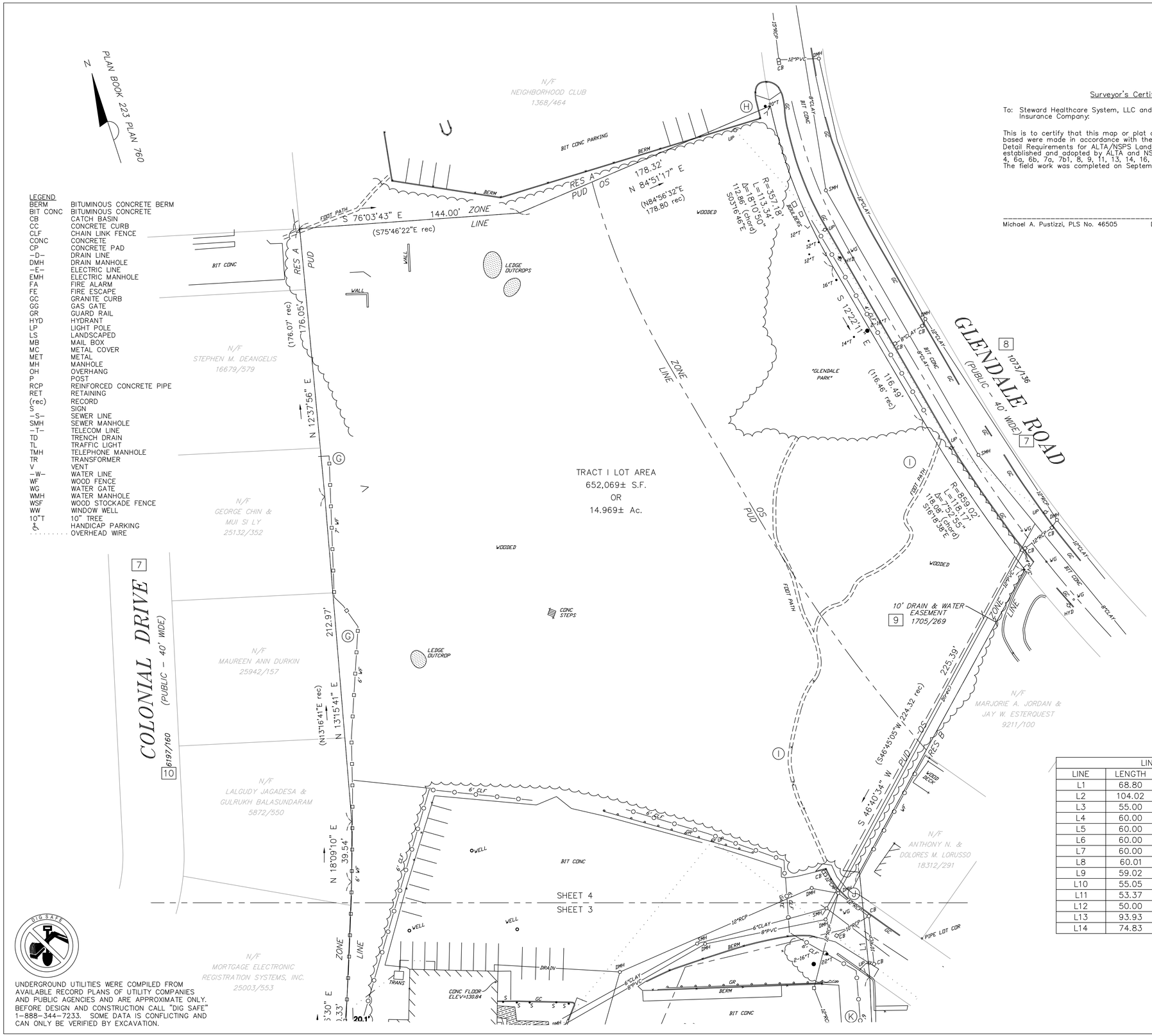

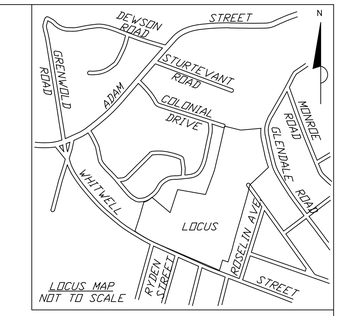

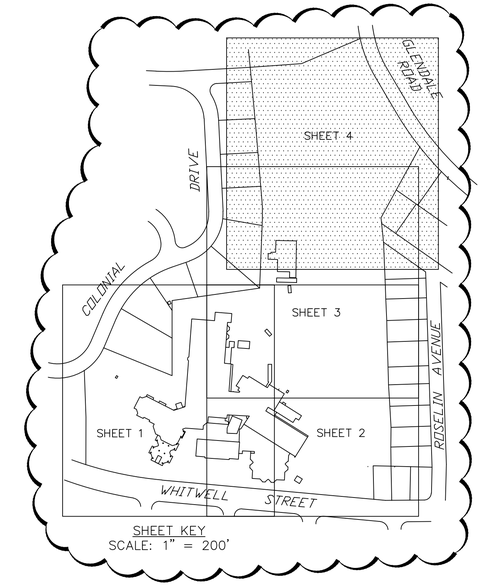

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. . . . .	OVERHEAD WIRE

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IN
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0 30 60 90 120 ft

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TELE NO.: (508) 460–1789 FAX NO.:(508) 970–0096

SHEET 4 OF 5 399007TI1.DWG

Exhibit A – Legal Description of Fidelity National Title Insurance Company's Commitment for Title Insurance, Office File No. 16–0621TN–FN, SV# 23744350, Effective Date September 9, 2016

Tract I
A certain parcel of land located in the City of Quincy, Norfolk County, Massachusetts bounded and described as follows:

Beginning at the southeast corner of the parcel on the northerly sideline of Whitwell Street at a corner of land now or formerly of E.A. Peterson; thence westerly along the sideline of Whitwell Street by the following three (3) courses: N66–42–25W, seventy four and 71/100 (74.71) feet; N66–49–20W, five hundred nineteen and 94/100 (519.94) feet; by a curve to the right having a radius of one thousand and 00/100 (1000.00) feet and an arc of two hundred seventeen and 36/100 (217.36) feet;

Thence by land now or formerly of M. Sowell and P.L. Chapman N18–03–40E one hundred and thirty two and 97/100 (132.97) feet;

Thence by land now or formerly of M.L. Fitzsimmons to the southerly sideline of Colonial Drive N15–58–09E one hundred thirty and 32/100 (130.32) feet;

Thence by land now or formerly of Colonial Drive by a curve to the left with a radius of one hundred forty and 00/100 (140.00) feet and an arc of eighty five and 00/100 (85.00) feet:

Thence by land now or formerly of P.W. and M.N. Yuilleumier S49–52–33E two hundred five and 23/100 (205.23) feet;

Thence by land of said Yuilleumier land now or formerly of N.D. and S.T. Greenstein and land now or formerly of J.S. and S.M. Kadlick N17–57–40E two hundred nine and 73/100 (209.73) feet;

Thence by said land of Kadlick and land now or formerly of W.P. and J.M. Finnigan S80–07–30E two hundred forty seven and 23/100 (247.23) feet;

Thence by land now or formerly of J. Mahoney and land now or formerly of L.J. and G. Balasundarum N20–16–30E one hundred ninety and 33/100 (190.33) feet;

Thence by land of said Balasundarum N18–09–20E thirty nine and 54/100 (39.54) feet;

Thence by land of said Balasundarum and land now or formerly of R.P. and M.E. Quincy and land now or formerly of R.T. and M.E. Craven N13–16–41E two hundred twelve and 97/100 (212.97) feet;

Thence by land of said Craven and by land now or formerly of D.P. Taverna N12–37–56E one hundred seventy six and 07/100 (176.07) feet;

Thence by land now or formerly of Neighborhood Club S75–46–22E one hundred forty four and 00/100 (144.00) feet;

Thence by said land of Neighborhood Club N84–56–32E one hundred seventy eight and 80/100 (178.80) feet to the westerly sideline of Glendale Road;

Thence by the following three (3) courses along the westerly sideline of Glendale Road; by a curve to the left having a radius of three hundred fifty seven and 18/100 (357.18) feet and an arc of one hundred thirteen and 34/100 (113.34) feet;

Thence S12–22–11E one hundred sixteen and 46/100 (116.46) feet;

Thence by a curve to the left having a radius of eight hundred fifty nine and 02/100 (859.02) feet and an arc of one hundred eighteen and 17/100 (118.17) feet;

Thence by land now or formerly of S.A. Steele and land now or formerly of K.S. McAfee S46–45–05W two hundred twenty four and 32/100 (224.32) feet;

Thence by land of said McAfee and by Euclid Avenue S13–19–05W sixteen and 57/100 (16.57) feet and fifty two and 39/100 (52.39) feet respectively;

Thence by land now or formerly of Chuen Yat Yu and Yu Sin Yan Yu S13–19–05W, one hundred three and 41/100 (103.41) feet;

Thence by land now or formerly of E. and P. Tronca S16–08–47W, fifty five and 00/100 (55.00) feet;

Thence by land now or formerly of P.J. Catarius and E.M. Dalzell S15–39–34W, sixty and 00/100 (60.00) feet;

Thence by land now or formerly of J.A. McHugh and A.R McHugh S17–07–48W, sixty and 00/100 (60.00) feet;

Thence by land now or formerly of M.G. Thaine S16–22–32W, sixty and 00/100 (60.00) feet;

Thence by land now or formerly of J.J. and S.A. Paquette S16–27–42W, sixty and 00/100 (60.00) feet;

Thence by land now or formerly of M.K. Berglund S15–02–20W sixty and 01/100 (60.01) feet; Thence by land now or formerly of F.M. DeVita S14–48–45W, fifty nine and 02/100 (59.02) feet;

Thence by land now or formerly of J.J. and B. Cahill S18–58–43W, fifty five and 05/100 (55.05) feet;

Thence by land now or formerly of H.J. Peterson S17–51–49W, fifty three and 37/100 (53.37) feet;

Thence by land of E.A. Peterson N73–08–13W fifty and 00/100 (50.00) feet;

Thence by land of said Peterson S16–54–17W ninety two and 95/100 (92.95) feet to the point beginning.

Containing 653,638 square feet of land and being shown as parcels numbered 1, 2, 3, 5, 6, 7 and 8 and an unnumbered parcel marked as Assessors Plan 1177–A Plot 23 on a plan entitled "Plan of Land in Quincy (Norfolk County) for Quincy City Hospital" dated July 11, 1986, by Briggs Associates, Inc., recorded with the Norfolk Registry of Deeds on July 16, 1986 as Plan No. 995 in Plan Book 340. NOTE: No "parcel 1" shown on the plan.

Tract II
The land on the southerly side of Whitwell Street in said City of Quincy, containing 6822 square feet, and being shown as parcel 4 on a plan entitled "Plan of Land in Quincy (Norfolk County) Massachusetts for Quincy City Hospital" by Briggs Associates, Inc. recorded with the Norfolk Registry of Deeds on July 16, 1986 as Plan No. 996 in Plan Book 340.

NOTES
1) ELEVATIONS SHOWN HEREON ARE BASED ON THE CITY OF QUINCY DATUM, AND WERE DETERMINED BY GPS OBSERVATIONS PERFORMED ON FEBRUARY 29, 2012.

2) THE PARCEL SHOWN HEREON IS LOCATED IN ZONE X (UNSHADED) AS SHOWN ON FLOOD INSURANCE RATE MAP, CITY OF QUINCY, MASSACHUSETTS, MAP NUMBER 2552190019D, EFFECTIVE DATE MAY 16, 2006.

3) OWNER: QUINCY MEDICAL CENTER, A STEWARD FAMILY HOSPITAL, INC. DEED BOOK 29181 PAGE 64

UNDERGROUND UTILITIES WERE COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. BEFORE DESIGN AND CONSTRUCTION CALL "DIG SAFE" 1–888–344–7233. SOME DATA IS CONFLICTING AND CAN ONLY BE VERIFIED BY EXCAVATION.

Schedule BII, (Exceptions), of Fidelity National Title Insurance Company's Commitment for Title Insurance, Office File No. 16–0621TN–FN SV# 23744350, Effective Date September 9, 2016

7 Title to and rights of the public and others in and to those portions of the Insured premises lying within the bounds of Whitwell Street, Euclid Avenue, Glendale Road, Colonial Drive and Ryden Street, Quincy, MA. PLOTTED AND SHOWN HEREON.

8 Taking by the City of Quincy, City Council No. 294 for Glendale Road dated November 4, 1907, recorded in Book 1073, Page 136. PLOTTED AND SHOWN HEREON.

9 Taking by the City of Quincy of an easement for an underground water main dated July 19, 1926, recorded in Book 1705, Page 269, as affected by grant of easement by Jennie A. Sears and Russell A. Sears to the City of Quincy dated November 16, 1926, recorded in Book 1723, Page 106. See Plan in Book 1705, Page 270. PLOTTED AND SHOWN HEREON.

10 Taking by the City of Quincy for Colonial Drive dated June 30, 1985, recorded in Book 6197, Page 160. See Plan Book 303, Plan 93. PLOTTED AND SHOWN HEREON.

11 Use Restriction under Chapter 94 of the Acts of 1999 of the Massachusetts General Court and Right of Reverter as recited in Deed dated October 15, 1999, recorded in Book 13797, Page 141. IS A USE RESTRICTION, NOT PLOTTABLE. NOT A SURVEY RELATED ITEM.

12 Notice of Lease dated March 16, 2007, between Quincy Medical Center, Inc., and Radius Specialty Hospital, LLC recorded in Book 24677, Page 265, as affected by Notice of First Amendment to Lease, dated October 1, 2011, recorded with said Deeds Book 29325 Page 173. NOT A SURVEY RELATED ITEM.

14 Decision by the City of Quincy Planning Board, dated June 13, 2012, recorded in Book 30658, Page 128. NOT A SURVEY RELATED ITEM.

LIST OF SIGNIFICANT OBSERVATIONS
(A) BITUMINOUS CONCRETE ENCROACHES ONTO LOCUS BY UP TO 8.1'.
(B) GUY WIRE ENCROACHES ONTO LOCUS BY UP TO 2.1'.
(C) POSTS ENCROACH ONTO WHITWELL STREET BY UP TO 0.6'.
(D) MAIL BOXES ENCROACH ONTO LOCUS BY UP TO 5.0'.
(E) WALL ENCROACHES ONTO LAND NOW OR FORMERLY OF DAVID TAPPER BY UP TO 3.7'.
(F) 6' CHAIN LINK FENCE ENCROACHES ONTO NORTHERLY ABUTTERS BY UP TO 3.2'.
(G) 6' WOOD FENCE ENCROACHES ONTO LOCUS BY UP TO 14.6'.
(H) PARKING AREA ENCROACHES ONTO LOCUS BY UP TO 5.3'.
(I) FOOT PATH CROSSES LOCUS.
(J) WOOD FENCE ENCROACHES ONTO LOCUS BY UP TO 5.0'.
(K) 6' CHAIN LINK FENCE ENCROACHES ONTO LOCUS BY UP TO 8.0'.
(L) SHEDS AND FENCES ENCROACH ONTO LOCUS BY UP TO 6.8'.
(M) FENCE ENCROACHES ONTO LOCUS BY UP TO 11.8'.

NOTES
1) THE PARCEL SHOWN HEREON DEPICTS THE SAME PROPERTY AS CONTAINED WITHIN FIDELITY NATIONAL TITLE INSURANCE COMPANY'S COMMITMENT FOR TITLE INSURANCE, OFFICE FILE NO. 16–0621TN–FN, SV# 23744350. EFFECTIVE DATE SEPTEMBER 9, 2016.

2) OWNER: QUINCY MEDICAL CENTER, A STEWARD FAMILY HOSPITAL, INC.DEED BOOK 29181 PAGE 64

ZONING NOTE:
PURSUANT TO TABLE A, ITEM 6 THE SURVEYOR HAS NOT BEEN PROVIDED WITH A ZONING NOTE OR LETTER.

As–Surveyed Legal Description
Two certain parcels of land located in the Commonwealth of Massachusetts, County of Norfolk, City of Quincy, one situated on the northeasterly sideline of Whitwell Street and the second on the southwesterly sideline of Whitwell Street, more particularly bounded and described as follows:

Tract I

Beginning at a point on the northeasterly sideline of Whitwell Street, said point being the most southerly corner of the parcel; thence running
N 66°42'25" W 74.83' to a point; thence turning and running
N 66°49'20" W 519.94' to a point of curvature; thence running
NORTHWESTERLY 217.36' by a curve to the right having a radius of 1,000.00' to a point of non–tangency, said last three courses being by the northeasterly sideline of Whitwell Street; thence turning and running
N 18°03'40" E 132.97' to a point; thence turning and running
N 15°58'09" E 130.32' to a point of non–tangency; thence turning and running
NORTHEASTERLY 85.00' by a curve to the left having a radius of 140.00' to a point; thence turning and running
S 49°52'33" E 206.23' to a point; thence turning and running
N 17°57'40" E 209.73' to a point; thence turning and running
S 80°07'30" E 247.23' to a point; thence turning and running
N 20°16'30" E 190.33' to a point; thence turning and running
N 18°09'10" E 39.54' to a point; thence turning and running
N 13°15'41" E 212.97' to a point; thence turning and running
N 12°37'56" E 176.05' to a point; thence turning and running
S 76°03'43" E 144.00' to a point; thence turning and running
N 84°51'17" E 178.32' to a point of non–tangency; thence turning and running
SOUTHERLY 113.34' by a curve to the left having a radius of 357.18' to a point; thence turning and running
S 12°22'11" E 116.49' to a point of curvature; thence running
SOUTHERLY 118.17' by a curve to the left having a radius of 859.02' to a point; thence turning and running
S 46°40'34" W 225.39' to a point; thence turning and running
S 12°23'09" W 68.80' to a point; thence turning and running
S 15°34'11" W 104.02' to a point; thence turning and running
S 15°51'53" W 55.00' to a point; thence turning and running
S 15°22'40" W 60.00' to a point; thence turning and running
S 16°50'54" W 60.00' to a point; thence turning and running
S 16°05'38" W 60.00' to a point; thence turning and running
S 16°10'48" W 60.00' to a point; thence turning and running
S 14°45'26" W 60.01' to a point; thence turning and running
S 14°31'51" W 59.02' to a point; thence turning and running
S 18°41'49" W 55.05' to a point; thence turning and running
S 17°34'55" W 53.37' to a point; thence turning and running
N 70°37'50" W 50.00' to a point; thence turning and running
S 16°38'39" W 93.93' to the POINT OF BEGINNING.
Containing 652,069 square feet or 14.969 acres, more or less.

Tract II

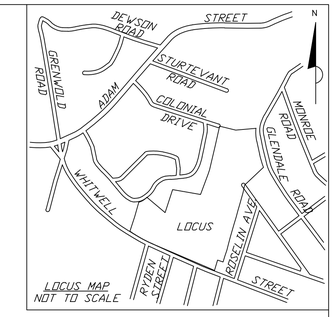
Beginning at a point on the easterly sideline of Ryden Street, said point being the most southwesterly corner of the parcel; thence running

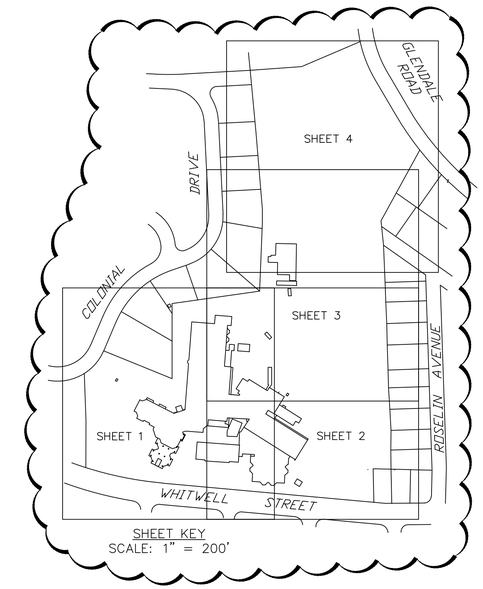
N 15°15'50" E 71.30' by the easterly sideline of Ryden Street to a point of curvature; thence running
NORTHEASTERLY 34.18' by a curve to the right having a radius of 20.00' to a point of tangency; thence running
S 66°49'20" E 55.88' to a point, said last two courses being by the southwesterly sideline of Whitwell Street; thence turning and running
S 12°53'57" W 83.47' to a point; thence turning and running
N 74°45'00" W 81.56' to the POINT OF BEGINNING.

Containing 6,966 square feet or 0.160 acres, more or less.

REFERENCES
NORFOLK COUNTY REGISTRY OF DEEDS

PLAN BOOK	340	PLAN	996		
"	"	247	"	1006	
"	"	233	"	908	
"	"	223	"	756	
"	"	213	"	858	
"	"	93	"	4548	
"	"	20	"	926	
PLAN IN DEED BOOK		4762	PAGE	400	
"	"	"	3835	"	170
"	"	"	3574	"	74
"	"	"	2151	"	511
"	"	"	1805	"	501
"	"	"	1705	"	270
"	"	"	1219	"	141
"	"	"	1207	"	569
"	"	"	1193	"	285
"	"	"	1180	"	87
"	"	"	1153	"	596
"	"	"	999	"	253





Surveyor's Certification

To: Steward Healthcare System, LLC and Fidelity National Title Insurance Company:

This is to certify that this map or plat and the survey on which it was based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 2, 3, 4, 6a, 6b, 7a, 7b1, 8, 9, 11, 13, 14, 16, 17 and 20 of Table A thereof. The field work was completed on September 8, 2016.

_____
Michael A. Pustizzi, PLS No. 46505 Date

J:\Sdskproj\3968\Documents\STEWARD LOGO.jpg

QUINCY MEDICAL CENTER

ALTA/ACSM LAND TITLE SURVEY
IN
QUINCY, MA
(NORFOLK COUNTY)
SCALE: 1"= 30' DATE: SEPTEMBER 8, 2016

0 30 60 90 120 ft

Precision Land Surveying, Inc.
32 Turnpike Road
Southborough, Massachusetts 01772
TELE NO.: (508) 460–1789 FAX NO.:(508) 970–0096
SHEET 5 OF 5 3990071I1.DWG

Massachusetts Cultural Resource Information System

Scanned Record Cover Page

Inventory No:	QUI.103
Historic Name:	Administration Building - Quincy City Hospital
Common Name:	
Address:	114 Whitwell St
City/Town:	Quincy
Village/Neighborhood:	Hospital - President's Hill
Local No:	
Year Constructed:	1936
Architect(s):	Colletti, Carroll and Paul
Architectural Style(s):	Classical Revival
Use(s):	Business Office; Hospital
Significance:	Architecture; Commerce; Health Medicine
Area(s):	
Designation(s):	
Building Materials(s):	Wall: Brick; Wood Foundation: Brick

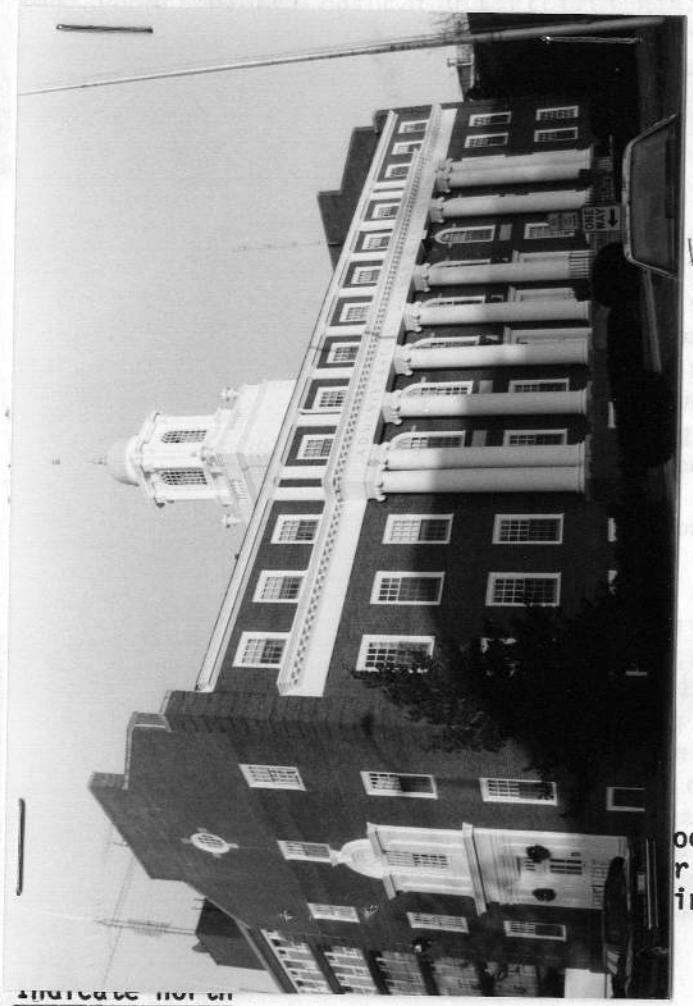
Commonwealth of Massachusetts
Massachusetts Historical Commission
220 Morrissey Boulevard, Boston, Massachusetts 02125
www.sec.state.ma.us/mhc

P1- Hospital
USGS - Boston, S
Sect B

FORM B - BUILDING

AREA	FORM NO.
	103

QUI.103



FALL 1985

ocation
r
ings

Town Quincy

Address 114 Whitwell Street

Historic Name Administration Building, Quincy City Hospital

Use: Present Administration Building

Original Administration Building

DESCRIPTION

Date 1936

Source Cornerstone

Style Classic Revival/Institutional

Architect Paul & Carroll Colletti

Exterior Wall Fabric Brick

Outbuildings Many hospital buildings

Indicate north

Major Alterations (with dates)

None

Condition Excellent

Moved no Date

Acreage Hospital property; 275,720 sq.ft.

Setting Makes a grand statement at the entrance to the hospital complex atop President's Hill.

UTM REFERENCE

USGS QUADRANGLE

SCALE

Recorded by Fannin.Lehner

Organization Quincy Historical Commission

Date July 1,1986

QUI.103

NATIONAL REGISTER CRITERIA STATEMENT (if applicable)

ARCHITECTURAL SIGNIFICANCE Describe important architectural features and evaluate in terms of other buildings within the community.

SEE INVENTORY FORM CONTINUATION SHEET

HISTORICAL SIGNIFICANCE Explain the role owners played in local or state history and how the building relates to the development of the community.

The Quincy City Hospital, which is so much a part of the city that the section in which it is situated is called Hospital Hill, was started in 1888 as a twenty-five bed cottage hospital. Dr. John A. Gordon, one of the founders, was concerned about the lung ailments that affected the stonecutters who inhaled dust particles during their work. With the support of William Ball Rice, donor of the site and building, and others, funds were raised, and a state charter was granted. It was dedicated as the City Hospital of Quincy on June 17, 1890 and two months later, on August 19, 1890, the staff received a severe test when a railroad wreck occurred at the Dimmock Street bridge and 53 casualties were brought to the hospital. In 1919 the hospital became a city institution called Quincy City Hospital, to be governed by a Board of Managers consisting of five members. In January of 1986 the sum of $75 million was approved to effect replacement of antiquated sections of the hospital.

The $130,000 Administration Building was built by contractor M. Slotnick of Boston in 1936 according to the design of the Coletti Brothers of Boston and Hingham. It is interesting to note that at that time Paul Coletti was Chairman of the Art Committee for Neighborhood Club at 27 Glendale Road. More commissions followed for the firm including the addition to the Thomas Crane Public Library, 40 Washington Street (National Register, 1940), the Houghs Neck Fire Station, 1080 Sea Street (1947), and additions to the Merrymount School, 4 Agawam Street (1977), the Quincy North High School, 318 Hancock Street (1979) and several more additions to Quincy City Hospital.

BIBLIOGRAPHY and/or REFERENCES

Assessors Records.
Building Permit.
City Hospital of Quincy, First Annual Report, 1890.
William Churchill Edwards. Historic Quincy, Massachusetts, 1957, p. 203.
Paul Robert Lyons. Quincy: A Pictorial History, 1983, p. 59, 93.
Quincy Patriot Ledger, 100th Anniversary, January 7, 1937, p. C-12.
Quincy Sun, January 23, 1986, p. 24.
Daniel Munro Wilson. Three Hundred Years of Quincy 1625-1925, 1926, p. 282-303.
_____. Quincy, Old Braintree and Merry-Mount, 1906, p. 62.

QUI.103

INVENTORY FORM CONTINUATION SHEET

MASSACHUSETTS HISTORICAL COMMISSION
Office of the Secretary, Boston

Community: Quincy	Form No: 103
Property Name:	

Indicate each item on inventory form which is being continued below.

ARCHITECTURAL SIGNIFICANCE Administration Building
Quincy City Hospital
114 Whitwell Street

Quincy City Hospital is one of Quincy's finest institutional buildings. It was designed in 1936 by Paul and Carroll Coletti, Quincy architects in a grand Classical Revival Style, replacing the Shingle Style structure which had preceeded it. Its presence dominates President's Hills, in particular the giant order of Ionic columns which front the facade. Possibly the architects were influenced by the once elegant Greek Revival Torry Anderson house, a few blocks away, which has a magnificent Ionic portico. Numerous well-detailed early and late Georgian Revival elements embellish this hospital, in particular the modillioned cornice over the Ionic colonnade, the pilasters on the third floor reiterating the rhythn of the columns below, the shaped stepped gables of the sides emulating those of the Old Boston State House and the domed lantern, evoking that of the United First Parish Church (Alexander Parris 1827). The fenestration is made up of traditional white trimmmed sash windows and a beautiful Palladian window atop the flat entablature ay the side entrance. There is an oval window surrounded by four keystones at the top of the side gables. Amidst this diversity of classically oriented detailing, the architects have produced a fine and balanced composition creating a distinctive building worthy of consideration for nomination to the National Register of Historic Places. It is a fine 20th century example of a Classical Revival institutional structure.

Staple to Inventory form at bottom

FOUNDATION ENGINEERING REPORT

PHASE I - 114 WHITWELL STREET REDEVELOPMENT

QUINCY, MASSACHUSETTS

SEPTEMBER 28, 2018

Prepared For:

FoxRock Properties
1495 Hancock Street, Suite 400
Quincy, MA 02169

2269 Massachusetts Avenue
Cambridge, MA 02140
www.mcphailgeo.com
(617) 868-1420

PROJECT NO. 6565.2.01

September 28, 2018

FoxRock Properties
1495 Hancock Street, Suite 400
Quincy, MA 02169

Attention: Mr. Josh Kleinman, AIA | NCARB

Reference: Phase I - 114 Whitwell Street Redevelopment; Quincy, Massachusetts
Foundation Engineering Report

Ladies and Gentlemen:

This report documents the results of our subsurface exploration and foundation design study for the proposed Phase 1 portion of the 114 Whitwell Street Redevelopment project located in Quincy, Massachusetts. Refer to the Project Location Plan, **Figure 1**, for the general site location.

This report was prepared in accordance with our proposal dated July 26, 2018 and the subsequent authorization of FoxRock Properties. These services are subject to the limitations contained in **Appendix A**.

Purpose and Scope

The purposes of the subsurface exploration program and foundation design study are to assess the subsurface soil and groundwater conditions at the site as they relate to foundation design, and based on these conditions, to provide safe and economic foundation design recommendations for the proposed development.

Foundation design includes foundation support of the proposed buildings and their lowest level slabs, treatment of the lowest level slabs in consideration of groundwater intrusion, lateral earth pressures on foundation walls, and seismic design considerations in accordance with the provisions of the Ninth Edition of the Massachusetts State Building Code (Code). Foundation construction considerations relating to geotechnical aspects of the proposed construction are also presented herein.

Available Information

Information available to McPhail Associates, LLC (McPhail) for use in the preparation of this report included the following:

- A report entitled "Foundation Engineering Report – Quincy City Hospital Addition", dated November 30, 1984 and prepared by McPhail;
- A letter report entitled "Site Assessment – Quincy City Hospital", dated June 13, 1986 and prepared by McPhail;

- A report entitled "Foundation Engineering Report – Quincy City Hospital - Mental Health Facility", dated August 27, 1986 and prepared by McPhail;
- A report entitled "Updated Environmental Site Assessment – Quincy Hospital", dated December 29, 1993 and prepared by McPhail;
- A report entitled "Foundation Engineering Report – Quincy Medical Center - Proposed Boiler Plants", dated August 28, 2008 and prepared by McPhail;
- A report entitled "Foundation Engineering Report – Quincy Medical Center - Lobby Renovation", dated December 21, 2011 and prepared by McPhail;
- A set of drawings entitled "Whitwell Site" 114 Whitwell St., Quincy, MA 02169, dated February 16, 2017 and prepared by Utile Architecture & Planning;
- An existing conditions plan extracted from Conceptual Site Plans of Quincy Medical Center, entitled "Constraints Plan", dated June 29, 2017 and prepared by Tetra Tech;
- A set of existing conditions and as-built plans of Quincy Medical Center, dated September 18, 2017 and prepared by Precision Land Surveying, Inc.;
- A report entitled "Preliminary Foundation Engineering Report, 114 Whitwell Street Development, Quincy, Massachusetts" dated April 30, 2018 dated prepared by McPhail Associates, LLC;
- An AutoCAD file entitled "Site Plan" of 114 Whitwell Street in Quincy, MA, prepared by Utile Architecture & Planning;
- An unentitled development plan prepared by Utile Architecture & Planning for 114 Whitwell Street in Quincy, MA;
- A set of plans entitled "114 Whitwell Master Plan" dated July 18, 2018 and prepared by Tetra Tech and Utile Architecture & Planning;

Elevations cited herein are in feet and are understood to be referenced to the City of Quincy Datum.

Site History

The subject site located at 114 Whitwell Street in Quincy, Massachusetts is understood to have been utilized for hospital purposes since it was donated by the City of Quincy in 1888. The initial construction of the hospital began during the period of 1888 and 1889, and the hospital commenced its operations in 1890. Prior to 1888, the site was occupied by residences.

The Quincy Medical Center site consists of the Rice Pavilion Building (constructed in 1930), the Administration Building that fronts into Whitwell Street to the south (constructed in 1935), the West Wing (constructed in 1957), the East Wing (constructed in 1963), and three additions constituting the Main Building (constructed in the late 1980's) identified as the A Building, B Building, and the C Building. Additionally, two boiler plants have been constructed on the subject site during the late 2000's, one at the northern end of the Main Building and one at the southern end of the Main Building within the courtyard located between the Main Building and the Administration Building. Furthermore, a lobby addition has been constructed to the east of the Rice Building in the early 2010's.

Existing Conditions

Fronting onto Whitwell Street to the south, the irregular-shaped project site has an approximate footprint of 20 acres, is bounded by wooded areas and residences on the remaining sides. Currently, the site is occupied by the former Quincy Medical Center complex consisting of the various buildings as described above. With the exception of areas occupied by the existing hospital structures, numerous planters and several landscaped areas, the majority of the site is covered by asphalt pavement. The medical center is located at the top of a hill. With the exception of the eastern side of the site, the existing ground surface typically slopes downward in all directions, from a high point at about Elevation +144 at the southern side to a low point of about Elevation +75 at the northern side of the project site. The ground surface slopes upward to about Elevation +149 at the eastern side of the project site. Existing conditions are shown on the attached **Figure 2**.

Proposed Construction

It is understood that the proposed redevelopment will consist of the demolition of all existing buildings with the exception of the 3-story Quincy Medical Center Administration Building, that fronts onto Whitwell Street, which will remain in place. It is understood that the proposed redevelopment will be divided into two (2) phases, Phase I consisting of the redevelopment of the eastern half of the project site and Phase II consisting of the redevelopment of the western half of the project site.

This report was prepared to provide foundation recommendations and construction considerations solely related to the Phase I portion of the proposed redevelopment of the hospital campus. Initially, the Phase I portion will consist of the demolition of the Rice Building, the C Building, the East Wing, the lobby, and the boiler plant followed by the construction of fourteen (14) duplex houses, a temporary lot, and the proposed 6-story Building C with its 1st stage of shared below-grade level parking garage that extends to the western half of the project site. Phase I will then conclude with the demolition of the remaining existing buildings, with the exception of the Administration Building, and the construction of the 6-story Building D, and four (4) rowhouses. It is understood that the proposed lowest level of the row house and duplex style buildings will have their lowest level slabs located near or slightly above the proposed finish site grades which surround these buildings, and the lowest levels of Buildings C and D will be located below the proposed finish site grading that surround Building C and D. It is understood that the

remainder of the parking garage (which connects into Building C) and Buildings A, B and E will be completed during the Phase II portion of the proposed redevelopment of the hospital campus.

Previous Subsurface Explorations

A total of five (5) subsurface exploration programs were performed at the subject site during the period between 1984 and 2011, consisting of twenty-four (24) borings and three (3) test pits. Nine (9) of these twenty-four (24) borings were completed from November 13 to November 16, 1984 by Al Shiner Test Boring, Inc. of Melrose, Massachusetts, and the remaining fifteen (15) borings were performed by Carr-Dee Corp. of Medford, Massachusetts, both under contract to McPhail.

It is noted that boring and test pit logs associated with five (5) subsurface exploration programs performed at the subject site during the period between 1984 and 2011 are provided in our report previously referenced herein entitled "Preliminary Foundation Engineering Report, 114 Whitwell Street Development, Quincy, Massachusetts" dated April 30, 2018 and prepared by McPhail Associates, LLC.

With respect to the (15) borings performed by Carr-Dee Corp. and referenced above, four (4) of the fifteen (15) borings, identified as B-201 through B-204, were completed on August 11, 1986 within the eastern portion of the project site (the Phase I area), in the vicinity of the existing Building C. In addition, on December 15, 2011 five (5) of these fifteen (15) borings, identified as B-1 through B-5, were also completed on the eastern portion of the project site, in the vicinity of the existing lobby addition near the Rice Building. These borings were terminated at depths of about 11.5 to 16.8 feet below the existing ground surface within the glacial till deposit. Logs of the above-mentioned borings B-201 through B-204 and B-1 through B-5 prepared by Carr-Dee Corp. that were performed within the approximately area of the Phase I portion of the project site are contained in **Appendix B**. Approximate plan locations of these previous borings are as indicated on the enclosed Subsurface Exploration and Existing Conditions Plan, **Figure 2**.

Recent Subsurface Explorations (300 Series Borings)

A recent subsurface exploration program consisting of twenty-two (22) borings (B-301 through B-322) was completed at the eastern (Phase I) portion of the site during the period of August 21 through 28, 2018 by Carr-Dee Corp. of Medford, Massachusetts under contract to McPhail. Locations of the recent borings are as indicated on the attached Subsurface Exploration Plan, **Figure 2**. Logs of the recent borings prepared by Carr-Dee are presented in **Appendix C**.

The recent borings were performed using a truck-mounted drill rig and typically advanced utilizing 2-1/4-inch and 3-3/4-inch I.D. hollow-stem augers. Standard 1-3/8-inch I.D. split-spoon samples and Standard Penetration Tests were generally obtained at maximum 5-foot intervals of depth in accordance with the standard procedures described in ASTM D1586.

The recent borings were terminated at depths varying from 8.5 to 24 feet below ground surface.

To permit monitoring of groundwater levels, a groundwater observation well was installed in completed boreholes B-305 and B-311. Installation details for the observation wells are indicated on the boring logs contained in **Appendix C**. Groundwater monitoring reports are provided in **Appendix D.**

The recent borings were monitored by a McPhail representative who performed field layout, prepared field logs, obtained and visually classified soil samples, monitored groundwater conditions in the completed boreholes, and determined the required boring depths based upon the actual subsurface conditions encountered.

Field locations of the recent borings were determined by taping from existing site features indicated on the above-referenced existing conditions plan. Ground surface elevations were determined at each boring location by a level survey performed by McPhail utilizing vertical control indicated on the above-referenced existing conditions plan.

Laboratory Testing

At the completion of the field work, soil samples were returned to our laboratory for more detailed classification, analysis and testing. The recent laboratory testing consisted of sieve analyses to determine the gradations and confirm the visual classification of the granular fill, the reworked glacial till fill, and glacial till deposit. Also, as part of our previous geotechnical engineering services, laboratory testing consisting of sieve analyses to determine grain-size distributions of the granular fill and glacial till deposits are also included with this report. Laboratory test procedures were in general accordance with applicable ASTM Standards. Results of the recent and pervious gradation testing appear on **Figures 3**, **4** and **5** following the text of this report.

Subsurface Conditions

A detailed description of the subsurface conditions encountered within the explorations is documented on the boring logs contained in **Appendix B** and **Appendix C**. Approximate locations of the borings are indicated on the enclosed Subsurface Exploration Plan, **Figure 2**. Based on the recent and previous subsurface explorations performed at the eastern portion of the site, the following is a description of the generalized subsurface conditions across the eastern portion of the site encountered from ground surface downward.

With the exception of boring B-301 and B-311, the recent borings were performed within the paved parking lot areas within at the eastern portion of the project site, where the surface treatment was observed to consist of a 2 to 6-inch thickness of asphalt pavement. Borings B-301 and B-311(OW) were performed within landscaped areas adjacent to the Administration Building and the boiler plant located to the north of the site, respectively. Directly beneath the surface asphalt treatment or the ground surface (at boring B-301 and B-311), the borings encountered a fill deposit that extends to depths ranging from about 2

to 11 feet below the existing ground surface, corresponding to levels ranging from approximately Elevation +146.2 to Elevation +114.3. In general, fill material encountered near the ground surface was typically observed to consist of granular fill material and in some boreholes was observed to be underlain by a reworked glacial till fill backfill associated with previous site grading/construction. The granular fill material was observed to typically vary from a very loose to very dense, brown to gray brown, sand and gravel with trace silt varying to a well-graded mixture of silt, sand and gravel, containing occasional wood, brick fragments and organic material. The fill material consisting of reworked glacial till was observed to consist of a loose to very dense, brown to gray, sandy silt with some gravel to a well-graded mixture of silt, sand and gravel. Grain size distributions of typical samples of the granular fill and reworked glacial till fill are presented on **Figure 3** and **Figure 4,** respectively.

Below the fill, the borings generally encountered a natural glacial till deposit. The surface of the glacial till deposit was encountered at depths of 2 to 11 feet below the existing ground surface, corresponding to levels ranging from approximately Elevation +146.2 to Elevation +114.3. In general, the glacial till deposit was observed to vary from a compact to very dense, gray to brown, well graded mixture sand silt and gravel to a sand and silt with some gravely containing cobbles and boulders. Grain size distributions of samples of the glacial till deposit are presented on the enclosed **Figure 5**.

The borings were terminated within the glacial till deposit at depths ranging from 8.5 to 24 feet below the existing ground surface, corresponding to levels varying from approximately Elevation +136.4 to Elevation +103.3, or upon auger refusal within the glacial till deposit at depths of 8.5 to 18.3 feet below the existing ground surface, which is likely indicative of cobbles or boulders in the glacial till deposit or the underlying bedrock surface.

Groundwater was encountered during the drilling of borings B-305 and B-311, at an approximate depth of 6.5 feet below existing ground surface, corresponding to levels ranging from about Elevation +137.6 and Elevation +138.0, respectively.

The groundwater level within the groundwater observation well B-305(OW) was observed at depths ranging from about 7.3 to 6.6 feet below the existing ground surface, corresponding to levels ranging from about Elevation +136.8 to Elevation +137.5.

The groundwater level within the groundwater observation well B-311(OW) was observed at a depth of about 16.5 feet, corresponding to Elevation +128.0.

Due to the highly impervious nature of the glacial till, it is believed that the observed groundwater within observation wells B-305(OW) and B-311(OW) is likely trapped and/or perched on the surface of the natural glacial till deposit or the surface of the glacial till fill material.

With the exception of the groundwater levels indicated above, groundwater was not encountered during the drilling of the other borings that were performed as part of our recent subsurface exploration program (the 300 series of borings).

It is anticipated that future groundwater levels across the site may vary from those reported herein or may be trapped/perched on the surface of the relatively impervious glacial till and bedrock deposit, due to factors such as normal seasonal changes, periods of heavy precipitation, and alterations of existing drainage patterns.

Existing Foundation Conditions

Based on the results of the subsurface explorations and our experience from our involvement with this subject site, the perimeter foundations of the existing buildings are anticipated to be supported on spread footing foundation systems bearing on natural glacial till deposit.

Foundation Design Recommendations

Based on our understanding of the proposed redevelopment at the Phase I portion of the site and the subsurface conditions described herein, it is recommended that foundation support of the proposed structures consist of conventional spread footing foundation system in conjunction with slabs-on-grade construction for the lowest level slabs.

The footings should bear directly on the glacial till, bedrock or on compacted structural fill placed directly over the undisturbed glacial till or bedrock following the removal of the fill material from below the proposed footings, and to the lateral extent defined herein and should be proportioned utilizing a maximum allowable design bearing pressure of three (3) tons per square-foot.

Based on the subsurface conditions described above and the anticipated design bottom of footing elevations, the bottom of the proposed footings will generally be located at or below the surface of the glacial till deposit. However, where excavation of the existing fill is required below the design bottom of footing elevations to expose the surface of the underlying glacial till and replaced with structural fill. Where proposed footings are supported on structural fill, the lateral limits of the excavation should extend beyond the bottom perimeter edge of the footing for a horizontal distance equal to the depth from the bottom of the proposed footing to the surface of the undisturbed glacial till, plus two feet in all plan directions.

Based on the results of the subsurface explorations indicated at the approximate locations on **Figure 2** which were performed in the Phase I portion of the site and the proposed scope of the redevelopment of the site, the anticipated and approximate extend of potential overexcavation and replacement with structural fill for support of building foundations is discussed in the following section of this report entitled "Foundation Construction Considerations".

Excavated on-site fill and natural glacial till are considered suitable for reuse as structural fill for support of foundations and as ordinary fill backfill around completed foundations. All structural fill placed within the footprint of the proposed addition for support of the footings and slabs-on-grade should be placed in lifts having a compacted thickness of 6 inches and be compacted to a minimum of 95 percent of its maximum modified Proctor dry density. Reuse of the on-site soil is discussed in more detail in the following section of this report entitled Foundation Construction Considerations.

All perimeter foundations and interior foundations located adjacent to and within unheated areas, such as proposed unheated garage levels, should be provided with a minimum 4-foot thickness of soil cover as frost protection. Interior footings below heated areas should be located such that the top of the foundation concrete is at least 6 inches below the underside of the lowest level slabs. For footings supported directly on bedrock a minimum of 2-feet of soil cover as frost protection is recommended. Additional recommendations associated with footings supported directly on bedrock and locations where bearing surfaces consisting of bedrock may be encountered are provided in the following section of this report.

All foundations should be located such that they bear below a theoretical line drawn upward and outward at 2 to 1 (horizontal to vertical) from the bottom exterior edge of all existing adjacent footings, structures and utilities, and other proposed footings.

Preparation of the buildings pads for support of the lowest level slabs should include the removal of all surface treatments, topsoil/loam soil and abandoned utilities within the footprint of the slabs, and, where the slabs subgrade consists of the existing fill, proof-rolling of the subgrade with at least six passes of a ride-on vibratory roller having a drum weight of at least five (5) tons. All soft or compressible areas detected by the proof-rolling should be excavated and replaced with compacted structural fill material. Preparation of the slab subgrades is discussed in more detail in the following section of this report entitled Foundation Construction Considerations.

The lowest level slabs should be designed as conventional slabs-on-grade which are directly underlain are underlain by a polyethylene vapor barrier. Where the proposed lowest level is situated at or slightly above the finish grade surrounding the building, the slab should be supported on a minimum 6-inch thickness of off-site gravel fill consisting of a well graded mixture of sand and gravel containing less than 10 percent passing the No. 200 sieve.

Where the proposed lowest level is situated below the finish grade surrounding the building, the slab should be supported on a minimum 9-inch thickness of compacted ¾-inch crushed stone and is underlain by a layer of nonwoven geotextile filter fabric, such as Mirafi 140N or equal, which is installed over a proof compacted subgrade or the natural glacial till deposit.

Where the proposed lowest level slabs are to be located below the finished surrounding grades, underslab and perimeter foundation drains are recommended to protect the lowest levels from groundwater intrusion. The underslab drainage system should consist of a network of 4-inch diameter perforated PVC pipes located at 15-feet on-center which are surrounded with a minimum of 6-inch thickness of ¾-inch crushed stone and situated within the crushed stone layer referenced above.

The perimeter foundation drain lines should be located adjacent to the outside of the perimeter basement foundation walls and consist of 4-inch diameter perforated PVC pipe with its invert located no higher than 12 inches below the bottom of the lowest level floor slab. The perimeter drain pipe should be surrounded a minimum 6-inch thickness of ¾-inch crushed stone which is wrapped in a layer of nonwoven geotextile filter fabric, such as Mirafi 140N, or equal. The exterior perimeter foundation wall should be provide with damp proofing over which a prefabricated drainage board, such as Miradrain 6000 should be installed. The bottom of the drainage board should be tied directly into the crushed stone envelope surrounding the perimeter foundation drain pipe. The perimeter walls may be backfilled with the on-site ordinary fill.

The underslab and perimeter drainage systems should be designed to gravity drain into the storm drainage system or, if necessary, to a sump which then discharges into the storm drainage system. In either case, the discharge pipe from the building into the storm drain system should be provided with a backflow preventer. Should a pumped system be required, it is recommended that the sump be equipped with a duplex pump system having a pump discharge rate of 20 gallons per minute against a 15 foot head which is tied into a back-up power supply.

Roof drains should be piped away from the building area and finished exterior grades should be pitched away from the perimeter walls to minimize surface water infiltration. The roof drains should be kept segregated from the underslab and perimeter foundation drainage systems at all times.

All localized depressions in the lowest level slabs (such as elevator pits, etc.) should be provided with properly tied continuous waterstops in all construction joints and cementitious waterproofing to protect against groundwater intrusion.

Below-grade foundation walls receiving lateral support at the top and bottom (i.e. restrained walls) should be designed for a lateral earth pressure corresponding to an equivalent fluid density of 60 pounds per cubic-foot. Similarly, drained cantilevered retaining walls, (i.e. receiving no lateral support at the top) should be designed for a lateral earth pressure corresponding to an equivalent fluid density of 40 pounds per cubic-foot. To these values must be added the pressures attributable to earthquake forces per Section 1610.2 of the Code.

Lateral forces can be considered to be transmitted from the structure to the soil by passive pressure against the foundation walls utilizing an equivalent fluid density of 120 pounds per cubic-foot providing that the walls are designed to resist these pressures. Lateral force can also be considered to be transmitted from the structure to the soil by friction on the base of footings using a coefficient of 0.5, to which a safety factor of 1.5 should be applied.

Seismic Design Considerations

For the purposes of determining parameters for structural seismic design, the portion of this site where the current existing buildings are located is considered to be a Site Class C as defined in Chapter 20 of American Society of Civil Engineers (ASCE) Standard 7-10

"Minimum Design Loads for Buildings and Other Structures". Furthermore, the bearing strata on the proposed site is not considered to be subject to liquefaction during an earthquake based on the criterion of Section 1806.4 of the Code.

Foundation Construction Considerations

This section addresses excavation and preparation of footing bearing surfaces, re-use of excavated soils, construction dewatering, bedrock excavation, and off-site disposal of excess excavated soil which are considered by McPhail to be critical to proper foundation performance of the proposed development.

Excavation and Preparation of Footing Bearing Surfaces

Footing subgrades should be excavated with a backhoe which is equipped with a "toothless" or smooth-edged bucket. Immediately following their exposure, all undisturbed bearing surfaces consisting of the natural glacial till deposit should be covered with a 3-inch minimum thickness of 3/4-inch crushed stone as protection to prevent disturbance of the foundation subgrades during subsequent forming operations and to facilitate dewatering as necessary. Bearing surfaces consisting of compacted structural fill (where the excavation of the existing fill material and its replacement with structural fill is required) should also be with a 3-inch minimum thickness of 3/4-inch crushed stone as protection to prevent disturbance of the foundation subgrades during subsequent forming operations and to facilitate dewatering as necessary. In the event that the bearing surface consist of bedrock, it should be leveled to a maximum of 1 vertical to 12 horizontal and covered with a minimum 6-inch thickness of compacted ¾-inch crushed stone.

Based on the results of the subsurface explorations indicated at the approximate locations on **Figure 2**, the following provides our summary of anticipated overexcavation and replacement with structural fill for support of the proposed foundations:

Building	Depth of Overexcavation Below Design Bottom of Footing	Anticipated Area of Overexcavation
Building C	1 to 3 feet	At interior footings located in the vicinity of boring B-304.
Building D	0 to 7 feet	North half of building footprint, north of Boring B-312. From 0 feet at Boring B-312 and sloping downward to up to about 7 feet at the north end of the building footprint.
Duplex Buildings 1 and 2	1 to 2 feet	Entire building footprints

Continued on Next page

Building	Depth of Overexcavation Below Design Bottom of Footing	Anticipated Area of Overexcavation
Row House 1	3 to 10 feet	About 3 feet beginning at east end of the building footprint and sloping downward to up to about 10 feet at western end of building footprint
Row House 2	0 to 6 feet	From 0 feet at east end of the building footprint and sloping downward to up to 6 feet at west end of the building footprint.
Row Houses 3 and 4, and Duplexes 3-14		Overexcavation below design bottom of footing is not anticipated.

With respect to the perimeter footing located along the north side of Building D, final grading should be designed to prevent erosion of the structural fill that is placed and compacted for support of the northern perimeter wall footings. Possible options could include ground covering vegetation, a rip rap stone surface, or a site retaining wall.

Removal/Excavation of Bedrock

Based on the results of the subsurface exploration programs performed at the site significant excavation of bedrock is not anticipated as part of the earthwork activities associated with the excavation for foundations. However, should isolated areas of bedrock be encountered within the proposed building footprints or during the installation of below grade utilities, bedrock excavation with the use of ripping and/or hoe ramming techniques are anticipated to be suitable for the removal of bedrock.

Based on the results of the subsurface explorations indicated at the approximate locations on **Figure 2**, the bedrock surface is anticipated to slope downward from south to north from about Elevation +139 at boring B-319 (located near Duplex House 8) to about Elevation +125 at boring B-309 (located near Duplex House 14). Based on a design bottom of footing located at about 5 feet below the first floor elevation, bedrock excavation/removal of up to about 2 feet below the bedrock surface should be anticipated from Duplex House 8 to 12. As previously indicated herein, for the purpose of minimizing the extent of bedrock removal, footings supported directly on bedrock may be provided with a minimum of 2-feet of soil cover as frost protection.

A written and visually recorded preconstruction survey of the structures which abut the project site and the Administration Building to remain should be completed by the Contractor and submitted to the Owner prior to commencement of any rock removal activities.

The construction documents should include criteria limiting the peak particle velocity to levels that are unlikely to damage existing building which abut the project site. In order to minimize damage to the existing buildings which abut the project site and the existing on-

site Administration's building that is to remain, it is recommended that the vibrations associated with any rock removal operations be monitored with a seismograph as a check for compliance with the project documents and with generally accepted standards.

Of particular importance to the proposed construction are the potential impacts associated with bedrock removal to the nearby buildings which surround the project site and the existing building located at the site. It is recommended that the Contract documents limit the maximum resultant peak particle velocity to 2.0 inches per second (ips) for vibrations having a frequency above 40 Hz, 1.5 ips having a frequency between 30 Hz and 40 Hz, 1.0 ips for vibrations having a frequency between 20 Hz and 30 Hz and 0.5 ips for vibrations having a frequency below 20 Hz in order to maintain the risk of damage to the nearby buildings to generally acceptable levels.

Reuse of On-Site Excavated Material

It is anticipated that the excavated fill and glacial till soil may be re-used on-site as structural fill for support of footings and the slabs-on-grade and as ordinary fill outside of the proposed buildings footprints provided they are maintained in a dry condition and can be properly compacted.

The existing on-site soils contain a high silt content, hence their reuse will require that the moisture content be managed in order to achieve the required compaction. Therefore, it is recommended that the placement and compaction of the on-site materials should be completed during relatively dry and nonfreezing conditions. Stockpiled excavated material designated for reuse should be covered at all times with 6-mil polyethylene for protection from precipitation and also as a dust mitigation measure. If, due to any of the above conditions, the excavated material becomes unsuitable for reuse, it should be removed from the site and an off-site gravel fill should be used. All imported material for use as structural fill should consist of a well graded mixture of sand and gravel containing less than 10 percent passing the No. 200 sieve.

The placement and compaction of structural fill within the proposed building footprints should be placed in maximum 6-inch compacted lifts and to a minimum of 95 percent of the materials modified proctor maximum dry density. Structural fill placed for support of the building foundations should monitored by a registered professional engineer or his designated representative in accordance with the provisions of the Code.

Temporary Construction Dewatering

It is anticipated that dewatering, if required, by means of strategically located sumps and trenches should suffice during foundation construction operations. In addition, trapped surface water may accumulate within localized depressions in the ground surface across the site after periods of heavy precipitation and may necessitate localized sumping. Groundwater accumulated on-site during foundation construction should be recharged on-site.

Off-Site Disposal of Excess Excavated Material

Should excess excavated soil generated from the proposed redevelopment require off-site disposal, current Department of Environmental Protection (DEP) policies and regulations for off-site reuse of excess excavated soil require environmental characterization of the excavated soil prior to its off-site reuse. McPhail could perform this as an additional service, if required.

Final Comments

It is recommended that McPhail be engaged to provide design assistance with the Architect and Structural Engineer during the final design phase of this project. The purpose of this involvement is to review the drawings and prepare geotechnical engineering related specifications as a check on implementation of our foundation design recommendations into the Contract Documents.

Additionally, it is recommended that McPhail be retained during the construction period to observe the preparation of foundation bearing surfaces, backfilling and compaction operations, installation of the perimeter and underslab drainage systems, and if necessary monitor ground vibrations associated with bedrock excavation/removal activities. Our involvement during the construction phase of the work should minimize costly delays due to unanticipated field problems since our field engineer would be under the direct supervision of our project manager who was responsible for the subsurface investigation and foundation design recommendations documented herein.

We trust that the above is sufficient for your present requirements. Should you have any questions concerning the foundation design recommendations presented herein, please do not hesitate to call us.

Very truly yours,

McPHAIL ASSOCIATES, LLC

Hassan Ghiye

Chris M. Erikson, P.E.

N:\Working Documents\Reports\6565 Phase 1 - FER 114 Whitwell Street Redevelopment 092818.docx

HG/hjb/cme

FIGURE 1

McPHAIL ASSOCIATES, LLC

Geotechnical and Geoenvironmental Engineers

2269 Massachusetts Avenue
Cambridge, MA 02140
617/868-1420
617/868-1423 (Fax)
www.mcphailgeo.com

N

SCALE 1:25,000

PROJECT LOCATION PLAN

114 WHITWELL STREET REDEVELOPMENT

QUINCY MASSACHUSETTS

NORTH

COLONIAL DRIVE

WHITWELL STREET

ROSELIN AVENUE

PROPOSED BUILDING E PHASE II

PROPOSED BUILDING A PHASE II

ADMINISTRATION BUILDING (EXISTING TO REMAIN)

PROPOSED BUILDING B PHASE II

PROPOSED RETAIL PHASE II

B-301 B-202 B-204 B-201 B-203 B-305 (OW) B-304 B-302 B-303

APPROXIMATE LIMITS OF PROPOSED ROWHOUSES

APPROXIMATE LIMITS OF PROPOSED BUILDING C

APPROXIMATE LIMITS OF PROPOSED BUILDING D

BUILDING C PHASE I L.L. EL.+138±

ROWHOUSE 1 PHASE I FFE=150.00

ROWHOUSE 2 PHASE I FFE=147.50

ROWHOUSE 3 PHASE I FFE=143.50

ROWHOUSE 4 PHASE I FFE=141.50

BUILDING D PHASE I L.L. EL.+125±

B-1 B-2 B-3 B-4 B-5 B-316 B-322 B-317 B-320 B-321 B-315 B-311 (OW) B-312 B-313 B-314 B-310

B-306 B-318 B-307 B-319 B-308 B-309

APPROXIMATE LIMITS OF PROPOSED TOWNHOUSES (TYP.)

LEGEND

— APPROXIMATE LOCATION OF BORING PERFORMED BY CARR-DEE CORP. ON DECEMBER 15, 2011 FOR McPHAIL ASSOCIATES, INC.

— APPROXIMATE LOCATION OF BORING PERFORMED BY CARR-DEE CORP. DURING AUGUST 1986 FOR McPHAIL ASSOCIATES, INC.

— APPROXIMATE LOCATION OF BORING PERFORMED CARR-DEE CORP. DURING THE PERIOD OF AUGUST 21 THROUGH 28, 2018 FOR McPHAIL ASSOCIATES, LLC

(OW) — INDICATES OBSERVATION WELL INSTALLED WITHIN COMPLETED BOREHOLE.

REFERENCE: THIS PLAN WAS PREPARED FROM A 50-SCALE DRAWING ENTITLED "CONSTRAINTS PLAN" DATED JULY 29, 2017 BY TETRA TECH.

GRAPHIC SCALE

50 0 50 100 200

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114 WHITWELL STREET REDEVELOPMENT

QUINCY MASSACHUSETTS

SUBSURFACE EXPLORATION PLAN

FOR

FOXROCK PROPERTIES

BY

McPHAIL ASSOCIATES, LLC

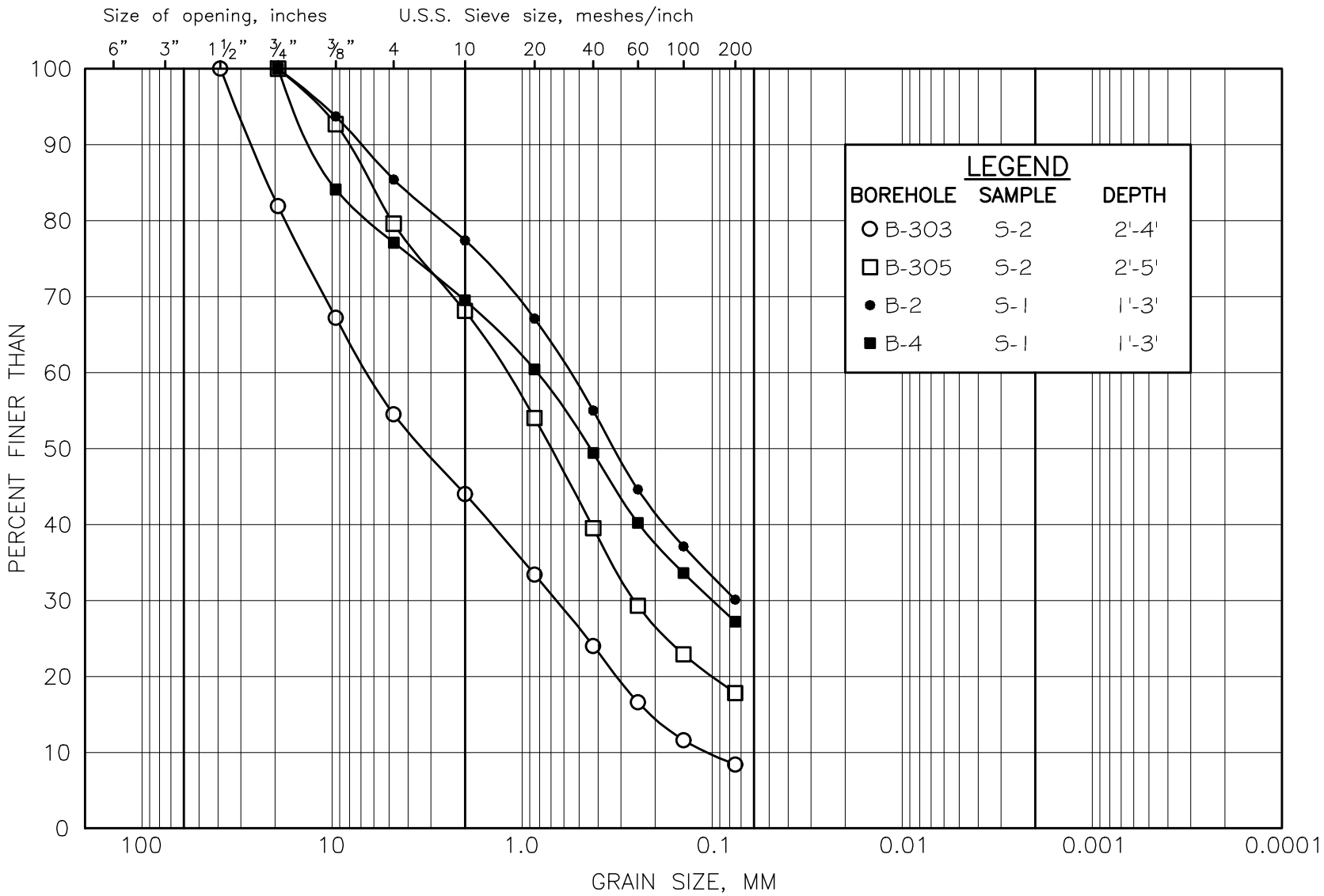
Date: SEPTEMBER 2018	Dwn: F.G.P.	Chkd: H.S.	Scale: 1" = 50'
Project No: 6565			FIGURE 2

FILE NAME: N:\Acad\JOBS\6565\Phase I\FIG\6565-FO2.dwg

FILE NAME: N:\Acad\JOBS\6565\Phase I\FER\6565-F03_Sieve.dwg

PROJECT No. 6565

M.I.T. GRAIN SIZE SCALE



COBBLE SIZE	COARSE	MEDIUM	FINE	COARSE	MEDIUM	FINE	SILT SIZE	CLAY SIZE
	GRAVEL SIZE			SAND SIZE			FINE GRAINED	

McPHAIL ASSOCIATES, LLC

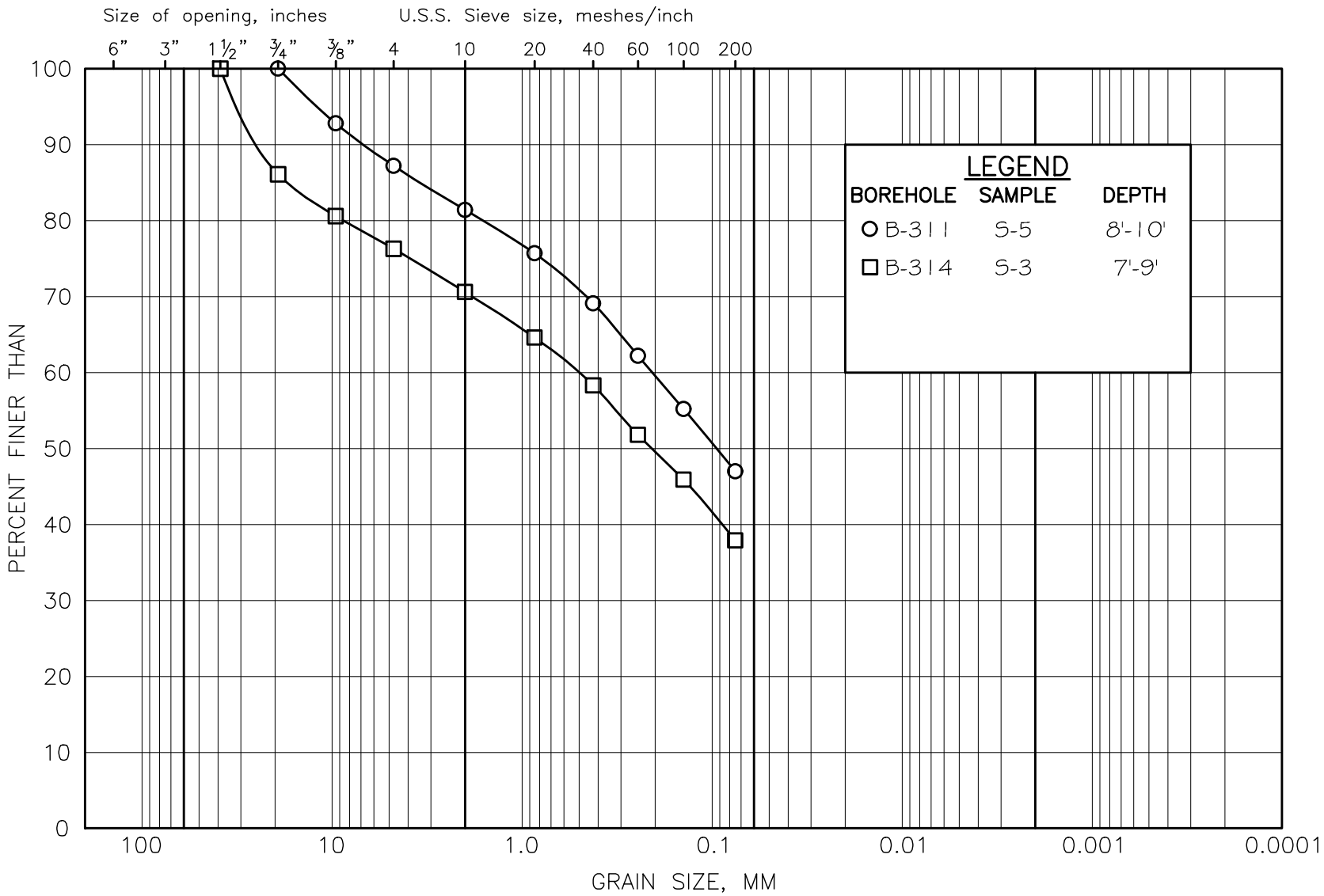
GRAIN SIZE DISTRIBUTION
GRANULAR FILL

FIGURE 3

FILE NAME: N:\Acad\JOBS\6565\Phase I\FER\6565-F04_Sieve.dwg

PROJECT No. 6565

M.I.T. GRAIN SIZE SCALE



COBBLE SIZE	COARSE	MEDIUM	FINE	COARSE	MEDIUM	FINE	SILT SIZE	CLAY SIZE
	GRAVEL SIZE			SAND SIZE			FINE GRAINED	

McPHAIL ASSOCIATES, LLC

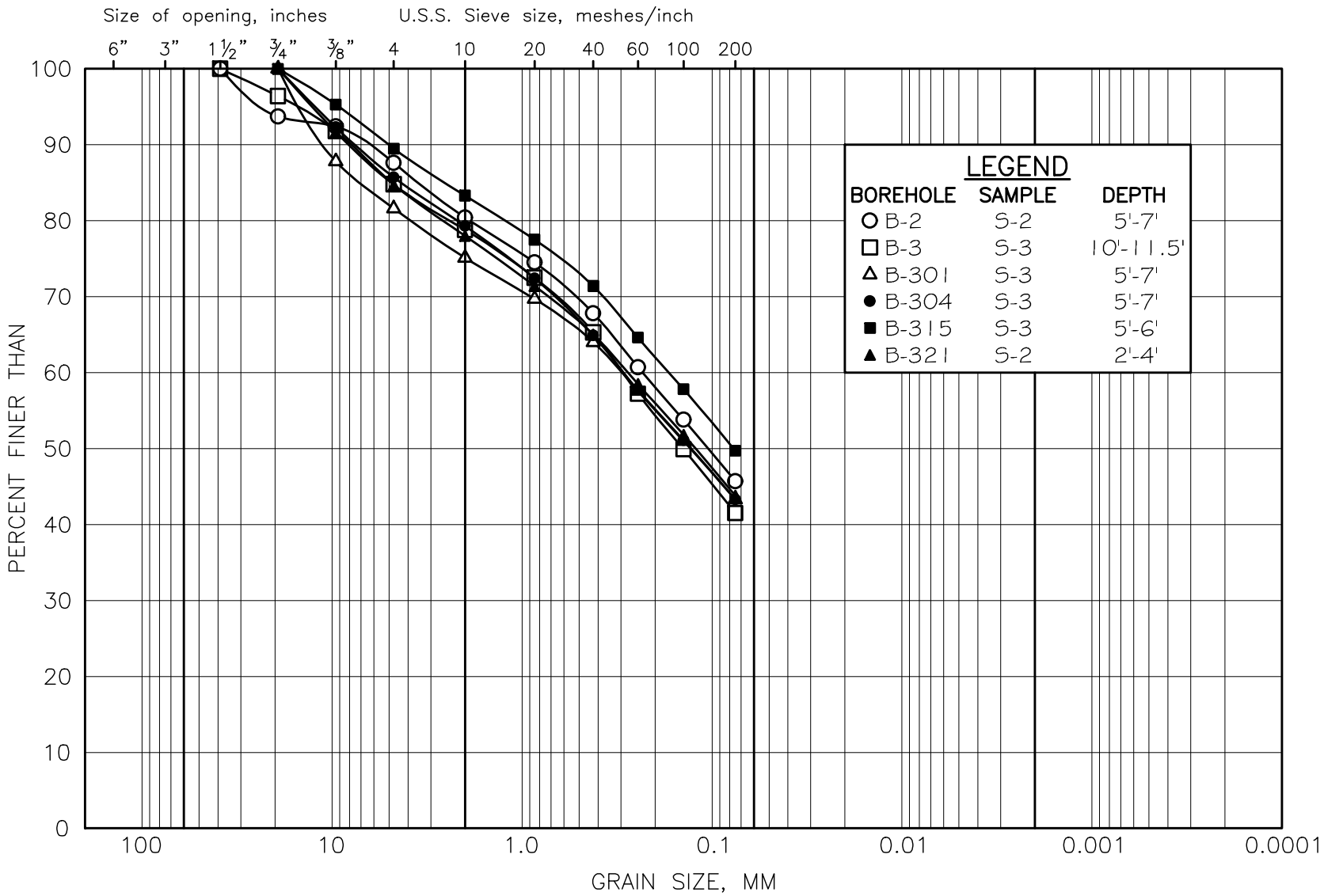
GRAIN SIZE DISTRIBUTION
FILL - REWORKED GLACIAL TILL

FIGURE 4

FILE NAME: N:\Acad\JOBS\6565\Phase 1\FER\6565-F05_Sieve.dwg

PROJECT No. 6565

M.I.T. GRAIN SIZE SCALE



COBBLE SIZE	COARSE	MEDIUM	FINE	COARSE	MEDIUM	FINE	SILT SIZE	CLAY SIZE
	GRAVEL SIZE			SAND SIZE			FINE GRAINED	

McPHAIL ASSOCIATES, LLC

GRAIN SIZE DISTRIBUTION
GLACIAL TILL

FIGURE 5

APPENDIX A:

LIMITATIONS

LIMITATIONS

This preliminary report has been prepared on behalf of and for the exclusive use of FoxRock Properties for specific application to the proposed Phase I portion of the 114 Whitwell Street Redevelopment project in Quincy, Massachusetts in accordance with generally accepted soil and geotechnical engineering practices. No other warranty, expressed or implied, is made.

The recommendations contained in this report are for preliminary pricing and design purposes only. A final subsurface exploration program and foundation engineering analyses will be required for the design and construction of the proposed project. In the event that any changes in nature or design of the proposed construction are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing by McPhail Associates, LLC.

The analyses and recommendations presented in this report are based upon the data obtained from the subsurface explorations performed at the approximate locations indicated on the enclosed plan. If variations in the nature and extent of subsurface conditions between the widely spaced explorations become evident during the course of construction, it will be necessary for a re-evaluation of the recommendations of this report to be made after performing on-site observations during the construction period and noting the characteristics of any variations.

APPENDIX B:

PREVIOUS BORING LOGS
PREPARED BY CARR-DEE CORP.

CARR-DEE CORP.

37 LINDEN STREET P.O. BOX 67 MEDFORD, MA 02155-0001 Telephone 391-4500

To McPHAIL ASSOCIATES, INC., CAMBRIDGE, MA Date AUGUST 11, 1986 Job No 86599

Location QUINCY CITY HOSPITAL STRUCTURE, MA Scale 1" = 3 ft.

BORING 201

GROUND SURFACE

0'3"	ASPHALT		
	FILL - LOAM, SAND GRAVEL, TRACE OF ASPHALT	9 6 13	S#1, FROM 0'6" TO 2'0" RECOVERED 3"
2'0"		26	S#1A, FROM 2'0" TO 2'6" RECOVERED 2"
	VERY DENSE		
	FINE	28 42 61	S#2, FROM 5'0" TO 7'6" RECOVERED 13"
	SAND,	85	
	SOME		
	INORGANIC		
	SILT,	89 100/4"	S#3, FROM 10'0" TO 10'10" RECOVERED 8"
	GRAVEL,		
	FEW		
	COBBLES	37 70 82	S#4, FROM 15'0" TO 16'10" RECOVERED 13"
16'10"		100/4"	

WATER LEVEL 2'6"
SIZE OF CASING NW, LENGTH 5'0"
DRILLER: J.A. DESIMONE
DATE STARTED & COMPLETED: 8-4-86

All samples have been visually classified by RHD. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in right hand column indicate number of blows required to drive two-inch split sampler 6 inches using 140 lb. weight falling 30 inches ±. Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches ±.

CARR-DEE CORP.

37 LINDEN STREET P.O. BOX 67 MEDFORD, MA 02155-0001 Telephone 391-4500

To McPHAIL ASSOCIATES, INC., CAMBRIDGE, MA Date AUGUST 11, 1986 Job No 86599

Location QUINCY CITY HOSPITAL STRUCTURE, MA Scale 1" = 3 ft.

BORING 202

GROUND SURFACE

	LOAM, LOAMY SAND, GRAVEL	1 3 4 6	S#1, FROM G.S. TO 2'0" RECOVERED 10"
3'0"			
	VERY DENSE FINE SAND, SOME INORGANIC	39 58 100/5"	S#2, FROM 5'0" TO 6'5" RECOVERED 9"
	SILT, GRAVEL, FEW COBBLES, TRACE OF CLAY	42 65 100/3"	S#3, FROM 10'0" TO 11'3" RECOVERED 8"
		49 70 100/2"	S#4, FROM 15'0" TO 16'2" RECOVERED 9"
16'2"			

WATER LEVEL 3'0"
SIZE OF CASING NW, LENGTH 5'0"
DRILLER: J.A. DESIMONE
DATE STARTED & COMPLETED: 8-4-86

All samples have been visually classified by RHD. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in right hand column indicate number of blows required to drive two-inch split sampler 6 inches using 140 lb. weight falling 30 inches ±. Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches ±.

CARR-DEE CORP.

37 LINDEN STREET P.O. BOX 67 MEDFORD, MA 02155-0001 Telephone 391-4500

To McPHAIL ASSOCIATES, INC., CAMBRIDGE, MA Date AUGUST 11, 1986 Job No 86599

Location QUINCY CITY HOSPITAL STRUCTURE, MA Scale 1" = 3 ft.

BORING 203

GROUND SURFACE

0'3"	ASPHALT		
	FILL LOAMY SAND, LITTLE GRAVEL	6 8 8 7	S#1, FROM 0'6" TO 2'6" RECOVERED 10"
3'6"	VERY DENSE FINE SAND, SOME INORGANIC SILT, GRAVEL, FEW COBBLES	24 35 47 59	S#2, FROM 5'0" TO 7'0" RECOVERED 14"
9'6"	DENSE FINE SAND, SOME INORGANIC SILT, GRAVEL, FEW COBBLES, TRACE OF CLAY	20 19 25 42	S#3, FROM 10'0" TO 12'0" RECOVERED 14"
12'0"	VERY DENSE FINE SAND, SOME INORGANIC SILT, GRAVEL, COBBLES, TRACE CLAY	30 89 100/3"	S#4, FROM 15'0" TO 16'3" RECOVERED 11'
16'3"			

WATER LEVEL 3'6"
SIZE OF CASING NW, LENGTH 5'0"
DRILLER: J.A. DESIMONE
DATE STARTED & COMPLETED: 8-4-86

All samples have been visually classified by RHD. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in right hand column indicate number of blows required to drive two-inch split sampler 6 inches using 140 lb. weight falling 30 inches ±. Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches ±.

CARR-DEE CORP.

37 LINDEN STREET P.O. BOX 67 MEDFORD, MA 02155-0001 Telephone 391-4500

To McPHAIL ASSOCIATES, INC., CAMBRIDGE, MA Date AUGUST 11, 1986 Job No 86599

Location QUINCY CITY HOSPITAL STRUCTURE, MA Scale 1" = 3 ft.

BORING 204

GROUND SURFACE

0'3"	ASPHALT		
	FILL LOAM, LOAMY SAND, LITTLE GRAVEL	3 3 4 5	S#1, FROM 0'6" TO 2'6" RECOVERED 8"
4'6"			
	VERY DENSE FINE SAND, SOME	40 48 62 71	S#2, FROM 5'0" TO 7'0" RECOVERED 10"
	INORGANIC SILT, GRAVEL, FEW	32 68 100/5"	S#3, FROM 10'0" TO 11'5" RECOVERED 11"
	COBBLES	42 49 60 100/3"	S#4, FROM 15'0" TO 16'9" RECOVERED 13"
16'9"			

WATER LEVEL 3'0"
SIZE OF CASING NW, LENGTH 5'0"
DRILLER: J.A. DESIMONE
DATE STARTED & COMPLETED: 8-4-86

NOTE: BORING MADE 3'6" TOWARD "EAST WING" STAIRWAY, FROM ORIGINAL LOCATION.

All samples have been visually classified by RHD. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in right hand column indicate number of blows required to drive two-inch split sampler 6 inches using 140 lb. weight falling 30 inches ±. Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches ±.

CARR-DEE CORP.

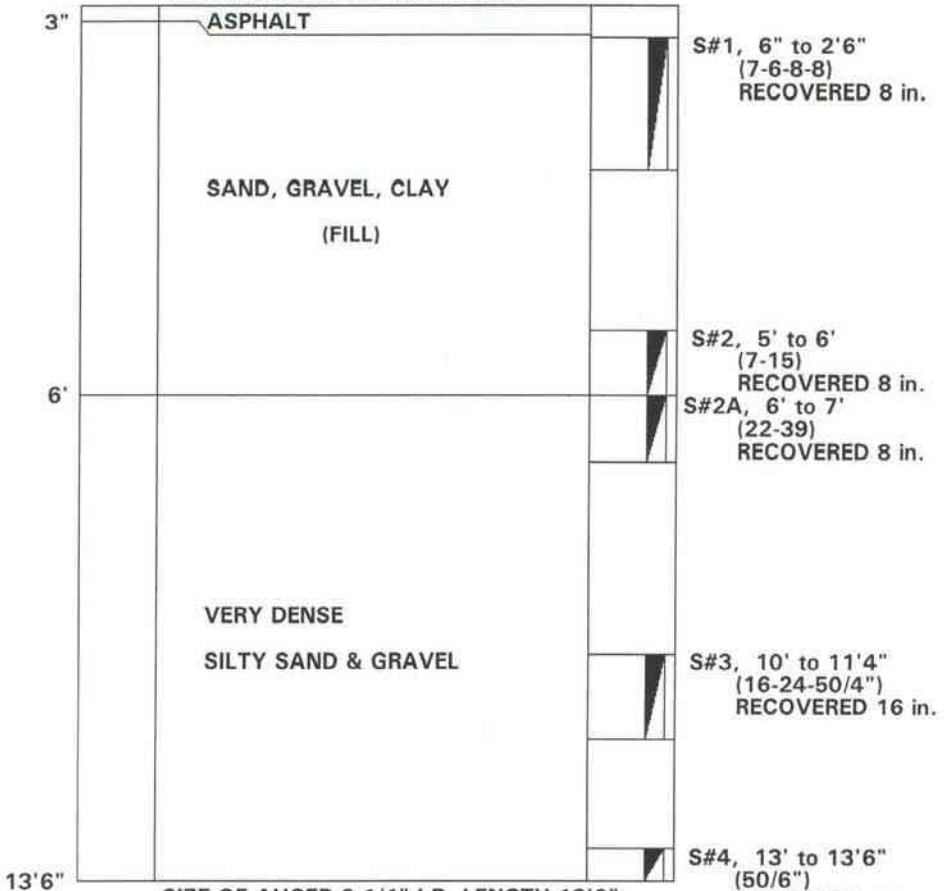
37 LINDEN STREET P.O. BOX 67 MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: McPHAIL ASSOCIATES, INC. 2269 MASS AVE. CAMBRIDGE, MA Date: 12-16-2011 Job No.: 2011-180

Location: QUINCY MEDICAL CENTER Scale: 1 in. = 3 ft.

BORING 1

GROUND SURFACE Elev. + 142.9



SIZE OF AUGER 2-1/4" I.D. LENGTH 13'0"
DRILLER: S.DESIMONE, INSPECTOR: S.DENNIS
DATE STARTED & COMPLETED 12-15-2011

NOTE: NO WATER ENCOUNTERED

All samples have been visually classified by DRILLER. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

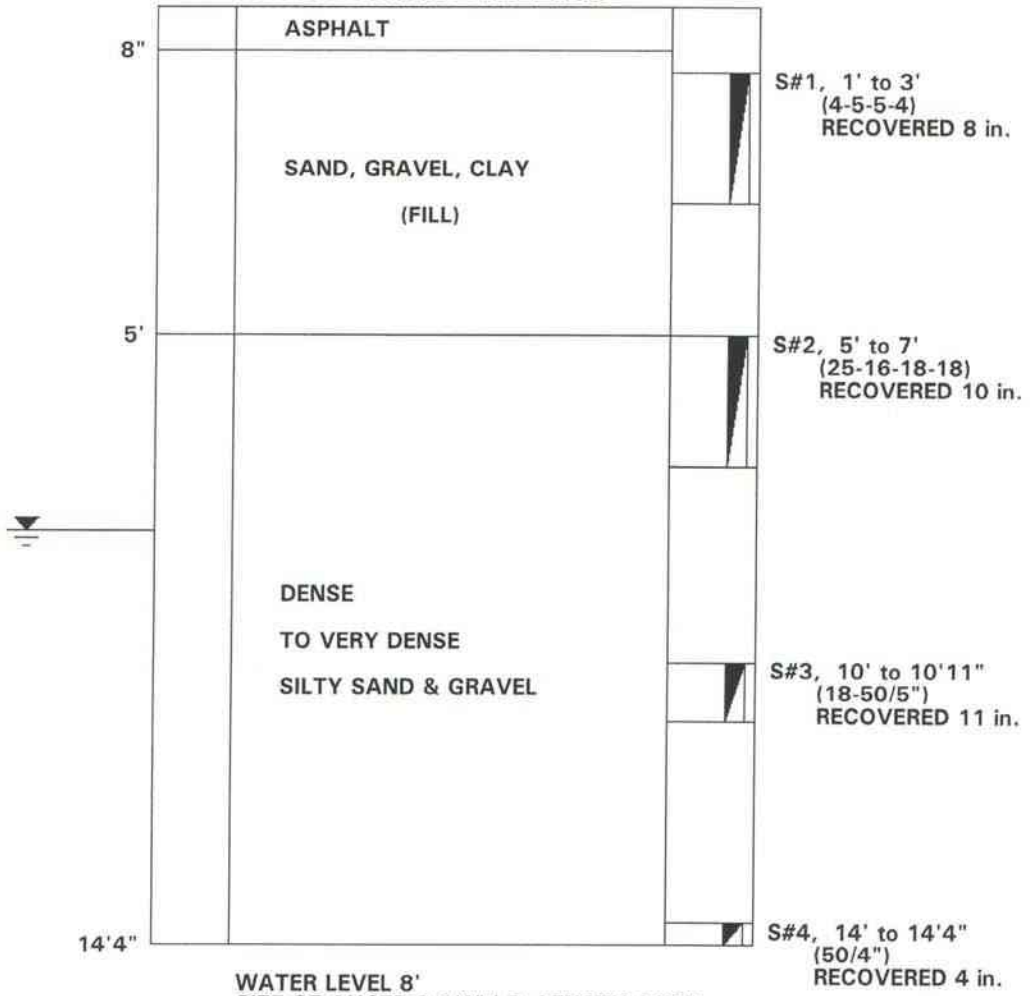
37 LINDEN STREET P.O. BOX 67 MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: McPHAIL ASSOCIATES, INC. 2269 MASS AVE. CAMBRIDGE, MA Date: 12-16-2011 Job No.: 2011-180

Location: QUINCY MEDICAL CENTER Scale: 1 in. = 3 ft.

BORING 2

GROUND SURFACE Elev. + 143.6



WATER LEVEL 8'
SIZE OF AUGER 2-1/4" I.D. LENGTH 14'0"
DRILLER: S.DESIMONE, INSPECTOR: S.DENNIS
DATE STARTED & COMPLETED 12-15-2011

All samples have been visually classified by DRILLER. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

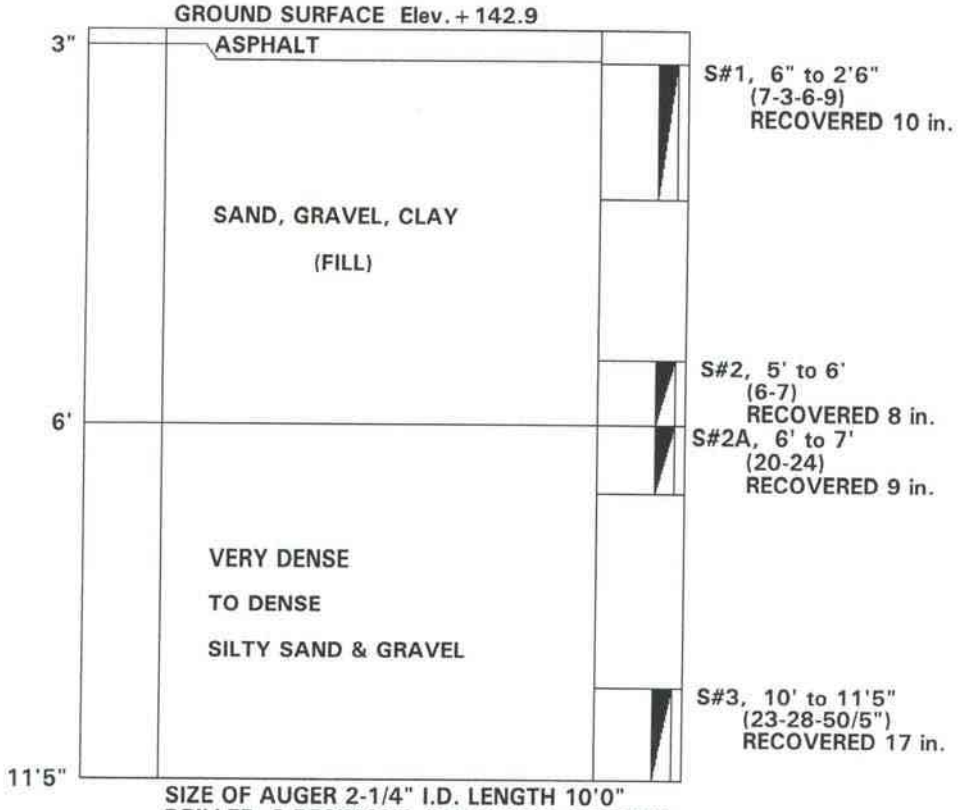
37 LINDEN STREET P.O. BOX 67 MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: McPHAIL ASSOCIATES, INC. 2269 MASS AVE. CAMBRIDGE, MA Date: 12-16-2011 Job No.: 2011-180

Location: QUINCY MEDICAL CENTER Scale: 1 in. = 3 ft.

BORING 3

GROUND SURFACE Elev. + 142.9



SIZE OF AUGER 2-1/4" I.D. LENGTH 10'0"
DRILLER: S.DESIMONE, INSPECTOR: S.DENNIS
DATE STARTED & COMPLETED 12-15-2011

NOTE: NO WATER ENCOUNTERED

All samples have been visually classified by DRILLER. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

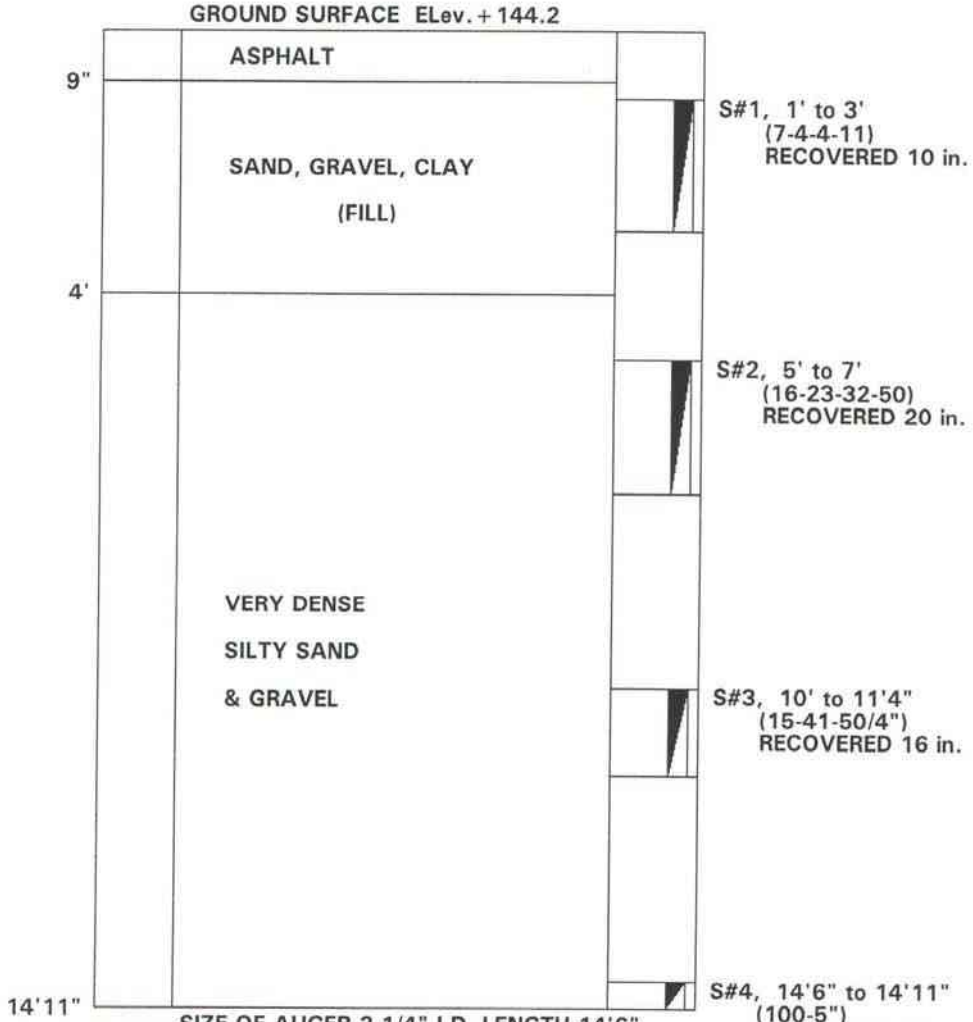
37 LINDEN STREET P.O. BOX 67 MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: McPHAIL ASSOCIATES, INC. 2269 MASS AVE. CAMBRIDGE, MA Date: 12-16-2011 Job No.: 2011-180

Location: QUINCY MEDICAL CENTER Scale: 1 in. = 3 ft.

BORING 4

GROUND SURFACE ELev. + 144.2



SIZE OF AUGER 2-1/4" I.D. LENGTH 14'6"
DRILLER: S.DESIMONE, INSPECTOR: S.DENNIS
DATE STARTED & COMPLETED 12-15-2011

NOTE: NO WATER ENCOUNTERED

All samples have been visually classified by DRILLER. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

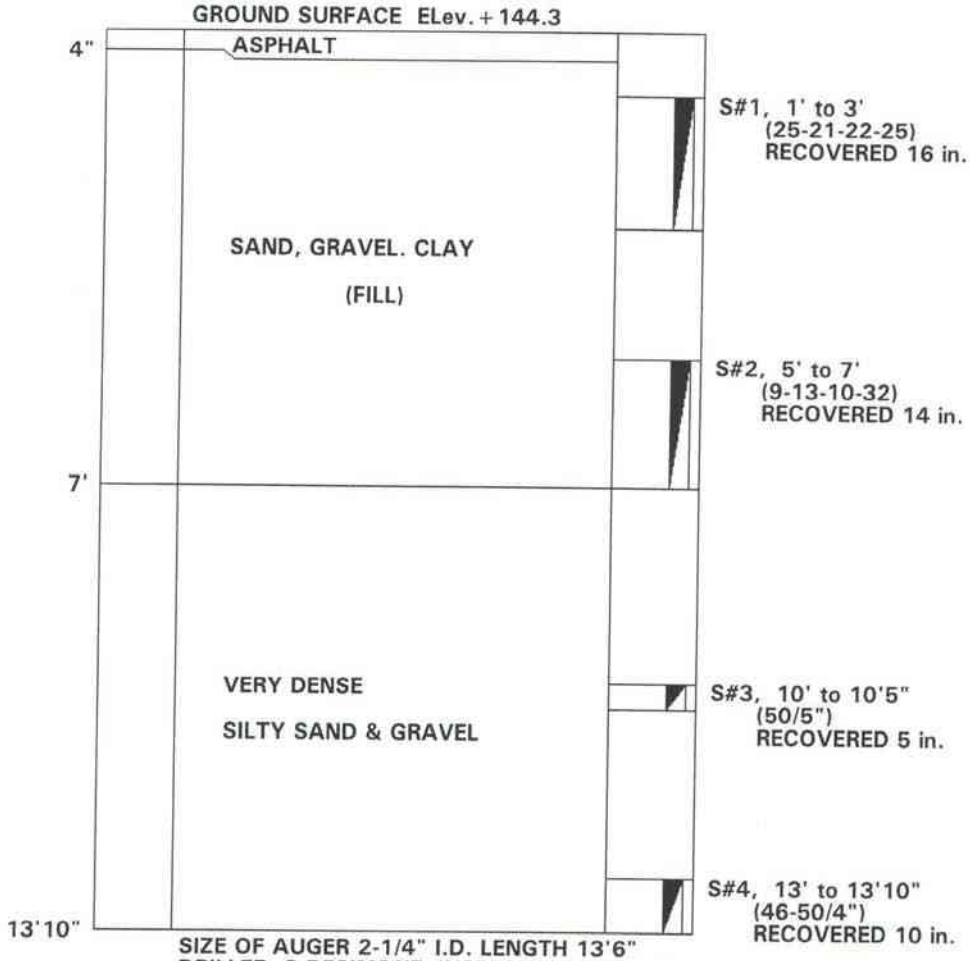
37 LINDEN STREET P.O. BOX 67 MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: McPHAIL ASSOCIATES, INC. 2269 MASS AVE. CAMBRIDGE, MA Date: 12-16-2011 Job No.: 2011-180

Location: QUINCY MEDICAL CENTER Scale: 1 in. = 3 ft.

BORING 5

GROUND SURFACE Elev. + 144.3



SIZE OF AUGER 2-1/4" I.D. LENGTH 13'6"
DRILLER: S.DESIMONE, INSPECTOR: S.DENNIS
DATE STARTED & COMPLETED 12-15-2011

NOTE: NO WATER ENCOUNTERED

All samples have been visually classified by DRILLER. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

APPENDIX C:

RECENT 300 SERIES BORING LOGS
PREPARED BY
CARR-DEE CORP.

CARR-DEE CORP.

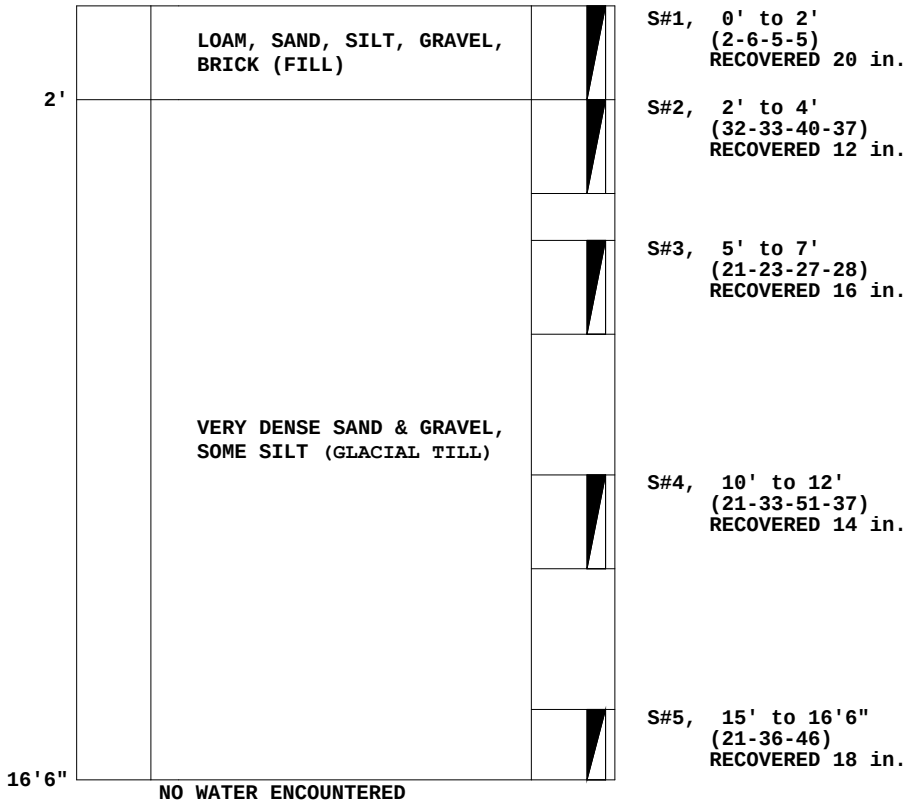
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +144.4

BORING 301



NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 15'0"
DRILLER: J.A. DESIMONE, INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-28-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

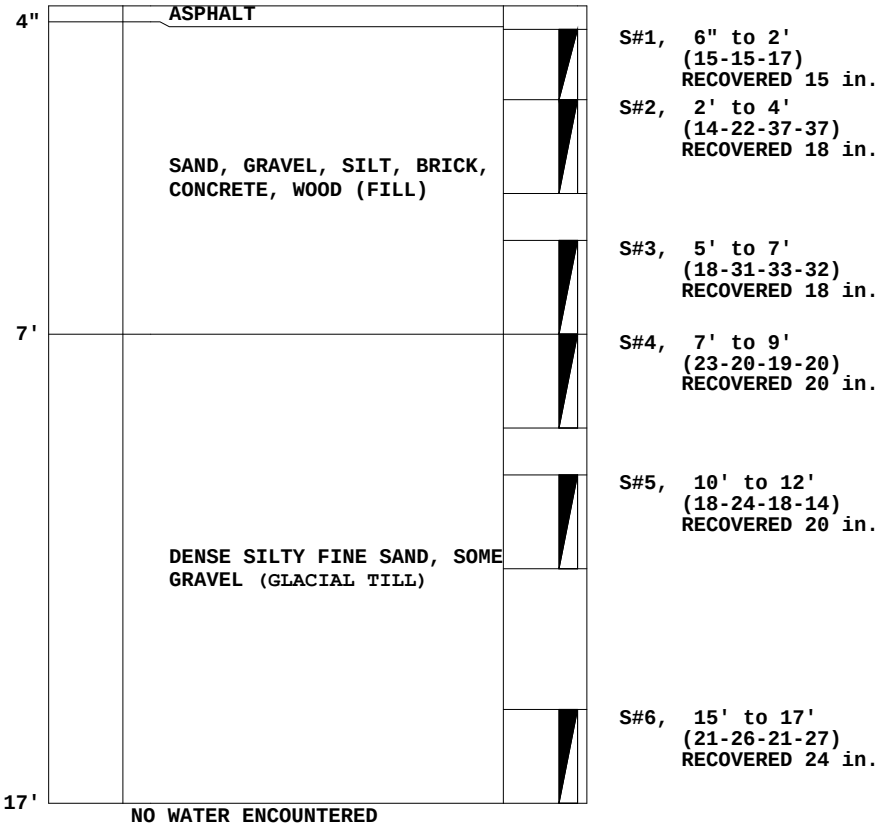
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +142.6

BORING 302



NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 15'0"
DRILLER: J.A. DESIMONE, INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-27-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

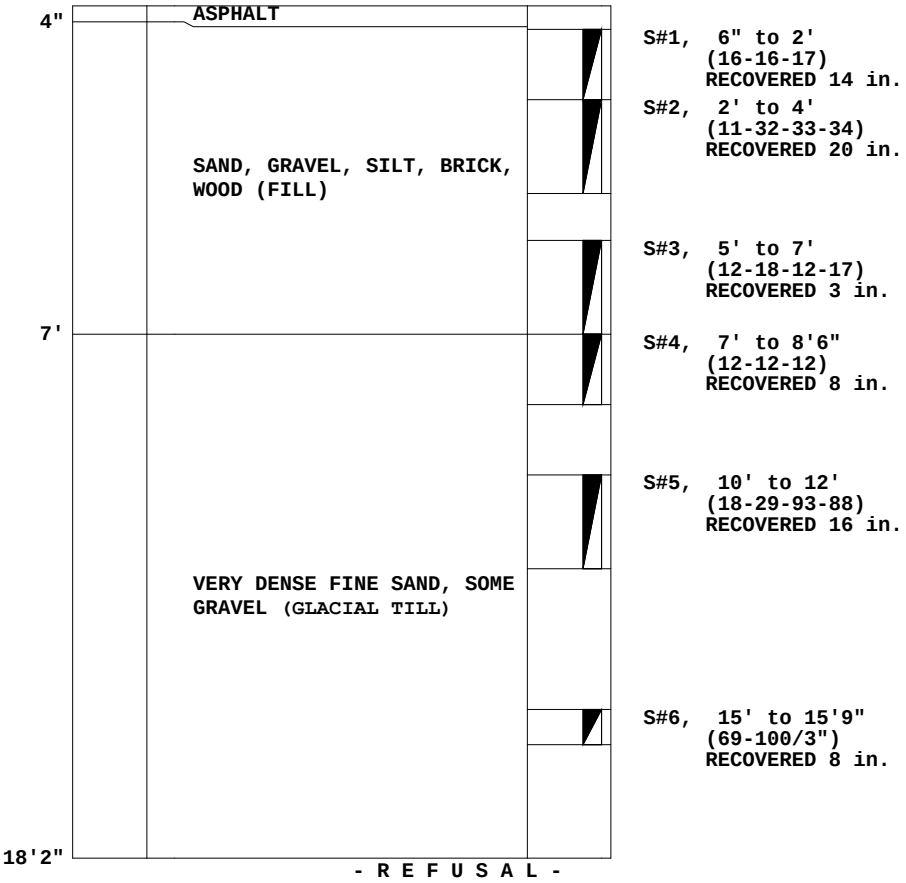
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +145.0

BORING 303



- R E F U S A L -

9NO PENETRATION WITH AUGERS)

NO WATER ENCOUNTERED

SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 18'2"

DRILLER: J.A. DESIMONE, INSPECTOR: T. CORMICAN

DATE STARTED & COMPLETED: 8-27-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

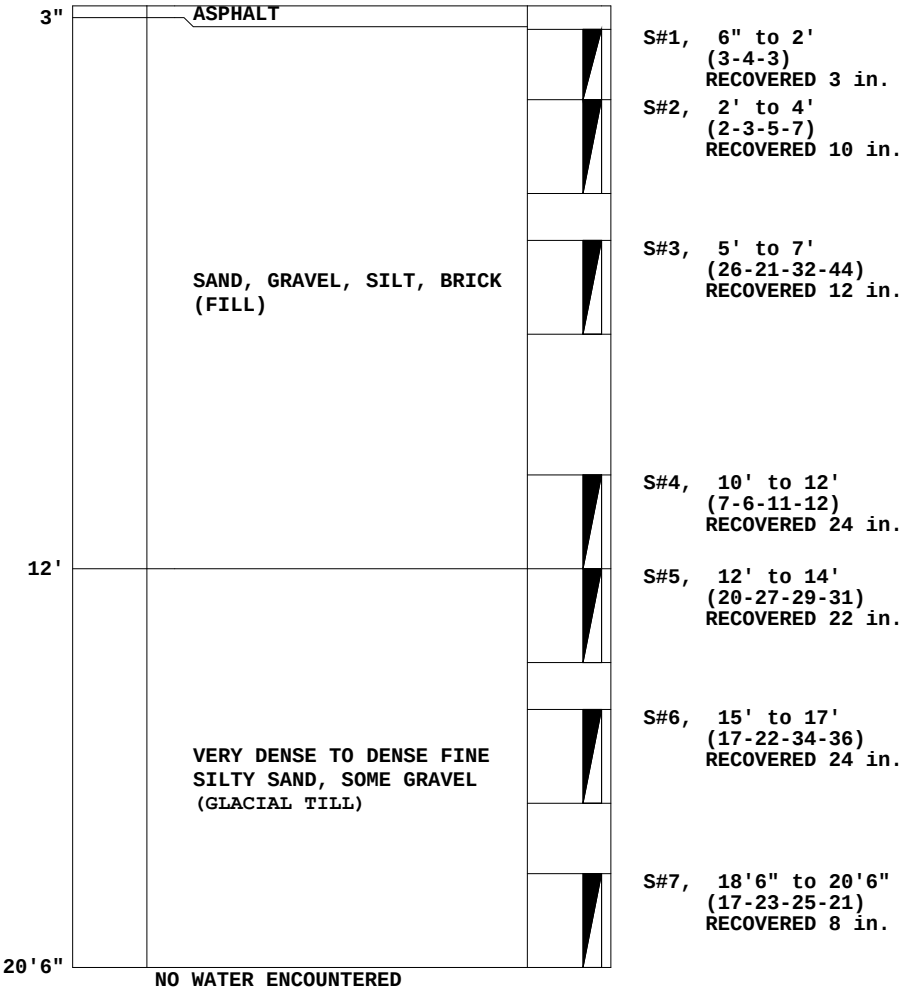
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +143.4

BORING 304



NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 18'6"
DRILLER: J.A. DESIMONE, INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-27-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

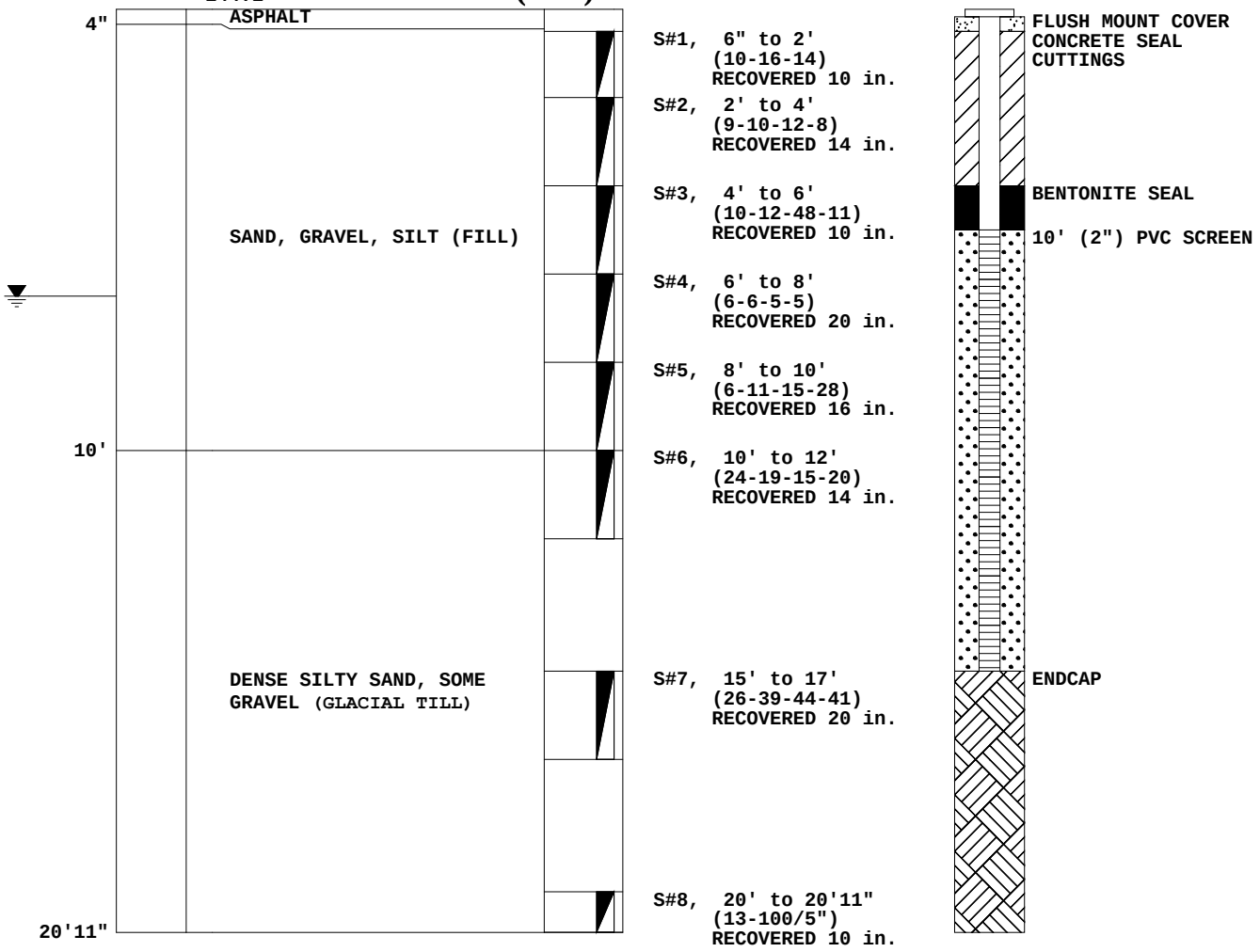
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +144.1

BORING 305(OW)



WATER LEVEL 6'6"

SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 20'0"
DRILLER: J.A. DESIMONE, INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-28-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

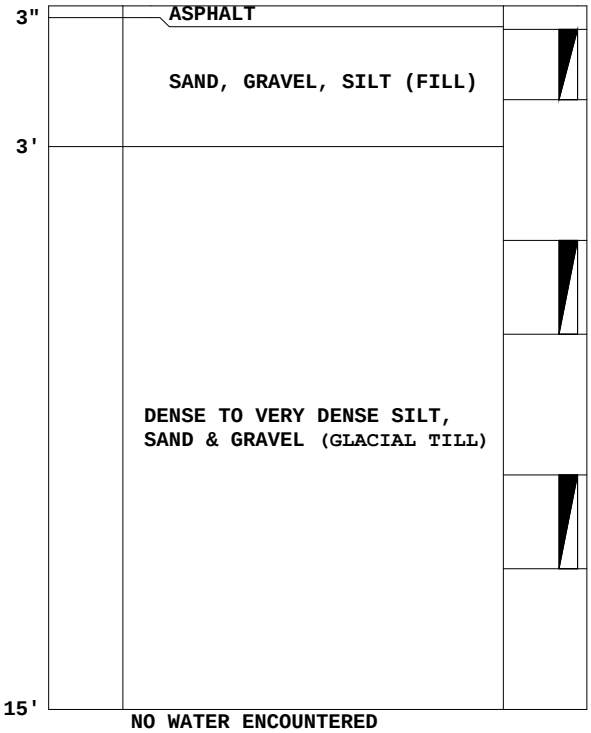
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +145.5

BORING 306



S#1, 6" to 2'
(9-13-8)
RECOVERED 12 in.

S#2, 5' to 7'
(20-25-24-28)
RECOVERED 24 in.

S#3, 10' to 12'
(19-28-27-30)
RECOVERED 24 in.

S#4, 15' to 15'
(100/0")
RECOVERED 0 in.

NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 15'0"
DRILLER: S. DESIMONE, JR.
INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-24-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

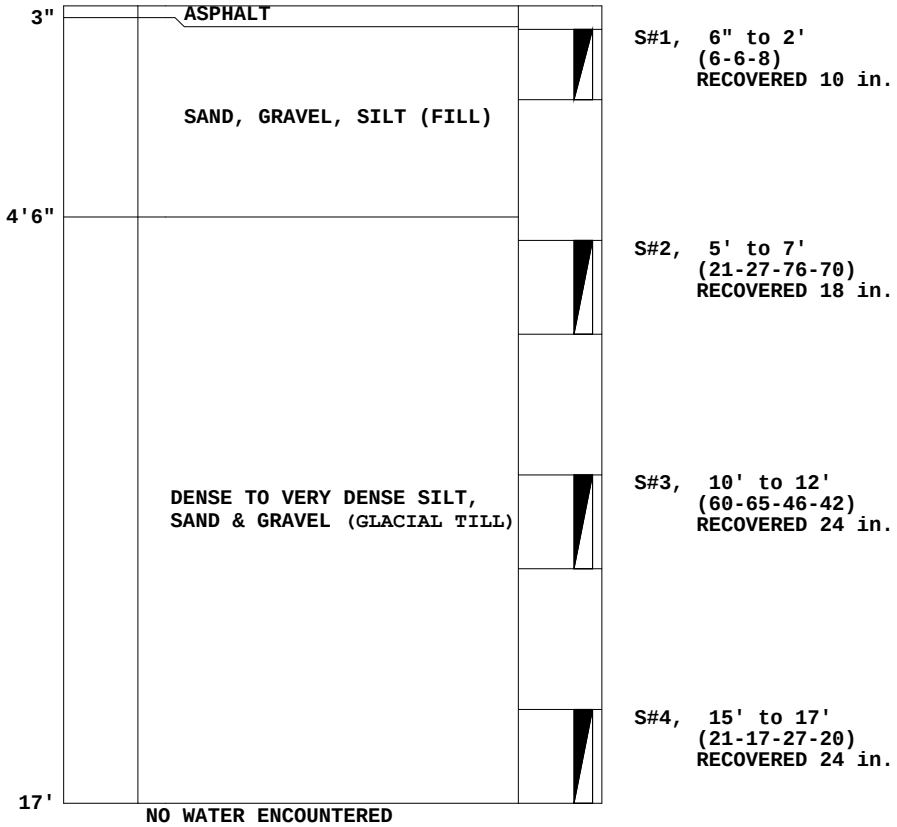
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +148.6

BORING 307



NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 15'0"
DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-24-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

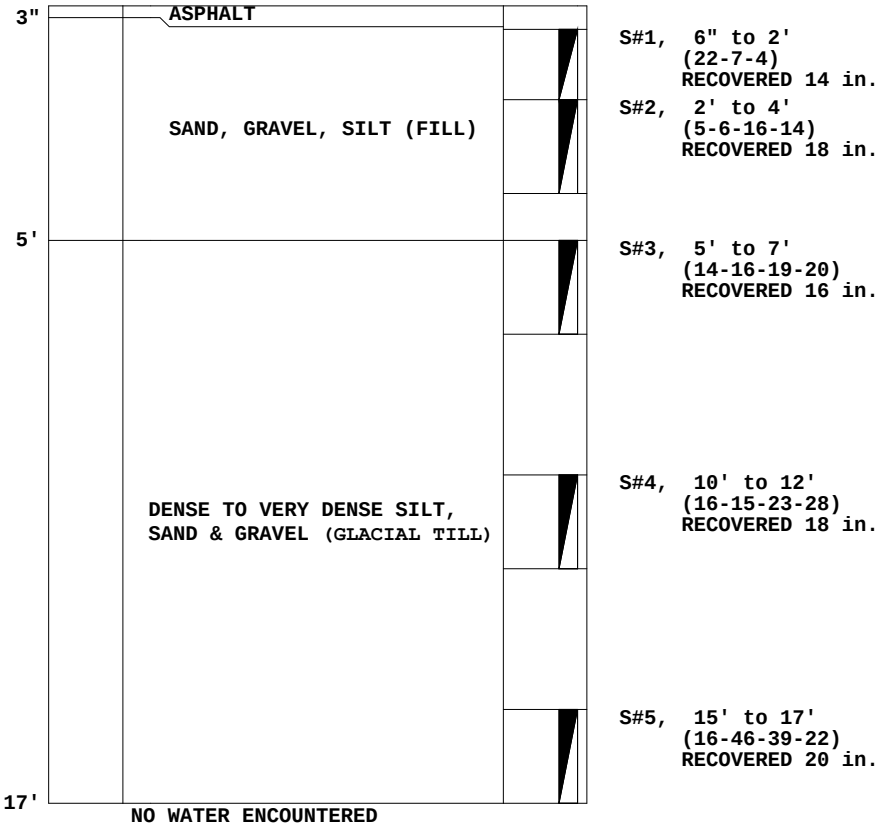
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +143.3

BORING 308



NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 15'0"
DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-21-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

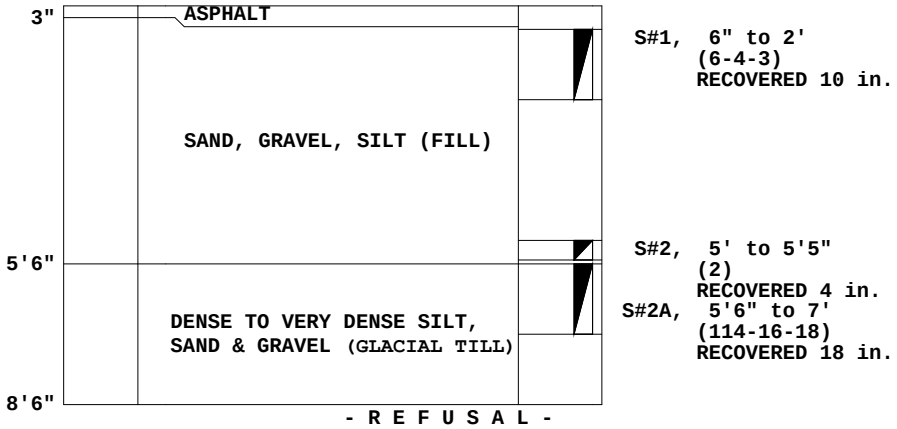
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +133.1

BORING 309



- R E F U S A L -
(NO PENETRATION WITH AUGERS)
NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 8'6"
DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-23-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

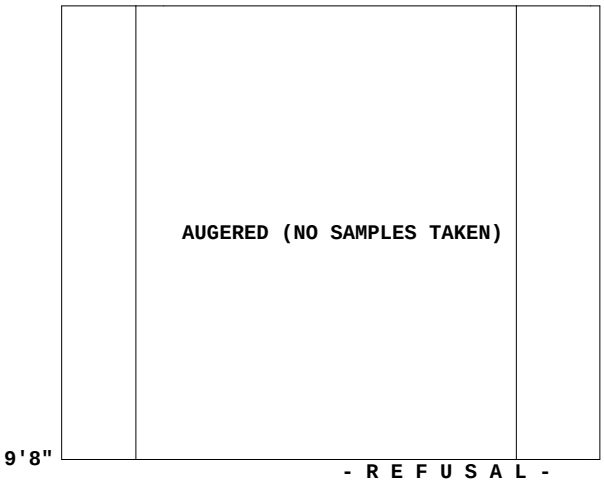
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +133.1

BORING 309A



(NO PENETRATION WITH AUGERS)
NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 8'6"
DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-23-2018
NOTE: THIS BORING MOVED 3'0" EAST OF ORIGINAL LOCATION.

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

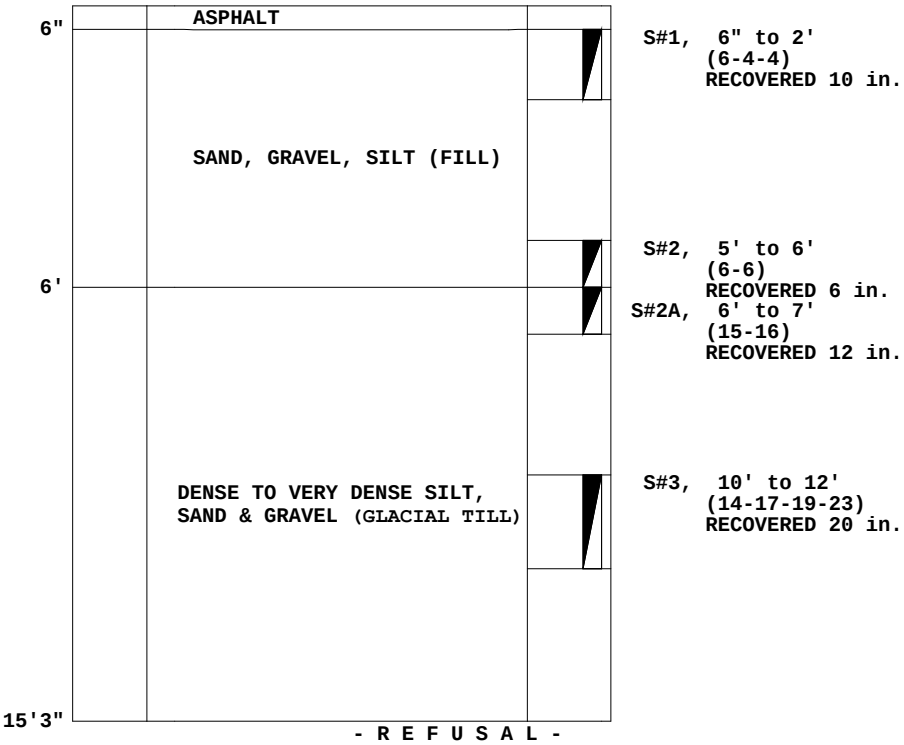
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +138.0

BORING 310



- R E F U S A L -
(NO PENETRATION WITH AUGERS)
NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 15'3"
DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-23-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

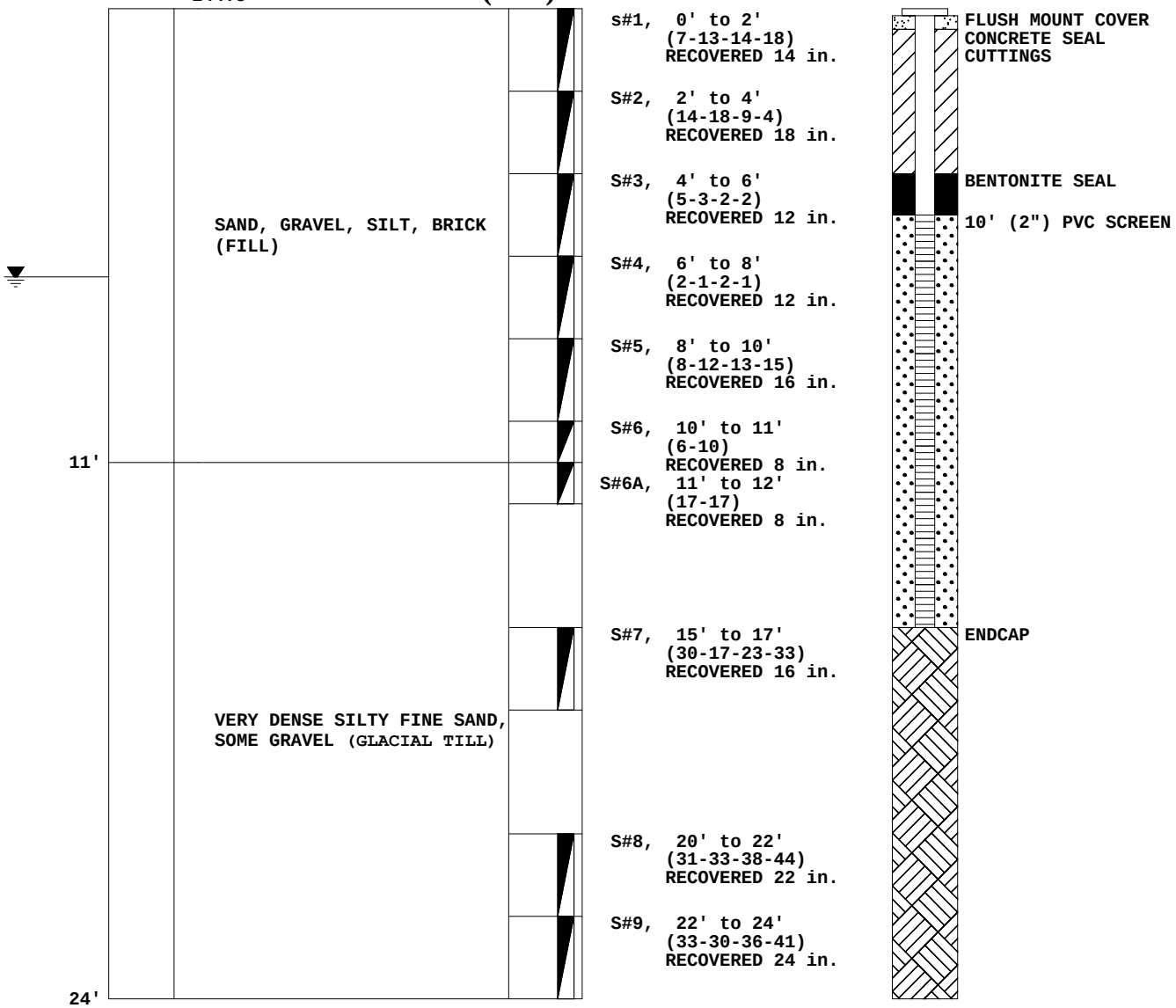
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +144.5

BORING 311(OW)



WATER LEVEL 6'6"

SIZE OF AUGERS: 3-3/4" I.D., LENGTH: 20'0"
DRILLER: J.A. DESIMONE, INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-28-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

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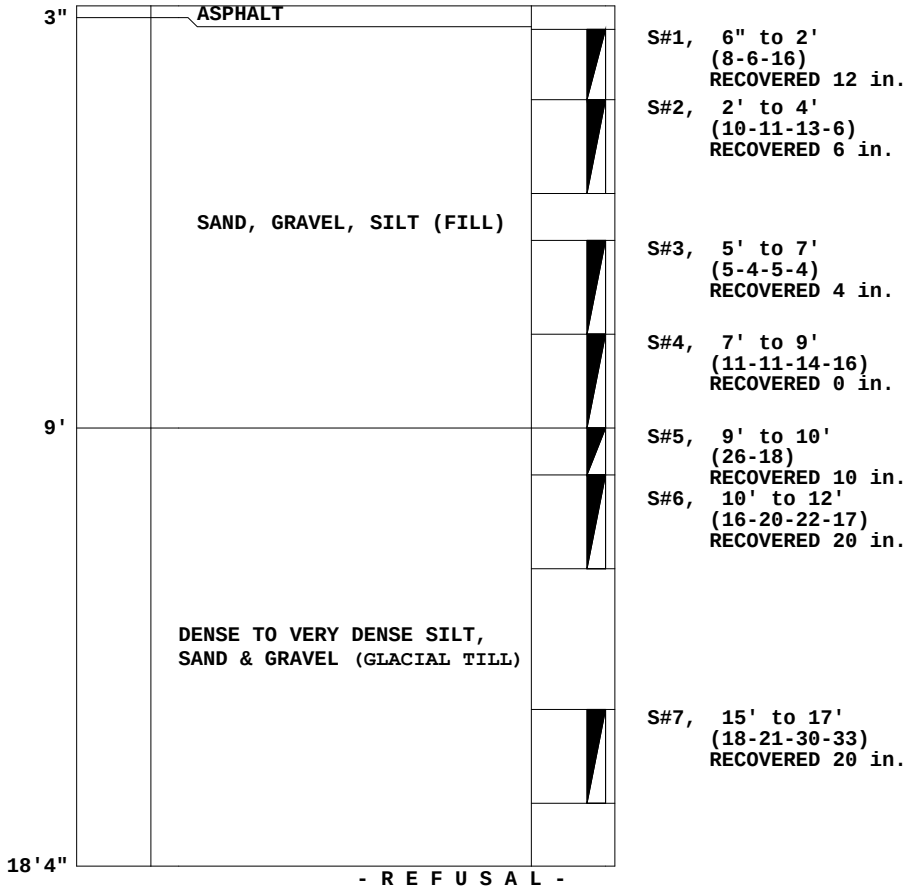
To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +130.0

BORING 312



- R E F U S A L -

(NO PENETRATION WITH AUGERS)
NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 18'4"
DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-22-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

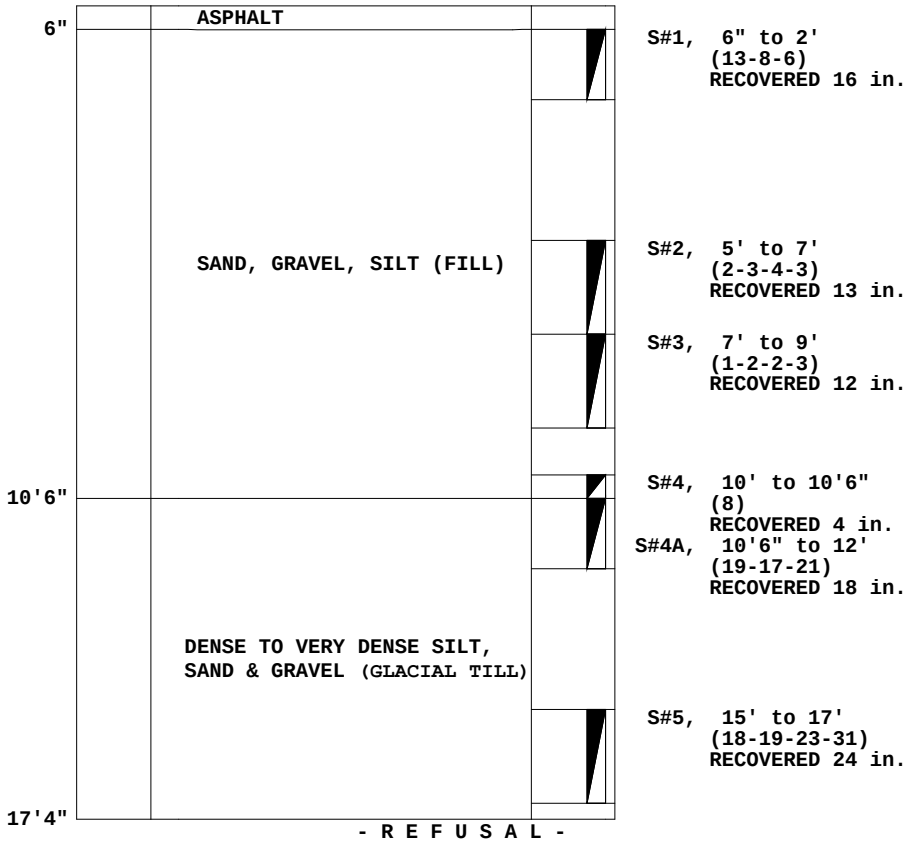
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +125.3

BORING 313



(NO PENETRATION WITH AUGERS)
NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 17'4"
DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-22-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

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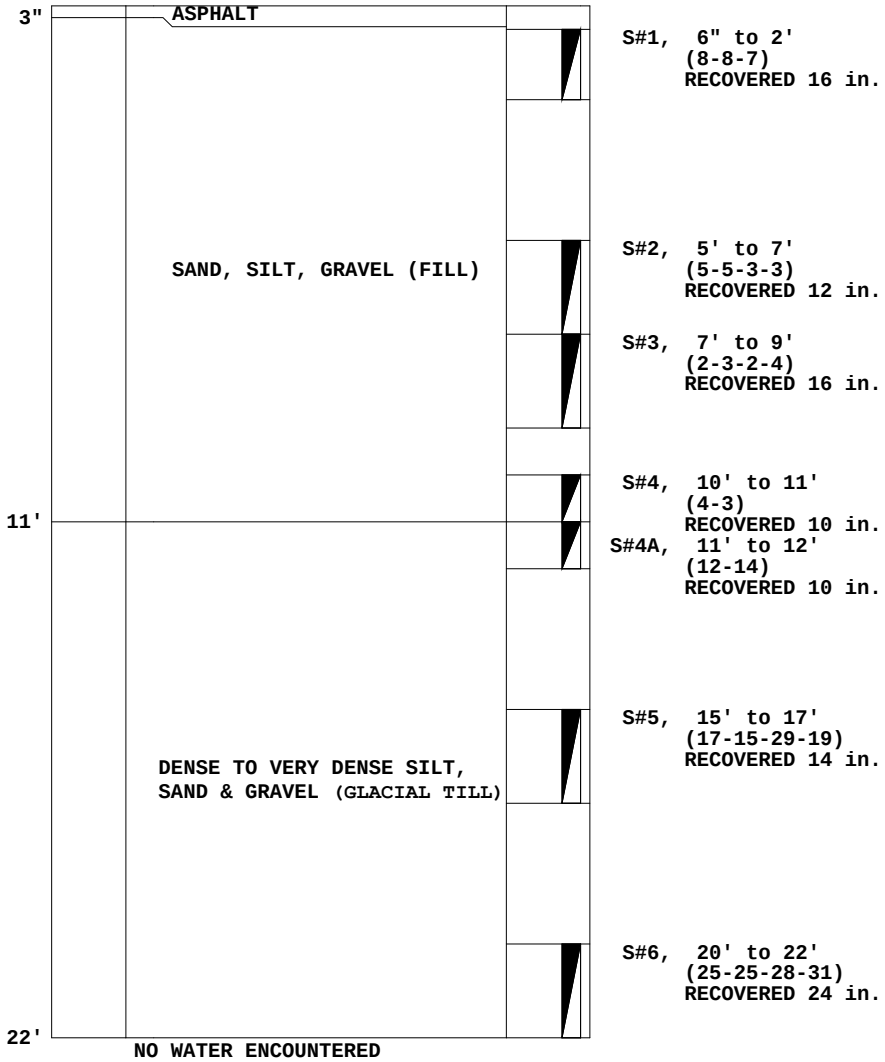
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +125.3

BORING 314



NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 20'0"
DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-22-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

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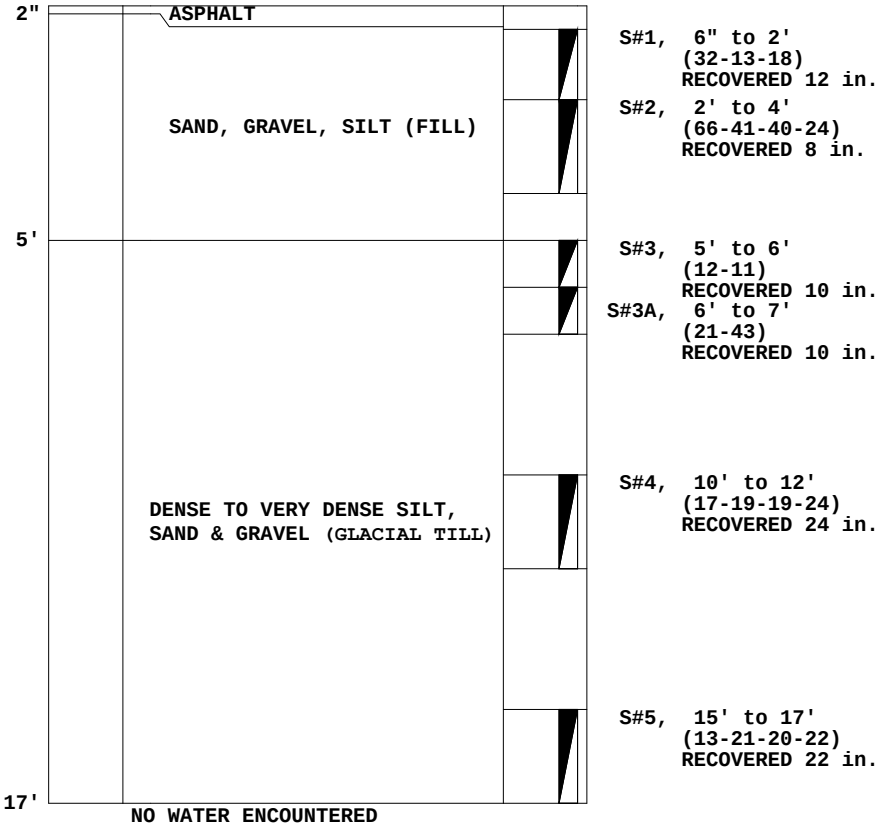
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +145.6

BORING 315



NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 15'0"
DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-21-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

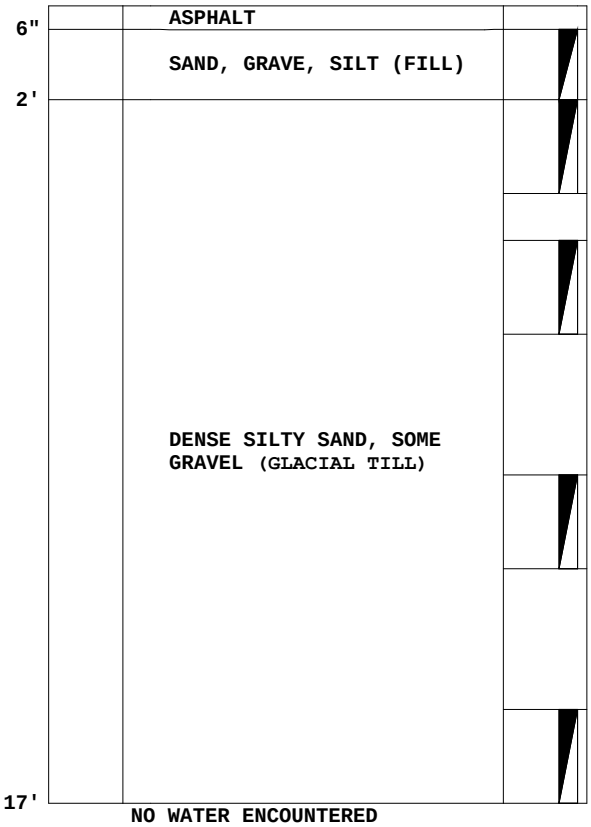
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +145.9

BORING 316



S#1, 6" to 2' (3-4-6) RECOVERED 12 in.

S#2, 2' to 4' (14-17-23-25) RECOVERED 18 in.

S#3, 5' to 7' (22-23-50-35) RECOVERED 24 in.

S#4, 10' to 12' (18-31-36-39) RECOVERED 6 in.

S#5, 15' to 17' (17-20-21-23) RECOVERED 18 in.

NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 15'0"
DRILLER: J.A. DESIMONE, INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-27-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

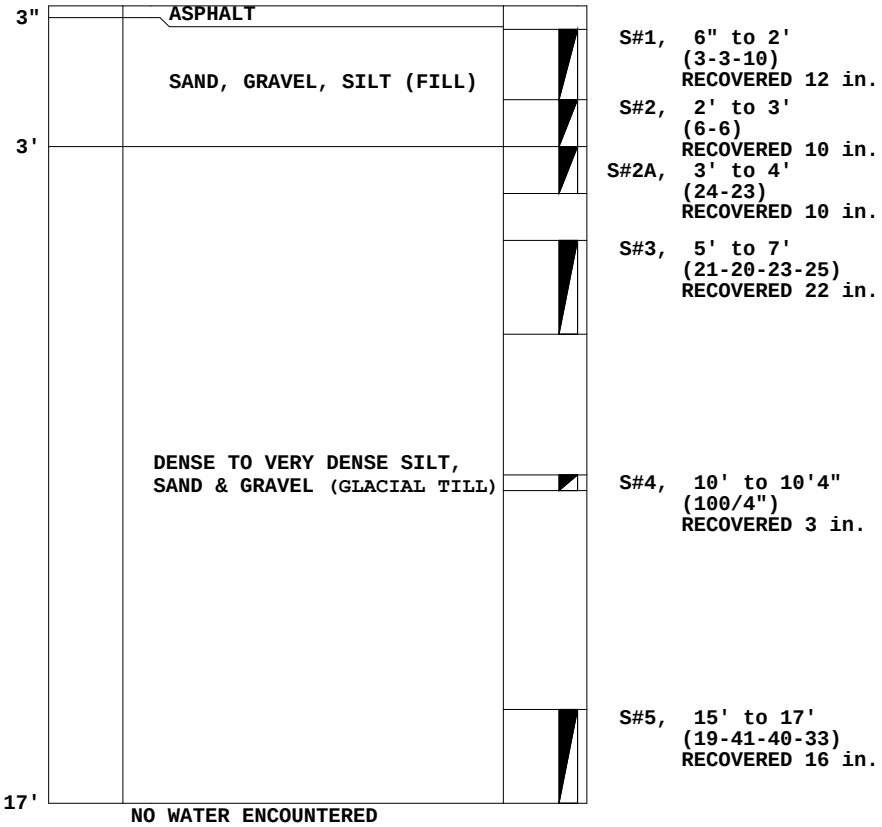
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +146.6

BORING 317



NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 15'0"
DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-23-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

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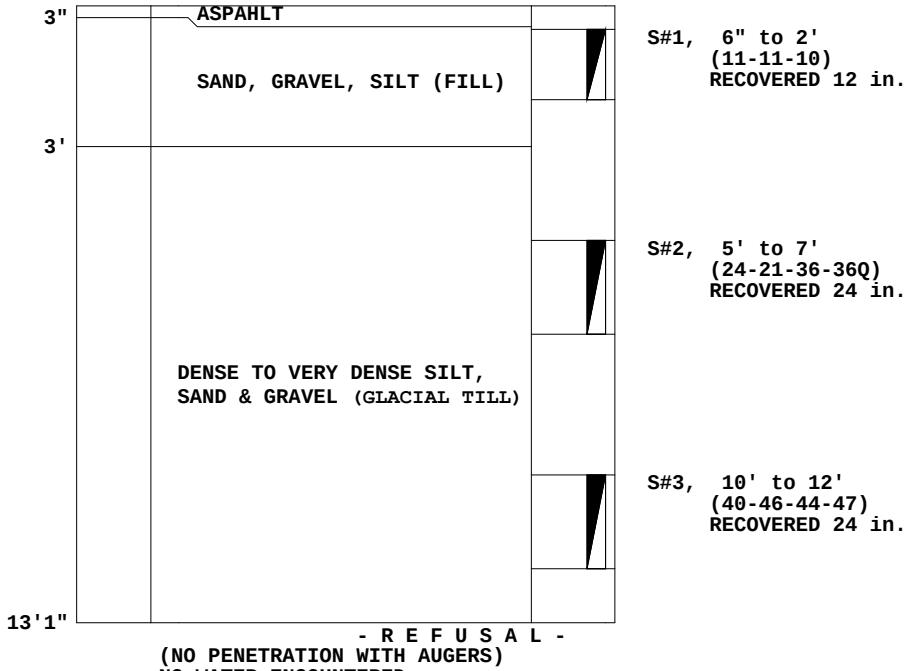
To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +149.2

BORING 318



- R E F U S A L -
(NO PENETRATION WITH AUGERS)
NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 13'1"
DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-24-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

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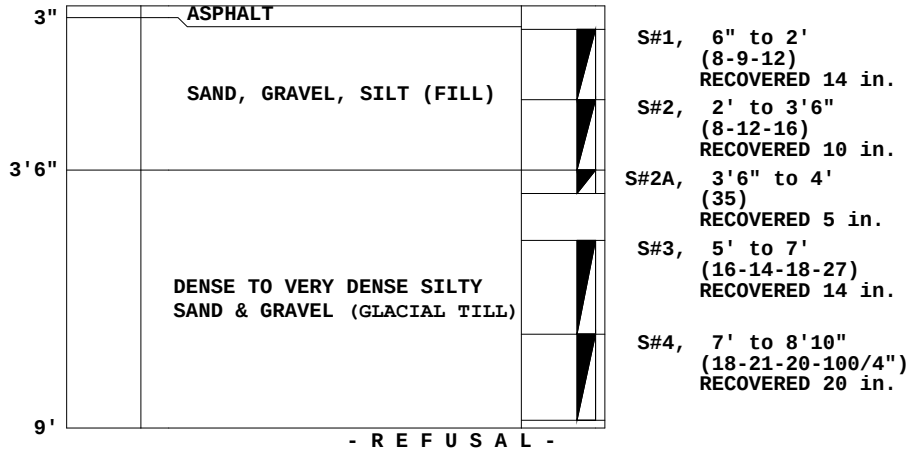
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +145.4

BORING 319



- R E F U S A L -

(NO PENETRATION WITH AUGERS)
NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 9'0"
DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-21-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

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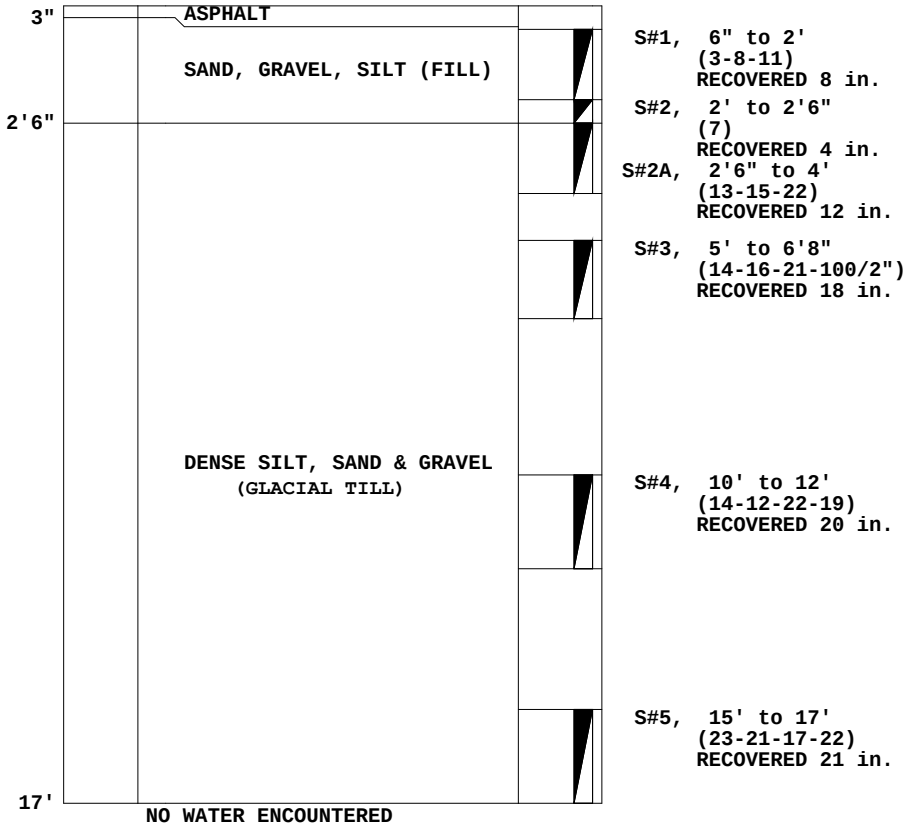
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +145.6

BORING 320



NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 15'0"
DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-23-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

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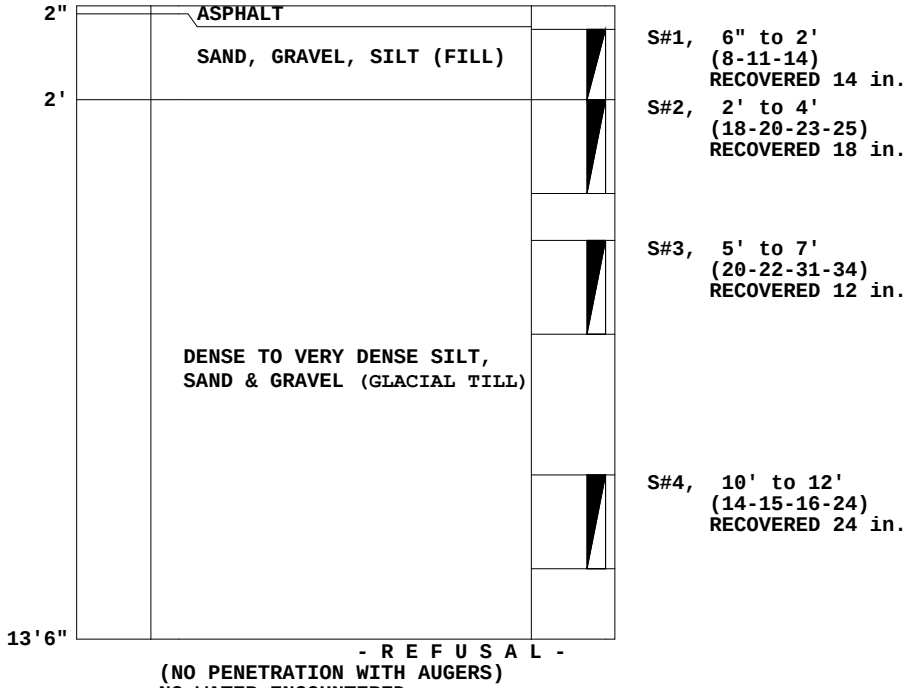
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +147.5

BORING 321



- R E F U S A L -

(NO PENETRATION WITH AUGERS)
NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 13'6"
DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-22-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

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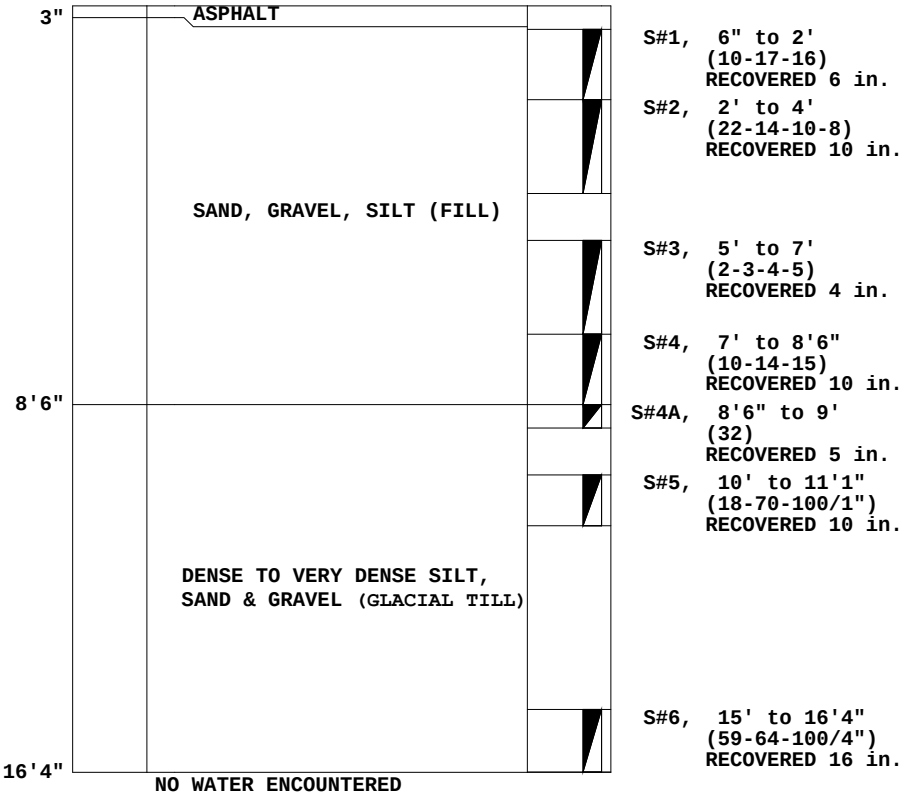
To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 8-29-2018 Job No.: 2019-161

Location: 114 WHITWELL STREET, QUINCY, MA Scale: 1 in.= 4 ft.

GROUND SURFACE +145.6

BORING 322



NO WATER ENCOUNTERED
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 15'0"
DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN
DATE STARTED & COMPLETED: 8-24-2018

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

APPENDIX D:

GROUNDWATER MONITORING REPROTS
PREPARED BY
MCPHAIL ASSOCIATES, LLC

GROUNDWATER MONITORING REPORT

B-305(OW)	**Elevation Subtrahend : +144.1**	**Job No:**	6565.2.01
		Job Name:	Phase I - 114 Whitwell Avenue Quincy, MA

Date	Time	Elapsed Time	Depth (Ft.) of Water from Riser Top	Elevation of Water	Remarks	Read By
8/28/2018	3pm	1 Hour	7.3	+136.8	Initial reading following Installation of Well.	TMC
9/18/2018	3pm	21 Days	6.6	+137.5		TMC

McPHAIL ASSOCIATES, LLC

GROUNDWATER MONITORING REPORT

B-311(OW)	**Elevation Subtrahend : +144.5**	**Job No:**	6565.2.01
		Job Name:	Phase I - 114 Whitwell Avenue Quincy, MA

Date	Time	Elapsed Time	Depth (Ft.) of Water from Riser Top	Elevation of Water	Remarks	Read By
8/28/2018	3pm	10 min.	Not Encountered (N/E)	N/E	Well Dry	TMC
9/18/2018	3pm	21 Days	16.5	+128.0		TMC

McPHAIL ASSOCIATES, LLC

McPHAIL ASSOCIATES, INC.
Geotechnical Engineers

SITE ASSESSMENT SUMMARY

QUINCY CITY HOSPITAL

QUINCY MASSACHUSETTS

12

13

14

1

JUNE 13, 1986

PROJECT NO. 1682

McPHAIL ASSOCIATES, INC.
Geotechnical Engineers

June 13, 1986

Quincy City Hospital
Goulston and Storrs P.C.
400 Atlantic Avenue
Boston, MA 02210

Attention: Mr. H. Edward Abelson

Reference: Quincy City Hospital; Quincy, Massachusetts
Environmental Site Assessment Summary

Gentlemen:

The purpose of this letter report is to document the results of a site and subsurface investigation for the presence of oil and hazardous materials as defined by M.G.L. Ch.21E at the above referenced site. A locus plan is enclosed as Figure 1. The scope of the work included a visual inspection of the site and surrounding property, visual inspection of soil samples obtained from nine (9) soil borings completed at the site, interviews of key hospital personnel, chemical analysis of groundwater samples, and an investigation into the history of the site.

The Quincy City Hospital property is an irregularly shaped parcel containing approximately 20 acres located on the east side of Whitwell Street in a residential area of Quincy, Massachusetts. With the exception of areas occupied by the existing hospital structures, numerous planters and several narrow grass strips, the majority of the hospital property is paved with asphalt paving. The hospital is located at the top of a substantial hill and the existing ground surface slopes significantly downward in all directions.

Our investigation into the site history indicates that the parcel has been utilized for hospital purposes continuously since it was donated to the City of Quincy in 1888. The initial hospital construction period included 1888 and 1889 and the hospital commenced operation in 1890. Prior to 1888, a residential cottage occupied the site.

During November 1984, nine (9) soil borings were completed on the Quincy City Hospital property by Al Shiner Test Boring, Inc. under contract to McPhail Associates, Inc. The locations of these boreholes are indicated on the Subsurface Exploration Plan (Figure 2) and logs of the boreholes are enclosed in the Appendix of this report. These borings indicate that the hospital property is underlain by a relatively thin (varying up to 3 feet in depth) blanket of granular fill resulting from general site regrading. The fill is underlain by a thick stratum of very dense

30 Norfolk Street
Cambridge, Massachusetts 02139
617/868-1420

glacial till which is immediately underlain by bedrock at depths generally in excess of 30 feet below existing ground surface. A visual inspection of the soil samples obtained from these boreholes does not indicate the presence of any foreign or unusual substances in the natural soils.

Due to the relatively steeply sloping topography of the site, it is believed that the stabilized groundwater level is at a considerable depth below existing ground surface. However, the glacial till stratum is relatively impervious, resulting in trapped groundwater within surficial depressions in the surface of the glacial till deposit.

The Quincy Hospital Complex is serviced by municipal water and sewerage services. The facility is included in the Commonweath of Massachusetts Department of Environmental Quality Engineering RCRA Facility File No. MAD 088982517 as a small quantity generator of hazardous materials. Hazardous wastes are removed from the facility by Clean Harbors, Inc. and general hospital waste is removed by GSX Leasing Corporation and deposited in the Quincy City Dump under weekly permits. A recent dumping permit for May 2, 1986 through May 9, 1986, is enclosed. A list of above and below ground storage permits obtained from the Quincy City Clerk's Office is also enclosed.

Underground storage permits on file with the Quincy Fire Department includes a 20,000 gallon and a 10,000 gallon storage tank for No. 6 fuel oil as well as four 500 gallon and one 1000 gallon diesel fuel tanks. The DEQE file contains records of two reported leaks of No. 6 fuel oil on December 27, 1983 and February 22, 1985. Both of these spills were contained and cleaned up by Jet-Line Services, Inc. of Stoughton. Both subsurface releases are understood to have involved approximately 5,000 gallons of fuel oil. Records of the DEQE indicate that the environmental clean up on both occasions met with the approval of the DEQE. The subsequent Oil Leakage Evaluation Report by Goldberg-Zoino & Assoiates, Inc. dated September 1984 with addenda dated December 28, 1984 and April 19, 1985 outlining remedial measures to be taken, has been reviewed and received the approval of the DEQE.

During the Goldberg-Zoino & Associates, Inc. evaluation of the subsurface releases, three (3) groundwater observation wells were installed to monitor groundwater contamination. Results of chemical analyses of groundwater samples obtained from these wells on February 27, 1985 by Goldberg-Zoino & Associates, Inc. are enclosed in their April 19, 1985 Addendum to their original report. Copies of the above referenced report, addenda, and DEQE correspondence, is enclosed.

On May 27, 1986, samples of groundwater were obtained from the three on site observation wells by McPhail Associates, Inc. and analyzed for the presence of oil and grease by GHR Analytical of Lakeville, Massachusetts. The analytical results of

McPHAIL ASSOCIATES, INC.
Geotechnical Engineers

this testing are enclosed and indicate that the presence of oil and grease is less than 5 mg/l, which is the lower detection limit. We have been assured by Goldberg-Zoino & Associates, Inc. and Quincy City Hospital that a two phase oil separator has been installed and that both of the two ruptured tanks have been replaced with new double walled tanks.

Based upon the above, we have concluded that both the December 27, 1983 and the February 22, 1985 releases of No. 6 fuel oil have been contained and cleaned up in a responsible manner in coordination with the DEQE and that these releases no longer represent a threat to the environment.

Based upon our visual examination of the site and representative soil samples from nine (9) soil borings, chemical analyses of three groundwater samples, interviews with several key hospital personnel, and search of the City and State records as described above, we have found no reason to suspect that hazardous materials or oil as defined by MGL Ch.21E are currently present or have a present impact on the site. It should be noted that the results of this site assessment do not preclude the presence of oil or hazardous materials which would require proper removal and disposal in accordance with DEQE requirements; however, the likelihood of such at this time is considered low.

The above observations were made under the conditions stated in this letter. The conclusions presented above were based on these observations. Should additional quantitative data become available in the future, such data should be reviewed by McPhail Associates, Inc. and the conclusions presented herein may be modified.

This study and report have been prepared on behalf of and for the exclusive use of Quincy City Hospital solely for use in an environmental evaluation of the site. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed, to any other party nor used in whole or in part by any other party without prior written consent of McPhail Associates, Inc. However, McPhail Associates, Inc. acknowledges and agrees that this report may be conveyed to Commonwealth Land Title Insurance Company, the Title Insurer, associated with the financing of the project for which McPhail Associates, Inc. has currently been engaged. This report has been prepared in accordance with generally accepted geotechnical practices. No other warranty, expressed or implied, is made.

We trust that this report satisfies your present requirements. Should you have any questions or comments, please do not hesitate to contact us.

Very truly yours,

McPHAIL ASSOCIATES, INC.

Robert C. Hoyler, P.E.

1682 RCH/jmg

WHITWELL DEVELOPMENT

MEP Concept

Project Number: B1809804.000

June 18, 2018

TABLE OF CONTENTS

I. GENERAL PROJECT DESCRIPTION

A. The project is made up of 8 buildings located on a single site with above and below grade parking. The program is primarily residential apartments with supporting amenities and retail. Building summary breakdown as follows:

Building A: 79,008 GSF @ 78 units

Building B: 148,730 GSF @ 135 units

Building C: 149,243 GSF @ 143 units – Retail = 997 SF

Building D: 81,586 GSF @ 79 units

Building E: 69,174 GSF @ 72 units

Rowhouses: 49,287 @ 36 units

Duplexes: 35,940 GSF @ 28 units

Admin: 46,800 @ 12 units – Retail = 4,100 SF

Site Parking: 248,810 GSF

II. HEATING, VENTILATING, AND AIR CONDITIONING

A. DESIGN CRITERIA:

1. The HVAC systems shall be designed in compliance with the Massachusetts State Building Code 9th Edition, 2012 International Mechanical Code.

2. Outside Conditions

   a. Summer – 87 Fdb, 74 Fwb

   b. Winter – 7 Fdb

3. Indoor Design Temperature/Humidity

	Space	Summer	Winter
a.	Apartments Building	75°F/50% RH	70°F, no humidity controls

4. Occupancy

   a. Apartments: Based on the number of bedrooms. First bedroom two persons, each additional bedroom one person.

5. Ventilation (Buildings A-E)

   a. Public areas: Per person/Space – based on IMC 2012 (ASHRAE-62.1).

   b. Unit Ventilation air will be provided by means of mechanical ventilation.

   c. Corridors: shall be provided with adequate air to maintain a positive building pressure relative to the outdoors.

6. Ventilation (Row houses & Duplexes)

   a. Public areas: Per person/Space – based on IMC 2012 (ASHRAE-62.1).

   b. Unit Ventilation air will be provided by means of natural ventilation.

B. HVAC SYSTEM DESCRIPTION:

1. Apartment Buildings

a. Split System DX/HW Heating air handling Units

(1) Apartment units will be heated and cooled by vertical ducted air handling units with DX cooling and hot water heating coils. Vertical air handling units will be in a mechanical closet within each apartment.

(2) Studio apartments, single and two bedroom apartments shall be served by one vertical air handling unit. Three bedroom apartments shall be served by two vertical air handling units

(3) Hot water shall be extended from a combined instantaneous hot water heater provided by the plumbing contractor. Mechanical contractor shall extend piping from this unit with a pump to support the air handling unit hot water coil.

b. Exhaust Systems / ventilation / Duct Distribution

(1) Duplexes and Row houses will be exhausted intermittently from each toilet room. Each toilet room shall be provided with (1) 75 CFM ceiling style exhaust fan/light combination fixture with back-draft damper. Fan shall be started/stopped based local switched control (occupancy sensor) associated with the toilet light fixture. Each exhaust run will be extended directly to the outdoors. Ventilation shall be done by operable windows and natural ventilation. Each dryer shall be exhausted directly to the exterior water to the outdoors

(2) Building A-E shall be constant volume exhaust vertically installed thru each apartment stack and collected at the top and extended to multiple energy recovery units located at the roof. The exhaust shall be used thru the energy recovery to pretreat the outside air for ventilation needs. Ventilation shall be distributed to each unit at a constant volume. Each dryer shall be exhausted directly to the exterior water to the outdoors

(3) Parking garage shall be provided with multiple exhaust fans ducted from the underground parking areas to the outdoors and will be controlled based on CO2.

(4) Building A-E common area toilet rooms, printing areas, janitors' closets, electric rooms and tel/data closets will be constantly exhausted and ducted back to a common energy recovery unit.

(5) All vertical exhaust risers in Buildings A-E shall be collected in the ceiling of the highest occupied level and be ducted back to (2) ERUs. All horizontal ductwork shall be fire wrapped.

(6) With buildings A-E supply air shall be distributed at the highest occupied level of each building.

c. Retail/Mixed Use Spaces

(1) Retail spaces will be fit out in the future by the tenant with respect to heating and cooling.

(2) Retail spaces will be provided with perimeter louver spaces for ventilation/make-up intake and miscellaneous (toilet) exhaust.

(3) Retail spaces will be provided with dedicated riser shaft space for future black-iron grease exhaust and potential commercial dishwasher exhaust.

(4) Temporary shell space heating shall be provided via suspended electric unit heaters. These units are preliminarily sized at 5 kW each.

d. Common Amenity Spaces

(1) Common Amenity Space shall be served by air-cooled split system heat pumps for heating/cooling.

(2) Common Amenity space ventilation shall be through perimeter wall louvers and distributed through the split system fan-coils.

e. Energy Recovery units (Building A-E ventilation)

(1) Each building will be served by (3), 100% outside air gas-fired heating/DX Cooling Rooftop units shall consist of gas-fired heat exchangers, air-cooled DX refrigerant systems Filtration and fans. Each unit shall be provided with a Variable Frequency Drive (VFD) for balancing.

f. Pipe Distribution

(1) Refrigerant piping to all split systems shall be direct connections between fan-coil units and associated condensing units, outlined on the floor/roof plans, with final sizing and routing to be field confirmed and coordinated between contractor and manufacturer. Insulation shall be as per code requirements.

(2) Condensate piping shall collected vertically for disposal as per code via connections to the storm systems. Insulation shall also be as per code.

g. Control System

(1) Apartment units will be controlled through a local 7-day programmable thermostat and be provided with condensate leak detection and alarm. Thermostat shall be installed remotely to the Stand-alone split system fan-coil unit within the apartment unit.

h. Fuel Oil System and Generator Exhaust (Building A-E)

(1) One packaged emergency generator will be provided by the electrical contractor with day tank located on roof. One oil storage tank will be provided at the lowest building level with a duplex fuel oil pump. Double wall piping with leak detection shall extend from tank to pump to generator belly tank located on roof.

(2) Fuel oil Tank/Pump/Storage Room shall be ventilated at roughly 20 ACH via a transfer fan at the lowest level.

(3) Engine exhaust will terminate outside the generator enclosure. Engine exhaust will include a silencer provide by electrical contractor and installed by mechanical contractor.

i. Miscellaneous Space Heating and Cooling

(1) Heating of stairways, vestibules, lobbies, entries, receiving, mechanical room and electric rooms shall be provided by electric propeller heaters or cabinet unit heaters.

(2) All apartments bathrooms located on an outside wall shall be provided with a small recessed electric spot heater.

(3) Two and Three-bedroom Tower units with corner exposure shall be provided with electric strip radiation under isolated windows.

(4) The elevator machine room space temperature shall be cooled to meet the code 55-degree F minimum and 85 degree F maximum temperatures by (1) 3-ton split air conditioning unit.

(5) Electric plenum heaters shall be installed below all occupied areas of the building within a plenum.

(6) Swimming Pool Equipment/chemical storage Room shall be ventilated at roughly 25 ACH, per pool consultant's recommendations, via transfer/make-up and direct exhaust to the outside.

END OF HVAC SECTION

III. FIRE PROTECTION

A. DESIGN CRITERIA:

1. The automatic sprinkler and standpipe systems shall be designed to the following codes and standards:

   a. 2015 International Building Code with Massachusetts State Building Code 9th Edition amendments.

   b. National Fire Protection Association Standards.

      (1) NFPA 13 Installation of Sprinkler Systems
      (2) NFPA 14 Installation of Standpipe and Hose Systems
      (3) NFPA 20 Installation of Centrifugal Fire Pumps
      (4) NFPA 25 Water Based Fire Protection Systems

   c. Owner's Insurance Underwriter.

   d. Local Codes and Ordinances.

      (1) Quincy Fire Department.
      (2) Inspectional Service Department.

2. Light Hazard Occupancy with densities and design areas as required by NFPA 13 or the Owner's Insurance Underwriter.

3. Ordinary Hazard Group 1 Occupancy with densities and design areas as required by NFPA 13 or the Owner's Insurance Underwriter.

4. Ordinary Hazard Group 2 Occupancy with densities and design areas as required by NFPA 13 or the Owner's Insurance Underwriter.

5. If required, fire pumps and combined standpipe systems will be designed to provide adequate pressure for sprinkler protection. A hydrant flow test needs to be performed to evaluate the municipal water supply to properly size pumps.

6. Quick Response "standard spray" sprinklers or residential style will be provided throughout all residential units.

7. Dry pipe sprinkler systems will be provided in all areas subject to freezing.

8. The buildings will be fully sprinklered in accordance with NFPA 13.

9. The system shall be based on head coverage and sprinkler design density per the design Coverage Schedule listed below.

Area	Density GPM/FT^2	Area of Operation	Hose Allowance	Hazard Classification	Standard
Residential Units	0.10	1500	250	Light	NFPA - 13
Parking Garage Areas	0.15	1950	250	Ord. I	NFPA - 13
Office Areas	.10	1500	250	Light	NFPA - 13
Corridors	.10	1500	250	Light	NFPA - 13
Amenity/Leasing Spaces	.10	1500	250	Light	NFPA - 13
Public Toilets	.10	1500	250	Ord. I	NFPA - 13
Mech. Rms.	0.15	1500	250	Ord. I	NFPA - 13
Lobby Areas	0.10	1500	250	Light	NFPA – 13
Loading Dock	.15	2000	250	Ord. I	NFPA – 13

B. FIRE PROTECTION SYSTEM DESCRIPTION:

1. Fire Protection Water Service

   a. New hydrant flow test is required to analyze the water supply and size fire pumps.

   b. A fire protection water service loop will be provided from the municipal water main. Service entrances will enter into the ground floor fire pump rooms.

2. Fire Pump

   a. Horizontal split case or vertical inline fire pumps with solid state, reduced pressure starting in accordance with NFPA 20, to supplement the municipal water supply.

3. Fire Standpipe Distribution Piping

   a. The 6" fire pump discharge/standpipe distribution main will run across the ground floor ceiling area distributing fire protection water to each exit stair combination sprinkler standpipe system.

4. Combined Sprinkler and Standpipe System

   a. Combined fire standpipes will be located in all exit stairs as required by the NFPA Standard 14 and the Building Code.

   b. 2-1/2 inch fire department valves with 2-1/2 by 1-1/2 inch reducer, cap, and chain will be located at each landing.

5. Fire Department Pumper Connections

   a. Fire department connections will be located on each building exterior and will connect to the standpipe distribution piping within each building.

   b. A fire department connection will be required to be within 100 feet of a hydrant on the building exterior or as directed by the Fire Department.

6. Sprinkler Systems

   a. All garage parking levels are subject to freezing and will be provided with a galvanized dry pipe sprinkler systems, fittings and components originating from dry pipe valves located on each floor level adjacent to the exit stairs.

   b. All levels up to and including the Roof will be equipped with automatic sprinklers fed through floor control valve assemblies located on each floor level supplied from combination sprinkler/standpipe risers.

   c. Dry pendent sprinklers heads will be provided on the wet pipe systems where suspended ceilings occur between the area of protection and the heated occupied space above.

   d. All light hazard areas including the elevator lobby, corridors and office spaces will be equipped with quick response automatic sprinklers.

END OF FIRE PROTECTION SECTION

IV. PLUMBING

A. DESIGN CRITERIA:

1. The plumbing systems within the building will conform to the following codes and standards:
   a. Massachusetts State Building Code 9th Edition.
   b. CMR 248 Massachusetts State Fuel Gas and Plumbing Codes
   c. Local Codes and Ordinances
2. The limit of work for all plumbing systems governed by the above codes and standards:
   a. Domestic Water: At the discharge of the meter.
   b. Drainage Systems: 10 feet beyond the inside face of the foundation wall.
   c. Dedicated Systems: 10 feet beyond the exterior sand and gasoline interceptors for parking garages.
3. Domestic Cold Water
   a. The design will provide minimum residual domestic cold water pressures at top most plumbing fixtures as listed below:
      (1) Residential Areas – 40psi
      (2) Amenity Spaces – 35psi
4. Domestic Hot Water
   a. Local instantaneous gas-fired combination domestic hot water and space heating units will be provided in all residential units to provide domestic hot water and heating needs. Water heaters shall be equal to Navien combi-units.
   b. Provide water temperatures to domestic plumbing fixtures between 120ºF and 130ºF as required by the plumbing code.
5. Non-Potable Cold Water
   a. Provide 35 psi of residual pressure at top most outlets.
6. Natural Gas
   a. Provide approximately 8” W.C. at the required flow rate for operation of equipment.

B. PLUMBING SYSTEM DESCRIPTION

1. Site Utilities
   a. A domestic water service will be extended to each building with a utility meter in each building. Domestic cold water will be distributed vertically from the water to each residential unit in the building. Utility meters shall be installed per local codes and standards.
   b. A National Grid gas meter will be provided for each unit. Gas piping will be extended to each unit from the gas meter bank. The intent is for each apartment unit to have its own gas meter. Meter banks will be set-up per building to minimize pipe lengths.

c. A building gas meter will also be provided on Buildings A through E to serve the rooftop unit conditioning of public spaces.

d. Building sewer will exit each building and connect to the municipal sewer mains.

e. Internal garage waste line will exit the building to an exterior gasoline sand and oil trap and then connect to municipal sanitary sewer mains.

f. Storm drainage will be provided for each building and connect to the onsite water management system.

2. Sanitary Drainage

a. Sanitary drainage provisions will discharge and flow by gravity.

b. Sanitary will connect to all residential units.

c. Sanitary risers serving the residential floors and Buildings A - E will be piped using an engineered single stack Sovent system design.

d. A main building vent stack will be provided from each (sanitary) building drain through the roof.

3. Laundry Waste

a. In Buildings A through E, laundry waste risers serving the washing machines will be piped using an engineered Sovent system design independent from the sanitary system. The laundry waste systems will connect to the (sanitary) building drains as the last connection prior to leaving the building.

b. Provide vertical Sovent stacks with 4” aerator fittings at each unit laundry group throughout the floor plates.

c. Laundry waste stack will collect together and manifold as a trunk main prior to connection into the building sanitary system.

4. Interior Garage and Loading Dock Drainage

a. Garage parking level floor drains and loading dock service bay floor drains will be provided. Drainage shall flow by gravity through a Massachusetts approved water/oil separator located at the building exterior.

b. The gasoline, oil and sand separator will have (2) two 4 inch vents piped back into the building and independently run up thru the building to atmosphere.

c. Gas/oil separator discharge will be piped/pumped to the on-site sanitary sewer.

5. Storm Drainage

a. An interior primary roof drainage system will be provided to drain all flat roof areas. Leaders will offset below the roof to pipe chases and drop down through the building.

b. Canopies and exterior overhangs will be piped to the interior drainage system via downspout boots.

c. In addition to the primary roof drains and drainage system, scuppers will be provided under other Sections on all roof area parapet walls.

d. Areaways and promenade drains will be piped to the storm drainage system.

e. Clear water waste stacks will be provided to accommodate mechanical equipment condensate discharge.

6. Domestic Cold Water Systems

a. Provide one base building 4” cement lined ductile iron domestic water service into each building ground floor water service room. A meter and interface unit will be provided by the owner to comply with local utility standards.

b. Exterior wall hydrants will be provided at 100 foot intervals (minimum) around the building.

c. Backflow preventers will be provided to separate potable and unsafe water systems.

d. The potable water system will serve all residential plumbing fixtures.

e. The unsafe water systems will serve make-up water for the mechanical systems and irrigation systems.

7. Cold Water Distribution

a. Cold water will be distributed from the building meter in each building to the vertical risers serving the units. Individual meters will be provided in each unit in the unit branch.

8. Domestic Hot Water Generation Systems

a. Provide a local instantaneous water heater to support both unit domestic hot water and to support space heating. All elements associated with this system shall be of the material for potable water. Basis of design shall be Navien NPE-240A.

b. Plumbing contractor shall provide the intake and exhaust flue for each water heater. Both shall be extended to the roof.

9. Fuel Gas

a. Low pressure LP fuel gas will be provided to the building meter banks by National Grid.

b. Gas meter banks will be installed in garage spaces or located outdoors. Piping will be extended from each unit meter to the apartment unit. Gas shall be distributed within the apartment unit to the water heater and cooktop.

c. The gas meter and gas distribution system will be piped to all base building mechanical, plumbing and amenity equipment requiring gas service from the house meter.

END OF PLUMBING SECTION

V. ELECTRICAL

A. ELECTRICAL SYSTEM DESCRIPTION:

1. Electrical Service

   a. The electric service will be provided from pad mounted switches and pad mounted transformers. Switches and transformers will be provided by National Grid, the servicing electrical utility. All equipment pads and underground ductbanks will be provided by the Owner, constructed to National Grid standards. All primary conductors will be provided by National Grid.

   b. Secondary service from pad mounted transformers to each building will be provided by the Owner.

   c. Buildings A through E will each be provided with a single pad mounted transformer for 120/208V, 3 phase, 4 wire service. Service sizes will be:

      (1) Building A – 2000A
      (2) Building B – 3000A
      (3) Building C – 3000A
      (4) Building D – 3000A
      (5) Building E – 2000A

   d. Row Houses will be provided with two (2) pad mounted transformers to serve each of two (2) buildings. Secondary service will be 120/240V, 1 phase, 3 wires; 4 services at 600A each.

   e. Duplexes will be provided with a single pad mounted transformer. Secondary service will be 120/240V, 1 phase, 3 wires; 5 services at 400A each.

2. Electrical metering

   a. Each apartment unit shall have its own utility electric meter. Meter banks shall be installed centrally and extend to each unit electrical load center. Load centers shall be 125A, 120/208V, or 120/240V, 1 phase, 3 wires.

   b. Each building will be provided with individual meters for house/landlord loads and for retail tenants as applicable.

3. Emergency Power Distribution

   a. Buildings A-E shall be provided with emergency power for life-safety and stand-by equipment. The engine-generator will be approximately 500 kW at 120/208 volt, three phase, four wire and will be located on grade in a weatherproof sound attenuated enclosure.

   b. Automatic transfer switches will be provided to supply life safety, legally required and optional standby loads. ATSs shall be by ASCO or Russelectric.

   c. Emergency panels will be located on the lowest level of each building installed, installed in 2-hour fire rated rooms.

   d. All cables for life safety feeders shall be MI cables or shall be installed in concrete ductbanks.

e. Emergency loads shall include egress lighting, and fire pumps (if installed). Standby loads will include elevators (accessible egress), heat tracing, sump pump, etc.

4. Lighting

a. Lighting will be as selected by the architect.

5. Fire Alarm

a. System will be an analog, addressable, supervised, fire alarm system. System will include:

(1) Manual pull stations.
(2) Heat and smoke detectors.
(3) ADA approved horn/strobe units.
(4) Duct smoke detectors.
(5) Remote indicating devices.
(6) Magnetic door holders.
(7) Elevator recall.
(8) Annunciation of manual and automatic actuating devices.
(9) Zones for flow and tamper switches.
(10) Remote signal via digital dialer to central fire alarm receiving station.
(11) Sounder base system smoke detectors in dwelling units monitored by fire alarm system.
(12) Fire Department Antenna System.
(13) Monitoring of generator.
(14) Monitoring of fire pump, if installed.

b. Operation of manual stations or system detectors will activate audio/visual evacuation signals, shut down air handling units, notify local Fire Department, activate other required systems, and identify location at fire alarm annunciators. Smoke and/or heat detectors will be located in electrical and telephone rooms, elevator machine rooms. Duct smoke detectors will be equipped with remote test stations.

c. Provide CO detectors within each unit connected to the building fire alarm system.

d. Provide a Bi-Directional Amplifier (BDA) for radio communications by first responders.

6. Lightning Protection

a. A UL master labeled lightning protection system will be specified for each building.

7. Power Distribution

a. Each residential unit will be provided with receptacles and circuit breakers as required by Code. All wiring within the residential unit shall be non-metallic sheathed cable (Romex).

B. <u>DESIGN CRITERIA</u>

1. The electrical system will conform to the following codes and standards:

a. Massachusetts Electrical Code.

b. National Fire Protection Association (NFPA)

c. Underwriters Laboratories (UL).

d. Americans with Disabilities Act (ADA).

END OF ELECTRICAL SECTION

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Stormwater Management Report

114 Whitwell Street
Quincy, Massachusetts

Submitted to:

City of Quincy
September 26, 2018

Prepared for:

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1.0 INTRODUCTION

This Stormwater Management Report, prepared in accordance with Massachusetts Department of Environmental Protection (MassDEP) Stormwater Standards, is submitted on behalf of the applicant, FRP Quincy Development LLC. The report summarizes the drainage analysis and Stormwater Management Plan for the proposed residential/retail mixed use development at the former Quincy Medical Center site 114 Whitwell Street in Quincy, Massachusetts. See Figure 1, USGS Locus Map.

The purpose of the Stormwater Management Plan is to provide a comprehensive framework for the long-term protection of natural resources in and around the Site from degradation as a result of stormwater discharges. This is achieved through the use of water quality and quantity control measures designed to decrease the amount of pollutants discharged from the Site and control discharge rates and volumes.

The following sections describe the regulations pertinent to stormwater management and the specific components of the Stormwater Management Plan to be implemented at the Site.

1.1 PRE-DEVELOPMENT CONDITIONS

The former Quincy Medical Center site is 14.97 acres. Of that total area, 11.4 acres fronting on Whitwell Street is developed with several hospital buildings, expansive paved parking areas, site drive and entrances. The other 3.57 acres, undeveloped woodlands at the back northern end of the site, is Glendale Park. The overall 15 acres of property comprises 42.6% Open Space and 57.4% impervious area; however, it is important to note that 75% of the “developed” front portion of the site is impervious buildings and paved areas. The majority of runoff from the roofs and paved areas is currently collected in catch basins and roof drains that discharge directly to the City of Quincy municipal drainage system in either Whitwell Street, Colonial Drive, or Glendale Road. The existing site drainage system is old and outdated; catch basins are not equipped with deep sumps to allow settling of sediment or with hooded outlets to capture floatable oils and greases. There are no Best Management Practices (BMPs) providing water quality treatment measures or promoting stormwater infiltration and groundwater recharge. Essentially, all runoff generated by the hospital site discharges untreated to the municipal drainage system. This site redevelopment project will significantly improve the existing conditions by creating usable, pervious Open Space, utilizing permeable pavement and implementing stormwater quality treatment devices and subsurface infiltration systems.

1.2 POST-DEVELOPMENT CONDITIONS

The primary design intent of the proposed site grading and stormwater management system is to collect, treat and infiltrate runoff from all proposed impervious pavement areas and collect and infiltrate “clean” runoff from landscape and building roof areas. The proposed system consists of deep sump hooded catch basins, drain manholes, HDPE pipe, permeable pavement, fourteen (14) water quality treatment units and six (6) areas with subsurface infiltration chamber systems.

The proposed stormwater system has been designed in accordance with DEP Stormwater Management Standards and the Project falls under the definition of a Redevelopment Project. The Project’s stormwater management design reduces the quantity of and improves the quality of stormwater runoff at the site, and provides significant recharge benefits where none exists today. The landscape design integrates pervious planting, pedestrian friendly open space and courtyard plaza areas using permeable pavers that results in 1.65-acre reduction in impervious areas and a corresponding reduction in runoff generated by the site.

Of the 14.97-acre site area, building roof area is 4.16 acres (27.8%); impervious pavement parking and vehicular drive area is 1.39 acres (9.3%); pedestrian walkway area is 1.40 acre (9.4%); pervious paver area is 0.65 acres (4.3%); and landscape area is 7.37 acres (49.2%). The total Open Space area for the site is 9.42 acres (63%) comprising gardens and landscape areas, swimming pools, walks, terraces and parkland as defined in Section 10.0 of the Quincy Zoning Ordinances. Runoff from essentially 100% of the pavement areas will be treated by one of fourteen (14) water quality devices prior to discharge to one of six (6) subsurface infiltration/recharge systems. Runoff from 95% of the total building roof areas is collected by roof drains and discharged to one of the subsurface recharge areas as well. Most of the site's landscaped and pedestrian areas will also go through the same stormwater treatment train and are infiltrated. The small areas of pedestrian walkway and landscaping with runoff not captured by the proposed on-site drainage system are along some of the campus perimeter.

1.3 GROUND COVER

The overall hydrologic study area for the proposed site is 14.97 acres. Table 1, below, summarizes the ground cover distribution for the hydrologic study area for pre- and post-conditions. There is a decrease of approximately 1.65 acres in impervious area under the post-development conditions.

Table 1 Ground Cover Distribution

Ground Cover Type	Pre-Development Conditions (acres)	Post-Development Conditions (acres)
Impervious Pavement	6.21	2.79
Impervious Roof	2.39	4.16
Pervious Areas	6.37	8.02
Total	14.97	14.97

2.0 STORMWATER MANAGEMENT

2.1 METHOD OF CALCULATIONS

The hydrologic model created to analyze the hydrology of the site was developed using the Soil Conservation Service (SCS) Technical Release No. 20 (SCS unit hydrograph procedures) and SCS Technical Release No. 55 (for Times of Concentration and Runoff Curve Numbers). The stormwater facilities were modeled using the Simultaneous Routing Method.

The hydrologic model was created and calculated with HydroCAD, Version 10.0 software, developed by Applied Microcomputer Systems. The runoff from the sub-drainage areas (HydroCAD subcatchments) is calculated based on rainfall and the watershed characteristics, and a runoff hydrograph (a runoff rate versus time curve) is developed. The stage-storage-discharge curve for a specific detention area (i.e., an infiltration basin) is used to compute an outflow hydrograph by hydraulically routing an inflow hydrograph through the detention facilities. This procedure calculates the relationship of the inflow hydrograph with the characteristics of the detention basin systems to determine the outflow, stage, and storage capacity of the detention systems for a given time during the specified storm event.

The existing watershed boundaries for the site were determined based on the topography of the site which was obtained through an on-the-ground survey performed by Precision Land Surveying, Inc.

2.2 RAINFALL DEPTHS

In accordance with the Massachusetts Department of Environmental Protection Stormwater Management Guidelines, the 2, 10, 25, and 100-year storm events were analyzed. Type III 24-hour storms were used for the stormwater runoff calculations. The following are the rainfall depths used for each storm event.

The rainfall amounts summarized in Table 2 are based on review of the precipitation values for Massachusetts contained in the Massachusetts Supplement for the TR-55 Hydrology Procedure (210-EFM, Amend. MA April 1990), Technical Publication, TP-40.

Table 2 Rainfall Depths

Storm Event	24-Hour Rainfall Depth (inches)
2-year	3.2
10-year	4.7
25-year	5.5
100-year	6.7

2.3 SOIL CONDITIONS

Natural Resources Conservation Service (NRCS) Norfolk and Suffolk Counties Soil Survey indicates that soils onsite consist of the following Hydrologic Soil Groups (HSG):

- 325B – Newport Silt Loam, 3-8% slopes, HSG B
- 325C - Newport Silt Loam, 8-15% slopes, HSG B
- 602 – Urban Land complex, 3-15% slopes
- 627C – Newport Urban Land complex, 3-15% slopes, HSG B

Urban land consists of areas where 75 percent or more of the land is covered with impervious surfaces, such as buildings, pavement, industrial parks, and railroad yards. Urban land, by definition, does not have a designated HSG; however, for the purposes of the stormwater calculations HSG B is used which is based on the surrounding parent soil conditions.

2.4 PROPOSED STORMWATER MANAGEMENT

The proposed Project incorporates a stormwater management system that meets the guidelines in the 2008 MassDEP Stormwater Management Policy. Stormwater quality and quantity on the Site will be managed by implementing a series of best management practices (BMPs) that will include deep sump/hooded catch basins, water quality devices, and subsurface infiltration basins. The proposed BMPs are anticipated to remove a minimum 80 percent of total suspended solids from stormwater runoff, maintain the peak flow rates of stormwater runoff, and maintain the recharge rates to groundwater to the maximum extent practicable, as described in the MassDEP Stormwater Standards section of this report.

2.4.1 Site Hydraulics

The proposed drain pipe network is composed of catch basins, area drains, water quality inlets and manholes that will collect runoff from the roadway, parking, building rooftop and landscaped areas within the proposed development and discharge to subsurface infiltration chambers.

The proposed storm drainage collection system has been designed for a 25-year storm frequency utilizing the Rational Method. StormCAD© was used to perform the hydraulic analysis for the storm drainage system (refer to Appendix F for the StormCAD© Report).

The following criteria were used to design the pipe network:

- Pipes shall be sized to convey the 25-year storm event.
- All drainage pipes shall be high density polyethylene (HDPE) with minimum cover of 2 feet.
- Rainfall intensity of 6.0 inches per hour for a 5-minute duration for the 25-year storm frequency.
- Manning's coefficient (n) of 0.012 for HDPE.
- Manholes shall be provided at all changes in direction or changes in pipe size.

3.0 DEP STORMWATER STANDARDS

The purpose of the Stormwater Management Plan is to provide a comprehensive framework for the long-term protection of natural resources in and around the Site from degradation as a result of stormwater discharges. This is achieved through the use of a variety of water quality and quantity control measures designed to decrease the amount of pollutants discharged from the Site and control discharge rates and volumes.

The following sections describe the regulations pertinent to stormwater management and the specific components of the Stormwater Management Plan to be implemented at the Site.

The ten standards contained in the MassDEP Stormwater Management policy relate to the protection of wetlands and water bodies, control of water quantity, recharge to groundwater, water quality and protection of critical areas, erosion/sedimentation control and stormwater maintenance. The following summarizes the Project's compliance with the Stormwater Management Standards.

3.1 STANDARD NO. 1 – UNTREATED STORMWATER

Standard 1 requires that no new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth. No new stormwater conveyances or discharges are proposed for this Project. The Project will treat all stormwater runoff from the site where none exist today.

3.2 STANDARD NO. 2 – POST-DEVELOPMENT PEAK DISCHARGE RATES

Standard 2 requires stormwater management systems to be designed so that the post-development peak discharge rates do not exceed pre-development peak discharge rates. This Standard may be waived for discharges to land subject to coastal storm flowage as defined in 310 CMR 10.04 and for redevelopment projects this standard must be met only to the maximum extent practicable.

In order to determine the peak rate of discharge for existing and proposed conditions, runoff hydrographs were generated for the storm events using the SCS TR-20 Method (refer to Appendix B for HydroCAD® Report). Under the proposed conditions, the post-development runoff hydrographs were routed through the proposed drainage system and into the proposed stormwater management system.

The following table summarizes the pre- and post-development peak runoff discharge rates determined in the hydrologic/hydraulic analyses performed for the Project site.

Table 3 Comparison of Peak Runoff Rates

Point of Analysis	2-Year Storm Event (cfs)			10-Year Storm Event (cfs)			25-Year Storm Event (cfs)			100-Year Storm Event (cfs)		
	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ
1R	15.98	3.04	-12.94	25.88	10.03	-15.85	31.13	15.33	-15.80	38.96	25.50	-13.46
2R	4.43	0.57	-3.86	7.07	3.31	-3.76	8.47	7.21	-1.26	10.55	10.13	-0.42
3R	7.91	0.89	-7.02	12.31	8.70	-3.61	14.63	13.15	-1.48	18.09	17.64	-0.45
4R	1.96	1.35	-0.61	5.77	4.79	-0.98	8.15	7.00	-1.15	12.02	10.65	-1.37

* cfs = cubic feet per second

As shown in Table 3, proposed peak runoff rates for the Project are less than existing conditions for each storm event. The proposed site development will not increase the runoff to the existing drainage collection systems located within Whitwell Street, Colonial Drive, and Glendale Road or adjacent properties.

3.3 STANDARD NO. 3 - RECHARGE TO GROUNDWATER

Standard No. 3 requires that the loss of annual recharge to groundwater be eliminated or minimized through the use of environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance. At a minimum, the annual recharge from the post- development site shall approximate the annual recharge from pre-development conditions based on soil type. This Standard is met when the stormwater management system is designed to infiltrate the required recharge volume as determined in accordance with the Massachusetts Stormwater Handbook.

Although redevelopment projects only need to meet Standard No. 3 to the maximum extent practicable, it should be noted that there will be no loss of annual recharge to groundwater since the project results in a net reduction of impervious surface. That said, the Project has been designed with six (6) areas of subsurface infiltration/recharge systems to provide a total recharge volume that exceeds 0.35 inch of precipitation runoff times the total impervious area of the post-development Project site. Refer to Appendix C for Groundwater Recharge Calculations.

3.4 STANDARD NO. 4 - TSS REMOVAL

Standard 4 requires that stormwater management systems for new construction projects be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). Depending on whether or not the site's stormwater discharge is from a land use with a higher potential pollutant load, within an area with a rapid infiltration rate, a Zone II or Wellhead Protection Area or to an environmentally-sensitive critical area, the required water quality volume equals 1.0 inch or 0.5 inches of rainfall times the total impervious area of the post-development site. Standard 4 also requires that the development and

implementation of suitable practices for source control and pollution prevention be identified in a long-term pollution prevention plan.

Although redevelopment projects are not necessarily required to achieve 80% removal of TSS (i.e., only to the maximum extent practicable), the incorporation of the following stormwater best management practices (BMPs) will achieve a cumulative TSS removal rate greater than 80% for 1.0 inch of rainfall times the total impervious area of the post-development site. Refer to Appendix D for Water Quality Calculations and a copy of the Long-Term Pollution Prevention Plan.

3.4.1 Deep Sump/Hooded Catch Basins

All proposed catch basins except the four (4) catch basins located within the footprint of the garage will be deep sump/hooded catch basins, which will serve to trap sediment and floatables. All proposed catch basins discharge to water quality units before entering subsurface infiltration basins or the municipal drainage system. Sumps will be four-feet deep. Catch basins will be inspected twice a year and, if necessary, cleaned when sediment reaches half full depth to ensure that the catch basins are working in their intended fashion and that they are free of debris. Sediments and hydrocarbons shall be properly handled and disposed of, in accordance with local, state, and federal requirements. In accordance with MassDEP Standards a 25% TSS removal rate is credited for this BMP.

3.4.2 Water Quality Units

The stormwater management system incorporates CDS® Hydrodynamic Separators and VortSentry® HS units prior to discharging into the subsurface recharge chambers or off-site. All units have been sized to treat the water quality flow rate derived from the first 1.0 inch of rainfall and will achieve TSS removal rates in excess of 80%.

3.4.3 Subsurface Infiltration Basin

The stormwater management system includes six (6) subsurface infiltration basins to treat runoff prior to discharging into the existing drainage collection system. The infiltration basins consist of a series of chambers surrounded with drain rock and filter fabric. Runoff from paved areas is directed through deep sump/hooded catch basins and water quality treatment units prior to discharging into the infiltration basin. In accordance with MassDEP Standards an 80% TSS removal rate is credited for this BMP.

3.5 STANDARD NO. 5 - HIGHER POTENTIAL POLLUTANT LOADS

Standard 5 requires that source control and pollution prevention be implemented to eliminate or reduce the discharge of stormwater runoff from land uses with higher potential pollutant loads (LUHPPL) to the maximum extent practicable. If, through source control and/or pollution prevention, all LUHPPL cannot be completely protected from exposure to rain, snow, snow melt and stormwater runoff, then specific structural BMPs as outlined in the MassDEP Stormwater Handbook are suitable for such uses.

Like all stormwater discharges, stormwater discharges from LUHPPL require the use of a treatment train that provides 80% TSS removal prior to discharge. This treatment train shall provide for at least 44% TSS removal prior to discharge to the infiltration BMP and shall also be designed to treat 1.0 inch of rainfall times the total impervious area at the post-development site.

Standard 5 is applicable to the Project as it relates to "parking lots with high-intensity-uses (1,000 vehicle trips per day or more). The Project's stormwater management system is designed with BMPs listed in Table LUHPPL, providing the required pre-treatment and infiltration measures to adequately address Standard 5.

3.6 STANDARD NO. 6 - PROTECTION OF CRITICAL AREAS

Standard 6 requires stormwater discharges within a Zone II or Interim Wellhead Protection Area of a public water supply and stormwater discharges near or to any other critical area require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by MassDEP to be suitable for managing discharges to such areas.

Standard 6 is not applicable to the Project. The project site is not located within a Zone II or interim Wellhead Protection Area of a public water supply, nor is it located within or near a critical area.

3.7 STANDARD NO. 7 - REDEVELOPMENT PROJECTS

Standard 7 requires redevelopment projects to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural stormwater best management practice requirements of Standards 4, 5, and 6. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.

Redevelopment projects include development, rehabilitation, expansion and phased projects on previously developed sites, provided the redevelopment results in no net increase in impervious area. The Project results in a net reduction of impervious surface of approximately 1.65 acres and as such, qualifies as a redevelopment project. The Project's stormwater management system has been designed to provide stormwater runoff treatment to improve runoff quality and infiltration to significantly decrease runoff quantity compared to the existing condition.

3.8 STANDARD NO. 8 - EROSION/SEDIMENT CONTROL

Standard 8 requires a plan to control construction-related impacts, including erosion, sedimentation, and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.

The Project will result in the disturbance of greater than one (1) acre of land and discharges to a Water of the U.S. and therefore requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the EPA NPDES General Permit for Discharges from Construction Activities, effective date February 16, 2017. A SWPPP has not been included in the Stormwater Report but will be submitted before land disturbance begins.

The SWPPP will be prepared describing the specific practices, installation methods and inspection requirements for temporary and permanent erosion prevention and sediment control practices. The SWPPP will follow the template developed by the U.S. EPA and filed with the Conservation Commission. At a minimum, the SWPPP will include the following measures:

- Minimize the extent and time of exposed soils;
- Provide perimeter sediment control including silt fence and/or compost filter tubes;
- Provide catch basin inlet protection including geotextile filter fabric and gravel drop;

- Minimize sediment track out with stabilized construction exits;
- Dedicated concrete washout areas;
- Control discharges from soil stockpiles include temporary erosion control measures and perimeter sediment controls;
- Minimize dust and soil compaction;
- Temporary stormwater management practices including basins, traps and swales;
- Dewatering requirements;
- Temporary and permanent stabilization requirements, including seeding, mulching and matting;
- Good housekeeping pollution prevention measures;
- Maintenance requirements; and
- Inspection, recordkeeping, and reporting requirements.

The Project's SWPPP will be submitted as part of the Building Permit application and before land disturbance begins.

3.9 STANDARD NO. 9 – OPERATION AND MAINTENANCE PLAN

Standard 9 requires a Long -Term Operation and Maintenance (O&M) Plan be developed and implemented to ensure that stormwater management systems function as designed. The Operation and Maintenance Plan also identifies best management practices for implementing maintenance activities in a manner that minimizes impacts to wetland resource areas.

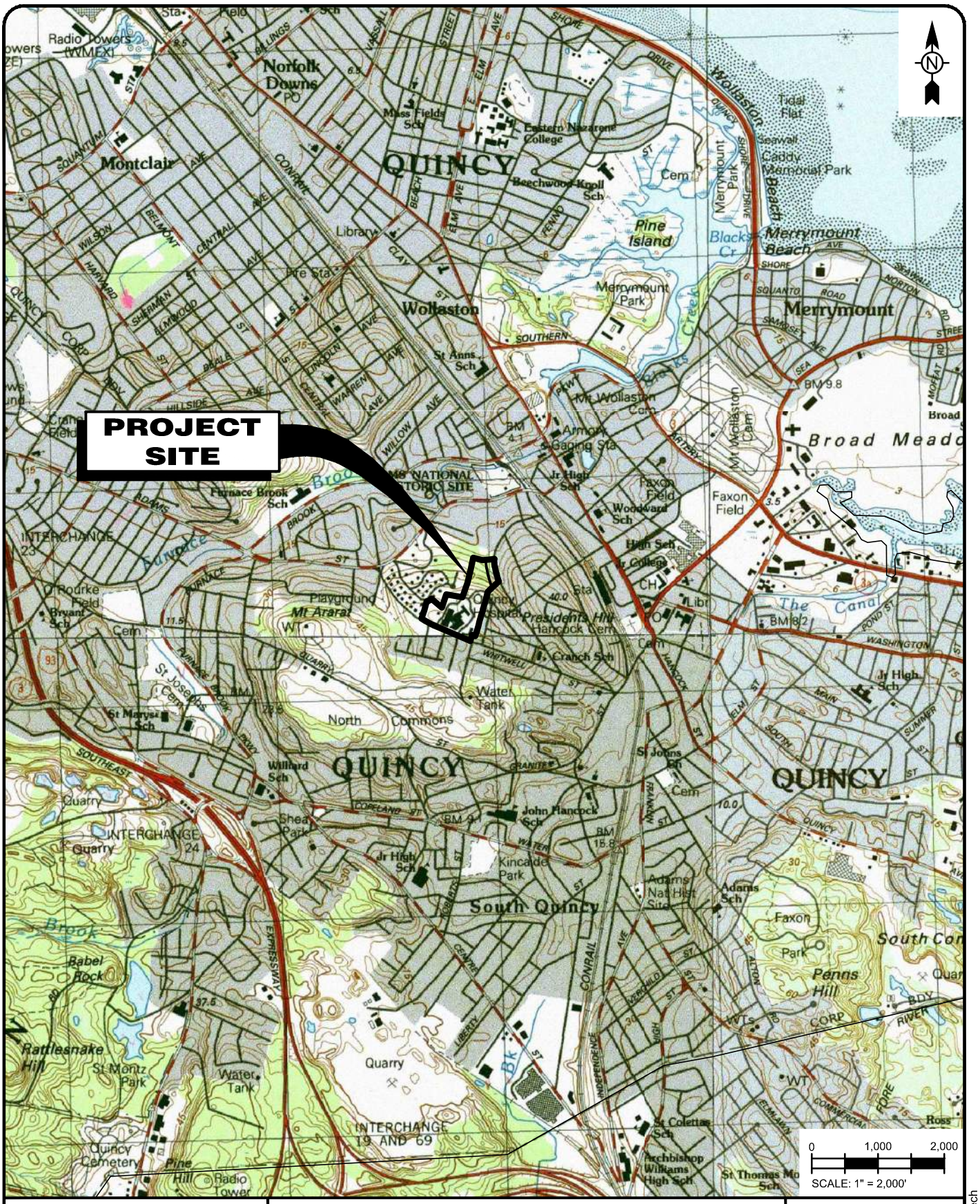
Refer to Appendix E for the Project's Operation and Maintenance Plan.

3.10 STANDARD NO. 10 - ILLICIT DISCHARGE

Standard 10 prohibits all illicit discharges to the stormwater management system. Illicit discharges to the stormwater management system are discharges that are not entirely comprised of stormwater. To the best of the owner's and engineer's knowledge, no illicit discharges exist on Site and no illicit discharges will be incorporated as part of the proposed redevelopment Project into the proposed stormwater management system.

4.0 CONCLUSION

The proposed stormwater management system addresses both the quantity and quality of stormwater runoff from the Site and conforms to the ten (10) standards outlined by the Massachusetts Department of Environmental Protection Stormwater Policy. The proposed improvements result in a reduction in peak runoff rates and volumes for all stormwater design events. Water quality is improved with the implementation of water quality treatment units and infiltration.



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www.tetratech.com

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Marlborough, MA 01752
Phone: (508) 786-2200 Fax: (508) 786-2201

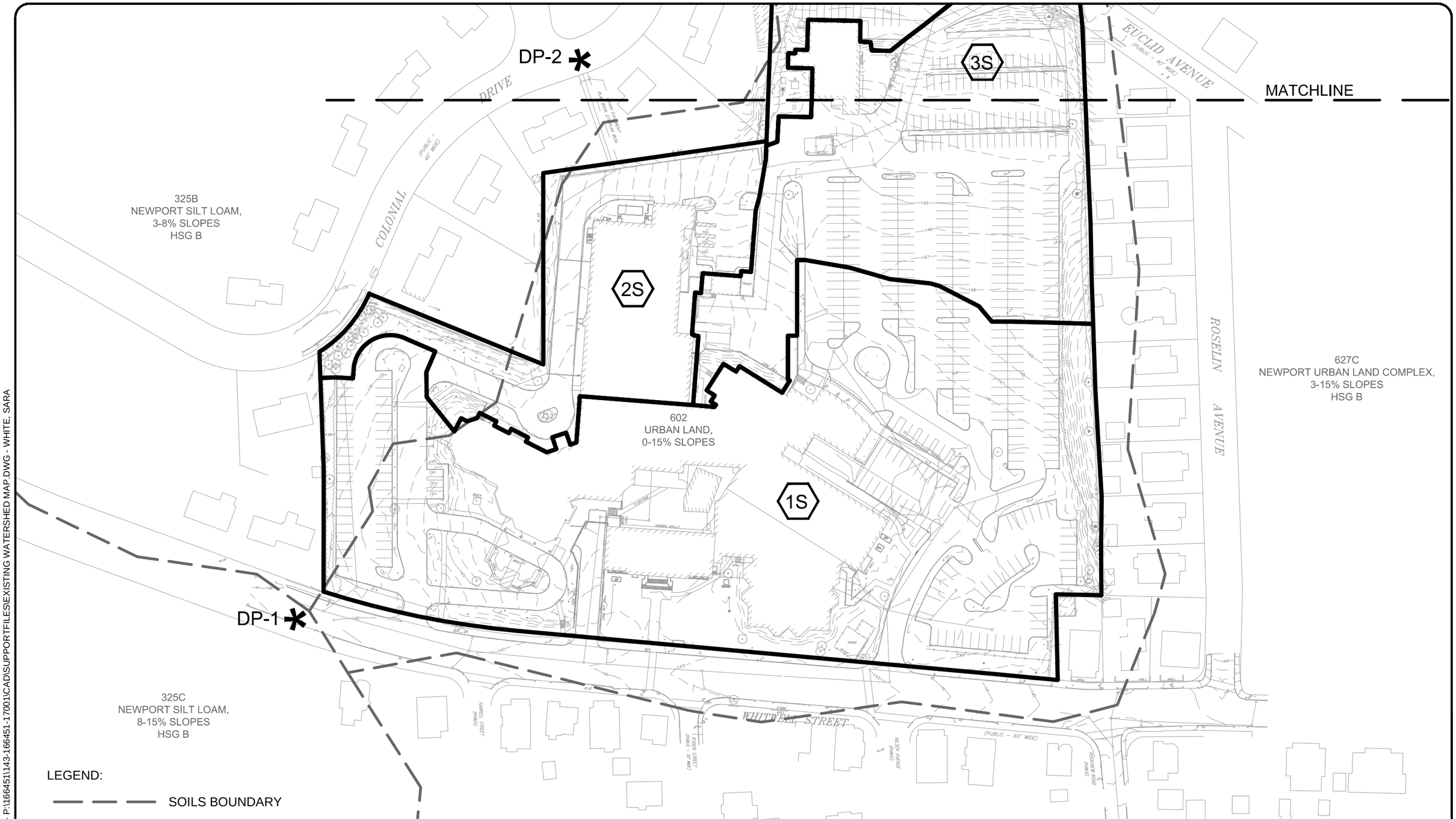
FRP Quincy Development LLC

114 Whitwell Street
Quincy, Massachusetts

USGS Locus Map

Project No.:	143-166451-17001
Date:	September 26, 2018
Designed By:	SJW
Figure	1

Bar Measures 1 inch



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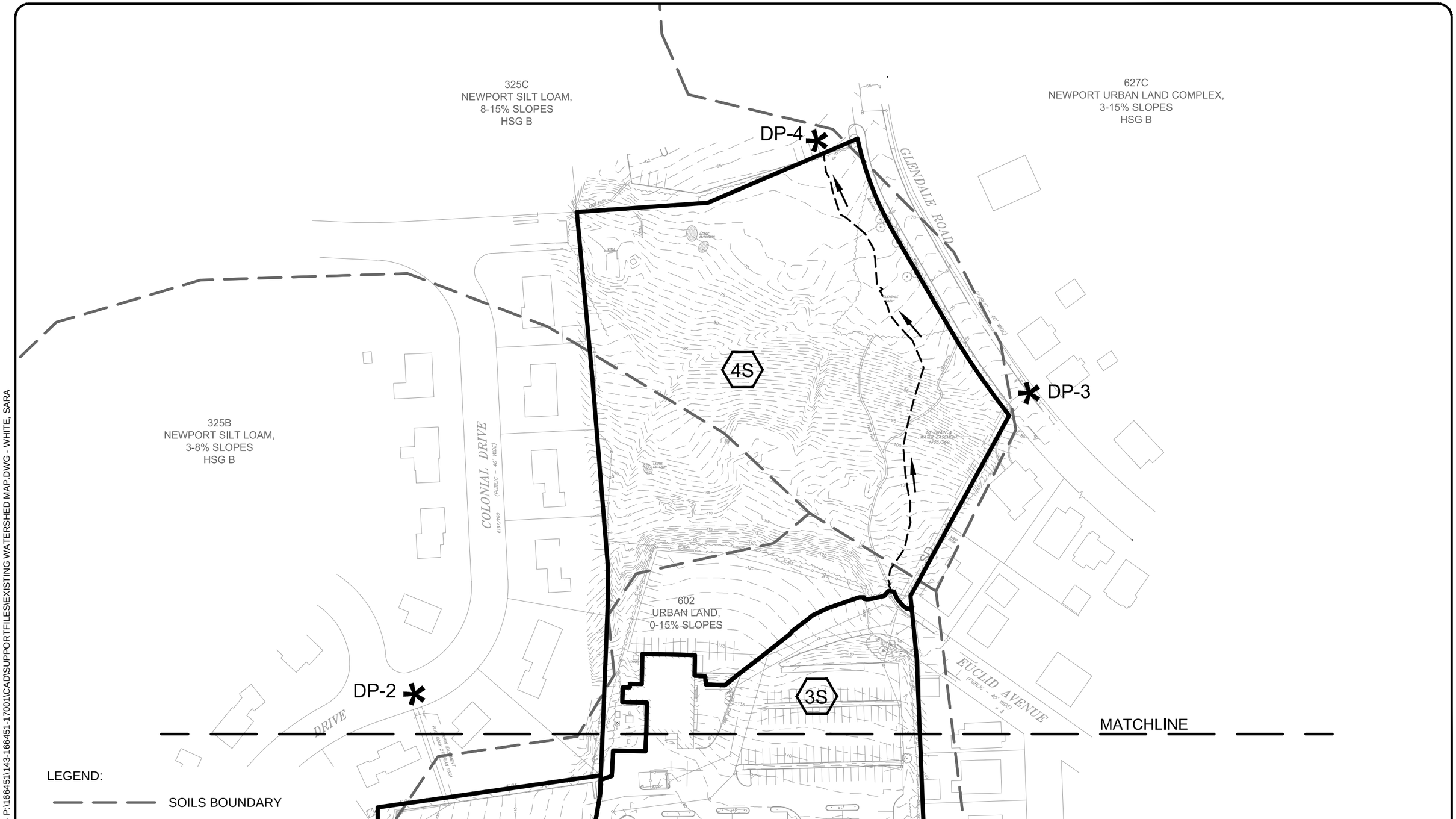
Quincy, Massachusetts

Pre Development Watershed Map

Project No.:	143-166451-17001
Date:	September 26, 2018
Designed By:	SJW
Figure	2a

Bar Measures 1 inch



LEGEND:

- SOILS BOUNDARY
- SUBCATCHMENT BOUNDARY
- Tc FLOW PATH
- * DESIGN POINT

0 50' 100' 200'

SCALE: 1"=100'

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Pre Development Watershed Map

Project No.: 143-166451-17001
Date: September 26, 2018
Designed By: SJW

Figure
2b

Bar Measures 1 inch

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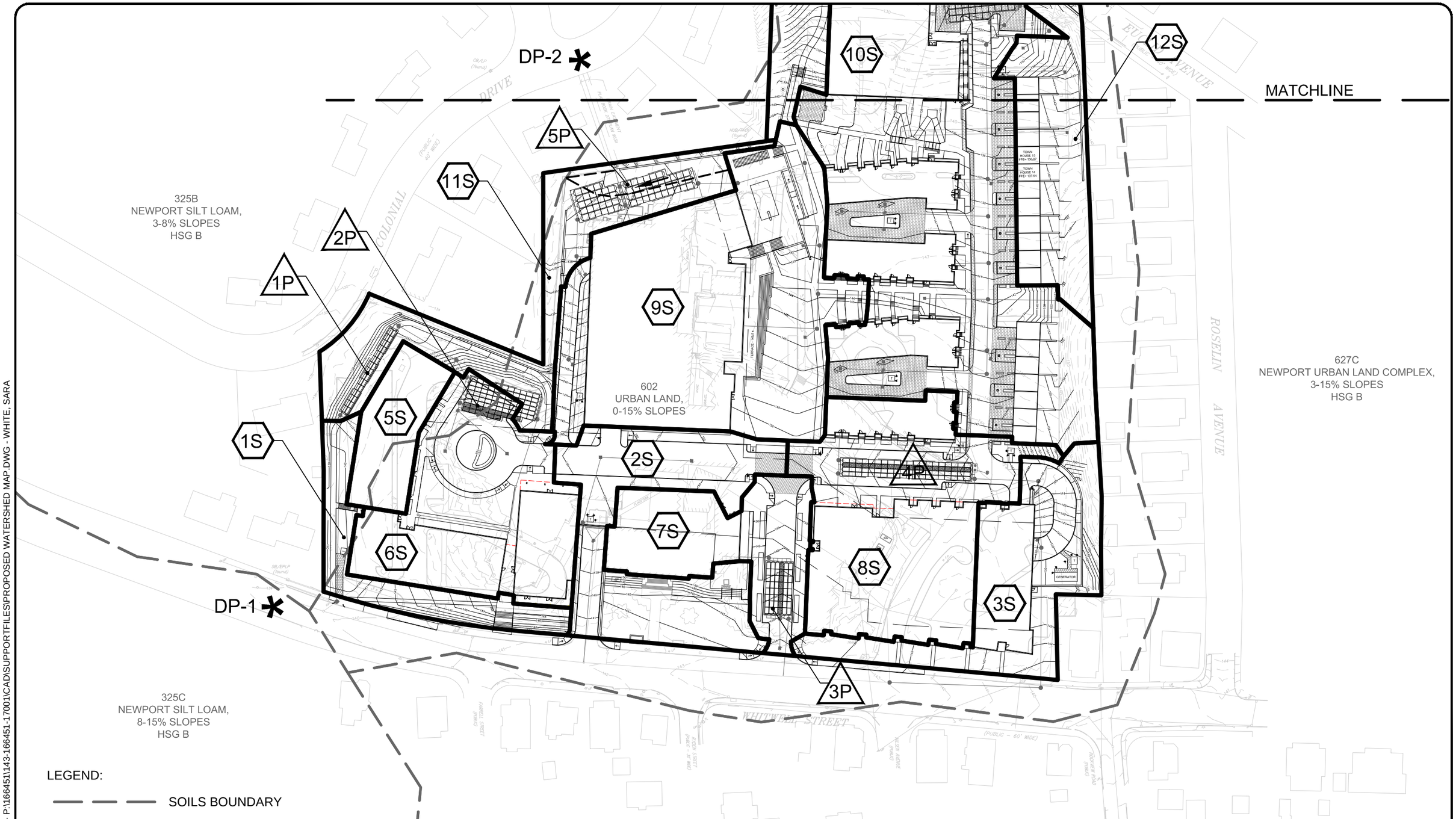

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114 Whitwell Street
Quincy, Massachusetts

Post Development Watershed Map

Project No.: 143-166451-17001
Date: September 26, 2018
Designed By: SJW

Figure
3a

Bar Measures 1 inch

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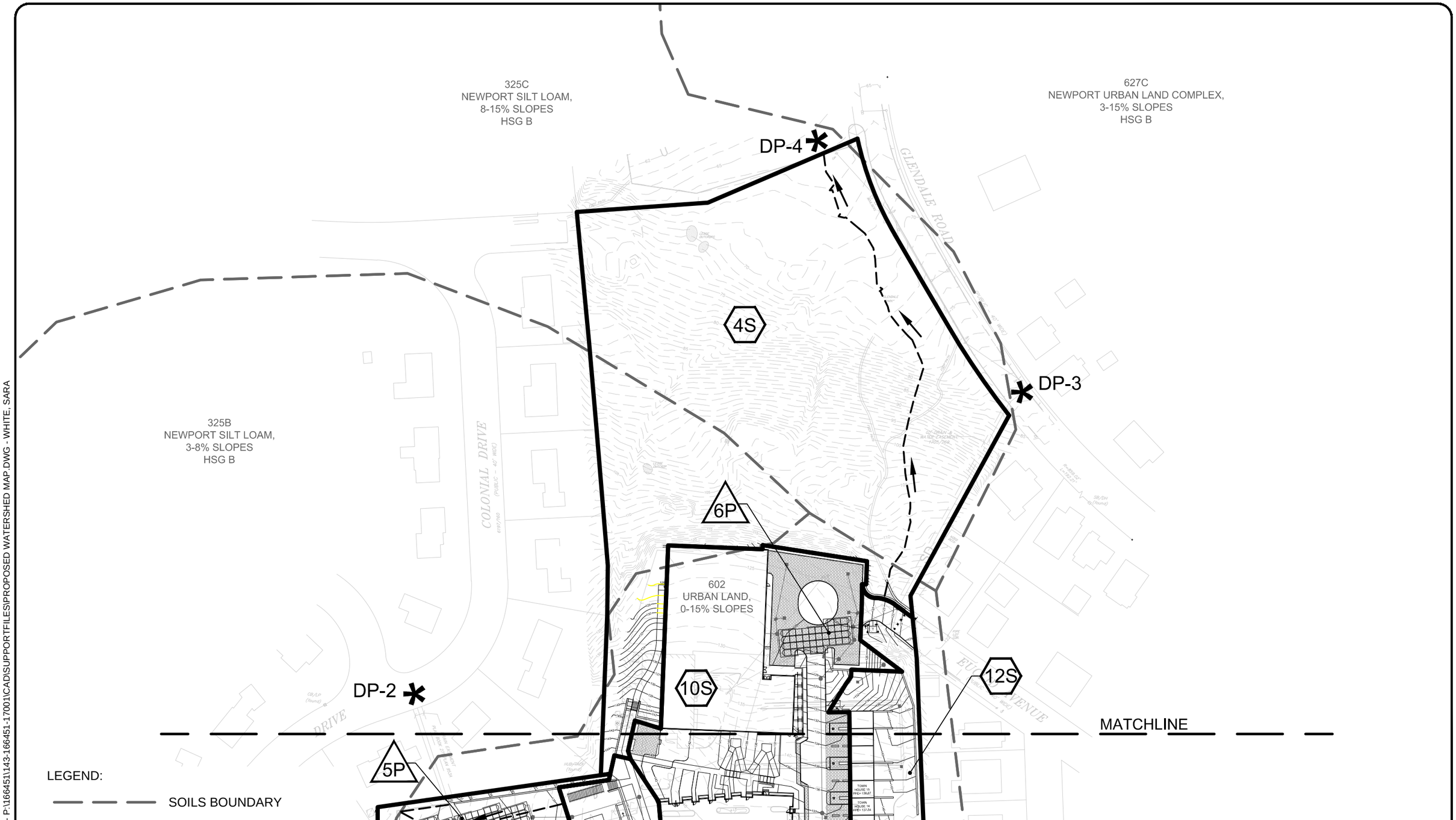

LEGEND:

- SOILS BOUNDARY
- SUBCATCHMENT BOUNDARY
- Tc FLOW PATH
- * DESIGN POINT

0 50' 100' 200'

SCALE: 1"=100'

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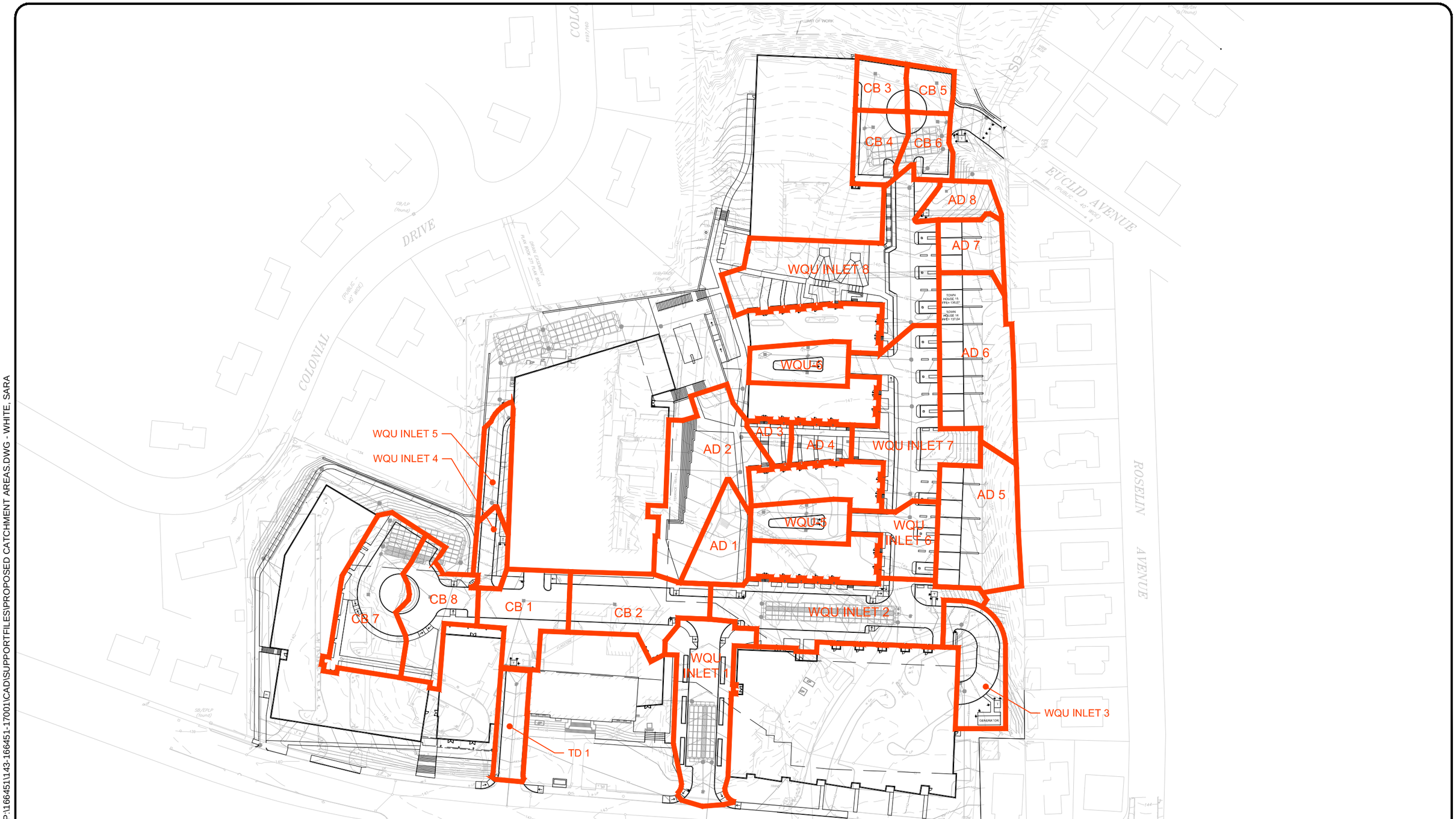
Quincy, Massachusetts

Post Development Watershed Map

Project No.:	143-166451-17001
Date:	September 26, 2018
Designed By:	SJW
Figure	3b

Bar Measures 1 inch



0 50' 100' 200'

SCALE: 1"=100'

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Quincy, Massachusetts

Post-Development Catchment Areas

Project No.: 143-166451-17001
Date: September 26, 2018
Designed By: SJW

Figure
4

Bar Measures 1 inch

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Appendix A

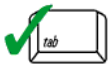
MassDEP Checklist for Stormwater Report

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

A. Introduction

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the Massachusetts Stormwater Handbook. The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.[1] This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8[2]
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

[1] The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

[2] For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

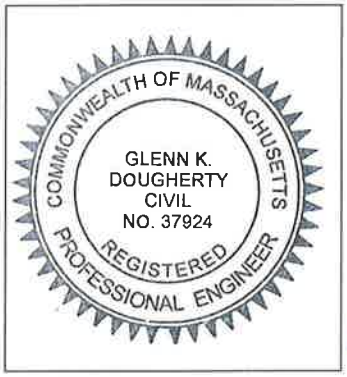
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature



Signature and Date

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

☐ New development

☒ Redevelopment

☐ Mix of New Development and Redevelopment

Checklist for Stormwater Report

Checklist (continued)

LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- ☐ No disturbance to any Wetland Resource Areas
- ☐ Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- ☒ Reduced Impervious Area (Redevelopment Only)
- ☐ Minimizing disturbance to existing trees and shrubs
- ☐ LID Site Design Credit Requested:
  - ☐ Credit 1
  - ☐ Credit 2
  - ☐ Credit 3
- ☐ Use of "country drainage" versus curb and gutter conveyance and pipe
- ☐ Bioretention Cells (includes Rain Gardens)
- ☐ Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- ☐ Treebox Filter
- ☐ Water Quality Swale
- ☐ Grass Channel
- ☐ Green Roof
- ☐ Other (describe): _____

Standard 1: No New Untreated Discharges

- ☒ No new untreated discharges
- ☐ Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- ☐ Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.

Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

☐ Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.

☐ Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.

☒ Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge

☐ Soil Analysis provided.

☒ Required Recharge Volume calculation provided.

☐ Required Recharge volume reduced through use of the LID site Design Credits.

☒ Sizing the infiltration, BMPs is based on the following method: Check the method used.

☒ Static ☐ Simple Dynamic ☐ Dynamic Field[1]

☐ Runoff from all impervious areas at the site discharging to the infiltration BMP.

☒ Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.

☒ Recharge BMPs have been sized to infiltrate the Required Recharge Volume.

☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:

- ☐ Site is comprised solely of C and D soils and/or bedrock at the land surface
- ☐ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
- ☐ Solid Waste Landfill pursuant to 310 CMR 19.000
- ☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.

☒ Calculations showing that the infiltration BMPs will drain in 72 hours are provided.

☐ Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

[1] 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.

Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

☐ The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.

☐ Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
- Provisions for storing materials and waste products inside or under cover;
- Vehicle washing controls;
- Requirements for routine inspections and maintenance of stormwater BMPs;
- Spill prevention and response plans;
- Provisions for maintenance of lawns, gardens, and other landscaped areas;
- Requirements for storage and use of fertilizers, herbicides, and pesticides;
- Pet waste management provisions;
- Provisions for operation and management of septic systems;
- Provisions for solid waste management;
- Snow disposal and plowing plans relative to Wetland Resource Areas;
- Winter Road Salt and/or Sand Use and Storage restrictions;
- Street sweeping schedules;
- Provisions for prevention of illicit discharges to the stormwater management system;
- Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
- Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
- List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.

☒ A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.

☒ Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:

- ☐ is within the Zone II or Interim Wellhead Protection Area
- ☐ is near or to other critical areas
- ☐ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
- ☐ involves runoff from land uses with higher potential pollutant loads.

☐ The Required Water Quality Volume is reduced through use of the LID site Design Credits.

☒ Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.

Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

☒ The BMP is sized (and calculations provided) based on:

- ☒ The ½" or 1" Water Quality Volume or
- ☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.

☐ The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.

☐ A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)

☐ The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.

☐ The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted ***prior to*** the discharge of stormwater to the post-construction stormwater BMPs.

☐ The NPDES Multi-Sector General Permit does ***not*** cover the land use.

☐ LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.

☐ All exposure has been eliminated.

☐ All exposure has ***not*** been eliminated and all BMPs selected are on MassDEP LUHPPL list.

☒ The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas N/A, The project site is not located within a critical area.

☐ The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.

☐ Critical areas and BMPs are identified in the Stormwater Report.

Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

☒ The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:

- ☐ Limited Project
- ☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
- ☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
- ☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
- ☐ Bike Path and/or Foot Path
- ☒ Redevelopment Project
- ☐ Redevelopment portion of mix of new and redevelopment.

☐ Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.

☐ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
- Construction Period Operation and Maintenance Plan;
- Names of Persons or Entity Responsible for Plan Compliance;
- Construction Period Pollution Prevention Measures;
- Erosion and Sedimentation Control Plan Drawings;
- Detail drawings and specifications for erosion control BMPs, including sizing calculations;
- Vegetation Planning;
- Site Development Plan;
- Construction Sequencing Plan;
- Sequencing of Erosion and Sedimentation Controls;
- Operation and Maintenance of Erosion and Sedimentation Controls;
- Inspection Schedule;
- Maintenance Schedule;
- Inspection and Maintenance Log Form.

☐ A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.

Checklist for Stormwater Report

Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

☐ The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has ***not*** been included in the Stormwater Report but will be submitted ***before*** land disturbance begins.

☐ The project is ***not*** covered by a NPDES Construction General Permit.

☐ The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.

☒ The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

☒ The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:

- ☒ Name of the stormwater management system owners;
- ☒ Party responsible for operation and maintenance;
- ☒ Schedule for implementation of routine and non-routine maintenance tasks;
- ☒ Plan showing the location of all stormwater BMPs maintenance access areas;
- ☒ Description and delineation of public safety features;
- ☒ Estimated operation and maintenance budget; and
- ☒ Operation and Maintenance Log Form.

☐ The responsible party is ***not*** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:

- ☐ A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
- ☐ A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

☒ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;

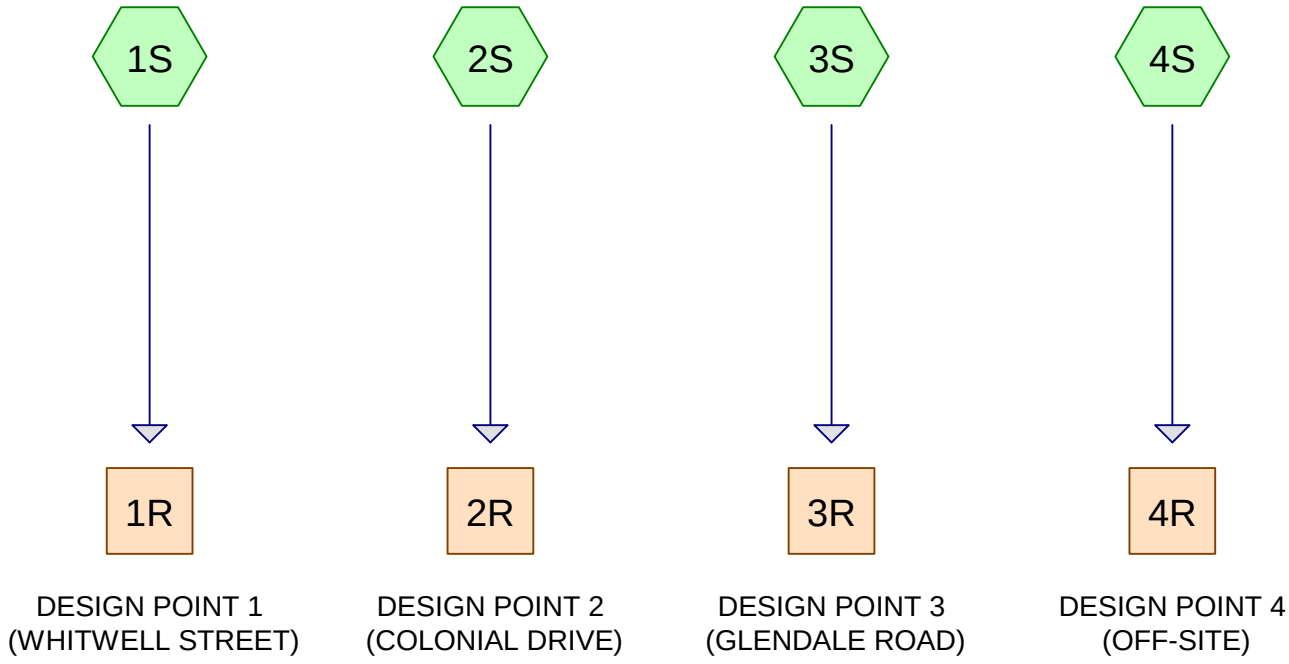
☒ An Illicit Discharge Compliance Statement is attached;

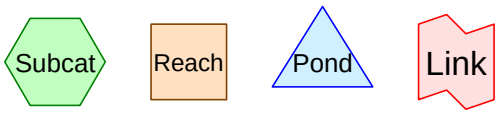
☐ NO Illicit Discharge Compliance Statement is attached but will be submitted ***prior to*** the discharge of any stormwater to post-construction BMPs.

Appendix B

HydroCAD Report

Pre-Development HydroCAD Report





Routing Diagram for Pre-development HydroCAD
Prepared by Tetra Tech, Printed 9/18/2018

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
2.530	69	50-75% Grass cover, Fair, HSG B (1S, 2S, 3S, 4S)
6.210	98	Pavement (1S, 2S, 3S, 4S)
2.390	98	Roof (1S, 2S, 3S)
3.840	60	Woods, Fair, HSG B (1S, 3S, 4S)
14.970	**83**	**TOTAL AREA**

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Runoff Area=6.130 ac 73.90% Impervious Runoff Depth>2.17"
Tc=5.0 min CN=90 Runoff=15.98 cfs 1.107 af

Subcatchment 2S: Runoff Area=1.640 ac 77.44% Impervious Runoff Depth>2.26"
Tc=5.0 min CN=91 Runoff=4.43 cfs 0.308 af

Subcatchment 3S: Runoff Area=2.750 ac 84.00% Impervious Runoff Depth>2.44"
Tc=5.0 min CN=93 Runoff=7.91 cfs 0.560 af

Subcatchment 4S: Runoff Area=4.450 ac 11.01% Impervious Runoff Depth>0.60"
Flow Length=588' Tc=12.3 min CN=65 Runoff=1.96 cfs 0.222 af

Reach 1R: DESIGN POINT 1 (WHITWELL STREET) Inflow=15.98 cfs 1.107 af
Outflow=15.98 cfs 1.107 af

Reach 2R: DESIGN POINT 2 (COLONIAL DRIVE) Inflow=4.43 cfs 0.308 af
Outflow=4.43 cfs 0.308 af

Reach 3R: DESIGN POINT 3 (GLENDALE ROAD) Inflow=7.91 cfs 0.560 af
Outflow=7.91 cfs 0.560 af

Reach 4R: DESIGN POINT 4 (OFF-SITE) Inflow=1.96 cfs 0.222 af
Outflow=1.96 cfs 0.222 af

Total Runoff Area = 14.970 ac Runoff Volume = 2.197 af Average Runoff Depth = 1.76"
42.55% Pervious = 6.370 ac 57.45% Impervious = 8.600 ac

Summary for Subcatchment 1S:

Runoff = 15.98 cfs @ 12.07 hrs, Volume= 1.107 af, Depth> 2.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YEAR Rainfall=3.20"

	Area (ac)	CN	Description
*	2.820	98	Pavement
*	1.710	98	Roof
	1.410	69	50-75% Grass cover, Fair, HSG B
	0.190	60	Woods, Fair, HSG B
	6.130	90	Weighted Average
	1.600		26.10% Pervious Area
	4.530		73.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 2S:

Runoff = 4.43 cfs @ 12.07 hrs, Volume= 0.308 af, Depth> 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YEAR Rainfall=3.20"

	Area (ac)	CN	Description
*	0.730	98	Pavement
*	0.540	98	Roof
	0.370	69	50-75% Grass cover, Fair, HSG B
	1.640	91	Weighted Average
	0.370		22.56% Pervious Area
	1.270		77.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 3S:

Runoff = 7.91 cfs @ 12.07 hrs, Volume= 0.560 af, Depth> 2.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YEAR Rainfall=3.20"

	Area (ac)	CN	Description
*	2.170	98	Pavement
*	0.140	98	Roof
	0.360	69	50-75% Grass cover, Fair, HSG B
	0.080	60	Woods, Fair, HSG B
	2.750	93	Weighted Average
	0.440		16.00% Pervious Area
	2.310		84.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 4S:

Runoff = 1.96 cfs @ 12.20 hrs, Volume= 0.222 af, Depth> 0.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YEAR Rainfall=3.20"

	Area (ac)	CN	Description
*	0.490	98	Pavement
	0.390	69	50-75% Grass cover, Fair, HSG B
	3.570	60	Woods, Fair, HSG B
	4.450	65	Weighted Average
	3.960		88.99% Pervious Area
	0.490		11.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	50	0.1400	0.14		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.10"
2.6	294	0.1400	1.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	139	0.0300	1.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.0	105	0.0300	0.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
12.3	588	Total			

Summary for Reach 1R: DESIGN POINT 1 (WHITWELL STREET)

Inflow Area = 6.130 ac, 73.90% Impervious, Inflow Depth > 2.17" for 2 YEAR event
Inflow = 15.98 cfs @ 12.07 hrs, Volume= 1.107 af
Outflow = 15.98 cfs @ 12.07 hrs, Volume= 1.107 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: DESIGN POINT 2 (COLONIAL DRIVE)

Inflow Area = 1.640 ac, 77.44% Impervious, Inflow Depth > 2.26" for 2 YEAR event
Inflow = 4.43 cfs @ 12.07 hrs, Volume= 0.308 af
Outflow = 4.43 cfs @ 12.07 hrs, Volume= 0.308 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 3R: DESIGN POINT 3 (GLENDALE ROAD)

Inflow Area = 2.750 ac, 84.00% Impervious, Inflow Depth > 2.44" for 2 YEAR event
Inflow = 7.91 cfs @ 12.07 hrs, Volume= 0.560 af
Outflow = 7.91 cfs @ 12.07 hrs, Volume= 0.560 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 4R: DESIGN POINT 4 (OFF-SITE)

Inflow Area = 4.450 ac, 11.01% Impervious, Inflow Depth > 0.60" for 2 YEAR event
Inflow = 1.96 cfs @ 12.20 hrs, Volume= 0.222 af
Outflow = 1.96 cfs @ 12.20 hrs, Volume= 0.222 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Runoff Area=6.130 ac 73.90% Impervious Runoff Depth>3.58"
Tc=5.0 min CN=90 Runoff=25.88 cfs 1.831 af

Subcatchment 2S: Runoff Area=1.640 ac 77.44% Impervious Runoff Depth>3.69"
Tc=5.0 min CN=91 Runoff=7.07 cfs 0.504 af

Subcatchment 3S: Runoff Area=2.750 ac 84.00% Impervious Runoff Depth>3.90"
Tc=5.0 min CN=93 Runoff=12.31 cfs 0.894 af

Subcatchment 4S: Runoff Area=4.450 ac 11.01% Impervious Runoff Depth>1.45"
Flow Length=588' Tc=12.3 min CN=65 Runoff=5.77 cfs 0.539 af

Reach 1R: DESIGN POINT 1 (WHITWELL STREET) Inflow=25.88 cfs 1.831 af
Outflow=25.88 cfs 1.831 af

Reach 2R: DESIGN POINT 2 (COLONIAL DRIVE) Inflow=7.07 cfs 0.504 af
Outflow=7.07 cfs 0.504 af

Reach 3R: DESIGN POINT 3 (GLENDALE ROAD) Inflow=12.31 cfs 0.894 af
Outflow=12.31 cfs 0.894 af

Reach 4R: DESIGN POINT 4 (OFF-SITE) Inflow=5.77 cfs 0.539 af
Outflow=5.77 cfs 0.539 af

Total Runoff Area = 14.970 ac Runoff Volume = 3.768 af Average Runoff Depth = 3.02"
42.55% Pervious = 6.370 ac 57.45% Impervious = 8.600 ac

Summary for Subcatchment 1S:

Runoff = 25.88 cfs @ 12.07 hrs, Volume= 1.831 af, Depth> 3.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YEAR Rainfall=4.70"

	Area (ac)	CN	Description
*	2.820	98	Pavement
*	1.710	98	Roof
	1.410	69	50-75% Grass cover, Fair, HSG B
	0.190	60	Woods, Fair, HSG B
	6.130	90	Weighted Average
	1.600		26.10% Pervious Area
	4.530		73.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 2S:

Runoff = 7.07 cfs @ 12.07 hrs, Volume= 0.504 af, Depth> 3.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YEAR Rainfall=4.70"

	Area (ac)	CN	Description
*	0.730	98	Pavement
*	0.540	98	Roof
	0.370	69	50-75% Grass cover, Fair, HSG B
	1.640	91	Weighted Average
	0.370		22.56% Pervious Area
	1.270		77.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 3S:

Runoff = 12.31 cfs @ 12.07 hrs, Volume= 0.894 af, Depth> 3.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YEAR Rainfall=4.70"

	Area (ac)	CN	Description
*	2.170	98	Pavement
*	0.140	98	Roof
	0.360	69	50-75% Grass cover, Fair, HSG B
	0.080	60	Woods, Fair, HSG B
	2.750	93	Weighted Average
	0.440		16.00% Pervious Area
	2.310		84.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 4S:

Runoff = 5.77 cfs @ 12.18 hrs, Volume= 0.539 af, Depth> 1.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YEAR Rainfall=4.70"

	Area (ac)	CN	Description
*	0.490	98	Pavement
	0.390	69	50-75% Grass cover, Fair, HSG B
	3.570	60	Woods, Fair, HSG B
	4.450	65	Weighted Average
	3.960		88.99% Pervious Area
	0.490		11.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	50	0.1400	0.14		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.10"
2.6	294	0.1400	1.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	139	0.0300	1.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.0	105	0.0300	0.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
12.3	588	Total			

Summary for Reach 1R: DESIGN POINT 1 (WHITWELL STREET)

Inflow Area = 6.130 ac, 73.90% Impervious, Inflow Depth > 3.58" for 10 YEAR event
Inflow = 25.88 cfs @ 12.07 hrs, Volume= 1.831 af
Outflow = 25.88 cfs @ 12.07 hrs, Volume= 1.831 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: DESIGN POINT 2 (COLONIAL DRIVE)

Inflow Area = 1.640 ac, 77.44% Impervious, Inflow Depth > 3.69" for 10 YEAR event
Inflow = 7.07 cfs @ 12.07 hrs, Volume= 0.504 af
Outflow = 7.07 cfs @ 12.07 hrs, Volume= 0.504 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 3R: DESIGN POINT 3 (GLENDALE ROAD)

Inflow Area = 2.750 ac, 84.00% Impervious, Inflow Depth > 3.90" for 10 YEAR event
Inflow = 12.31 cfs @ 12.07 hrs, Volume= 0.894 af
Outflow = 12.31 cfs @ 12.07 hrs, Volume= 0.894 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 4R: DESIGN POINT 4 (OFF-SITE)

Inflow Area = 4.450 ac, 11.01% Impervious, Inflow Depth > 1.45" for 10 YEAR event
Inflow = 5.77 cfs @ 12.18 hrs, Volume= 0.539 af
Outflow = 5.77 cfs @ 12.18 hrs, Volume= 0.539 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Runoff Area=6.130 ac 73.90% Impervious Runoff Depth>4.36"
Tc=5.0 min CN=90 Runoff=31.13 cfs 2.225 af

Subcatchment 2S: Runoff Area=1.640 ac 77.44% Impervious Runoff Depth>4.47"
Tc=5.0 min CN=91 Runoff=8.47 cfs 0.610 af

Subcatchment 3S: Runoff Area=2.750 ac 84.00% Impervious Runoff Depth>4.69"
Tc=5.0 min CN=93 Runoff=14.63 cfs 1.074 af

Subcatchment 4S: Runoff Area=4.450 ac 11.01% Impervious Runoff Depth>1.99"
Flow Length=588' Tc=12.3 min CN=65 Runoff=8.15 cfs 0.737 af

Reach 1R: DESIGN POINT 1 (WHITWELL STREET) Inflow=31.13 cfs 2.225 af
Outflow=31.13 cfs 2.225 af

Reach 2R: DESIGN POINT 2 (COLONIAL DRIVE) Inflow=8.47 cfs 0.610 af
Outflow=8.47 cfs 0.610 af

Reach 3R: DESIGN POINT 3 (GLENDALE ROAD) Inflow=14.63 cfs 1.074 af
Outflow=14.63 cfs 1.074 af

Reach 4R: DESIGN POINT 4 (OFF-SITE) Inflow=8.15 cfs 0.737 af
Outflow=8.15 cfs 0.737 af

Total Runoff Area = 14.970 ac Runoff Volume = 4.647 af Average Runoff Depth = 3.73"
42.55% Pervious = 6.370 ac 57.45% Impervious = 8.600 ac

Summary for Subcatchment 1S:

Runoff = 31.13 cfs @ 12.07 hrs, Volume= 2.225 af, Depth> 4.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YEAR Rainfall=5.50"

	Area (ac)	CN	Description
*	2.820	98	Pavement
*	1.710	98	Roof
	1.410	69	50-75% Grass cover, Fair, HSG B
	0.190	60	Woods, Fair, HSG B
	6.130	90	Weighted Average
	1.600		26.10% Pervious Area
	4.530		73.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 2S:

Runoff = 8.47 cfs @ 12.07 hrs, Volume= 0.610 af, Depth> 4.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YEAR Rainfall=5.50"

	Area (ac)	CN	Description
*	0.730	98	Pavement
*	0.540	98	Roof
	0.370	69	50-75% Grass cover, Fair, HSG B
	1.640	91	Weighted Average
	0.370		22.56% Pervious Area
	1.270		77.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 3S:

Runoff = 14.63 cfs @ 12.07 hrs, Volume= 1.074 af, Depth> 4.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YEAR Rainfall=5.50"

	Area (ac)	CN	Description
*	2.170	98	Pavement
*	0.140	98	Roof
	0.360	69	50-75% Grass cover, Fair, HSG B
	0.080	60	Woods, Fair, HSG B
	2.750	93	Weighted Average
	0.440		16.00% Pervious Area
	2.310		84.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 4S:

Runoff = 8.15 cfs @ 12.18 hrs, Volume= 0.737 af, Depth> 1.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YEAR Rainfall=5.50"

	Area (ac)	CN	Description
*	0.490	98	Pavement
	0.390	69	50-75% Grass cover, Fair, HSG B
	3.570	60	Woods, Fair, HSG B
	4.450	65	Weighted Average
	3.960		88.99% Pervious Area
	0.490		11.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	50	0.1400	0.14		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.10"
2.6	294	0.1400	1.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	139	0.0300	1.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.0	105	0.0300	0.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
12.3	588	Total			

Summary for Reach 1R: DESIGN POINT 1 (WHITWELL STREET)

Inflow Area = 6.130 ac, 73.90% Impervious, Inflow Depth > 4.36" for 25 YEAR event
Inflow = 31.13 cfs @ 12.07 hrs, Volume= 2.225 af
Outflow = 31.13 cfs @ 12.07 hrs, Volume= 2.225 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: DESIGN POINT 2 (COLONIAL DRIVE)

Inflow Area = 1.640 ac, 77.44% Impervious, Inflow Depth > 4.47" for 25 YEAR event
Inflow = 8.47 cfs @ 12.07 hrs, Volume= 0.610 af
Outflow = 8.47 cfs @ 12.07 hrs, Volume= 0.610 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 3R: DESIGN POINT 3 (GLENDALE ROAD)

Inflow Area = 2.750 ac, 84.00% Impervious, Inflow Depth > 4.69" for 25 YEAR event
Inflow = 14.63 cfs @ 12.07 hrs, Volume= 1.074 af
Outflow = 14.63 cfs @ 12.07 hrs, Volume= 1.074 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 4R: DESIGN POINT 4 (OFF-SITE)

Inflow Area = 4.450 ac, 11.01% Impervious, Inflow Depth > 1.99" for 25 YEAR event
Inflow = 8.15 cfs @ 12.18 hrs, Volume= 0.737 af
Outflow = 8.15 cfs @ 12.18 hrs, Volume= 0.737 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Runoff Area=6.130 ac 73.90% Impervious Runoff Depth>5.53"
Tc=5.0 min CN=90 Runoff=38.96 cfs 2.823 af

Subcatchment 2S: Runoff Area=1.640 ac 77.44% Impervious Runoff Depth>5.64"
Tc=5.0 min CN=91 Runoff=10.55 cfs 0.771 af

Subcatchment 3S: Runoff Area=2.750 ac 84.00% Impervious Runoff Depth>5.87"
Tc=5.0 min CN=93 Runoff=18.09 cfs 1.345 af

Subcatchment 4S: Runoff Area=4.450 ac 11.01% Impervious Runoff Depth>2.86"
Flow Length=588' Tc=12.3 min CN=65 Runoff=12.02 cfs 1.062 af

Reach 1R: DESIGN POINT 1 (WHITWELL STREET) Inflow=38.96 cfs 2.823 af
Outflow=38.96 cfs 2.823 af

Reach 2R: DESIGN POINT 2 (COLONIAL DRIVE) Inflow=10.55 cfs 0.771 af
Outflow=10.55 cfs 0.771 af

Reach 3R: DESIGN POINT 3 (GLENDALE ROAD) Inflow=18.09 cfs 1.345 af
Outflow=18.09 cfs 1.345 af

Reach 4R: DESIGN POINT 4 (OFF-SITE) Inflow=12.02 cfs 1.062 af
Outflow=12.02 cfs 1.062 af

Total Runoff Area = 14.970 ac Runoff Volume = 6.001 af Average Runoff Depth = 4.81"
42.55% Pervious = 6.370 ac 57.45% Impervious = 8.600 ac

Summary for Subcatchment 1S:

Runoff = 38.96 cfs @ 12.07 hrs, Volume= 2.823 af, Depth> 5.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YEAR Rainfall=6.70"

	Area (ac)	CN	Description
*	2.820	98	Pavement
*	1.710	98	Roof
	1.410	69	50-75% Grass cover, Fair, HSG B
	0.190	60	Woods, Fair, HSG B
	6.130	90	Weighted Average
	1.600		26.10% Pervious Area
	4.530		73.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 2S:

Runoff = 10.55 cfs @ 12.07 hrs, Volume= 0.771 af, Depth> 5.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YEAR Rainfall=6.70"

	Area (ac)	CN	Description
*	0.730	98	Pavement
*	0.540	98	Roof
	0.370	69	50-75% Grass cover, Fair, HSG B
	1.640	91	Weighted Average
	0.370		22.56% Pervious Area
	1.270		77.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 3S:

Runoff = 18.09 cfs @ 12.07 hrs, Volume= 1.345 af, Depth> 5.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YEAR Rainfall=6.70"

	Area (ac)	CN	Description
*	2.170	98	Pavement
*	0.140	98	Roof
	0.360	69	50-75% Grass cover, Fair, HSG B
	0.080	60	Woods, Fair, HSG B
	2.750	93	Weighted Average
	0.440		16.00% Pervious Area
	2.310		84.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 4S:

Runoff = 12.02 cfs @ 12.18 hrs, Volume= 1.062 af, Depth> 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YEAR Rainfall=6.70"

	Area (ac)	CN	Description
*	0.490	98	Pavement
	0.390	69	50-75% Grass cover, Fair, HSG B
	3.570	60	Woods, Fair, HSG B
	4.450	65	Weighted Average
	3.960		88.99% Pervious Area
	0.490		11.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	50	0.1400	0.14		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.10"
2.6	294	0.1400	1.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	139	0.0300	1.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.0	105	0.0300	0.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
12.3	588	Total			

Summary for Reach 1R: DESIGN POINT 1 (WHITWELL STREET)

Inflow Area = 6.130 ac, 73.90% Impervious, Inflow Depth > 5.53" for 100 YEAR event
Inflow = 38.96 cfs @ 12.07 hrs, Volume= 2.823 af
Outflow = 38.96 cfs @ 12.07 hrs, Volume= 2.823 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: DESIGN POINT 2 (COLONIAL DRIVE)

Inflow Area = 1.640 ac, 77.44% Impervious, Inflow Depth > 5.64" for 100 YEAR event
Inflow = 10.55 cfs @ 12.07 hrs, Volume= 0.771 af
Outflow = 10.55 cfs @ 12.07 hrs, Volume= 0.771 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 3R: DESIGN POINT 3 (GLENDALE ROAD)

Inflow Area = 2.750 ac, 84.00% Impervious, Inflow Depth > 5.87" for 100 YEAR event
Inflow = 18.09 cfs @ 12.07 hrs, Volume= 1.345 af
Outflow = 18.09 cfs @ 12.07 hrs, Volume= 1.345 af, Atten= 0%, Lag= 0.0 min

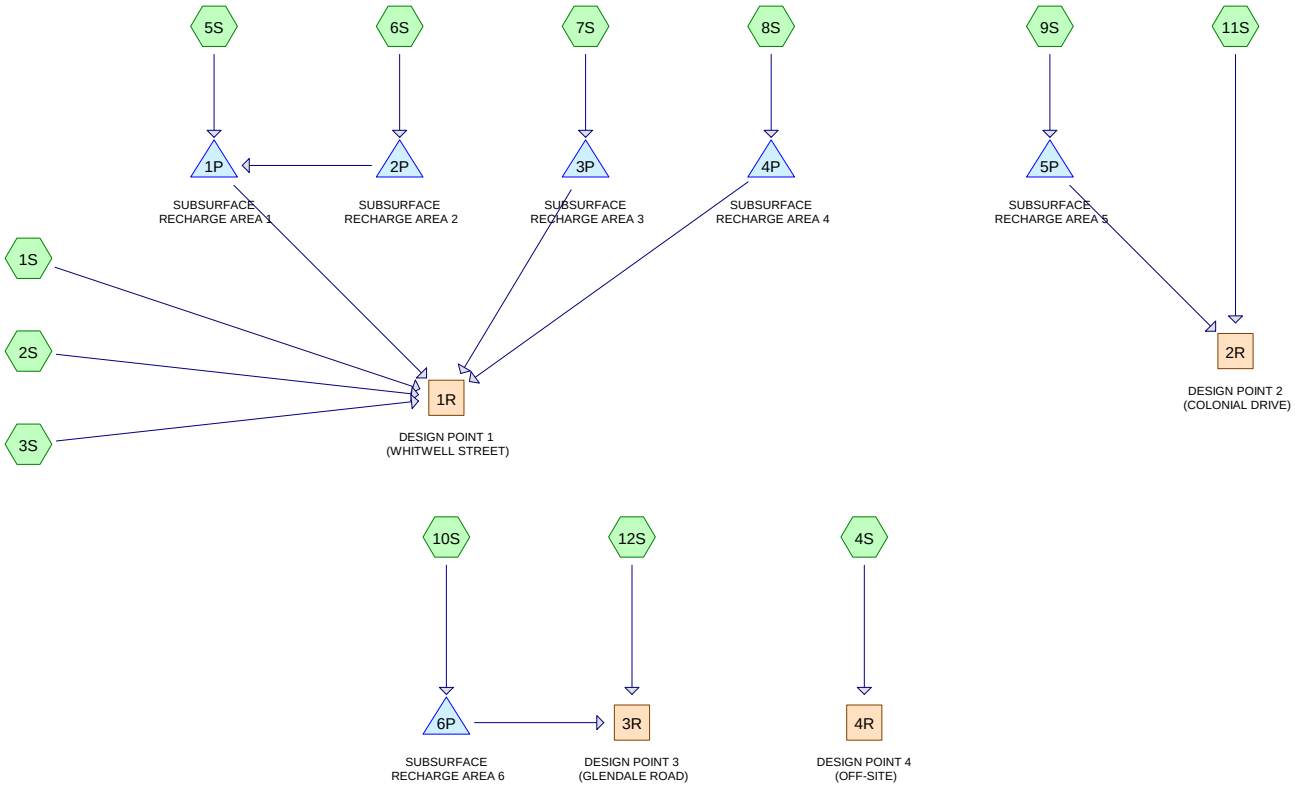
Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

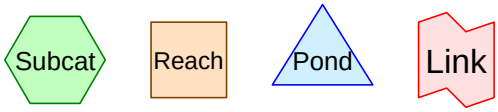
Summary for Reach 4R: DESIGN POINT 4 (OFF-SITE)

Inflow Area = 4.450 ac, 11.01% Impervious, Inflow Depth > 2.86" for 100 YEAR event
Inflow = 12.02 cfs @ 12.18 hrs, Volume= 1.062 af
Outflow = 12.02 cfs @ 12.18 hrs, Volume= 1.062 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Post-Development HydroCAD Report





Routing Diagram for Post-development HydroCAD
Prepared by Tetra Tech, Printed 9/18/2018
HydroCAD® 10.00-15 s/n 01603 © 2015 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.640	69	50-75% Grass cover, Fair, HSG B (4S, 11S, 12S)
2.250	61	>75% Grass cover, Good, HSG B (1S, 2S, 3S, 6S, 7S, 8S, 9S, 10S)
1.390	98	Pavement (2S, 3S, 6S, 7S, 8S, 9S, 10S, 12S)
0.650	45	Permeable Pavers (1S, 2S, 7S, 8S, 10S)
4.160	98	Roof (3S, 5S, 6S, 7S, 8S, 9S, 10S, 12S)
1.400	98	Sidewalk (1S, 2S, 3S, 4S, 6S, 7S, 8S, 9S, 10S, 11S)
3.480	60	Woods, Fair, HSG B (4S, 11S)
14.970	**78**	**TOTAL AREA**

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Runoff Area=0.320 ac 25.00% Impervious Runoff Depth>0.83"
Tc=5.0 min CN=70 Runoff=0.29 cfs 0.022 af

Subcatchment 2S: Runoff Area=0.800 ac 62.50% Impervious Runoff Depth>1.68"
Tc=5.0 min CN=84 Runoff=1.64 cfs 0.112 af

Subcatchment 3S: Runoff Area=0.740 ac 45.95% Impervious Runoff Depth>1.27"
Tc=5.0 min CN=78 Runoff=1.12 cfs 0.078 af

Subcatchment 4S: Runoff Area=3.980 ac 0.75% Impervious Runoff Depth>0.48"
Flow Length=539' Tc=8.8 min CN=62 Runoff=1.35 cfs 0.159 af

Subcatchment 5S: Runoff Area=0.270 ac 100.00% Impervious Runoff Depth>2.97"
Tc=5.0 min CN=98 Runoff=0.87 cfs 0.067 af

Subcatchment 6S: Runoff Area=0.950 ac 83.16% Impervious Runoff Depth>2.35"
Tc=5.0 min CN=92 Runoff=2.65 cfs 0.186 af

Subcatchment 7S: Runoff Area=0.570 ac 91.23% Impervious Runoff Depth>2.54"
Tc=5.0 min CN=94 Runoff=1.69 cfs 0.121 af

Subcatchment 8S: Runoff Area=1.190 ac 93.28% Impervious Runoff Depth>2.64"
Tc=5.0 min CN=95 Runoff=3.62 cfs 0.262 af

Subcatchment 9S: Runoff Area=1.830 ac 79.23% Impervious Runoff Depth>2.17"
Tc=5.0 min CN=90 Runoff=4.77 cfs 0.330 af

Subcatchment 10S: Runoff Area=2.920 ac 55.82% Impervious Runoff Depth>1.27"
Tc=5.0 min CN=78 Runoff=4.43 cfs 0.309 af

Subcatchment 11S: Runoff Area=0.780 ac 6.41% Impervious Runoff Depth>0.83"
Flow Length=237' Tc=10.7 min CN=70 Runoff=0.57 cfs 0.054 af

Subcatchment 12S: Runoff Area=0.620 ac 29.03% Impervious Runoff Depth>1.21"
Tc=5.0 min CN=77 Runoff=0.89 cfs 0.063 af

Reach 1R: DESIGN POINT 1 (WHITWELL STREET) Inflow=3.04 cfs 0.308 af
Outflow=3.04 cfs 0.308 af

Reach 2R: DESIGN POINT 2 (COLONIAL DRIVE) Inflow=0.57 cfs 0.054 af
Outflow=0.57 cfs 0.054 af

Reach 3R: DESIGN POINT 3 (GLENDALE ROAD) Inflow=0.89 cfs 0.154 af
Outflow=0.89 cfs 0.154 af

Reach 4R: DESIGN POINT 4 (OFF-SITE) Inflow=1.35 cfs 0.159 af
Outflow=1.35 cfs 0.159 af

Pond 1P: SUBSURFACE RECHARGE AREA 1 Peak Elev=139.20' Storage=1,560 cf Inflow=0.87 cfs 0.067 af
Discarded=0.03 cfs 0.041 af Primary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.042 af

Pond 2P: SUBSURFACE RECHARGE AREA 2 Peak Elev=143.60' Storage=4,838 cf Inflow=2.65 cfs 0.186 af
Discarded=0.07 cfs 0.096 af Primary=0.00 cfs 0.000 af Outflow=0.07 cfs 0.096 af

Pond 3P: SUBSURFACE RECHARGE AREA 3 Peak Elev=140.32' Storage=2,596 cf Inflow=1.69 cfs 0.121 af
Discarded=0.04 cfs 0.057 af Primary=0.12 cfs 0.019 af Outflow=0.17 cfs 0.076 af

Pond 4P: SUBSURFACE RECHARGE AREA 4 Peak Elev=143.63' Storage=5,003 cf Inflow=3.62 cfs 0.262 af
Discarded=0.07 cfs 0.101 af Primary=0.92 cfs 0.076 af Outflow=0.99 cfs 0.177 af

Pond 5P: SUBSURFACE RECHARGE AREA 5 Peak Elev=130.64' Storage=9,722 cf Inflow=4.77 cfs 0.330 af
Discarded=0.09 cfs 0.121 af Primary=0.00 cfs 0.000 af Outflow=0.09 cfs 0.121 af

Pond 6P: SUBSURFACE RECHARGE AREA 6 Peak Elev=122.11' Storage=6,841 cf Inflow=4.43 cfs 0.309 af
Discarded=0.06 cfs 0.063 af Primary=0.42 cfs 0.092 af Outflow=0.47 cfs 0.155 af

Total Runoff Area = 14.970 ac Runoff Volume = 1.763 af Average Runoff Depth = 1.41"
53.57% Pervious = 8.020 ac 46.43% Impervious = 6.950 ac

Summary for Subcatchment 1S:

Runoff = 0.29 cfs @ 12.09 hrs, Volume= 0.022 af, Depth> 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YEAR Rainfall=3.20"

	Area (ac)	CN	Description
*	0.080	98	Sidewalk
*	0.010	45	Permeable Pavers
	0.230	61	>75% Grass cover, Good, HSG B
	0.320	70	Weighted Average
	0.240		75.00% Pervious Area
	0.080		25.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 2S:

Runoff = 1.64 cfs @ 12.08 hrs, Volume= 0.112 af, Depth> 1.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YEAR Rainfall=3.20"

	Area (ac)	CN	Description
*	0.260	98	Pavement
*	0.240	98	Sidewalk
*	0.020	45	Permeable Pavers
	0.280	61	>75% Grass cover, Good, HSG B
	0.800	84	Weighted Average
	0.300		37.50% Pervious Area
	0.500		62.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 3S:

Runoff = 1.12 cfs @ 12.08 hrs, Volume= 0.078 af, Depth> 1.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YEAR Rainfall=3.20"

	Area (ac)	CN	Description
*	0.080	98	Pavement
*	0.230	98	Roof
*	0.030	98	Sidewalk
	0.400	61	>75% Grass cover, Good, HSG B
	0.740	78	Weighted Average
	0.400		54.05% Pervious Area
	0.340		45.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 4S:

Runoff = 1.35 cfs @ 12.16 hrs, Volume= 0.159 af, Depth> 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YEAR Rainfall=3.20"

	Area (ac)	CN	Description
*	0.030	98	Sidewalk
	0.540	69	50-75% Grass cover, Fair, HSG B
	3.410	60	Woods, Fair, HSG B
	3.980	62	Weighted Average
	3.950		99.25% Pervious Area
	0.030		0.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.7	50	0.1250	0.30		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.10"
2.2	245	0.1400	1.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	139	0.0300	1.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.0	105	0.0300	0.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.8	539	Total			

Summary for Subcatchment 5S:

Runoff = 0.87 cfs @ 12.07 hrs, Volume= 0.067 af, Depth> 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YEAR Rainfall=3.20"

	Area (ac)	CN	Description
*	0.270	98	Roof
	0.270		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 6S:

Runoff = 2.65 cfs @ 12.07 hrs, Volume= 0.186 af, Depth> 2.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YEAR Rainfall=3.20"

	Area (ac)	CN	Description
*	0.180	98	Pavement
*	0.480	98	Roof
*	0.130	98	Sidewalk
	0.160	61	>75% Grass cover, Good, HSG B
	0.950	92	Weighted Average
	0.160		16.84% Pervious Area
	0.790		83.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 7S:

Runoff = 1.69 cfs @ 12.07 hrs, Volume= 0.121 af, Depth> 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YEAR Rainfall=3.20"

	Area (ac)	CN	Description
*	0.120	98	Pavement
*	0.280	98	Roof
*	0.120	98	Sidewalk
*	0.020	45	Permeable Pavers
	0.030	61	>75% Grass cover, Good, HSG B
	0.570	94	Weighted Average
	0.050		8.77% Pervious Area
	0.520		91.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 8S:

Runoff = 3.62 cfs @ 12.07 hrs, Volume= 0.262 af, Depth> 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YEAR Rainfall=3.20"

	Area (ac)	CN	Description
*	0.200	98	Pavement
*	0.790	98	Roof
*	0.120	98	Sidewalk
*	0.020	45	Permeable Pavers
	0.060	61	>75% Grass cover, Good, HSG B
	1.190	95	Weighted Average
	0.080		6.72% Pervious Area
	1.110		93.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 9S:

Runoff = 4.77 cfs @ 12.07 hrs, Volume= 0.330 af, Depth> 2.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YEAR Rainfall=3.20"

	Area (ac)	CN	Description
*	0.070	98	Pavement
*	0.910	98	Roof
*	0.470	98	Sidewalk
	0.380	61	>75% Grass cover, Good, HSG B
	1.830	90	Weighted Average
	0.380		20.77% Pervious Area
	1.450		79.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 10S:

Runoff = 4.43 cfs @ 12.08 hrs, Volume= 0.309 af, Depth> 1.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YEAR Rainfall=3.20"

	Area (ac)	CN	Description
*	0.440	98	Pavement
*	1.060	98	Roof
*	0.130	98	Sidewalk
*	0.580	45	Permeable Pavers
	0.710	61	>75% Grass cover, Good, HSG B
	2.920	78	Weighted Average
	1.290		44.18% Pervious Area
	1.630		55.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 11S:

Runoff = 0.57 cfs @ 12.16 hrs, Volume= 0.054 af, Depth> 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YEAR Rainfall=3.20"

	Area (ac)	CN	Description
*	0.050	98	Sidewalk
	0.660	69	50-75% Grass cover, Fair, HSG B
	0.070	60	Woods, Fair, HSG B
	0.780	70	Weighted Average
	0.730		93.59% Pervious Area
	0.050		6.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	50	0.0200	0.10		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.10"
2.3	135	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	52	0.0190	6.25	4.91	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013
10.7	237	Total			

Summary for Subcatchment 12S:

Runoff = 0.89 cfs @ 12.08 hrs, Volume= 0.063 af, Depth> 1.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YEAR Rainfall=3.20"

	Area (ac)	CN	Description
*	0.040	98	Pavement
*	0.140	98	Roof
	0.440	69	50-75% Grass cover, Fair, HSG B
	0.620	77	Weighted Average
	0.440		70.97% Pervious Area
	0.180		29.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Reach 1R: DESIGN POINT 1 (WHITWELL STREET)

Inflow Area = 4.840 ac, 74.59% Impervious, Inflow Depth > 0.76" for 2 YEAR event
Inflow = 3.04 cfs @ 12.08 hrs, Volume= 0.308 af
Outflow = 3.04 cfs @ 12.08 hrs, Volume= 0.308 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: DESIGN POINT 2 (COLONIAL DRIVE)

Inflow Area = 2.610 ac, 57.47% Impervious, Inflow Depth > 0.25" for 2 YEAR event
Inflow = 0.57 cfs @ 12.16 hrs, Volume= 0.054 af
Outflow = 0.57 cfs @ 12.16 hrs, Volume= 0.054 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 3R: DESIGN POINT 3 (GLENDALE ROAD)

Inflow Area = 3.540 ac, 51.13% Impervious, Inflow Depth > 0.52" for 2 YEAR event
Inflow = 0.89 cfs @ 12.08 hrs, Volume= 0.154 af
Outflow = 0.89 cfs @ 12.08 hrs, Volume= 0.154 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 4R: DESIGN POINT 4 (OFF-SITE)

Inflow Area = 3.980 ac, 0.75% Impervious, Inflow Depth > 0.48" for 2 YEAR event
Inflow = 1.35 cfs @ 12.16 hrs, Volume= 0.159 af
Outflow = 1.35 cfs @ 12.16 hrs, Volume= 0.159 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Pond 1P: SUBSURFACE RECHARGE AREA 1

Inflow Area =	1.220 ac, 86.89% Impervious, Inflow Depth > 0.66" for 2 YEAR event				
Inflow =	0.87 cfs @	12.07 hrs,	Volume=	0.067 af	
Outflow =	0.03 cfs @	15.29 hrs,	Volume=	0.042 af,	Atten= 97%, Lag= 193.3 min
Discarded =	0.03 cfs @	9.95 hrs,	Volume=	0.041 af	
Primary =	0.00 cfs @	15.29 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 139.20' @ 15.29 hrs Surf.Area= 1,202 sf Storage= 1,560 cf
Flood Elev= 140.75' Surf.Area= 1,202 sf Storage= 2,513 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 146.0 min (901.0 - 755.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	137.25'	1,129 cf	**11.00'W x 109.24'L x 3.50'H Field A** 4,206 cf Overall - 1,384 cf Embedded = 2,822 cf x 40.0% Voids
#2A	137.75'	1,384 cf	**ADS_StormTech SC-740** x 30 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
		2,513 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	135.12'	**12.0" Round Culvert** L= 200.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 135.12' / 132.04' S= 0.0154 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	139.20'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Discarded	137.25'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.03 cfs @ 9.95 hrs HW=137.29' (Free Discharge)
└─**3=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=0.00 cfs @ 15.29 hrs HW=139.20' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 0.00 cfs of 5.98 cfs potential flow)
  └─**2=Broad-Crested Rectangular Weir** (Weir Controls 0.00 cfs @ 0.16 fps)

Summary for Pond 2P: SUBSURFACE RECHARGE AREA 2

Inflow Area =	0.950 ac, 83.16% Impervious, Inflow Depth > 2.35" for 2 YEAR event				
Inflow =	2.65 cfs @	12.07 hrs,	Volume=	0.186 af	
Outflow =	0.07 cfs @	10.55 hrs,	Volume=	0.096 af,	Atten= 97%, Lag= 0.0 min
Discarded =	0.07 cfs @	10.55 hrs,	Volume=	0.096 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 143.60' @ 16.16 hrs Surf.Area= 3,121 sf Storage= 4,838 cf
Flood Elev= 144.80' Surf.Area= 3,121 sf Storage= 6,615 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 168.1 min (964.4 - 796.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	141.30'	2,172 cf	**30.00'W x 80.76'L x 3.50'H Field A** 8,480 cf Overall - 3,049 cf Embedded = 5,431 cf x 40.0% Voids
#2A	141.80'	3,049 cf	**ADS_StormTech SC-740** x 66 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 6 rows
#3B	141.30'	416 cf	**6.25'W x 66.52'L x 3.50'H Field B** 1,455 cf Overall - 416 cf Embedded = 1,039 cf x 40.0% Voids
#4B	141.80'	416 cf	**ADS_StormTech SC-740** x 9 Inside #3 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 1 rows
#5C	141.30'	284 cf	**6.25'W x 45.16'L x 3.50'H Field C** 988 cf Overall - 278 cf Embedded = 709 cf x 40.0% Voids
#6C	141.80'	278 cf	**ADS_StormTech SC-740** x 6 Inside #5 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 1 rows
		6,615 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard
Storage Group C created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	140.25'	**15.0" Round Culvert** L= 18.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 140.25' / 140.09' S= 0.0089 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	144.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Discarded	141.30'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 10.55 hrs HW=141.34' (Free Discharge)
└─**3=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=141.30' TW=137.25' (Dynamic Tailwater)
└─**1=Culvert** (Passes 0.00 cfs of 3.17 cfs potential flow)
  └─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 3P: SUBSURFACE RECHARGE AREA 3

Inflow Area =	0.570 ac, 91.23% Impervious, Inflow Depth > 2.54" for 2 YEAR event				
Inflow =	1.69 cfs @	12.07 hrs,	Volume=	0.121 af	
Outflow =	0.17 cfs @	12.84 hrs,	Volume=	0.076 af,	Atten= 90%, Lag= 46.0 min
Discarded =	0.04 cfs @	10.03 hrs,	Volume=	0.057 af	
Primary =	0.12 cfs @	12.84 hrs,	Volume=	0.019 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 140.32' @ 12.84 hrs Surf.Area= 1,782 sf Storage= 2,596 cf
Flood Elev= 141.70' Surf.Area= 1,782 sf Storage= 3,828 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 128.4 min (914.1 - 785.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	138.20'	1,606 cf	**30.00'W x 59.40'L x 3.50'H Field A** 6,237 cf Overall - 2,222 cf Embedded = 4,015 cf x 40.0% Voids
#2A	138.70'	2,222 cf	**ADS_StormTech SC-740** x 48 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 6 rows
		3,828 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	140.15'	**12.0" Round Culvert** L= 58.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 140.15' / 136.70' S= 0.0595 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Discarded	138.20'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 10.03 hrs HW=138.24' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.04 cfs)

Primary OutFlow Max=0.12 cfs @ 12.84 hrs HW=140.32' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 0.12 cfs @ 1.40 fps)

Summary for Pond 4P: SUBSURFACE RECHARGE AREA 4

Inflow Area =	1.190 ac, 93.28% Impervious, Inflow Depth > 2.64" for 2 YEAR event				
Inflow =	3.62 cfs @	12.07 hrs,	Volume=	0.262 af	
Outflow =	0.99 cfs @	12.41 hrs,	Volume=	0.177 af,	Atten= 72%, Lag= 20.1 min
Discarded =	0.07 cfs @	9.27 hrs,	Volume=	0.101 af	
Primary =	0.92 cfs @	12.41 hrs,	Volume=	0.076 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 143.63' @ 12.41 hrs Surf.Area= 2,969 sf Storage= 5,003 cf
Flood Elev= 144.65' Surf.Area= 2,969 sf Storage= 6,369 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 89.7 min (869.3 - 779.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	141.15'	2,682 cf	**20.50'W x 144.84'L x 3.50'H Field A** 10,392 cf Overall - 3,687 cf Embedded = 6,706 cf x 40.0% Voids
#2A	141.65'	3,687 cf	**ADS_StormTech SC-740** x 80 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 4 rows
		6,369 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	143.20'	**18.0" Round Culvert** L= 66.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 143.20' / 139.00' S= 0.0636 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Discarded	141.15'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 9.27 hrs HW=141.19' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=0.92 cfs @ 12.41 hrs HW=143.63' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 0.92 cfs @ 2.23 fps)

Summary for Pond 5P: SUBSURFACE RECHARGE AREA 5

Inflow Area = 1.830 ac, 79.23% Impervious, Inflow Depth > 2.17" for 2 YEAR event
Inflow = 4.77 cfs @ 12.07 hrs, Volume= 0.330 af
Outflow = 0.09 cfs @ 10.34 hrs, Volume= 0.121 af, Atten= 98%, Lag= 0.0 min
Discarded = 0.09 cfs @ 10.34 hrs, Volume= 0.121 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 130.64' @ 17.86 hrs Surf.Area= 3,918 sf Storage= 9,722 cf
Flood Elev= 132.50' Surf.Area= 3,918 sf Storage= 13,002 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 160.3 min (965.8 - 805.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	127.00'	2,103 cf	**29.92'W x 48.72'L x 5.50'H Field A** 8,016 cf Overall - 2,758 cf Embedded = 5,258 cf x 40.0% Voids
#2A	127.75'	2,758 cf	**ADS_StormTech MC-3500 d +Cap** x 24 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 4 Rows of 6 Chambers Cap Storage= +14.9 cf x 2 x 4 rows = 119.2 cf
#3B	127.00'	449 cf	**8.42'W x 34.38'L x 5.50'H Field B** 1,592 cf Overall - 470 cf Embedded = 1,122 cf x 40.0% Voids
#4B	127.75'	470 cf	**ADS_StormTech MC-3500 d +Cap** x 4 Inside #3 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap Cap Storage= +14.9 cf x 2 x 1 rows = 29.8 cf
#5C	127.00'	2,519 cf	**22.75'W x 77.40'L x 5.50'H Field C** 9,685 cf Overall - 3,388 cf Embedded = 6,297 cf x 40.0% Voids
#6C	127.75'	3,388 cf	**ADS_StormTech MC-3500 d +Cap** x 30 Inside #5 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 3 Rows of 10 Chambers Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf
#7D	127.00'	626 cf	**8.42'W x 48.72'L x 5.50'H Field D** 2,255 cf Overall - 690 cf Embedded = 1,566 cf x 40.0% Voids
#8D	127.75'	690 cf	**ADS_StormTech MC-3500 d +Cap** x 6 Inside #7 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap Cap Storage= +14.9 cf x 2 x 1 rows = 29.8 cf
		13,002 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard
Storage Group C created with Chamber Wizard
Storage Group D created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	127.75'	**12.0" Round Culvert** L= 16.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 127.75' / 127.11' S= 0.0400 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	130.80'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Discarded	127.00'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.09 cfs @ 10.34 hrs HW=127.06' (Free Discharge)
└─**3=Exfiltration** (Exfiltration Controls 0.09 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=127.00' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)
  └─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 6P: SUBSURFACE RECHARGE AREA 6

Inflow Area =	2.920 ac, 55.82% Impervious, Inflow Depth > 1.27" for 2 YEAR event				
Inflow =	4.43 cfs @	12.08 hrs,	Volume=	0.309 af	
Outflow =	0.47 cfs @	13.01 hrs,	Volume=	0.155 af,	Atten= 89%, Lag= 55.8 min
Discarded =	0.06 cfs @	11.17 hrs,	Volume=	0.063 af	
Primary =	0.42 cfs @	13.01 hrs,	Volume=	0.092 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 122.11' @ 13.01 hrs Surf.Area= 2,352 sf Storage= 6,841 cf
Flood Elev= 123.15' Surf.Area= 2,352 sf Storage= 7,819 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 121.9 min (969.4 - 847.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	117.65'	2,519 cf	**22.75'W x 77.40'L x 5.50'H Field A** 9,685 cf Overall - 3,388 cf Embedded = 6,297 cf x 40.0% Voids
#2A	118.40'	3,388 cf	**ADS_StormTech MC-3500 d +Cap** x 30 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 3 Rows of 10 Chambers Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf
#3B	117.65'	893 cf	**8.42'W x 70.23'L x 5.50'H Field B** 3,251 cf Overall - 1,019 cf Embedded = 2,232 cf x 40.0% Voids
#4B	118.40'	1,019 cf	**ADS_StormTech MC-3500 d +Cap** x 9 Inside #3 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap Cap Storage= +14.9 cf x 2 x 1 rows = 29.8 cf
		7,819 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	118.40'	**18.0" Round Culvert** L= 49.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 118.40' / 115.95' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	122.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Discarded	117.65'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.06 cfs @ 11.17 hrs HW=117.71' (Free Discharge)
└─**3=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=0.41 cfs @ 13.01 hrs HW=122.11' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 0.41 cfs of 14.64 cfs potential flow)
  └─**2=Broad-Crested Rectangular Weir** (Weir Controls 0.41 cfs @ 0.93 fps)

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Runoff Area=0.320 ac 25.00% Impervious Runoff Depth>1.81"
Tc=5.0 min CN=70 Runoff=0.69 cfs 0.048 af

Subcatchment 2S: Runoff Area=0.800 ac 62.50% Impervious Runoff Depth>2.99"
Tc=5.0 min CN=84 Runoff=2.90 cfs 0.200 af

Subcatchment 3S: Runoff Area=0.740 ac 45.95% Impervious Runoff Depth>2.46"
Tc=5.0 min CN=78 Runoff=2.21 cfs 0.151 af

Subcatchment 4S: Runoff Area=3.980 ac 0.75% Impervious Runoff Depth>1.25"
Flow Length=539' Tc=8.8 min CN=62 Runoff=4.79 cfs 0.416 af

Subcatchment 5S: Runoff Area=0.270 ac 100.00% Impervious Runoff Depth>4.46"
Tc=5.0 min CN=98 Runoff=1.29 cfs 0.100 af

Subcatchment 6S: Runoff Area=0.950 ac 83.16% Impervious Runoff Depth>3.79"
Tc=5.0 min CN=92 Runoff=4.18 cfs 0.300 af

Subcatchment 7S: Runoff Area=0.570 ac 91.23% Impervious Runoff Depth>4.01"
Tc=5.0 min CN=94 Runoff=2.59 cfs 0.190 af

Subcatchment 8S: Runoff Area=1.190 ac 93.28% Impervious Runoff Depth>4.12"
Tc=5.0 min CN=95 Runoff=5.49 cfs 0.409 af

Subcatchment 9S: Runoff Area=1.830 ac 79.23% Impervious Runoff Depth>3.58"
Tc=5.0 min CN=90 Runoff=7.72 cfs 0.547 af

Subcatchment 10S: Runoff Area=2.920 ac 55.82% Impervious Runoff Depth>2.46"
Tc=5.0 min CN=78 Runoff=8.73 cfs 0.598 af

Subcatchment 11S: Runoff Area=0.780 ac 6.41% Impervious Runoff Depth>1.81"
Flow Length=237' Tc=10.7 min CN=70 Runoff=1.38 cfs 0.118 af

Subcatchment 12S: Runoff Area=0.620 ac 29.03% Impervious Runoff Depth>2.37"
Tc=5.0 min CN=77 Runoff=1.79 cfs 0.123 af

Reach 1R: DESIGN POINT 1 (WHITWELL STREET) Inflow=10.03 cfs 0.784 af
Outflow=10.03 cfs 0.784 af

Reach 2R: DESIGN POINT 2 (COLONIAL DRIVE) Inflow=3.31 cfs 0.302 af
Outflow=3.31 cfs 0.302 af

Reach 3R: DESIGN POINT 3 (GLENDALE ROAD) Inflow=8.70 cfs 0.496 af
Outflow=8.70 cfs 0.496 af

Reach 4R: DESIGN POINT 4 (OFF-SITE) Inflow=4.79 cfs 0.416 af
Outflow=4.79 cfs 0.416 af

Pond 1P: SUBSURFACE RECHARGE AREA 1 Peak Elev=139.46' Storage=1,767 cf Inflow=1.59 cfs 0.178 af
Discarded=0.03 cfs 0.045 af Primary=1.53 cfs 0.103 af Outflow=1.55 cfs 0.148 af

Pond 2P: SUBSURFACE RECHARGE AREA 2 Peak Elev=144.23' Storage=5,896 cf Inflow=4.18 cfs 0.300 af
Discarded=0.07 cfs 0.105 af Primary=1.21 cfs 0.077 af Outflow=1.28 cfs 0.183 af

Pond 3P: SUBSURFACE RECHARGE AREA 3 Peak Elev=140.74' Storage=3,072 cf Inflow=2.59 cfs 0.190 af
Discarded=0.04 cfs 0.063 af Primary=1.25 cfs 0.077 af Outflow=1.30 cfs 0.140 af

Pond 4P: SUBSURFACE RECHARGE AREA 4 Peak Elev=144.19' Storage=5,827 cf Inflow=5.49 cfs 0.409 af
Discarded=0.07 cfs 0.110 af Primary=4.22 cfs 0.205 af Outflow=4.29 cfs 0.315 af

Pond 5P: SUBSURFACE RECHARGE AREA Peak Elev=131.16' Storage=10,854 cf Inflow=7.72 cfs 0.547 af
Discarded=0.09 cfs 0.132 af Primary=2.46 cfs 0.184 af Outflow=2.55 cfs 0.317 af

Pond 6P: SUBSURFACE RECHARGE AREA 6 Peak Elev=122.68' Storage=7,380 cf Inflow=8.73 cfs 0.598 af
Discarded=0.06 cfs 0.070 af Primary=7.18 cfs 0.373 af Outflow=7.23 cfs 0.443 af

Total Runoff Area = 14.970 ac Runoff Volume = 3.200 af Average Runoff Depth = 2.56"
53.57% Pervious = 8.020 ac 46.43% Impervious = 6.950 ac

Summary for Subcatchment 1S:

Runoff = 0.69 cfs @ 12.08 hrs, Volume= 0.048 af, Depth> 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YEAR Rainfall=4.70"

	Area (ac)	CN	Description
*	0.080	98	Sidewalk
*	0.010	45	Permeable Pavers
	0.230	61	>75% Grass cover, Good, HSG B
	0.320	70	Weighted Average
	0.240		75.00% Pervious Area
	0.080		25.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 2S:

Runoff = 2.90 cfs @ 12.07 hrs, Volume= 0.200 af, Depth> 2.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YEAR Rainfall=4.70"

	Area (ac)	CN	Description
*	0.260	98	Pavement
*	0.240	98	Sidewalk
*	0.020	45	Permeable Pavers
	0.280	61	>75% Grass cover, Good, HSG B
	0.800	84	Weighted Average
	0.300		37.50% Pervious Area
	0.500		62.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 3S:

Runoff = 2.21 cfs @ 12.08 hrs, Volume= 0.151 af, Depth> 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YEAR Rainfall=4.70"

	Area (ac)	CN	Description
*	0.080	98	Pavement
*	0.230	98	Roof
*	0.030	98	Sidewalk
	0.400	61	>75% Grass cover, Good, HSG B
	0.740	78	Weighted Average
	0.400		54.05% Pervious Area
	0.340		45.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 4S:

Runoff = 4.79 cfs @ 12.14 hrs, Volume= 0.416 af, Depth> 1.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YEAR Rainfall=4.70"

	Area (ac)	CN	Description
*	0.030	98	Sidewalk
	0.540	69	50-75% Grass cover, Fair, HSG B
	3.410	60	Woods, Fair, HSG B
	3.980	62	Weighted Average
	3.950		99.25% Pervious Area
	0.030		0.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.7	50	0.1250	0.30		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.10"
2.2	245	0.1400	1.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	139	0.0300	1.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.0	105	0.0300	0.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.8	539	Total			

Summary for Subcatchment 5S:

Runoff = 1.29 cfs @ 12.07 hrs, Volume= 0.100 af, Depth> 4.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YEAR Rainfall=4.70"

	Area (ac)	CN	Description
*	0.270	98	Roof
	0.270		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 6S:

Runoff = 4.18 cfs @ 12.07 hrs, Volume= 0.300 af, Depth> 3.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YEAR Rainfall=4.70"

	Area (ac)	CN	Description
*	0.180	98	Pavement
*	0.480	98	Roof
*	0.130	98	Sidewalk
	0.160	61	>75% Grass cover, Good, HSG B
	0.950	92	Weighted Average
	0.160		16.84% Pervious Area
	0.790		83.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 7S:

Runoff = 2.59 cfs @ 12.07 hrs, Volume= 0.190 af, Depth> 4.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YEAR Rainfall=4.70"

	Area (ac)	CN	Description
*	0.120	98	Pavement
*	0.280	98	Roof
*	0.120	98	Sidewalk
*	0.020	45	Permeable Pavers
	0.030	61	>75% Grass cover, Good, HSG B
	0.570	94	Weighted Average
	0.050		8.77% Pervious Area
	0.520		91.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 8S:

Runoff = 5.49 cfs @ 12.07 hrs, Volume= 0.409 af, Depth> 4.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YEAR Rainfall=4.70"

	Area (ac)	CN	Description
*	0.200	98	Pavement
*	0.790	98	Roof
*	0.120	98	Sidewalk
*	0.020	45	Permeable Pavers
	0.060	61	>75% Grass cover, Good, HSG B
	1.190	95	Weighted Average
	0.080		6.72% Pervious Area
	1.110		93.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 9S:

Runoff = 7.72 cfs @ 12.07 hrs, Volume= 0.547 af, Depth> 3.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YEAR Rainfall=4.70"

	Area (ac)	CN	Description
*	0.070	98	Pavement
*	0.910	98	Roof
*	0.470	98	Sidewalk
	0.380	61	>75% Grass cover, Good, HSG B
	1.830	90	Weighted Average
	0.380		20.77% Pervious Area
	1.450		79.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 10S:

Runoff = 8.73 cfs @ 12.08 hrs, Volume= 0.598 af, Depth> 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YEAR Rainfall=4.70"

	Area (ac)	CN	Description
*	0.440	98	Pavement
*	1.060	98	Roof
*	0.130	98	Sidewalk
*	0.580	45	Permeable Pavers
	0.710	61	>75% Grass cover, Good, HSG B
	2.920	78	Weighted Average
	1.290		44.18% Pervious Area
	1.630		55.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 11S:

Runoff = 1.38 cfs @ 12.16 hrs, Volume= 0.118 af, Depth> 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YEAR Rainfall=4.70"

	Area (ac)	CN	Description
*	0.050	98	Sidewalk
	0.660	69	50-75% Grass cover, Fair, HSG B
	0.070	60	Woods, Fair, HSG B
	0.780	70	Weighted Average
	0.730		93.59% Pervious Area
	0.050		6.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	50	0.0200	0.10		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.10"
2.3	135	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	52	0.0190	6.25	4.91	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013
10.7	237	Total			

Summary for Subcatchment 12S:

Runoff = 1.79 cfs @ 12.08 hrs, Volume= 0.123 af, Depth> 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YEAR Rainfall=4.70"

	Area (ac)	CN	Description
*	0.040	98	Pavement
*	0.140	98	Roof
	0.440	69	50-75% Grass cover, Fair, HSG B
	0.620	77	Weighted Average
	0.440		70.97% Pervious Area
	0.180		29.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Reach 1R: DESIGN POINT 1 (WHITWELL STREET)

Inflow Area = 4.840 ac, 74.59% Impervious, Inflow Depth > 1.94" for 10 YEAR event
Inflow = 10.03 cfs @ 12.11 hrs, Volume= 0.784 af
Outflow = 10.03 cfs @ 12.11 hrs, Volume= 0.784 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: DESIGN POINT 2 (COLONIAL DRIVE)

Inflow Area = 2.610 ac, 57.47% Impervious, Inflow Depth > 1.39" for 10 YEAR event
Inflow = 3.31 cfs @ 12.34 hrs, Volume= 0.302 af
Outflow = 3.31 cfs @ 12.34 hrs, Volume= 0.302 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 3R: DESIGN POINT 3 (GLENDALE ROAD)

Inflow Area = 3.540 ac, 51.13% Impervious, Inflow Depth > 1.68" for 10 YEAR event
Inflow = 8.70 cfs @ 12.12 hrs, Volume= 0.496 af
Outflow = 8.70 cfs @ 12.12 hrs, Volume= 0.496 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 4R: DESIGN POINT 4 (OFF-SITE)

Inflow Area = 3.980 ac, 0.75% Impervious, Inflow Depth > 1.25" for 10 YEAR event
Inflow = 4.79 cfs @ 12.14 hrs, Volume= 0.416 af
Outflow = 4.79 cfs @ 12.14 hrs, Volume= 0.416 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Pond 1P: SUBSURFACE RECHARGE AREA 1

Inflow Area =	1.220 ac,	86.89% Impervious,	Inflow Depth >	1.75"	for 10 YEAR event
Inflow =	1.59 cfs @	12.36 hrs,	Volume=	0.178 af	
Outflow =	1.55 cfs @	12.39 hrs,	Volume=	0.148 af,	Atten= 3%, Lag= 1.8 min
Discarded =	0.03 cfs @	8.72 hrs,	Volume=	0.045 af	
Primary =	1.53 cfs @	12.39 hrs,	Volume=	0.103 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 139.46' @ 12.39 hrs Surf.Area= 1,202 sf Storage= 1,767 cf
Flood Elev= 140.75' Surf.Area= 1,202 sf Storage= 2,513 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 44.1 min (817.9 - 773.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	137.25'	1,129 cf	**11.00'W x 109.24'L x 3.50'H Field A** 4,206 cf Overall - 1,384 cf Embedded = 2,822 cf x 40.0% Voids
#2A	137.75'	1,384 cf	**ADS_StormTech SC-740** x 30 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
		2,513 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	135.12'	**12.0" Round Culvert** L= 200.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 135.12' / 132.04' S= 0.0154 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	139.20'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Discarded	137.25'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.03 cfs @ 8.72 hrs HW=137.29' (Free Discharge)
└─**3=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=1.52 cfs @ 12.39 hrs HW=139.46' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 1.52 cfs of 6.10 cfs potential flow)
  └─**2=Broad-Crested Rectangular Weir** (Weir Controls 1.52 cfs @ 1.45 fps)

Summary for Pond 2P: SUBSURFACE RECHARGE AREA 2

Inflow Area =	0.950 ac,	83.16% Impervious,	Inflow Depth >	3.79"	for 10 YEAR event
Inflow =	4.18 cfs @	12.07 hrs,	Volume=	0.300 af	
Outflow =	1.28 cfs @	12.37 hrs,	Volume=	0.183 af,	Atten= 69%, Lag= 18.1 min
Discarded =	0.07 cfs @	9.20 hrs,	Volume=	0.105 af	
Primary =	1.21 cfs @	12.37 hrs,	Volume=	0.077 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 144.23' @ 12.37 hrs Surf.Area= 3,121 sf Storage= 5,896 cf
Flood Elev= 144.80' Surf.Area= 3,121 sf Storage= 6,615 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 88.5 min (871.7 - 783.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	141.30'	2,172 cf	**30.00'W x 80.76'L x 3.50'H Field A** 8,480 cf Overall - 3,049 cf Embedded = 5,431 cf x 40.0% Voids
#2A	141.80'	3,049 cf	**ADS_StormTech SC-740** x 66 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 6 rows
#3B	141.30'	416 cf	**6.25'W x 66.52'L x 3.50'H Field B** 1,455 cf Overall - 416 cf Embedded = 1,039 cf x 40.0% Voids
#4B	141.80'	416 cf	**ADS_StormTech SC-740** x 9 Inside #3 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 1 rows
#5C	141.30'	284 cf	**6.25'W x 45.16'L x 3.50'H Field C** 988 cf Overall - 278 cf Embedded = 709 cf x 40.0% Voids
#6C	141.80'	278 cf	**ADS_StormTech SC-740** x 6 Inside #5 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 1 rows
		6,615 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard
Storage Group C created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	140.25'	**15.0" Round Culvert** L= 18.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 140.25' / 140.09' S= 0.0089 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	144.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Discarded	141.30'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 9.20 hrs HW=141.34' (Free Discharge)
└─**3=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=1.21 cfs @ 12.37 hrs HW=144.23' TW=139.46' (Dynamic Tailwater)
└─**1=Culvert** (Passes 1.21 cfs of 10.82 cfs potential flow)
  └─**2=Broad-Crested Rectangular Weir** (Weir Controls 1.21 cfs @ 1.34 fps)

Summary for Pond 3P: SUBSURFACE RECHARGE AREA 3

Inflow Area =	0.570 ac, 91.23% Impervious, Inflow Depth > 4.01" for 10 YEAR event				
Inflow =	2.59 cfs @	12.07 hrs,	Volume=	0.190 af	
Outflow =	1.30 cfs @	12.20 hrs,	Volume=	0.140 af,	Atten= 50%, Lag= 7.6 min
Discarded =	0.04 cfs @	8.72 hrs,	Volume=	0.063 af	
Primary =	1.25 cfs @	12.20 hrs,	Volume=	0.077 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 140.74' @ 12.20 hrs Surf.Area= 1,782 sf Storage= 3,072 cf
Flood Elev= 141.70' Surf.Area= 1,782 sf Storage= 3,828 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 64.3 min (838.2 - 773.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	138.20'	1,606 cf	**30.00'W x 59.40'L x 3.50'H Field A** 6,237 cf Overall - 2,222 cf Embedded = 4,015 cf x 40.0% Voids
#2A	138.70'	2,222 cf	**ADS_StormTech SC-740** x 48 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 6 rows
		3,828 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	140.15'	**12.0" Round Culvert** L= 58.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 140.15' / 136.70' S= 0.0595 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Discarded	138.20'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 8.72 hrs HW=138.24' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 0.04 cfs)

Primary OutFlow Max=1.25 cfs @ 12.20 hrs HW=140.74' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 1.25 cfs @ 2.61 fps)

Summary for Pond 4P: SUBSURFACE RECHARGE AREA 4

Inflow Area =	1.190 ac, 93.28% Impervious, Inflow Depth > 4.12" for 10 YEAR event				
Inflow =	5.49 cfs @	12.07 hrs,	Volume=	0.409 af	
Outflow =	4.29 cfs @	12.13 hrs,	Volume=	0.315 af,	Atten= 22%, Lag= 3.6 min
Discarded =	0.07 cfs @	7.89 hrs,	Volume=	0.110 af	
Primary =	4.22 cfs @	12.13 hrs,	Volume=	0.205 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 144.19' @ 12.13 hrs Surf.Area= 2,969 sf Storage= 5,827 cf
Flood Elev= 144.65' Surf.Area= 2,969 sf Storage= 6,369 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 50.1 min (818.6 - 768.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	141.15'	2,682 cf	**20.50'W x 144.84'L x 3.50'H Field A** 10,392 cf Overall - 3,687 cf Embedded = 6,706 cf x 40.0% Voids
#2A	141.65'	3,687 cf	**ADS_StormTech SC-740** x 80 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 4 rows
		6,369 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	143.20'	**18.0" Round Culvert** L= 66.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 143.20' / 139.00' S= 0.0636 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Discarded	141.15'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 7.89 hrs HW=141.19' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=4.22 cfs @ 12.13 hrs HW=144.19' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 4.22 cfs @ 3.39 fps)

Summary for Pond 5P: SUBSURFACE RECHARGE AREA 5

Inflow Area =	1.830 ac,	79.23% Impervious,	Inflow Depth >	3.58"	for 10 YEAR event
Inflow =	7.72 cfs @	12.07 hrs,	Volume=	0.547 af	
Outflow =	2.55 cfs @	12.35 hrs,	Volume=	0.317 af,	Atten= 67%, Lag= 16.7 min
Discarded =	0.09 cfs @	8.97 hrs,	Volume=	0.132 af	
Primary =	2.46 cfs @	12.35 hrs,	Volume=	0.184 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 131.16' @ 12.35 hrs Surf.Area= 3,918 sf Storage= 10,854 cf
Flood Elev= 132.50' Surf.Area= 3,918 sf Storage= 13,002 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 76.1 min (867.5 - 791.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	127.00'	2,103 cf	**29.92'W x 48.72'L x 5.50'H Field A** 8,016 cf Overall - 2,758 cf Embedded = 5,258 cf x 40.0% Voids
#2A	127.75'	2,758 cf	**ADS_StormTech MC-3500 d +Cap** x 24 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 4 Rows of 6 Chambers Cap Storage= +14.9 cf x 2 x 4 rows = 119.2 cf
#3B	127.00'	449 cf	**8.42'W x 34.38'L x 5.50'H Field B** 1,592 cf Overall - 470 cf Embedded = 1,122 cf x 40.0% Voids
#4B	127.75'	470 cf	**ADS_StormTech MC-3500 d +Cap** x 4 Inside #3 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap Cap Storage= +14.9 cf x 2 x 1 rows = 29.8 cf
#5C	127.00'	2,519 cf	**22.75'W x 77.40'L x 5.50'H Field C** 9,685 cf Overall - 3,388 cf Embedded = 6,297 cf x 40.0% Voids
#6C	127.75'	3,388 cf	**ADS_StormTech MC-3500 d +Cap** x 30 Inside #5 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 3 Rows of 10 Chambers Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf
#7D	127.00'	626 cf	**8.42'W x 48.72'L x 5.50'H Field D** 2,255 cf Overall - 690 cf Embedded = 1,566 cf x 40.0% Voids
#8D	127.75'	690 cf	**ADS_StormTech MC-3500 d +Cap** x 6 Inside #7 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap Cap Storage= +14.9 cf x 2 x 1 rows = 29.8 cf
		13,002 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard
Storage Group C created with Chamber Wizard
Storage Group D created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	127.75'	**12.0" Round Culvert** L= 16.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 127.75' / 127.11' S= 0.0400 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	130.80'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Discarded	127.00'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.09 cfs @ 8.97 hrs HW=127.06' (Free Discharge)
└─**3=Exfiltration** (Exfiltration Controls 0.09 cfs)

Primary OutFlow Max=2.46 cfs @ 12.35 hrs HW=131.16' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 2.46 cfs of 6.45 cfs potential flow)
  └─**2=Broad-Crested Rectangular Weir** (Weir Controls 2.46 cfs @ 1.73 fps)

Summary for Pond 6P: SUBSURFACE RECHARGE AREA 6

Inflow Area =	2.920 ac, 55.82% Impervious, Inflow Depth > 2.46" for 10 YEAR event				
Inflow =	8.73 cfs @	12.08 hrs,	Volume=	0.598 af	
Outflow =	7.23 cfs @	12.13 hrs,	Volume=	0.443 af,	Atten= 17%, Lag= 3.2 min
Discarded =	0.06 cfs @	9.85 hrs,	Volume=	0.070 af	
Primary =	7.18 cfs @	12.13 hrs,	Volume=	0.373 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 122.68' @ 12.13 hrs Surf.Area= 2,352 sf Storage= 7,380 cf
Flood Elev= 123.15' Surf.Area= 2,352 sf Storage= 7,819 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 46.1 min (874.5 - 828.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	117.65'	2,519 cf	**22.75'W x 77.40'L x 5.50'H Field A** 9,685 cf Overall - 3,388 cf Embedded = 6,297 cf x 40.0% Voids
#2A	118.40'	3,388 cf	**ADS_StormTech MC-3500 d +Cap** x 30 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 3 Rows of 10 Chambers Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf
#3B	117.65'	893 cf	**8.42'W x 70.23'L x 5.50'H Field B** 3,251 cf Overall - 1,019 cf Embedded = 2,232 cf x 40.0% Voids
#4B	118.40'	1,019 cf	**ADS_StormTech MC-3500 d +Cap** x 9 Inside #3 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap Cap Storage= +14.9 cf x 2 x 1 rows = 29.8 cf
		7,819 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	118.40'	**18.0" Round Culvert** L= 49.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 118.40' / 115.95' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	122.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Discarded	117.65'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.06 cfs @ 9.85 hrs HW=117.71' (Free Discharge)
└─**3=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=7.16 cfs @ 12.13 hrs HW=122.68' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 7.16 cfs of 15.99 cfs potential flow)
  └─**2=Broad-Crested Rectangular Weir** (Weir Controls 7.16 cfs @ 2.62 fps)

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Runoff Area=0.320 ac 25.00% Impervious Runoff Depth>2.41"
Tc=5.0 min CN=70 Runoff=0.93 cfs 0.064 af

Subcatchment 2S: Runoff Area=0.800 ac 62.50% Impervious Runoff Depth>3.73"
Tc=5.0 min CN=84 Runoff=3.59 cfs 0.249 af

Subcatchment 3S: Runoff Area=0.740 ac 45.95% Impervious Runoff Depth>3.14"
Tc=5.0 min CN=78 Runoff=2.83 cfs 0.194 af

Subcatchment 4S: Runoff Area=3.980 ac 0.75% Impervious Runoff Depth>1.75"
Flow Length=539' Tc=8.8 min CN=62 Runoff=7.00 cfs 0.581 af

Subcatchment 5S: Runoff Area=0.270 ac 100.00% Impervious Runoff Depth>5.26"
Tc=5.0 min CN=98 Runoff=1.51 cfs 0.118 af

Subcatchment 6S: Runoff Area=0.950 ac 83.16% Impervious Runoff Depth>4.58"
Tc=5.0 min CN=92 Runoff=4.98 cfs 0.362 af

Subcatchment 7S: Runoff Area=0.570 ac 91.23% Impervious Runoff Depth>4.80"
Tc=5.0 min CN=94 Runoff=3.07 cfs 0.228 af

Subcatchment 8S: Runoff Area=1.190 ac 93.28% Impervious Runoff Depth>4.91"
Tc=5.0 min CN=95 Runoff=6.49 cfs 0.487 af

Subcatchment 9S: Runoff Area=1.830 ac 79.23% Impervious Runoff Depth>4.36"
Tc=5.0 min CN=90 Runoff=9.29 cfs 0.664 af

Subcatchment 10S: Runoff Area=2.920 ac 55.82% Impervious Runoff Depth>3.14"
Tc=5.0 min CN=78 Runoff=11.15 cfs 0.764 af

Subcatchment 11S: Runoff Area=0.780 ac 6.41% Impervious Runoff Depth>2.41"
Flow Length=237' Tc=10.7 min CN=70 Runoff=1.86 cfs 0.157 af

Subcatchment 12S: Runoff Area=0.620 ac 29.03% Impervious Runoff Depth>3.04"
Tc=5.0 min CN=77 Runoff=2.30 cfs 0.157 af

Reach 1R: DESIGN POINT 1 (WHITWELL STREET) Inflow=15.33 cfs 1.065 af
Outflow=15.33 cfs 1.065 af

Reach 2R: DESIGN POINT 2 (COLONIAL DRIVE) Inflow=7.21 cfs 0.452 af
Outflow=7.21 cfs 0.452 af

Reach 3R: DESIGN POINT 3 (GLENDALE ROAD) Inflow=13.15 cfs 0.693 af
Outflow=13.15 cfs 0.693 af

Reach 4R: DESIGN POINT 4 (OFF-SITE) Inflow=7.00 cfs 0.581 af
Outflow=7.00 cfs 0.581 af

Pond 1P: SUBSURFACE RECHARGE AREA 1 Peak Elev=139.62' Storage=1,889 cf Inflow=3.39 cfs 0.249 af
Discarded=0.03 cfs 0.047 af Primary=3.24 cfs 0.171 af Outflow=3.27 cfs 0.218 af

Pond 2P: SUBSURFACE RECHARGE AREA 2 Peak Elev=144.37' Storage=6,075 cf Inflow=4.98 cfs 0.362 af
Discarded=0.07 cfs 0.109 af Primary=2.58 cfs 0.131 af Outflow=2.65 cfs 0.240 af

Pond 3P: SUBSURFACE RECHARGE AREA 3 Peak Elev=140.98' Storage=3,303 cf Inflow=3.07 cfs 0.228 af
Discarded=0.04 cfs 0.065 af Primary=2.16 cfs 0.110 af Outflow=2.20 cfs 0.175 af

Pond 4P: SUBSURFACE RECHARGE AREA 4 Peak Elev=144.39' Storage=6,064 cf Inflow=6.49 cfs 0.487 af
Discarded=0.07 cfs 0.114 af Primary=5.61 cfs 0.277 af Outflow=5.68 cfs 0.391 af

Pond 5P: SUBSURFACE RECHARGE AREA Peak Elev=131.38' Storage=11,237 cf Inflow=9.29 cfs 0.664 af
Discarded=0.09 cfs 0.138 af Primary=5.37 cfs 0.295 af Outflow=5.46 cfs 0.433 af

Pond 6P: SUBSURFACE RECHARGE AREA Peak Elev=122.88' Storage=7,563 cf Inflow=11.15 cfs 0.764 af
Discarded=0.06 cfs 0.072 af Primary=10.89 cfs 0.536 af Outflow=10.94 cfs 0.608 af

Total Runoff Area = 14.970 ac Runoff Volume = 4.025 af Average Runoff Depth = 3.23"
53.57% Pervious = 8.020 ac 46.43% Impervious = 6.950 ac

Summary for Subcatchment 1S:

Runoff = 0.93 cfs @ 12.08 hrs, Volume= 0.064 af, Depth> 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YEAR Rainfall=5.50"

	Area (ac)	CN	Description
*	0.080	98	Sidewalk
*	0.010	45	Permeable Pavers
	0.230	61	>75% Grass cover, Good, HSG B
	0.320	70	Weighted Average
	0.240		75.00% Pervious Area
	0.080		25.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 2S:

Runoff = 3.59 cfs @ 12.07 hrs, Volume= 0.249 af, Depth> 3.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YEAR Rainfall=5.50"

	Area (ac)	CN	Description
*	0.260	98	Pavement
*	0.240	98	Sidewalk
*	0.020	45	Permeable Pavers
	0.280	61	>75% Grass cover, Good, HSG B
	0.800	84	Weighted Average
	0.300		37.50% Pervious Area
	0.500		62.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 3S:

Runoff = 2.83 cfs @ 12.07 hrs, Volume= 0.194 af, Depth> 3.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YEAR Rainfall=5.50"

	Area (ac)	CN	Description
*	0.080	98	Pavement
*	0.230	98	Roof
*	0.030	98	Sidewalk
	0.400	61	>75% Grass cover, Good, HSG B
	0.740	78	Weighted Average
	0.400		54.05% Pervious Area
	0.340		45.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 4S:

Runoff = 7.00 cfs @ 12.13 hrs, Volume= 0.581 af, Depth> 1.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YEAR Rainfall=5.50"

	Area (ac)	CN	Description
*	0.030	98	Sidewalk
	0.540	69	50-75% Grass cover, Fair, HSG B
	3.410	60	Woods, Fair, HSG B
	3.980	62	Weighted Average
	3.950		99.25% Pervious Area
	0.030		0.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.7	50	0.1250	0.30		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.10"
2.2	245	0.1400	1.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	139	0.0300	1.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.0	105	0.0300	0.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.8	539	Total			

Summary for Subcatchment 5S:

Runoff = 1.51 cfs @ 12.07 hrs, Volume= 0.118 af, Depth> 5.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YEAR Rainfall=5.50"

	Area (ac)	CN	Description
*	0.270	98	Roof
	0.270		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 6S:

Runoff = 4.98 cfs @ 12.07 hrs, Volume= 0.362 af, Depth> 4.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YEAR Rainfall=5.50"

	Area (ac)	CN	Description
*	0.180	98	Pavement
*	0.480	98	Roof
*	0.130	98	Sidewalk
	0.160	61	>75% Grass cover, Good, HSG B
	0.950	92	Weighted Average
	0.160		16.84% Pervious Area
	0.790		83.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 7S:

Runoff = 3.07 cfs @ 12.07 hrs, Volume= 0.228 af, Depth> 4.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YEAR Rainfall=5.50"

	Area (ac)	CN	Description
*	0.120	98	Pavement
*	0.280	98	Roof
*	0.120	98	Sidewalk
*	0.020	45	Permeable Pavers
	0.030	61	>75% Grass cover, Good, HSG B
	0.570	94	Weighted Average
	0.050		8.77% Pervious Area
	0.520		91.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 8S:

Runoff = 6.49 cfs @ 12.07 hrs, Volume= 0.487 af, Depth> 4.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YEAR Rainfall=5.50"

	Area (ac)	CN	Description
*	0.200	98	Pavement
*	0.790	98	Roof
*	0.120	98	Sidewalk
*	0.020	45	Permeable Pavers
	0.060	61	>75% Grass cover, Good, HSG B
	1.190	95	Weighted Average
	0.080		6.72% Pervious Area
	1.110		93.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 9S:

Runoff = 9.29 cfs @ 12.07 hrs, Volume= 0.664 af, Depth> 4.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YEAR Rainfall=5.50"

	Area (ac)	CN	Description
*	0.070	98	Pavement
*	0.910	98	Roof
*	0.470	98	Sidewalk
	0.380	61	>75% Grass cover, Good, HSG B
	1.830	90	Weighted Average
	0.380		20.77% Pervious Area
	1.450		79.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 10S:

Runoff = 11.15 cfs @ 12.07 hrs, Volume= 0.764 af, Depth> 3.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YEAR Rainfall=5.50"

	Area (ac)	CN	Description
*	0.440	98	Pavement
*	1.060	98	Roof
*	0.130	98	Sidewalk
*	0.580	45	Permeable Pavers
	0.710	61	>75% Grass cover, Good, HSG B
	2.920	78	Weighted Average
	1.290		44.18% Pervious Area
	1.630		55.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 11S:

Runoff = 1.86 cfs @ 12.15 hrs, Volume= 0.157 af, Depth> 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YEAR Rainfall=5.50"

	Area (ac)	CN	Description
*	0.050	98	Sidewalk
	0.660	69	50-75% Grass cover, Fair, HSG B
	0.070	60	Woods, Fair, HSG B
	0.780	70	Weighted Average
	0.730		93.59% Pervious Area
	0.050		6.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	50	0.0200	0.10		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.10"
2.3	135	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	52	0.0190	6.25	4.91	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013
10.7	237	Total			

Summary for Subcatchment 12S:

Runoff = 2.30 cfs @ 12.07 hrs, Volume= 0.157 af, Depth> 3.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YEAR Rainfall=5.50"

	Area (ac)	CN	Description
*	0.040	98	Pavement
*	0.140	98	Roof
	0.440	69	50-75% Grass cover, Fair, HSG B
	0.620	77	Weighted Average
	0.440		70.97% Pervious Area
	0.180		29.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Reach 1R: DESIGN POINT 1 (WHITWELL STREET)

Inflow Area = 4.840 ac, 74.59% Impervious, Inflow Depth > 2.64" for 25 YEAR event
Inflow = 15.33 cfs @ 12.10 hrs, Volume= 1.065 af
Outflow = 15.33 cfs @ 12.10 hrs, Volume= 1.065 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: DESIGN POINT 2 (COLONIAL DRIVE)

Inflow Area = 2.610 ac, 57.47% Impervious, Inflow Depth > 2.08" for 25 YEAR event
Inflow = 7.21 cfs @ 12.17 hrs, Volume= 0.452 af
Outflow = 7.21 cfs @ 12.17 hrs, Volume= 0.452 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 3R: DESIGN POINT 3 (GLENDALE ROAD)

Inflow Area = 3.540 ac, 51.13% Impervious, Inflow Depth > 2.35" for 25 YEAR event
Inflow = 13.15 cfs @ 12.09 hrs, Volume= 0.693 af
Outflow = 13.15 cfs @ 12.09 hrs, Volume= 0.693 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 4R: DESIGN POINT 4 (OFF-SITE)

Inflow Area = 3.980 ac, 0.75% Impervious, Inflow Depth > 1.75" for 25 YEAR event
Inflow = 7.00 cfs @ 12.13 hrs, Volume= 0.581 af
Outflow = 7.00 cfs @ 12.13 hrs, Volume= 0.581 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Pond 1P: SUBSURFACE RECHARGE AREA 1

Inflow Area =	1.220 ac,	86.89% Impervious,	Inflow Depth >	2.45"	for 25 YEAR event
Inflow =	3.39 cfs @	12.18 hrs,	Volume=	0.249 af	
Outflow =	3.27 cfs @	12.20 hrs,	Volume=	0.218 af,	Atten= 3%, Lag= 1.5 min
Discarded =	0.03 cfs @	8.16 hrs,	Volume=	0.047 af	
Primary =	3.24 cfs @	12.20 hrs,	Volume=	0.171 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 139.62' @ 12.20 hrs Surf.Area= 1,202 sf Storage= 1,889 cf
Flood Elev= 140.75' Surf.Area= 1,202 sf Storage= 2,513 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 29.1 min (800.4 - 771.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	137.25'	1,129 cf	**11.00'W x 109.24'L x 3.50'H Field A** 4,206 cf Overall - 1,384 cf Embedded = 2,822 cf x 40.0% Voids
#2A	137.75'	1,384 cf	**ADS_StormTech SC-740** x 30 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
		2,513 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	135.12'	**12.0" Round Culvert** L= 200.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 135.12' / 132.04' S= 0.0154 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	139.20'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Discarded	137.25'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.03 cfs @ 8.16 hrs HW=137.29' (Free Discharge)
└─**3=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=3.24 cfs @ 12.20 hrs HW=139.62' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 3.24 cfs of 6.18 cfs potential flow)
  └─**2=Broad-Crested Rectangular Weir** (Weir Controls 3.24 cfs @ 1.91 fps)

Summary for Pond 2P: SUBSURFACE RECHARGE AREA 2

Inflow Area =	0.950 ac,	83.16% Impervious,	Inflow Depth >	4.58"	for 25 YEAR event
Inflow =	4.98 cfs @	12.07 hrs,	Volume=	0.362 af	
Outflow =	2.65 cfs @	12.19 hrs,	Volume=	0.240 af,	Atten= 47%, Lag= 6.9 min
Discarded =	0.07 cfs @	8.69 hrs,	Volume=	0.109 af	
Primary =	2.58 cfs @	12.19 hrs,	Volume=	0.131 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 144.37' @ 12.19 hrs Surf.Area= 3,121 sf Storage= 6,075 cf
Flood Elev= 144.80' Surf.Area= 3,121 sf Storage= 6,615 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 64.0 min (842.3 - 778.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	141.30'	2,172 cf	**30.00'W x 80.76'L x 3.50'H Field A** 8,480 cf Overall - 3,049 cf Embedded = 5,431 cf x 40.0% Voids
#2A	141.80'	3,049 cf	**ADS_StormTech SC-740** x 66 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 6 rows
#3B	141.30'	416 cf	**6.25'W x 66.52'L x 3.50'H Field B** 1,455 cf Overall - 416 cf Embedded = 1,039 cf x 40.0% Voids
#4B	141.80'	416 cf	**ADS_StormTech SC-740** x 9 Inside #3 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 1 rows
#5C	141.30'	284 cf	**6.25'W x 45.16'L x 3.50'H Field C** 988 cf Overall - 278 cf Embedded = 709 cf x 40.0% Voids
#6C	141.80'	278 cf	**ADS_StormTech SC-740** x 6 Inside #5 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 1 rows
		6,615 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard
Storage Group C created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	140.25'	**15.0" Round Culvert** L= 18.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 140.25' / 140.09' S= 0.0089 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	144.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Discarded	141.30'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 8.69 hrs HW=141.34' (Free Discharge)
└─**3=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=2.57 cfs @ 12.19 hrs HW=144.37' TW=139.62' (Dynamic Tailwater)
└─**1=Culvert** (Passes 2.57 cfs of 11.04 cfs potential flow)
└─**2=Broad-Crested Rectangular Weir** (Weir Controls 2.57 cfs @ 1.76 fps)

Summary for Pond 3P: SUBSURFACE RECHARGE AREA 3

Inflow Area =	0.570 ac, 91.23% Impervious, Inflow Depth > 4.80" for 25 YEAR event				
Inflow =	3.07 cfs @	12.07 hrs,	Volume=	0.228 af	
Outflow =	2.20 cfs @	12.14 hrs,	Volume=	0.175 af,	Atten= 28%, Lag= 4.2 min
Discarded =	0.04 cfs @	8.14 hrs,	Volume=	0.065 af	
Primary =	2.16 cfs @	12.14 hrs,	Volume=	0.110 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 140.98' @ 12.14 hrs Surf.Area= 1,782 sf Storage= 3,303 cf
Flood Elev= 141.70' Surf.Area= 1,782 sf Storage= 3,828 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 51.4 min (820.8 - 769.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	138.20'	1,606 cf	**30.00'W x 59.40'L x 3.50'H Field A** 6,237 cf Overall - 2,222 cf Embedded = 4,015 cf x 40.0% Voids
#2A	138.70'	2,222 cf	**ADS_StormTech SC-740** x 48 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 6 rows
		3,828 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	140.15'	**12.0" Round Culvert** L= 58.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 140.15' / 136.70' S= 0.0595 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Discarded	138.20'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 8.14 hrs HW=138.24' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 0.04 cfs)

Primary OutFlow Max=2.16 cfs @ 12.14 hrs HW=140.98' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 2.16 cfs @ 3.10 fps)

Summary for Pond 4P: SUBSURFACE RECHARGE AREA 4

Inflow Area =	1.190 ac, 93.28% Impervious, Inflow Depth > 4.91" for 25 YEAR event				
Inflow =	6.49 cfs @	12.07 hrs,	Volume=	0.487 af	
Outflow =	5.68 cfs @	12.11 hrs,	Volume=	0.391 af,	Atten= 12%, Lag= 2.5 min
Discarded =	0.07 cfs @	7.22 hrs,	Volume=	0.114 af	
Primary =	5.61 cfs @	12.11 hrs,	Volume=	0.277 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 144.39' @ 12.11 hrs Surf.Area= 2,969 sf Storage= 6,064 cf
Flood Elev= 144.65' Surf.Area= 2,969 sf Storage= 6,369 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 43.9 min (808.3 - 764.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	141.15'	2,682 cf	**20.50'W x 144.84'L x 3.50'H Field A** 10,392 cf Overall - 3,687 cf Embedded = 6,706 cf x 40.0% Voids
#2A	141.65'	3,687 cf	**ADS_StormTech SC-740** x 80 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 4 rows
		6,369 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	143.20'	**18.0" Round Culvert** L= 66.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 143.20' / 139.00' S= 0.0636 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Discarded	141.15'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 7.22 hrs HW=141.19' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=5.60 cfs @ 12.11 hrs HW=144.39' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 5.60 cfs @ 3.72 fps)

Summary for Pond 5P: SUBSURFACE RECHARGE AREA 5

Inflow Area =	1.830 ac,	79.23% Impervious,	Inflow Depth >	4.36"	for 25 YEAR event
Inflow =	9.29 cfs @	12.07 hrs,	Volume=	0.664 af	
Outflow =	5.46 cfs @	12.17 hrs,	Volume=	0.433 af,	Atten= 41%, Lag= 5.9 min
Discarded =	0.09 cfs @	8.42 hrs,	Volume=	0.138 af	
Primary =	5.37 cfs @	12.17 hrs,	Volume=	0.295 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 131.38' @ 12.17 hrs Surf.Area= 3,918 sf Storage= 11,237 cf
Flood Elev= 132.50' Surf.Area= 3,918 sf Storage= 13,002 cf

Plug-Flow detention time= 156.5 min calculated for 0.433 af (65% of inflow)
Center-of-Mass det. time= 59.0 min (845.1 - 786.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	127.00'	2,103 cf	**29.92'W x 48.72'L x 5.50'H Field A** 8,016 cf Overall - 2,758 cf Embedded = 5,258 cf x 40.0% Voids
#2A	127.75'	2,758 cf	**ADS_StormTech MC-3500 d +Cap** x 24 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 4 Rows of 6 Chambers Cap Storage= +14.9 cf x 2 x 4 rows = 119.2 cf
#3B	127.00'	449 cf	**8.42'W x 34.38'L x 5.50'H Field B** 1,592 cf Overall - 470 cf Embedded = 1,122 cf x 40.0% Voids
#4B	127.75'	470 cf	**ADS_StormTech MC-3500 d +Cap** x 4 Inside #3 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap Cap Storage= +14.9 cf x 2 x 1 rows = 29.8 cf
#5C	127.00'	2,519 cf	**22.75'W x 77.40'L x 5.50'H Field C** 9,685 cf Overall - 3,388 cf Embedded = 6,297 cf x 40.0% Voids
#6C	127.75'	3,388 cf	**ADS_StormTech MC-3500 d +Cap** x 30 Inside #5 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 3 Rows of 10 Chambers Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf
#7D	127.00'	626 cf	**8.42'W x 48.72'L x 5.50'H Field D** 2,255 cf Overall - 690 cf Embedded = 1,566 cf x 40.0% Voids
#8D	127.75'	690 cf	**ADS_StormTech MC-3500 d +Cap** x 6 Inside #7 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap Cap Storage= +14.9 cf x 2 x 1 rows = 29.8 cf
		13,002 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard
Storage Group C created with Chamber Wizard
Storage Group D created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	127.75'	**12.0" Round Culvert** L= 16.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 127.75' / 127.11' S= 0.0400 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	130.80'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Discarded	127.00'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.09 cfs @ 8.42 hrs HW=127.06' (Free Discharge)
└─**3=Exfiltration** (Exfiltration Controls 0.09 cfs)

Primary OutFlow Max=5.36 cfs @ 12.17 hrs HW=131.38' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 5.36 cfs of 6.69 cfs potential flow)
  └─**2=Broad-Crested Rectangular Weir** (Weir Controls 5.36 cfs @ 2.32 fps)

Summary for Pond 6P: SUBSURFACE RECHARGE AREA 6

Inflow Area =	2.920 ac,	55.82% Impervious,	Inflow Depth >	3.14"	for 25 YEAR event
Inflow =	11.15 cfs @	12.07 hrs,	Volume=	0.764 af	
Outflow =	10.94 cfs @	12.09 hrs,	Volume=	0.608 af,	Atten= 2%, Lag= 0.9 min
Discarded =	0.06 cfs @	9.25 hrs,	Volume=	0.072 af	
Primary =	10.89 cfs @	12.09 hrs,	Volume=	0.536 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 122.88' @ 12.09 hrs Surf.Area= 2,352 sf Storage= 7,563 cf
Flood Elev= 123.15' Surf.Area= 2,352 sf Storage= 7,819 cf

Plug-Flow detention time= 113.5 min calculated for 0.608 af (80% of inflow)
Center-of-Mass det. time= 35.8 min (857.2 - 821.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	117.65'	2,519 cf	**22.75'W x 77.40'L x 5.50'H Field A** 9,685 cf Overall - 3,388 cf Embedded = 6,297 cf x 40.0% Voids
#2A	118.40'	3,388 cf	**ADS_StormTech MC-3500 d +Cap** x 30 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 3 Rows of 10 Chambers Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf
#3B	117.65'	893 cf	**8.42'W x 70.23'L x 5.50'H Field B** 3,251 cf Overall - 1,019 cf Embedded = 2,232 cf x 40.0% Voids
#4B	118.40'	1,019 cf	**ADS_StormTech MC-3500 d +Cap** x 9 Inside #3 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap Cap Storage= +14.9 cf x 2 x 1 rows = 29.8 cf
		7,819 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	118.40'	**18.0" Round Culvert** L= 49.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 118.40' / 115.95' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	122.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Discarded	117.65'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.06 cfs @ 9.25 hrs HW=117.71' (Free Discharge)
└─**3=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=10.89 cfs @ 12.09 hrs HW=122.88' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 10.89 cfs of 16.43 cfs potential flow)
  └─**2=Broad-Crested Rectangular Weir** (Weir Controls 10.89 cfs @ 3.10 fps)

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Runoff Area=0.320 ac 25.00% Impervious Runoff Depth>3.37"
Tc=5.0 min CN=70 Runoff=1.31 cfs 0.090 af

Subcatchment 2S: Runoff Area=0.800 ac 62.50% Impervious Runoff Depth>4.85"
Tc=5.0 min CN=84 Runoff=4.62 cfs 0.323 af

Subcatchment 3S: Runoff Area=0.740 ac 45.95% Impervious Runoff Depth>4.20"
Tc=5.0 min CN=78 Runoff=3.77 cfs 0.259 af

Subcatchment 4S: Runoff Area=3.980 ac 0.75% Impervious Runoff Depth>2.58"
Flow Length=539' Tc=8.8 min CN=62 Runoff=10.65 cfs 0.855 af

Subcatchment 5S: Runoff Area=0.270 ac 100.00% Impervious Runoff Depth>6.46"
Tc=5.0 min CN=98 Runoff=1.84 cfs 0.145 af

Subcatchment 6S: Runoff Area=0.950 ac 83.16% Impervious Runoff Depth>5.75"
Tc=5.0 min CN=92 Runoff=6.18 cfs 0.456 af

Subcatchment 7S: Runoff Area=0.570 ac 91.23% Impervious Runoff Depth>5.99"
Tc=5.0 min CN=94 Runoff=3.79 cfs 0.284 af

Subcatchment 8S: Runoff Area=1.190 ac 93.28% Impervious Runoff Depth>6.10"
Tc=5.0 min CN=95 Runoff=7.97 cfs 0.605 af

Subcatchment 9S: Runoff Area=1.830 ac 79.23% Impervious Runoff Depth>5.53"
Tc=5.0 min CN=90 Runoff=11.63 cfs 0.843 af

Subcatchment 10S: Runoff Area=2.920 ac 55.82% Impervious Runoff Depth>4.20"
Tc=5.0 min CN=78 Runoff=14.86 cfs 1.022 af

Subcatchment 11S: Runoff Area=0.780 ac 6.41% Impervious Runoff Depth>3.36"
Flow Length=237' Tc=10.7 min CN=70 Runoff=2.63 cfs 0.219 af

Subcatchment 12S: Runoff Area=0.620 ac 29.03% Impervious Runoff Depth>4.09"
Tc=5.0 min CN=77 Runoff=3.08 cfs 0.211 af

Reach 1R: DESIGN POINT 1 (WHITWELL STREET) Inflow=25.50 cfs 1.501 af
Outflow=25.50 cfs 1.501 af

Reach 2R: DESIGN POINT 2 (COLONIAL DRIVE) Inflow=10.13 cfs 0.685 af
Outflow=10.13 cfs 0.685 af

Reach 3R: DESIGN POINT 3 (GLENDALE ROAD) Inflow=17.64 cfs 1.002 af
Outflow=17.64 cfs 1.002 af

Reach 4R: DESIGN POINT 4 (OFF-SITE) Inflow=10.65 cfs 0.855 af
Outflow=10.65 cfs 0.855 af

Pond 1P: SUBSURFACE RECHARGE AREA 1 Peak Elev=140.02' Storage=2,155 cf Inflow=7.23 cfs 0.361 af
Discarded=0.03 cfs 0.049 af Primary=6.36 cfs 0.278 af Outflow=6.39 cfs 0.327 af

Pond 2P: SUBSURFACE RECHARGE AREA 2 Peak Elev=144.59' Storage=6,351 cf Inflow=6.18 cfs 0.456 af
Discarded=0.07 cfs 0.114 af Primary=5.54 cfs 0.215 af Outflow=5.62 cfs 0.330 af

Pond 3P: SUBSURFACE RECHARGE AREA 3 Peak Elev=141.29' Storage=3,538 cf Inflow=3.79 cfs 0.284 af
Discarded=0.04 cfs 0.068 af Primary=3.03 cfs 0.162 af Outflow=3.07 cfs 0.230 af

Pond 4P: SUBSURFACE RECHARGE AREA 4 Peak Elev=144.61' Storage=6,320 cf Inflow=7.97 cfs 0.605 af
Discarded=0.07 cfs 0.119 af Primary=6.96 cfs 0.389 af Outflow=7.03 cfs 0.508 af

Pond 5P: SUBSURFACE RECHARGE Peak Elev=132.18' Storage=12,507 cf Inflow=11.63 cfs 0.843 af
Discarded=0.09 cfs 0.144 af Primary=7.50 cfs 0.466 af Outflow=7.59 cfs 0.610 af

Pond 6P: SUBSURFACE RECHARGE AREA Peak Elev=123.06' Storage=7,739 cf Inflow=14.86 cfs 1.022 af
Discarded=0.06 cfs 0.076 af Primary=14.59 cfs 0.790 af Outflow=14.65 cfs 0.866 af

Total Runoff Area = 14.970 ac Runoff Volume = 5.312 af Average Runoff Depth = 4.26"
53.57% Pervious = 8.020 ac 46.43% Impervious = 6.950 ac

Summary for Subcatchment 1S:

Runoff = 1.31 cfs @ 12.08 hrs, Volume= 0.090 af, Depth> 3.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YEAR Rainfall=6.70"

	Area (ac)	CN	Description
*	0.080	98	Sidewalk
*	0.010	45	Permeable Pavers
	0.230	61	>75% Grass cover, Good, HSG B
	0.320	70	Weighted Average
	0.240		75.00% Pervious Area
	0.080		25.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 2S:

Runoff = 4.62 cfs @ 12.07 hrs, Volume= 0.323 af, Depth> 4.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YEAR Rainfall=6.70"

	Area (ac)	CN	Description
*	0.260	98	Pavement
*	0.240	98	Sidewalk
*	0.020	45	Permeable Pavers
	0.280	61	>75% Grass cover, Good, HSG B
	0.800	84	Weighted Average
	0.300		37.50% Pervious Area
	0.500		62.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 3S:

Runoff = 3.77 cfs @ 12.07 hrs, Volume= 0.259 af, Depth> 4.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YEAR Rainfall=6.70"

	Area (ac)	CN	Description
*	0.080	98	Pavement
*	0.230	98	Roof
*	0.030	98	Sidewalk
	0.400	61	>75% Grass cover, Good, HSG B
	0.740	78	Weighted Average
	0.400		54.05% Pervious Area
	0.340		45.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 4S:

Runoff = 10.65 cfs @ 12.13 hrs, Volume= 0.855 af, Depth> 2.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YEAR Rainfall=6.70"

	Area (ac)	CN	Description
*	0.030	98	Sidewalk
	0.540	69	50-75% Grass cover, Fair, HSG B
	3.410	60	Woods, Fair, HSG B
	3.980	62	Weighted Average
	3.950		99.25% Pervious Area
	0.030		0.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.7	50	0.1250	0.30		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.10"
2.2	245	0.1400	1.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.9	139	0.0300	1.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.0	105	0.0300	0.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.8	539	Total			

Summary for Subcatchment 5S:

Runoff = 1.84 cfs @ 12.07 hrs, Volume= 0.145 af, Depth> 6.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YEAR Rainfall=6.70"

	Area (ac)	CN	Description
*	0.270	98	Roof
	0.270		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 6S:

Runoff = 6.18 cfs @ 12.07 hrs, Volume= 0.456 af, Depth> 5.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YEAR Rainfall=6.70"

	Area (ac)	CN	Description
*	0.180	98	Pavement
*	0.480	98	Roof
*	0.130	98	Sidewalk
	0.160	61	>75% Grass cover, Good, HSG B
	0.950	92	Weighted Average
	0.160		16.84% Pervious Area
	0.790		83.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 7S:

Runoff = 3.79 cfs @ 12.07 hrs, Volume= 0.284 af, Depth> 5.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YEAR Rainfall=6.70"

	Area (ac)	CN	Description
*	0.120	98	Pavement
*	0.280	98	Roof
*	0.120	98	Sidewalk
*	0.020	45	Permeable Pavers
	0.030	61	>75% Grass cover, Good, HSG B
	0.570	94	Weighted Average
	0.050		8.77% Pervious Area
	0.520		91.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 8S:

Runoff = 7.97 cfs @ 12.07 hrs, Volume= 0.605 af, Depth> 6.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YEAR Rainfall=6.70"

	Area (ac)	CN	Description
*	0.200	98	Pavement
*	0.790	98	Roof
*	0.120	98	Sidewalk
*	0.020	45	Permeable Pavers
	0.060	61	>75% Grass cover, Good, HSG B
	1.190	95	Weighted Average
	0.080		6.72% Pervious Area
	1.110		93.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 9S:

Runoff = 11.63 cfs @ 12.07 hrs, Volume= 0.843 af, Depth> 5.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YEAR Rainfall=6.70"

	Area (ac)	CN	Description
*	0.070	98	Pavement
*	0.910	98	Roof
*	0.470	98	Sidewalk
	0.380	61	>75% Grass cover, Good, HSG B
	1.830	90	Weighted Average
	0.380		20.77% Pervious Area
	1.450		79.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 10S:

Runoff = 14.86 cfs @ 12.07 hrs, Volume= 1.022 af, Depth> 4.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YEAR Rainfall=6.70"

	Area (ac)	CN	Description
*	0.440	98	Pavement
*	1.060	98	Roof
*	0.130	98	Sidewalk
*	0.580	45	Permeable Pavers
	0.710	61	>75% Grass cover, Good, HSG B
	2.920	78	Weighted Average
	1.290		44.18% Pervious Area
	1.630		55.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 11S:

Runoff = 2.63 cfs @ 12.15 hrs, Volume= 0.219 af, Depth> 3.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YEAR Rainfall=6.70"

	Area (ac)	CN	Description
*	0.050	98	Sidewalk
	0.660	69	50-75% Grass cover, Fair, HSG B
	0.070	60	Woods, Fair, HSG B
	0.780	70	Weighted Average
	0.730		93.59% Pervious Area
	0.050		6.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	50	0.0200	0.10		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.10"
2.3	135	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	52	0.0190	6.25	4.91	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013
10.7	237	Total			

Summary for Subcatchment 12S:

Runoff = 3.08 cfs @ 12.07 hrs, Volume= 0.211 af, Depth> 4.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YEAR Rainfall=6.70"

	Area (ac)	CN	Description
*	0.040	98	Pavement
*	0.140	98	Roof
	0.440	69	50-75% Grass cover, Fair, HSG B
	0.620	77	Weighted Average
	0.440		70.97% Pervious Area
	0.180		29.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Reach 1R: DESIGN POINT 1 (WHITWELL STREET)

Inflow Area = 4.840 ac, 74.59% Impervious, Inflow Depth > 3.72" for 100 YEAR event
Inflow = 25.50 cfs @ 12.09 hrs, Volume= 1.501 af
Outflow = 25.50 cfs @ 12.09 hrs, Volume= 1.501 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: DESIGN POINT 2 (COLONIAL DRIVE)

Inflow Area = 2.610 ac, 57.47% Impervious, Inflow Depth > 3.15" for 100 YEAR event
Inflow = 10.13 cfs @ 12.15 hrs, Volume= 0.685 af
Outflow = 10.13 cfs @ 12.15 hrs, Volume= 0.685 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 3R: DESIGN POINT 3 (GLENDALE ROAD)

Inflow Area = 3.540 ac, 51.13% Impervious, Inflow Depth > 3.40" for 100 YEAR event
Inflow = 17.64 cfs @ 12.08 hrs, Volume= 1.002 af
Outflow = 17.64 cfs @ 12.08 hrs, Volume= 1.002 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Reach 4R: DESIGN POINT 4 (OFF-SITE)

Inflow Area = 3.980 ac, 0.75% Impervious, Inflow Depth > 2.58" for 100 YEAR event
Inflow = 10.65 cfs @ 12.13 hrs, Volume= 0.855 af
Outflow = 10.65 cfs @ 12.13 hrs, Volume= 0.855 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Pond 1P: SUBSURFACE RECHARGE AREA 1

Inflow Area =	1.220 ac, 86.89% Impervious, Inflow Depth > 3.55" for 100 YEAR event				
Inflow =	7.23 cfs @	12.10 hrs,	Volume=	0.361 af	
Outflow =	6.39 cfs @	12.14 hrs,	Volume=	0.327 af,	Atten= 12%, Lag= 2.2 min
Discarded =	0.03 cfs @	7.31 hrs,	Volume=	0.049 af	
Primary =	6.36 cfs @	12.14 hrs,	Volume=	0.278 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 140.02' @ 12.14 hrs Surf.Area= 1,202 sf Storage= 2,155 cf
Flood Elev= 140.75' Surf.Area= 1,202 sf Storage= 2,513 cf

Plug-Flow detention time= 53.0 min calculated for 0.327 af (91% of inflow)
Center-of-Mass det. time= 19.1 min (790.1 - 771.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	137.25'	1,129 cf	**11.00'W x 109.24'L x 3.50'H Field A** 4,206 cf Overall - 1,384 cf Embedded = 2,822 cf x 40.0% Voids
#2A	137.75'	1,384 cf	**ADS_StormTech SC-740** x 30 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
		2,513 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	135.12'	**12.0" Round Culvert** L= 200.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 135.12' / 132.04' S= 0.0154 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	139.20'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Discarded	137.25'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.03 cfs @ 7.31 hrs HW=137.29' (Free Discharge)
└─**3=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=6.36 cfs @ 12.14 hrs HW=140.02' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 6.36 cfs @ 8.10 fps)
  └─**2=Broad-Crested Rectangular Weir** (Passes 6.36 cfs of 9.83 cfs potential flow)

Summary for Pond 2P: SUBSURFACE RECHARGE AREA 2

Inflow Area =	0.950 ac, 83.16% Impervious, Inflow Depth > 5.75" for 100 YEAR event				
Inflow =	6.18 cfs @	12.07 hrs,	Volume=	0.456 af	
Outflow =	5.62 cfs @	12.11 hrs,	Volume=	0.330 af,	Atten= 9%, Lag= 2.1 min
Discarded =	0.07 cfs @	7.92 hrs,	Volume=	0.114 af	
Primary =	5.54 cfs @	12.11 hrs,	Volume=	0.215 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 144.59' @ 12.11 hrs Surf.Area= 3,121 sf Storage= 6,351 cf
Flood Elev= 144.80' Surf.Area= 3,121 sf Storage= 6,615 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 46.8 min (819.3 - 772.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	141.30'	2,172 cf	**30.00'W x 80.76'L x 3.50'H Field A** 8,480 cf Overall - 3,049 cf Embedded = 5,431 cf x 40.0% Voids
#2A	141.80'	3,049 cf	**ADS_StormTech SC-740** x 66 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 6 rows
#3B	141.30'	416 cf	**6.25'W x 66.52'L x 3.50'H Field B** 1,455 cf Overall - 416 cf Embedded = 1,039 cf x 40.0% Voids
#4B	141.80'	416 cf	**ADS_StormTech SC-740** x 9 Inside #3 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 1 rows
#5C	141.30'	284 cf	**6.25'W x 45.16'L x 3.50'H Field C** 988 cf Overall - 278 cf Embedded = 709 cf x 40.0% Voids
#6C	141.80'	278 cf	**ADS_StormTech SC-740** x 6 Inside #5 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 1 rows
		6,615 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard
Storage Group C created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	140.25'	**15.0" Round Culvert** L= 18.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 140.25' / 140.09' S= 0.0089 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	144.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Discarded	141.30'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 7.92 hrs HW=141.34' (Free Discharge)
└─**3=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=5.53 cfs @ 12.11 hrs HW=144.59' TW=139.93' (Dynamic Tailwater)
└─**1=Culvert** (Passes 5.53 cfs of 11.38 cfs potential flow)
  └─**2=Broad-Crested Rectangular Weir** (Weir Controls 5.53 cfs @ 2.35 fps)

Summary for Pond 3P: SUBSURFACE RECHARGE AREA 3

Inflow Area = 0.570 ac, 91.23% Impervious, Inflow Depth > 5.99" for 100 YEAR event
Inflow = 3.79 cfs @ 12.07 hrs, Volume= 0.284 af
Outflow = 3.07 cfs @ 12.12 hrs, Volume= 0.230 af, Atten= 19%, Lag= 3.2 min
Discarded = 0.04 cfs @ 7.28 hrs, Volume= 0.068 af
Primary = 3.03 cfs @ 12.12 hrs, Volume= 0.162 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 141.29' @ 12.12 hrs Surf.Area= 1,782 sf Storage= 3,538 cf
Flood Elev= 141.70' Surf.Area= 1,782 sf Storage= 3,828 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 42.7 min (806.9 - 764.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	138.20'	1,606 cf	**30.00'W x 59.40'L x 3.50'H Field A** 6,237 cf Overall - 2,222 cf Embedded = 4,015 cf x 40.0% Voids
#2A	138.70'	2,222 cf	**ADS_StormTech SC-740** x 48 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 6 rows
		3,828 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	140.15'	**12.0" Round Culvert** L= 58.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 140.15' / 136.70' S= 0.0595 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Discarded	138.20'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 7.28 hrs HW=138.24' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 0.04 cfs)

Primary OutFlow Max=3.03 cfs @ 12.12 hrs HW=141.29' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 3.03 cfs @ 3.86 fps)

Summary for Pond 4P: SUBSURFACE RECHARGE AREA 4

Inflow Area = 1.190 ac, 93.28% Impervious, Inflow Depth > 6.10" for 100 YEAR event
Inflow = 7.97 cfs @ 12.07 hrs, Volume= 0.605 af
Outflow = 7.03 cfs @ 12.11 hrs, Volume= 0.508 af, Atten= 12%, Lag= 2.4 min
Discarded = 0.07 cfs @ 6.36 hrs, Volume= 0.119 af
Primary = 6.96 cfs @ 12.11 hrs, Volume= 0.389 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 144.61' @ 12.11 hrs Surf.Area= 2,969 sf Storage= 6,320 cf
Flood Elev= 144.65' Surf.Area= 2,969 sf Storage= 6,369 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 40.4 min (800.0 - 759.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	141.15'	2,682 cf	**20.50'W x 144.84'L x 3.50'H Field A** 10,392 cf Overall - 3,687 cf Embedded = 6,706 cf x 40.0% Voids
#2A	141.65'	3,687 cf	**ADS_StormTech SC-740** x 80 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 4 rows
		6,369 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	143.20'	**18.0" Round Culvert** L= 66.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 143.20' / 139.00' S= 0.0636 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Discarded	141.15'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 6.36 hrs HW=141.19' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=6.96 cfs @ 12.11 hrs HW=144.61' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 6.96 cfs @ 4.04 fps)

Summary for Pond 5P: SUBSURFACE RECHARGE AREA 5

Inflow Area =	1.830 ac,	79.23% Impervious,	Inflow Depth >	5.53"	for 100 YEAR event
Inflow =	11.63 cfs @	12.07 hrs,	Volume=	0.843 af	
Outflow =	7.59 cfs @	12.15 hrs,	Volume=	0.610 af,	Atten= 35%, Lag= 5.0 min
Discarded =	0.09 cfs @	7.57 hrs,	Volume=	0.144 af	
Primary =	7.50 cfs @	12.15 hrs,	Volume=	0.466 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 132.18' @ 12.15 hrs Surf.Area= 3,918 sf Storage= 12,507 cf
Flood Elev= 132.50' Surf.Area= 3,918 sf Storage= 13,002 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 48.8 min (828.6 - 779.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	127.00'	2,103 cf	**29.92'W x 48.72'L x 5.50'H Field A** 8,016 cf Overall - 2,758 cf Embedded = 5,258 cf x 40.0% Voids
#2A	127.75'	2,758 cf	**ADS_StormTech MC-3500 d +Cap** x 24 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 4 Rows of 6 Chambers Cap Storage= +14.9 cf x 2 x 4 rows = 119.2 cf
#3B	127.00'	449 cf	**8.42'W x 34.38'L x 5.50'H Field B** 1,592 cf Overall - 470 cf Embedded = 1,122 cf x 40.0% Voids
#4B	127.75'	470 cf	**ADS_StormTech MC-3500 d +Cap** x 4 Inside #3 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap Cap Storage= +14.9 cf x 2 x 1 rows = 29.8 cf
#5C	127.00'	2,519 cf	**22.75'W x 77.40'L x 5.50'H Field C** 9,685 cf Overall - 3,388 cf Embedded = 6,297 cf x 40.0% Voids
#6C	127.75'	3,388 cf	**ADS_StormTech MC-3500 d +Cap** x 30 Inside #5 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 3 Rows of 10 Chambers Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf
#7D	127.00'	626 cf	**8.42'W x 48.72'L x 5.50'H Field D** 2,255 cf Overall - 690 cf Embedded = 1,566 cf x 40.0% Voids
#8D	127.75'	690 cf	**ADS_StormTech MC-3500 d +Cap** x 6 Inside #7 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap Cap Storage= +14.9 cf x 2 x 1 rows = 29.8 cf
		13,002 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard
Storage Group C created with Chamber Wizard
Storage Group D created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	127.75'	**12.0" Round Culvert** L= 16.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 127.75' / 127.11' S= 0.0400 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	130.80'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Discarded	127.00'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.09 cfs @ 7.57 hrs HW=127.06' (Free Discharge)
└─**3=Exfiltration** (Exfiltration Controls 0.09 cfs)

Primary OutFlow Max=7.50 cfs @ 12.15 hrs HW=132.18' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 7.50 cfs @ 9.55 fps)
  └─**2=Broad-Crested Rectangular Weir** (Passes 7.50 cfs of 21.58 cfs potential flow)

Summary for Pond 6P: SUBSURFACE RECHARGE AREA 6

Inflow Area =	2.920 ac,	55.82% Impervious,	Inflow Depth >	4.20"	for 100 YEAR event
Inflow =	14.86 cfs @	12.07 hrs,	Volume=	1.022 af	
Outflow =	14.65 cfs @	12.09 hrs,	Volume=	0.866 af,	Atten= 1%, Lag= 0.8 min
Discarded =	0.06 cfs @	8.53 hrs,	Volume=	0.076 af	
Primary =	14.59 cfs @	12.09 hrs,	Volume=	0.790 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 123.06' @ 12.09 hrs Surf.Area= 2,352 sf Storage= 7,739 cf
Flood Elev= 123.15' Surf.Area= 2,352 sf Storage= 7,819 cf

Plug-Flow detention time= 93.3 min calculated for 0.866 af (85% of inflow)
Center-of-Mass det. time= 28.6 min (841.7 - 813.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	117.65'	2,519 cf	**22.75'W x 77.40'L x 5.50'H Field A** 9,685 cf Overall - 3,388 cf Embedded = 6,297 cf x 40.0% Voids
#2A	118.40'	3,388 cf	**ADS_StormTech MC-3500 d +Cap** x 30 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 3 Rows of 10 Chambers Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf
#3B	117.65'	893 cf	**8.42'W x 70.23'L x 5.50'H Field B** 3,251 cf Overall - 1,019 cf Embedded = 2,232 cf x 40.0% Voids
#4B	118.40'	1,019 cf	**ADS_StormTech MC-3500 d +Cap** x 9 Inside #3 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap Cap Storage= +14.9 cf x 2 x 1 rows = 29.8 cf
		7,819 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	118.40'	**18.0" Round Culvert** L= 49.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 118.40' / 115.95' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	122.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Discarded	117.65'	**1.020 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.06 cfs @ 8.53 hrs HW=117.71' (Free Discharge)
└─**3=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=14.57 cfs @ 12.09 hrs HW=123.06' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 14.57 cfs of 16.83 cfs potential flow)
  └─**2=Broad-Crested Rectangular Weir** (Weir Controls 14.57 cfs @ 3.42 fps)

Appendix C

Groundwater Recharge Calculations

114 Whitwell Street
Quincy, MA

MassDEP Standard No. 3 - Groundwater Recharge Calculations

Minimum Required Recharge Volume *(if 100% of impervious area discharging to recharge BMP)*					
NRCS Hydrologic Soil Type	**Approx. Soil Texture**	**Target Depth Factor (inches)**	**Impervious Area (acres)**	**Required Recharge Volume (Rv)**	
				(ac-ft)	**(cf)**
A	sand	0.60	0.00	0.000	0
B	loam	0.35	6.95	0.203	8,830
C	silty loam	0.25	0.00	0.000	0
D	clay	0.10	0.00	0.000	0
		Totals =	**6.95**	**0.203**	**8,830**

Adjusted Minimum Required Recharge Volume *(if less than 100% of impervious area discharging to recharge BMP)*					
Total Impervious Area (acres)	**Impervious Area Draining to Recharge BMP**		**Ratio of Impervious Area**	**Required Recharge Volume (Rv)**	
	acres	**%**		**(ac-ft)**	**(cf)**
6.95	5.77	83.0%	1.20	0.244	10,636

Rv = F x impervious area x ratio of impervious area

Where: Rv = required recharge volume (acre-feet)
F = target depth factor associated with each hydrologic soil group (feet)
Impervious Area = pavement and rooftop area on site (acres)
Ratio of Impervious Area = total impervious area / impervious area discharging to recharge BMF

Notes:
1.) A minimum of 65% of impervious area is required to drain to recharge BMP.
2.) Refer to the 2008 Massachusetts Stormwater Handbook Volume 3, Chapter 1, pages 27-28 for required recharge requirement.

114 Whitwell Street
Quincy, MA

MassDEP Standard No. 3 - Groundwater Recharge Calculations

Subsurface Recharge Area	Static Storage Volume (cf)
1	1,557
2	5,574
3	2,385
4	4,175
5	10,101
6	6,732
	30,524

Required Recharge Volume =	10,636	cf
Provided Recharge Volume =	30,524	cf

Notes:
1.) Static storage volume equals storage volume below outlet pipe.

114 Whitwell Street
Quincy, MA

MassDEP Standard No. 3 - Groundwater Recharge Calculations

Drawdown Time

$$\text{Time}_{\text{drawdown}} = \frac{\text{Rv}}{(\text{K})\ (\text{Bottom Area})}$$

Where: $\text{Time}_{\text{drawdown}}$ = time it takes the basin to drain completely (hours)
Rv = storage volume (cubic feet)
K = saturated hydraulic conductivity (feet/hour)
Bottom Area = bottom area of recharge structure (square feet)

Subsurface Recharge Area	Rv (cf)	K (in/hr)	K (ft/hr)	Bottom Area (sf)	Drawdown Time (hr)
1	1,557	1.02	0.085	1,202	15.2
2	5,574	1.02	0.085	3,121	21.0
3	2,385	1.02	0.085	1,782	15.7
4	4,175	1.02	0.085	2,969	16.5
5	10,101	1.02	0.085	3,918	30.3
6	6,732	1.02	0.085	2,352	33.7

Notes:
1.) Per the 2008 Massachusetts Stormwater Handbook Volume 1, Chapter 1, page 7, infiltration structures must be able to drain fully within 72 hours.
2.) Refer to Volume 3, Chapter 1, page 25 of the 2008 Massachusetts Stormwater Handbook for drawdown analysis guidelines.

Stage-Area-Storage for Pond 1P: SUBSURFACE RECHARGE AREA 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
137.25	**1,202**	0
137.30	1,202	24
137.35	1,202	48
137.40	1,202	72
137.45	1,202	96
137.50	1,202	120
137.55	1,202	144
137.60	1,202	168
137.65	1,202	192
137.70	1,202	216
137.75	1,202	240
137.80	1,202	288
137.85	1,202	336
137.90	1,202	384
137.95	1,202	432
138.00	1,202	479
138.05	1,202	527
138.10	1,202	574
138.15	1,202	621
138.20	1,202	668
138.25	1,202	715
138.30	1,202	762
138.35	1,202	808
138.40	1,202	854
138.45	1,202	900
138.50	1,202	946
138.55	1,202	991
138.60	1,202	1,037
138.65	1,202	1,082
138.70	1,202	1,126
138.75	1,202	1,171
138.80	1,202	1,215
138.85	1,202	1,259
138.90	1,202	1,303
138.95	1,202	1,346
139.00	1,202	1,389
139.05	1,202	1,431
139.10	1,202	1,474
139.15	1,202	1,516
139.20	1,202	1,557
139.25	1,202	1,598
139.30	1,202	1,639
139.35	1,202	1,679
139.40	1,202	1,719
139.45	1,202	1,758
139.50	1,202	1,796
139.55	1,202	1,834
139.60	1,202	1,872
139.65	1,202	1,908
139.70	1,202	1,945
139.75	1,202	1,980
139.80	1,202	2,015
139.85	1,202	2,048
139.90	1,202	2,081
139.95	1,202	2,112
140.00	1,202	2,142
140.05	1,202	2,170
140.10	1,202	2,197
140.15	1,202	2,223
140.20	1,202	2,248
140.25	1,202	2,272
140.30	1,202	2,296
140.35	1,202	2,320
140.40	1,202	2,344
140.45	1,202	2,368
140.50	1,202	2,392
140.55	1,202	2,416
140.60	1,202	2,441
140.65	1,202	2,465
140.70	1,202	2,489
140.75	1,202	**2,513**

OUTLET ELEVATION = 139.20 FT
STORAGE = 1,557 CF

Stage-Area-Storage for Pond 2P: SUBSURFACE RECHARGE AREA 2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
141.30	**3,121**	0
141.35	3,121	62
141.40	3,121	125
141.45	3,121	187
141.50	3,121	250
141.55	3,121	312
141.60	3,121	374
141.65	3,121	437
141.70	3,121	499
141.75	3,121	562
141.80	3,121	624
141.85	3,121	751
141.90	3,121	878
141.95	3,121	1,005
142.00	3,121	1,132
142.05	3,121	1,258
142.10	3,121	1,384
142.15	3,121	1,509
142.20	3,121	1,634
142.25	3,121	1,759
142.30	3,121	1,883
142.35	3,121	2,006
142.40	3,121	2,129
142.45	3,121	2,251
142.50	3,121	2,373
142.55	3,121	2,494
142.60	3,121	2,615
142.65	3,121	2,734
142.70	3,121	2,854
142.75	3,121	2,972
142.80	3,121	3,090
142.85	3,121	3,207
142.90	3,121	3,323
142.95	3,121	3,438
143.00	3,121	3,553
143.05	3,121	3,666
143.10	3,121	3,779
143.15	3,121	3,891
143.20	3,121	4,001
143.25	3,121	4,111
143.30	3,121	4,219
143.35	3,121	4,327
143.40	3,121	4,433
143.45	3,121	4,538
143.50	3,121	4,641
143.55	3,121	4,743
143.60	3,121	4,843
143.65	3,121	4,941
143.70	3,121	5,038
143.75	3,121	5,133
143.80	3,121	5,227
143.85	3,121	5,318
143.90	3,121	5,406
143.95	3,121	5,492
144.00	3,121	5,574
144.05	3,121	5,652
144.10	3,121	5,725
144.15	3,121	5,795
144.20	3,121	5,862
144.25	3,121	5,928
144.30	3,121	5,991
144.35	3,121	6,054
144.40	3,121	6,116
144.45	3,121	6,179
144.50	3,121	6,241
144.55	3,121	6,303
144.60	3,121	6,366
144.65	3,121	6,428
144.70	3,121	6,491
144.75	3,121	6,553
144.80	3,121	**6,615**

OUTLET ELEV. = 144.00 FT
STORAGE = 5,574 CF

Stage-Area-Storage for Pond 3P: SUBSURFACE RECHARGE AREA 3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
138.20	**1,782**	0
138.25	1,782	36
138.30	1,782	71
138.35	1,782	107
138.40	1,782	143
138.45	1,782	178
138.50	1,782	214
138.55	1,782	249
138.60	1,782	285
138.65	1,782	321
138.70	1,782	356
138.75	1,782	430
138.80	1,782	504
138.85	1,782	578
138.90	1,782	652
138.95	1,782	726
139.00	1,782	799
139.05	1,782	872
139.10	1,782	945
139.15	1,782	1,017
139.20	1,782	1,089
139.25	1,782	1,161
139.30	1,782	1,233
139.35	1,782	1,304
139.40	1,782	1,375
139.45	1,782	1,445
139.50	1,782	1,515
139.55	1,782	1,585
139.60	1,782	1,654
139.65	1,782	1,723
139.70	1,782	1,792
139.75	1,782	1,860
139.80	1,782	1,927
139.85	1,782	1,994
139.90	1,782	2,061
139.95	1,782	2,127
140.00	1,782	2,192
140.05	1,782	2,257
140.10	1,782	2,321
140.15	1,782	2,385
140.20	1,782	2,448
140.25	1,782	2,510
140.30	1,782	2,572
140.35	1,782	2,633
140.40	1,782	2,693
140.45	1,782	2,752
140.50	1,782	2,810
140.55	1,782	2,867
140.60	1,782	2,923
140.65	1,782	2,978
140.70	1,782	3,032
140.75	1,782	3,085
140.80	1,782	3,136
140.85	1,782	3,185
140.90	1,782	3,233
140.95	1,782	3,277
141.00	1,782	3,320
141.05	1,782	3,359
141.10	1,782	3,398
141.15	1,782	3,435
141.20	1,782	3,472
141.25	1,782	3,507
141.30	1,782	3,543
141.35	1,782	3,579
141.40	1,782	3,614
141.45	1,782	3,650
141.50	1,782	3,686
141.55	1,782	3,721
141.60	1,782	3,757
141.65	1,782	3,792
141.70	1,782	**3,828**

OUTLET ELEVATION = 140.15 FT
STORAGE = 2,385 CF

Stage-Area-Storage for Pond 4P: SUBSURFACE RECHARGE AREA 4

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
141.15	**2,969**	0
141.20	2,969	59
141.25	2,969	119
141.30	2,969	178
141.35	2,969	238
141.40	2,969	297
141.45	2,969	356
141.50	2,969	416
141.55	2,969	475
141.60	2,969	534
141.65	2,969	594
141.70	2,969	717
141.75	2,969	840
141.80	2,969	963
141.85	2,969	1,085
141.90	2,969	1,208
141.95	2,969	1,329
142.00	2,969	1,451
142.05	2,969	1,572
142.10	2,969	1,692
142.15	2,969	1,812
142.20	2,969	1,932
142.25	2,969	2,051
142.30	2,969	2,169
142.35	2,969	2,287
142.40	2,969	2,404
142.45	2,969	2,521
142.50	2,969	2,636
142.55	2,969	2,752
142.60	2,969	2,866
142.65	2,969	2,980
142.70	2,969	3,093
142.75	2,969	3,206
142.80	2,969	3,317
142.85	2,969	3,428
142.90	2,969	3,538
142.95	2,969	3,646
143.00	2,969	3,754
143.05	2,969	3,861
143.10	2,969	3,967
143.15	2,969	4,072
143.20	2,969	4,175
143.25	2,969	4,278
143.30	2,969	4,379
143.35	2,969	4,479
143.40	2,969	4,577
143.45	2,969	4,673
143.50	2,969	4,768
143.55	2,969	4,862
143.60	2,969	4,953
143.65	2,969	5,043
143.70	2,969	5,130
143.75	2,969	5,215
143.80	2,969	5,298
143.85	2,969	5,377
143.90	2,969	5,451
143.95	2,969	5,521
144.00	2,969	5,588
144.05	2,969	5,652
144.10	2,969	5,715
144.15	2,969	5,775
144.20	2,969	5,834
144.25	2,969	5,894
144.30	2,969	5,953
144.35	2,969	6,013
144.40	2,969	6,072
144.45	2,969	6,131
144.50	2,969	6,191
144.55	2,969	6,250
144.60	2,969	6,309
144.65	2,969	**6,369**
144.70	2,969	6,369

OUTLET ELEVATION = 143.20 FT
STORAGE = 4,175 CF

Stage-Area-Storage for Pond 5P: SUBSURFACE RECHARGE AREA 5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
127.00	**3,918**	0
127.10	3,918	157
127.20	3,918	313
127.30	3,918	470
127.40	3,918	627
127.50	3,918	784
127.60	3,918	940
127.70	3,918	1,097
127.80	3,918	1,337
127.90	3,918	1,661
128.00	3,918	1,983
128.10	3,918	2,304
128.20	3,918	2,624
128.30	3,918	2,942
128.40	3,918	3,259
128.50	3,918	3,575
128.60	3,918	3,889
128.70	3,918	4,202
128.80	3,918	4,512
128.90	3,918	4,821
129.00	3,918	5,128
129.10	3,918	5,432
129.20	3,918	5,734
129.30	3,918	6,034
129.40	3,918	6,331
129.50	3,918	6,626
129.60	3,918	6,917
129.70	3,918	7,206
129.80	3,918	7,491
129.90	3,918	7,773
130.00	3,918	8,051
130.10	3,918	8,325
130.20	3,918	8,595
130.30	3,918	8,860
130.40	3,918	9,120
130.50	3,918	9,375
130.60	3,918	9,624
130.70	3,918	9,866
130.80	3,918	10,101
130.90	3,918	10,328
131.00	3,918	10,544
131.10	3,918	10,747
131.20	3,918	10,934
131.30	3,918	11,108
131.40	3,918	11,275
131.50	3,918	11,435
131.60	3,918	11,592
131.70	3,918	11,749
131.80	3,918	11,905
131.90	3,918	12,062
132.00	3,918	12,219
132.10	3,918	12,375
132.20	3,918	12,532
132.30	3,918	12,689
132.40	3,918	12,846
132.50	3,918	**13,002**

OUTLET ELEVATION = 130.80 FT
STORAGE = 10,101 CF

Stage-Area-Storage for Pond 6P: SUBSURFACE RECHARGE AREA 6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
117.65	**2,352**	0
117.75	2,352	94
117.85	2,352	188
117.95	2,352	282
118.05	2,352	376
118.15	2,352	470
118.25	2,352	564
118.35	2,352	659
118.45	2,352	803
118.55	2,352	998
118.65	2,352	1,192
118.75	2,352	1,385
118.85	2,352	1,577
118.95	2,352	1,769
119.05	2,352	1,960
119.15	2,352	2,150
119.25	2,352	2,339
119.35	2,352	2,527
119.45	2,352	2,714
119.55	2,352	2,900
119.65	2,352	3,084
119.75	2,352	3,267
119.85	2,352	3,449
119.95	2,352	3,630
120.05	2,352	3,809
120.15	2,352	3,986
120.25	2,352	4,161
120.35	2,352	4,335
120.45	2,352	4,506
120.55	2,352	4,676
120.65	2,352	4,843
120.75	2,352	5,008
120.85	2,352	5,170
120.95	2,352	5,330
121.05	2,352	5,486
121.15	2,352	5,640
121.25	2,352	5,789
121.35	2,352	5,935
121.45	2,352	6,076
121.55	2,352	6,213
121.65	2,352	6,343
121.75	2,352	6,465
121.85	2,352	6,577
121.95	2,352	6,681
122.05	2,352	6,782
122.15	2,352	6,878
122.25	2,352	6,972
122.35	2,352	7,066
122.45	2,352	7,160
122.55	2,352	7,254
122.65	2,352	7,348
122.75	2,352	7,442
122.85	2,352	7,536
122.95	2,352	7,631
123.05	2,352	7,725
123.15	2,352	**7,819**

OUTLET ELEVATION = 122.00 FT
STORAGE = 6,732 CF

Appendix D

Water Quality Calculations

Long-Term Pollution Prevention Plan

114 Whitwell Street
Quincy, MA

MassDEP Standard No. 4 - Required Water Quality Volume

Water Quality Treatment Volume

V_{WQ} = (D_{WQ} / 12 inches/foot) * (A_{IMP} * 43,560 square feet/acre)

Where: V_{WQ} = Required Water Quality Volume (in cubic feet)
D_{WQ} = Water Quality Depth (in inches)
A_{IMP} = Impervious Area (in acres)

Subsurface Recharge Area	A_{IMP} (acres)	D_{WQ} (inches)	V_{WQ} (cubic feet)	Provided Volume (cubic feet)
1	0.27	1.00	980	1,557
2	0.79	1.00	2,868	5,574
3	0.52	1.00	1,888	2,385
4	1.11	1.00	4,029	4,175
5	1.45	1.00	5,264	10,101
6	1.63	1.00	5,917	6,732
Total =	**5.77**		**20,945**	**30,524**

Notes:
1.) Refer to Volume 3, Chapter 1, page 32 of the 2008 Massachusetts Stormwater Handbook for water quality treatment volume guidelines.
2.) Water Quality Depth: one-inch for discharges within a Zone II or Interim Wellhead Protection Area, to or near another critical area, runoff from a LUHPPL, or exfiltration to soils with infiltration rate greater than 2.4 inches/hour or greater; ½-inch for discharges near or to other areas.

114 Whitwell Street
Quincy, MA

TSS Removal Efficiency Calculations

TSS Removal Calculation Worksheet

BMP	C	D	E	F
	TSS Removal Rate	Starting TSS Load*	Amount Removed (C*D)	Remaining Load (D-E)
Proprietary Treatment Practice	0.80	1.00	0.80	0.20
	0.00	0.20	0.00	0.20
	0.00	0.20	0.00	0.20
	0.00	0.20	0.00	0.20
	0.00	0.20	0.00	0.20

Total TSS Removal = **80%**

*Equals remaining load from previous BMP (E) which enters the BMP

114 Whitwell Street
Quincy, MA

TSS Removal Efficiency Calculations

TSS Removal Calculation Worksheet

BMP	C	D	E	F
	TSS Removal Rate	Starting TSS Load*	Amount Removed (C*D)	Remaining Load (D-E)
Deep Sump and Hooded Catch Basin	0.25	1.00	0.25	0.75
Proprietary Treatment Practice	0.80	0.75	0.60	0.15
	0.00	0.15	0.00	0.15
	0.00	0.15	0.00	0.15
	0.00	0.15	0.00	0.15

Total TSS Removal = **85%**

*Equals remaining load from previous BMP (E) which enters the BMP

114 Whitwell Street
Quincy, MA

TSS Removal Efficiency Calculations

TSS Removal Calculation Worksheet

BMP	C	D	E	F
	TSS Removal Rate	Starting TSS Load*	Amount Removed (C*D)	Remaining Load (D-E)
Subsurface Infiltration Structure	0.80	1.00	0.80	0.20
	0.00	0.20	0.00	0.20
	0.00	0.20	0.00	0.20
	0.00	0.20	0.00	0.20
	0.00	0.20	0.00	0.20

Total TSS Removal = **80%**

*Equals remaining load from previous BMP (E) which enters the BMP

114 Whitwell Street
Quincy, MA

TSS Removal Efficiency Calculations

TSS Removal Calculation Worksheet

BMP	C	D	E	F
	TSS Removal Rate	Starting TSS Load*	Amount Removed (C*D)	Remaining Load (D-E)
Deep Sump and Hooded Catch Basin	0.25	1.00	0.25	0.75
Subsurface Infiltration Structure	0.80	0.75	0.60	0.15
	0.00	0.15	0.00	0.15
	0.00	0.15	0.00	0.15
	0.00	0.15	0.00	0.15

Total TSS Removal = **85%**

*Equals remaining load from previous BMP (E) which enters the BMP

Project: 114 Whitwell Street
Location: Quincy, MA
Prepared For: Tetra Tech

Purpose: To calculate the water quality flow rate (WQF) over a given site area. In this situation the WQF is derived from the first 1" of runoff from the contributing impervious surface.

Reference: Massachusetts Dept. of Environmental Protection Wetlands Program / United States Department of Agriculture Natural Resources Conservation Service TR-55 Manual

Procedure: Determine unit peak discharge using Figure 1 or 2. Figure 2 is in tabular form so is preferred. Using the tc, read the unit peak discharge (qu) from Figure 1 or Table in Figure 2. qu is expressed in the following units: cfs/mi^2/watershed inches (csm/in).

Compute Q Rate using the following equation:

$$Q = (qu)\ (A)\ (WQV)$$

where:

Q = flow rate associated with first 1" of runoff
qu = the unit peak discharge, in csm/in.
A = impervious surface drainage area (in square miles)
WQV = water quality volume in watershed inches (1" in this case)

Structure Name	Impv. (acres)	A (miles^2)	t_c (min)	t_c (hr)	WQV (in)	qu (csm/in.)	Q (cfs)
WQU 1	0.17	0.0002656	6.0	0.100	1.00	774.00	0.21
WQU 2	0.46	0.0007188	6.0	0.100	1.00	774.00	0.56
WQU 3	0.15	0.0002344	6.0	0.100	1.00	774.00	0.18
WQU 4	0.13	0.0002031	6.0	0.100	1.00	774.00	0.16
WQU 5	0.10	0.0001563	6.0	0.100	1.00	774.00	0.12
WQU 6	0.10	0.0001563	6.0	0.100	1.00	774.00	0.12

CDS ESTIMATED NET ANNUAL SOLIDS LOAD REDUCTION BASED ON THE RATIONAL RAINFALL METHOD

114 WHITWELL STREET
QUINCY, MA

Area	**0.17 ac**	Unit Site Designation	**WQU 1**
Weighted C	**0.9**	Rainfall Station #	**69**
t_c	**6 min**		
CDS Model	**1515-3**	CDS Treatment Capacity	**1.0 cfs**

Rainfall Intensity[1] (in/hr)	Percent Rainfall Volume[1]	Cumulative Rainfall Volume	Total Flowrate (cfs)	Treated Flowrate (cfs)	Incremental Removal (%)
0.02	10.2%	10.2%	0.00	0.00	9.9
0.04	9.6%	19.8%	0.01	0.01	9.3
0.06	9.4%	29.3%	0.01	0.01	9.1
0.08	7.7%	37.0%	0.01	0.01	7.5
0.10	8.6%	45.6%	0.02	0.02	8.2
0.12	6.3%	51.9%	0.02	0.02	6.0
0.14	4.7%	56.5%	0.02	0.02	4.5
0.16	4.6%	61.2%	0.02	0.02	4.4
0.18	3.5%	64.7%	0.03	0.03	3.4
0.20	4.3%	69.1%	0.03	0.03	4.1
0.25	8.0%	77.1%	0.04	0.04	7.6
0.30	5.6%	82.7%	0.05	0.05	5.3
0.35	4.4%	87.0%	0.05	0.05	4.1
0.40	2.5%	89.5%	0.06	0.06	2.4
0.45	2.5%	92.1%	0.07	0.07	2.3
0.50	1.4%	93.5%	0.08	0.08	1.3
0.75	5.0%	98.5%	0.11	0.11	4.5
1.00	1.0%	99.5%	0.15	0.15	0.9
1.50	0.0%	99.5%	0.23	0.23	0.0
2.00	0.0%	99.5%	0.31	0.31	0.0
3.00	0.5%	100.0%	0.46	0.46	0.3
					95.1
				Removal Efficiency Adjustment[2] =	6.5%
				Predicted % Annual Rainfall Treated =	93.5%
				Predicted Net Annual Load Removal Efficiency =	**88.6%**

1 - Based on 10 years of hourly precipitation data from NCDC Station 770, Boston WSFO AP, Suffolk County, MA
2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

CDS ESTIMATED NET ANNUAL SOLIDS LOAD REDUCTION BASED ON THE RATIONAL RAINFALL METHOD

114 WHITWELL STREET
QUINCY, MA

Area	**0.46 ac**	Unit Site Designation	**WQU 2**
Weighted C	**0.9**	Rainfall Station #	**69**
t_c	**6 min**		
CDS Model	**1515-3**	CDS Treatment Capacity	**1.0 cfs**

Rainfall Intensity[1] (in/hr)	Percent Rainfall Volume[1]	Cumulative Rainfall Volume	Total Flowrate (cfs)	Treated Flowrate (cfs)	Incremental Removal (%)
0.02	10.2%	10.2%	0.01	0.01	9.8
0.04	9.6%	19.8%	0.02	0.02	9.3
0.06	9.4%	29.3%	0.02	0.02	9.0
0.08	7.7%	37.0%	0.03	0.03	7.3
0.10	8.6%	45.6%	0.04	0.04	8.1
0.12	6.3%	51.9%	0.05	0.05	5.9
0.14	4.7%	56.5%	0.06	0.06	4.3
0.16	4.6%	61.2%	0.07	0.07	4.3
0.18	3.5%	64.7%	0.07	0.07	3.3
0.20	4.3%	69.1%	0.08	0.08	4.0
0.25	8.0%	77.1%	0.10	0.10	7.2
0.30	5.6%	82.7%	0.12	0.12	5.0
0.35	4.4%	87.0%	0.14	0.14	3.8
0.40	2.5%	89.5%	0.17	0.17	2.2
0.45	2.5%	92.1%	0.19	0.19	2.1
0.50	1.4%	93.5%	0.21	0.21	1.1
0.75	5.0%	98.5%	0.31	0.31	3.8
1.00	1.0%	99.5%	0.41	0.41	0.7
1.50	0.0%	99.5%	0.62	0.62	0.0
2.00	0.0%	99.5%	0.83	0.83	0.0
3.00	0.5%	100.0%	1.24	1.00	0.1
					91.5
				Removal Efficiency Adjustment[2] =	6.5%
				Predicted % Annual Rainfall Treated =	93.5%
				Predicted Net Annual Load Removal Efficiency =	**85.0%**

1 - Based on 10 years of hourly precipitation data from NCDC Station 770, Boston WSFO AP, Suffolk County, MA
2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

CDS ESTIMATED NET ANNUAL SOLIDS LOAD REDUCTION BASED ON THE RATIONAL RAINFALL METHOD

114 WHITWELL STREET
QUINCY, MA

Area	**0.15 ac**	Unit Site Designation	**WQU 3**
Weighted C	**0.9**	Rainfall Station #	**69**
t_c	**6 min**		
CDS Model	**1515-3**	CDS Treatment Capacity	**1.0 cfs**

Rainfall Intensity[1] (in/hr)	Percent Rainfall Volume[1]	Cumulative Rainfall Volume	Total Flowrate (cfs)	Treated Flowrate (cfs)	Incremental Removal (%)
0.02	10.2%	10.2%	0.00	0.00	9.9
0.04	9.6%	19.8%	0.01	0.01	9.3
0.06	9.4%	29.3%	0.01	0.01	9.1
0.08	7.7%	37.0%	0.01	0.01	7.5
0.10	8.6%	45.6%	0.01	0.01	8.3
0.12	6.3%	51.9%	0.02	0.02	6.1
0.14	4.7%	56.5%	0.02	0.02	4.5
0.16	4.6%	61.2%	0.02	0.02	4.4
0.18	3.5%	64.7%	0.02	0.02	3.4
0.20	4.3%	69.1%	0.03	0.03	4.1
0.25	8.0%	77.1%	0.03	0.03	7.6
0.30	5.6%	82.7%	0.04	0.04	5.3
0.35	4.4%	87.0%	0.05	0.05	4.1
0.40	2.5%	89.5%	0.05	0.05	2.4
0.45	2.5%	92.1%	0.06	0.06	2.4
0.50	1.4%	93.5%	0.07	0.07	1.3
0.75	5.0%	98.5%	0.10	0.10	4.6
1.00	1.0%	99.5%	0.14	0.14	0.9
1.50	0.0%	99.5%	0.20	0.20	0.0
2.00	0.0%	99.5%	0.27	0.27	0.0
3.00	0.5%	100.0%	0.41	0.41	0.3
					95.3
				Removal Efficiency Adjustment[2] =	6.5%
				Predicted % Annual Rainfall Treated =	93.5%
				Predicted Net Annual Load Removal Efficiency =	**88.9%**

1 - Based on 10 years of hourly precipitation data from NCDC Station 770, Boston WSFO AP, Suffolk County, MA
2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

CDS ESTIMATED NET ANNUAL SOLIDS LOAD REDUCTION BASED ON THE RATIONAL RAINFALL METHOD

114 WHITWELL STREET
QUINCY, MA

Area	**0.13 ac**	Unit Site Designation	**WQU 4**
Weighted C	**0.9**	Rainfall Station #	**69**
t_c	**6 min**		
CDS Model	**1515-3**	CDS Treatment Capacity	**1.0 cfs**

Rainfall Intensity[1] (in/hr)	Percent Rainfall Volume[1]	Cumulative Rainfall Volume	Total Flowrate (cfs)	Treated Flowrate (cfs)	Incremental Removal (%)
0.02	10.2%	10.2%	0.00	0.00	9.9
0.04	9.6%	19.8%	0.00	0.00	9.4
0.06	9.4%	29.3%	0.01	0.01	9.1
0.08	7.7%	37.0%	0.01	0.01	7.5
0.10	8.6%	45.6%	0.01	0.01	8.3
0.12	6.3%	51.9%	0.01	0.01	6.1
0.14	4.7%	56.5%	0.02	0.02	4.5
0.16	4.6%	61.2%	0.02	0.02	4.5
0.18	3.5%	64.7%	0.02	0.02	3.4
0.20	4.3%	69.1%	0.02	0.02	4.2
0.25	8.0%	77.1%	0.03	0.03	7.6
0.30	5.6%	82.7%	0.04	0.04	5.3
0.35	4.4%	87.0%	0.04	0.04	4.1
0.40	2.5%	89.5%	0.05	0.05	2.4
0.45	2.5%	92.1%	0.05	0.05	2.4
0.50	1.4%	93.5%	0.06	0.06	1.3
0.75	5.0%	98.5%	0.09	0.09	4.6
1.00	1.0%	99.5%	0.12	0.12	0.9
1.50	0.0%	99.5%	0.18	0.18	0.0
2.00	0.0%	99.5%	0.23	0.23	0.0
3.00	0.5%	100.0%	0.35	0.35	0.4
					95.6
				Removal Efficiency Adjustment[2] =	6.5%
				Predicted % Annual Rainfall Treated =	93.5%
				Predicted Net Annual Load Removal Efficiency =	**89.1%**

1 - Based on 10 years of hourly precipitation data from NCDC Station 770, Boston WSFO AP, Suffolk County, MA
2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

CDS ESTIMATED NET ANNUAL SOLIDS LOAD REDUCTION BASED ON THE RATIONAL RAINFALL METHOD

114 WHITWELL STREET
QUINCY, MA

Area	**0.10 ac**	Unit Site Designation	**WQU 5**
Weighted C	**0.9**	Rainfall Station #	**69**
t_c	**6 min**		
CDS Model	**1515-3**	CDS Treatment Capacity	**1.0 cfs**

Rainfall Intensity[1] (in/hr)	Percent Rainfall Volume[1]	Cumulative Rainfall Volume	Total Flowrate (cfs)	Treated Flowrate (cfs)	Incremental Removal (%)
0.02	10.2%	10.2%	0.00	0.00	9.9
0.04	9.6%	19.8%	0.00	0.00	9.4
0.06	9.4%	29.3%	0.01	0.01	9.1
0.08	7.7%	37.0%	0.01	0.01	7.5
0.10	8.6%	45.6%	0.01	0.01	8.3
0.12	6.3%	51.9%	0.01	0.01	6.1
0.14	4.7%	56.5%	0.01	0.01	4.5
0.16	4.6%	61.2%	0.01	0.01	4.5
0.18	3.5%	64.7%	0.02	0.02	3.4
0.20	4.3%	69.1%	0.02	0.02	4.2
0.25	8.0%	77.1%	0.02	0.02	7.7
0.30	5.6%	82.7%	0.03	0.03	5.3
0.35	4.4%	87.0%	0.03	0.03	4.2
0.40	2.5%	89.5%	0.04	0.04	2.4
0.45	2.5%	92.1%	0.04	0.04	2.4
0.50	1.4%	93.5%	0.05	0.05	1.3
0.75	5.0%	98.5%	0.07	0.07	4.7
1.00	1.0%	99.5%	0.09	0.09	0.9
1.50	0.0%	99.5%	0.14	0.14	0.0
2.00	0.0%	99.5%	0.18	0.18	0.0
3.00	0.5%	100.0%	0.27	0.27	0.4
					96.0
				Removal Efficiency Adjustment[2] =	6.5%
				Predicted % Annual Rainfall Treated =	93.5%
				Predicted Net Annual Load Removal Efficiency =	**89.5%**

1 - Based on 10 years of hourly precipitation data from NCDC Station 770, Boston WSFO AP, Suffolk County, MA
2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

CDS ESTIMATED NET ANNUAL SOLIDS LOAD REDUCTION BASED ON THE RATIONAL RAINFALL METHOD

114 WHITWELL STREET
QUINCY, MA

Area	**0.10 ac**	Unit Site Designation	**WQU 6**
Weighted C	**0.9**	Rainfall Station #	**69**
t_c	**6 min**		
CDS Model	**1515-3**	CDS Treatment Capacity	**1.0 cfs**

Rainfall Intensity[1] (in/hr)	Percent Rainfall Volume[1]	Cumulative Rainfall Volume	Total Flowrate (cfs)	Treated Flowrate (cfs)	Incremental Removal (%)
0.02	10.2%	10.2%	0.00	0.00	9.9
0.04	9.6%	19.8%	0.00	0.00	9.4
0.06	9.4%	29.3%	0.01	0.01	9.1
0.08	7.7%	37.0%	0.01	0.01	7.5
0.10	8.6%	45.6%	0.01	0.01	8.3
0.12	6.3%	51.9%	0.01	0.01	6.1
0.14	4.7%	56.5%	0.01	0.01	4.5
0.16	4.6%	61.2%	0.01	0.01	4.5
0.18	3.5%	64.7%	0.02	0.02	3.4
0.20	4.3%	69.1%	0.02	0.02	4.2
0.25	8.0%	77.1%	0.02	0.02	7.7
0.30	5.6%	82.7%	0.03	0.03	5.3
0.35	4.4%	87.0%	0.03	0.03	4.2
0.40	2.5%	89.5%	0.04	0.04	2.4
0.45	2.5%	92.1%	0.04	0.04	2.4
0.50	1.4%	93.5%	0.05	0.05	1.3
0.75	5.0%	98.5%	0.07	0.07	4.7
1.00	1.0%	99.5%	0.09	0.09	0.9
1.50	0.0%	99.5%	0.14	0.14	0.0
2.00	0.0%	99.5%	0.18	0.18	0.0
3.00	0.5%	100.0%	0.27	0.27	0.4
					96.0
				Removal Efficiency Adjustment[2] =	6.5%
				Predicted % Annual Rainfall Treated =	93.5%
				Predicted Net Annual Load Removal Efficiency =	**89.5%**

1 - Based on 10 years of hourly precipitation data from NCDC Station 770, Boston WSFO AP, Suffolk County, MA
2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

Project: 114 Whitwell Street Inlets
Location: Quincy, MA
Prepared For: Tetra Tech

Purpose: To calculate the water quality flow rate (WQF) over a given site area. In this situation the WQF is derived from the first 1" of runoff from the contributing impervious surface.

Reference: Massachusetts Dept. of Environmental Protection Wetlands Program / United States Department of Agriculture Natural Resources Conservation Service TR-55 Manual

Procedure: Determine unit peak discharge using Figure 1 or 2. Figure 2 is in tabular form so is preferred. Using the tc, read the unit peak discharge (qu) from Figure 1 or Table in Figure 2. qu is expressed in the following units: cfs/mi^2/watershed inches (csm/in).

Compute Q Rate using the following equation:

$$Q = (qu)\ (A)\ (WQV)$$

where:

Q = flow rate associated with first 1" of runoff
qu = the unit peak discharge, in csm/in.
A = impervious surface drainage area (in square miles)
WQV = water quality volume in watershed inches (1" in this case)

Structure Name	Impv. (acres)	A (miles^2)	t_c (min)	t_c (hr)	WQV (in)	qu (csm/in.)	Q (cfs)
WQU I-1	0.27	0.0004219	6.0	0.100	1.00	774.00	0.33
WQU I-2	0.35	0.0005469	6.0	0.100	1.00	774.00	0.42
WQU I-3	0.08	0.0001250	6.0	0.100	1.00	774.00	0.10
WQU I-4	0.04	0.0000625	6.0	0.100	1.00	774.00	0.05
WQU I-5	0.05	0.0000781	6.0	0.100	1.00	774.00	0.06
WQU I-6	0.13	0.0002031	6.0	0.100	1.00	774.00	0.16
WQU I-7	0.27	0.0004219	6.0	0.100	1.00	774.00	0.33
WQU I-8	0.31	0.0004844	6.0	0.100	1.00	774.00	0.37

CONTECH ENGINEERED SOLUTIONS

VORTSENTRY® HS ESTIMATED NET ANNUAL TSS REDUCTION BASED ON THE RATIONAL RAINFALL METHOD

114 WHITWELL STREET INLETS
QUINCY, MA

Area	0.27 ac	Unit Site Deignation	WQU I-1
Weighted C	0.9	Rainfall Station #	69
t_c	6 min	Design Ratio[1]	0.0090
VSHS Model	HS36	VSHS Treatment Capacity	0.55 cfs

Rainfall Intensity[1] (in/hr)	Flow Rate (cfs)	Operating Rate[2] cfs/ft[3]	% Total Rainfall	Rel. Effcy (%)
0.02	0.00	0.00018	10.2%	10.0%
0.04	0.01	0.00037	9.6%	9.5%
0.06	0.01	0.00055	9.4%	9.3%
0.08	0.02	0.00073	7.7%	7.6%
0.10	0.02	0.00092	8.6%	8.4%
0.12	0.03	0.00110	6.3%	6.2%
0.14	0.03	0.00128	4.7%	4.6%
0.16	0.04	0.00147	4.6%	4.5%
0.18	0.04	0.00165	3.5%	3.5%
0.20	0.05	0.00183	4.3%	4.3%
0.25	0.06	0.00229	8.0%	7.8%
0.30	0.07	0.00275	5.6%	5.5%
0.35	0.09	0.00321	4.4%	4.3%
0.40	0.10	0.00367	2.5%	2.5%
0.45	0.11	0.00413	2.5%	2.5%
0.50	0.12	0.00458	1.4%	1.4%
0.75	0.18	0.00688	5.0%	4.9%
1.00	0.24	0.00917	1.0%	1.0%
1.50	0.36	0.01375	0.0%	0.0%
2.00	0.49	0.01833	0.0%	0.0%
3.00	0.73	0.02750	0.4%	0.2%
				97.8%
			% rain falling at >3"/hr =	0.1%
			Removal Efficiency Adjustment[4] =	6.5%
			Predicted Net Annual Load Removal Efficiency =	**91.3%**

1 - Design Ratio = (Total Drainage Area x Runoff Coefficient) / VortSentry HS Treatment Volume
= The Total Drainage Area and Runoff Coefficient are specified by the site engineer.
2 - Operating Rate (cfs/ft^3) = Rainfall Intensity ("/hr) x Design Ratio
3 - Based on 10 years of hourly precipitation data from NCDC Station 770, Boston WSFO AP, Suffolk County, MA
4 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

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VORTSENTRY® HS ESTIMATED NET ANNUAL TSS REDUCTION BASED ON THE RATIONAL RAINFALL METHOD

114 WHITWELL STREET INLETS
QUINCY, MA

Area	0.35 ac	Unit Site Deignation	WQU I-2
Weighted C	0.9	Rainfall Station #	69
t_c	6 min	Design Ratio[1]	0.0120
VSHS Model	HS36	VSHS Treatment Capacity	0.55 cfs

Rainfall Intensity[1] (in/hr)	Flow Rate (cfs)	Operating Rate[2] cfs/ft[3]	% Total Rainfall	Rel. Effcy (%)
0.02	0.01	0.00024	10.2%	10.0%
0.04	0.01	0.00048	9.6%	9.5%
0.06	0.02	0.00071	9.4%	9.3%
0.08	0.03	0.00095	7.7%	7.6%
0.10	0.03	0.00119	8.6%	8.4%
0.12	0.04	0.00143	6.3%	6.2%
0.14	0.04	0.00166	4.7%	4.6%
0.16	0.05	0.00190	4.6%	4.5%
0.18	0.06	0.00214	3.5%	3.5%
0.20	0.06	0.00238	4.3%	4.3%
0.25	0.08	0.00297	8.0%	7.8%
0.30	0.09	0.00357	5.6%	5.5%
0.35	0.11	0.00416	4.4%	4.3%
0.40	0.13	0.00475	2.5%	2.5%
0.45	0.14	0.00535	2.5%	2.5%
0.50	0.16	0.00594	1.4%	1.4%
0.75	0.24	0.00891	5.0%	4.9%
1.00	0.32	0.01188	1.0%	0.9%
1.50	0.47	0.01783	0.0%	0.0%
2.00	0.63	0.02377	0.0%	0.0%
3.00	0.95	0.03565	0.3%	0.1%
				97.6%
			% rain falling at >3"/hr =	0.2%
			Removal Efficiency Adjustment[4] =	6.5%
			Predicted Net Annual Load Removal Efficiency =	**91.1%**

1 - Design Ratio = (Total Drainage Area x Runoff Coefficient) / VortSentry HS Treatment Volume
= The Total Drainage Area and Runoff Coefficient are specified by the site engineer.
2 - Operating Rate (cfs/ft^3) = Rainfall Intensity ("/hr) x Design Ratio
3 - Based on 10 years of hourly precipitation data from NCDC Station 770, Boston WSFO AP, Suffolk County, MA
4 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

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VORTSENTRY® HS ESTIMATED NET ANNUAL TSS REDUCTION BASED ON THE RATIONAL RAINFALL METHOD

114 WHITWELL STREET INLETS
QUINCY, MA

Area	0.08 ac	Unit Site Deignation	WQU I-3
Weighted C	0.9	Rainfall Station #	69
t_c	6 min	Design Ratio[1]	0.0030
VSHS Model	HS36	VSHS Treatment Capacity	0.55 cfs

Rainfall Intensity[1] (in/hr)	Flow Rate (cfs)	Operating Rate[2] cfs/ft[3]	% Total Rainfall	Rel. Effcy (%)
0.02	0.00	0.00005	10.2%	10.0%
0.04	0.00	0.00011	9.6%	9.5%
0.06	0.00	0.00016	9.4%	9.3%
0.08	0.01	0.00022	7.7%	7.6%
0.10	0.01	0.00027	8.6%	8.4%
0.12	0.01	0.00033	6.3%	6.2%
0.14	0.01	0.00038	4.7%	4.6%
0.16	0.01	0.00043	4.6%	4.5%
0.18	0.01	0.00049	3.5%	3.5%
0.20	0.01	0.00054	4.3%	4.3%
0.25	0.02	0.00068	8.0%	7.8%
0.30	0.02	0.00081	5.6%	5.5%
0.35	0.03	0.00095	4.4%	4.3%
0.40	0.03	0.00109	2.5%	2.5%
0.45	0.03	0.00122	2.5%	2.5%
0.50	0.04	0.00136	1.4%	1.4%
0.75	0.05	0.00204	5.0%	4.9%
1.00	0.07	0.00272	1.0%	1.0%
1.50	0.11	0.00407	0.0%	0.0%
2.00	0.14	0.00543	0.0%	0.0%
3.00	0.22	0.00815	0.5%	0.5%
				98.0%
			% rain falling at >3"/hr =	0.0%
			Removal Efficiency Adjustment[4] =	6.5%
			Predicted Net Annual Load Removal Efficiency =	**91.5%**

1 - Design Ratio = (Total Drainage Area x Runoff Coefficient) / VortSentry HS Treatment Volume
= The Total Drainage Area and Runoff Coefficient are specified by the site engineer.
2 - Operating Rate (cfs/ft^3) = Rainfall Intensity ("/hr) x Design Ratio
3 - Based on 10 years of hourly precipitation data from NCDC Station 770, Boston WSFO AP, Suffolk County, MA
4 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

CONTECH ENGINEERED SOLUTIONS

VORTSENTRY® HS ESTIMATED NET ANNUAL TSS REDUCTION BASED ON THE RATIONAL RAINFALL METHOD

114 WHITWELL STREET INLETS
QUINCY, MA

Area	0.04 ac	Unit Site Deignation	WQU I-4
Weighted C	0.9	Rainfall Station #	69
t_c	6 min	Design Ratio[1]	0.0010
VSHS Model	HS36	VSHS Treatment Capacity	0.55 cfs

Rainfall Intensity[1] (in/hr)	Flow Rate (cfs)	Operating Rate[2] cfs/ft[3]	% Total Rainfall	Rel. Effcy (%)
0.02	0.00	0.00003	10.2%	10.0%
0.04	0.00	0.00005	9.6%	9.5%
0.06	0.00	0.00008	9.4%	9.3%
0.08	0.00	0.00011	7.7%	7.6%
0.10	0.00	0.00014	8.6%	8.4%
0.12	0.00	0.00016	6.3%	6.2%
0.14	0.01	0.00019	4.7%	4.6%
0.16	0.01	0.00022	4.6%	4.5%
0.18	0.01	0.00024	3.5%	3.5%
0.20	0.01	0.00027	4.3%	4.3%
0.25	0.01	0.00034	8.0%	7.8%
0.30	0.01	0.00041	5.6%	5.5%
0.35	0.01	0.00048	4.4%	4.3%
0.40	0.01	0.00054	2.5%	2.5%
0.45	0.02	0.00061	2.5%	2.5%
0.50	0.02	0.00068	1.4%	1.4%
0.75	0.03	0.00102	5.0%	4.9%
1.00	0.04	0.00136	1.0%	1.0%
1.50	0.05	0.00204	0.0%	0.0%
2.00	0.07	0.00272	0.0%	0.0%
3.00	0.11	0.00407	0.5%	0.5%
				98.0%
			% rain falling at >3"/hr =	0.0%
			Removal Efficiency Adjustment[4] =	6.5%
			Predicted Net Annual Load Removal Efficiency =	**91.5%**

1 - Design Ratio = (Total Drainage Area x Runoff Coefficient) / VortSentry HS Treatment Volume
= The Total Drainage Area and Runoff Coefficient are specified by the site engineer.
2 - Operating Rate (cfs/ft^3) = Rainfall Intensity ("/hr) x Design Ratio
3 - Based on 10 years of hourly precipitation data from NCDC Station 770, Boston WSFO AP, Suffolk County, MA
4 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

CONTECH ENGINEERED SOLUTIONS

VORTSENTRY® HS ESTIMATED NET ANNUAL TSS REDUCTION BASED ON THE RATIONAL RAINFALL METHOD

114 WHITWELL STREET INLETS
QUINCY, MA

Area	0.05 ac	Unit Site Deignation	WQU I-5
Weighted C	0.9	Rainfall Station #	69
t_c	6 min	Design Ratio[1]	0.0020
VSHS Model	HS36	VSHS Treatment Capacity	0.55 cfs

Rainfall Intensity[1] (in/hr)	Flow Rate (cfs)	Operating Rate[2] cfs/ft[3]	% Total Rainfall	Rel. Effcy (%)
0.02	0.00	0.00003	10.2%	10.0%
0.04	0.00	0.00007	9.6%	9.5%
0.06	0.00	0.00010	9.4%	9.3%
0.08	0.00	0.00014	7.7%	7.6%
0.10	0.00	0.00017	8.6%	8.4%
0.12	0.01	0.00020	6.3%	6.2%
0.14	0.01	0.00024	4.7%	4.6%
0.16	0.01	0.00027	4.6%	4.5%
0.18	0.01	0.00031	3.5%	3.5%
0.20	0.01	0.00034	4.3%	4.3%
0.25	0.01	0.00042	8.0%	7.8%
0.30	0.01	0.00051	5.6%	5.5%
0.35	0.02	0.00059	4.4%	4.3%
0.40	0.02	0.00068	2.5%	2.5%
0.45	0.02	0.00076	2.5%	2.5%
0.50	0.02	0.00085	1.4%	1.4%
0.75	0.03	0.00127	5.0%	4.9%
1.00	0.05	0.00170	1.0%	1.0%
1.50	0.07	0.00255	0.0%	0.0%
2.00	0.09	0.00340	0.0%	0.0%
3.00	0.14	0.00509	0.5%	0.5%
				98.0%
			% rain falling at >3"/hr =	0.0%
			Removal Efficiency Adjustment[4] =	6.5%
			Predicted Net Annual Load Removal Efficiency =	**91.5%**

1 - Design Ratio = (Total Drainage Area x Runoff Coefficient) / VortSentry HS Treatment Volume
= The Total Drainage Area and Runoff Coefficient are specified by the site engineer.
2 - Operating Rate (cfs/ft^3) = Rainfall Intensity ("/hr) x Design Ratio
3 - Based on 10 years of hourly precipitation data from NCDC Station 770, Boston WSFO AP, Suffolk County, MA
4 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

CONTECH ENGINEERED SOLUTIONS

VORTSENTRY® HS ESTIMATED NET ANNUAL TSS REDUCTION BASED ON THE RATIONAL RAINFALL METHOD

114 WHITWELL STREET INLETS
QUINCY, MA

Area	0.13 ac	Unit Site Deignation	WQU I-6
Weighted C	0.9	Rainfall Station #	69
t_c	6 min	Design Ratio[1]	0.0040
VSHS Model	HS36	VSHS Treatment Capacity	0.55 cfs

Rainfall Intensity[1] (in/hr)	Flow Rate (cfs)	Operating Rate[2] cfs/ft[3]	% Total Rainfall	Rel. Effcy (%)
0.02	0.00	0.00009	10.2%	10.0%
0.04	0.00	0.00018	9.6%	9.5%
0.06	0.01	0.00026	9.4%	9.3%
0.08	0.01	0.00035	7.7%	7.6%
0.10	0.01	0.00044	8.6%	8.4%
0.12	0.01	0.00053	6.3%	6.2%
0.14	0.02	0.00062	4.7%	4.6%
0.16	0.02	0.00071	4.6%	4.5%
0.18	0.02	0.00079	3.5%	3.5%
0.20	0.02	0.00088	4.3%	4.3%
0.25	0.03	0.00110	8.0%	7.8%
0.30	0.04	0.00132	5.6%	5.5%
0.35	0.04	0.00154	4.4%	4.3%
0.40	0.05	0.00177	2.5%	2.5%
0.45	0.05	0.00199	2.5%	2.5%
0.50	0.06	0.00221	1.4%	1.4%
0.75	0.09	0.00331	5.0%	4.9%
1.00	0.12	0.00441	1.0%	1.0%
1.50	0.18	0.00662	0.0%	0.0%
2.00	0.23	0.00883	0.0%	0.0%
3.00	0.35	0.01324	0.5%	0.4%
				98.0%
			% rain falling at >3"/hr =	0.0%
			Removal Efficiency Adjustment[4] =	6.5%
			Predicted Net Annual Load Removal Efficiency =	**91.5%**

1 - Design Ratio = (Total Drainage Area x Runoff Coefficient) / VortSentry HS Treatment Volume
= The Total Drainage Area and Runoff Coefficient are specified by the site engineer.
2 - Operating Rate (cfs/ft^3) = Rainfall Intensity ("/hr) x Design Ratio
3 - Based on 10 years of hourly precipitation data from NCDC Station 770, Boston WSFO AP, Suffolk County, MA
4 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

CONTECH ENGINEERED SOLUTIONS

VORTSENTRY® HS ESTIMATED NET ANNUAL TSS REDUCTION BASED ON THE RATIONAL RAINFALL METHOD

114 WHITWELL STREET INLETS
QUINCY, MA

Area	0.27 ac	Unit Site Deignation	WQU I-7
Weighted C	0.9	Rainfall Station #	69
t_c	6 min	Design Ratio[1]	0.0090
VSHS Model	HS36	VSHS Treatment Capacity	0.55 cfs

Rainfall Intensity[1] (in/hr)	Flow Rate (cfs)	Operating Rate[2] cfs/ft[3]	% Total Rainfall	Rel. Effcy (%)
0.02	0.00	0.00018	10.2%	10.0%
0.04	0.01	0.00037	9.6%	9.5%
0.06	0.01	0.00055	9.4%	9.3%
0.08	0.02	0.00073	7.7%	7.6%
0.10	0.02	0.00092	8.6%	8.4%
0.12	0.03	0.00110	6.3%	6.2%
0.14	0.03	0.00128	4.7%	4.6%
0.16	0.04	0.00147	4.6%	4.5%
0.18	0.04	0.00165	3.5%	3.5%
0.20	0.05	0.00183	4.3%	4.3%
0.25	0.06	0.00229	8.0%	7.8%
0.30	0.07	0.00275	5.6%	5.5%
0.35	0.09	0.00321	4.4%	4.3%
0.40	0.10	0.00367	2.5%	2.5%
0.45	0.11	0.00413	2.5%	2.5%
0.50	0.12	0.00458	1.4%	1.4%
0.75	0.18	0.00688	5.0%	4.9%
1.00	0.24	0.00917	1.0%	1.0%
1.50	0.36	0.01375	0.0%	0.0%
2.00	0.49	0.01833	0.0%	0.0%
3.00	0.73	0.02750	0.4%	0.2%
				97.8%
			% rain falling at >3"/hr =	0.1%
			Removal Efficiency Adjustment[4] =	6.5%
			Predicted Net Annual Load Removal Efficiency =	**91.3%**

1 - Design Ratio = (Total Drainage Area x Runoff Coefficient) / VortSentry HS Treatment Volume
= The Total Drainage Area and Runoff Coefficient are specified by the site engineer.
2 - Operating Rate (cfs/ft^3) = Rainfall Intensity ("/hr) x Design Ratio
3 - Based on 10 years of hourly precipitation data from NCDC Station 770, Boston WSFO AP, Suffolk County, MA
4 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

CONTECH ENGINEERED SOLUTIONS

VORTSENTRY® HS ESTIMATED NET ANNUAL TSS REDUCTION BASED ON THE RATIONAL RAINFALL METHOD

114 WHITWELL STREET INLETS
QUINCY, MA

Area	0.31 ac	Unit Site Deignation	WQU I-8
Weighted C	0.9	Rainfall Station #	69
t_c	6 min	Design Ratio[1]	0.0110
VSHS Model	HS36	VSHS Treatment Capacity	0.55 cfs

Rainfall Intensity[1] (in/hr)	Flow Rate (cfs)	Operating Rate[2] cfs/ft[3]	% Total Rainfall	Rel. Effcy (%)
0.02	0.01	0.00021	10.2%	10.0%
0.04	0.01	0.00042	9.6%	9.5%
0.06	0.02	0.00063	9.4%	9.3%
0.08	0.02	0.00084	7.7%	7.6%
0.10	0.03	0.00105	8.6%	8.4%
0.12	0.03	0.00126	6.3%	6.2%
0.14	0.04	0.00147	4.7%	4.6%
0.16	0.04	0.00168	4.6%	4.5%
0.18	0.05	0.00189	3.5%	3.5%
0.20	0.06	0.00211	4.3%	4.3%
0.25	0.07	0.00263	8.0%	7.8%
0.30	0.08	0.00316	5.6%	5.5%
0.35	0.10	0.00368	4.4%	4.3%
0.40	0.11	0.00421	2.5%	2.5%
0.45	0.13	0.00474	2.5%	2.5%
0.50	0.14	0.00526	1.4%	1.4%
0.75	0.21	0.00789	5.0%	4.9%
1.00	0.28	0.01053	1.0%	1.0%
1.50	0.42	0.01579	0.0%	0.0%
2.00	0.56	0.02105	0.0%	0.0%
3.00	0.84	0.03158	0.3%	0.2%
				97.7%
			% rain falling at >3"/hr =	0.2%
			Removal Efficiency Adjustment[4] =	6.5%
			Predicted Net Annual Load Removal Efficiency =	**91.2%**

1 - Design Ratio = (Total Drainage Area x Runoff Coefficient) / VortSentry HS Treatment Volume
= The Total Drainage Area and Runoff Coefficient are specified by the site engineer.
2 - Operating Rate (cfs/ft^3) = Rainfall Intensity ("/hr) x Design Ratio
3 - Based on 10 years of hourly precipitation data from NCDC Station 770, Boston WSFO AP, Suffolk County, MA
4 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

Long Term Pollution Prevention Plan

114 Whitwell Street
Quincy, Massachusetts

Good Housekeeping Practices

The Owner/Operator shall employ the use of good housekeeping practices by adhering to the maintenance schedules and procedures described in the Stormwater Operations and Maintenance Plan provided in the project's Stormwater Management Report dated September 26, 2018.

Provisions for storing materials and waste products inside or under cover

The storage of hazardous materials and waste is not anticipated at this site.

Vehicle washing controls

The washing of vehicles is not anticipated at this site. In the event that vehicle washing is conducted at the site, it will be performed in a location where runoff can be collected in the closed stormwater collection system and directed to a stormwater quality device. Runoff resulting from vehicle washing will not be directly discharged to a wetland.

Requirements for routine inspections and maintenance of stormwater BMP's

The Owner/Operator will utilize the Stormwater Management System Operations and Maintenance Plan provided in the project's Stormwater Management Report dated September 26, 2018 for use in the maintenance of the stormwater BMP's.

Spill prevention and response plans

There is limited risk of a large spill requiring action at this site. Spills requiring action will most likely be associated with motor vehicle activity. In the event of a large spill contact the City of Quincy Fire Department at (617) 376-1040.

Provisions for maintenance of lawns, gardens, and other landscaped areas

The use of chemical fertilizers will be minimized to the maximum extent practicable. If fertilizers must be used, they will be worked into the soil to limit exposure to stormwater.

Requirements for storage and use of fertilizers, herbicides, and pesticides

Fertilizers, herbicides, and pesticides will be stored in their original containers with the original labels in legible condition. These substances will be stored in covered, dry areas. The use of fertilizers, herbicides, and pesticides will be minimized to the maximum extent practicable.

Provisions for solid waste management

Solid waste management systems shall be inspected and maintained in accordance with all local, state, and federal solid waste management regulations.

Long Term Pollution Prevention Plan
114 Whitwell Street
Quincy, Massachusetts

Emergency and Regulatory Contacts

Name:	City of Quincy Fire Department
Address:	40 Quincy Avenue
City, State:	Quincy, MA 02169
Contact:	Joseph Barron, Fire Chief
Telephone:	911 or 617-376-1040

Name:	City of Quincy Police Department
Address:	1 Sea Street
City, State:	Quincy, MA 02169
Contact:	Paul Keenan, Chief of Police
Telephone:	911 or 617-479-1212

Name:	City of Quincy Conservation Commission
Address:	55 Sea Street
City, State:	Quincy, MA 02169
Telephone:	617-376-1450

Name:	City of Quincy Department of Public Works
Address:	55 Sea Street
City, State:	Quincy, MA 02169
Contact:	Al Grazioso**,** Public Works Commissioner
Telephone:	617-376-1959

Name:	MassDEP Northeast Regional Office
Address:	205B Lowell Street
City, State:	Wilmington, MA 01887
Telephone:	978-694-3200
Emergency:	888-304-1133
	(24-hour statewide number to report a spill of oil or hazardous material)

Appendix E

Operations and Maintenance Plan

Stormwater Management System Operation and Maintenance Plan

114 Whitwell Street
Quincy, Massachusetts

Submitted to:

City of Quincy
September 26, 2018

Prepared for:

FRP Quincy Development LLC
1495 Hancock Street, Suite 400
Quincy, Massachusetts 02169

TABLE OF CONTENTS

LIST OF APPENDICES

1.0 INTRODUCTION

This long-term Stormwater Management System Operations and Maintenance (O&M) Plan, filed with the City of Quincy, shall be implemented at 114 Whitwell Street to promote that the stormwater management system function as designed. The Owner possesses the primary responsibility for overseeing and implementing the O&M Plan and assigning a property manager who will be responsible for the proper operation and maintenance of the stormwater structures. In case of transfer of property ownership, future property owners shall be notified of the presence of the stormwater management system and the requirements for proper implementation of the O&M Plan. Included in the manual is a Stormwater Management O&M Plan identifying the key components of the stormwater system and a log for tracking inspections and maintenance.

The stormwater management system protects and enhances the stormwater runoff water quality through the removal of sediment and pollutants, and source control significantly reduces the amount of pollutants entering the system. Preventive maintenance of the system will include a comprehensive source reduction program of regular vacuuming and litter removal, prohibitions on the use of pesticides, and maintenance of trash areas.

1.1 RESPONSIBILITY

The purpose of the Stormwater Operations and Maintenance (O&M) plan is to promote inspection of the system, removal of accumulated sediments, oils, and debris, and implementation of corrective action and record keeping activities. The below O&M activities may be performed by a Contract Operator for the scope of facilities. The Contract Operator will be a professional engineer or other technical professional with expertise and experience with storm water management facilities operation and maintenance.

The ongoing responsibility is the Owner, its successors and assigns. Adequate maintenance is defined in this document as good working condition.

Contact information is provided below:

Responsibility for Operations and Maintenance

John Cummings, Property Manager
FoxRock Properties LLC
(781) 443-7411
jcummings@foxrockproperties.com

1.2 DOCUMENTATION

An Operation and Maintenance Record Log and Schedule will be kept by the Owner summarizing inspections, maintenance, repairs and any corrective actions taken. The log will include the date on which each inspection or maintenance task was performed, a description of the inspection findings or maintenance completed, and the name of the inspector or maintenance personnel performing the task. If a maintenance task requires the clean-out of any sediments or debris, the location where the sediment and debris was disposed after removal will be indicated. Maintenance logs will be kept on file at the Facilities

office and copies of Inspection & Maintenance Log sheets indicating all work and inspections will be available to the City of Quincy upon request.

1.3 TRAINING

The Owner will coordinate an annual in-house training session with the Pollution Prevention Team members to discuss the Operations and Maintenance Plan and the Spill Prevention and Contingency Plan. Annual training will include the following:

- Discuss the Operations and Maintenance Plan
  - Explain the general operations of the stormwater management system and it's BMP's
  - Identify potential sources of stormwater pollution and measures/methods of reducing or eliminating that pollution
  - Emphasize good housekeeping measures

- Discuss the Spill Prevention and Contingency Plan
  - Explain the process in the event of a spill
  - Identify potential sources of spills and the procedures for clean-up and/or reporting and notification
  - Complete a yearly inventory of Materials Safety Data Sheets of all tenants and confirm that no potentially harmful chemicals are in use.

1.4 PUBLIC SAFETY FEATURES

The following measures have been incorporated into the stormwater management system to promote the safety of the public:

- Drain manholes and catch basins have been provided with heavy duty covers and/or grates and designed to withstand H20 loading.

- Treatment of stormwater runoff from paved surfaces has been designed to remove 80% TSS, or to the maximum extent practicable.

- Reduction in peak rates of runoff from the site under post-development conditions.

- Development and implementation of an Operations and Maintenance Plan to promote the proper functioning of the stormwater management system.

- Development and implementation of a Long Term Pollution Prevention Plan identifying potential pollution sources and suitable practices to control them from impacting the environment and/or the public's health and safety.

2.0 MAINTENANCE PROGRAM

The property manager and maintenance staff will conduct the Operation and Maintenance program set forth in this document. The Director of Facilities will ensure that inspections and record keeping are timely and accurate and that cleaning and maintenance are performed at least on a bi-annual basis. Inspection & Maintenance Log Forms shall include the date and the amount of the last significant storm event in excess of 1" of rain in a 24-hour period, physical conditions of the structures, depth of sediment in structures,

evidence of overtopping or debris blockage and maintenance required of each structure. Estimated annual cost of the Maintenance Program is $6,000 to $8,000.

2.1 INSPECTION AND MAINTENANCE FREQUENCY AND CORRECTIVE MEASURES

The following areas, facilities, and measures will be inspected by the Owner and maintained as specified below. Identified deficiencies will be corrected. Accumulated sediments and debris will be properly handled and disposed of off-site, in accordance with local, state, and federal guidelines and regulations. Refer to the Grading and Drainage Plan for the components of the stormwater management system. A sample inspection and maintenance schedule and record log and inspection forms are included in Appendix A.

2.1.1 Parking Surfaces and Site Access Drives

Accumulations of sand and debris will be cleared from parking lots and site access drives through street sweeping to control the amount of sediment that enters the drainage system. Street sweeping will be conducted twice a year, primarily in late spring and the early fall seasons. Street sweeping will also occur after winter snowmelt when road sand and other sediments have accumulated.

2.1.2 Permeable Pavers

Permeable paver areas will be inspected three months after the initial installation, and semi-annually thereafter to ensure the pavers are free of accumulated sediments and/or surface deterioration.

- Pavement seal coats shall not be applied.
- Sand shall not be used in de-icing applications to minimize the occurrence of clogging.
- Application of de-icing agents shall be significantly reduced from standard application and only applied on an as-needed basis to only those areas of porous pavement requiring de-icing.
- Calcium Chloride and/or other similar de-icing agents shall be applied by a speed-calibrated applicator.
- Clean the surface using vacuum sweeping machines.
- Regularly monitor the paving surface to make sure it drains properly after storms.
- Inspect the surface annually for deterioration or spalling.

2.1.3 Vegetated Areas

Inspect slopes and embankments early in the growing season to identify active or potential erosion problems. Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.

2.1.4 Area Drains

Area Drains will be inspected twice a year to ensure that the area drains are working in their intended fashion and that they are free of debris. Sediments and hydrocarbons will be properly handled and disposed of off-site, in accordance with local, state, and federal guidelines and regulations. The method of sediment removal will be manual and disposal must be documented. Any structural damage to the area drains or to castings must be repaired upon discovery.

2.1.5 Catch Basins

Catch basins will be inspected twice a year and cleaned when sediment reaches ½ full depth from the invert of the pipe to ensure that the catch basins are working in their intended fashion and that they are free of debris. If the basin outlet is designed with a hood/tee to trap floatable materials, check to ensure watertight seal is working. Sediments and hydrocarbons will be properly handled and disposed of off-site, in accordance with local, state, and federal guidelines and regulations. The method of sediment removal will be by vacuum and disposal must be documented. Any structural damage to the catch basins or to castings must be repaired upon discovery.

2.1.6 Drain Manholes

Drain manholes shall be inspected twice a year. Collection of accumulated sediment and hydrocarbons will be accomplished by means of vacuum pumping. Disposal of accumulated sediment and hydrocarbons will be performed in accordance with applicable local, state and federal regulations. Any structural damage to drain manholes or to castings must be repaired upon discovery.

2.1.7 Water Quality Units

The stormwater management system includes fourteen (14) water quality units on-site consisting of Contech VortSentry® HS units and Contech CDS® Hydrodynamic Separator units. All water quality units will be inspected twice a year. Contech has defined the appropriate inspection and maintenance procedures. Refer to Appendix B of the O&M Plan for the procedure.

2.1.8 Storm Drain Piping

The storm drain piping system functions as the collection system of runoff from the roof leaders and catch basins. All runoff discharges into either the subsurface recharge chambers or off-site into the municipal drainage system. Typical observations that would indicate that the storm drain piping system is not functioning properly are: puddles around the catch basin grates after a storm event and no visible discharge of runoff into the subsurface recharge chambers during a storm event. The storm drain piping system will be inspected twice a year and cleaned as necessary. Sediments and hydrocarbons will be properly handled and disposed of off-site, in accordance with local, state and federal guidelines and regulations. Pipe outlets should be cleaned away from the subsurface recharge chambers to prevent discharge of sediment into the chambers.

2.1.9 Subsurface Recharge Chambers

The stormwater management system includes six (6) subsurface recharge areas constructed of StormTech® Chambers and Isolator Rows. Inlets to the chambers will be inspected a least twice a year to ensure the chambers are functioning properly. If a recharge area fails to drain within 72 hours, then a qualified professional should examine the system to determine if a corrective action (i.e. alternative location, replacement or removal of sediment) should be implemented. StormTech® has defined the appropriate inspection and maintenance procedures. Refer to Appendix C of the O&M Plan for the procedure.

2.2 WINTER MAINTENANCE PROGRAM

The landowner will contract with a professional snow removal/winter conditions management contractor to treat the paved parking and walking areas within the project site for safe access during winter conditions. Each storm brings a specific treatment regime based on the temperature regime and precipitation

type/amount. Snow will be stored on-site or removed from the site in accordance with local, state and federal regulations. The contractor is responsible to minimize de-icing applications while ensuring safe vehicle and pedestrian access throughout the site. In addition to snow removal, potentially icy and unsafe paved surfaces are addressed as follows.

The de-icing program will utilize a non-sodium pelletized de-icing material that may contain calcium chloride or magnesium chloride as the active ice melting ingredient.

2.3 FERTILIZER USE

Only slow-release organic low-phosphorous fertilizers will be used in any landscaped areas in order to limit the amount of nutrients that could enter the stormwater system. The use of herbicides and pesticides is prohibited.

3.0 EMERGENCY SPILL CONTAINMENT

A spill of greater than 10 gallons of oil or a spill of any quantity that has reached a surface water, into a sewer, storm drain, ditch, or culvert leading to a surface water, shall be immediately reported to one or more municipal, state, or federal authority. In the event of a hazardous waste spill on-site the following protocol should be followed.

- If it is safe to do so, employees (or on-site property manager) detecting an oil spill should immediately stop the release and use available materials to prevent the spread of oil, particularly trying to discharge to catch basins.
- If there is a potentially flammable, toxic, or explosive condition, evacuate the vicinity of the spill.
- If is believed that a reportable or dangerous condition exists, immediately call your local Fire Department to notify them of the release.

If is believed that a reportable condition exists, immediately call the Massachusetts Department of Environmental Protection (DEP) to notify them of the release. Call the DEP Emergency Response Section toll free statewide number, 1-888-304-1133. Be prepared to provide the following information to the DEP and the Fire Department:

- Identity of the caller
- Contact phone number
- Location of the spill
- Type of product spilled
- Approximate quantity or product spilled
- Extent of actual and/or potential water pollution
- Date and time of spill

- Cause of spill

Contact a Licensed Site Professional (LSP) to assist in further handling of the material(s) and DEP.

4.0 STORMWATER MANAGEMENT ACCESS

The proposed on-site stormwater management system consists of outlet control structures, water quality structures, underground infiltration systems, drain City of Quincy Conservation Commission to enter the premises to inspect the stormwater management system.

Regarding access to each drain manhole, catch basin and other drainage structure on site, The Owner will accept a condition of approval that allows appropriate City of Quincy staff (i.e. Town Engineer, DPW Director, Conservation Commission agent) to enter the site with prior Owner notification to review any or all parts of the stormwater management system.

Appendix A

Inspection and Maintenance Schedule and Record Log

Inspection Forms

Inspection and Maintenance Schedule and Record Log
114 Whitwell Street, Quincy, MA

Inspector's Name: _____

Date:_____

Maintenance:

- ☐ Routine
- ☐ Response to Rainfall Event _____ inches
- ☐ Other _____

BMP	Inspection Frequency	Description of Inspection Findings	Depth of Sediment	Description of Maintenance Completed
Street Sweeping	Semi-Annual			
Permeable Pavers	Semi-Annual Inspections			
Vegetated Areas	Annually			
Area Drains	Semi-Annual Inspections			
	Maintenance as required			
Catch Basins	Semi-Annual Inspections			
	Maintenance as required			
Drain Manholes	Semi-Annual Inspections			
	Maintenance as required			
Water Quality Units	Semi-Annual Inspections			
	Maintenance as required			

BMP	Inspection Frequency	Description of Inspection Findings	Depth of Sediment	Description of Maintenance Completed
Storm Drain Piping	Semi-Annual Inspections			
	Maintenance as required			
Subsurface Recharge Chambers	Semi-Annual Inspections			
	Maintenance as required			

Location where the sediment and debris was disposed after removal:

_____

_____

_____

AREA DRAIN INSPECTION FORM

114 Whitwell Street
Quincy, Massachusetts

Owner: _____

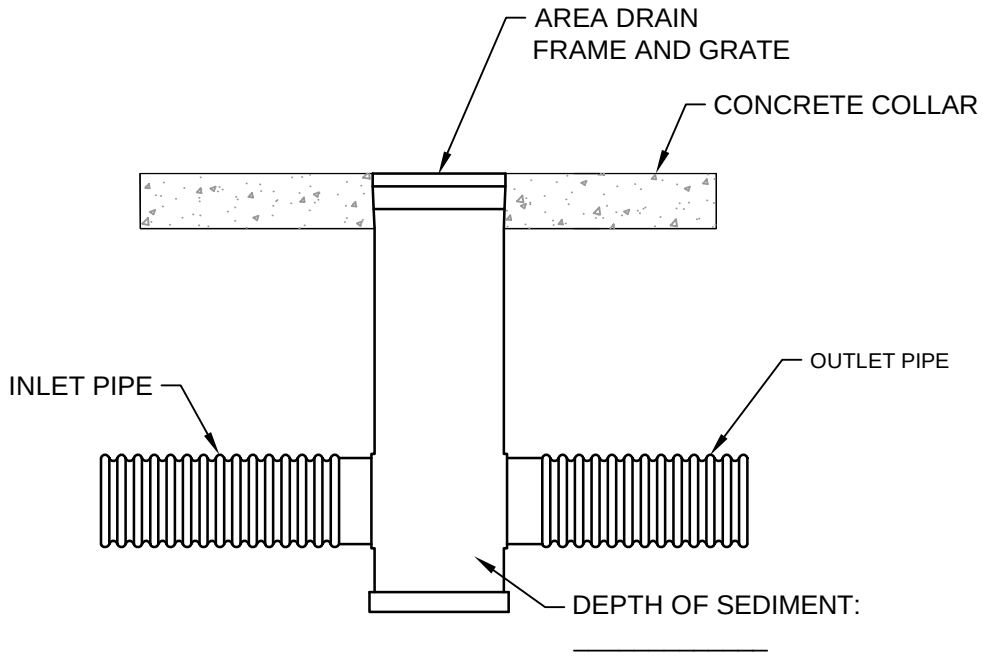
Property Manager: _____

Inspected By: _____

Date of Inspection: _____

Area Drain Inspected: _____

Acceptable Needs Work Notes



Date of Cleaning: _____ By Whom: _____

Date of Repair: _____ By Whom: _____

Note any discrepancies and suggested corrective actions:

_____
_____
_____
_____
_____
_____

CATCH BASIN INSPECTION FORM

114 Whitwell Street
Quincy, Massachusetts

Owner: _____

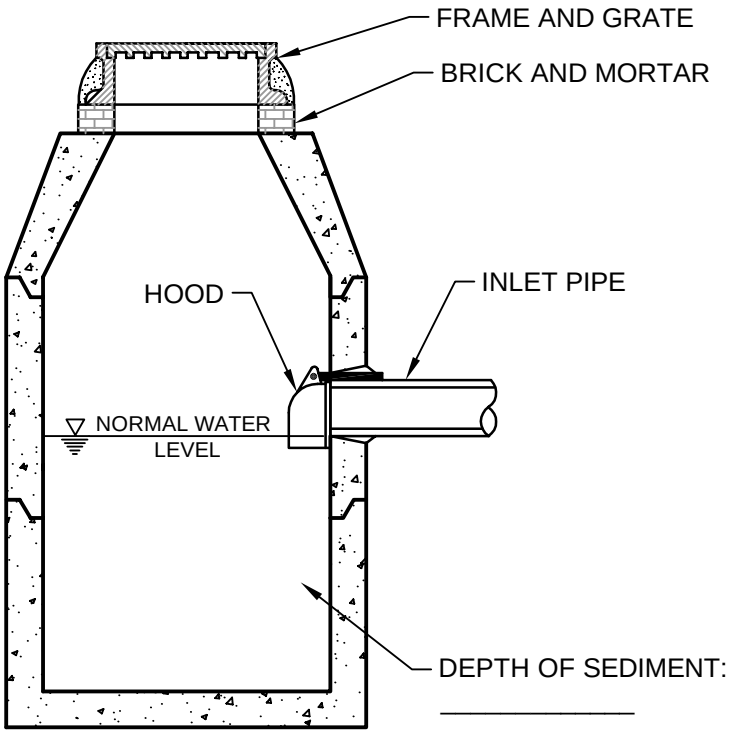
Property Manager: _____

Inspected By: _____

Date of Inspection: _____

Catch Basin Inspected: _____

Acceptable Needs Work Notes



Date of Cleaning: _____ By Whom: _____

Date of Repair: _____ By Whom: _____

Note any discrepancies and suggested corrective actions:

_____
_____
_____
_____
_____
_____

WATER QUALITY UNIT INSPECTION FORM

114 Whitwell Street
Quincy, Massachusetts

Owner: _____

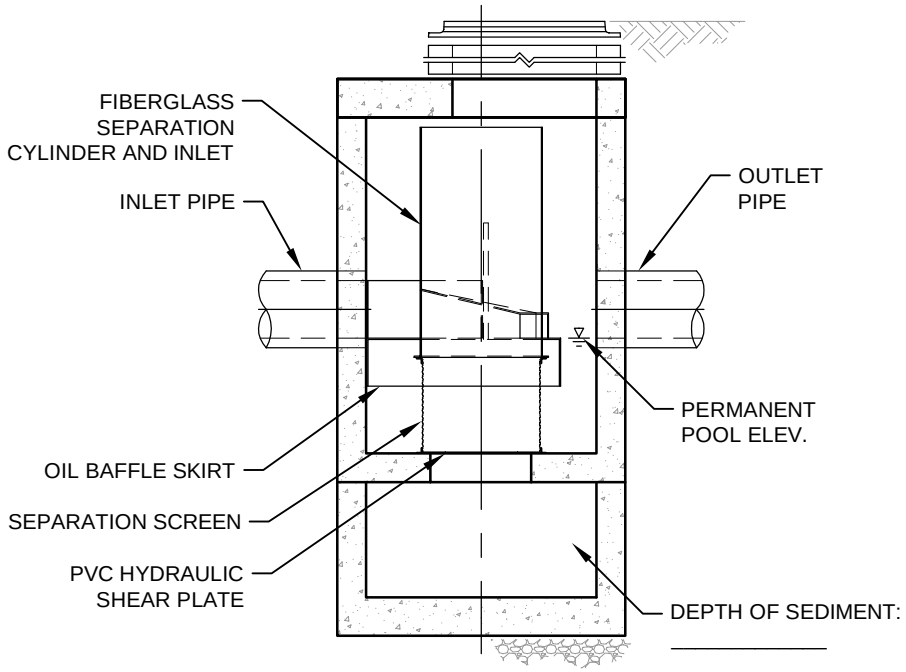
Property Manager: _____

Inspected By: _____

Date of Inspection: _____

Water Quality Unit Inspected: _____

Acceptable Needs Work Notes



Date of Cleaning: _____ By Whom: _____

Date of Repair: _____ By Whom: _____

Note any discrepancies and suggested corrective actions:

_____
_____
_____
_____
_____
_____

DRAIN MANHOLE INSPECTION FORM

114 Whitwell Street
Quincy, Massachusetts

Owner: _____

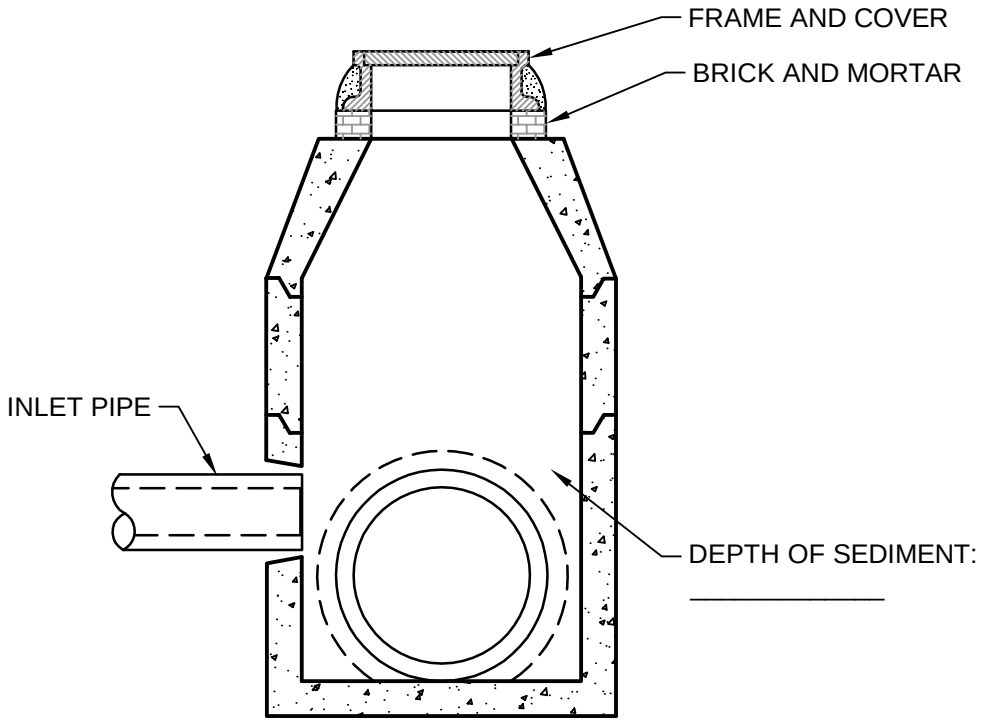
Property Manager: _____

Inspected By: _____

Date of Inspection: _____

Drain Manhole Inspected: _____

Acceptable Needs Work Notes



Date of Cleaning: _____ By Whom: _____

Date of Repair: _____ By Whom: _____

Note any discrepancies and suggested corrective actions:

_____
_____
_____
_____
_____
_____

SUBSURFACE RECHARGE CHAMBER INSPECTION FORM

114 Whitwell Street
Quincy, Massachusetts

Owner: _____

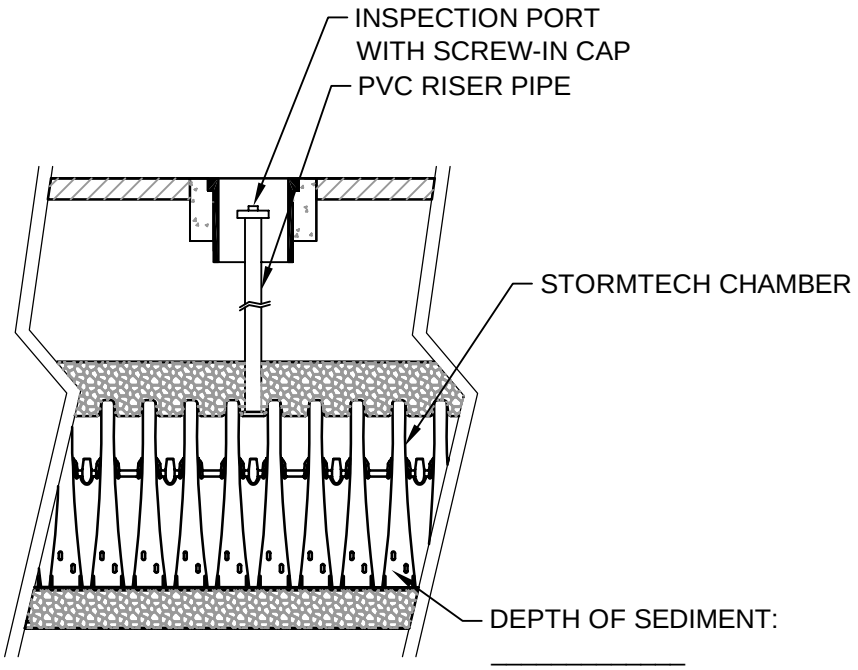
Property Manager: _____

Inspected By: _____

Date of Inspection: _____

Chamber Inspected: _____

Acceptable Needs Work Notes



Date of Cleaning: _____ By Whom: _____

Date of Repair: _____ By Whom: _____

Note any discrepancies and suggested corrective actions:

_____
_____
_____
_____
_____
_____

Appendix B

Contech Operation and Maintenance Guides

CONTECH®
ENGINEERED SOLUTIONS

CDS® Inspection and Maintenance Guide

CDS TECHNOLOGIES

Maintenance

The CDS system should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size of the unit. For example, unstable soils or heavy winter sanding will cause the grit chamber to fill more quickly but regular sweeping of paved surfaces will slow accumulation.

Inspection

Inspection is the key to effective maintenance and is easily performed. Pollutant transport and deposition may vary from year to year and regular inspections will help ensure that the system is cleaned out at the appropriate time. At a minimum, inspections should be performed twice per year (e.g. spring and fall) however more frequent inspections may be necessary in climates where winter sanding operations may lead to rapid accumulations, or in equipment washdown areas. Installations should also be inspected more frequently where excessive amounts of trash are expected.

The visual inspection should ascertain that the system components are in working order and that there are no blockages or obstructions in the inlet and separation screen. The inspection should also quantify the accumulation of hydrocarbons, trash, and sediment in the system. Measuring pollutant accumulation can be done with a calibrated dipstick, tape measure or other measuring instrument. If absorbent material is used for enhanced removal of hydrocarbons, the level of discoloration of the sorbent material should also be identified during inspection. It is useful and often required as part of an operating permit to keep a record of each inspection. A simple form for doing so is provided.

Access to the CDS unit is typically achieved through two manhole access covers. One opening allows for inspection and cleanout of the separation chamber (cylinder and screen) and isolated sump. The other allows for inspection and cleanout of sediment captured and retained outside the screen. For deep units, a single manhole access point would allows both sump cleanout and access outside the screen.

The CDS system should be cleaned when the level of sediment has reached 75% of capacity in the isolated sump or when an appreciable level of hydrocarbons and trash has accumulated. If absorbent material is used, it should be replaced when significant discoloration has occurred. Performance will not be impacted until 100% of the sump capacity is exceeded however it is recommended that the system be cleaned prior to that for easier removal of sediment. The level of sediment is easily determined by measuring from finished grade down to the top of the sediment pile. To avoid underestimating the level of sediment in the chamber, the measuring device must be lowered to the top of the sediment pile carefully. Particles at the top of the pile typically offer less resistance to the end of the rod than consolidated particles toward the bottom of the pile. Once this measurement is recorded, it should be compared to the as-built drawing for the unit to determine weather the height of the sediment pile off the bottom of the sump floor exceeds 75% of the total height of isolated sump.

Cleaning

Cleaning of a CDS systems should be done during dry weather conditions when no flow is entering the system. The use of a vacuum truck is generally the most effective and convenient method of removing pollutants from the system. Simply remove the manhole covers and insert the vacuum hose into the sump. The system should be completely drained down and the sump fully evacuated of sediment. The area outside the screen should also be cleaned out if pollutant build-up exists in this area.

In installations where the risk of petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, the system should be cleaned out immediately in the event of an oil or gasoline spill should be cleaned out immediately. Motor oil and other hydrocarbons that accumulate on a more routine basis should be removed when an appreciable layer has been captured. To remove these pollutants, it may be preferable to use absorbent pads since they are usually less expensive to dispose than the oil/water emulsion that may be created by vacuuming the oily layer. Trash and debris can be netted out to separate it from the other pollutants. The screen should be power washed to ensure it is free of trash and debris.

Manhole covers should be securely seated following cleaning activities to prevent leakage of runoff into the system from above and also to ensure that proper safety precautions have been followed. Confined space entry procedures need to be followed if physical access is required. Disposal of all material removed from the CDS system should be done in accordance with local regulations. In many jurisdictions, disposal of the sediments may be handled in the same manner as the disposal of sediments removed from catch basins or deep sump manholes.

CDS Model	Diameter		Distance from Water Surface to Top of Sediment Pile		Sediment Storage Capacity	
	ft	m	ft	m	y^3	m^3
CDS1515	3	0.9	3.0	0.9	0.5	0.4
CDS2015	4	1.2	3.0	0.9	0.9	0.7
CDS2015	5	1.5	3.0	0.9	1.3	1.0
CDS2020	5	1.5	3.5	1.1	1.3	1.0
CDS2025	5	1.5	4.0	1.2	1.3	1.0
CDS3020	6	1.8	4.0	1.2	2.1	1.6
CDS3025	6	1.8	4.0	1.2	2.1	1.6
CDS3030	6	1.8	4.6	1.4	2.1	1.6
CDS3035	6	1.8	5.0	1.5	2.1	1.6
CDS4030	8	2.4	4.6	1.4	5.6	4.3
CDS4040	8	2.4	5.7	1.7	5.6	4.3
CDS4045	8	2.4	6.2	1.9	5.6	4.3
CDS5640	10	3.0	6.3	1.9	8.7	6.7
CDS5653	10	3.0	7.7	2.3	8.7	6.7
CDS5668	10	3.0	9.3	2.8	8.7	6.7
CDS5678	10	3.0	10.3	3.1	8.7	6.7

Table 1: CDS Maintenance Indicators and Sediment Storage Capacities

Support

- Drawings and specifications are available at www.contechstormwater.com.
- Site-specific design support is available from our engineers.

Contech Engineered Solutions LLC provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, sanitary sewer, stormwater, earth stabilization and wastewater treament products. For information, visit www.ContechES.com or call 800.338.1122

The product(s) described may be protected by one or more of the following US patents: 5,322,629; 5,624,576; 5,707,527; 5,759,415; 5,788,848; 5,985,157; 6,027,639; 6,350,374; 6,406,218; 6,641,720; 6,511,595; 6,649,048; 6,991,114; 6,998,038; 7,186,058; 7,296,692; 7,297,266; 7,517,450 related foreign patents or other patents pending.

CONTECH ENGINEERED SOLUTIONS

800.925.5240
www.ContechES.com

CDS Inspection & Maintenance Log

CDS Model: _____ Location: _____

Date	Water depth to sediment[1]	Floatable Layer Thickness[2]	Describe Maintenance Performed	Maintenance Personnel	Comments

1. The water depth to sediment is determined by taking two measurements with a stadia rod: one measurement from the manhole opening to the top of the sediment pile and the other from the manhole opening to the water surface. If the difference between these measurements is less than the values listed in table 1 the system should be cleaned out. **Note: to avoid underestimating the volume of sediment in the chamber, the measuring device must be carefully lowered to the top of the sediment pile.**

2. For optimum performance, the system should be cleaned out when the floating hydrocarbon layer accumulates to an appreciable thickness. In the event of an oil spill, the system should be cleaned immediately.

CONTECH®
ENGINEERED SOLUTIONS

VortSentry® HS Guide
Operation, Design, Performance and Maintenance

VortSentry® HS

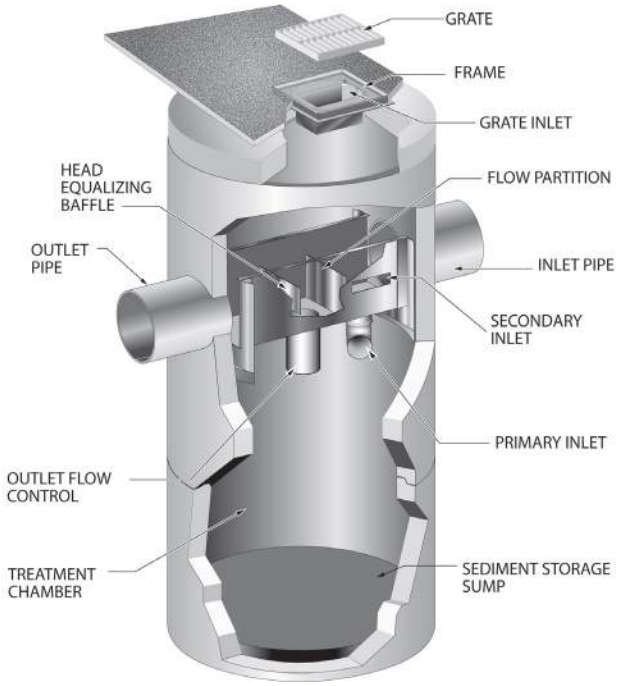
The VortSentry HS is a compact, below grade stormwater treatment system that employs helical flow technology to enhance gravitational separation of floating and settling pollutants from stormwater flows. With the ability to accept a wide range of pipe sizes, the VortSentry HS can treat and convey flows from small to large sites. A unique internal bypass design means higher flows can be diverted without the use of external bypass structures. The VortSentry HS is also available in a grate inlet configuration, which is ideal for retrofit installations.

Operation Overview

Low, frequently occurring storm flows are directed into the treatment chamber through the primary inlet. The tangentially oriented downward pipe induces a swirling motion in the treatment chamber that increases capture and containment abilities. Moderate storm flows are directed into the treatment chamber through the secondary inlet, which allows for capture of floating trash and debris. The secondary inlet also provides for treatment of higher flows without significantly increasing the velocity or turbulence in the treatment chamber. This allows for a more quiescent separation environment. Settleable solids and floating pollutants are captured and contained in the treatment chamber.

Flow exits the treatment chamber through the outlet flow control, which manages the amount of flow that is treated and helps maintain the helical flow patterns developed within the treatment chamber.

Flows exceeding the system's rated treatment flow are diverted away from the treatment chamber by the flow partition. Internal diversion of high flows eliminates the need for external bypass structures. During bypass, the head equalizing baffle applies head on the outlet flow control to limit the flow through the treatment chamber. This helps prevent re-suspension of previously captured pollutants.



Design Basics

There are two primary methods of sizing a VortSentry HS system. The Water Quality Flow Rate Method determines which model size provides the desired removal efficiency at a given flow for a defined particle size. The summation process of the Rational Rainfall Method is used when a specific removal efficiency of the net annual sediment load is required.

Typically, VortSentry HS systems are designed to achieve an 80% annual solids load reduction based on lab generated performance curves for a particle gradation with an average particle size (d_{50}) of 240-microns (μm).

Water Quality Flow Rate Method

In many cases, regulations require that a specific flow rate, often referred to as the water quality design flow (WQQ), be treated. This WQQ represents the peak flow rate from either an event with a specific recurrence interval (i.e. the six-month storm) or a water quality depth (i.e. 1/2-inch of rainfall).

The VortSentry HS is designed to treat all flows up to the WQQ. Due to its internal bypass weir configuration, flow rates in the treatment chamber only increase minimally once the WQQ is surpassed. At influent rates higher than the WQQ, the flow partition will allow most flow exceeding the treatment flow rate to bypass the treatment chamber. This allows removal efficiency to remain relatively constant in the treatment chamber and reduces the risk of washout during bypass flows regardless of influent flow rates.

Treatment flow rates are defined as the rate at which the VortSentry HS will remove a specific gradation of sediment at a specific removal efficiency. Therefore they are variable based on the gradation and removal efficiency specified by the design engineer and the unit size is scaled according to the project goal.

Rational Rainfall Method™

Differences in local climate, topography and scale make every site hydraulically unique. The Rational Rainfall Method is a sizing program Contech uses to estimate a net annual sediment load reduction for a particular VortSentry HS model based on site size, site runoff coefficient, regional rainfall intensity distribution, and anticipated pollutant characteristics. For more information on the Rational Rainfall Method, see *Vortechs Technical Bulletin 4: Modeling Long Term Load Reduction: The Rational Rainfall Method*, available at **www.ContechES.com/stormwater**

Treatment Flow Rate

The outlet flow control is sized to allow the WQQ to pass entirely through the treatment chamber at a water surface elevation equal to the crest of the flow partition. The head equalizing baffle applies head on the outlet flow control to limit the flow through the treatment chamber when bypass occurs, thus helping to prevent re-suspension or re-entrainment of previously captured particles.

Hydraulic Capacity

The VortSentry HS is available in three standard configurations: inline (with inlet and outlet pipes at 180° to each other), grated inlet, and a combination of grate and pipe inlets. All three configurations are available in 36-inch (900-mm) through 96-inch (2400-mm) diameter manholes.

The configuration of the system is determined by the suffix of the model name:

- A model name without a suffix denotes a standard pipe inlet (Example HS48).
- A "G" at the end of the model designation denotes a grate inlet (Example HS48G).
- A "GP" at the end of the model designation denotes a combination of grate and pipe inlets (Example HS48GP).

Performance

Full-Scale Laboratory Test Results

Laboratory testing of the VortSentry HS was conducted using F-55 Silica, a commercially available sand product with an average particle size of 240-μm (Table 1). This material was metered into a model HS48 VortSentry HS at an average concentration of between 250-mg/L and 300-mg/L at flow rates ranging from 0.50-cfs to 1.5-cfs (14-L/s to 56-L/s).

US Standard Sieve Size	Particle Size Micron (μm)	Cumulative Passing %
30	600	99.7%
40	425	95.7%
50	300	74.7%
70	212	33.7%
100	150	6.7%
140	106	0.7%

Table 1 : US Silica F-55 Particle Size Distribution

Removal efficiencies at each flow rate were calculated based on net sediment loads passing the influent and effluent sampling points. Results are illustrated in Figure 1.

Assuming that sediment in the inlet chamber is ideally mixed, removal rates through the system will decay according to the percentage of flow bypassed. This effect has been observed in the laboratory where the test system is designed to produce a

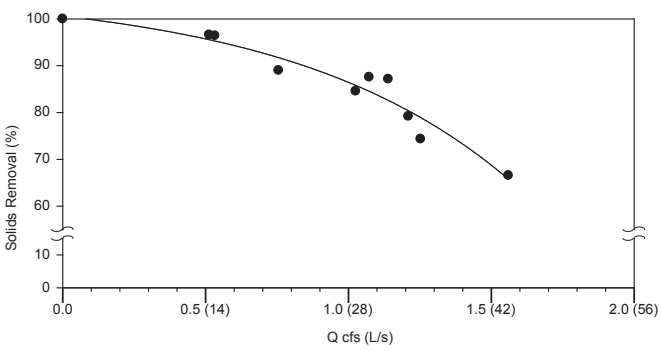


Figure 1: VortSentry HS Removal Efficiencies for 240-μm Particle Gradation

thoroughly mixed inlet stream. All VortSentry HS models have the same aspect ratio regardless of system diameter (i.e. an increase in diameter results in a corresponding increase in depth). Operating rates are expressed volumetrically.

Removal efficiency at each operating rate is calculated according to the average of volumetric and Froude scaling methods and is described by Equation 1.

Equation 1: $$\left(\frac{\text{Diameter Prototype}}{\text{Diameter Model}}\right)^{2.75} = \left(\frac{\text{Flow Rate Prototype}}{\text{Flow Rate Model}}\right)$$

Equation 1 and actual laboratory test results were used to determine the flow rate which would be required for the various VortSentry HS models to remove 80% of solids.

View report at **www.ContechES.com/stormwater**

Maintenance

The VortSentry HS system should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size of the unit, i.e., unstable soils or heavy winter sanding will cause the treatment chamber to fill more quickly, but regular sweeping will slow accumulation.

Inspection

Inspection is the key to effective maintenance and is easily performed. Pollutant deposition and transport may vary from year to year and regular inspections will help ensure that the system is cleaned out at the appropriate time. At a minimum, inspections should be performed twice per year (i.e. spring and fall) however more frequent inspections may be necessary in equipment washdown areas and in climates where winter sanding operations may lead to rapid accumulations of a large volume of sediment. It is useful and often required as part of a permit to keep a record of each inspection. A simple inspection and maintenance log form for doing so is available for download at **www.ContechES.com/stormwater**

The VortSentry HS should be cleaned when the sediment has accumulated to a depth of two feet in the treatment chamber. This determination can be made by taking two measurements with a stadia rod or similar measuring device; one measurement from the manhole opening to the top of the sediment pile and the other from the manhole opening to the water surface. If the difference between these measurements is less than the distance given in Table 2, the VortSentry HS should be maintained to ensure effective treatment.

Cleaning

Cleaning of the VortSentry HS should be done during dry weather conditions when no flow is entering the system. Cleanout of the VortSentry HS with a vacuum truck is generally the most effective and convenient method of excavating pollutants from the system. Simply remove the manhole cover and insert the vacuum hose into the sump. All pollutants can be removed from this one access point from the surface with no requirements for Confined Space Entry.

In installations where the risk of petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, an oil or gasoline spill should be cleaned out immediately. Motor oil and other hydrocarbons that accumulate on a more routine basis should be removed when an appreciable layer has been captured. To remove these pollutants, it may be preferable to use adsorbent pads, which solidify the oils. These are usually much easier to remove from the unit individually, and less expensive to dispose than the oil/water emulsion that may be

created by vacuuming the oily layer. Floating trash can be netted out if you wish to separate it from the other pollutants.

Manhole covers should be securely seated following cleaning activities to prevent leakage of runoff into the system from above and also to ensure proper safety precautions. If anyone physically enters the unit, Confined Space Entry procedures need to be followed.

Disposal of all material removed from the VortSentry HS should be done is accordance with local regulations. In many locations, disposal of evacuated sediments may be handled in the same manner as disposal of sediments removed from catch basins or deep sump manholes. Check your local regulations for specific requirements on disposal.

VortSentry HS Model	Diameter		Distance Between Water Surface and Top of Storage Sump		Sediment Storage		Oil Spill Storage	
	in.	m	ft.	m	yd^3	m^3	gal.	liter
HS36	36	0.9	3.6	1.1	0.5	0.4	83	314
HS48	48	1.2	4.7	1.4	0.9	0.7	158	598
HS60	60	1.5	6.0	1.8	1.5	1.1	258	978
HS72	72	1.8	7.1	2.2	2.1	1.6	372	1409
HS84	84	2.1	8.4	2.6	2.9	2.2	649	2458
HS96	96	2.4	9.5	2.9	3.7	2.8	845	3199

Table 2: VortSentry HS Maintenance Indicators and Sediment Storage Capacities.

Note: To avoid underestimating the volume of sediment in the chamber, the measuring device must be carefully lowered to the top of the sediment pile. Finer, silty particles at the top of the pile may be more difficult to feel with the measuring stick. These finer particles typically offer less resistance to the end of the rod than larger particles toward the bottom of the pile.

Logon to **www.ContechES.com/stormwater** to download the VortSentry HS Inspection and Maintenance Log.

For assistance with maintaining your VortSentry HS, contact us regarding the Contech Maintenance compliance certification program.

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800-338-1122
www.ContechES.com

Contech Engineered Solutions LLC provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, sanitary sewer, stormwater and earth stabilization products. For information on other Contech division offerings, visit ContechES.com or call 800.338.1122

The product(s) described may be protected by one or more of the following US patents: 5,322,629; 5,624,576; 5,707,527; 5,759,415; 5,788,848; 5,985,157; 6,027,639; 6,350,374; 6,406,218; 6,641,720; 6,511,595; 6,649,048; 6,991,114; 6,998,038; 7,186,058; 7,296,692; 7,297,266; related foreign patents or other patents pending.

Support

- Drawings and specifications are available at contechstormwater.com.
- Site-specific design support is available from our engineers.

vshs_manual 06/14 PDF IN-HOUSE

Appendix C

StormTech® Operation and Maintenance Guide

StormTech®
Detention • Retention • Water Quality
An ADS company

Isolator® Row O&M Manual


SC-740


MC-3500


MC-4500

THE MOST **ADVANCED** NAME IN WATER MANAGEMENT SOLUTIONS™

ADS®

THE ISOLATOR® ROW

INTRODUCTION

An important component of any Stormwater Pollution Prevention Plan is inspection and maintenance. The StormTech Isolator Row is a technique to inexpensively enhance Total Suspended Solids (TSS) removal and provide easy access for inspection and maintenance.

THE ISOLATOR ROW

The Isolator Row is a row of StormTech chambers, either SC-160LP, SC-310, SC-310-3, SC-740, DC-780, MC-3500 or MC-4500 models, that is surrounded with filter fabric and connected to a closely located manhole for easy access. The fabric-wrapped chambers provide for settling and filtration of sediment as storm water rises in the Isolator Row and ultimately passes through the filter fabric. The open bottom chambers and perforated sidewalls (SC-310, SC- 310-3 and SC-740 models) allow storm water to flow both vertically and horizontally out of the chambers. Sediments are captured in the Isolator Row protecting the storage areas of the adjacent stone and chambers from sediment accumulation.

Two different fabrics are used for the Isolator Row. A woven geotextile fabric is placed between the stone and the Isolator Row chambers. The tough geotextile provides a media for storm water filtration and provides a durable surface for maintenance operations. It is also designed to prevent scour of the underlying stone and remain intact during high pressure jetting. A non-woven fabric is placed over the chambers to provide a filter media for flows passing through the perforations in the sidewall of the chamber. The non-woven fabric is not required over the SC-160LP, DC-780, MC-3500 or MC-4500 models as these chambers do not have perforated side walls.

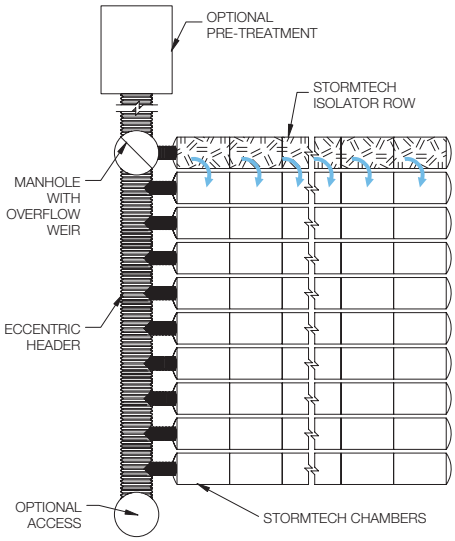
The Isolator Row is typically designed to capture the "first flush" and offers the versatility to be sized on a volume basis or flow rate basis. An upstream manhole not only provides access to the Isolator Row but typically includes a high flow weir such that storm water flowrates or volumes that exceed the capacity of the Isolator Row overtop the over flow weir and discharge through a manifold to the other chambers.

The Isolator Row may also be part of a treatment train. By treating storm water prior to entry into the chamber system, the service life can be extended and pollutants such as hydrocarbons can be captured. Pre-treatment best management practices can be as simple as deep sump catch basins, oil-water separators or can be innovative storm water treatment devices. The design of the treatment train and selection of pretreatment devices by the design engineer is often driven by regulatory requirements. Whether pretreatment is used or not, the Isolator Row is recommended by StormTech as an effective means to minimize maintenance requirements and maintenance costs.

Note: See the StormTech Design Manual for detailed information on designing inlets for a StormTech system, including the Isolator Row.

Looking down the Isolator Row from the manhole opening, woven geotextile is shown between the chamber and stone base.

StormTech Isolator Row with Overflow Spillway (not to scale)



ISOLATOR ROW INSPECTION/MAINTENANCE

INSPECTION

The frequency of inspection and maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial, residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the actual frequency of inspection and maintenance practices.

At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.

The Isolator Row incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.

If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3 inches throughout the length of the Isolator Row, clean-out should be performed.

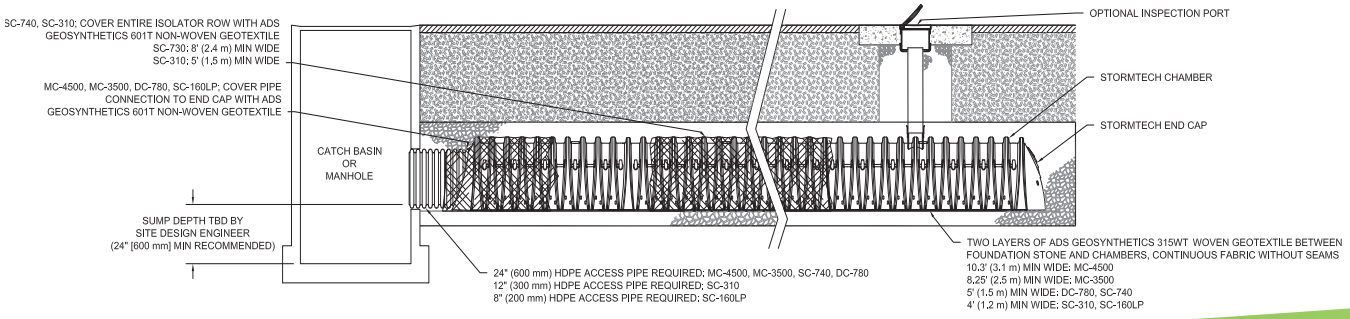
MAINTENANCE

The Isolator Row was designed to reduce the cost of periodic maintenance. By "isolating" sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entries.

Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45" are best. Most JetVac reels have 400 feet of hose allowing maintenance of an Isolator Row up to 50 chambers long. **The JetVac process shall only be performed on StormTech Isolator Rows that have AASHTO class 1 woven geotextile (as specified by StormTech) over their angular base stone.**

StormTech Isolator Row (not to scale)

Note: Non-woven fabric is only required over the inlet pipe connection into the end cap for SC-160LP, DC-780, MC-3500 and MC-4500 chamber models and is not required over the entire Isolator Row.



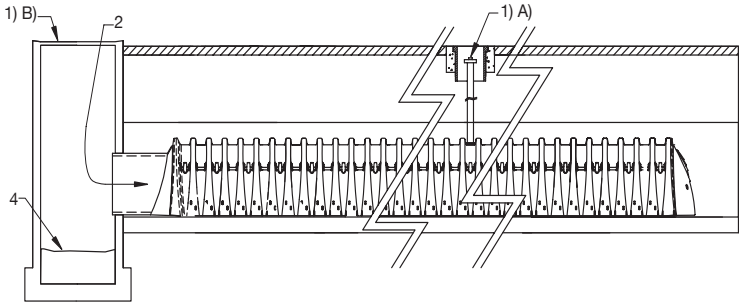
ISOLATOR ROW STEP BY STEP MAINTENANCE PROCEDURES

STEP 1
Inspect Isolator Row for sediment.
- A) Inspection ports (if present)
  - i. Remove lid from floor box frame
  - ii. Remove cap from inspection riser
  - iii. Using a flashlight and stadia rod,measure depth of sediment and record results on maintenance log.
  - iv. If sediment is at or above 3 inch depth, proceed to Step 2. If not, proceed to Step 3.
- B) All Isolator Rows
  - i. Remove cover from manhole at upstream end of Isolator Row
  - ii. Using a flashlight, inspect down Isolator Row through outlet pipe
    1. Mirrors on poles or cameras may be used to avoid a confined space entry
    2. Follow OSHA regulations for confined space entry if entering manhole
  - iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches), proceed to Step 2. If not, proceed to Step 3.

STEP 2
Clean out Isolator Row using the JetVac process.
- A) A fixed floor cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable
- B) Apply multiple passes of JetVac until backflush water is clean
- C) Vacuum manhole sump as required

STEP 3
Replace all caps, lids and covers, record observations and actions.

STEP 4
Inspect & clean catch basins and manholes upstream of the StormTech system.



SAMPLE MAINTENANCE LOG

Date	Stadia Rod Readings		Sediment Depth (1)–(2)	Observations/Actions	Inspector
	Fixed point to chamber bottom (1)	Fixed point to top of sediment (2)			
3/15/11	6.3 ft	none		New installation. Fixed point is CI frame at grade	DJM
9/24/11		6.2	0.1 ft	Some grit felt	SM
6/20/13		5.8	0.5 ft	Mucky feel, debris visible in manhole and in Isolator Row, maintenance due	NV
7/7/13	6.3 ft		0	System jetted and vacuumed	DJM

StormTech® Detention • Retention • Water Quality
A division of ADS

Advanced Drainage Systems, Inc.
4640 Trueman Blvd., Hilliard, OH 43026
1-800-821-6710 www.ads-pipe.com

Appendix F

Supporting Documentation

Hydrologic Soil Group—Norfolk and Suffolk Counties, Massachusetts
(144 Whitwell Street Quincy, MA)

Map Scale: 1:4,580 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:25,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Norfolk and Suffolk Counties, Massachusetts
Survey Area Data: Version 13, Oct 6, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 10, 2014—Aug 25, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
103C	Charlton-Hollis-Rock outcrop complex, 8 to 15 percent slopes	B	2.7	2.7%
104D	Hollis-Rock outcrop-Charlton complex, 15 to 35 percent slopes		0.2	0.2%
325B	Newport silt loam, 3 to 8 percent slopes	B	17.8	17.6%
325C	Newport silt loam, 8 to 15 percent slopes	B	19.7	19.4%
602	Urban land, 0 to 15 percent slopes		15.1	14.9%
627C	Newport-Urban land complex, 3 to 15 percent slopes	B	45.7	45.2%
Totals for Area of Interest			**101.1**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

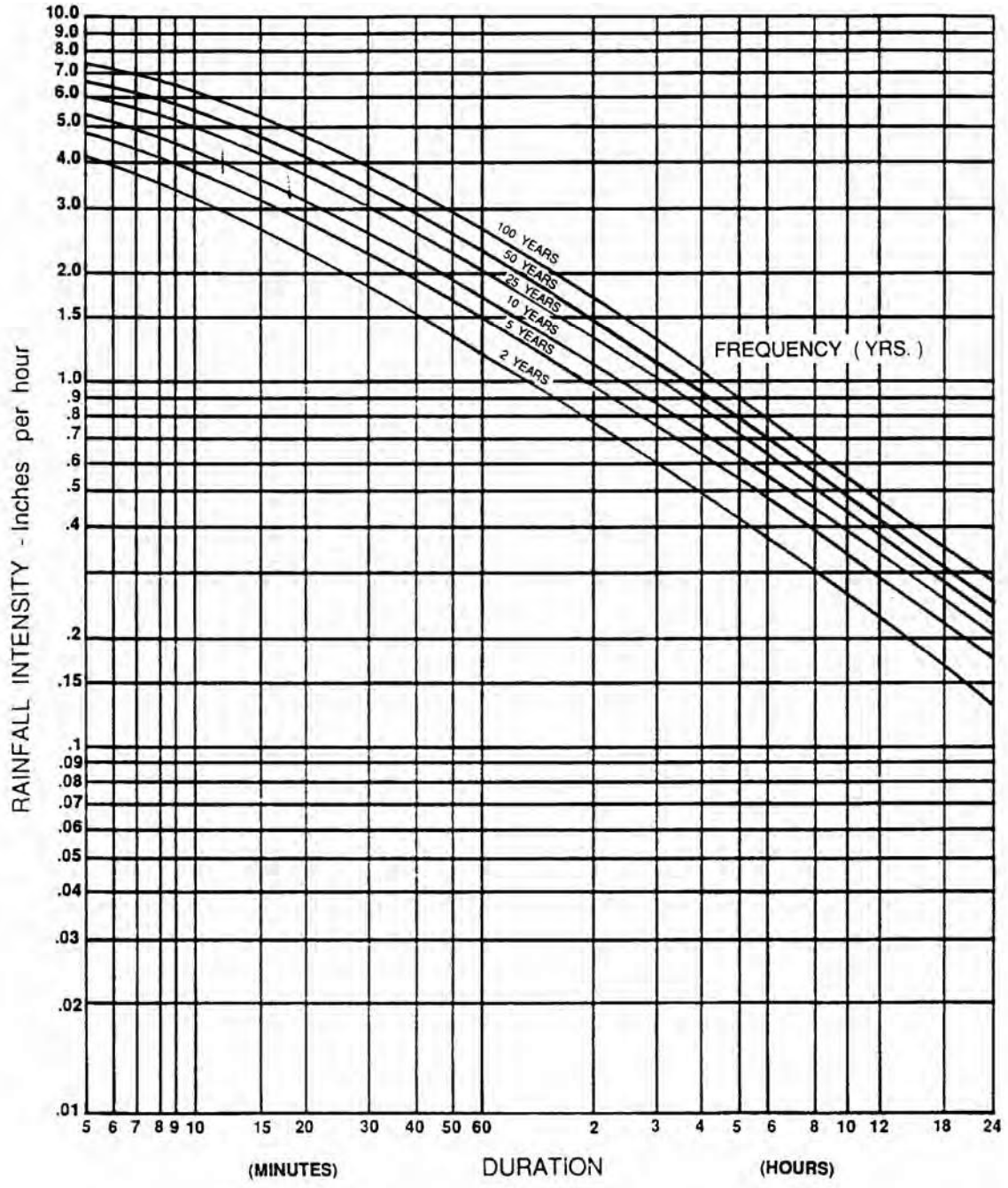
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Exhibit 8-12

Intensity – Duration – Frequency Curve for Boston, MA



Source: TR55 - Urban Hydrology for Small Wetlands, NRCS

StormCAD Report

114 Whitwell Street Quincy, MA

Label	Upstream Structure	Upstream Rim Elev. (ft)	Downstream Structure	Downstream Rim Elev. (ft)	Upstream Invert (ft)	Downstream Invert (ft)	Length (ft)	Slope (ft/ft)	Diameter (in)	Manning's n	Velocity (ft/s)	Flow (cfs)	Capacity (Full Flow) (cfs)	Upstream Cover (ft)	Downstream Cover (ft)
E-1	DMH 3	140.20	EDMH-5	139.67	131.96	131.70	15	0.017	12	0.013	6.44	3.24	4.69	7.24	6.97
E-2	AD 6	143.30	AD 7	138.80	135.90	130.50	64	0.084	12	0.013	8.66	1.14	10.35	6.40	7.30
E-3	AD 7	138.80	DMH 43	131.50	129.30	125.70	45	0.080	12	0.013	9.17	1.48	10.08	8.50	4.80
E-4	DMH 43	131.50	DMH 41	121.70	125.70	115.00	59	0.181	12	0.013	12.64	1.64	15.17	4.80	5.70
E-5	DMH 41	121.70	EXIST CB	81.35	114.00	78.30	253	0.141	12	0.010	24.10	12.53	17.40	6.70	2.05
P-1	CB 2	149.00	CB 1	149.00	146.63	146.15	96	0.005	12	0.012	3.36	1.20	2.73	1.37	1.85
P-2	CB 1	149.00	DMH 8	150.10	146.15	145.80	70	0.005	12	0.012	3.86	2.17	2.73	1.85	3.30
P-3	DMH 8	150.10	WQU 2	137.80	134.73	134.35	19	0.020	12	0.012	6.54	2.14	5.46	14.37	2.45
P-4	TD 1	137.80	WQU 2	137.80	135.10	134.35	15	0.050	12	0.012	6.05	0.52	8.63	1.70	2.45
P-5	WQU 2	137.80	EDMH-3	141.83	134.35	133.70	130	0.005	15	0.012	4.10	2.65	4.95	2.20	6.88
P-6	CB 7	149.30	WQU 1	149.90	146.21	146.00	42	0.005	12	0.012	3.39	1.24	2.73	2.09	2.90
P-7	CB 8	149.30	WQU 1	149.90	146.34	146.00	68	0.005	12	0.012	3.14	0.93	2.73	1.96	2.90
P-8	WQU 1	149.90	DMH 5	149.75	146.00	145.70	6	0.050	12	0.012	9.11	2.14	8.63	2.90	3.05
P-9	DMH-6	149.90	DMH 7	146.50	140.25	140.09	18	0.009	15	0.012	5.04	2.58	6.60	8.40	5.16
P-10	BLDG A RL-1	148.50	DMH 7	146.50	140.39	140.19	10	0.020	12	0.012	4.97	0.80	5.46	7.11	5.31
P-11	DMH 7	146.50	DMH-1	141.75	140.01	139.40	70	0.009	15	0.012	5.37	3.38	6.53	5.24	1.10
P-12	BLDG A RL-2	142.10	DMH-2	141.75	139.58	139.30	19	0.015	12	0.012	4.46	0.80	4.69	1.52	1.45
P-13	DMH 2	141.75	DMH 3	140.20	135.12	132.04	200	0.015	12	0.012	6.55	3.24	4.79	5.63	7.16
P-14	AD 1	145.60	DMH 25	145.40	141.40	141.14	13	0.020	12	0.012	3.82	0.33	5.46	3.20	3.26
P-15	BLDG B RL-5	149.50	DMH 25	145.40	142.80	141.24	78	0.020	12	0.012	5.38	1.06	5.46	5.70	3.16
P-16	DMH 25	145.40	DMH 26	143.90	140.94	139.85	34	0.032	12	0.012	6.86	1.37	6.91	3.46	3.05
P-17	AD 3	143.50	DMH 26	143.90	140.95	139.95	50	0.020	12	0.012	3.11	0.16	5.46	1.55	2.95
P-18	DMH 26	143.90	DMH 27	142.70	139.77	138.10	49	0.034	12	0.012	7.23	1.53	7.13	3.13	3.60
P-19	AD-2	141.70	DMH 27	142.70	138.50	138.20	15	0.020	12	0.012	5.57	1.20	5.46	2.20	3.50
P-20	DMH 27	142.70	DMH 28	142.50	138.00	134.50	88	0.040	12	0.012	8.94	2.71	7.70	3.70	7.00
P-21	DMH 28	142.50	DMH 29	138.20	134.40	131.50	73	0.040	12	0.012	8.92	2.70	7.69	7.10	5.70
P-22	DMH 29	138.20	DMH 30	137.40	131.40	130.05	40	0.034	12	0.012	8.40	2.68	7.09	5.80	6.35
P-23	BLDG B RL-4	137.50	DMH 30	137.40	130.60	130.15	17	0.026	12	0.012	5.94	1.06	6.28	5.90	6.25
P-24	BLDG B RL-3	136.20	DMH 23	135.80	130.50	130.15	17	0.021	12	0.012	5.43	1.06	5.54	4.70	4.65
P-25	WQU INLET 4	144.30	DMH 20	144.00	140.10	140.04	3	0.020	12	0.012	4.26	0.47	5.46	3.20	2.96
P-26	BLDG B RL-1	144.50	DMH 20	144.00	140.48	140.14	17	0.020	12	0.012	5.38	1.06	5.46	3.02	2.86
P-27	DMH 20	144.00	DMH 21	137.80	139.96	133.94	109	0.055	12	0.012	8.58	1.53	9.07	3.04	2.86
P-28	WQU INLET 5	137.50	DMH 21	137.80	134.30	134.02	18	0.016	12	0.012	3.59	0.36	4.81	2.20	2.78
P-29	BLDG B RL-2	137.50	DMH 21	137.80	134.38	134.12	13	0.020	12	0.012	5.38	1.06	5.46	2.12	2.68
P-30	DMH 21	137.80	DMH 22	135.00	133.86	131.50	36	0.066	12	0.012	10.96	2.92	9.88	2.94	2.50
P-31	ROWHOUSE 1 RL-1	150.00	DMH 13	149.70	143.76	143.20	28	0.020	12	0.012	4.10	0.41	5.46	5.24	5.50
P-32	BLDG C RL-1	149.89	DMH 12	149.70	143.88	143.20	34	0.020	12	0.012	6.27	1.84	5.46	5.01	5.50
P-33	RETAIL RL-1	149.50	DMH 9	147.85	140.85	140.25	30	0.020	12	0.012	5.58	1.21	5.46	7.65	6.60
P-34	WQU INLET 1	143.75	DMH 10	144.90	140.45	140.15	29	0.010	12	0.012	4.71	1.56	3.93	2.30	3.75
P-35	DMH-11	145.10	EDMH-1	143.80	140.15	136.70	58	0.059	12	0.012	9.73	2.16	9.41	3.95	6.10
P-36	ROWHOUSE 1 RL-2	148.00	MH 14	146.75	143.90	143.20	35	0.020	12	0.012	4.10	0.41	5.46	3.10	2.55
P-37	WQU INLET 2	146.40	MH 14	146.75	143.20	143.10	10	0.010	12	0.012	4.95	1.98	3.86	2.20	2.65
P-38	BLDG C RL-2	148.50	DMH 15	146.75	143.66	143.20	23	0.020	12	0.012	6.21	1.78	5.46	3.84	2.55
P-39	DMH 15	146.75	DMH 16	146.00	143.20	139.00	66	0.064	18	0.012	12.60	5.61	28.71	2.05	5.50
P-40	DMH 16	146.00	DMH 17	138.00	138.92	135.37	69	0.051	18	0.012	11.68	5.61	25.81	5.58	1.13
P-41	WQU INLET 3	137.90	DMH 17	138.00	135.32	135.29	6	0.005	12	0.012	0.94	0.74	2.73	1.58	1.71

StormCAD Report
114 Whitwell Street Quincy, MA

Label	Upstream Structure	Upstream Rim Elev. (ft)	Downstream Structure	Downstream Rim Elev. (ft)	Upstream Invert (ft)	Downstream Invert (ft)	Length (ft)	Slope (ft/ft)	Diameter (in)	Manning's n	Velocity (ft/s)	Flow (cfs)	Capacity (Full Flow) (cfs)	Upstream Cover (ft)	Downstream Cover (ft)
P-42	BLDG C RL-3	138.00	DMH 17	138.00	135.57	135.45	6	0.020	12	0.012	5.79	1.38	5.46	1.43	1.55
P-43	DMH 17	138.00	DMH 18	139.80	135.21	134.50	150	0.005	18	0.012	5.05	7.72	7.83	1.29	3.80
P-44	DMH 18	139.80	DMH 19	142.95	134.50	133.90	162	0.004	18	0.012	4.35	7.69	6.93	3.80	7.55
P-45	CB 9	147.50	WQU 5	147.20	142.06	141.76	15	0.020	12	0.012	3.39	0.22	5.46	4.44	4.44
P-46	CB 10	146.90	WQU 5	147.20	142.62	141.76	43	0.020	12	0.012	3.38	0.22	5.46	3.28	4.44
P-47	CB 11	146.90	WQU 5	147.20	141.88	141.76	6	0.020	12	0.012	3.40	0.22	5.46	4.02	4.44
P-48	WQU 5	147.20	DMH 31	144.90	141.76	139.56	110	0.020	12	0.012	4.68	0.65	5.46	4.44	4.34
P-49	DMH 31	144.90	DMH 32	143.80	139.48	139.04	22	0.020	12	0.012	4.65	0.64	5.46	4.42	3.76
P-50	ROWHOUSE 2 RL-1	144.50	DMH 32	143.80	139.78	139.14	32	0.020	12	0.012	4.97	0.80	5.46	3.72	3.66
P-51	WQU INLET 6	143.90	DMH 32	143.80	139.26	139.14	6	0.020	12	0.012	4.91	0.77	5.46	3.64	3.66
P-52	DMH 32	143.80	DMH 33	141.80	138.96	137.04	52	0.037	12	0.012	8.21	2.18	7.42	3.84	3.76
P-53	AD 4	142.80	DMH 33	141.80	138.46	137.14	66	0.020	12	0.012	3.61	0.27	5.46	3.34	3.66
P-54	AD 5	150.60	DMH 33	141.80	140.89	137.14	75	0.050	12	0.012	7.26	0.96	8.63	8.71	3.66
P-55	DMH 33	141.80	DMH 34	140.40	136.96	135.63	36	0.037	12	0.012	9.23	3.38	7.42	3.84	3.77
P-56	ROWHOUSE 3 RL-1	141.20	DMH 34	140.40	136.43	135.73	35	0.020	12	0.012	4.97	0.80	5.46	3.77	3.67
P-57	DMH 34	140.40	DMH 35	138.50	135.55	133.81	47	0.037	12	0.012	9.72	4.15	7.43	3.85	3.69
P-58	CB 12	141.50	WQU 6	141.20	136.41	136.11	15	0.020	12	0.012	3.39	0.22	5.46	4.09	4.09
P-59	CB 13	140.90	WQU 6	141.20	136.97	136.11	43	0.020	12	0.012	3.38	0.22	5.46	2.93	4.09
P-60	CB 14	140.90	WQU 6	141.20	136.23	136.11	6	0.020	12	0.012	3.40	0.22	5.46	3.67	4.09
P-61	WQU 6	141.20	DMH 35	138.50	136.11	133.91	110	0.020	12	0.012	4.68	0.65	5.46	4.09	3.59
P-62	DMH 35	138.50	DMH 36	137.00	133.73	132.36	37	0.037	12	0.012	10.04	4.78	7.43	3.77	3.64
P-63	ROWHOUSE 4 RL-1	137.50	DMH 36	137.00	133.16	132.56	30	0.020	12	0.012	4.97	0.80	5.46	3.34	3.44
P-64	WQU INLET 7	137.10	DMH 36	137.00	132.40	132.36	2	0.020	12	0.012	6.33	1.91	5.46	3.70	3.64
P-65	DMH 36	137.00	DMH 37	128.20	132.28	123.58	143	0.061	12	0.012	13.39	7.39	9.52	3.72	3.62
P-66	BLDG D RL-2	129.00	DMH 37	128.20	124.20	123.68	26	0.020	12	0.012	6.05	1.61	5.46	3.80	3.52
P-67	DMH 37	128.20	DMH 38	125.80	123.50	122.42	25	0.043	15	0.012	12.44	8.90	14.54	3.45	2.13
P-68	WQU INLET 8	126.00	DMH 38	125.80	122.70	122.52	14	0.013	12	0.012	5.37	1.89	4.38	2.30	2.28
P-69	DMH 38	125.80	DMH 39	125.30	122.34	121.85	23	0.021	18	0.012	9.99	10.71	16.61	1.96	1.95
P-70	CB 3	124.30	WQU 3	124.65	121.11	120.82	57	0.005	12	0.012	2.44	0.37	2.75	2.19	2.83
P-71	CB 4	124.50	WQU 3	124.65	120.94	120.82	6	0.020	12	0.012	4.44	0.54	5.46	2.56	2.83
P-72	WQU 3	124.65	DMH 41	124.80	120.82	120.70	12	0.010	12	0.012	4.01	0.90	3.86	2.83	3.10
P-73	BLDG D RL-1	125.50	DMH 41	124.80	121.02	120.80	11	0.020	12	0.012	6.05	1.61	5.46	3.48	3.00
P-74	CB 5	124.30	WQU 4	124.70	121.02	120.82	40	0.005	12	0.012	2.31	0.31	2.73	2.28	2.88
P-75	CB 6	124.50	WQU 4	124.70	120.94	120.82	6	0.020	12	0.012	4.29	0.48	5.46	2.56	2.88
P-76	WQU 4	124.70	DMH 40	125.00	120.82	120.70	12	0.010	12	0.012	3.86	0.79	3.86	2.88	3.30
P-77	AD 8	130.50	DMH 43	131.50	127.30	126.70	30	0.020	12	0.012	3.15	0.17	5.46	2.20	3.80
P-78	DMH 40	125.00	DMH 41	121.70	118.40	115.95	49	0.050	18	0.012	13.83	10.89	25.44	5.10	4.25

114 Whitwell Street
Quincy, MA

Stormwater Inlet Flows - 25 Year Storm Event

Inlet	Impervious Area (acres)	Impervious C Factor	Pervious Area (acres)	Pervious C Factor	Composite C	Total Area (acres)	Q (cfs)
Area Drains							
AD 1	0.01	0.95	0.11	0.40	0.45	0.12	0.32
AD 2	0.13	0.95	0.19	0.40	0.62	0.32	1.20
AD 3	0.02	0.95	0.02	0.40	0.68	0.04	0.16
AD 4	0.03	0.95	0.04	0.40	0.64	0.07	0.27
AD 5	0.08	0.95	0.21	0.40	0.55	0.29	0.96
AD 6	0.10	0.95	0.23	0.40	0.57	0.33	1.12
AD 7	0.03	0.95	0.07	0.40	0.57	0.10	0.34
AD 8	0.00	0.95	0.07	0.40	0.40	0.07	0.17
Catch Basins							
CB 1	0.17	0.95	0.01	0.40	0.92	0.18	0.99
CB 2	0.20	0.95	0.02	0.40	0.90	0.22	1.19
CB 3	0.06	0.95	0.01	0.40	0.87	0.07	0.37
CB 4	0.09	0.95	0.01	0.40	0.90	0.10	0.54
CB 5	0.05	0.95	0.01	0.40	0.86	0.06	0.31
CB 6	0.08	0.95	0.01	0.40	0.89	0.09	0.48
CB 7	0.17	0.95	0.11	0.40	0.73	0.28	1.23
CB 8	0.14	0.95	0.05	0.40	0.81	0.19	0.92
CB 9	0.033	0.95	0.003	0.40	0.90	0.04	0.20
CB 10	0.033	0.95	0.004	0.40	0.89	0.04	0.20
CB 11	0.034	0.95	0.003	0.40	0.91	0.04	0.20
CB 12	0.033	0.95	0.003	0.40	0.90	0.04	0.20
CB 13	0.033	0.95	0.004	0.40	0.89	0.04	0.20
CB 14	0.034	0.95	0.003	0.40	0.91	0.04	0.20
Roof Leaders							
Building A RL-1	0.135	0.95	0.00	0.40	0.95	0.14	0.77
Building A RL-2	0.135	0.95	0.00	0.40	0.95	0.14	0.77
Building A RL-3	0.27	0.95	0.00	0.40	0.95	0.27	1.54
Building B RL-1	0.182	0.95	0.00	0.40	0.95	0.18	1.04
Building B RL-2	0.182	0.95	0.00	0.40	0.95	0.18	1.04
Building B RL-3	0.182	0.95	0.00	0.40	0.95	0.18	1.04
Building B RL-4	0.182	0.95	0.00	0.40	0.95	0.18	1.04
Building B RL-5	0.182	0.95	0.00	0.40	0.95	0.18	1.04
Admin/Retail Bldg. RL-1	0.28	0.95	0.00	0.40	0.95	0.28	1.60
Building C RL-1	0.315	0.95	0.00	0.40	0.95	0.32	1.80
Building C RL-2	0.315	0.95	0.00	0.40	0.95	0.32	1.80
Building C RL-3	0.23	0.95	0.00	0.40	0.95	0.23	1.31
Building D RL-1	0.28	0.95	0.00	0.40	0.95	0.28	1.60

114 Whitwell Street
Quincy, MA

Stormwater Inlet Flows - 25 Year Storm Event

Inlet	Impervious Area (acres)	Impervious C Factor	Pervious Area (acres)	Pervious C Factor	Composite C	Total Area (acres)	Q (cfs)
Building D RL-2	0.28	0.95	0.00	0.40	0.95	0.28	1.60
Rowhouse 1 RL-1	0.07	0.95	0.00	0.40	0.95	0.07	0.40
Rowhouse 1 RL-2	0.07	0.95	0.00	0.40	0.95	0.07	0.40
Rowhouse 2 RL-1	0.14	0.95	0.00	0.40	0.95	0.14	0.80
Rowhouse 3 RL-1	0.14	0.95	0.00	0.40	0.95	0.14	0.80
Rowhouse 4 RL-1	0.14	0.95	0.00	0.40	0.95	0.14	0.80
Trench Drains							
Trench Drain 1	0.09	0.95	0.00	0.40	0.95	0.09	0.51
Water Quality Inlets							
WQU Inlet 1	0.27	0.95	0.03	0.40	0.90	0.30	1.61
WQU Inlet 2	0.35	0.95	0.06	0.40	0.87	0.41	2.14
WQU Inlet 3	0.08	0.95	0.10	0.40	0.64	0.18	0.70
WQU Inlet 4	0.04	0.95	0.02	0.40	0.77	0.06	0.28
WQU Inlet 5	0.05	0.95	0.03	0.40	0.74	0.08	0.36
WQU Inlet 6	0.13	0.95	0.01	0.40	0.91	0.14	0.77
WQU Inlet 7	0.27	0.95	0.10	0.40	0.80	0.37	1.78
WQU Inlet 8	0.31	0.95	0.19	0.40	0.74	0.50	2.22

Notes:
1.) Q (flow) = composite C x rainfall intensity (inches/hr) x Total Area (acres).
2.) Rainfall intensity i = 6.0 inches/ hr for the 25 year storm event.

114 Whitwell Street
Quincy, MA

Water Quality Unit (WQU) Area Calculations

Inlet	WQU 1 Impervious Area (acres)	WQU 1 Pervious Area (acres)
CB 7	0.17	0.11
CB 8	0.14	0.05
Total	**0.17**	**0.11**

Inlet	WQU 2 Impervious Area (acres)	WQU 2 Pervious Area (acres)
CB 1	0.17	0.01
CB 2	0.20	0.02
Trench Drain 1	0.09	0.00
Total	**0.46**	**0.03**

Inlet	WQU 3 Impervious Area (acres)	WQU 3 Pervious Area (acres)
CB 3	0.06	0.01
CB 4	0.09	0.01
Total	**0.15**	**0.02**

Inlet	WQU 4 Impervious Area (acres)	WQU 4 Pervious Area (acres)
CB 5	0.05	0.01
CB 6	0.08	0.01
Total	**0.13**	**0.02**

Inlet	WQU 5 Impervious Area (acres)	WQU 5 Pervious Area (acres)
CB 9	0.033	0.003
CB 10	0.033	0.004
CB 11	0.034	0.003
Total	**0.100**	**0.010**

Inlet	WQU 6 Impervious Area (acres)	WQU 6 Pervious Area (acres)
CB 12	0.033	0.003
CB 13	0.033	0.004
CB 14	0.034	0.003
Total	**0.100**	**0.010**

Traffic Impact and Access Study

114 Whitwell Street
Quincy, Massachusetts

Submitted to:

City of Quincy
September 26, 2018

Prepared for:

FRP Quincy Development LLC
1495 Hancock Street, Suite 400
Quincy, Massachusetts 02169

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1.0 EXECUTIVE SUMMARY

Tetra Tech has reviewed the potential traffic impacts associated with the proposed redevelopment of the former Quincy Medical Center site located at 114 Whitwell Street in Quincy, Massachusetts. The project site had supported the 370,000 + square-foot (196-bed) hospital which closed in December of 2014 and currently supports a 35,000 square-foot emergency room facility. As currently proposed the project would include a mix of multifamily residential housing including apartments, rowhouses and townhouses for a total of 598 residential units and approximately 5,000 square feet of ground floor supporting retail amenities.

The study methodology was developed in consultation with the City of Quincy traffic and planning Staff and is consistent with the procedures outlined in the MassDOT Traffic Impact Study Guidelines. The study evaluates existing and future traffic operations (with and without the proposed project) at the site driveways and key study intersections on the surrounding area roadways identified by City staff. The study provides a detailed analysis of intersection capacity during the weekday morning and weekday evening commuter peak hours, when the combination of existing traffic on the surrounding area roadways and new traffic associated with the proposed development would be greatest.

Vehicular access to the site is currently provided by three site driveways located on the north side of Whitwell Street and a fourth site driveway on the northwest end of Euclid Avenue (which is currently gated closed and infrequently used). The existing central (ambulance) and easternmost driveways on Whitwell Street will be reconfigured to better serve the proposed building program and the existing westernmost driveway is proposed to be removed. The Euclid Avenue driveway will be converted to an emergency access only drive with retractable bollards that will prohibit general vehicular access to the abutting residential neighborhood.

The project site provides convenient access to public transportation with Massachusetts Bay Transportation Authority (MBTA) bus service on Whitwell Street directly adjacent to the site. Additionally, the Quincy Center MBTA station is located within a 5-to 10-minute walk or bike ride and provides access to the Red Line subway service and commuter rail service. It is anticipated that a significant portion of the future residents at the development will use alternative transportation modes to access the project site. The US census data for census tract #4181.01, which encompasses the project site, indicates that approximately 33 % of the of the population located within the census tract uses public transportation to commute to work.

Vehicle trip estimates for the former hospital use and the currently proposed project were developed based on data presented in the Institute of Transportation Engineers (ITE) publication *Trip Generation Manual, 10th Edition* for the closest available land use. The ITE data indicates that, at full occupancy, the former hospital generated up to 384 vehicle trips (276 entering trips and 108 exiting trips) during the weekday morning peak hour and 304 vehicle trips (85 entering trips and 219 exiting trips) during the weekday evening peak hour. In comparison, the proposed project is expected to generate approximately 160 vehicle trips (43 entering trips and 117 exiting trips) during the weekday morning peak hour, 211 vehicle trips (127 entering trips and 84 exiting trips) during the weekday evening peak.

As indicated above, the proposed project will result in significantly lower traffic levels than the former hospital at full occupancy. However, for the purpose of this traffic study, the potential traffic increases and projected future traffic operations associated with the proposed project were compared to the current active (emergency room) use at the site. Vehicle trip estimates for the existing 35,000 square-foot emergency room facility were determined based on recent traffic counts collected at the project site driveways. The driveway counts indicate that the existing emergency room facility currently generates

approximately 18 vehicle trips (8 entering trip and 10 exiting trips) during the weekday morning peak hour and 18 vehicle trips (8 entering trips and 10 exiting trips) during the weekday evening peak hour.

The proposed project will result in a net increase of approximately 142 vehicle trips (35 entering trips and 107 exiting trips) during the weekday morning peak hour and 193 vehicle trips (119 entering trips and 74 exiting trips) during the weekday evening commuter peak hours relative to the active use currently on site. These minor traffic increases are significantly less than the historic use of the site. The analysis presented in this report indicates that, upon implementation of the recommended site access improvements, the proposed project can be accommodated at the site driveways with no significant impact on surrounding study area intersections.

A summary of the study methodology and key findings is presented below.

Project Description

The project site consists of approximately 14.97 + acres of land located on the north side of Whitwell Street. The project site had supported the 370,000 + square-foot (196-bed) hospital which closed in December of 2014 and currently supports a 35,000 square-foot, emergency room facility. The proposed project calls for the demolition of the existing buildings on site with the exception of the former hospital administration building which is being evaluated for repurposing and incorporation into the proposed development.

Access to the project site is currently provided via three (3) site driveways located on the north side of Whitwell Street and a fourth driveway located at the northwest end of Euclid Avenue (which is currently gated closed). The existing central (ambulance) and easternmost driveways will be reconfigured to better serve the proposed building program and the existing westernmost driveway is proposed to be removed. The Euclid Avenue driveway will be converted to an emergency only access drive with retractable bollards to prohibit general vehicular access through the abutting Euclid Avenue residential neighborhood.

As currently envisioned, the project would include a variety of multifamily residential offerings including rowhouses, townhomes, and multistory apartments for a total of 598 residential units. The project will also include on-site amenities for exclusive use of future tenants and limited supporting retail (approximately 5,000 GSF) that will be open to the general public.

The anticipated parking demands associated with the proposed development will be accommodated through a combination of below grade parking garages and surface parking along the internal site circulation roadways and individual driveways, providing a total of approximately 802 off-street parking spaces.

Study Methodology

The study evaluates existing and future (with and without the proposed project) traffic operations at the project site driveways and key study intersections identified by the City of Quincy planning staff. The study provides a detailed analysis of intersection capacity during the weekday morning and weekday evening commuter peak hours, when the combination of existing traffic on the surrounding area roadways and new traffic associated with the proposed development would be greatest.

The 2018 Existing weekday morning and weekday evening peak hours traffic volumes at the study area intersections were established based on recent traffic counts collected in June 2017 and April 2018. The 2017 existing traffic counts were grown by 1 % and then balanced upwardly with the 2018 traffic counts to establish the 2018 weekday morning and weekday evening peak hour volumes. The 2018 Existing peak

hour traffic volumes were then projected to the future design year of 2025, by which time the proposed project is expected to be built and occupied. The 2018 Existing traffic volumes were grown by 1 percent per year for the seven-year forecast period (2018 to 2025) to reflect the 2025 No Build (Without Project). The traffic increases associated with the currently proposed project were then added to the 2025 No Build peak hour traffic volumes and the existing traffic associated with the emergency room were removed to reflect the future 2025 Build (With Project) conditions.

Intersection capacity analyses were then conducted for each of the study intersections for the 2018 Existing, 2025 No Build (Without Project) and 2025 Build (With Project) weekday morning and weekday evening peak hour traffic volumes to identify existing and projected traffic deficiencies near the project site.

Historic Site-Generated Traffic – Former Quincy Medical Center Hospital

To provide an appropriate context of the vehicle trip generating potential for the project site, TT reviewed the historic use of the site. The project site had once supported the 370,000 + square-foot, (196-bed), Quincy Medical Center, which closed in December of 2014. Vehicle trip generation estimates of the historic use of the site were developed based on data presented in the Institute of Traffic Engineer's (ITE) publication *Trip Generation Manual, 10th Edition*. This reference provides vehicle trip data for various land uses based on actual traffic counts at existing facilities through the US. For this this study, the trip generation data for Land Use 610 (Hospital) assuming 196 beds was used to estimate the historic traffic levels.

The ITE data indicates that, at full occupancy, Quincy Medical Center generated up to 4,376 vehicle trips per day with 384 vehicle trips (276 entering trips and 108 exiting trips) during the weekday morning peak hour and 304 vehicle trips (85 entering trips and 219 exiting trips) during the weekday evening peak hour.

Existing Site-Generated Traffic - Emergency Room Facility

Since the closing of Quincy Medical Center, the project site has remained largely vacant, with the exception of the 35,000 square-foot emergency room facility. As part of the data collection effort for this project and to establish the existing site-generated traffic levels, TT collected 24-hour traffic volume counts at each of the site driveways. The driveway counts indicate that the existing emergency room currently generates approximately 412 vehicle trips per day, with 18 vehicle trips (8 entering trip and 10 exiting trips) during the weekday morning peak hour and 18 vehicle trips (8 entering trips and 10 exiting trips) during the weekday evening peak hour. For the purposes of this traffic study, it is assumed that if the currently proposed project does not move forward then the project site would continue to support the existing emergency room facility.

Future Site-Generated Traffic - Proposed 114 Whitwell Street Master Plan

Vehicle trip generation estimates for the currently proposed project were developed based on data presented in the Institute of Transportation Engineers' (ITE) publication ITE *Trip Generation Manual, 10th Edition* for the closest available land uses. The proposed project will include 598 residential units with approximately 5,000 square feet of supporting ground floor retail.

The project site provides convenient access to public transportation with existing Massachusetts Bay Transportation Authority (MBTA) bus service on Whitwell Street. Additionally, the Quincy Center MBTA station is located within a 5-to 10-minute walk or bike ride and provides access to the Red Line subway and commuter rail services. The US census data for census tract # 4181.01 indicates that approximately 33 % of the of the population located within the census tract uses public transportation to commute to

work. It is anticipated that a significant portion of the future residents of the project will use public transportation. For the purposes of this study, a transit reduction of 30 % was applied to the ITE vehicle trip estimates.

Accounting for transit use, the proposed project is expected to generate approximately 160 vehicle trips (43 entering trips and 117 exiting trips) during the weekday morning peak hour and 211 vehicle trips (127 entering trips and 84 exiting trips) during the weekday evening peak.

Project Trip Distribution Patterns

The project vehicle trips will be distributed to the surrounding roadway network via two (2) proposed site driveways on Whitwell Street, thus limiting potential traffic increases at any one driveway location. The proposed project vehicle trips were assigned to the site driveways and surrounding area roadways based on a review of the internal site circulation roadways and distribution of off-street parking within the site and on the observed travel patterns of the existing adjacent residential neighborhoods.

Intersection Capacity Analysis

To quantify potential traffic impacts associated with the proposed development, TT conducted intersection capacity analyses at key intersections near the project site for the 2018 Existing, 2025 No Build (Without Project), and 2025 Build (With Project) weekday morning and weekday evening peak hour traffic conditions. The capacity analyses indicate that majority of the study area intersections currently operate well below capacity with acceptable delays and operating levels of service and will maintain these same operating levels of services through the projected 2025 Build (With Project) weekday morning and weekday evening commuter peak hour conditions. This indicates that the potential traffic increases associated with the proposed project will have no noticeable impact on future traffic operations at the study area intersections, relative to the 2025 No Build (without project) conditions.

The one exception is the intersection of Adams Street and Whitwell Street. The capacity analyses indicate that the exiting movements from Whitwell Street onto Adams Street currently experience long delays and vehicle queues during the weekday morning peak hour. It is anticipated that traffic increases associated with general background traffic growth and new traffic associated with the proposed project will further exacerbate the existing delays at the intersection.

With or without the proposed project, the exiting movements from the Whitwell Street minor street approach will continue to experience delays during the weekday commuter peak hours. While the proposed project will result in minor traffic increases relative to the existing emergency room use, it is expected to result in significantly less traffic than the former Quincy Medical Center use of the site. Consequently, no improvements are proposed at this intersection as part of the currently proposed project.

Proposed Site Access Improvements

The existing central (ambulance) and easternmost site driveways on Whitwell Street will be reconfigured to better serve the proposed building program and the existing westernmost driveway is proposed to be removed. The Euclid Avenue driveway will be converted to an emergency access only drive. A brief description of the proposed site access modifications is provided below.

Whitwell Street - Westerly Site Driveway

As part of the redevelopment of the site, the existing westerly site driveway is proposed to be removed.

Whitwell Street – Central Driveway (Former Ambulance Driveway)

The former ambulance driveway will be reconstructed at its present location to improve entrance and exit radii at the tie in to Whitwell Street. The driveway will provide a 24-foot wide full access driveway under "STOP" sign control. The Whitwell Street Central Site Driveway will provide access to the proposed subsurface (below grade) interconnected parking garage serving several of the proposed buildings and the former hospital administration building.

Whitwell Street - Easterly Site Driveway

As part of the proposed project, the existing easterly site driveway on Whitwell Street (across from Nilsen Avenue) will be closed, and a new easterly driveway will be constructed approximately 110 feet west of the existing driveway (between Ryden Street and Nilsen Avenue) to provide a 24-foot wide full access driveway under "STOP" sign control. The new easterly site driveway will provide access to the internal site circulation surface roadway, which in turn provides access to the proposed subsurface (below grade) parking garages serving several of the proposed buildings and the former hospital administration building.

Euclid Avenue - Emergency Access Only Driveway

The existing access off Euclid Avenue will be converted to an emergency access only drive. The 24-foot wide paved accessway will provide emergency vehicle access to the internal site circulation surface roadway serving the entire development. The access will be controlled with removeable/retractable bollards that will prohibit general vehicular access but will provide a convenient connection for pedestrians and bicyclists within the site to the abutting residential neighborhood.

Travel Demand Management

The proposed redevelopment of the site is being designed as a transit-oriented development given its close proximity to a robust public transportation system operated by the MBTA including bus, subway and commuter rail services. The project proponent will implement a Transportation Demand Management (TDM) program to reduce automobile travel and traffic impacts associated with the proposed project.

2.0 INTRODUCTION

2.1 PROJECT DESCRIPTION

The project site consists of approximately 14.97 + acres of land located on the north side of Whitwell Street. The project site location in relation to the surrounding area roadways is shown on Figure 1. The project site had supported the 370,000 + square-foot (196-bed) hospital which closed in December of 2014 and currently supports a 35,000 square-foot, emergency room facility. The proposed project calls for the demolition of all of the existing buildings on site with the exception of the former hospital administration building which will likely be repurposed and incorporated into the proposed development.

Access to the project site is currently provided via three (3) site driveways located on the north side of Whitwell Street and a fourth driveway located at the northwest end of Euclid Avenue (which is currently gated closed). The existing central (ambulance) and easternmost driveways will be reconfigured to better serve the proposed building program and the existing westernmost driveway is proposed to be removed. The Euclid Avenue driveway will be converted to an emergency only access drive with retractable

bollards to prohibit general vehicular access through the abutting Euclid Avenue residential neighborhood.

As currently envisioned, the project would include a variety of multifamily residential offerings including rowhouses, townhomes, and multistory apartments for a total of 598 residential units. The project will also include on-site amenities for exclusive use of future tenants, and limited supporting retail (approximately 5,000 GSF) that would be open to the general public.

The anticipated parking demands associated with the proposed development will be accommodated through a combination of below grade parking garages and surface parking along the internal site circulation roadways and individual driveways serving the residential duplexes, providing a total of approximately 802 off-street parking spaces.

2.1.1 Historic Site-Generated Traffic

The former Quincy Medical Center was fully operational at the site for over 100 years, but closed in December 2014. Only the 35,000 sf emergency department is currently active, leaving the majority of the site buildings vacant. To quantify past (historic) traffic activity for the former hospital use, trip generation associated with the 196-bed medical facility is presented in Table 1 and was developed based on data presented in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition* (2017).

Table 1 Historic Site-Generated Traffic Volume Summary

Time Period	Trips[1]
Weekday Daily	
Enter	2,187
Exit	2,187
Total	*4,374*
Weekday Morning Peak Hour	
Enter	276
Exit	108
Total	*384*
Weekday Evening Peak Hour	
Enter	85
Exit	219
Total	*304*

[1]Based on trip rates published in the ITE *Trip Generation Manual, 10th Edition* for Land Use 610 (Hospital) applied to 196 beds.

As shown in Table 1, the former site hospital use is estimated to have generated approximately 384 trips during the weekday morning peak hour and 304 trips during the weekday evening peak hour. On a daily basis, the former hospital is estimated to have generated approximately 4,374 trips on a weekday. Trip generation calculations for the historic use of the site is provided in Appendix A.

2.2 STUDY METHODOLOGY

The traffic study methodology was developed in consultation with representatives from the City of Quincy Traffic & Parking and Planning & Community Development departments at a traffic scoping meeting for the project that was held at the Quincy Planning & Community Development offices on February 23, 2018. The purpose of the meeting was to identify key aspects of the traffic study including the study area roadways and intersections to be reviewed, consideration of other possible area developments and background traffic growth, and analysis required to evaluate the potential project-related traffic impacts.

The TIAS provides a detailed analysis of existing and future traffic operations (both with and without the proposed development) during the weekday morning and weekday evening peak hours at the study area intersections (including the three site driveways along Whitwell Street) identified through consultation with City officials.

This study was conducted in three phases. The first phase involved an inventory of existing traffic conditions in the vicinity of the site. As part of the existing conditions assessment, peak period traffic counts were collected at key roadways and intersections in the vicinity of the site. Field visits were also conducted to inventory roadway and intersection geometries and traffic control and to observe the general operational characteristics for each of the study area intersections. MassDOT crash data for the most recent three-year period available (2013 to 2015) was also reviewed.

The second phase of the study builds upon the data collected in the first phase and establishes the framework for evaluating potential traffic impacts associated with the project. The 2018 Existing peak hour traffic volumes were then projected to the design year 2025. The future 2018 and 2025 No Build (Without Project) traffic volumes were assumed to include traffic increases resulting from general background traffic growth. Traffic increases associated with the redevelopment of the site were then added to the No Build traffic volumes and the existing traffic volumes generated by the existing emergency room facility were removed from the network to reflect the future 2025 Build (With Project) weekday morning and weekday evening peak hour volumes.

In the third phase of this study, the existing and projected future traffic operations at each of the study intersections were analyzed to identify potential traffic operational deficiencies and, if warranted, potential improvements to improve traffic flow.

3.0 EXISTING CONDITIONS

The effective evaluation of potential transportation impacts associated with the project requires a thorough understanding of the existing traffic conditions on the roadways and intersections in the vicinity of the project site. The existing conditions assessment consists of an inventory of the roadway and intersection geometries and traffic control devices, collection of peak period traffic volumes and field observations and analysis of existing traffic operations.

3.1 STUDY AREA ROADWAYS

The site is located at 114 Whitwell Street at the former Quincy Medical Center property and is bounded by Whitwell Street to the south and Roselin Avenue to the east. The project-generated traffic will travel to and from the site via the following key study area roadways.

Whitwell Street. Whitwell Street is under local (City) jurisdiction and generally runs in an east-west direction between Adams Street and Granite Street and is classified by the Massachusetts Department of Transportation (MassDOT) as an Urban Collector roadway. Whitwell Street generally provides one travel lane in each direction. Sidewalks are provided along both sides of Whitwell Street and crosswalks are provided at most intersections. Land use along Whitwell Street is primarily residential and also includes the site medical use and some commercial and religious uses near its intersection with Granite Street.

Adams Street. Adams Street generally runs in an east-west direction and provides one travel lane in each direction with additional lanes at major intersections. Adams Street is under City jurisdiction and is classified by MassDOT as an Urban Principal Arterial roadway. Within the study area, sidewalks are provided along both sides of Adams Street and crosswalks are provided at the intersection with Whitwell Street. Land use along Adams Street in the vicinity of the study area is primarily residential.

Granite Street. Granite Street is generally a north-south roadway under City jurisdiction and is classified by MassDOT as an Urban Minor Arterial roadway southwest of Burgin Parkway and an Urban Principal Arterial roadway northeast of Burgin Parkway. Two travel lanes are generally provided in each direction north of Hannon Parkway and one travel lane in each direction is generally provided south of Hannon Parkway with additional lanes at major intersections. Sidewalks are provided along both sides of Granite Street. Land uses are primarily commercial with some residential uses near the intersection with Hannon Parkway and points south.

3.2 STUDY AREA INTERSECTIONS

The study area intersections chosen for detailed analysis were determined in consultation with the City of Quincy Traffic & Parking and Planning & Community Development departments at a scoping meeting held in February 2018. The study area intersections are shown in Figure 1 and are listed below:

1. Whitwell Street at Adams Street (Unsignalized)
2. Whitwell Street at Carrolls Lane (Unsignalized)
3. Whitwell Street at West Site Drive (Unsignalized)
4. Whitwell Street at Farrell Street (Unsignalized)
5. Whitwell Street at Ambulance Entrance/Center Site Drive (Unsignalized)
6. Whitwell Street at Ryden Street (Unsignalized)
7. Whitwell Street at Nilsen Avenue/East Site Drive (Unsignalized)
8. Whitwell Street at Cranch Street (Unsignalized)
9. Roselin Avenue at Euclid Avenue (Unsignalized)
10. Roselin Avenue at Bedford Street (Unsignalized)
11. Whitwell Steet at Roselin Avenue (Unsignalized)
12. Glendale Road at Dimmock Street (Unsignalized)
13. Euclid Avenue at Dimmock Street (Unsignalized)
14. Bedford Street at Euclid Avenue (Unsignalized)
15. Whitwell Street at Klondike Street (Unsignalized)
16. Bedford Street at Maywood Avenue (Unsignalized)

17. Whitwell Street at Maywood Avenue (Unsignalized)
18. Bedford Street at Glendale Road (Unsignalized)
19. Whitwell Street at Glendale Road/Deldorf Street (Unsignalized)
20. Whitwell Street at Dixwell Street (Unsignalized)
21. Whitwell Street at Granite Street (Signalized)
22. Granite Street at Thomas E. Burgin Parkway (Signalized)
23. Granite Street at Walter J. Hannon Parkway (Signalized)
24. Walter J. Hannon Parkway at Thomas E. Burgin Parkway (Signalized)

A detailed description of existing geometry and traffic control at the key study intersections in the study area is provided below.

Whitwell Street/Adams Street. Whitwell Street intersects Adams Street to form a four-legged, unsignalized intersection. Adams Street provides a single, general-purpose travel lane in each direction. The Adams Street northbound approach to Whitwell Street also provides a channelized right-turn lane. The Grenwold Road eastbound approach and the Whitwell Street westbound approach to the intersection each provide a single, general-purpose travel lane under Stop-sign control. The Whitwell Street westbound approach also provides a channelized right-turn lane. Crosswalks are provided across the east leg (Whitwell Street), west leg (Grenwold Road) and north leg (Adams Street) of the intersection. Sidewalks are provided along both sides of each leg of the intersection. Land use at the intersection consists of residential uses.

Whitwell Street/Granite Street. Whitwell Street intersects Granite Street and the shopping plaza driveway to form a four-legged, signalized intersection. In the southbound travel direction, Granite Street provides a shared through/left-turn lane and a shared through/right-turn lane (right turn is channelized) approaching the intersection and two lanes departing the intersection. In the northbound direction, Granite Street provides an exclusive left-turn lane, a through lane and a shared through/right-turn lane approaching the intersection and three departure lanes. In the eastbound direction, Whitwell Street provides a shared through/right-turn lane (right-turn is channelized) approaching the intersection and one departure lane. In the westbound direction, the plaza driveway provides a single, general-purpose travel lane approaching the intersection and one departure lane. Sidewalks are provided along both sides of each approach to the intersection. Crosswalks are provided across the east leg (Whitwell Street) and north leg (Granite Street) of the intersection.

3.3 EXISTING TRAFFIC VOLUMES

Peak period intersection turning movement counts (TMCs) were collected in June 2017 and April 2018 in the study area to establish existing traffic levels in the vicinity of the project site. Automatic traffic recorder (ATR) counts were also collected in April 2018 to establish daily traffic volumes at the existing site driveways and on Whitwell Street adjacent to the project site.

3.3.1 Daily Traffic Volumes

ATR counts were conducted along Whitwell Street in the site vicinity on Thursday, April 12, 2018 to establish weekday daily traffic volume patterns. The ATR data indicates that Whitwell Street carries a total two-way traffic volume of approximately 4,662 vehicles per day (vpd) on a typical weekday. A more

detailed summary of the ATR data is presented in Table 2. The ATR daily traffic volume data is presented in Appendix B of this report.

Table 2 Weekday Daily Traffic Volume Summary – Whitwell Street

Daily (vpd)[1]	AM Peak Hour (vph)[2]	AM Peak Hour Travel Split	PM Peak Hour (vph)	PM Peak Hour Travel Split
4,662	372	61% WB	409	61% EB

Based on automatic traffic recorder counts collected on Thursday, April 12, 2018.
[1]vpd = vehicles per day
[2]vph = vehicles per hour

3.3.2 Peak Hour Traffic Volumes

The combined critical peak demand periods of site traffic and adjacent street traffic will occur during the weekday morning and weekday evening commuter peak hours. The TMCs were collected on Thursday, June 1, 2017 at the signalized study intersections and on Tuesday, April 3, 2018 at the unsignalized study intersections. The TMC data was collected during the typical weekday morning and weekday evening commuter "peak periods" (from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM). The turning movement counts are provided in Appendix B.

3.3.3 Peak Hour Volume Adjustments

Seasonal traffic volume data was reviewed to determine if seasonal adjustments were necessary for the traffic counts collected in April and June. Based on MassDOT permanent count station data, the traffic volume data collected in the months of April and June are, on average, greater than or approximately equal to the average annual daily traffic volumes. Therefore, no seasonal adjustment was applied. The MassDOT seasonal adjustment factors are provided in Appendix C.

Nearby MassDOT permanent count station data was also reviewed to determine the appropriate annual traffic growth factor that should be applied to the raw count data collected at the signalized study intersections in June 2017 to estimate the 2018 Existing conditions traffic volumes. The data indicates that the average yearly traffic increase from 2009 to 2015 was 0.09 percent per year. As a conservative measure, the observed (as-counted) 2017 traffic volumes were grown by 1 percent to estimate the 2018 Existing condition traffic volumes at the signalized intersections. Since the unsignalized intersections were counted during the Existing Conditions year of 2018, no growth factor was applied to the observed (as-counted) April 2018 traffic volumes collected at the unsignalized locations. The background traffic growth rate calcuation data is provided in Appendix D.

The 2018 Existing Conditions traffic volumes are presented in Figure 2 and Figure 3 for the weekday morning and weekday evening peak hours, respectively.

3.3.4 Existing Site-Generated Traffic

Since the closing of Quincy Medical Center, the project site has remained largely vacant, with the exception of the 35,000 square-foot emergency room facility. As part of the data collection effort for this project and to establish the existing site-generated traffic levels, TMC and ATR data was collected at the existing site driveways. The existing site access located at the rear of the property that connects to Euclid Avenue was fenced closed at the time the traffic counts were conducted. When the count data was collected in April 2018, the only active use at the site was a 35,000-sf emergency department. The existing (observed) vehicle trip generation for the site is summarized in Table 3.

Table 3 Existing Site Trip Generation Summary

Time Period	Trips[1]
Weekday Daily	
Enter	206
Exit	206
Total	*412*
Weekday Morning Peak Hour	
Enter	8
Exit	10
Total	*18*
Weekday Evening Peak Hour	
Enter	8
Exit	10
Total	*18*

[1]Vehicle trip generation based on traffic counts conducted at the West Site Driveway, Center (Ambulance) Site Driveway and East Site Driveway on Whitwell Street on Tuesday, April 3, 2018.

As shown in Table 3, the existing emergency department at the site generates approximately 18 vehicle trips during the weekday morning and weekday evening peak hours and approximately 412 weekday daily vehicle trips with 50 percent entering and 50 percent exiting over a 24-hour period.

3.4 PUBLIC TRANSPORTATION

The project site has easy access to public transportation amenities operated by the Massachusetts Bay Transit Authority (MBTA), including bus, subway and commuter rail services. A description of the public transportation modes serving the project neighborhood is provided below.

3.4.1 Bus Service

Convenient access is available to local bus service in the study area. MBTA Bus #245 travels along Whitwell Street and stops adjacent to the site at the Whitwell Street/Farrell Street intersection. Additional bus stops for Route #245 are located along Whitwell Street at its intersections with Cranch Street and Roselin Avenue east of the site. The schedule and map for MBTA Bus Route #245 are provided in Appendix E.

3.4.2 Subway Service

The site also has convenient subway access to the MBTA's Red Line service. Quincy Center Station is located approximately one-half mile walking distance from the site (approximately 10-minute walk). The Red Line service operates approximately every 9 minutes during peak weekday commuting hours. The Red Line provides service between Braintree and Alewife with a stop at Quincy Center Station. A subway map and schedules are provided in Appendix E.

3.4.3 Commuter Rail Service

The site also has convenient access to the MBTA's Greenbush, Kingston/Plymouth and Middleborough/Lakeville commuter rail lines at nearby Quincy Center Station. The 3 commuter rail services provide a total of 4 inbound trains that stop at Quincy Center Station during the weekday morning peak period (7 AM – 9 AM) and a total of 6 outbound trains that stop at Quincy Center Station during the weekday evening peak period (4 PM – 6 PM). A commuter rail map and schedules are provided in Appendix E.

3.5 PEDESTRIAN AND BICYCLE ACCOMMODATIONS

The public streets in the site vicinity generally have continuous sidewalks with crosswalks provided at most of the study intersections. Although some shoulders of variable width are provided throughout the study area, exclusive bicycle lane accommodations are generally not provided. The crosswalk located across Whitwell Street between Ryden Street and the center (ambulance) site driveway is controlled by a pedestrian traffic signal.

3.6 CRASH ANALYSIS

Crash data was obtained from the crash database on the MassDOT website for the latest three-year period available (January 2013 through December 2015). The crash data, if any, and crash rate calculations for each study intersection are provided in Appendix F. The majority of study intersections did not experience any reported crashes during the three-year study period. Table 4 summarizes the crashes that were reported to have occurred at 8 of the study intersections. Four of these locations experienced crash rates above the Statewide and District-wide averages for signalized intersections. A brief description of the crash history for these 4 locations during the three-year study period is provided below.

Burgin Parkway/Granite Street. During the three-year study period, 40 crashes were reported at the signalized Burgin Parkway/Granite Street intersection resulting in a crash rate of 1.39 crashes per million entering vehicles. The majority of the crashes involved angle (12 crashes), rear-end (12 crashes) and sideswipe (11 crashes) collisions. Twenty-five percent of the crashes occurred during the weekday morning and weekday evening peak periods. Injuries were reported for 4 of the crashes and 5 crashes

involved either pedestrians or bicyclists. No fatalities were reported at this location during the three-year study period.

Burgin Parkway/Hannon Parkway. During the three-year study period, 48 crashes were reported at the signalized Burgin Parkway/Hannon Parkway intersection resulting in a crash rate of 1.32 crashes per million entering vehicles. The majority of the crashes involved angle (21 crashes), rear-end (15 crashes) and sideswipe (11 crashes) collisions. Thirty-five percent of the crashes occurred during the weekday morning and weekday evening peak periods. Injuries were reported at 3 of the crashes. No fatalities, pedestrian-related or bicycle-related crashes were reported at this location during the three-year study period.

Granite Street/Hannon Parkway. During the three-year study period, 18 crashes were reported at the signalized Granite Street/Hannon Parkway intersection resulting in a crash rate of 1.16 crashes per million entering vehicles. The majority of the crashes involved angle (8 crashes), rear-end (5 crashes) and single-vehicle (4 crashes) collisions. Five of the crashes occurred during the weekday morning and weekday evening peak periods. Injuries were reported for half of the crashes. No fatalities, pedestrian-related or bicycle-related crashes were reported at this location during the three-year study period.

Granite Street/Whitwell Street. During the three-year study period, 12 crashes were reported at the signalized Granite Street/Whitwell Street intersection resulting in a crash rate of 0.90 crashes per million entering vehicles. Half of the crashes involved angle-type collisions and 2 of the crashes occurred during the weekday morning and weekday evening peak periods. Injuries were reported for two of the crashes. No fatalities, pedestrian-related or bicycle-related crashes were reported at this location during the three-year study period.

Table 4 Crash Data Summary (2013-2015)

	Thomas E. Burgin Pkwy at Granite St	Thomas E. Burgin Pkwy at Walter J. Hannon Pkwy	Granite St at Walter J. Hannon Pkwy	Granite St at Whitwell St	Adams St at Whitwell St	Whitwell St at Ryden St	Whitwell St at Dixwell St	Whitwell St at West Site Dr
Year								
2013	13	11	6	1	2	1	0	0
2014	13	17	7	5	3	0	1	0
2015	14	20	5	6	0	0	0	1
Total	**40**	**48**	**18**	**12**	**5**	**1**	**1**	**1**
Type								
Angle	12	21	8	6	2	1	0	1
Rear-end	12	15	5	1	0	0	0	0
Head-on	1	0	0	1	0	0	0	0
Sideswipe	11	11	1	2	1	0	1	0
Single Vehicle	3	0	4	2	2	0	0	0
Other/Unknown	1	1	0	0	0	0	0	0
Total	**40**	**48**	**18**	**12**	**5**	**1**	**1**	**1**
Severity								
Property	28	42	9	7	5	1	0	1
Injury	4	3	9	2	0	0	1	0
Fatality	0	0	0	0	0	0	0	0
Unknown	8	3	0	3	0	0	0	0
Total	**40**	**48**	**18**	**12**	**5**	**1**	**1**	**1**
Non-Motorists								
Pedestrians	4	0	0	0	0	0	0	0
Bicyclists	1	0	0	0	1	0	0	0
Vehicles Only	35	48	17	12	4	1	0	1
Other/Unknown	0	0	1	0	0	0	1	0
Total	**40**	**48**	**18**	**12**	**5**	**1**	**1**	**1**
Weather								
Clear	26	34	10	6	0	0	0	0
Cloudy	5	8	7	3	1	1	0	0
Rain	7	4	1	3	0	0	1	1
Snow	2	0	0	0	4	0	0	0
Sleet	0	0	0	0	0	0	0	0
Other/Unknown	0	2	0	0	0	0	0	0
Total	**40**	**48**	**18**	**12**	**5**	**1**	**1**	**1**
Time								
7am to 9am	3	3	2	2	0	0	0	0
9am to 4pm	13	20	10	4	2	1	0	0
4pm to 6pm	7	14	3	0	1	0	1	1
6pm to 7am	17	11	3	6	2	0	0	0
Total	**40**	**48**	**18**	**12**	**5**	**1**	**1**	**1**
Crash Rates[1]								
Statewide	0.77	0.77	0.77	0.77	0.58	0.58	0.58	0.58
District 6	0.70	0.70	0.70	0.70	0.53	0.53	0.53	0.53
Intersection	**1.39**	**1.32**	**1.16**	**0.90**	**0.41**	**0.20**	**0.15**	**0.20**

[1]Crash rates per million entering vehicles (MEV) calculated using MassDOT Worksheets

4.0 FUTURE CONDITIONS

4.1 FUTURE NO BUILD (WITHOUT PROJECT) CONDITIONS

The future No Build (Without Project) condition establishes the basis for evaluating the transportation impacts associated with the proposed project. The No Build condition includes the effects of general area growth, other planned development projects and planned transportation improvements expected to be completed by the Design Year of 2025.

In order to establish the future 2025 No Build (Without Project) traffic volumes, the 2018 Existing condition traffic volumes were projected to the 2025 design year, by which time the project is expected to be built and occupied. Traffic growth is primarily a function of changes in motor vehicle use and expected land development in the region. In order to predict a rate at which traffic on the roadways in the vicinity of the site can be expected to grow during the seven-year forecast period (2018 to 2025), both historic traffic growth and planned area developments were examined. A discussion of the development of the future No Build (Without Project) condition is provided below.

4.1.1 General Background Traffic Growth

The historic traffic growth in the study area was determined based on MassDOT permanent count station data. As described under *Existing Traffic Volumes,* the permanent count station data indicates that the average yearly traffic increase from 2009 to 2015 was 0.09 percent per year. As a conservative measure, a 1 percent per year growth rate was applied to the 2018 Existing Conditions traffic volumes to estimate 2025 No Build Conditions traffic volumes.

4.1.2 Background Development

Other planned area developments could also result in increased traffic on the surrounding area roadways. However, for the purposes of this study and as discussed with City of Quincy officials at the traffic scoping meeting held on February 23, 2018, no specific background developments were identified for inclusion in the development of the future 2025 No Build (Without Project) conditions.

With only an emergency department active, the site is currently significantly underutilized compared to historic use as a fully functioning acute care hospital, which closed in December 2014. It is assumed that re-occupancy of the currently-vacant hospital buildings is unlikely to occur by the Design Year of 2025. For the purposes of this study, if the proposed project does not move forward, it is assumed that the existing site use (35,000-sf emergency department only) would continue to operate on site and is therefore included in the the 2025 No Build condition peak hour traffic volumes.

4.1.3 Planned Roadway Improvements

Based on consultation with City of Quincy officials at the traffic scoping meeting held on February 23, 2018 for the 114 Whitwell Street project, there are no major planned roadway improvements within the study area that need to be considered for the 2025 No Build conditions.

4.1.4 Future 2025 No Build (Without Project) Traffic Volumes

The 2018 Existing condition peak hour traffic volumes were grown by 1 percent per year over the seven-year study horizon to establish the 2025 No Build (Without Project) traffic volumes. The 2025 No Build

weekday morning and weekday evening peak hour traffic volume networks are illustrated in Figure 4 and Figure 5, respectively.

4.2 FUTURE BUILD (WITH PROJECT) CONDITIONS

To assess the project's transportation impacts, the overall travel demands were determined based on proposed site access modifications as well as the anticipated trip generation, travel mode split, trip distribution and trip assignment. The project's travel demand was then added to the future 2025 No Build traffic volumes (without the proposed project) to develop the future 2025 Build condition traffic volumes (with the proposed project).

A discussion of the development of the future Build (With Project) condition is provided below.

4.2.1 Project-Generated Trips

To assess the project's transportation impacts, the project's overall travel demand was determined in a four-step process including trip generation, travel mode share, trip distribution and trip assignment. The following sections describe the process of translating the proposed development program into the resulting trips in each mode of travel.

Trip Generation. Trip generation estimates for the project were developed based on data presented in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition* (2017). The project will consist of 598 residential units and 5,000 sf of commercial retail space. For the purposes of this study, it was assumed that the residential component of the project would include 55 (low-rise) residential units and 543 (mid-rise) residential units. Trip estimates for the proposed residential and retail uses at the site were based on the ITE trip rates for land use codes 220 (Multifamily Housing – Low-Rise), 221 (Multifamily Housing – Mid-Rise) and 820 (Shopping Center). The trip generation calculations are provided in Appendix G.

Travel Mode Share. As previously discussed under *Public Transportation,* the site is located adjacent to MBTA bus service and located within a 10-minute walk of MBTA subway and commuter rail services. Commuting mode share data published by the US Census for Census Tract 4181.01, which includes the site and surrounding residential neighborhoods, indicates that approximately 33 percent of residents within this census tract use public transportation to commute to work. Additionally, approximately 5 percent of residents carpool to/from work. Therefore, a 30 percent transit reduction was applied to the trip generation estimates calculated for the residential uses at the site. As a conservative measure, no transit reduction was applied to the proposed retail use. Additionally, no credit was taken for pass-by related trips (retail patrons that are already traveling on roads adjacent to the site) or for shared trips between the proposed on-site residential and retail uses. The mode share data is provided in Appendix H.

Table 5 presents a summary of the trip generation estimates associated with the proposed residential and retail uses at the site.

Table 5 Project Trip Generation Summary

Time Period	Residential Trips			Total Project Trips		
	Low-Rise Residential[1]	Mid-Rise Residential[2]	Retail Trips[3]	Total Project Trips[4]	Transit Trip Reduction[5]	Project Vehicle Trips[6]
Weekday Daily						
Enter	187	1,479	94	1,760	-500	**1,260**
Exit	187	1,479	94	1,760	-500	**1,260**
Total	*374*	*2,958*	*188*	*3,520*	*-1,000*	***2,520***
Weekday Morning Peak Hour						
Enter	6	51	3	60	-17	**43**
Exit	21	144	2	167	-50	**117**
Total	*27*	*195*	*5*	*227*	*-67*	***160***
Weekday Evening Peak Hour						
Enter	22	146	9	177	-50	**127**
Exit	13	93	10	116	-32	**84**
Total	*35*	*239*	*19*	*293*	*-82*	***211***

[1]Based on ITE *Trip Generation Manual,10th Edition* trip rates for Land Use 220 (Multifamily Housing – Low-Rise) applied to 55 units.
[2]Based on ITE *Trip Generation Manual,10th Edition* trip rates for Land Use 221 (Multifamily Housing – Mid-Rise) applied to 543 units.
[3]Based on ITE *Trip Generation Manual,10th Edition* trip rates for Land Use 820 (Shopping Center) applied to 5,000 sf.
[4]Sum of low-rise residential, mid-rise residential and retail trips (vehicle trips and transit trips).
[5]Thirty percent reduction applied to total residential trips.
[6]Total project trips minus transit trips.

As shown in Table 5, accounting for transit use, the proposed project is expected to generate approximately 160 vehicle trips (43 entering trips and 117 exiting trips) during the weekday morning peak hour and 211 vehicle trips (127 entering trips and 84 exiting trips) during the weekday evening peak hour.

4.2.2 Trip Generation Comparison

As previously mentioned, the entire site historically operated as a 370,000-sf (196-bed) acute care hospital (former Quincy Medical Center). In December of 2014, the majority of the hospital closed with 35,000 sf of the site buildings remaining active as an emergency room facility. A comparison of the proposed project trip generation and the existing (observed) trip generation of the currently-active emergency room use and historic hospital use is presented in Table 6.

Table 6 Site Trip Generation Comparison

	Site Trips					
Time Period	Existing (ER Facility)[1]	Proposed[2]	Net New	Historic (Hospital)[3]	Proposed[2]	Net New
Weekday Daily						
Enter	206	1,260	**1,054**	2,188	1,260	**-928**
Exit	206	1,260	**1,054**	2,188	1,260	**-928**
Total	*412*	*2,520*	***2,108***	*4,376*	*2,520*	***-1,856***
Weekday Morning Peak Hour						
Enter	8	43	**35**	276	43	**-233**
Exit	10	117	**107**	108	117	**9**
Total	*18*	*160*	***142***	*384*	*160*	***-224***
Weekday Evening Peak Hour						
Enter	8	127	**119**	85	127	**42**
Exit	10	84	**74**	219	84	**-135**
Total	*18*	*211*	***193***	*304*	*211*	***-93***

[1]See Table 3.
[2]See Table 5.
[3]See Table 1.

As shown in Table 6, while the proposed project will result in modest traffic increases relative to the current emergency room use on site, it would actually result in significantly fewer vehicle trips than the historic use of the site when the Quincy Medical Center was fully occupied. As stated previously, to provide a conservative assessment of potential traffic impacts associated with the proposed development, the future traffic operations consider the net traffic increases of the project relative to the existing emergency room use on site.

4.2.3 Trip Distribution

The project-related traffic was distributed to the study roadway system based on a review of existing travel patterns of the adjacent residential neighborhoods. The resulting trip distribution patterns for the proposed project trips are presented in Figure 6.

The project trips associated with the proposed residential and retail uses at the site were then assigned to the surrounding roadway network based on the project distribution patterns presented in Figure 6. The resulting peak hour traffic volumes are presented in Figures 7 and 8 for the weekday morning and weekday evening peak hours, respectively.

4.2.4 Build (With Project) Peak Hour Traffic Volumes

The new trips associated with the proposed project were then added to the 2025 No Build (Without Project) traffic volumes. Since the existing emergency department use at the site is proposed to be removed as part of the site's redevelopment plan, the peak hour vehicular traffic volumes observed entering and exiting the existing site driveways were removed from the study area roadway network under the 2025 Build condition. The resulting 2025 Build (With Project) weekday morning and weekday evening peak hour traffic volumes are presented in Figures 9 and 10, respectively.

The project Traffic Projection Model detailing the traffic volumes adjustments from the unadjusted count data through the 2025 Build condition is provided in Appendix I.

5.0 OPERATIONS ANALYSIS

In previous sections of this report, the quantity (volume) of traffic on the study area roadways was described. The following section describes the quality of traffic flow at the study area intersections for the given traffic demands. As a basis for this assessment, intersection capacity analyses were conducted at each study area intersection for the 2018 Existing, 2025 No Build (Without Project) and 2025 Build (With Project) weekday morning and weekday evening peak hour traffic conditions using Synchro 9 Intersection Capacity and Traffic Simulation Software. A discussion of the evaluation criteria and a summary of the results of the intersection capacity analyses are presented below. The detailed capacity analysis worksheets are provided in Appendix J.

5.1 METHODOLOGY

Level-of-service (LOS) is a term used to describe the quality of traffic flow on roadways or at intersections. It is an aggregate measure of travel delay, driver convenience and safety based on a comparison of a roadway facility's capacity relative to the traffic demands. Operating levels of service are reported on a scale of A to F, with A representing the best operating conditions (with little or no vehicle delay) and F representing the worst operating conditions (with long delays). The capacity analyses for the unsignalized study intersections were based on the 2010 Highway Capacity Manual (HCM). The capacity analyses for the signalized study intersections are based on the 2000 Highway Capacity Manual (HCM), which establishes separate level-of-service criteria for unsignalized and signalized intersections. The 2000 HCM was used since the 2010 HCM does not provide a methodology for signalized intersections with exclusive pedestrian phases, which are provided at some of the study intersections. The level-of-service criteria for signalized and unsignalized intersections are presented in Table 7.

Table 7 Intersection Level-of-Service Criteria

Level of Service[1]	Average Delay per Vehicle (Seconds)	
	Signalized Intersections	Unsignalized Intersections
A	≤10.0	≤10.0
B	10.1 to 20.0	10.1 to 15.0
C	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1 to 50.0
F	>80.0	>50.0

Source: Transportation Research Board Highway Capacity Manual, HCM 2000/2010
[1]If the v/c is greater than 1.0, than the level-of-service designation is LOS F, regardless of delays (HCM 2010 only)

The results of the intersection capacity analyses for the weekday morning and weekday evening peak hours are summarized in Tables 8 and 9 for the signalized study intersections and in Tables 10 and 11 for the unsignalized study intersections, respectively. Detailed summary tables and intersection capacity analysis worksheets are provided in Appendix J of this report. A brief discussion of the results of the intersection capacity analyses is presented in the following sections of this report.

5.1.1 Signalized Intersection Capacity Analysis Results

As shown in Tables 8 and 9, the capacity analyses for the weekday morning and weekday evening peak hours indicate that the signalized study intersections currently operate at acceptable LOS D or better (overall) operations and will continue to operate below capacity (LOS D or better) through the projected 2025 Build (With Project) condition.

5.1.2 Unsignalized Intersection Capacity Analysis Results

As shown in Tables 10 and 11, the capacity analyses for the weekday morning and weekday evening peak hours indicate that the unsignalized study intersections currently operate at acceptable LOS C or better and will continue to operate below capacity (LOS C or better) through the projected 2025 Build (With Project) condition with the exception of the intersection of Adams Street and Whitwell Street which currently operates above capacity (LOF F with a volume-to-capacity ratio > 1.0) during the weekday morning peak hour with long delays and vehicle queues for the critical exiting movements from Whitwell Street onto Adams Street. Field observations indicate that vehicles queues on the Whitwell Street westbound approach spill back past the adjacent intersection of Whitwell Street and Carrolls Lane for brief periods during the weekday morning peak hour.

Independent of the proposed project, potential traffic increases associated with general background traffic growth on the surrounding areas roadways will further exacerbate delays for the minor street approaches and it is anticipated that geometric and/or traffic control improvements are needed to address existing traffic operational deficiencies at the intersection.

With or without the proposed project, the exiting movements from the Whitwell Street minor street approach will continue to experience delays during the weekday commuter peak hours. While the proposed project will result in minor traffic increases relative to the existing emergency room use, it is expected to result in significantly less traffic than the former Quincy Medical Center use of the site. Consequently, no improvements are proposed at this intersection as part of the currently proposed project.

Table 8 Signalized Intersection Capacity Analysis Summary – Weekday AM Peak Hour

		2018 Existing					2025 No-Build					2025 Build				
Intersection	Movement	v/c[1]	Delay[2]	LOS[3]	50th Q[4]	95thQ[5]	v/c	Delay	LOS	50thQ	95thQ	v/c	Delay	LOS	50thQ	95thQ
Granite Street & Whitwell Street/Plaza Access	EB LT	0.34	19.5	B	39	81	0.36	21.3	C	45	98	0.40	21.6	C	50	106
	EB R	0.10	18.4	B	0	44	0.10	19.9	B	0	49	0.16	20.3	C	6	62
	WB LTR	0.09	18.3	B	9	39	0.10	19.9	B	11	45	0.10	20.0	B	11	45
	NB L	0.45	13.2	B	48	89	0.42	12.7	B	52	100	0.44	12.8	B	55	108
	NB TR	0.17	10.4	B	27	48	0.17	10.0	A	30	54	0.17	10.0	A	30	56
	SB LT	0.31	17.1	B	42	72	0.35	19.1	B	50	93	0.35	19.3	B	51	94
	SB R	0.02	15.7	B	0	0	0.02	17.4	B	0	0	0.03	17.6	B	0	0
	Intersection	0.34	15.4	B			0.34	16.2	B			0.36	16.6	B		
Granite Street & Granite Place Apartments	EB LTR	0.04	18.1	B	4	22	0.04	18.0	B	5	23	0.04	18.4	B	5	23
	WB LT	0.47	21.3	C	58	125	0.51	21.6	C	66	#141	0.51	22.1	C	70	#141
	WB R	0.08	18.4	B	0	43	0.09	18.3	B	0	45	0.09	18.6	B	0	46
	NB LTR	0.41	16.3	B	72	124	0.44	16.3	B	82	129	0.43	16.1	B	84	132
	SB L	0.43	17.2	B	43	100	0.48	17.7	B	48	105	0.54	18.6	B	56	121
	SB TR	0.41	16.4	B	88	164	0.43	16.5	B	97	169	0.47	16.6	B	110	187
	Intersection	0.35	17.4	B			0.38	17.5	B			0.41	17.6	B		
Thomas E. Burgin Pkwy & Granite Street	EB L	0.62	40.2	D	108	#232	0.64	40.7	D	121	#224	0.65	41.1	D	125	#242
	EB T	0.26	34.1	C	41	84	0.27	34.2	C	46	88	0.28	34.3	C	48	90
	EB R	0.02	32.5	C	0	0	0.02	32.6	C	0	0	0.02	32.5	C	0	0
	WB L	0.38	37.7	D	53	117	0.49	41.4	D	61	#145	0.50	41.6	D	62	#145
	WB LT	0.39	37.1	D	56	102	0.49	40.3	D	63	115	0.50	40.5	D	64	117
	WB R	0.07	35.2	D	0	57	0.08	37.6	D	0	63	0.08	37.7	D	0	63
	NB T	0.70	27.9	C	245	342	0.71	27.4	C	272	346	0.71	27.5	C	273	346
	NB R	0.09	10.8	B	0	28	0.10	11.1	B	2	32	0.10	11.2	B	2	32
	SB LT	0.67	28.1	C	156	234	0.70	28.3	C	174	242	0.70	28.4	C	176	242
	SB R	0.13	12.2	B	9	25	0.14	11.2	B	8	25	0.14	11.1	B	9	25
	Intersection	0.51	28.6	C			0.55	29.0	C			0.55	29.2	C		
Thomas E. Burgin Pkwy & Walter J. Hannon	EB T	0.35	40.9	D	49	96	0.35	40.0	D	52	100	0.39	40.4	D	58	109
	EB R	0.24	32.9	C	18	46	0.26	32.4	C	21	49	0.28	32.4	C	23	52
	WB L	0.68	38.4	D	128	169	0.67	26.2	C	118	92	0.67	26.2	C	118	93
	WB TR	0.49	22.0	C	161	208	0.50	10.8	B	16	100	0.50	10.9	B	17	102
	NB L	0.29	13.5	B	37	68	0.35	15.4	B	41	77	0.36	15.4	B	42	79
	NB TR	0.53	16.7	B	205	270	0.60	19.3	B	237	317	0.60	19.3	B	237	317
	SB TR	0.48	24.8	C	160	226	0.55	27.6	C	181	251	0.55	27.7	C	181	251
	Intersection	0.62	23.9	C			0.67	22.3	C			0.67	22.5	C		

[1]v/c = Volume to capacity ratio [2]Delay = Average delay per vehicle (seconds) [3]LOS = Level of Service [4]50th percentile queue (feet) [5]95th percentile queue (feet)

Table 9 Signalized Intersection Capacity Analysis Summary – Weekday PM Peak Hour

		2018 Existing					2025 No-Build					2025 Build				
Intersection	**Movement**	**v/c[1]**	**Delay[2]**	**LOS[3]**	**50th Q[4]**	**95thQ[5]**	**v/c**	**Delay**	**LOS**	**50thQ**	**95thQ**	**v/c**	**Delay**	**LOS**	**50thQ**	**95thQ**
Granite Street & Whitwell Street/Plaza Access	EB LT	0.32	19.4	B	38	79	0.34	21.1	C	44	96	0.36	21.7	C	48	101
	EB R	0.11	18.4	B	0	48	0.12	19.9	B	0	53	0.15	20.5	C	2	59
	WB LTR	0.16	18.6	B	15	49	0.17	20.2	C	17	57	0.17	20.6	C	18	57
	NB L	0.45	13.3	B	49	90	0.43	12.8	B	53	104	0.50	13.2	B	66	126
	NB TR	0.15	10.3	B	24	42	0.15	9.9	A	26	48	0.15	9.8	A	26	48
	SB LT	0.30	17.0	B	45	75	0.34	19.1	B	53	100	0.35	19.7	B	54	100
	SB R	0.02	15.7	B	0	0	0.02	17.5	B	0	0	0.03	18.0	B	0	4
	Intersection	0.33	15.7	B			0.34	16.7	B			0.39	17.0	B		
Granite Street & Granite Place Apartments	EB LTR	0.04	17.1	B	6	22	0.04	18.2	B	6	24	0.04	19.8	B	6	24
	WB LT	0.70	26.5	C	121	#248	0.76	31.4	C	132	#276	0.81	37.9	D	132	#276
	WB R	0.10	17.4	B	0	46	0.10	18.5	B	0	48	0.11	20.3	C	0	50
	NB LTR	0.33	16.6	B	51	91	0.34	16.8	B	54	95	0.36	16.4	B	65	109
	SB L	0.69	25.7	C	83	#183	0.74	30.0	C	90	#205	0.75	30.1	C	98	#225
	SB TR	0.45	17.7	B	105	174	0.46	17.9	B	111	183	0.45	17.3	B	120	196
	Intersection	0.55	20.1	C			0.59	21.9	C			0.62	22.9	C		
Thomas E. Burgin Pkwy & Granite Street	EB L	0.64	50.0	D	101	178	0.68	51.8	D	110	190	0.68	52.3	D	113	194
	EB T	0.41	43.2	D	63	104	0.43	43.5	D	68	110	0.43	43.5	D	69	112
	EB R	0.01	40.5	D	0	0	0.01	40.5	D	0	0	0.01	40.5	D	0	0
	WB L	0.45	45.7	D	62	119	0.47	46.1	D	68	127	0.48	46.1	D	69	128
	WB LT	0.45	44.8	D	65	103	0.47	45.0	D	70	109	0.48	45.1	D	72	112
	WB R	0.06	42.1	D	0	42	0.07	42.2	D	0	49	0.07	42.2	D	0	49
	NB T	0.35	20.1	C	138	205	0.38	20.8	C	154	221	0.38	20.9	C	155	221
	NB R	0.10	9.2	A	0	28	0.10	9.3	A	0	29	0.10	9.4	A	0	29
	SB LT	0.86	34.6	C	328	#518	0.96	48.4	D	~411	#588	0.96	49.1	D	~414	#588
	SB R	0.16	11.2	B	19	37	0.18	11.4	B	21	41	0.19	11.5	B	22	42
	Intersection	0.64	31.4	C			0.70	36.9	D			0.71	37.2	D		
Thomas E. Burgin Pkwy & Walter J. Hannon	EB T	0.92	80.0	E	144	#286	0.66	41.9	D	143	225	0.68	42.3	D	147	231
	EB R	0.23	32.7	C	18	45	0.22	28.6	C	20	51	0.23	28.6	C	21	53
	WB L	0.62	32.3	C	108	143	0.73	34.3	C	114	140	0.73	34.6	C	112	141
	WB TR	0.63	19.5	B	240	241	0.60	14.5	B	201	147	0.62	15.0	B	207	154
	NB L	0.36	15.1	B	33	65	0.50	19.7	B	41	74	0.54	20.6	C	44	78
	NB TR	0.49	15.9	B	142	208	0.58	20.1	C	190	258	0.58	20.2	C	190	258
	SB TR	0.65	27.7	C	235	330	0.77	34.0	C	280	359	0.77	34.2	C	280	359
	Intersection	0.72	26.9	C			0.76	26.7	C			0.76	26.9	C		

[1]v/c = Volume to capacity ratio [2]Delay = Average delay per vehicle (seconds) [3]LOS = Level of Service [4]50th percentile queue (feet) [5]95th percentile queue (feet)

Table 10 Unsignalized Intersection Capacity Analysis Summary – Weekday AM Peak Hour

		2018 Existing				2025 No-Build				2025 Build			
Intersection	Movement	v/c[1]	Delay[2]	LOS[3]	95th Q[4]	v/c	Delay	LOS	95th Q	v/c	Delay	LOS	95th Q
Adams Street & Grenwold Road/Whitwell Street	NB L		0.0	A	0.0		0.0	A	0		0.0	A	0
	NB T	-	-	-	-	-	-	-	-	-	-	-	-
	EB Ln1	0.05	29.0	D	0.2	0.06	32.7	D	0.2	0.06	33.6	D	0.2
	WB Ln1	1.28	199.3	F	15.4	1.59	330.0	F	20.4	1.97	497.4	F	28.3
	SB L	-	-	-	-	-	-	-	-	-	-	-	-
	SB T	0.03	8.6	A	0.1	0.03	8.7	A	0.1	0.04	8.8	A	0.1
Carrolls Lane & Whitwell Street	NB Ln1	0.01	10.2	B	0.0	0.01	10.4	B	0	0.01	10.8	B	0
	WB L		0.0	A	0.0		0.0	A	0		0.0	A	0
	WB T	-	-	-	-	-	-	-	-	-	-	-	-
Whitwell Street & Northerly Site Driveway	EB L	-	-	-	-	-	-	-	-	-	-	-	-
	EB T	0.00	7.8	A	0.0	0.00	7.9	A	0	-	-	-	-
	SB Ln1		0.0	A	-		0.0	A	-	-	-	-	-
Farrell Street & Whitwell Street	NB Ln1	0.07	11.0	B	0.2	0.07	11.3	B	0.2	0.08	11.9	B	0.3
	WB L	0.00	7.9	A	0.0	0.00	8.0	A	0	0.00	8.0	A	0
	WB T		0.0	A	-		0.0	A	-		0.0	A	-
Whitwell Street & Ambulance Access	EB L		0.0	A	0.0		0.0	A	0	0.01	8.0	A	0
	EB T	-	-	-	-	-	-	-	-		0.0	A	-
	SB Ln1	0.01	11.5	B	0.0	0.01	11.7	B	0	0.45	18.2	C	2.3
Ryden Street & Whitwell Street	NB Ln1	0.03	10.0	B	0.1	0.03	10.1	B	0.1	0.03	10.6	B	0.1
	WB L	0.00	7.5	A	0.0	0.00	7.6	A	0	0.00	7.7	A	0
	WB T		0.0	A	-		0.0	A	-		0.0	A	-
Nilsen Avenue & Whitwell Street	NB Ln1	0.02	11.2	B	0.1	0.02	11.5	B	0.1	0.02	11.7	B	0.2
	WB L		0.0	A	0.0		0.0	A	0		0.0	A	0
Cranch Street & Whitwell Street	NB Ln1	0.04	11.3	B	0.1	0.05	11.5	B	0.1	0.05	12.3	B	0.2
	WB L	0.00	7.6	A	0.0	0.00	7.6	A	0	0.00	7.8	A	0
	WB T		0.0	A	-		0.0	A	-		0.0	A	-
Whitwell Street & Roselin Avenue	EB L	0.01	7.9	A	0.0	0.01	8.0	A	0	0.02	8.0	A	0
	EB T		0.0	A	-		0.0	A	-		0.0	A	-
	SB Ln1	0.07	10.7	B	0.2	0.07	10.9	B	0.2	0.08	11.3	B	0.3

Table 10 Unsignalized Intersection Capacity Analysis Summary – Weekday AM Peak Hour (Continued)

		2018 Existing				2025 No-Build				2025 Build			
Intersection	Movement	v/c[1]	Delay[2]	LOS[3]	95th Q[4]	v/c	Delay	LOS	95th Q	v/c	Delay	LOS	95th Q
Klondike Street & Whitwell Street	NB Ln1	0.02	10.1	B	0.1	0.02	10.3	B	0.1	0.03	10.8	B	0.1
	WB L		0.0	A	0.0		0.0	A	0		0.0	A	0
	WB T	-	-	-	-	-	-	-	-	-	-	-	-
Whitwell Street & Maywood Avenue	EB L	0.00	7.8	A	0.0	0.00	7.8	A	0	0.00	7.9	A	0
	EB T		0.0	A	-		0.0	A	-		0.0	A	-
	SB Ln1	0.02	10.6	B	0.1	0.03	10.7	B	0.1	0.03	11.1	B	0.1
Deldorf Street/Glendale Road & Whitwell Street	NB Ln1	0.07	11.9	B	0.2	0.08	12.4	B	0.2	0.08	13.2	B	0.3
	EB L	0.00	7.8	A	0.0	0.00	7.9	A	0	0.00	7.9	A	0
	EB T		0.0	A	-		0.0	A	-		0.0	A	-
	WB L	0.01	7.7	A	0.0	0.01	7.7	A	0	0.01	7.8	A	0
	WB T		0.0	A	-		0.0	A	-		0.0	A	-
	SB Ln1	0.10	12.6	B	0.3	0.11	13.1	B	0.4	0.12	14.1	B	0.4
Whitwell Street & Dixwell Avenue	EB L	0.00	7.9	A	0.0	0.00	7.9	A	0	0.00	8.0	A	0
	EB T		0.0	A	-		0.0	A	-		0.0	A	-
	SB Ln1	0.09	11.0	B	0.3	0.10	11.3	B	0.3	0.11	11.7	B	0.4
Roselin Avenue & Bedford Street	WB Ln1	0.02	9.1	A	0.1	0.03	9.2	A	0.1	0.03	9.2	A	0.1
	SB L		0.0	A	0.0		0.0	A	0		0.0	A	0
Roselin Avenue & Euclid Avenue	NB Ln1	0.03	8.5	A	0.1	0.03	8.5	A	0.1	0.03	8.6	A	0.1
	WB L	0.01	7.3	A	0.0	0.01	7.3	A	0	0.01	7.3	A	0
	WB T		0.0	A	-		0.0	A	-		0.0	A	-
Maywood Avenue & Bedford Street	NB Ln1	0.01	8.6	A	0.0	0.01	8.6	A	0	0.01	8.6	A	0
	WB L	0.01	7.3	A	0.0	0.01	7.3	A	0	0.01	7.3	A	0
	WB T		0.0	A	-		0.0	A	-		0.0	A	-
Glendale Road & Bedford Street	NB L	0.01	7.3	A	0.0	0.01	7.3	A	0	0.01	7.3	A	0
	NB T		0.0	A	-		0.0	A	-		0.0	A	-
	EB Ln1	0.02	8.6	A	0.1	0.02	8.6	A	0.1	0.02	8.6	A	0.1

Table 10 Unsignalized Intersection Capacity Analysis Summary – Weekday AM Peak Hour (Continued)

		2018 Existing				2025 No-Build				2025 Build			
Intersection	**Movement**	**v/c[1]**	**Delay[2]**	**LOS[3]**	**95th Q[4]**	**v/c**	**Delay**	**LOS**	**95th Q**	**v/c**	**Delay**	**LOS**	**95th Q**
Bedford Street & Euclid Avenue	EB L	0.00	7.2	A	0.0	0.00	7.2	A	0	0.00	7.2	A	0
	EB T		0.0	A	-		0.0	A	-		0.0	A	-
	SB Ln1	0.02	8.7	A	0.0	0.02	8.7	A	0.1	0.02	8.7	A	0.1
Euclid Avenue & Dimmock Street	EB L	0.01	7.3	A	0.0	0.01	7.3	A	0	0.02	7.3	A	0.1
	EB T		0.0	A	-		0.0	A	-		0.0	A	-
	SB L	0.01	8.8	A	0.0	0.01	8.8	A	0	0.01	8.8	A	0
Whitwell Street & Site Driveway	EB L	-	-	-	-	-	-	-	-	0.01	7.9	A	0
	EB T	-	-	-	-	-	-	-	-	0.00	0.0	A	0
	SB L	-	-	-	-	-	-	-	-	0.11	11.7	B	0.4
Dimmock Street & Glendale Road	NB L	0.04	7.2	A	0.1	0.04	7.2	A	0.1	0.04	7.3	A	0.1
	EB L	0.02	7.2	A	0.2	0.03	7.3	A	0.1	0.03	7.3	A	0.1
	WB L	0.06	7.0	A	0.1	0.06	7.1	A	0.2	0.06	7.1	A	0.2
	SB L	0.04	7.3	A	0.1	0.04	7.3	A	0.1	0.04	7.3	A	0.1

[1]v/c = Volume to capacity ratio [2]Delay = Average delay per vehicle (seconds) [3]LOS = Level of Service [4]95th percentile queue (feet) [5]HCM 2010 results reported for the Build (Mitigated) condition since HCM 2000 does not provide methodology for 95th percentile queues for all-way stop intersections
[6]To be eliminated as part of the proposed project.

Table 11 Unsignalized Intersection Capacity Analysis Summary – Weekday PM Peak Hour

		2018 Existing				2025 No-Build				2025 Build			
Intersection	Movement	v/c[1]	Delay[2]	LOS[3]	95th Q[4]	v/c	Delay	LOS	95th Q	v/c	Delay	LOS	95th Q
Adams Street & Grenwold Road/Whitwell Street	NB L	0.00	7.9	A	0.0	0.00	8.0	A	0	0.00	8.0	A	0
	NB T		0.0	A	-	-	-	-	-		0.0	A	-
	EB Ln1	0.03	13.9	B	0.1	0.03	14.6	B	0.1	0.03	14.9	B	0.1
	WB Ln1	0.55	32.5	D	3.1	0.65	34.8	D	4.3	0.84	56.5	F	7.2
	SB L	0.06	11.0	B	0.2	-	-	-	-	-	-	-	-
	SB T	0.03	8.2	A	0.1	0.04	8.3	A	0.1	0.05	8.4	A	0.2
Carrolls Lane & Whitwell Street	NB Ln1		0.0	A	-		0.0	A	-		0.0	A	-
	WB L	0.00	7.7	A	0.0	0.00	7.8	A	0	0.00	7.9	A	0
	WB T		0.0	A	-		0.0	A	-		0.0	A	-
Whitwell Street & Northerly Site Driveway	EB L	0.00	7.6	A	0.0	0.00	7.7	A	0	-	-	-	-
	EB T		0.0	A	-		0.0	A	-	-	-	-	-
	SB Ln1	0.01	10.8	B	0.0	0.01	11.0	B	0	-	-	-	-
Farrell Street & Whitwell Street	NB Ln1	0.02	10.5	B	0.1	0.03	10.7	B	0.1	0.03	11.4	B	0.1
	WB L	0.01	7.8	A	0.0	0.01	7.8	A	0	0.01	8.0	A	0
	WB T		0.0	A	-		0.0	A	-		0.0	A	-
Whitwell Street & Ambulance Access	EB L		0.0	A	0.0		0.0	A	0	0.03	7.9	A	0.1
	EB T	-	-	-	-	-	-	-	-		0.0	A	-
	SB Ln1	0.02	14.2	B	0.1	0.02	14.7	B	0.1	0.39	19.0	C	1.8
Ryden Street & Whitwell Street	NB Ln1	0.01	10.3	B	0.0	0.01	10.5	B	0	0.01	11.1	B	0
	WB L	0.01	7.8	A	0.0	0.01	7.8	A	0	0.01	7.9	A	0
	WB T		0.0	A	-		0.0	A	-		0.0	A	-
Nilsen Avenue & Whitwell Street	NB Ln1	0.01	10.8	B	0.0	0.01	11.0	B	0	0.02	12.2	B	0
	WB L	0.00	7.8	A	0.0	0.00	7.8	A	0	0.00	7.8	A	0
	WB T		0.0	A	-		0.0	A	-		0.0	A	-
Cranch Street & Whitwell Street	NB Ln1	0.03	12.2	B	0.1	0.04	12.7	B	0.1	0.04	14.2	B	0.1
	WB L	0.01	7.7	A	0.0	0.01	7.8	A	0	0.01	7.9	A	0
	WB T		0.0	A	-		0.0	A	-		0.0	A	-
Whitwell Street & Roselin Avenue	EB L	0.02	7.7	A	0.0	0.02	7.7	A	0	0.02	7.9	A	0.1
	EB T		0.0	A	-		0.0	A	-		0.0	A	-
	SB Ln1	0.03	9.6	A	0.1	0.03	9.7	A	0.1	0.03	10.2	B	0.1

Table 11 Unsignalized Intersection Capacity Analysis Summary – Weekday PM Peak Hour (Continued)

		2018 Existing				2025 No-Build				2025 Build			
Intersection	Movement	v/c[1]	Delay[2]	LOS[3]	95th Q[4]	v/c	Delay	LOS	95th Q	v/c	Delay	LOS	95th Q
Klondike Street & Whitwell Street	NB Ln1	0.02	9.9	A	0.0	0.02	10.0	B	0.1	0.02	10.4	B	0.1
	WB L	0.01	7.7	A	0.0	0.01	7.7	A	0	0.01	7.8	A	0
	WB T		0.0	A	-		0.0	A	-		0.0	A	-
Whitwell Street & Maywood Avenue	EB L	0.01	7.6	A	0.0	0.01	7.7	A	0	0.01	7.8	A	0
	EB T		0.0	A	-		0.0	A	-		0.0	A	-
	SB Ln1	0.02	10.6	B	0.1	0.03	10.8	B	0.1	0.03	11.6	B	0.1
Deldorf Street/Glendale Road & Whitwell Street	NB Ln1	0.05	11.1	B	0.2	0.06	11.3	B	0.2	0.06	12.1	B	0.2
	EB L	0.00	7.8	A	0.0	0.00	7.8	A	0	0.00	8.0	A	0
	EB T		0.0	A	-		0.0	A	-		0.0	A	-
	WB L	0.03	7.7	A	0.1	0.03	7.8	A	0.1	0.03	7.9	A	0.1
	WB T		0.0	A	-		0.0	A	-		0.0	A	-
	SB Ln1	0.14	13.3	B	0.5	0.16	14.0	B	0.5	0.18	15.6	C	0.6
Whitwell Street & Dixwell Avenue	EB L	0.00	7.9	A	0.0	0.00	8.0	A	0	0.00	8.2	A	0
	EB T		0.0	A	-		0.0	A	-		0.0	A	-
	SB Ln1	0.10	11.1	B	0.3	0.11	11.4	B	0.4	0.12	12.1	B	0.4
Roselin Avenue & Bedford Street	WB Ln1	0.01	8.9	A	0.0	0.01	8.9	A	0	0.01	9.0	A	0
	SB L		0.0	A	0.0		0.0	A	0		0.0	A	0
Roselin Avenue & Euclid Avenue	NB Ln1	0.02	8.6	A	0.1	0.02	8.6	A	0.1	0.02	8.6	A	0.1
	WB L	0.02	7.3	A	0.0	0.02	7.3	A	0.1	0.02	7.3	A	0.1
	WB T		0.0	A	-		0.0	A	-		0.0	A	-
Maywood Avenue & Bedford Street	NB Ln1	0.01	8.5	A	0.0	0.01	8.5	A	0	0.01	8.5	A	0
	WB L	0.01	7.2	A	0.0	0.01	7.2	A	0	0.01	7.2	A	0
	WB T		0.0	A	-		0.0	A	-		0.0	A	-
Glendale Road & Bedford Street	NB L	0.02	7.4	A	0.1	0.02	7.4	A	0.1	0.02	7.4	A	0.1
	NB T		0.0	A	-		0.0	A	-		0.0	A	-
	EB Ln1	0.02	9.0	A	0.1	0.02	9.0	A	0.1	0.02	9.0	A	0.1

Table 11 Unsignalized Intersection Capacity Analysis Summary – Weekday PM Peak Hour (Continued)

		2018 Existing				2025 No-Build				2025 Build			
Intersection	Movement	v/c[1]	Delay[2]	LOS[3]	95th Q[4]	v/c	Delay	LOS	95th Q	v/c	Delay	LOS	95th Q
Bedford Street & Euclid Avenue	EB L	0.00	7.2	A	0.0	0.00	7.2	A	0	0.00	7.2	A	0
	EB T		0.0	A	-		0.0	A	-		0.0	A	-
	SB Ln1	0.01	8.6	A	0.0	0.01	8.6	A	0	0.01	8.6	A	0
Euclid Avenue & Dimmock Street	EB L	0.01	7.3	A	0.0	0.01	7.3	A	0	0.02	7.3	A	0
	EB T		0.0	A	-		0.0	A	-		0.0	A	-
	SB Ln1	0.02	8.7	A	0.1	0.03	8.8	A	0.1	0.03	8.8	A	0.1
Whitwell Street & Site Driveway	EB L	-	-	-	-	-	-	-	-	0.05	7.3	A	0.1
	EB T	-	-	-	-	-	-	-	-	0.06	7.4	A	0.2
	SB L	-	-	-	-	-	-	-	-	0.03	7.1	A	0.1
Dimmock Street & Glendale Road	NB L	0.04	7.3	A	0.1	0.04	7.3	A	0.1	0.05	7.3	A	0.1
	EB L	0.06	7.3	A	0.2	0.06	7.3	A	0.2	0.06	7.4	A	0.2
	WB L	0.03	7.1	A	0.1	0.03	7.1	A	0.1	0.03	7.1	A	0.1
	SB L	0.05	7.3	A	0.1	0.05	7.4	A	0.2	0.05	7.4	A	0.2

[1]v/c = Volume to capacity ratio [2]Delay = Average delay per vehicle (seconds) [3]LOS = Level of Service [4]95th percentile queue (feet) [5]HCM 2010 results reported for the Build (Mitigated) condition since HCM 2000 does not provide methodology for 95th percentile queues for all-way stop intersections
[6]To be eliminated as part of the proposed project.

6.0 SIGHT DISTANCE ANALYSIS

TT reviewed the available sight distance at the proposed site driveways on Whitwell Street to ensure that safe and efficient access would be provided to the project site. The available sight distance at the site driveways were determined based on procedures outlined in *A Policy On Geometric Design of Highways and Streets*, published by the American Association of State Highway and Transportation Officials (AASHTO). TT then compared the available sight distance at the proposed driveways to the required Stopping Sight Distance and desirable Intersection Sight Distance for the anticipated travel speeds for vehicle traveling past the site. The speed data indicates that in the vicinity of the site, the 85th percentile travel speed along Whitwell Street is approximately 36 mph in the eastbound travel direction and 40 mph in the westbound travel direction.

Table 12 Sight Distance Summary

Intersection	Design Speed[1] (mph)	Available Sight Distance[2] (feet)	AASHTO Required[3] (feet)
Whitwell Street/Proposed Center Site Drive			
Stopping Sight Distance – From the West	36	>500	260
Stopping Sight Distance – From the East	40	>500	300
Intersection Sight Distance – To the West	36	>450	400
Intersection Sight Distance – To the East	40	>500	445
Whitwell Street/Proposed East Site Drive			
Stopping Sight Distance – From the West	36	>500	260
Stopping Sight Distance – From the East	40	>500	305
Intersection Sight Distance – To the West	36	>500	400
Intersection Sight Distance – To the East	40	>500	445

[1]Based on the observed 85th percentile travel speeds on Whitwell Street of 36 mph eastbound and 40 mph westbound.
[2]Assumes selective removal of roadside vegetation and limiting on-site objects (i.e., fencing, signage, etc.) to 2 feet or less.
[3]Obtained from A Policy On Geometric Design of Highways and Streets, 2011 Edition, published by the American Association of State Highway and Transportation Officials (Exhibit 3-1) for the assumed travel speeds for required stopping sight distance and desirable intersection sight distance based on roadway grades.

Table 12 presents a summary of the available and required SSD and ISD at the proposed driveway locations along Whitwell Street. As shown in Table 12, the available sight distance at each of the proposed project site driveways is in excess of AASHTO-required stopping sight distance and AASHTO-recommended desirable intersection sight distance for the observed 85th percentile travel speeds on Whitwell Street assuming selective clearing of roadside vegetation and restricting on-site objects (i.e., fencing, signage, etc.) to 2 feet or less. This indicates that motorists traveling along Whitwell Street will have more than sufficient view of the proposed site driveways to either stop or adjust their speed, as appropriate, to react to react to turning movements to and from the proposed development and avoid potential collisions. This will also provide motorists waiting to exit the site driveways with sufficient view of the intersecting roadway to decide when they can safely enter onto Whitwell Street.

7.0 TRAFFIC MITIGATION

TT has identified specific site access and Travel Demand Management (TDM) measures to offset the potential traffic increases associated with the proposed project. The specific site access and travel demand management measures to be implemented as part of the proposed project are described below.

7.1 SITE ACCESS IMPROVEMENTS

The existing central (ambulance) and easternmost driveways on Whitwell Street will be reconfigured to better serve the proposed building program and the existing westernmost driveway is proposed to be removed. The Euclid Avenue driveway will be converted to an emergency access only drive. A brief description of the proposed site access modifications is provided below.

7.1.1 Whitwell Street - Westerly Site Driveway

As part of the redevelopment of the site, the existing westerly site driveway is proposed to be removed.

7.1.2 Whitwell Street – Central Driveway (Former Ambulance Driveway)

The former ambulance driveway will be reconstructed at its present location to improve entrance and exit radii at the tie in to Whitwell Street. The driveway will provide a 24-foot wide full access driveway under “STOP” sign control. The Whitwell Street Central Site Driveway will provide access to the proposed subsurface (below grade) interconnected parking garage serving several of the proposed buildings and the former hospital administration building.

7.1.3 Whitwell Street - Easterly Site Driveway

As part of the proposed project, the existing easterly site driveway on Whitwell Street (across from Nilsen Avenue) will be closed, and a new easterly driveway will be constructed approximately 110 feet north of the existing driveway (between Ryden Street and Nilsen Avenue) to provide a 24-foot wide full access driveway under “STOP” sign control. The new easterly side driveway will provide access to the internal site circulation surface roadway, which in turn provides access to the proposed subsurface (below grade) parking garages serving several of the proposed buildings and the former hospital administration building.

7.1.4 Euclid Avenue - Emergency Access Only Driveway

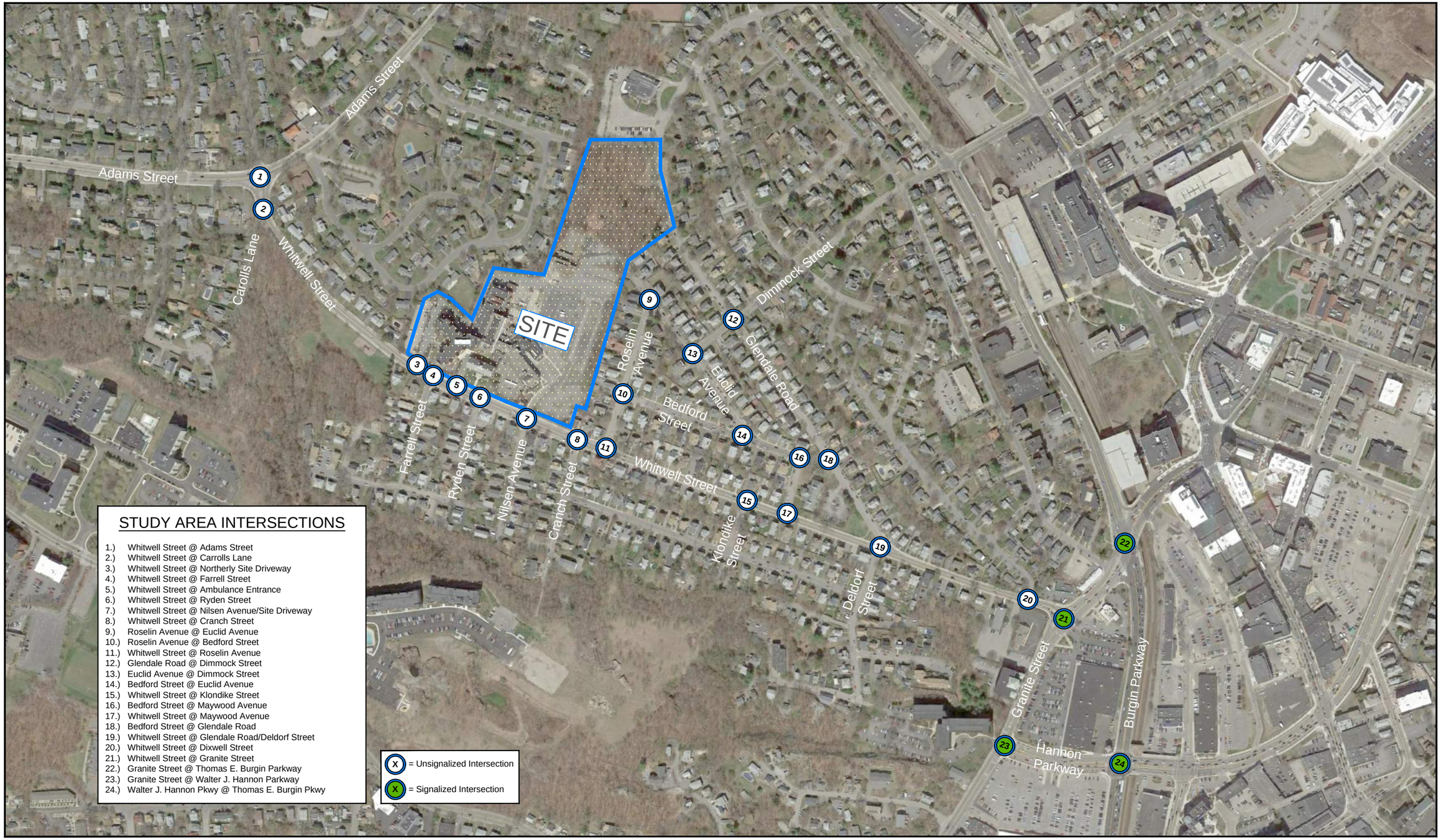
The existing access off Euclid Avenue will be converted to an emergency access only drive. The 24-foot wide paved accessway will provide emergency vehicle access to the internal site circulation surface roadway serving the entire development. The access will be controlled with removeable/retractable bollards that will prohibit general vehicular access but will provide a convenient path for pedestrians and bicyclists within the site to the abutting residential neighborhood.

7.2 TRANSPORTATION DEMAND MANAGEMENT (TDM) PROGRAM

The proposed redevelopment of the site is being designed as a transit-oriented development given its close proximity to a robust public transportation system operated by the MBTA including bus, subway and commuter rail services. The project proponent will implement a Transportation Demand Management

(TDM) program to reduce automobile travel and traffic impacts associated with the proposed project. Including:

- **Bicycle Storage:** The site will include indoor and outdoor bicycle storage.
- **Electric Vehicle Charging Stations:** The site will provide several electric vehicle charging stations in the parking garages.
- **On-Site Amenities:** The site will provide on-site amenities that will encourage its residents to reduce the number of trips they make to and from the site including:
    - Up to 5,000 sf of on-site retail
    - Fitness Center
    - Outdoor pool
    - Club house/event space
    - Entertainment area/media lounge
    - Outdoor children's play area
- **Bus Shelter.** The proponent proposes a bus shelter along the north side of Whitwell Street between the central site driveway and Ryden Street.



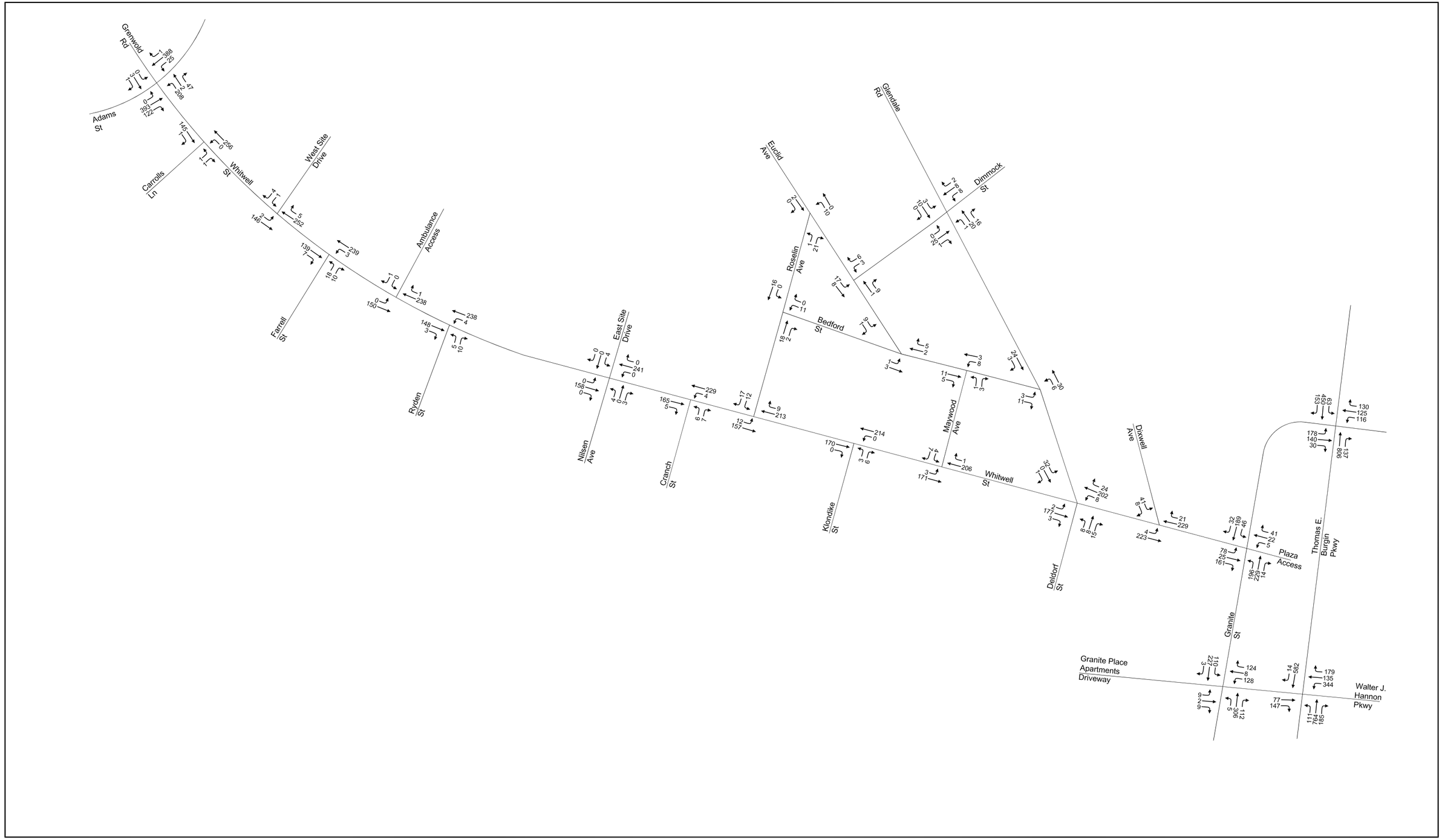
114 WHITWELL STREET
QUINCY, MA

STUDY AREA INTERSECTIONS

NOT TO SCALE

TETRA TECH

FIGURE
1



TETRA TECH

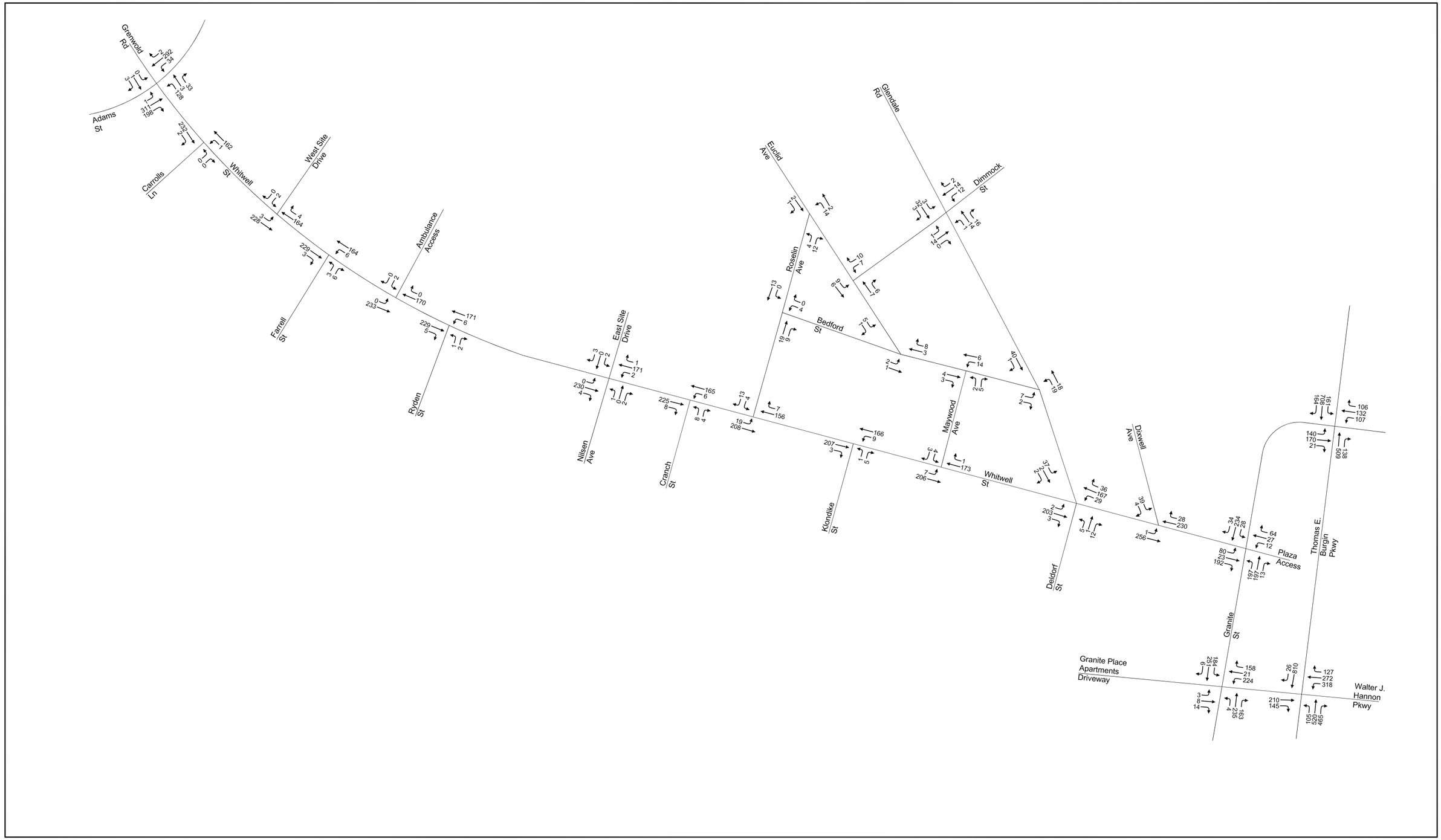
NOT TO SCALE

114 WHITWELL STREET
QUINCY, MA

2018 EXISTING WEEKDAY AM PEAK HOUR TRAFFIC VOLUMES

FIGURE

2



NOT TO SCALE

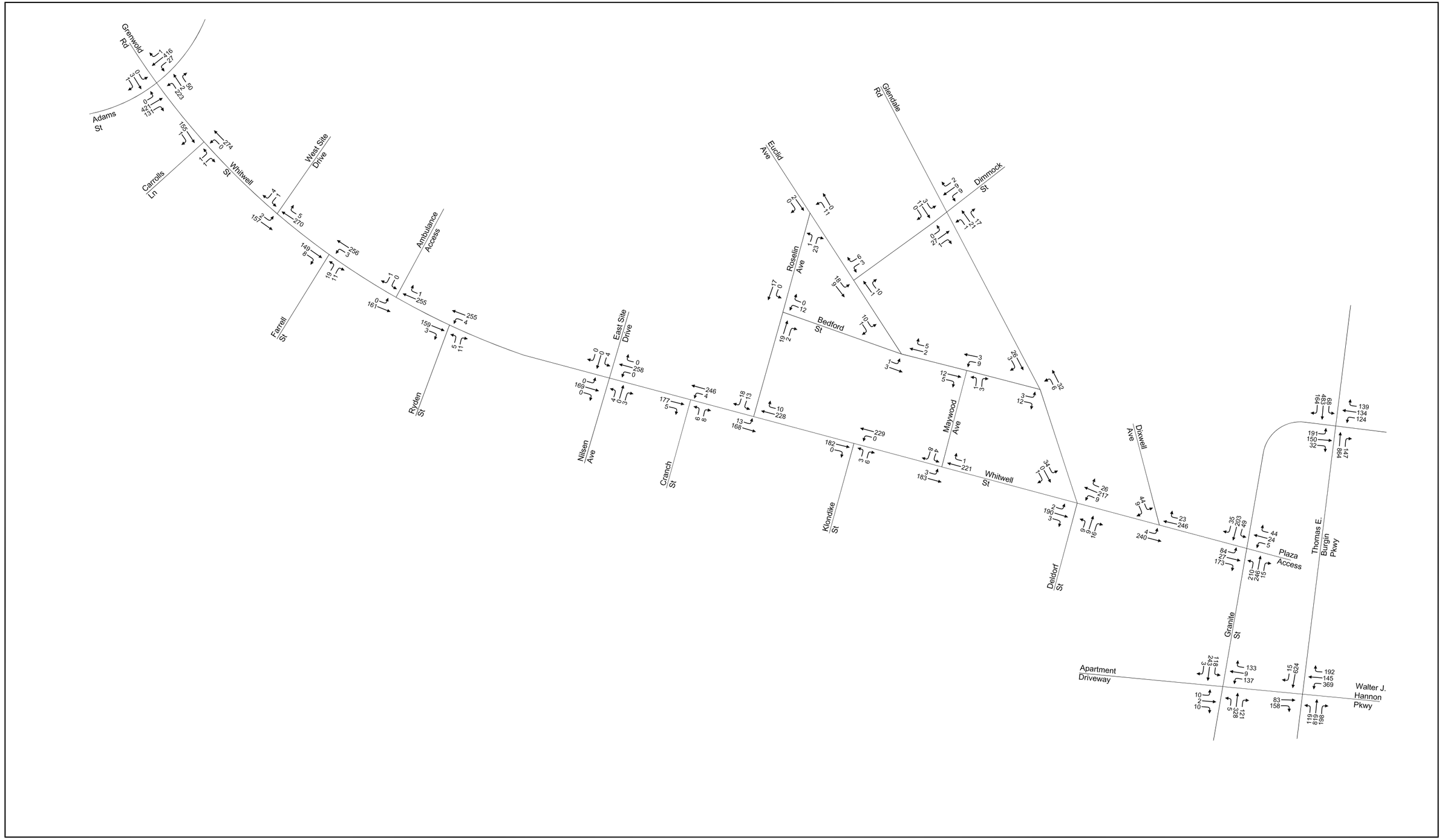
114 WHITWELL STREET
QUINCY, MA

2018 EXISTING
WEEKDAY PM PEAK HOUR
TRAFFIC VOLUMES

FIGURE

3

TETRA TECH



114 WHITWELL STREET
QUINCY, MA

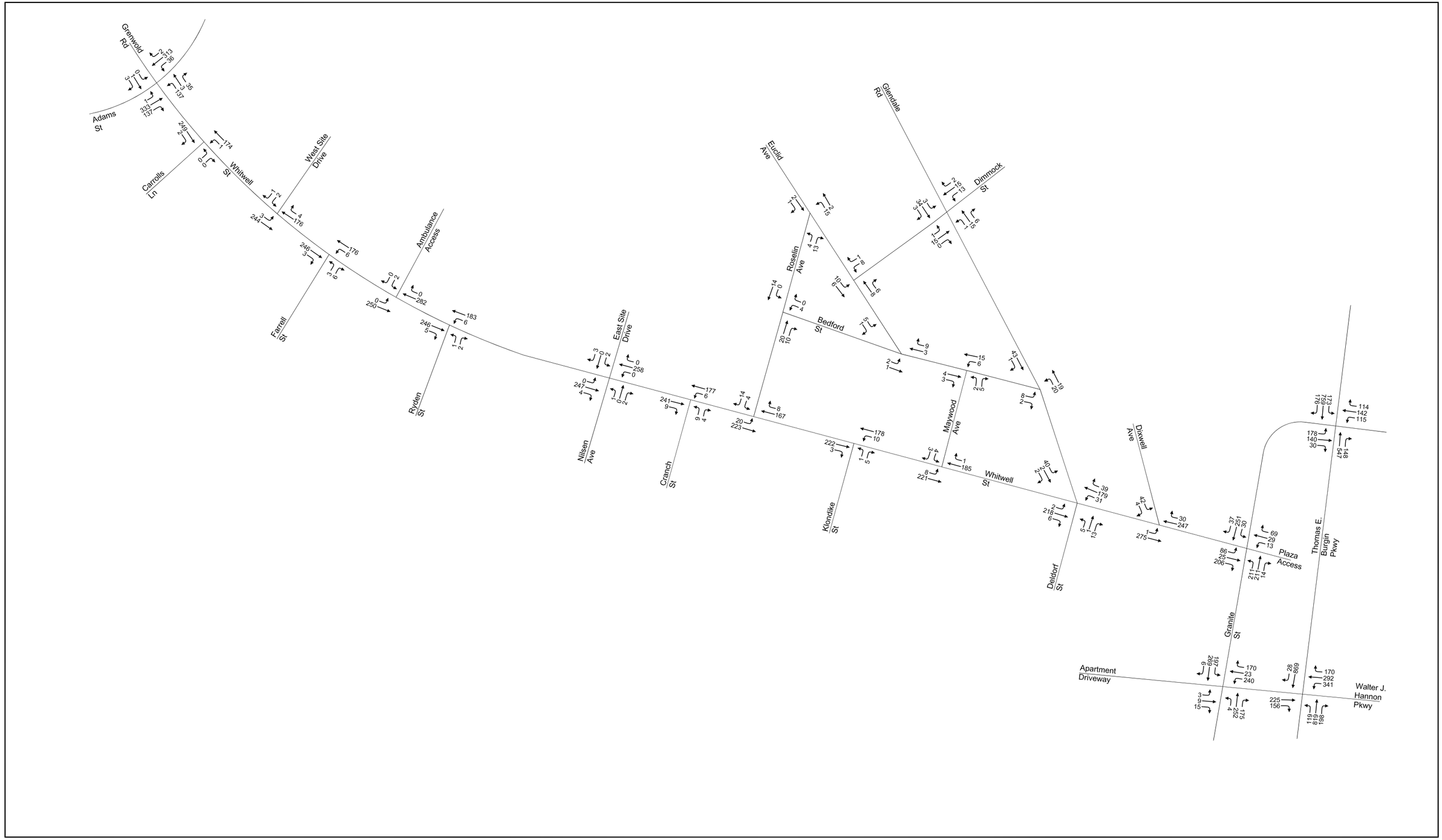
2025 NO BUILD
WEEKDAY AM PEAK HOUR
TRAFFIC VOLUMES

TETRA TECH

NOT TO SCALE

FIGURE

4



114 WHITWELL STREET
QUINCY, MA

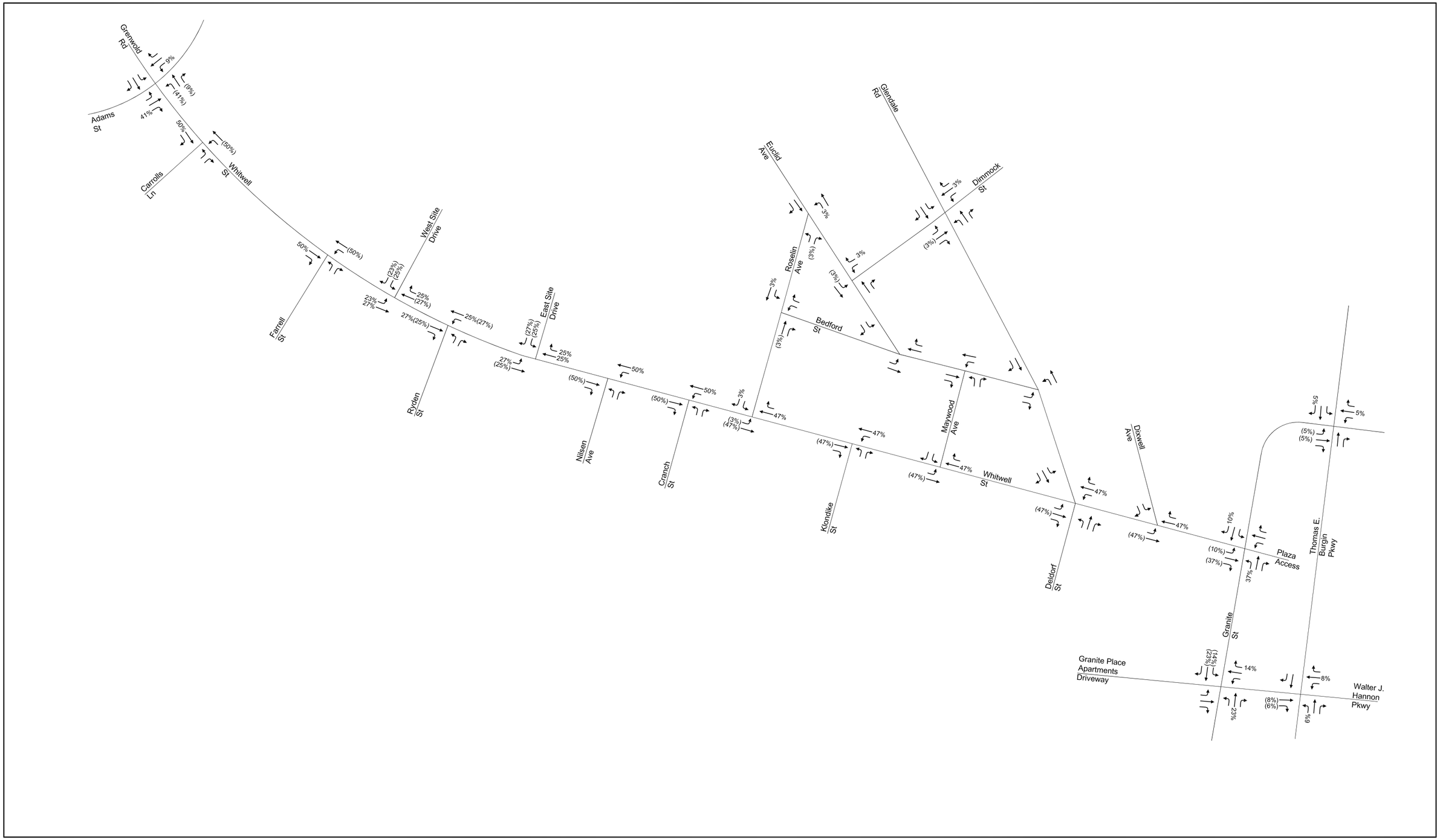
2025 NO BUILD
WEEKDAY PM PEAK HOUR
TRAFFIC VOLUMES

NOT TO SCALE

TETRA TECH

FIGURE

5



NOT TO SCALE

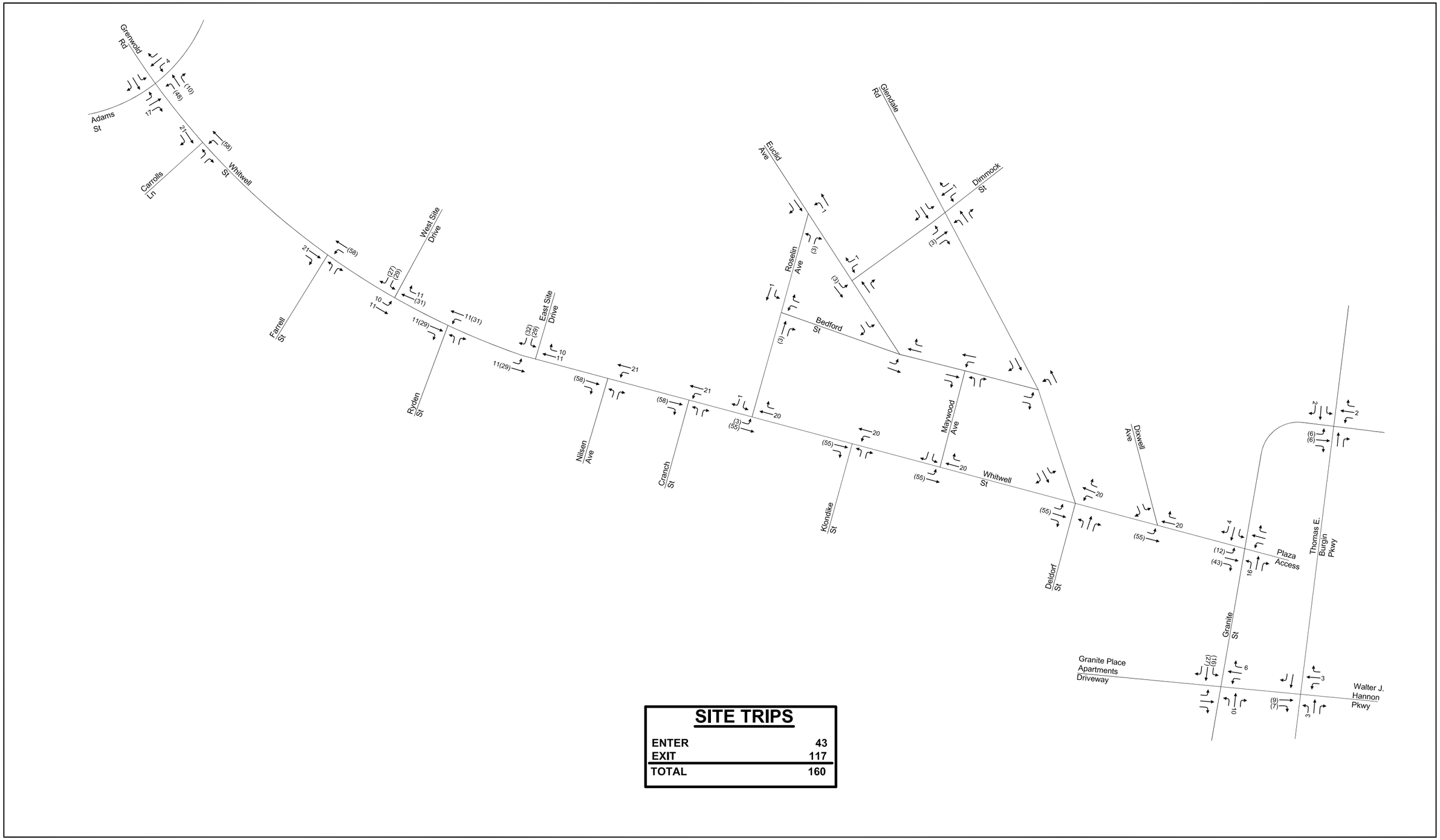
TETRA TECH

114 WHITWELL STREET
QUINCY, MA

VEHICLE TRIP DISTRIBUTION

FIGURE

6



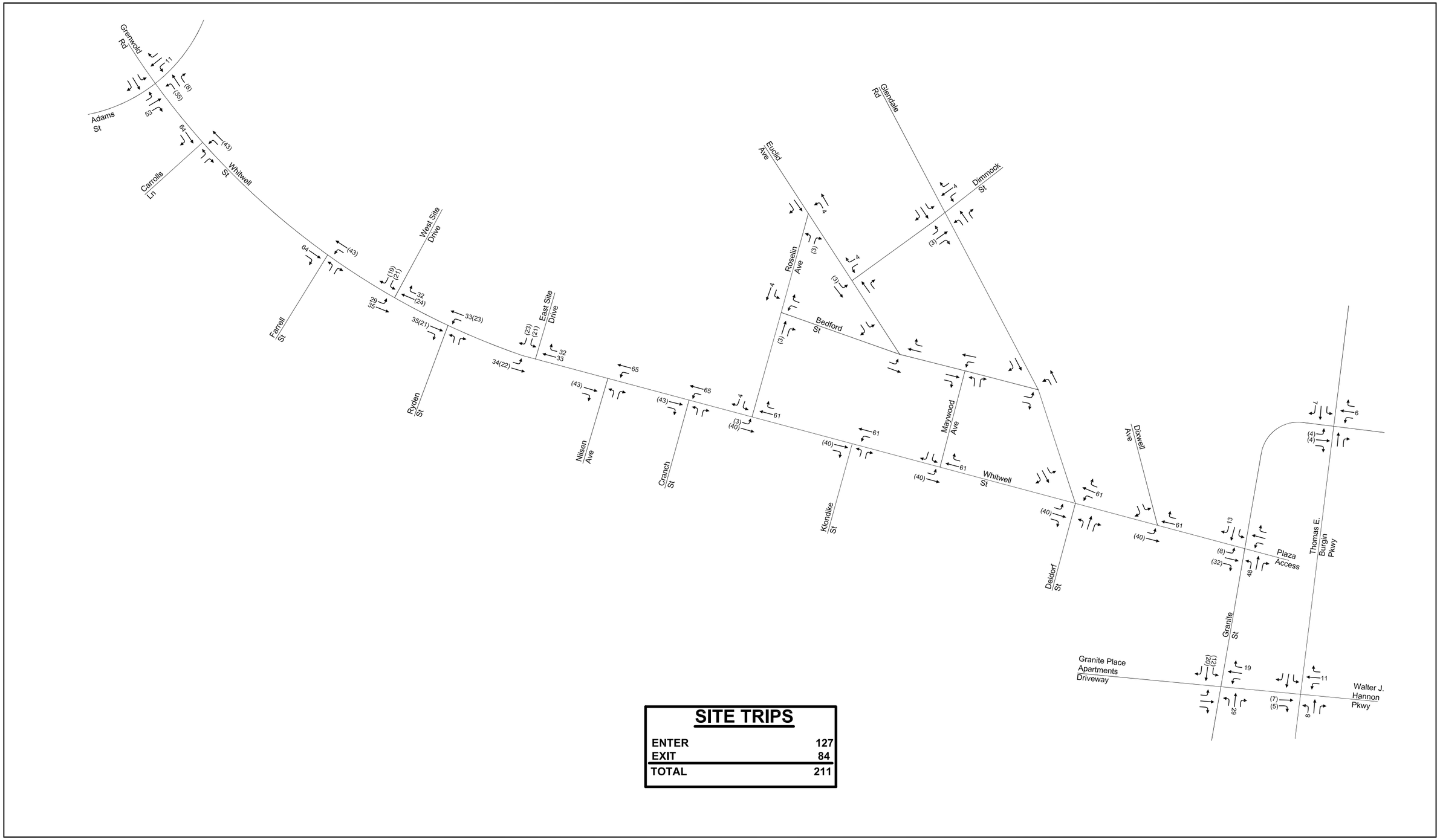
114 WHITWELL STREET
QUINCY, MA

PROJECT TRIPS
WEEKDAY AM PEAK HOUR

FIGURE
7

TETRA TECH

NOT TO SCALE



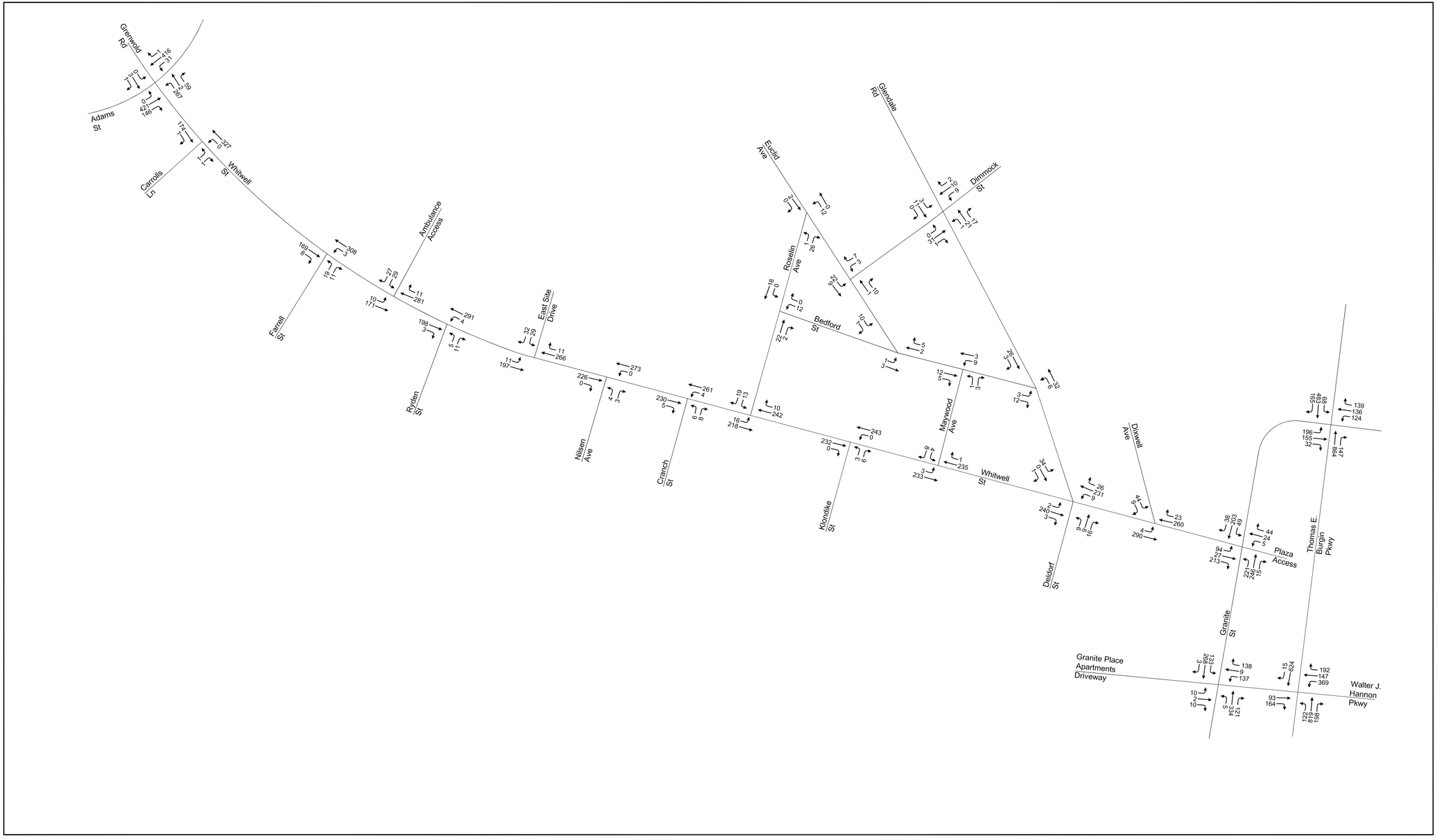
114 WHITWELL STREET
QUINCY, MA

PROJECT TRIPS
WEEKDAY PM PEAK HOUR

NOT TO SCALE

TETRA TECH

FIGURE
8



114 WHITWELL STREET
QUINCY, MA

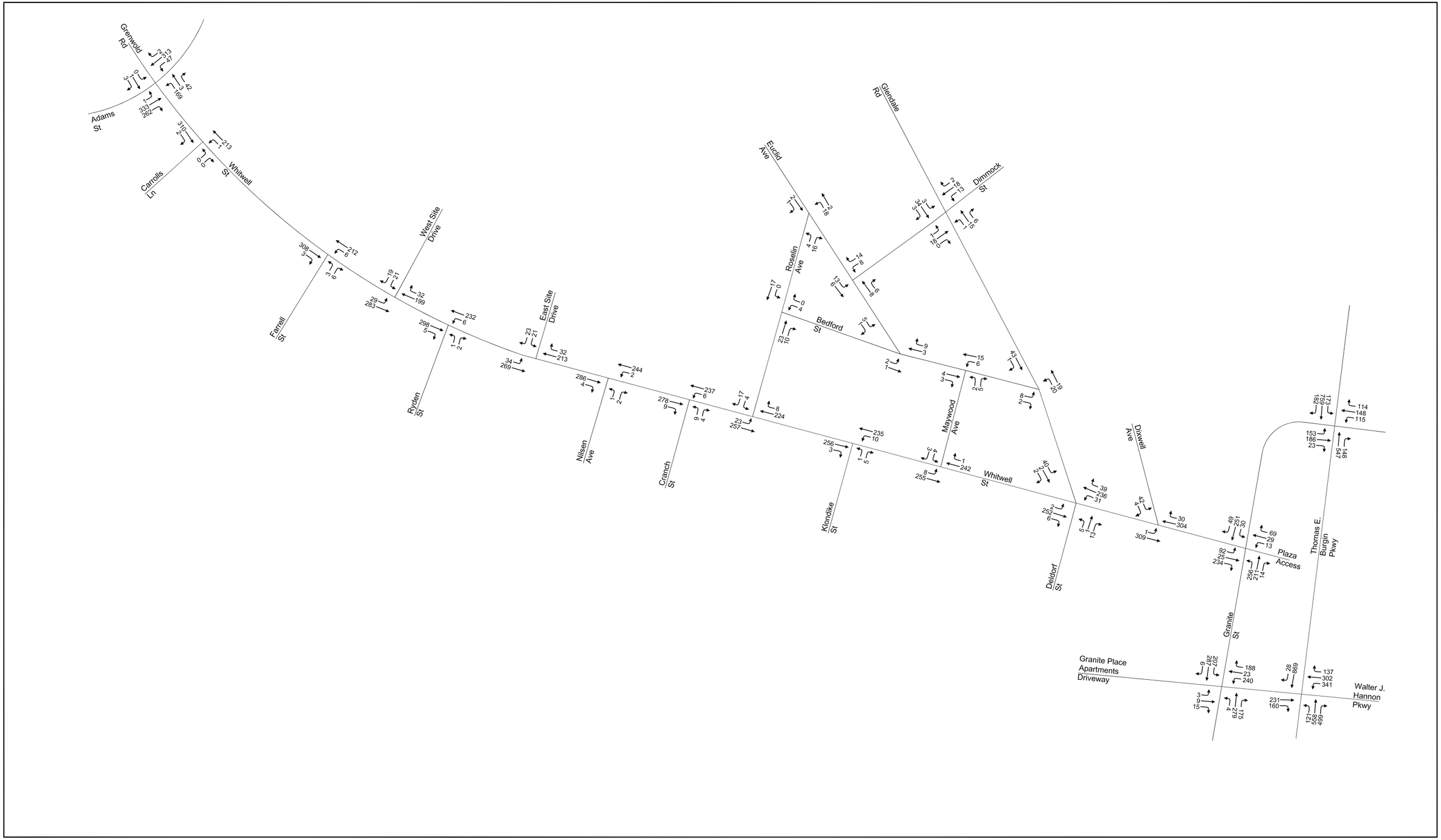
2025 BUILD
WEEKDAY AM PEAK HOUR
TRAFFIC VOLUMES

NOT TO SCALE

TETRA TECH

FIGURE

9



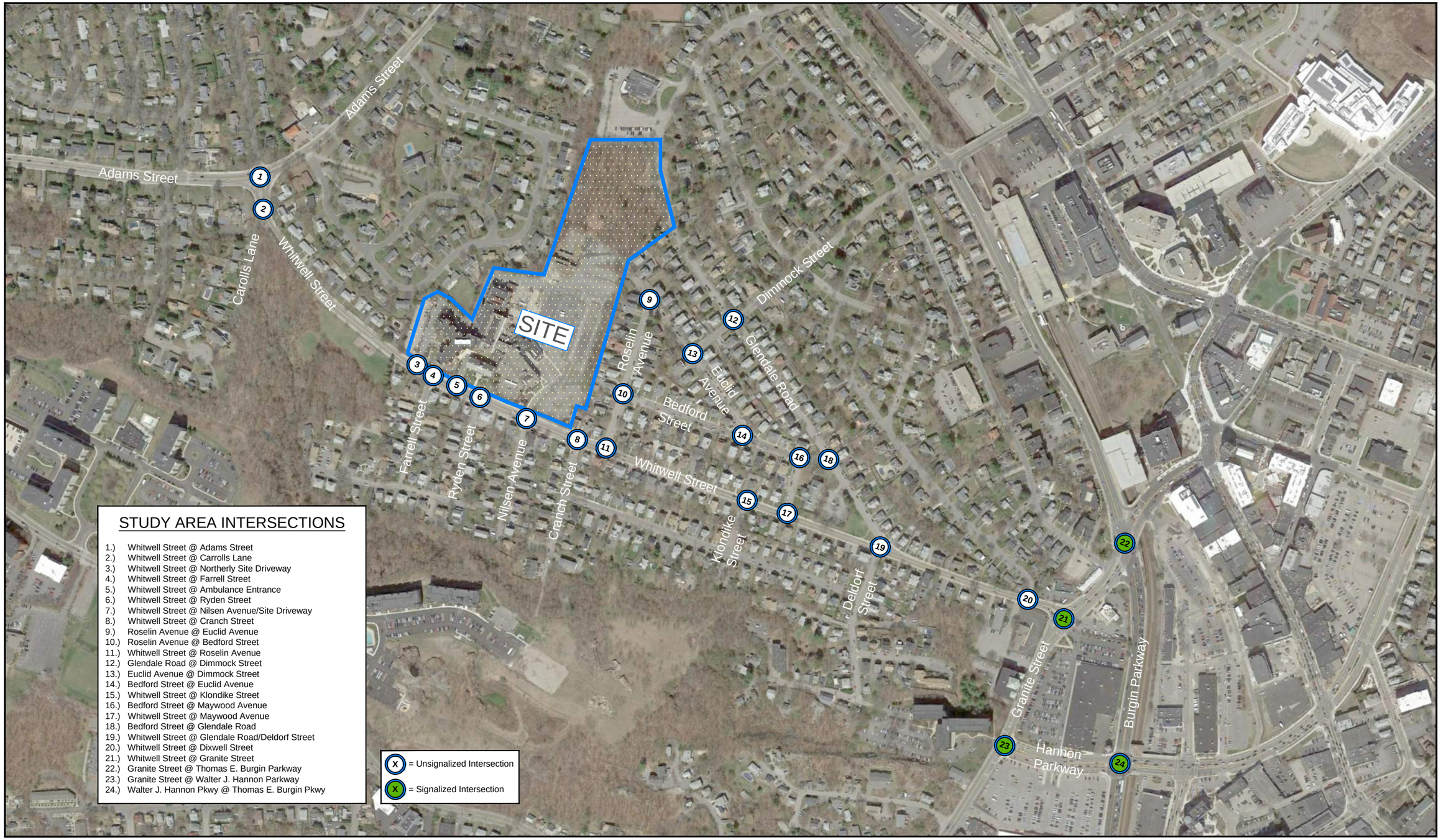
NOT TO SCALE

TETRA TECH

114 WHITWELL STREET
QUINCY, MA

2025 BUILD
WEEKDAY PM PEAK HOUR
TRAFFIC VOLUMES

FIGURE
10



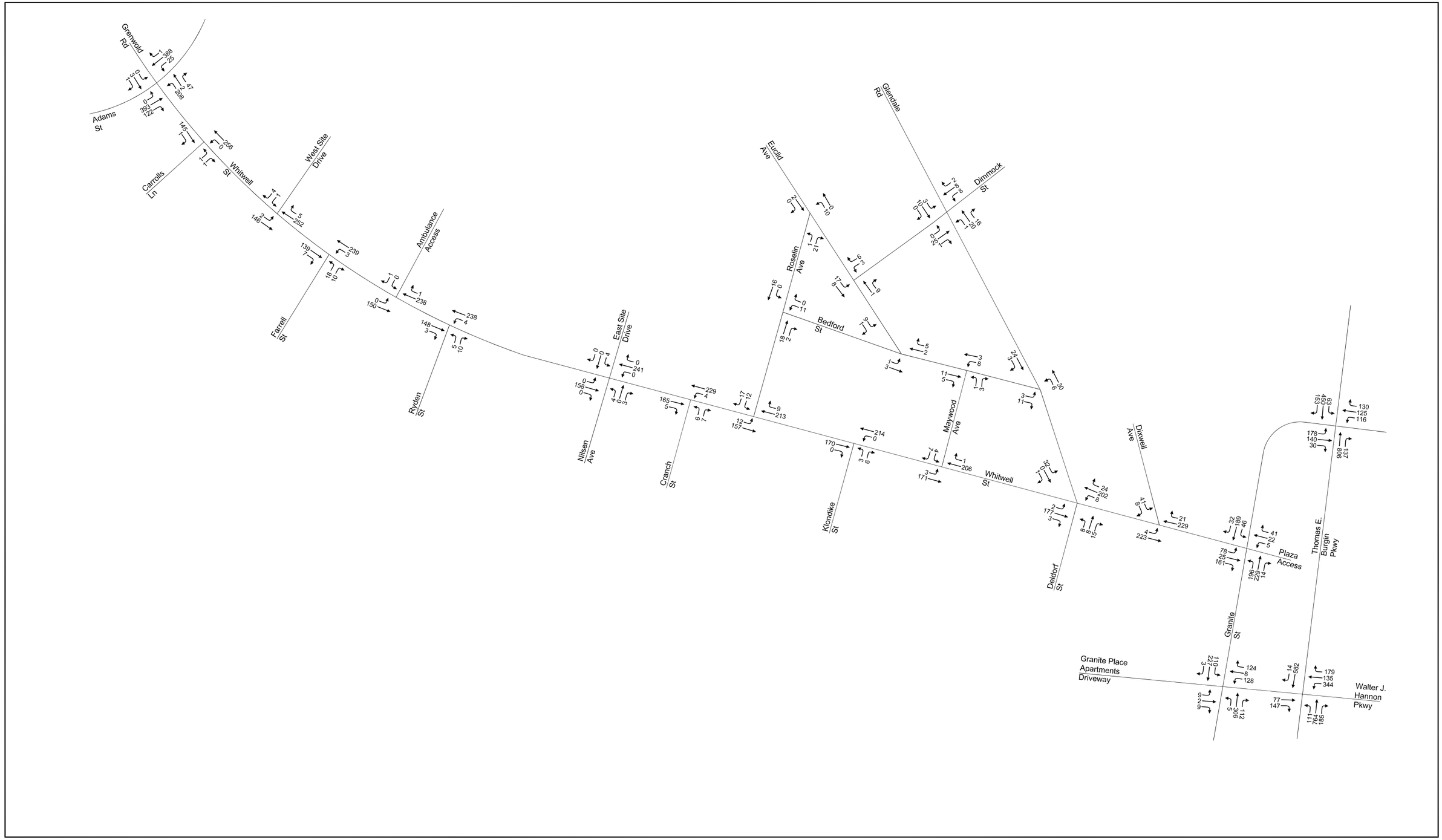
114 WHITWELL STREET
QUINCY, MA

STUDY AREA INTERSECTIONS

NOT TO SCALE

TETRA TECH

FIGURE
1



TETRA TECH

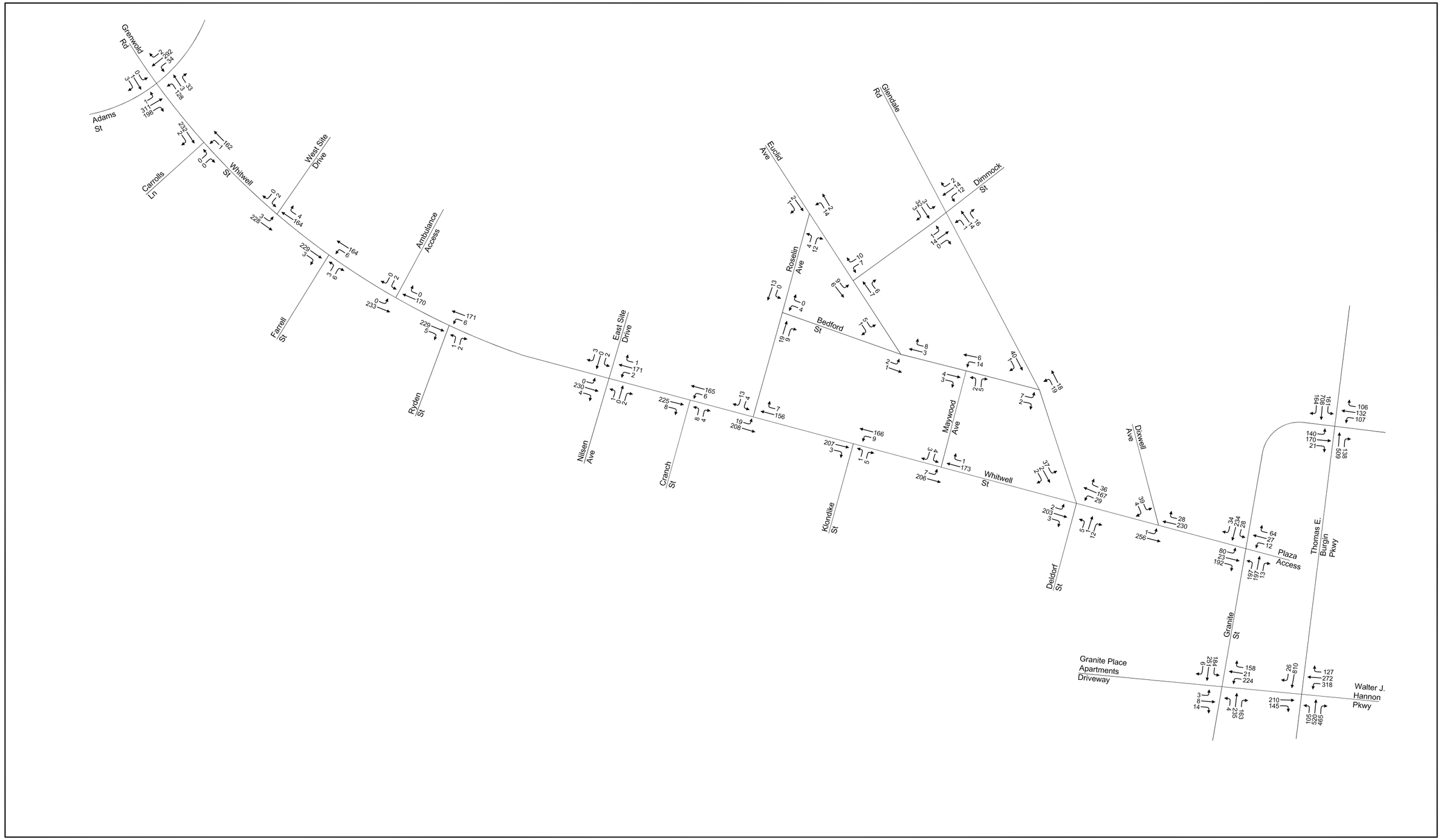
NOT TO SCALE

114 WHITWELL STREET
QUINCY, MA

2018 EXISTING WEEKDAY AM PEAK HOUR TRAFFIC VOLUMES

FIGURE

2



NOT TO SCALE

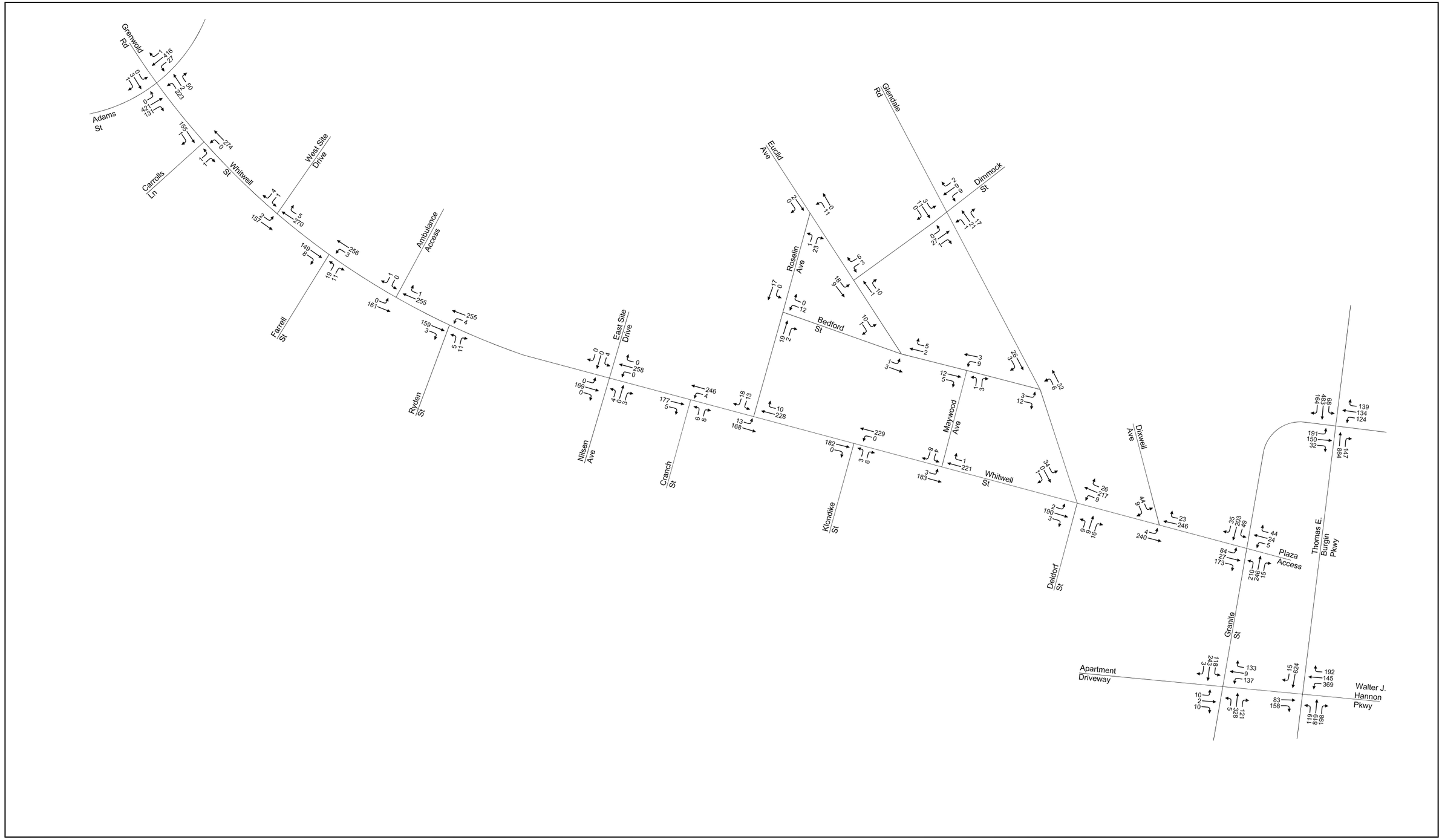
114 WHITWELL STREET
QUINCY, MA

2018 EXISTING
WEEKDAY PM PEAK HOUR
TRAFFIC VOLUMES

FIGURE

3

TETRA TECH



114 WHITWELL STREET
QUINCY, MA

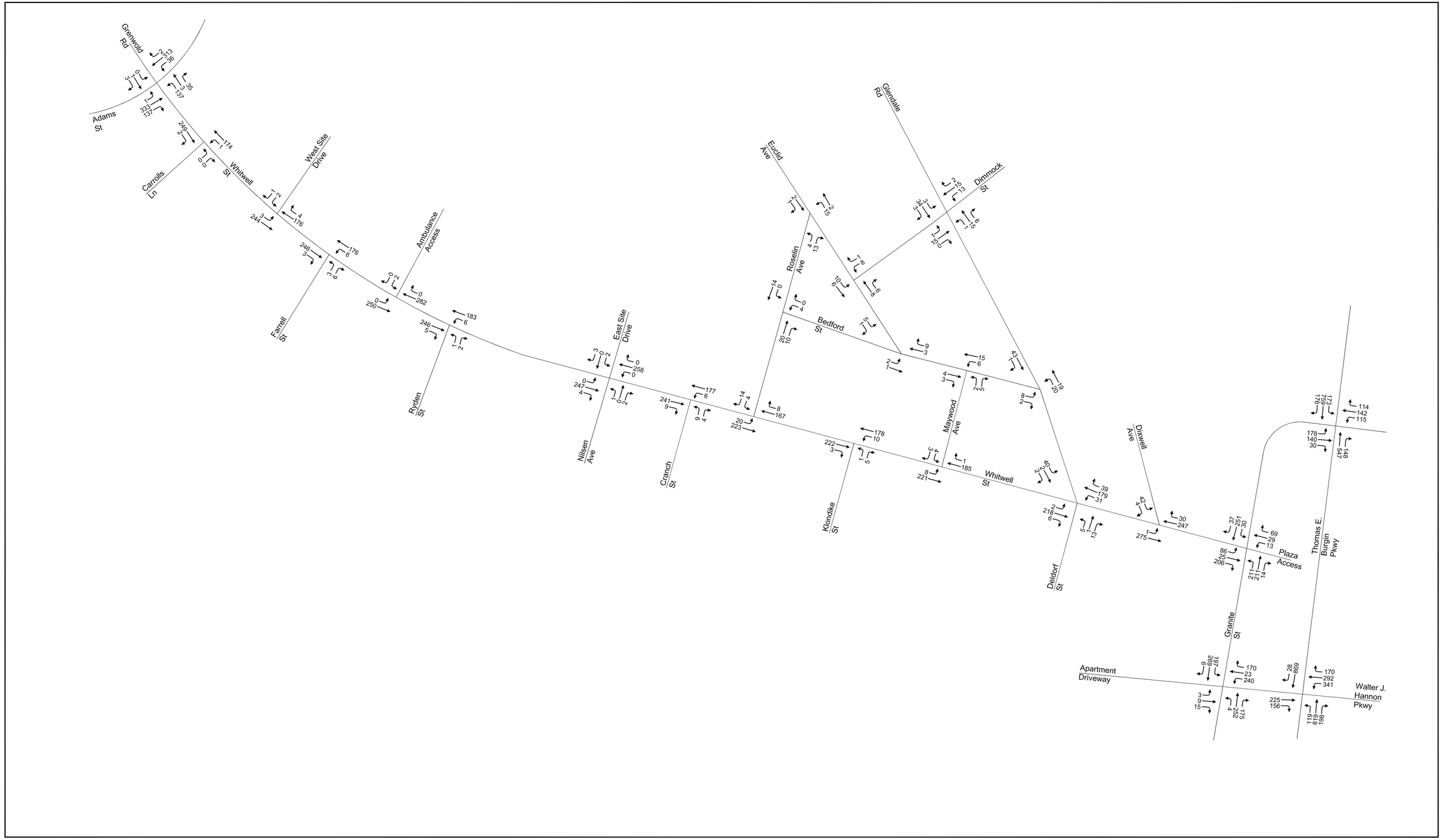
2025 NO BUILD
WEEKDAY AM PEAK HOUR
TRAFFIC VOLUMES

TETRA TECH

NOT TO SCALE

FIGURE

4



114 WHITWELL STREET
QUINCY, MA

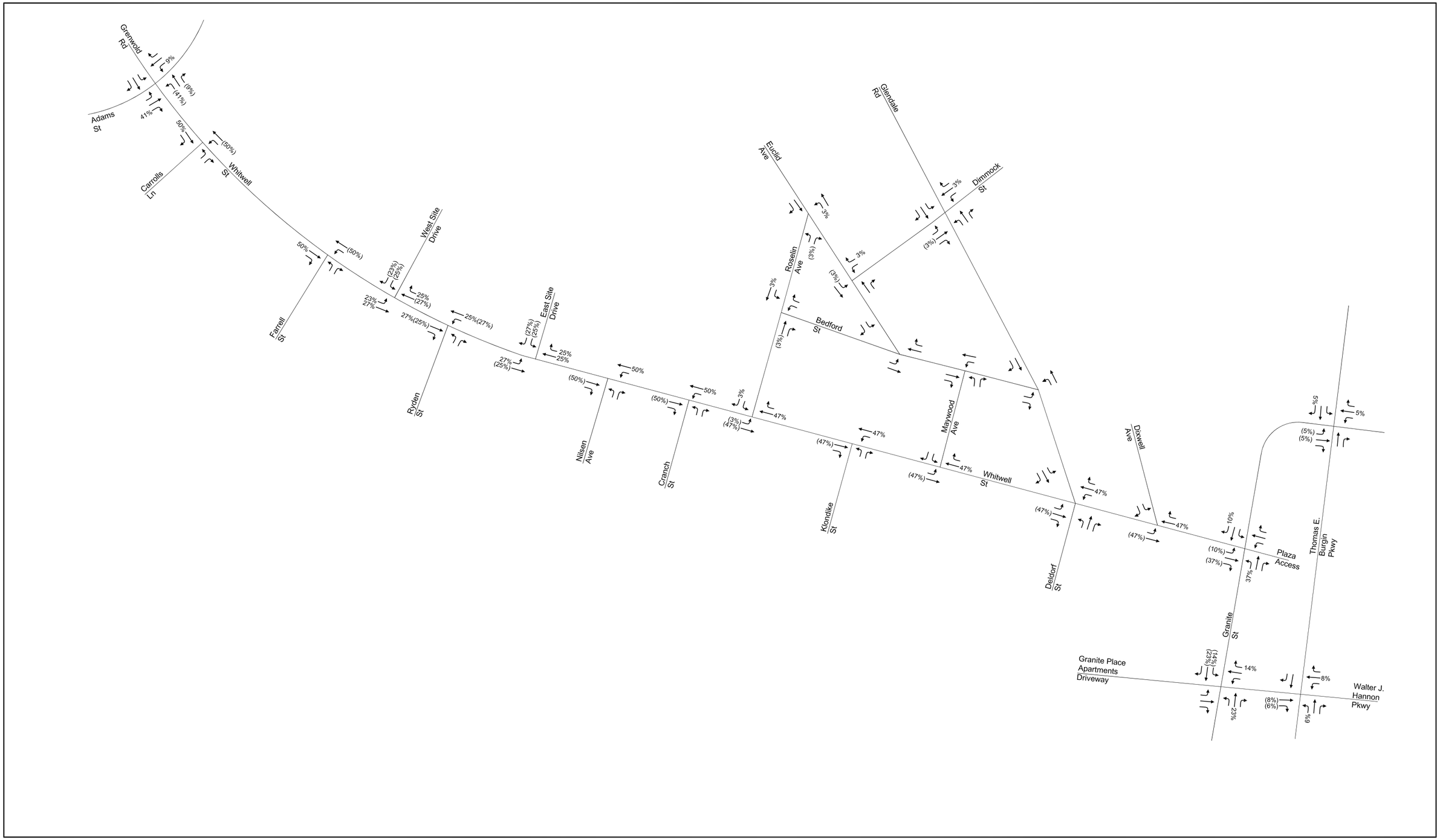
2025 NO BUILD
WEEKDAY PM PEAK HOUR
TRAFFIC VOLUMES

NOT TO SCALE

TETRA TECH

FIGURE

5



NOT TO SCALE

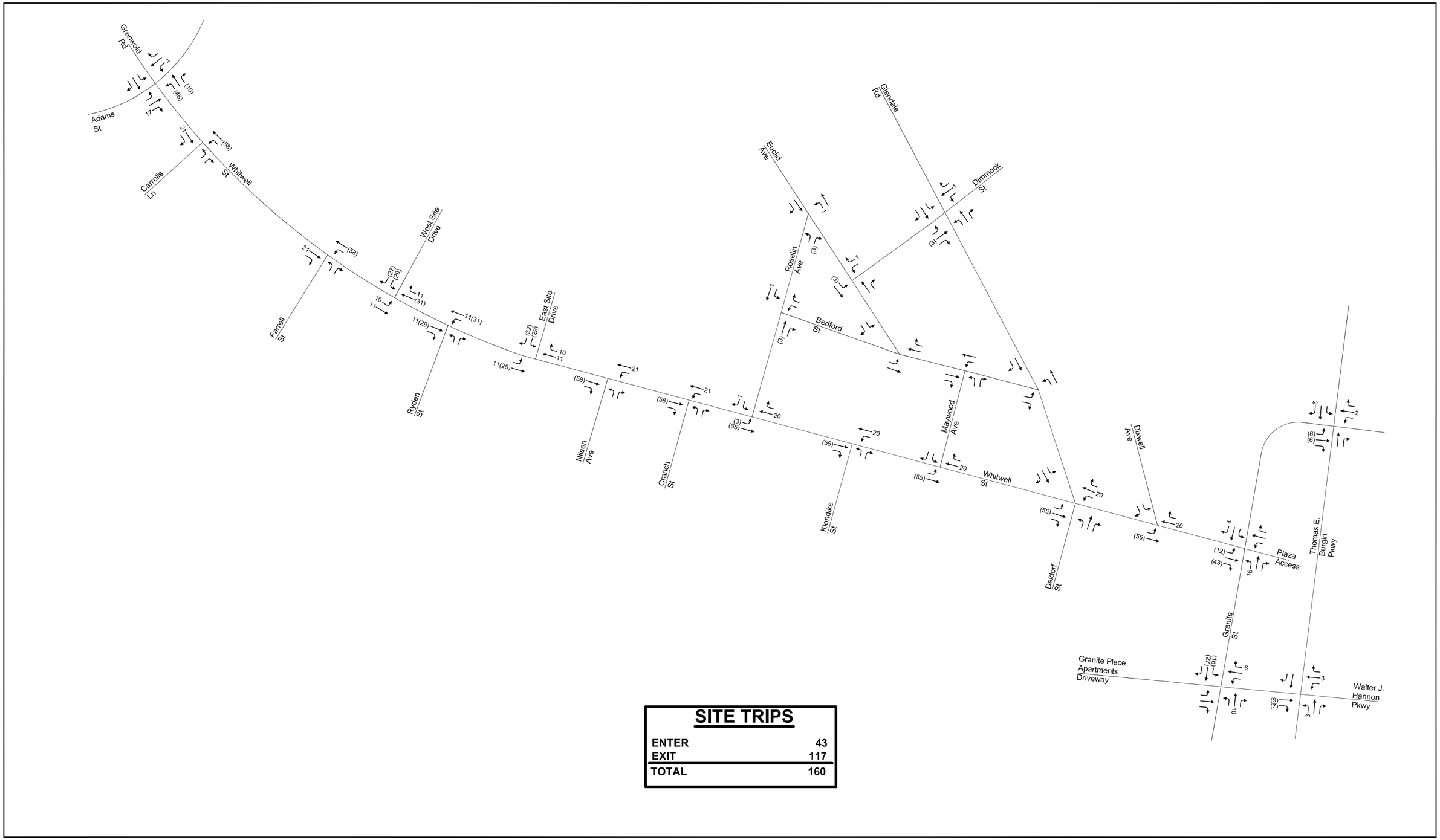
TETRA TECH

114 WHITWELL STREET
QUINCY, MA

VEHICLE TRIP DISTRIBUTION

FIGURE

6



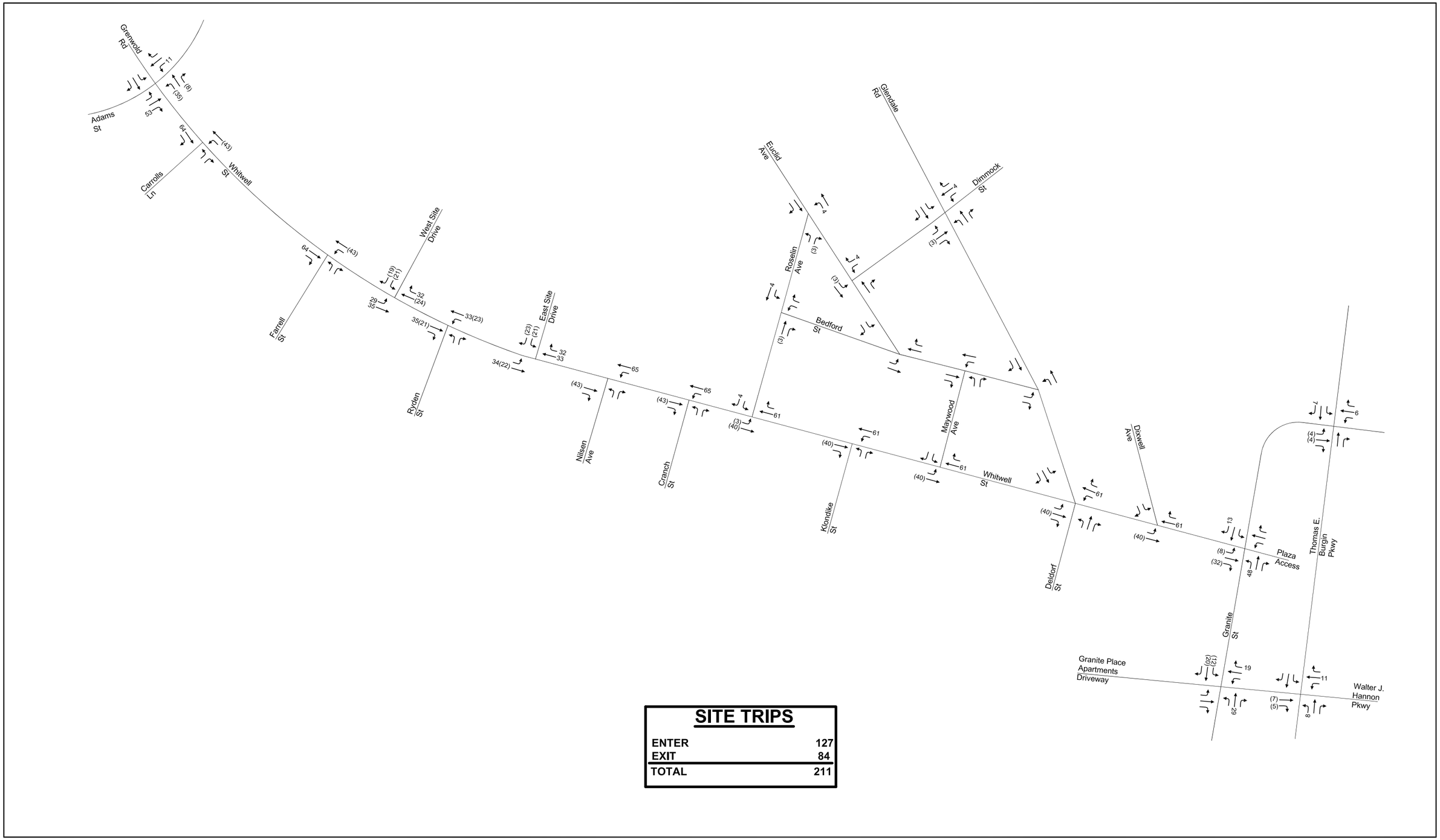
114 WHITWELL STREET
QUINCY, MA

PROJECT TRIPS
WEEKDAY AM PEAK HOUR

FIGURE
7

TETRA TECH

NOT TO SCALE



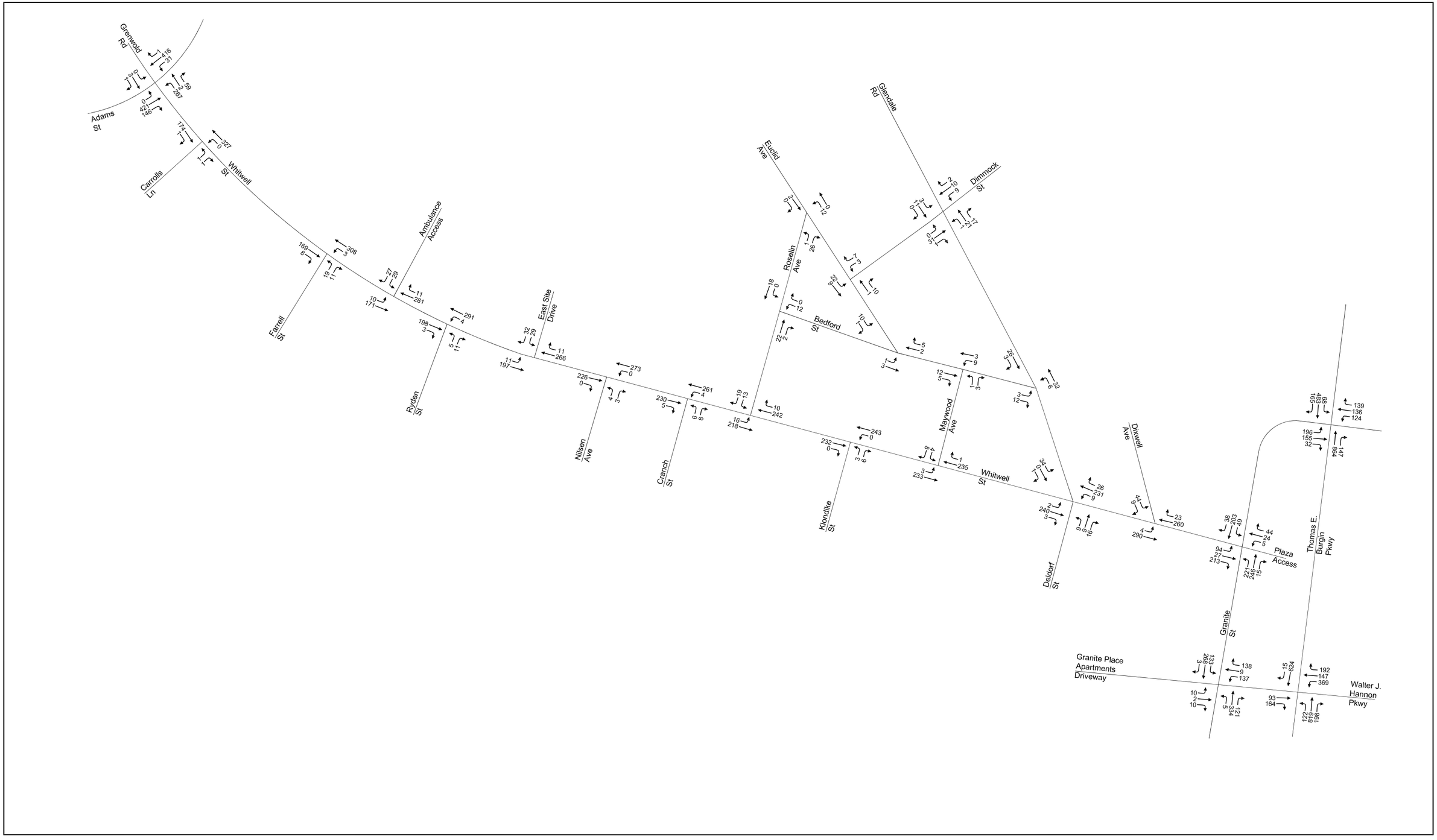
114 WHITWELL STREET
QUINCY, MA

PROJECT TRIPS
WEEKDAY PM PEAK HOUR

NOT TO SCALE

TETRA TECH

FIGURE
8



114 WHITWELL STREET
QUINCY, MA

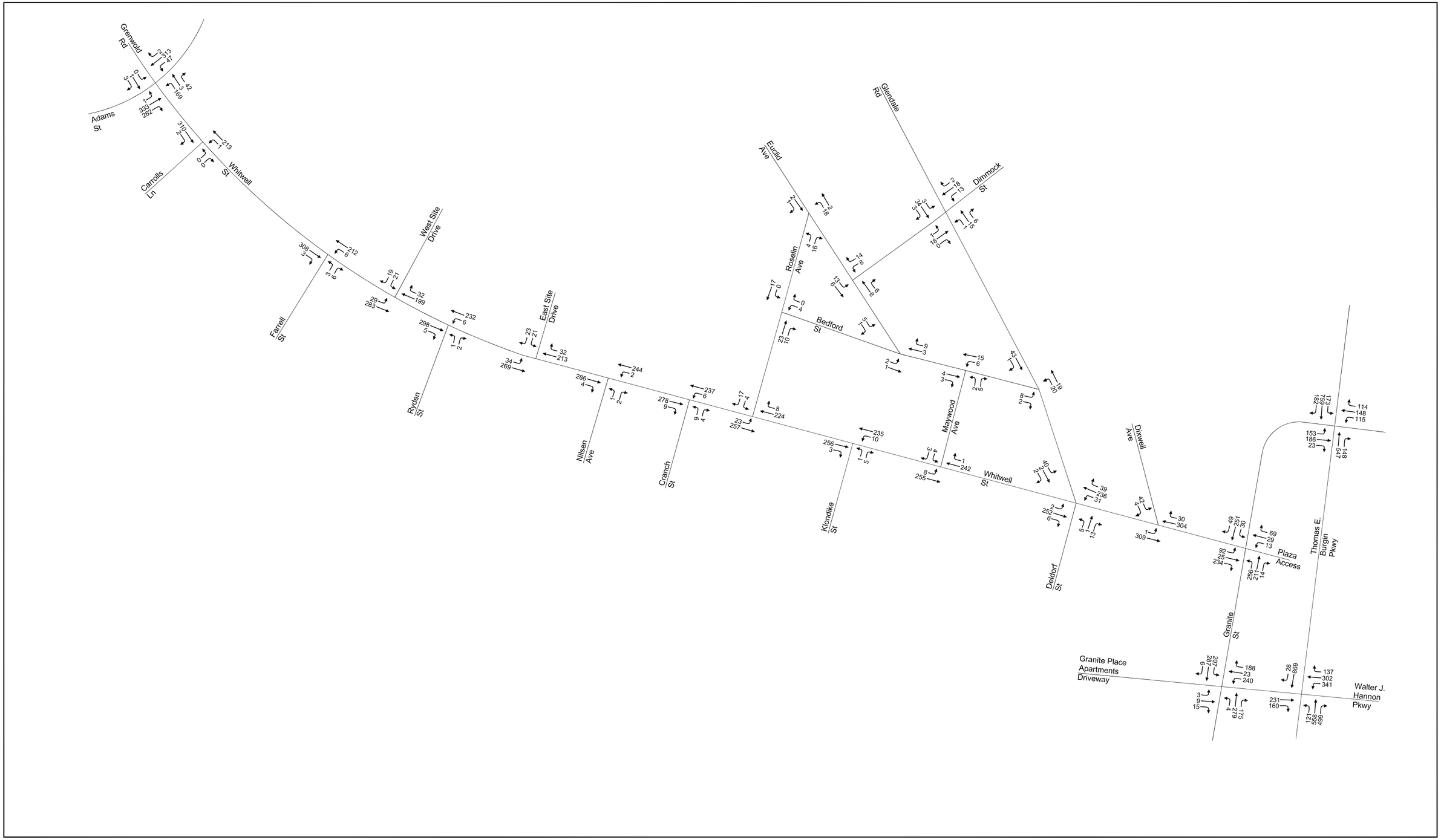
2025 BUILD
WEEKDAY AM PEAK HOUR
TRAFFIC VOLUMES

NOT TO SCALE

TETRA TECH

FIGURE

9



NOT TO SCALE

TETRA TECH

114 WHITWELL STREET
QUINCY, MA

2025 BUILD
WEEKDAY PM PEAK HOUR
TRAFFIC VOLUMES

FIGURE
10

Appendix A

Historical Site Use Trip Generation Calculations

HISTORICAL TRIP GENERATION - Hospital Use

Land Use Code 610 - Hospital - General Urban/Suburban						Size: 196 Beds		
Time Period	R^2 Value	Use Equation or Rate?	Equation	Rate	Percent Enter	In	Out	Total
Weekday Daily	0.53	Rate	T=12.30(x)+3096.68	22.32	50%	2188	2188	4376
AM Street Peak Hour	0.88	Equation	T=1.77(x)+36.61	1.84	72%	276	108	384
PM Street Peak Hour	0.91	Equation	T=2.08(x)-104	1.89	28%	85	219	304
Saturday Daily		Rate		13.76	50%	1349	1349	2698
Saturday Peak Hour		Rate		1.97	47%	181	205	386

Note: If R^2 is greater than or equal to 0.75 the equation is used to calculate trips, otherwise the rate is used.

Source: *Trip Generation* , *Tenth Edition* , (Institute of Transportation Engineers, 2017).

Appendix B

Traffic Count Data

June 2016 Count Data

Client:	Ana C. Fill
Project #:	78_003_VHB_Quincy
BTD #:	Location 5
Location:	Quincy, MA
Street 1:	Burgin Parkway
Street 2:	Granite Street
Count Date:	6/1/2017
Day of Week:	Thursday
Weather:	Cloudy w/ some Sun

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TOTAL (CARS & TRUCKS)

	Burgin Parkway Northbound				Burgin Parkway Southbound				Granite Street Northeastbound				Granite Street Southwestbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	172	23	0	12	82	30	0	37	19	6	0	24	27	24
7:15 AM	0	0	188	30	0	11	85	29	0	42	28	5	0	28	28	25
7:30 AM	0	0	197	36	0	12	103	35	0	46	36	4	0	27	33	31
7:45 AM	0	0	203	35	0	13	117	40	0	45	35	7	0	25	36	35
8:00 AM	0	0	201	32	0	17	114	39	0	43	33	10	0	30	31	33
8:15 AM	0	0	196	33	0	20	112	37	0	42	33	9	0	33	24	30
8:30 AM	0	0	193	30	0	18	109	36	0	41	32	7	0	32	25	29
8:45 AM	0	0	187	27	0	16	101	34	0	37	26	6	0	31	23	28

	Burgin Parkway Northbound				Burgin Parkway Southbound				Granite Street Northeastbound				Granite Street Southwestbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	134	31	0	34	164	36	0	30	37	6	0	28	29	19
4:15 PM	0	0	136	30	0	36	167	39	0	34	41	5	0	30	31	21
4:30 PM	0	0	132	32	0	39	171	38	0	36	40	4	0	29	34	25
4:45 PM	0	0	129	36	0	41	168	36	0	36	46	5	0	26	36	29
5:00 PM	0	0	121	34	0	39	179	42	0	34	43	6	0	26	33	27
5:15 PM	0	0	122	35	0	40	183	46	0	33	40	6	0	25	28	24
5:30 PM	0	0	118	32	0	38	176	40	0	31	35	5	0	24	30	23
5:45 PM	0	0	112	29	0	35	163	32	0	26	32	6	0	23	29	22

AM PEAK HOUR 7:30 AM to 8:30 AM	Burgin Parkway Northbound				Burgin Parkway Southbound				Granite Street Northeastbound				Granite Street Southwestbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**797**	**136**	**0**	**62**	**446**	**151**	**0**	**176**	**137**	**30**	**0**	**115**	**124**	**129**
PHF	**0.98**				**0.97**				**0.99**				**0.96**			
HV %	**0.0%**	**0.0%**	**1.1%**	**0.7%**	**0.0%**	**0.0%**	**0.9%**	**0.7%**	**0.0%**	**0.0%**	**3.6%**	**0.0%**	**0.0%**	**0.9%**	**2.4%**	**0.0%**

PM PEAK HOUR 4:30 PM to 5:30 PM	Burgin Parkway Northbound				Burgin Parkway Southbound				Granite Street Northeastbound				Granite Street Southwestbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**504**	**137**	**0**	**159**	**701**	**162**	**0**	**139**	**169**	**21**	**0**	**106**	**131**	**105**
PHF	**0.97**				**0.95**				**0.95**				**0.94**			
HV %	**0.0%**	**0.0%**	**0.8%**	**0.7%**	**0.0%**	**0.0%**	**0.3%**	**0.6%**	**0.0%**	**0.0%**	**1.2%**	**0.0%**	**0.0%**	**0.9%**	**0.8%**	**0.0%**

Client:	Ana C. Fill
Project #:	78_003_VHB_Quincy
BTD #:	Location 5
Location:	Quincy, MA
Street 1:	Burgin Parkway
Street 2:	Granite Street
Count Date:	6/1/2017
Day of Week:	Thursday
Weather:	Cloudy w/ some Sun

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TRUCKS

	Burgin Parkway Northbound				Burgin Parkway Southbound				Granite Street Northeastbound				Granite Street Southwestbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	1	0	0	0	0	0	0	0	3	0	0	1	2	0
7:15 AM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0
7:30 AM	0	0	2	0	0	0	1	0	0	0	2	0	0	0	1	0
7:45 AM	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0
8:00 AM	0	0	2	1	0	0	2	0	0	0	2	0	0	1	0	0
8:15 AM	0	0	3	0	0	0	1	0	0	0	1	0	0	0	2	0
8:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

	Burgin Parkway Northbound				Burgin Parkway Southbound				Granite Street Northeastbound				Granite Street Southwestbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0
4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	2	1	0	0	1	1	0	0	1	0	0	1	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:30 AM to 8:30 AM	Burgin Parkway Northbound				Burgin Parkway Southbound				Granite Street Northeastbound				Granite Street Southwestbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**9**	**1**	**0**	**0**	**4**	**1**	**0**	**0**	**5**	**0**	**0**	**1**	**3**	**0**
PHF	**0.83**				**0.63**				**0.63**				**0.50**			

PM PEAK HOUR 4:15 PM to 5:15 PM	Burgin Parkway Northbound				Burgin Parkway Southbound				Granite Street Northeastbound				Granite Street Southwestbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**4**	**1**	**0**	**0**	**2**	**1**	**0**	**0**	**2**	**0**	**0**	**1**	**1**	**0**
PHF	**0.42**				**0.38**				**0.50**				**0.50**			

Client:	Ana C. Fill
Project #:	78_003_VHB_Quincy
BTD #:	Location 5
Location:	Quincy, MA
Street 1:	Burgin Parkway
Street 2:	Granite Street
Count Date:	6/1/2017
Day of Week:	Thursday
Weather:	Cloudy w/ some Sun

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PEDESTRIANS & BICYCLES

	Burgin Parkway Northbound					Burgin Parkway Southbound					Granite Street Northeastbound					Granite Street Southwestbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	2		0	0	0	0		0	0	0	0		0	0	0	0	
7:15 AM	0	0	0	3		0	0	0	1		0	0	0	0		0	0	0	1	
7:30 AM	0	0	0	3		0	1	0	0		0	1	0	1		0	0	0	2	
7:45 AM	0	0	0	5		0	0	0	0		0	0	0	2		0	1	0	2	
8:00 AM	0	0	0	7		0	0	0	2		0	0	0	1		0	0	0	3	
8:15 AM	0	0	0	8		0	0	0	4		0	0	0	1		0	0	0	1	
8:30 AM	0	0	0	6		0	0	0	3		0	0	0	2		0	0	0	0	
8:45 AM	0	0	0	7		0	0	0	2		0	0	0	0		0	0	0	1	

	Burgin Parkway Northbound					Burgin Parkway Southbound					Granite Street Northeastbound					Granite Street Southwestbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	6		0	0	0	2		0	0	0	3		0	0	0	2	
4:15 PM	0	0	0	7		0	1	0	1		0	0	0	5		0	0	0	2	
4:30 PM	0	1	0	8		0	0	0	2		0	1	0	4		0	1	0	3	
4:45 PM	0	0	0	8		0	0	0	3		0	0	0	6		0	0	0	3	
5:00 PM	0	0	0	9		0	0	0	1		0	0	0	3		0	1	0	4	
5:15 PM	0	0	0	12		0	0	0	2		0	1	0	4		0	0	0	3	
5:30 PM	0	0	0	10		0	0	0	2		0	0	0	3		0	0	0	2	
5:45 PM	0	0	0	11		0	0	0	1		0	0	0	2		0	0	0	2	

AM PEAK HOUR[1] 7:30 AM to 8:30 AM	Burgin Parkway Northbound					Burgin Parkway Southbound					Granite Street Northeastbound					Granite Street Southwestbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	23		0	1	0	6		0	1	0	5		0	1	0	8	

PM PEAK HOUR[1] 4:30 PM to 5:30 PM	Burgin Parkway Northbound					Burgin Parkway Southbound					Granite Street Northeastbound					Granite Street Southwestbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	1	0	37		0	0	0	8		0	2	0	17		0	2	0	13	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Ana C. Fill
Project #:	78_003_VHB_Quincy
BTD #:	Location 6
Location:	Quincy, MA
Street 1:	Granite Street/Whitwell Street
Street 2:	TJ Maxx Plaza Driveway
Count Date:	6/1/2017
Day of Week:	Thursday
Weather:	Cloudy w/ some Sun

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TOTAL (CARS & TRUCKS)

	Granite Street Northeastbound				Granite Street Southwestbound				Whitwell Street Eastbound				TJ Maxx Plaza Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	31	44	2	0	10	38	9	0	15	9	34	0	0	3	8
7:15 AM	0	37	53	3	0	12	35	10	0	16	13	36	0	0	5	9
7:30 AM	0	41	59	4	0	11	45	8	0	17	10	38	0	1	6	9
7:45 AM	0	42	58	4	0	10	53	6	0	16	6	37	0	2	6	10
8:00 AM	0	41	54	3	0	12	48	5	0	17	5	35	0	1	5	11
8:15 AM	0	40	55	3	0	13	41	3	0	18	4	32	0	1	5	11
8:30 AM	0	37	54	2	0	13	40	5	0	17	4	32	0	0	4	10
8:45 AM	0	34	48	3	0	12	38	4	0	15	3	30	0	0	5	9

	Granite Street Northeastbound				Granite Street Southwestbound				Whitwell Street Eastbound				TJ Maxx Plaza Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	32	45	2	0	8	58	3	0	12	7	31	0	2	5	15
4:15 PM	0	38	48	3	0	8	57	3	0	13	8	30	0	3	7	17
4:30 PM	0	43	50	2	0	7	58	6	0	15	8	38	0	3	9	18
4:45 PM	0	46	49	3	0	6	57	8	0	21	7	44	0	2	7	16
5:00 PM	0	48	50	4	0	8	59	7	0	19	5	45	0	3	5	14
5:15 PM	0	45	46	4	0	7	58	5	0	17	3	43	0	4	6	15
5:30 PM	0	41	43	3	0	7	57	6	0	18	4	41	0	2	7	15
5:45 PM	0	42	41	5	0	6	54	6	0	16	4	37	0	2	6	17

AM PEAK HOUR 7:15 AM to 8:15 AM	Granite Street 5				Granite Street Southwestbound				Whitwell Street Eastbound				TJ Maxx Plaza Driveway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**161**	**224**	**14**	**0**	**45**	**181**	**29**	**0**	**66**	**34**	**146**	**0**	**4**	**22**	**39**
PHF	**0.96**				**0.92**				**0.95**				**0.90**			
HV %	**0.0%**	**0.6%**	**1.8%**	**0.0%**	**0.0%**	**0.0%**	**1.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.7%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:30 PM to 5:30 PM	Granite Street 5				Granite Street Southwestbound				Whitwell Street Eastbound				TJ Maxx Plaza Driveway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**182**	**195**	**13**	**0**	**28**	**232**	**26**	**0**	**72**	**23**	**170**	**0**	**12**	**27**	**63**
PHF	**0.96**				**0.97**				**0.92**				**0.85**			
HV %	**0.0%**	**0.0%**	**1.5%**	**0.0%**	**0.0%**	**0.0%**	**0.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Ana C. Fill
Project #:	78_003_VHB_Quincy
BTD #:	Location 6
Location:	Quincy, MA
Street 1:	Granite Street/Whitwell Street
Street 2:	TJ Maxx Plaza Driveway
Count Date:	6/1/2017
Day of Week:	Thursday
Weather:	Cloudy w/ some Sun

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TRUCKS

	Granite Street Northeastbound				Granite Street Southwestbound				Whitwell Street Eastbound				TJ Maxx Plaza Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0
7:30 AM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	0	0	0	2	0	0	0	0	1	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0

	Granite Street Northeastbound				Granite Street Southwestbound				Whitwell Street Eastbound				TJ Maxx Plaza Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:00 AM to 8:00 AM	Granite Street Northeastbound				Granite Street Southwestbound				Whitwell Street Eastbound				TJ Maxx Plaza Driveway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**5**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
PHF	**0.42**				**0.50**				**0.25**				**0.00**			

PM PEAK HOUR 4:30 PM to 5:30 PM	Granite Street Northeastbound				Granite Street Southwestbound				Whitwell Street Eastbound				TJ Maxx Plaza Driveway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
PHF	**0.75**				**0.25**				**0.25**				**0.00**			

Client:	Ana C. Fill
Project #:	78_003_VHB_Quincy
BTD #:	Location 6
Location:	Quincy, MA
Street 1:	Granite Street/Whitwell Street
Street 2:	TJ Maxx Plaza Driveway
Count Date:	6/1/2017
Day of Week:	Thursday
Weather:	Cloudy w/ some Sun

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PEDESTRIANS & BICYCLES

	Granite Street Northeastbound					Granite Street Southwestbound					Whitwell Street Eastbound					TJ Maxx Plaza Driveway Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	0		0	0	0	2		0	0	0	0	
7:15 AM	0	0	0	0		0	0	0	0		0	0	0	3		0	0	0	0	
7:30 AM	0	1	0	0		0	0	0	1		0	0	0	5		0	0	0	2	
7:45 AM	0	0	0	0		0	1	0	3		0	0	0	4		0	0	0	0	
8:00 AM	0	0	0	0		0	0	0	2		0	0	0	6		0	0	0	1	
8:15 AM	0	0	0	0		0	0	0	0		0	0	0	4		0	0	0	1	
8:30 AM	0	0	0	0		0	0	0	1		0	0	0	3		0	0	0	0	
8:45 AM	0	0	0	0		0	0	0	0		0	0	0	3		0	0	0	0	

	Granite Street Northeastbound					Granite Street Southwestbound					Whitwell Street Eastbound					TJ Maxx Plaza Driveway Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	0		0	0	0	1		0	0	0	4		0	0	0	1	
4:15 PM	0	0	0	0		0	0	0	2		0	0	0	5		0	0	0	2	
4:30 PM	0	1	0	0		0	1	0	1		0	0	0	6		0	0	0	1	
4:45 PM	0	0	0	0		0	0	0	2		0	0	0	7		0	0	0	3	
5:00 PM	0	0	0	0		0	1	0	3		0	0	0	9		0	0	0	2	
5:15 PM	0	1	0	0		0	0	0	1		0	0	0	5		0	0	0	1	
5:30 PM	0	0	0	0		0	0	0	2		0	0	0	3		0	0	0	2	
5:45 PM	0	0	0	0		0	0	0	1		0	0	0	4		0	0	0	1	

AM PEAK HOUR[1] 7:15 AM to 8:15 AM	Granite Street Northeastbound					Granite Street Southwestbound					Whitwell Street Eastbound					TJ Maxx Plaza Driveway Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	1	0	0		0	1	0	6		0	0	0	18		0	0	0	3	

PM PEAK HOUR[1] 4:30 PM to 5:30 PM	Granite Street Northeastbound					Granite Street Southwestbound					Whitwell Street Eastbound					TJ Maxx Plaza Driveway Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	2	0	0		0	2	0	7		0	0	0	27		0	0	0	7	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Ana C. Fill
Project #:	78_003_VHB_Quincy
BTD #:	Location 7
Location:	Quincy, MA
Street 1:	Granite Street/Apartment Driveway
Street 2:	Mayor Hannon Parkway
Count Date:	6/1/2017
Day of Week:	Thursday
Weather:	Cloudy w/ some Sun

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TOTAL (CARS & TRUCKS)

	Granite Street Northeastbound				Granite Street Southwestbound				Apartment Driveway Eastbound				Mayor Hannon Parkway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	55	23	0	27	45	0	0	0	0	2	0	26	1	22
7:15 AM	0	0	69	26	0	28	43	0	0	1	1	2	0	29	1	23
7:30 AM	0	0	79	27	0	26	58	0	0	1	0	3	0	30	0	24
7:45 AM	0	1	73	29	0	30	62	0	0	1	1	4	0	32	1	30
8:00 AM	0	1	60	28	0	27	57	1	0	3	1	2	0	33	4	35
8:15 AM	0	3	61	27	0	26	48	2	0	4	0	0	0	32	3	34
8:30 AM	0	3	59	25	0	24	47	1	0	3	2	1	0	29	2	31
8:45 AM	0	2	52	23	0	23	45	2	0	2	1	2	0	27	2	32

	Granite Street Northeastbound				Granite Street Southwestbound				Apartment Driveway Eastbound				Mayor Hannon Parkway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	44	30	0	39	52	0	0	0	4	2	0	42	2	35
4:15 PM	0	1	50	33	0	41	49	2	0	1	5	5	0	48	6	38
4:30 PM	0	1	56	35	0	42	55	1	0	0	3	5	0	53	6	39
4:45 PM	0	0	61	40	0	46	57	3	0	0	1	4	0	57	4	37
5:00 PM	0	2	62	44	0	48	59	1	0	2	2	3	0	58	6	38
5:15 PM	0	1	57	42	0	46	58	1	0	1	2	2	0	54	5	37
5:30 PM	0	0	53	39	0	43	57	2	0	1	1	2	0	47	4	35
5:45 PM	0	0	54	36	0	41	52	1	0	1	2	1	0	43	2	32

AM PEAK HOUR 7:30 AM to 8:30 AM	Granite Street Northeastbound				Granite Street Southwestbound				Apartment Driveway Eastbound				Mayor Hannon Parkway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**5**	**273**	**111**	**0**	**109**	**225**	**3**	**0**	**9**	**2**	**9**	**0**	**127**	**8**	**123**
PHF	**0.92**				**0.92**				**0.83**				**0.90**			
HV %	**0.0%**	**0.0%**	**2.2%**	**0.0%**	**0.0%**	**0.9%**	**1.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.6%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:30 PM to 5:30 PM	Granite Street Northeastbound				Granite Street Southwestbound				Apartment Driveway Eastbound				Mayor Hannon Parkway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**4**	**236**	**161**	**0**	**182**	**229**	**6**	**0**	**3**	**8**	**14**	**0**	**222**	**21**	**151**
PHF	**0.93**				**0.97**				**0.78**				**0.97**			
HV %	**0.0%**	**0.0%**	**1.3%**	**0.0%**	**0.0%**	**0.0%**	**0.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.5%**	**0.0%**	**0.0%**

Client:	Ana C. Fill
Project #:	78_003_VHB_Quincy
BTD #:	Location 7
Location:	Quincy, MA
Street 1:	Granite Street/Apartment Driveway
Street 2:	Mayor Hannon Parkway
Count Date:	6/1/2017
Day of Week:	Thursday
Weather:	Cloudy w/ some Sun

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TRUCKS

	Granite Street Northeastbound				Granite Street Southwestbound				Apartment Driveway Eastbound				Mayor Hannon Parkway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	2	0	0	0	1	0	0	0	0	0	0	1	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	0	0	0	2	0	0	0	0	0	0	1	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0

	Granite Street Northeastbound				Granite Street Southwestbound				Apartment Driveway Eastbound				Mayor Hannon Parkway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:30 AM to 8:30 AM	Granite Street Northeastbound				Granite Street Southwestbound				Apartment Driveway Eastbound				Mayor Hannon Parkway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**6**	**0**	**0**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**
PHF	**0.50**				**0.50**				**0.00**				**0.50**			

PM PEAK HOUR 4:30 PM to 5:30 PM	Granite Street Northeastbound				Granite Street Southwestbound				Apartment Driveway Eastbound				Mayor Hannon Parkway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**
PHF	**0.75**				**0.25**				**0.00**				**0.25**			

Client:	Ana C. Fill
Project #:	78_003_VHB_Quincy
BTD #:	Location 7
Location:	Quincy, MA
Street 1:	Granite Street/Apartment Driveway
Street 2:	Mayor Hannon Parkway
Count Date:	6/1/2017
Day of Week:	Thursday
Weather:	Cloudy w/ some Sun

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PEDESTRIANS & BICYCLES

	Granite Street Northeastbound					Granite Street Southwestbound					Apartment Driveway Eastbound					Mayor Hannon Parkway Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	1		0	0	0	2		0	0	0	0	
7:15 AM	0	0	0	2		0	0	0	0		0	0	0	2		0	0	0	0	
7:30 AM	0	1	0	2		0	0	0	2		0	0	0	3		0	0	0	2	
7:45 AM	0	0	0	1		0	1	0	1		0	0	0	5		0	0	0	1	
8:00 AM	0	0	0	1		0	0	0	1		0	0	0	3		0	0	0	3	
8:15 AM	0	0	0	2		0	0	0	2		0	0	0	4		0	0	0	2	
8:30 AM	0	0	0	1		0	0	0	1		0	0	0	1		0	0	0	1	
8:45 AM	0	0	0	0		0	0	0	1		0	0	0	2		0	0	0	2	

	Granite Street Northeastbound					Granite Street Southwestbound					Apartment Driveway Eastbound					Mayor Hannon Parkway Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	2		0	0	0	1		0	0	0	2		0	0	0	2	
4:15 PM	0	0	0	1		0	0	0	3		0	0	0	3		0	0	0	1	
4:30 PM	0	1	0	3		0	1	0	0		0	0	0	4		0	0	0	3	
4:45 PM	0	0	0	1		0	0	0	1		0	0	0	2		0	0	0	2	
5:00 PM	0	0	0	2		0	1	0	2		0	0	0	3		1	0	0	3	
5:15 PM	0	1	0	1		0	0	0	2		0	0	0	2		0	0	0	1	
5:30 PM	0	0	0	0		0	0	0	1		0	0	0	3		0	0	0	2	
5:45 PM	0	0	0	1		0	0	0	0		0	0	0	2		0	0	0	0	

AM PEAK HOUR[1] 7:30 AM to 8:30 AM	Granite Street Northeastbound					Granite Street Southwestbound					Apartment Driveway Eastbound					Mayor Hannon Parkway Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	1	0	6		0	1	0	6		0	0	0	15		0	0	0	8	

PM PEAK HOUR[1] 4:30 PM to 5:30 PM	Granite Street Northeastbound					Granite Street Southwestbound					Apartment Driveway Eastbound					Mayor Hannon Parkway Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	2	0	7		0	2	0	5		0	0	0	11		1	0	0	9	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Ana C. Fill
Project #:	78_003_VHB_Quincy
BTD #:	Location 8
Location:	Quincy, MA
Street 1:	Burgin Parkway
Street 2:	Mayor Hannon Parkway
Count Date:	6/1/2017
Day of Week:	Thursday
Weather:	Cloudy w/ some Sun

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TOTAL (CARS & TRUCKS)

	Burgin Parkway Northbound				Burgin Parkway Southbound				Mayor Hannon Parkway Eastbound				Mayor Hannon Parkway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	25	161	35	0	0	110	2	0	0	18	32	0	72	22	34
7:15 AM	0	27	182	38	0	0	116	2	0	0	22	33	0	75	24	36
7:30 AM	0	28	193	37	0	0	131	3	0	0	20	33	0	81	23	40
7:45 AM	0	29	196	44	0	0	145	4	0	0	22	38	0	83	30	42
8:00 AM	0	26	187	50	0	0	149	5	0	0	18	38	0	88	41	46
8:15 AM	0	26	180	48	0	0	151	3	0	0	16	37	0	89	40	49
8:30 AM	0	25	175	44	0	0	146	3	0	0	16	35	0	86	34	48
8:45 AM	0	26	169	45	0	0	137	2	0	0	14	33	0	84	33	45

	Burgin Parkway Northbound				Burgin Parkway Southbound				Mayor Hannon Parkway Eastbound				Mayor Hannon Parkway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	16	140	102	0	0	195	3	0	0	47	26	0	81	60	23
4:15 PM	0	20	142	106	0	0	198	4	0	0	50	29	0	88	68	24
4:30 PM	0	23	138	113	0	0	199	5	0	0	49	31	0	87	70	26
4:45 PM	0	25	135	117	0	0	193	6	0	0	51	36	0	81	67	27
5:00 PM	0	26	121	116	0	0	204	7	0	0	55	39	0	77	69	34
5:15 PM	0	29	118	114	0	0	206	8	0	0	53	37	0	70	59	39
5:30 PM	0	27	114	109	0	0	194	7	0	0	49	34	0	68	52	36
5:45 PM	0	25	110	105	0	0	187	5	0	0	47	32	0	63	47	31

AM PEAK HOUR 7:45 AM to 8:45 AM	Burgin Parkway Northbound				Burgin Parkway Southbound				Mayor Hannon Parkway Eastbound				Mayor Hannon Parkway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**106**	**738**	**186**	**0**	**0**	**591**	**15**	**0**	**0**	**72**	**148**	**0**	**346**	**145**	**185**
PHF	**0.96**				**0.98**				**0.92**				**0.95**			
HV %	**0.0%**	**0.0%**	**1.1%**	**5.9%**	**0.0%**	**0.0%**	**0.5%**	**0.0%**	**0.0%**	**0.0%**	**1.4%**	**0.0%**	**0.0%**	**1.4%**	**0.7%**	**2.2%**

PM PEAK HOUR 4:30 PM to 5:30 PM	Burgin Parkway Northbound				Burgin Parkway Southbound				Mayor Hannon Parkway Eastbound				Mayor Hannon Parkway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**103**	**512**	**460**	**0**	**0**	**802**	**26**	**0**	**0**	**208**	**143**	**0**	**315**	**265**	**126**
PHF	**0.97**				**0.97**				**0.93**				**0.96**			
HV %	**0.0%**	**0.0%**	**0.8%**	**0.4%**	**0.0%**	**0.0%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.6%**	**0.4%**	**0.8%**

Client:	Ana C. Fill
Project #:	78_003_VHB_Quincy
BTD #:	Location 8
Location:	Quincy, MA
Street 1:	Burgin Parkway
Street 2:	Mayor Hannon Parkway
Count Date:	6/1/2017
Day of Week:	Thursday
Weather:	Cloudy w/ some Sun

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TRUCKS

	Burgin Parkway Northbound				Burgin Parkway Southbound				Mayor Hannon Parkway Eastbound				Mayor Hannon Parkway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	1	2	0	0	0	0	0	0	0	0	0	1	0	0
7:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	1	2	0	0	1	0	0	0	0	0	0	2	1	1
7:45 AM	0	0	2	3	0	0	0	0	0	0	0	0	0	1	0	0
8:00 AM	0	0	3	5	0	0	1	0	0	0	1	0	0	2	0	2
8:15 AM	0	0	2	2	0	0	2	0	0	0	0	0	0	1	1	2
8:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
8:45 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1

	Burgin Parkway Northbound				Burgin Parkway Southbound				Mayor Hannon Parkway Eastbound				Mayor Hannon Parkway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	1	1	0	0	1	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0
5:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:30 AM to 8:30 AM	Burgin Parkway Northbound				Burgin Parkway Southbound				Mayor Hannon Parkway Eastbound				Mayor Hannon Parkway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**8**	**12**	**0**	**0**	**4**	**0**	**0**	**0**	**1**	**0**	**0**	**6**	**2**	**5**
PHF	**0.63**				**0.50**				**0.25**				**0.81**			

PM PEAK HOUR 4:15 PM to 5:15 PM	Burgin Parkway Northbound				Burgin Parkway Southbound				Mayor Hannon Parkway Eastbound				Mayor Hannon Parkway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**4**	**3**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**2**
PHF	**0.88**				**0.25**				**0.00**				**1.00**			

Client:	Ana C. Fill
Project #:	78_003_VHB_Quincy
BTD #:	Location 8
Location:	Quincy, MA
Street 1:	Burgin Parkway
Street 2:	Mayor Hannon Parkway
Count Date:	6/1/2017
Day of Week:	Thursday
Weather:	Cloudy w/ some Sun

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PEDESTRIANS & BICYCLES

	Burgin Parkway Northbound					Burgin Parkway Southbound					Mayor Hannon Parkway Eastbound					Mayor Hannon Parkway Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:45 AM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
8:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:15 AM	0	0	0	0		0	0	0	1		0	0	0	0		0	0	0	0	
8:30 AM	0	0	0	1		0	0	0	0		0	0	0	1		0	0	0	0	
8:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

	Burgin Parkway Northbound					Burgin Parkway Southbound					Mayor Hannon Parkway Eastbound					Mayor Hannon Parkway Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	1		0	0	0	0		0	0	0	1		0	0	0	0	
4:15 PM	0	0	0	2		0	0	0	0		0	0	0	0		0	0	0	0	
4:30 PM	0	1	0	0		0	0	0	1		0	0	0	1		0	0	0	0	
4:45 PM	0	0	0	1		0	1	0	0		0	0	0	0		0	0	0	0	
5:00 PM	0	0	0	3		0	0	1	1		0	0	0	3		0	0	0	0	
5:15 PM	0	0	0	0		0	0	0	0		0	0	0	2		0	0	0	0	
5:30 PM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
5:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1] 7:45 AM to 8:45 AM	Burgin Parkway Northbound					Burgin Parkway Southbound					Mayor Hannon Parkway Eastbound					Mayor Hannon Parkway Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	2		0	0	0	1		0	0	0	1		0	0	0	0	

PM PEAK HOUR[1] 4:30 PM to 5:30 PM	Burgin Parkway Northbound					Burgin Parkway Southbound					Mayor Hannon Parkway Eastbound					Mayor Hannon Parkway Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	1	0	4		0	1	1	2		0	0	0	6		0	0	0	0	

[1] *Peak hours corresponds to vehicular peak hours.*

April 2018 Count Data

66 Whitwell Street
east of Adams Street
City, State: Quincy, MA
Client: TetraTech / I. Prizant

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

186173 AA Volume
Site Code: 143-166451-17001

Start	EB				WB				Combined				04/12/18
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Thu
12:00	4		31		1		32		5		63		
12:15	6		39		0		48		6		87		
12:30	2		21		4		32		6		53		
12:45	4	16	35	126	3	8	30	142	7	24	65	268	
01:00	3		37		2		32		5		69		
01:15	3		38		0		33		3		71		
01:30	1		34		1		42		2		76		
01:45	0	7	34	143	2	5	47	154	2	12	81	297	
02:00	0		52		0		35		0		87		
02:15	2		44		2		33		4		77		
02:30	1		36		3		27		4		63		
02:45	0	3	54	186	1	6	37	132	1	9	91	318	
03:00	3		41		1		41		4		82		
03:15	0		53		1		45		1		98		
03:30	2		46		0		33		2		79		
03:45	1	6	52	192	2	4	27	146	3	10	79	338	
04:00	2		45		0		44		2		89		
04:15	1		57		4		37		5		94		
04:30	2		46		2		45		4		91		
04:45	1	6	78	226	4	10	29	155	5	16	107	381	
05:00	4		66		7		46		11		112		
05:15	10		49		10		43		20		92		
05:30	9		57		21		41		30		98		
05:45	6	29	44	216	9	47	47	177	15	76	91	393	
06:00	6		46		19		37		25		83		
06:15	9		45		34		35		43		80		
06:30	7		50		35		37		42		87		
06:45	21	43	49	190	34	122	35	144	55	165	84	334	
07:00	28		31		48		32		76		63		
07:15	32		27		56		29		88		56		
07:30	31		30		70		22		101		52		
07:45	41	132	27	115	59	233	20	103	100	365	47	218	
08:00	31		28		51		22		82		50		
08:15	43		23		46		25		89		48		
08:30	31		22		37		19		68		41		
08:45	31	136	14	87	34	168	15	81	65	304	29	168	
09:00	26		15		33		22		59		37		
09:15	26		17		36		18		62		35		
09:30	33		14		34		15		67		29		
09:45	27	112	12	58	25	128	9	64	52	240	21	122	
10:00	25		16		26		5		51		21		
10:15	30		11		32		14		62		25		
10:30	24		10		35		6		59		16		
10:45	28	107	11	48	20	113	6	31	48	220	17	79	
11:00	30		14		28		11		58		25		
11:15	30		11		36		10		66		21		
11:30	39		8		23		5		62		13		
11:45	29	128	3	36	27	114	1	27	56	242	4	63	
Total	725		1623		958		1356		1683		2979		
Percent	43.1%		54.5%		56.9%		45.5%						
Day Total		2348				2314				4662			
Peak	07:30	-	04:45	-	07:15	-	05:00	-	07:30	-	04:45	-	- -
Vol.	146	-	250	-	236	-	177	-	372	-	409	-	- -
P.H.F.	0.849		0.801		0.843		0.941		0.921		0.913		

66 Whitwell Street
east of Adams Street
City, State: Quincy, MA
Client: TetraTech / I. Prizant

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

186173 AA Class
Site Code: 143-166451-17001

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/12/18	0	16	0	0	0	0	0	0	0	0	0	0	0	16
01:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
04:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
05:00	0	23	5	1	0	0	0	0	0	0	0	0	0	29
06:00	0	37	4	2	0	0	0	0	0	0	0	0	0	43
07:00	0	100	24	1	5	0	0	1	1	0	0	0	0	132
08:00	1	108	19	1	6	0	1	0	0	0	0	0	0	136
09:00	0	82	23	3	4	0	0	0	0	0	0	0	0	112
10:00	1	79	22	1	4	0	0	0	0	0	0	0	0	107
11:00	1	99	21	1	4	2	0	0	0	0	0	0	0	128
12 PM	0	97	24	1	2	1	0	1	0	0	0	0	0	126
13:00	0	115	26	0	1	1	0	0	0	0	0	0	0	143
14:00	0	147	26	2	9	2	0	0	0	0	0	0	0	186
15:00	2	147	36	1	6	0	0	0	0	0	0	0	0	192
16:00	0	174	42	3	6	1	0	0	0	0	0	0	0	226
17:00	0	180	29	2	4	1	0	0	0	0	0	0	0	216
18:00	0	157	27	1	4	1	0	0	0	0	0	0	0	190
19:00	0	90	19	1	5	0	0	0	0	0	0	0	0	115
20:00	1	73	11	0	2	0	0	0	0	0	0	0	0	87
21:00	0	50	8	0	0	0	0	0	0	0	0	0	0	58
22:00	0	41	6	0	1	0	0	0	0	0	0	0	0	48
23:00	0	33	3	0	0	0	0	0	0	0	0	0	0	36
Total	6	1866	379	21	63	9	1	2	1	0	0	0	0	2348
Percent	0.3%	79.5%	16.1%	0.9%	2.7%	0.4%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	07:00	09:00	08:00	11:00	08:00	07:00	07:00					08:00
Vol.	1	108	24	3	6	2	1	1	1					136
PM Peak	15:00	17:00	16:00	16:00	14:00	14:00		12:00						16:00
Vol.	2	180	42	3	9	2		1						226

66 Whitwell Street
east of Adams Street
City, State: Quincy, MA
Client: TetraTech / I. Prizant

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Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

186173 AA Class
Site Code: 143-166451-17001

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/12/18	0	4	4	0	0	0	0	0	0	0	0	0	0	8
01:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
02:00	0	3	2	0	1	0	0	0	0	0	0	0	0	6
03:00	0	2	1	0	1	0	0	0	0	0	0	0	0	4
04:00	0	5	2	0	3	0	0	0	0	0	0	0	0	10
05:00	0	21	12	0	14	0	0	0	0	0	0	0	0	47
06:00	0	75	30	0	17	0	0	0	0	0	0	0	0	122
07:00	0	140	70	2	20	0	0	0	1	0	0	0	0	233
08:00	0	110	47	1	9	1	0	0	0	0	0	0	0	168
09:00	0	86	29	1	12	0	0	0	0	0	0	0	0	128
10:00	1	59	39	1	12	1	0	0	0	0	0	0	0	113
11:00	0	66	32	1	14	0	0	1	0	0	0	0	0	114
12 PM	0	93	40	1	7	0	0	1	0	0	0	0	0	142
13:00	0	98	38	2	15	0	0	1	0	0	0	0	0	154
14:00	0	84	33	0	15	0	0	0	0	0	0	0	0	132
15:00	1	90	41	1	11	2	0	0	0	0	0	0	0	146
16:00	0	95	52	1	7	0	0	0	0	0	0	0	0	155
17:00	1	117	54	1	4	0	0	0	0	0	0	0	0	177
18:00	1	86	47	2	8	0	0	0	0	0	0	0	0	144
19:00	1	71	27	1	3	0	0	0	0	0	0	0	0	103
20:00	0	50	23	1	7	0	0	0	0	0	0	0	0	81
21:00	0	35	26	0	3	0	0	0	0	0	0	0	0	64
22:00	0	24	6	0	1	0	0	0	0	0	0	0	0	31
23:00	0	16	11	0	0	0	0	0	0	0	0	0	0	27
Total	5	1433	668	16	184	4	0	3	1	0	0	0	0	2314
Percent	0.2%	61.9%	28.9%	0.7%	8.0%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	07:00	07:00	08:00		11:00	07:00					07:00
Vol.	1	140	70	2	20	1		1	1					233
PM Peak	15:00	17:00	17:00	13:00	13:00	15:00		12:00						17:00
Vol.	1	117	54	2	15	2		1						177

66 Whitwell Street
east of Adams Street
City, State: Quincy, MA
Client: TetraTech / I. Prizant

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Email: datarequests@pdillc.com

186173 AA Speed
Site Code: 143-166451-17001

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
04/12/ 18	0	0	0	5	6	5	0	0	0	0	0	0	0	16	36	32
01:00	0	0	0	1	3	3	0	0	0	0	0	0	0	7	37	33
02:00	0	0	0	1	2	0	0	0	0	0	0	0	0	3	32	30
03:00	0	0	0	0	3	2	1	0	0	0	0	0	0	6	39	35
04:00	0	0	0	0	4	2	0	0	0	0	0	0	0	6	36	34
05:00	0	0	0	6	9	11	3	0	0	0	0	0	0	29	38	34
06:00	0	0	1	11	18	10	2	**1**	0	0	0	0	0	43	37	32
07:00	0	0	0	18	63	**41**	**9**	1	0	0	0	0	0	132	37	34
08:00	0	**4**	1	17	70	39	5	0	0	0	0	0	0	**136**	37	33
09:00	0	0	1	18	49	35	7	1	**1**	0	0	0	0	112	37	34
10:00	0	0	2	**24**	53	26	2	0	0	0	0	0	0	107	36	32
11:00	0	0	**3**	22	**71**	27	4	1	0	0	0	0	0	128	36	32
12 PM	0	3	3	38	63	16	3	0	0	0	0	0	0	126	34	31
13:00	**1**	0	5	24	77	30	4	**2**	0	0	0	0	0	143	36	32
14:00	0	0	1	25	98	56	5	1	0	0	0	0	0	186	37	33
15:00	0	0	6	39	90	45	**9**	2	**1**	0	0	0	0	192	37	33
16:00	0	**6**	1	38	**117**	**57**	6	1	0	0	0	0	0	**226**	36	32
17:00	0	1	**11**	**49**	95	53	7	0	0	0	0	0	0	216	36	32
18:00	0	1	2	32	96	54	5	0	0	0	0	0	0	190	36	33
19:00	0	0	4	23	48	35	5	0	0	0	0	0	0	115	37	33
20:00	0	0	1	12	43	24	7	0	0	0	0	0	0	87	37	33
21:00	0	0	2	11	24	16	5	0	0	0	0	0	0	58	37	33
22:00	0	0	1	11	24	9	3	0	0	0	0	0	0	48	36	32
23:00	0	0	0	8	21	6	1	0	0	0	0	0	0	36	35	32
Total	1	15	45	433	1147	602	93	10	2	0	0	0	0	2348		
%	0.0%	0.6%	1.9%	18.4%	48.9%	25.6%	4.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak		08:00	11:00	10:00	11:00	07:00	07:00	06:00	09:00					08:00		
Vol.		4	3	24	71	41	9	1	1					136		
PM Peak	13:00	16:00	17:00	17:00	16:00	16:00	15:00	13:00	15:00					16:00		
Vol.	1	6	11	49	117	57	9	2	1					226		

Stats

15th Percentile :	27 MPH
50th Percentile :	31 MPH
85th Percentile :	36 MPH
95th Percentile :	38 MPH
Mean Speed(Average) :	33 MPH
10 MPH Pace Speed :	30-39 MPH
Number in Pace :	1749
Percent in Pace :	74.5%
Number of Vehicles > 30 MPH :	1625
Percent of Vehicles > 30 MPH :	69.2%

66 Whitwell Street
east of Adams Street
City, State: Quincy, MA
Client: TetraTech / I. Prizant

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

186173 AA Speed
Site Code: 143-166451-17001

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
04/12/ 18	0	0	0	0	2	4	2	0	0	0	0	0	0	8	41	37
01:00	0	0	1	0	2	1	0	0	1	0	0	0	0	5	50	35
02:00	0	0	0	0	1	4	0	1	0	0	0	0	0	6	44	38
03:00	0	0	1	0	1	0	0	2	0	0	0	0	0	4	47	37
04:00	0	0	0	1	1	4	4	0	0	0	0	0	0	10	42	38
05:00	0	0	0	1	11	20	12	3	0	0	0	0	0	47	42	38
06:00	0	0	0	5	30	47	27	**11**	**2**	0	0	0	0	122	43	38
07:00	0	0	0	**12**	**47**	**95**	**68**	10	1	0	0	0	0	**233**	42	37
08:00	**1**	0	**3**	7	34	87	28	7	1	0	0	0	0	168	40	36
09:00	0	0	0	6	31	52	31	7	1	0	0	0	0	128	42	37
10:00	0	0	0	10	36	42	20	4	1	0	0	0	0	113	41	36
11:00	0	0	0	12	41	43	13	4	1	0	0	0	0	114	39	35
12 PM	0	0	0	5	**70**	55	9	2	**1**	0	0	0	0	142	38	35
13:00	0	0	1	**17**	41	66	24	**5**	0	0	0	0	0	154	40	36
14:00	0	0	**3**	7	41	60	16	4	1	0	0	0	0	132	39	36
15:00	0	0	0	2	48	70	22	3	1	0	0	0	0	146	39	36
16:00	0	0	3	11	48	68	22	3	0	0	0	0	0	155	39	35
17:00	0	**1**	0	7	52	**84**	**27**	5	1	0	0	0	0	**177**	40	36
18:00	0	0	2	16	57	58	10	0	0	0	0	**1**	0	144	38	34
19:00	0	0	0	11	32	43	12	5	0	0	0	0	0	103	39	35
20:00	0	0	1	2	28	35	14	1	0	0	0	0	0	81	40	36
21:00	0	0	1	6	15	27	11	4	0	0	0	0	0	64	41	36
22:00	0	0	1	3	9	11	5	2	0	0	0	0	0	31	41	36
23:00	0	0	1	2	7	9	6	2	0	0	0	0	0	27	42	36
Total	1	1	18	143	685	985	383	85	12	0	0	1	0	2314		
%	0.0%	0.0%	0.8%	6.2%	29.6%	42.6%	16.6%	3.7%	0.5%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00		08:00	07:00	07:00	07:00	07:00	06:00	06:00					07:00		
Vol.	1		3	12	47	95	68	11	2					233		
PM Peak		17:00	14:00	13:00	12:00	17:00	17:00	13:00	12:00			18:00		17:00		
Vol.		1	3	17	70	84	27	5	1			1		177		

Stats

15th Percentile :	30 MPH
50th Percentile :	35 MPH
85th Percentile :	40 MPH
95th Percentile :	43 MPH
Mean Speed(Average) :	36 MPH
10 MPH Pace Speed :	30-39 MPH
Number in Pace :	1670
Percent in Pace :	72.2%
Number of Vehicles > 30 MPH :	2014
Percent of Vehicles > 30 MPH :	87.0%

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
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Northerly Site Driveway
north of Whitwell Street
City, State: Quincy, MA
Client: Tetratech/ I. Prizant

186173 b volume
Site Code: 43-166451-17001

Start	SB				NB				Combined				4/3/2018
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	1		1		2		2		3		3		
12:15	1		3		0		2		1		5		
12:30	0		0		0		2		0		2		
12:45	0	2	3	7	1	3	2	8	1	5	5	15	
01:00	0		1		1		2		1		3		
01:15	1		1		0		3		1		4		
01:30	0		3		0		4		0		7		
01:45	1	2	2	7	0	1	0	9	1	3	2	16	
02:00	1		1		1		1		2		2		
02:15	0		0		1		2		1		2		
02:30	0		2		0		3		0		5		
02:45	0	1	2	5	1	3	8	14	1	4	10	19	
03:00	0		5		1		3		1		8		
03:15	0		4		0		1		0		5		
03:30	0		2		0		1		0		3		
03:45	1	1	0	11	0	1	2	7	1	2	2	18	
04:00	0		2		1		2		1		4		
04:15	0		1		0		3		0		4		
04:30	0		1		0		1		0		2		
04:45	0	0	1	5	0	1	1	7	0	1	2	12	
05:00	0		1		0		2		0		3		
05:15	4		1		1		2		5		3		
05:30	0		1		2		1		2		2		
05:45	0	4	0	3	0	3	2	7	0	7	2	10	
06:00	0		1		0		2		0		3		
06:15	1		0		1		0		2		0		
06:30	0		1		4		2		4		3		
06:45	2	3	1	3	8	13	2	6	10	16	3	9	
07:00	3		2		4		3		7		5		
07:15	4		4		4		0		8		4		
07:30	0		0		1		2		1		2		
07:45	1	8	1	7	2	11	0	5	3	19	1	12	
08:00	0		1		0		0		0		1		
08:15	1		0		3		3		4		3		
08:30	0		4		0		0		0		4		
08:45	2	3	1	6	1	4	1	4	3	7	2	10	
09:00	2		0		0		1		2		1		
09:15	0		0		2		1		2		1		
09:30	0		1		2		2		2		3		
09:45	0	2	0	1	3	7	0	4	3	9	0	5	
10:00	1		0		1		2		2		2		
10:15	2		0		3		0		5		0		
10:30	0		2		3		1		3		3		
10:45	1	4	0	2	0	7	3	6	1	11	3	8	
11:00	0		2		1		1		1		3		
11:15	1		2		2		0		3		2		
11:30	3		1		2		1		5		2		
11:45	0	4	2	7	1	6	2	4	1	10	4	11	
Total	34		64		60		81		94		145		
Percent	36.2%		44.1%		63.8%		55.9%						
Day Total		98				141				239			
Peak	06:30	-	02:30	-	06:30	-	02:15	-	06:30	-	02:30	-	- -
Vol.	9	-	13	-	20	-	16	-	29	-	28	-	- -
P.H.F.	0.563		0.650		0.625		0.500		0.725		0.700		

PRECISION DATA INDUSTRIES, LLC
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Ambulance Entrance
north of Whitwell Street
City, State: Quincy, MA
Client: Tetratech/ I. Prizant

186173 C CLASS
Site Code: 43-166451-17001

SB

Start Time	Cars	Medium Heavy	Large Heavy											Total
04/03/1														
8	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
09:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
10:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2
11:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2
12 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	1	1	0	0	0	0	0	0	0	0	0	0	0	2
15:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	1	2	0	0	0	0	0	0	0	0	0	0	0	3
20:00	3	0	0	0	0	0	0	0	0	0	0	0	0	3
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
22:00	1	1	0	0	0	0	0	0	0	0	0	0	0	2
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	14	14	0	0	0	0	0	0	0	0	0	0	0	28
Percent	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	02:00												02:00
Vol.	2	3												3
PM Peak	20:00	19:00												19:00
Vol.	3	2												3

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Ambulance Entrance
north of Whitwell Street
City, State: Quincy, MA
Client: Tetratech/ I. Prizant
NB

186173 C CLASS
Site Code: 43-166451-17001

Start Time	Cars	Medium Heavy	Large Heavy											Total
04/03/1														
8	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00	1	2	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
09:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2
10:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	1	1	0	0	0	0	0	0	0	0	0	0	0	2
15:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
16:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
19:00	3	2	0	0	0	0	0	0	0	0	0	0	0	5
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
22:00	1	1	0	0	0	0	0	0	0	0	0	0	0	2
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	11	17	0	0	0	0	0	0	0	0	0	0	0	28
Percent	39.3%	60.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	01:00												01:00
Vol.	2	2												3
PM Peak	19:00	16:00												19:00
Vol.	3	2												5

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
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Ambulance Entrance
north of Whitwell Street
City, State: Quincy, MA
Client: Tetratech/ I. Prizant

186173 C Volume
Site Code: 43-166451-17001

Start	SB				NB				Combined				4/3/2018
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	0		0		1		0		1		0		
12:15	1		0		0		1		1		1		
12:30	0		0		0		0		0		0		
12:45	0	1	1	1	0	1	0	1	0	2	1	2	
01:00	0		0		0		0		0		0		
01:15	0		0		0		0		0		0		
01:30	1		0		3		0		4		0		
01:45	0	1	0	0	0	3	0	0	0	4	0	0	
02:00	2		0		0		1		2		1		
02:15	0		1		0		1		0		2		
02:30	1		0		1		0		2		0		
02:45	0	3	1	2	0	1	0	2	0	4	1	4	
03:00	0		0		0		0		0		0		
03:15	0		0		0		1		0		1		
03:30	0		1		0		0		0		1		
03:45	0	0	0	1	1	1	0	1	1	1	0	2	
04:00	0		0		1		0		1		0		
04:15	2		0		0		0		2		0		
04:30	0		0		0		0		0		0		
04:45	0	2	0	0	0	1	2	2	0	3	2	2	
05:00	0		2		0		0		0		2		
05:15	0		0		0		0		0		0		
05:30	0		0		0		0		0		0		
05:45	0	0	0	2	0	0	0	0	0	0	0	2	
06:00	0		0		0		0		0		0		
06:15	0		0		0		0		0		0		
06:30	0		0		0		0		0		0		
06:45	0	0	0	0	0	0	1	1	0	0	1	1	
07:00	0		0		0		0		0		0		
07:15	0		1		0		1		0		2		
07:30	0		0		0		4		0		4		
07:45	0	0	2	3	0	0	0	5	0	0	2	8	
08:00	1		3		1		0		2		3		
08:15	0		0		0		0		0		0		
08:30	0		0		0		0		0		0		
08:45	0	1	0	3	1	2	0	0	1	3	0	3	
09:00	1		0		0		1		1		1		
09:15	0		0		0		0		0		0		
09:30	0		1		1		0		1		1		
09:45	0	1	0	1	1	2	0	1	1	3	0	2	
10:00	0		1		0		1		0		2		
10:15	2		0		0		1		2		1		
10:30	0		0		0		0		0		0		
10:45	0	2	1	2	2	2	0	2	2	4	1	4	
11:00	0		0		0		0		0		0		
11:15	2		0		0		0		2		0		
11:30	0		0		0		0		0		0		
11:45	0	2	0	0	0	0	0	0	0	2	0	0	
Total	13		15		13		15		26		30		
Percent	50.0%		50.0%		50.0%		50.0%						
Day Total		28				28				56			
Peak	01:15	-	07:15	-	00:45	-	06:45	-	01:15	-	07:15	-	- -
Vol.	3	-	6	-	3	-	6	-	6	-	11	-	- -
P.H.F.	0.375		0.500		0.250		0.375		0.375		0.688		

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Site Driveway
north of Whitwell Street
City, State: Quincy, MA
Client: Tetratech/ I. Prizant
SB

186173 D Class
Site Code: 43-166451-17001

Start Time	Cars	Medium Heavy	Large Heavy											Total
04/03/1														
8	2	0	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
06:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:00	3	2	0	0	0	0	0	0	0	0	0	0	0	5
08:00	3	0	0	0	0	0	0	0	0	0	0	0	0	3
09:00	7	2	0	0	0	0	0	0	0	0	0	0	0	9
10:00	2	1	0	0	0	0	0	0	0	0	0	0	0	3
11:00	5	0	1	0	0	0	0	0	0	0	0	0	0	6
12 PM	3	1	0	0	0	0	0	0	0	0	0	0	0	4
13:00	3	1	0	0	0	0	0	0	0	0	0	0	0	4
14:00	6	2	0	0	0	0	0	0	0	0	0	0	0	8
15:00	4	1	0	0	0	0	0	0	0	0	0	0	0	5
16:00	2	2	0	0	0	0	0	0	0	0	0	0	0	4
17:00	5	0	0	0	0	0	0	0	0	0	0	0	0	5
18:00	3	2	0	0	0	0	0	0	0	0	0	0	0	5
19:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
20:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2
21:00	6	0	0	0	0	0	0	0	0	0	0	0	0	6
22:00	3	0	0	0	0	0	0	0	0	0	0	0	0	3
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	65	14	1	0	0	0	0	0	0	0	0	0	0	80
Percent	81.3%	17.5%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	07:00	11:00											09:00
Vol.	7	2	1											9
PM Peak	14:00	14:00												14:00
Vol.	6	2												8

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
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Site Driveway
north of Whitwell Street
City, State: Quincy, MA
Client: Tetratech/ I. Prizant
NB

186173 D Class
Site Code: 43-166451-17001

Start Time	Cars	Medium Heavy	Large Heavy											Total
04/03/1														
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
06:00	4	0	1	0	0	0	0	0	0	0	0	0	0	5
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	3	0	0	0	0	0	0	0	0	0	0	0	0	3
09:00	2	1	0	0	0	0	0	0	0	0	0	0	0	3
10:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2
11:00	2	1	0	0	0	0	0	0	0	0	0	0	0	3
12 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	1
13:00	4	0	0	0	0	0	0	0	0	0	0	0	0	4
14:00	4	0	0	0	0	0	0	0	0	0	0	0	0	4
15:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
18:00	3	1	0	0	0	0	0	0	0	0	0	0	0	4
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
21:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	33	3	1	0	0	0	0	0	0	0	0	0	0	37
Percent	89.2%	8.1%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	09:00	06:00											06:00
Vol.	4	1	1											5
PM Peak	13:00	18:00												13:00
Vol.	4	1												4

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Site Driveway
north of Whitwell Street
City, State: Quincy, MA
Client: Tetratech/ I. Prizant

186173 D Volume
Site Code: 43-166451-17001

Start	SB				NB				Combined				4/3/2018
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	0		3		0		0		0		3		
12:15	1		0		0		0		1		0		
12:30	1		0		0		0		1		0		
12:45	0	2	1	4	0	0	1	1	0	2	2	5	
01:00	0		1		0		1		0		2		
01:15	0		1		0		2		0		3		
01:30	0		1		0		0		0		1		
01:45	0	0	1	4	0	0	1	4	0	0	2	8	
02:00	0		2		1		1		1		3		
02:15	1		1		0		1		1		2		
02:30	0		3		0		0		0		3		
02:45	0	1	2	8	0	1	2	4	0	2	4	12	
03:00	0		1		0		0		0		1		
03:15	1		0		0		1		1		1		
03:30	0		3		0		1		0		4		
03:45	0	1	1	5	0	0	0	2	0	1	1	7	
04:00	0		2		0		0		0		2		
04:15	0		1		0		0		0		1		
04:30	0		1		0		0		0		1		
04:45	0	0	0	4	0	0	0	0	0	0	0	4	
05:00	0		1		0		1		0		2		
05:15	0		1		1		0		1		1		
05:30	1		2		0		0		1		2		
05:45	0	1	1	5	0	1	0	1	0	2	1	6	
06:00	0		3		0		3		0		6		
06:15	0		1		2		0		2		1		
06:30	1		1		0		0		1		1		
06:45	1	2	0	5	3	5	1	4	4	7	1	9	
07:00	2		0		0		0		2		0		
07:15	2		0		0		0		2		0		
07:30	1		1		0		0		1		1		
07:45	0	5	0	1	0	0	0	0	0	5	0	1	
08:00	1		0		0		0		1		0		
08:15	1		1		1		0		2		1		
08:30	0		1		0		0		0		1		
08:45	1	3	0	2	2	3	1	1	3	6	1	3	
09:00	1		0		1		0		2		0		
09:15	2		3		0		1		2		4		
09:30	3		2		2		1		5		3		
09:45	3	9	1	6	0	3	0	2	3	12	1	8	
10:00	3		2		1		0		4		2		
10:15	0		0		0		0		0		0		
10:30	0		0		0		0		0		0		
10:45	0	3	1	3	1	2	0	0	1	5	1	3	
11:00	1		0		0		0		1		0		
11:15	2		0		0		0		2		0		
11:30	3		0		2		0		5		0		
11:45	0	6	0	0	1	3	0	0	1	9	0	0	
Total	33		47		18		19		51		66		
Percent	64.7%		71.2%		35.3%		28.8%						
Day Total		80				37				117			
Peak	09:15	-	02:00	-	06:00	-	00:30	-	09:15	-	02:00	-	- -
Vol.	11	-	8	-	5	-	4	-	14	-	12	-	- -
P.H.F.	0.917		0.667		0.417		0.500		0.700		0.750		

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	1	1	0	0	2	0	74	9	0	83	10	0	32	0	42	22	45	0	0	67	194
7:15 AM	0	1	0	0	1	0	68	4	0	72	6	1	53	0	60	25	62	0	0	87	220
7:30 AM	0	0	0	0	0	0	109	5	0	114	11	0	42	0	53	33	132	0	0	165	332
7:45 AM	1	0	0	0	1	0	120	8	0	128	13	0	57	0	70	34	111	0	0	145	344
Total	2	2	0	0	4	0	371	26	0	397	40	1	184	0	225	114	350	0	0	464	1090
8:00 AM	0	2	0	0	2	1	91	8	0	100	17	1	56	0	74	30	88	0	0	118	294
8:15 AM	2	0	0	0	2	0	92	9	0	101	12	0	38	0	50	18	97	0	0	115	268
8:30 AM	2	1	0	0	3	0	77	3	0	80	10	0	33	0	43	11	79	0	0	90	216
8:45 AM	2	0	0	0	2	0	68	8	0	76	11	1	31	0	43	26	79	0	0	105	226
Total	6	3	0	0	9	1	328	28	0	357	50	2	158	0	210	85	343	0	0	428	1004
Grand Total	8	5	0	0	13	1	699	54	0	754	90	3	342	0	435	199	693	0	0	892	2094
Approach %	61.5	38.5	0.0	0.0		0.1	92.7	7.2	0.0		20.7	0.7	78.6	0.0		22.3	77.7	0.0	0.0		
Total %	0.4	0.2	0.0	0.0	0.6	0.0	33.4	2.6	0.0	36.0	4.3	0.1	16.3	0.0	20.8	9.5	33.1	0.0	0.0	42.6	
Exiting Leg Total					4					783					258					1049	2094
Cars	8	5	0	0	13	1	684	51	0	736	86	3	337	0	426	197	678	0	0	875	2050
% Cars	100.0	100.0	0.0	0.0	100.0	100.0	97.9	94.4	0.0	97.6	95.6	100.0	98.5	0.0	97.9	99.0	97.8	0.0	0.0	98.1	97.9
Exiting Leg Total					4					764					253					1029	2050
Heavy Vehicles	0	0	0	0	0	0	15	3	0	18	4	0	5	0	9	2	15	0	0	17	44
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	2.1	5.6	0.0	2.4	4.4	0.0	1.5	0.0	2.1	1.0	2.2	0.0	0.0	1.9	2.1
Exiting Leg Total					0					19					5					20	44

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	109	5	0	114	11	0	42	0	53	33	132	0	0	165	332
7:45 AM	1	0	0	0	1	0	120	8	0	128	13	0	57	0	70	34	111	0	0	145	344
8:00 AM	0	2	0	0	2	1	91	8	0	100	17	1	56	0	74	30	88	0	0	118	294
8:15 AM	2	0	0	0	2	0	92	9	0	101	12	0	38	0	50	18	97	0	0	115	268
Total Volume	3	2	0	0	5	1	412	30	0	443	53	1	193	0	247	115	428	0	0	543	1238
% Approach Total	60.0	40.0	0.0	0.0		0.2	93.0	6.8	0.0		21.5	0.4	78.1	0.0		21.2	78.8	0.0	0.0		
PHF	0.375	0.250	0.000	0.000	0.625	0.250	0.858	0.833	0.000	0.865	0.779	0.250	0.846	0.000	0.834	0.846	0.811	0.000	0.000	0.823	0.900
Cars	3	2	0	0	5	1	405	28	0	434	51	1	190	0	242	114	419	0	0	533	1214
Cars %	100.0	100.0	0.0	0.0	100.0	100.0	98.3	93.3	0.0	98.0	96.2	100.0	98.4	0.0	98.0	99.1	97.9	0.0	0.0	98.2	98.1
Heavy Vehicles	0	0	0	0	0	0	7	2	0	9	2	0	3	0	5	1	9	0	0	10	24
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.7	6.7	0.0	2.0	3.8	0.0	1.6	0.0	2.0	0.9	2.1	0.0	0.0	1.8	1.9
Cars Enter Leg	3	2	0	0	5	1	405	28	0	434	51	1	190	0	242	114	419	0	0	533	1214
Heavy Enter Leg	0	0	0	0	0	0	7	2	0	9	2	0	3	0	5	1	9	0	0	10	24
Total Entering Leg	3	2	0	0	5	1	412	30	0	443	53	1	193	0	247	115	428	0	0	543	1238
Cars Exiting Leg					2					470					144					598	1214
Heavy Exiting Leg					0					11					3					10	24
Total Exiting Leg					2					481					147					608	1238

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	1	1	0	0	2	0	70	9	0	79	8	0	31	0	39	21	43	0	0	64	184
7:15 AM	0	1	0	0	1	0	65	3	0	68	6	1	53	0	60	25	62	0	0	87	216
7:30 AM	0	0	0	0	0	0	107	5	0	112	11	0	41	0	52	32	132	0	0	164	328
7:45 AM	1	0	0	0	1	0	119	8	0	127	13	0	57	0	70	34	107	0	0	141	339
Total	2	2	0	0	4	0	361	25	0	386	38	1	182	0	221	112	344	0	0	456	1067
8:00 AM	0	2	0	0	2	1	88	7	0	96	16	1	56	0	73	30	86	0	0	116	287
8:15 AM	2	0	0	0	2	0	91	8	0	99	11	0	36	0	47	18	94	0	0	112	260
8:30 AM	2	1	0	0	3	0	76	3	0	79	10	0	32	0	42	11	77	0	0	88	212
8:45 AM	2	0	0	0	2	0	68	8	0	76	11	1	31	0	43	26	77	0	0	103	224
Total	6	3	0	0	9	1	323	26	0	350	48	2	155	0	205	85	334	0	0	419	983
Grand Total	8	5	0	0	13	1	684	51	0	736	86	3	337	0	426	197	678	0	0	875	2050
Approach %	61.5	38.5	0.0	0.0		0.1	92.9	6.9	0.0		20.2	0.7	79.1	0.0		22.5	77.5	0.0	0.0		
Total %	0.4	0.2	0.0	0.0	0.6	0.0	33.4	2.5	0.0	35.9	4.2	0.1	16.4	0.0	20.8	9.6	33.1	0.0	0.0	42.7	
Exiting Leg Total					4					764					253					1029	2050

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	107	5	0	112	11	0	41	0	52	32	132	0	0	164	328
7:45 AM	1	0	0	0	1	0	119	8	0	127	13	0	57	0	70	34	107	0	0	141	339
8:00 AM	0	2	0	0	2	1	88	7	0	96	16	1	56	0	73	30	86	0	0	116	287
8:15 AM	2	0	0	0	2	0	91	8	0	99	11	0	36	0	47	18	94	0	0	112	260
Total Volume	3	2	0	0	5	1	405	28	0	434	51	1	190	0	242	114	419	0	0	533	1214
% Approach Total	60.0	40.0	0.0	0.0		0.2	93.3	6.5	0.0		21.1	0.4	78.5	0.0		21.4	78.6	0.0	0.0		
PHF	0.375	0.250	0.000	0.000	0.625	0.250	0.851	0.875	0.000	0.854	0.797	0.250	0.833	0.000	0.829	0.838	0.794	0.000	0.000	0.813	0.895
Entering Leg	3	2	0	0	5	1	405	28	0	434	51	1	190	0	242	114	419	0	0	533	1214
Exiting Leg					2					470					144					598	1214
Total					7					904					386					1131	2428

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	4	0	0	4	2	0	1	0	3	1	2	0	0	3	10
7:15 AM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	4
7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	1	0	0	0	1	4
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	5
Total	0	0	0	0	0	0	10	1	0	11	2	0	2	0	4	2	6	0	0	8	23
8:00 AM	0	0	0	0	0	0	3	1	0	4	1	0	0	0	1	0	2	0	0	2	7
8:15 AM	0	0	0	0	0	0	1	1	0	2	1	0	2	0	3	0	3	0	0	3	8
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	2	0	0	2	4
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Total	0	0	0	0	0	0	5	2	0	7	2	0	3	0	5	0	9	0	0	9	21
Grand Total	0	0	0	0	0	0	15	3	0	18	4	0	5	0	9	2	15	0	0	17	44
Approach %	0.0	0.0	0.0	0.0		0.0	83.3	16.7	0.0		44.4	0.0	55.6	0.0		11.8	88.2	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	34.1	6.8	0.0	40.9	9.1	0.0	11.4	0.0	20.5	4.5	34.1	0.0	0.0	38.6	
Exiting Leg Total					0					19					5					20	44
Buses	0	0	0	0	0	0	9	2	0	11	4	0	0	0	4	0	3	0	0	3	18
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	60.0	66.7	0.0	61.1	100.0	0.0	0.0	0.0	44.4	0.0	20.0	0.0	0.0	17.6	40.9
Exiting Leg Total					0					7					2					9	18
Single-Unit Trucks	0	0	0	0	0	0	5	1	0	6	0	0	4	0	4	2	10	0	0	12	22
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	33.3	33.3	0.0	33.3	0.0	0.0	80.0	0.0	44.4	100.0	66.7	0.0	0.0	70.6	50.0
Exiting Leg Total					0					10					3					9	22
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	2	0	0	2	4
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0	5.6	0.0	0.0	20.0	0.0	11.1	0.0	13.3	0.0	0.0	11.8	9.1
Exiting Leg Total					0					2					0					2	4

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	1	0	0	0	1	4
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	5
8:00 AM	0	0	0	0	0	0	3	1	0	4	1	0	0	0	1	0	2	0	0	2	7
8:15 AM	0	0	0	0	0	0	1	1	0	2	1	0	2	0	3	0	3	0	0	3	8
Total Volume	0	0	0	0	0	0	7	2	0	9	2	0	3	0	5	1	9	0	0	10	24
% Approach Total	0.0	0.0	0.0	0.0		0.0	77.8	22.2	0.0		40.0	0.0	60.0	0.0		10.0	90.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.583	0.500	0.000	0.563	0.500	0.000	0.375	0.000	0.417	0.250	0.563	0.000	0.000	0.625	0.750
Buses	0	0	0	0	0	0	3	1	0	4	2	0	0	0	2	0	3	0	0	3	9
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	42.9	50.0	0.0	44.4	100.0	0.0	0.0	0.0	40.0	0.0	33.3	0.0	0.0	30.0	37.5
Single-Unit Trucks	0	0	0	0	0	0	3	1	0	4	0	0	2	0	2	1	6	0	0	7	13
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	42.9	50.0	0.0	44.4	0.0	0.0	66.7	0.0	40.0	100.0	66.7	0.0	0.0	70.0	54.2
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	2
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	11.1	0.0	0.0	33.3	0.0	20.0	0.0	0.0	0.0	0.0	0.0	8.3
Buses	0	0	0	0	0	0	3	1	0	4	2	0	0	0	2	0	3	0	0	3	9
Single-Unit Trucks	0	0	0	0	0	0	3	1	0	4	0	0	2	0	2	1	6	0	0	7	13
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	2
Total Entering Leg	0	0	0	0	0	0	7	2	0	9	2	0	3	0	5	1	9	0	0	10	24
Buses					0					5					1					3	9
Single-Unit Trucks					0					6					2					5	13
Articulated Trucks					0					0					0					2	2
Total Exiting Leg					0					11					3					10	24

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Grenwold Road from North					Adams Street from East					Whitwell Street from South					Adams Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	1	1	0	0	2	0	65	9	0	74	8	0	29	0	37	19	38	0	0	57	170
7:15 AM	0	1	0	0	1	0	62	3	0	65	6	0	49	0	55	24	60	0	0	84	205
7:30 AM	0	0	0	0	0	0	100	5	0	105	11	0	37	0	48	27	121	0	0	148	301
7:45 AM	1	0	0	0	1	0	117	8	0	125	13	0	53	0	66	33	104	0	0	137	329
Total	2	2	0	0	4	0	344	25	0	369	38	0	168	0	206	103	323	0	0	426	1005
8:00 AM	0	2	0	0	2	1	86	6	0	93	16	1	53	0	70	29	82	0	0	111	276
8:15 AM	1	0	0	0	1	0	85	8	0	93	11	0	30	0	41	17	86	0	0	103	238
8:30 AM	2	1	0	0	3	0	68	3	0	71	10	0	30	0	40	11	71	0	0	82	196
8:45 AM	2	0	0	0	2	0	61	8	0	69	11	1	30	0	42	26	64	0	0	90	203
Total	5	3	0	0	8	1	300	25	0	326	48	2	143	0	193	83	303	0	0	386	913
Grand Total	7	5	0	0	12	1	644	50	0	695	86	2	311	0	399	186	626	0	0	812	1918
Approach %	58.3	41.7	0.0	0.0		0.1	92.7	7.2	0.0		21.6	0.5	77.9	0.0		22.9	77.1	0.0	0.0		
Total %	0.4	0.3	0.0	0.0	0.6	0.1	33.6	2.6	0.0	36.2	4.5	0.1	16.2	0.0	20.8	9.7	32.6	0.0	0.0	42.3	
Exiting Leg Total					3					712					241					962	1918

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Grenwold Road from North					Adams Street from East					Whitwell Street from South					Adams Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	100	5	0	105	11	0	37	0	48	27	121	0	0	148	301
7:45 AM	1	0	0	0	1	0	117	8	0	125	13	0	53	0	66	33	104	0	0	137	329
8:00 AM	0	2	0	0	2	1	86	6	0	93	16	1	53	0	70	29	82	0	0	111	276
8:15 AM	1	0	0	0	1	0	85	8	0	93	11	0	30	0	41	17	86	0	0	103	238
Total Volume	2	2	0	0	4	1	388	27	0	416	51	1	173	0	225	106	393	0	0	499	1144
% Approach Total	50.0	50.0	0.0	0.0		0.2	93.3	6.5	0.0		22.7	0.4	76.9	0.0		21.2	78.8	0.0	0.0		
PHF	0.500	0.250	0.000	0.000	0.500	0.250	0.829	0.844	0.000	0.832	0.797	0.250	0.816	0.000	0.804	0.803	0.812	0.000	0.000	0.843	0.869
Entering Leg	2	2	0	0	4	1	388	27	0	416	51	1	173	0	225	106	393	0	0	499	1144
Exiting Leg					2					444					135					563	1144
Total					6					860					360					1062	2288

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	5	0	0	5	0	0	2	0	2	2	5	0	0	7	14
7:15 AM	0	0	0	0	0	0	3	0	0	3	0	1	4	0	5	1	2	0	0	3	11
7:30 AM	0	0	0	0	0	0	7	0	0	7	0	0	4	0	4	5	10	0	0	15	26
7:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	4	0	4	1	3	0	0	4	10
Total	0	0	0	0	0	0	17	0	0	17	0	1	14	0	15	9	20	0	0	29	61
8:00 AM	0	0	0	0	0	0	2	1	0	3	0	0	3	0	3	1	4	0	0	5	11
8:15 AM	1	0	0	0	1	0	6	0	0	6	0	0	6	0	6	1	8	0	0	9	22
8:30 AM	0	0	0	0	0	0	8	0	0	8	0	0	2	0	2	0	6	0	0	6	16
8:45 AM	0	0	0	0	0	0	7	0	0	7	0	0	1	0	1	0	13	0	0	13	21
Total	1	0	0	0	1	0	23	1	0	24	0	0	12	0	12	2	31	0	0	33	70
Grand Total	1	0	0	0	1	0	40	1	0	41	0	1	26	0	27	11	51	0	0	62	131
Approach %	100.0	0.0	0.0	0.0		0.0	97.6	2.4	0.0		0.0	3.7	96.3	0.0		17.7	82.3	0.0	0.0		
Total %	0.8	0.0	0.0	0.0	0.8	0.0	30.5	0.8	0.0	31.3	0.0	0.8	19.8	0.0	20.6	8.4	38.9	0.0	0.0	47.3	
Exiting Leg Total					1					51					12					67	131

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	2	1	0	3	0	0	3	0	3	1	4	0	0	5	11
8:15 AM	1	0	0	0	1	0	6	0	0	6	0	0	6	0	6	1	8	0	0	9	22
8:30 AM	0	0	0	0	0	0	8	0	0	8	0	0	2	0	2	0	6	0	0	6	16
8:45 AM	0	0	0	0	0	0	7	0	0	7	0	0	1	0	1	0	13	0	0	13	21
Total Volume	1	0	0	0	1	0	23	1	0	24	0	0	12	0	12	2	31	0	0	33	70
% Approach Total	100.0	0.0	0.0	0.0		0.0	95.8	4.2	0.0		0.0	0.0	100.0	0.0		6.1	93.9	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.719	0.250	0.000	0.750	0.000	0.000	0.500	0.000	0.500	0.500	0.596	0.000	0.000	0.635	0.795
Entering Leg	1	0	0	0	1	0	23	1	0	24	0	0	12	0	12	2	31	0	0	33	70
Exiting Leg					0					31					3					36	70
Total					1					55					15					69	140

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	2	0	0	2	2	0	0	0	2	0	0	0	0	0	4
7:15 AM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	4
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
Total	0	0	0	0	0	0	6	1	0	7	2	0	0	0	2	0	2	0	0	2	11
8:00 AM	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	0	1	0	0	1	4
8:15 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	3	1	0	4	2	0	0	0	2	0	1	0	0	1	7
Grand Total	0	0	0	0	0	0	9	2	0	11	4	0	0	0	4	0	3	0	0	3	18
Approach %	0.0	0.0	0.0	0.0		0.0	81.8	18.2	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	50.0	11.1	0.0	61.1	22.2	0.0	0.0	0.0	22.2	0.0	16.7	0.0	0.0	16.7	
Exiting Leg Total					0					7					2					9	18

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	2	0	0	2	2	0	0	0	2	0	0	0	0	0	4
7:15 AM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	4
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
Total Volume	0	0	0	0	0	0	6	1	0	7	2	0	0	0	2	0	2	0	0	2	11
% Approach Total	0.0	0.0	0.0	0.0		0.0	85.7	14.3	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.000	0.438	0.250	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.250	0.688
Entering Leg	0	0	0	0	0	0	6	1	0	7	2	0	0	0	2	0	2	0	0	2	11
Exiting Leg					0					4					1					6	11
Total					0					11					3					8	22

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	1	1	0	0	2	5
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	1	0	0	0	1	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Total	0	0	0	0	0	0	3	0	0	3	0	0	2	0	2	2	3	0	0	5	10
8:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
8:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	3	0	0	3	5
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Total	0	0	0	0	0	0	2	1	0	3	0	0	2	0	2	0	7	0	0	7	12
Grand Total	0	0	0	0	0	0	5	1	0	6	0	0	4	0	4	2	10	0	0	12	22
Approach %	0.0	0.0	0.0	0.0		0.0	83.3	16.7	0.0		0.0	0.0	100.0	0.0		16.7	83.3	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	22.7	4.5	0.0	27.3	0.0	0.0	18.2	0.0	18.2	9.1	45.5	0.0	0.0	54.5	
Exiting Leg Total					0					10					3					9	22

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	1	0	0	0	1	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
8:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
8:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	3	0	0	3	5
Total Volume	0	0	0	0	0	0	3	1	0	4	0	0	2	0	2	1	6	0	0	7	13
% Approach Total	0.0	0.0	0.0	0.0		0.0	75.0	25.0	0.0		0.0	0.0	100.0	0.0		14.3	85.7	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.250	0.000	0.500	0.000	0.000	0.500	0.000	0.500	0.250	0.500	0.000	0.000	0.583	0.650
Entering Leg	0	0	0	0	0	0	3	1	0	4	0	0	2	0	2	1	6	0	0	7	13
Exiting Leg					0					6					2					5	13
Total					0					10					4					12	26

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	2
Grand Total	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	2	0	0	2	4
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	0.0	0.0	25.0	0.0	25.0	0.0	50.0	0.0	0.0	50.0	
Exiting Leg Total					0					2					0					2	4

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.500
Entering Leg	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Exiting Leg					0					1					0					1	2
Total					0					2					0					2	4

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Grenwold Road							Adams Street							Whitwell Street							Adams Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							0							0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Grenwold Road							Adams Street							Whitwell Street							Adams Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg							0							0							0							0	0
Total							0							0							0							0	0

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Grenwold Road from North							Adams Street from East							Whitwell Street from South							Adams Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	2	0	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	3
Total	0	0	0	0	4	1	5	0	0	0	0	1	0	1	0	0	0	0	0	3	3	0	0	0	0	0	0	0	9
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	1	1	2	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	4
8:30 AM	0	0	0	0	2	0	2	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	4
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	3	1	4	0	0	0	0	2	0	2	0	0	0	0	0	4	4	0	0	0	0	0	0	0	10
Grand Total	0	0	0	0	7	2	9	0	0	0	0	3	0	3	0	0	0	0	0	7	7	0	0	0	0	0	0	0	19
Approach %	0	0	0	0	77.8	22.2		0	0	0	0	100	0		0	0	0	0	0	100		0	0	0	0	0	0		
Total %	0	0	0	0	36.8	10.5	47.4	0	0	0	0	15.8	0	15.8	0	0	0	0	0	36.8	36.8	0	0	0	0	0	0	0	
Exiting Leg Total							9							3							7							0	19

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Grenwold Road from North							Adams Street from East							Whitwell Street from South							Adams Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:45 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	1	1	2	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	4
8:30 AM	0	0	0	0	2	0	2	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	4
Total Volume	0	0	0	0	4	1	5	0	0	0	0	2	0	2	0	0	0	0	0	5	5	0	0	0	0	0	0	0	12
% Approach Total	0.0	0.0	0.0	0.0	80.0	20.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.500	0.250	0.625	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.625	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	0	0	0	4	1	5	0	0	0	0	2	0	2	0	0	0	0	0	5	5	0	0	0	0	0	0	0	12
Exiting Leg							5							2							5							0	12
Total							10							4							10							0	24

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	60	13	0	73	7	1	37	0	45	43	60	1	0	104	222
4:15 PM	0	0	0	0	0	1	68	11	0	80	11	0	37	0	48	41	70	0	0	111	239
4:30 PM	1	0	0	0	1	0	61	14	0	75	7	1	46	1	55	37	65	2	0	104	235
4:45 PM	1	0	0	0	1	0	75	12	0	87	9	1	20	0	30	39	67	1	0	107	225
Total	2	0	0	0	2	1	264	50	0	315	34	3	140	1	178	160	262	4	0	426	921
5:00 PM	0	0	0	0	0	1	70	6	0	77	4	1	31	0	36	45	61	1	0	107	220
5:15 PM	0	0	0	0	0	0	76	10	0	86	8	0	41	0	49	45	75	0	0	120	255
5:30 PM	1	0	0	0	1	0	65	6	0	71	9	1	31	0	41	58	102	0	0	160	273
5:45 PM	2	1	0	0	3	1	81	12	0	94	12	1	25	0	38	50	73	0	0	123	258
Total	3	1	0	0	4	2	292	34	0	328	33	3	128	0	164	198	311	1	0	510	1006
Grand Total	5	1	0	0	6	3	556	84	0	643	67	6	268	1	342	358	573	5	0	936	1927
Approach %	83.3	16.7	0.0	0.0		0.5	86.5	13.1	0.0		19.6	1.8	78.4	0.3		38.2	61.2	0.5	0.0		
Total %	0.3	0.1	0.0	0.0	0.3	0.2	28.9	4.4	0.0	33.4	3.5	0.3	13.9	0.1	17.7	18.6	29.7	0.3	0.0	48.6	
Exiting Leg Total					14					640					444					829	1927
Cars	5	1	0	0	6	3	547	78	0	628	61	6	266	1	334	356	567	5	0	928	1896
% Cars	100.0	100.0	0.0	0.0	100.0	100.0	98.4	92.9	0.0	97.7	91.0	100.0	99.3	100.0	97.7	99.4	99.0	100.0	0.0	99.1	98.4
Exiting Leg Total					14					628					436					818	1896
Heavy Vehicles	0	0	0	0	0	0	9	6	0	15	6	0	2	0	8	2	6	0	0	8	31
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	1.6	7.1	0.0	2.3	9.0	0.0	0.7	0.0	2.3	0.6	1.0	0.0	0.0	0.9	1.6
Exiting Leg Total					0					12					8					11	31

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	1	70	6	0	77	4	1	31	0	36	45	61	1	0	107	220
5:15 PM	0	0	0	0	0	0	76	10	0	86	8	0	41	0	49	45	75	0	0	120	255
5:30 PM	1	0	0	0	1	0	65	6	0	71	9	1	31	0	41	58	102	0	0	160	273
5:45 PM	2	1	0	0	3	1	81	12	0	94	12	1	25	0	38	50	73	0	0	123	258
Total Volume	3	1	0	0	4	2	292	34	0	328	33	3	128	0	164	198	311	1	0	510	1006
% Approach Total	75.0	25.0	0.0	0.0		0.6	89.0	10.4	0.0		20.1	1.8	78.0	0.0		38.8	61.0	0.2	0.0		
PHF	0.375	0.250	0.000	0.000	0.333	0.500	0.901	0.708	0.000	0.872	0.688	0.750	0.780	0.000	0.837	0.853	0.762	0.250	0.000	0.797	0.921
Cars	3	1	0	0	4	2	289	32	0	323	30	3	127	0	160	197	309	1	0	507	994
Cars %	100.0	100.0	0.0	0.0	100.0	100.0	99.0	94.1	0.0	98.5	90.9	100.0	99.2	0.0	97.6	99.5	99.4	100.0	0.0	99.4	98.8
Heavy Vehicles	0	0	0	0	0	0	3	2	0	5	3	0	1	0	4	1	2	0	0	3	12
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.0	5.9	0.0	1.5	9.1	0.0	0.8	0.0	2.4	0.5	0.6	0.0	0.0	0.6	1.2
Cars Enter Leg	3	1	0	0	4	2	289	32	0	323	30	3	127	0	160	197	309	1	0	507	994
Heavy Enter Leg	0	0	0	0	0	0	3	2	0	5	3	0	1	0	4	1	2	0	0	3	12
Total Entering Leg	3	1	0	0	4	2	292	34	0	328	33	3	128	0	164	198	311	1	0	510	1006
Cars Exiting Leg					6					339					230					419	994
Heavy Exiting Leg					0					5					3					4	12
Total Exiting Leg					6					344					233					423	1006

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Cars-Combined (Motorcycles, Cars, Light Goods)**

	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	59	12	0	71	6	1	36	0	43	42	59	1	0	102	216
4:15 PM	0	0	0	0	0	1	65	10	0	76	10	0	37	0	47	41	68	0	0	109	232
4:30 PM	1	0	0	0	1	0	61	13	0	74	7	1	46	1	55	37	65	2	0	104	234
4:45 PM	1	0	0	0	1	0	73	11	0	84	8	1	20	0	29	39	66	1	0	106	220
Total	2	0	0	0	2	1	258	46	0	305	31	3	139	1	174	159	258	4	0	421	902
5:00 PM	0	0	0	0	0	1	68	5	0	74	3	1	31	0	35	45	61	1	0	107	216
5:15 PM	0	0	0	0	0	0	76	10	0	86	8	0	40	0	48	45	75	0	0	120	254
5:30 PM	1	0	0	0	1	0	64	5	0	69	8	1	31	0	40	57	101	0	0	158	268
5:45 PM	2	1	0	0	3	1	81	12	0	94	11	1	25	0	37	50	72	0	0	122	256
Total	3	1	0	0	4	2	289	32	0	323	30	3	127	0	160	197	309	1	0	507	994
Grand Total	5	1	0	0	6	3	547	78	0	628	61	6	266	1	334	356	567	5	0	928	1896
Approach %	83.3	16.7	0.0	0.0		0.5	87.1	12.4	0.0		18.3	1.8	79.6	0.3		38.4	61.1	0.5	0.0		
Total %	0.3	0.1	0.0	0.0	0.3	0.2	28.9	4.1	0.0	33.1	3.2	0.3	14.0	0.1	17.6	18.8	29.9	0.3	0.0	48.9	
Exiting Leg Total					14					628					436					818	1896

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	1	68	5	0	74	3	1	31	0	35	45	61	1	0	107	216
5:15 PM	0	0	0	0	0	0	76	10	0	86	8	0	40	0	48	45	75	0	0	120	254
5:30 PM	1	0	0	0	1	0	64	5	0	69	8	1	31	0	40	57	101	0	0	158	268
5:45 PM	2	1	0	0	3	1	81	12	0	94	11	1	25	0	37	50	72	0	0	122	256
Total Volume	3	1	0	0	4	2	289	32	0	323	30	3	127	0	160	197	309	1	0	507	994
% Approach Total	75.0	25.0	0.0	0.0		0.6	89.5	9.9	0.0		18.8	1.9	79.4	0.0		38.9	60.9	0.2	0.0		
PHF	0.375	0.250	0.000	0.000	0.333	0.500	0.892	0.667	0.000	0.859	0.682	0.750	0.794	0.000	0.833	0.864	0.765	0.250	0.000	0.802	0.927
Entering Leg	3	1	0	0	4	2	289	32	0	323	30	3	127	0	160	197	309	1	0	507	994
Exiting Leg					6					339					230					419	994
Total					10					662					390					926	1988

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	1	0	2	1	0	1	0	2	1	1	0	0	2	6
4:15 PM	0	0	0	0	0	0	3	1	0	4	1	0	0	0	1	0	2	0	0	2	7
4:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	2	1	0	3	1	0	0	0	1	0	1	0	0	1	5
Total	0	0	0	0	0	0	6	4	0	10	3	0	1	0	4	1	4	0	0	5	19
5:00 PM	0	0	0	0	0	0	2	1	0	3	1	0	0	0	1	0	0	0	0	0	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	1	1	0	0	2	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	2
Total	0	0	0	0	0	0	3	2	0	5	3	0	1	0	4	1	2	0	0	3	12
Grand Total	0	0	0	0	0	0	9	6	0	15	6	0	2	0	8	2	6	0	0	8	31
Approach %	0.0	0.0	0.0	0.0		0.0	60.0	40.0	0.0		75.0	0.0	25.0	0.0		25.0	75.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	29.0	19.4	0.0	48.4	19.4	0.0	6.5	0.0	25.8	6.5	19.4	0.0	0.0	25.8	
Exiting Leg Total					0					12					8					11	31
Buses	0	0	0	0	0	0	4	5	0	9	4	0	1	0	5	1	2	0	0	3	17
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	44.4	83.3	0.0	60.0	66.7	0.0	50.0	0.0	62.5	50.0	33.3	0.0	0.0	37.5	54.8
Exiting Leg Total					0					6					6					5	17
Single-Unit Trucks	0	0	0	0	0	0	5	1	0	6	2	0	1	0	3	1	4	0	0	5	14
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	55.6	16.7	0.0	40.0	33.3	0.0	50.0	0.0	37.5	50.0	66.7	0.0	0.0	62.5	45.2
Exiting Leg Total					0					6					2					6	14
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	1	0	2	1	0	1	0	2	1	1	0	0	2	6
4:15 PM	0	0	0	0	0	0	3	1	0	4	1	0	0	0	1	0	2	0	0	2	7
4:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	2	1	0	3	1	0	0	0	1	0	1	0	0	1	5
Total Volume	0	0	0	0	0	0	6	4	0	10	3	0	1	0	4	1	4	0	0	5	19
% Approach Total	0.0	0.0	0.0	0.0		0.0	60.0	40.0	0.0		75.0	0.0	25.0	0.0		20.0	80.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	1.000	0.000	0.625	0.750	0.000	0.250	0.000	0.500	0.250	0.500	0.000	0.000	0.625	0.679
Buses	0	0	0	0	0	0	2	3	0	5	2	0	0	0	2	0	1	0	0	1	8
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	33.3	75.0	0.0	50.0	66.7	0.0	0.0	0.0	50.0	0.0	25.0	0.0	0.0	20.0	42.1
Single-Unit Trucks	0	0	0	0	0	0	4	1	0	5	1	0	1	0	2	1	3	0	0	4	11
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	66.7	25.0	0.0	50.0	33.3	0.0	100.0	0.0	50.0	100.0	75.0	0.0	0.0	80.0	57.9
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	2	3	0	5	2	0	0	0	2	0	1	0	0	1	8
Single-Unit Trucks	0	0	0	0	0	0	4	1	0	5	1	0	1	0	2	1	3	0	0	4	11
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	0	0	6	4	0	10	3	0	1	0	4	1	4	0	0	5	19
Buses					0					3					3					2	8
Single-Unit Trucks					0					4					2					5	11
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					0					7					5					7	19

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Grenwold Road from North					Adams Street from East					Whitwell Street from South					Adams Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	50	11	0	61	6	1	32	0	39	38	52	1	0	91	191
4:15 PM	0	0	0	0	0	1	60	10	0	71	9	0	35	0	44	39	63	0	0	102	217
4:30 PM	1	0	0	0	1	0	57	11	0	68	7	1	39	1	48	36	56	2	0	94	211
4:45 PM	1	0	0	0	1	0	68	10	0	78	8	1	17	0	26	38	59	0	0	97	202
Total	2	0	0	0	2	1	235	42	0	278	30	3	123	1	157	151	230	3	0	384	821
5:00 PM	0	0	0	0	0	1	67	5	0	73	2	0	30	0	32	42	54	1	0	97	202
5:15 PM	0	0	0	0	0	0	71	10	0	81	8	0	38	0	46	42	72	0	0	114	241
5:30 PM	1	0	0	0	1	0	60	5	0	65	8	1	30	0	39	51	93	0	0	144	249
5:45 PM	2	1	0	0	3	1	77	11	0	89	11	1	25	0	37	49	69	0	0	118	247
Total	3	1	0	0	4	2	275	31	0	308	29	2	123	0	154	184	288	1	0	473	939
Grand Total	5	1	0	0	6	3	510	73	0	586	59	5	246	1	311	335	518	4	0	857	1760
Approach %	83.3	16.7	0.0	0.0		0.5	87.0	12.5	0.0		19.0	1.6	79.1	0.3		39.1	60.4	0.5	0.0		
Total %	0.3	0.1	0.0	0.0	0.3	0.2	29.0	4.1	0.0	33.3	3.4	0.3	14.0	0.1	17.7	19.0	29.4	0.2	0.0	48.7	
Exiting Leg Total					12					577					410					761	1760

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Grenwold Road from North					Adams Street from East					Whitwell Street from South					Adams Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	1	67	5	0	73	2	0	30	0	32	42	54	1	0	97	202
5:15 PM	0	0	0	0	0	0	71	10	0	81	8	0	38	0	46	42	72	0	0	114	241
5:30 PM	1	0	0	0	1	0	60	5	0	65	8	1	30	0	39	51	93	0	0	144	249
5:45 PM	2	1	0	0	3	1	77	11	0	89	11	1	25	0	37	49	69	0	0	118	247
Total Volume	3	1	0	0	4	2	275	31	0	308	29	2	123	0	154	184	288	1	0	473	939
% Approach Total	75.0	25.0	0.0	0.0		0.6	89.3	10.1	0.0		18.8	1.3	79.9	0.0		38.9	60.9	0.2	0.0		
PHF	0.375	0.250	0.000	0.000	0.333	0.500	0.893	0.705	0.000	0.865	0.659	0.500	0.809	0.000	0.837	0.902	0.774	0.250	0.000	0.821	0.943
Entering Leg	3	1	0	0	4	2	275	31	0	308	29	2	123	0	154	184	288	1	0	473	939
Exiting Leg					5					317					216					401	939
Total					9					625					370					874	1878

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	9	1	0	10	0	0	4	0	4	4	7	0	0	11	25
4:15 PM	0	0	0	0	0	0	5	0	0	5	1	0	2	0	3	2	5	0	0	7	15
4:30 PM	0	0	0	0	0	0	4	2	0	6	0	0	7	0	7	1	9	0	0	10	23
4:45 PM	0	0	0	0	0	0	5	1	0	6	0	0	3	0	3	1	7	1	0	9	18
Total	0	0	0	0	0	0	23	4	0	27	1	0	16	0	17	8	28	1	0	37	81
5:00 PM	0	0	0	0	0	0	1	0	0	1	1	1	1	0	3	3	7	0	0	10	14
5:15 PM	0	0	0	0	0	0	5	0	0	5	0	0	2	0	2	3	3	0	0	6	13
5:30 PM	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	6	8	0	0	14	19
5:45 PM	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	1	3	0	0	4	9
Total	0	0	0	0	0	0	14	1	0	15	1	1	4	0	6	13	21	0	0	34	55
Grand Total	0	0	0	0	0	0	37	5	0	42	2	1	20	0	23	21	49	1	0	71	136
Approach %	0.0	0.0	0.0	0.0		0.0	88.1	11.9	0.0		8.7	4.3	87.0	0.0		29.6	69.0	1.4	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	27.2	3.7	0.0	30.9	1.5	0.7	14.7	0.0	16.9	15.4	36.0	0.7	0.0	52.2	
Exiting Leg Total					2					51					26					57	136

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	9	1	0	10	0	0	4	0	4	4	7	0	0	11	25
4:15 PM	0	0	0	0	0	0	5	0	0	5	1	0	2	0	3	2	5	0	0	7	15
4:30 PM	0	0	0	0	0	0	4	2	0	6	0	0	7	0	7	1	9	0	0	10	23
4:45 PM	0	0	0	0	0	0	5	1	0	6	0	0	3	0	3	1	7	1	0	9	18
Total Volume	0	0	0	0	0	0	23	4	0	27	1	0	16	0	17	8	28	1	0	37	81
% Approach Total	0.0	0.0	0.0	0.0		0.0	85.2	14.8	0.0		5.9	0.0	94.1	0.0		21.6	75.7	2.7	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.639	0.500	0.000	0.675	0.250	0.000	0.571	0.000	0.607	0.500	0.778	0.250	0.000	0.841	0.810
Entering Leg	0	0	0	0	0	0	23	4	0	27	1	0	16	0	17	8	28	1	0	37	81
Exiting Leg					1					29					12					39	81
Total					1					56					29					76	162

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	0	1	0	0	1	4
4:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	2	3	0	5	2	0	0	0	2	0	1	0	0	1	8
5:00 PM	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	0	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	1	0	0	0	1	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	2	2	0	4	2	0	1	0	3	1	1	0	0	2	9
Grand Total	0	0	0	0	0	0	4	5	0	9	4	0	1	0	5	1	2	0	0	3	17
Approach %	0.0	0.0	0.0	0.0		0.0	44.4	55.6	0.0		80.0	0.0	20.0	0.0		33.3	66.7	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	23.5	29.4	0.0	52.9	23.5	0.0	5.9	0.0	29.4	5.9	11.8	0.0	0.0	17.6	
Exiting Leg Total					0					6					6					5	17

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	0	1	0	0	1	4
4:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	2	3	0	5	2	0	0	0	2	0	1	0	0	1	8
% Approach Total	0.0	0.0	0.0	0.0		0.0	40.0	60.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.750	0.000	0.625	0.500	0.000	0.000	0.000	0.500	0.000	0.250	0.000	0.000	0.250	0.500
Entering Leg	0	0	0	0	0	0	2	3	0	5	2	0	0	0	2	0	1	0	0	1	8
Exiting Leg					0					3					3					2	8
Total					0					8					5					3	16

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	1	1	0	0	2	4
4:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	0	1	0	0	1	4
Total	0	0	0	0	0	0	4	1	0	5	1	0	1	0	2	1	3	0	0	4	11
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	1	0	0	1	3
Grand Total	0	0	0	0	0	0	5	1	0	6	2	0	1	0	3	1	4	0	0	5	14
Approach %	0.0	0.0	0.0	0.0		0.0	83.3	16.7	0.0		66.7	0.0	33.3	0.0		20.0	80.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	35.7	7.1	0.0	42.9	14.3	0.0	7.1	0.0	21.4	7.1	28.6	0.0	0.0	35.7	
Exiting Leg Total					0					6					2					6	14

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	1	1	0	0	2	4
4:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	0	1	0	0	1	4
Total Volume	0	0	0	0	0	0	4	1	0	5	1	0	1	0	2	1	3	0	0	4	11
% Approach Total	0.0	0.0	0.0	0.0		0.0	80.0	20.0	0.0		50.0	0.0	50.0	0.0		25.0	75.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.000	0.625	0.250	0.000	0.250	0.000	0.500	0.250	0.750	0.000	0.000	0.500	0.688
Entering Leg	0	0	0	0	0	0	4	1	0	5	1	0	1	0	2	1	3	0	0	4	11
Exiting Leg					0					4					2					5	11
Total					0					9					4					9	22

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Grenwold Road					Adams Street					Whitwell Street					Adams Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg					0					0					0					0	0
Total					0					0					0					0	0

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Grenwold Road							Adams Street							Whitwell Street							Adams Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							0							1	1

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Grenwold Road							Adams Street							Whitwell Street							Adams Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg							0							0							0							1	1
Total							0							1							0							1	2

PDI File #: **186173 A**
Location: **N: Grenwold Road S: Whitwell Street**
Location: **E: Adams Street W: Adams Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Grenwold Road from North							Adams Street from East							Whitwell Street from South							Adams Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Grand Total	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Approach %	0	0	0	0	0	100		0	0	0	0	0	0		0	0	0	0	0	0		0	0	0	0	0	0		
Total %	0	0	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg Total							5							0							0							0	5

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Grenwold Road from North							Adams Street from East							Whitwell Street from South							Adams Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.750	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Exiting Leg							3							0							0							0	3
Total							6							0							0							0	6

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	32	0	32	41	0	0	41	0	0	0	0	73
7:15 AM	0	31	0	31	61	0	0	61	0	0	0	0	92
7:30 AM	1	35	0	36	58	0	0	58	0	0	0	0	94
7:45 AM	0	40	0	40	63	0	0	63	1	1	0	2	105
Total	1	138	0	139	223	0	0	223	1	1	0	2	364
8:00 AM	0	39	0	39	74	0	0	74	0	0	0	0	113
8:15 AM	0	27	0	27	50	0	0	50	0	0	0	0	77
8:30 AM	0	15	0	15	43	0	0	43	0	0	0	0	58
8:45 AM	0	34	0	34	43	0	0	43	0	0	0	0	77
Total	0	115	0	115	210	0	0	210	0	0	0	0	325
Grand Total	1	253	0	254	433	0	0	433	1	1	0	2	689
Approach %	0.4	99.6	0.0		100.0	0.0	0.0		50.0	50.0	0.0		
Total %	0.1	36.7	0.0	36.9	62.8	0.0	0.0	62.8	0.1	0.1	0.0	0.3	
Exiting Leg Total				434				254				1	689
Cars	1	247	0	248	423	0	0	423	1	1	0	2	673
% Cars	100.0	97.6	0.0	97.6	97.7	0.0	0.0	97.7	100.0	100.0	0.0	100.0	97.7
Exiting Leg Total				424				248				1	673
Heavy Vehicles	0	6	0	6	10	0	0	10	0	0	0	0	16
% Heavy Vehicles	0.0	2.4	0.0	2.4	2.3	0.0	0.0	2.3	0.0	0.0	0.0	0.0	2.3
Exiting Leg Total				10				6				0	16

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:15 AM	0	31	0	31	61	0	0	61	0	0	0	0	92
7:30 AM	1	35	0	36	58	0	0	58	0	0	0	0	94
7:45 AM	0	40	0	40	63	0	0	63	1	1	0	2	105
8:00 AM	0	39	0	39	74	0	0	74	0	0	0	0	113
Total Volume	1	145	0	146	256	0	0	256	1	1	0	2	404
% Approach Total	0.7	99.3	0.0		100.0	0.0	0.0		50.0	50.0	0.0		
PHF	0.250	0.906	0.000	0.913	0.865	0.000	0.000	0.865	0.250	0.250	0.000	0.250	0.894
Cars	1	142	0	143	253	0	0	253	1	1	0	2	398
Cars %	100.0	97.9	0.0	97.9	98.8	0.0	0.0	98.8	100.0	100.0	0.0	100.0	98.5
Heavy Vehicles	0	3	0	3	3	0	0	3	0	0	0	0	6
Heavy Vehicles %	0.0	2.1	0.0	2.1	1.2	0.0	0.0	1.2	0.0	0.0	0.0	0.0	1.5
Cars Enter Leg	1	142	0	143	253	0	0	253	1	1	0	2	398
Heavy Enter Leg	0	3	0	3	3	0	0	3	0	0	0	0	6
Total Entering Leg	1	145	0	146	256	0	0	256	1	1	0	2	404
Cars Exiting Leg				254				143				1	398
Heavy Exiting Leg				3				3				0	6
Total Exiting Leg				257				146				1	404

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	31	0	31	38	0	0	38	0	0	0	0	69
7:15 AM	0	30	0	30	61	0	0	61	0	0	0	0	91
7:30 AM	1	34	0	35	57	0	0	57	0	0	0	0	92
7:45 AM	0	40	0	40	63	0	0	63	1	1	0	2	105
Total	1	135	0	136	219	0	0	219	1	1	0	2	357
8:00 AM	0	38	0	38	72	0	0	72	0	0	0	0	110
8:15 AM	0	25	0	25	47	0	0	47	0	0	0	0	72
8:30 AM	0	15	0	15	42	0	0	42	0	0	0	0	57
8:45 AM	0	34	0	34	43	0	0	43	0	0	0	0	77
Total	0	112	0	112	204	0	0	204	0	0	0	0	316
Grand Total	1	247	0	248	423	0	0	423	1	1	0	2	673
Approach %	0.4	99.6	0.0		100.0	0.0	0.0		50.0	50.0	0.0		
Total %	0.1	36.7	0.0	36.8	62.9	0.0	0.0	62.9	0.1	0.1	0.0	0.3	
Exiting Leg Total				424				248				1	673

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:15 AM	0	30	0	30	61	0	0	61	0	0	0	0	91
7:30 AM	1	34	0	35	57	0	0	57	0	0	0	0	92
7:45 AM	0	40	0	40	63	0	0	63	1	1	0	2	105
8:00 AM	0	38	0	38	72	0	0	72	0	0	0	0	110
Total Volume	1	142	0	143	253	0	0	253	1	1	0	2	398
% Approach Total	0.7	99.3	0.0		100.0	0.0	0.0		50.0	50.0	0.0		
PHF	0.250	0.888	0.000	0.894	0.878	0.000	0.000	0.878	0.250	0.250	0.000	0.250	0.905
Entering Leg	1	142	0	143	253	0	0	253	1	1	0	2	398
Exiting Leg				254				143				1	398
Total				397				396				3	796

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	1	0	1	3	0	0	3	0	0	0	0	4
7:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:30 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	3	4	0	0	4	0	0	0	0	7
8:00 AM	0	1	0	1	2	0	0	2	0	0	0	0	3
8:15 AM	0	2	0	2	3	0	0	3	0	0	0	0	5
8:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	3	6	0	0	6	0	0	0	0	9
Grand Total	0	6	0	6	10	0	0	10	0	0	0	0	16
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	37.5	0.0	37.5	62.5	0.0	0.0	62.5	0.0	0.0	0.0	0.0	
Exiting Leg Total				10				6				0	16
Buses	0	2	0	2	4	0	0	4	0	0	0	0	6
% Buses	0.0	33.3	0.0	33.3	40.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	37.5
Exiting Leg Total				4				2				0	6
Single-Unit Trucks	0	4	0	4	5	0	0	5	0	0	0	0	9
% Single-Unit	0.0	66.7	0.0	66.7	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	56.3
Exiting Leg Total				5				4				0	9
Articulated Trucks	0	0	0	0	1	0	0	1	0	0	0	0	1
% Articulated	0.0	0.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	6.3
Exiting Leg Total				1				0				0	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:30 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	1	2	0	0	2	0	0	0	0	3
8:15 AM	0	2	0	2	3	0	0	3	0	0	0	0	5
Total Volume	0	4	0	4	6	0	0	6	0	0	0	0	10
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.500	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.500
Buses	0	1	0	1	2	0	0	2	0	0	0	0	3
Buses %	0.0	25.0	0.0	25.0	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	30.0
Single-Unit Trucks	0	3	0	3	3	0	0	3	0	0	0	0	6
Single-Unit %	0.0	75.0	0.0	75.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	60.0
Articulated Trucks	0	0	0	0	1	0	0	1	0	0	0	0	1
Articulated %	0.0	0.0	0.0	0.0	16.7	0.0	0.0	16.7	0.0	0.0	0.0	0.0	10.0
Buses	0	1	0	1	2	0	0	2	0	0	0	0	3
Single-Unit Trucks	0	3	0	3	3	0	0	3	0	0	0	0	6
Articulated Trucks	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Entering Leg	0	4	0	4	6	0	0	6	0	0	0	0	10
Buses				2				1				0	3
Single-Unit Trucks				3				3				0	6
Articulated Trucks				1				0				0	1
Total Exiting Leg				6				4				0	10

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	31	0	31	36	0	0	36	0	0	0	0	67
7:15 AM	0	28	0	28	56	0	0	56	0	0	0	0	84
7:30 AM	1	31	0	32	52	0	0	52	0	0	0	0	84
7:45 AM	0	37	0	37	60	0	0	60	1	1	0	2	99
Total	1	127	0	128	204	0	0	204	1	1	0	2	334
8:00 AM	0	35	0	35	69	0	0	69	0	0	0	0	104
8:15 AM	0	23	0	23	44	0	0	44	0	0	0	0	67
8:30 AM	0	15	0	15	40	0	0	40	0	0	0	0	55
8:45 AM	0	34	0	34	41	0	0	41	0	0	0	0	75
Total	0	107	0	107	194	0	0	194	0	0	0	0	301
Grand Total	1	234	0	235	398	0	0	398	1	1	0	2	635
Approach %	0.4	99.6	0.0		100.0	0.0	0.0		50.0	50.0	0.0		
Total %	0.2	36.9	0.0	37.0	62.7	0.0	0.0	62.7	0.2	0.2	0.0	0.3	
Exiting Leg Total				399				235				1	635

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:15 AM	0	28	0	28	56	0	0	56	0	0	0	0	84
7:30 AM	1	31	0	32	52	0	0	52	0	0	0	0	84
7:45 AM	0	37	0	37	60	0	0	60	1	1	0	2	99
8:00 AM	0	35	0	35	69	0	0	69	0	0	0	0	104
Total Volume	1	131	0	132	237	0	0	237	1	1	0	2	371
% Approach Total	0.8	99.2	0.0		100.0	0.0	0.0		50.0	50.0	0.0		
PHF	0.250	0.885	0.000	0.892	0.859	0.000	0.000	0.859	0.250	0.250	0.000	0.250	0.892
Entering Leg	1	131	0	132	237	0	0	237	1	1	0	2	371
Exiting Leg				238				132				1	371
Total				370				369				3	742

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
7:15 AM	0	2	0	2	5	0	0	5	0	0	0	0	7
7:30 AM	0	3	0	3	5	0	0	5	0	0	0	0	8
7:45 AM	0	3	0	3	3	0	0	3	0	0	0	0	6
Total	0	8	0	8	15	0	0	15	0	0	0	0	23
8:00 AM	0	3	0	3	3	0	0	3	0	0	0	0	6
8:15 AM	0	2	0	2	3	0	0	3	0	0	0	0	5
8:30 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
8:45 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
Total	0	5	0	5	10	0	0	10	0	0	0	0	15
Grand Total	0	13	0	13	25	0	0	25	0	0	0	0	38
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	34.2	0.0	34.2	65.8	0.0	0.0	65.8	0.0	0.0	0.0	0.0	
Exiting Leg Total				25				13				0	38

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:15 AM	0	2	0	2	5	0	0	5	0	0	0	0	7
7:30 AM	0	3	0	3	5	0	0	5	0	0	0	0	8
7:45 AM	0	3	0	3	3	0	0	3	0	0	0	0	6
8:00 AM	0	3	0	3	3	0	0	3	0	0	0	0	6
Total Volume	0	11	0	11	16	0	0	16	0	0	0	0	27
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.917	0.000	0.917	0.800	0.000	0.000	0.800	0.000	0.000	0.000	0.000	0.844
Entering Leg	0	11	0	11	16	0	0	16	0	0	0	0	27
Exiting Leg				16				11				0	27
Total				27				27				0	54

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
7:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	2	0	0	2	0	0	0	0	3
8:00 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
8:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	2	0	0	2	0	0	0	0	3
Grand Total	0	2	0	2	4	0	0	4	0	0	0	0	6
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	33.3	0.0	33.3	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	
Exiting Leg Total				4				2				0	6

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
7:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	2	0	0	2	0	0	0	0	3
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.375
Entering Leg	0	1	0	1	2	0	0	2	0	0	0	0	3
Exiting Leg				2				1				0	3
Total				3				3				0	6

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	2	2	0	0	2	0	0	0	0	4
8:00 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:15 AM	0	2	0	2	1	0	0	1	0	0	0	0	3
8:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	2	3	0	0	3	0	0	0	0	5
Grand Total	0	4	0	4	5	0	0	5	0	0	0	0	9
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	44.4	0.0	44.4	55.6	0.0	0.0	55.6	0.0	0.0	0.0	0.0	
Exiting Leg Total				5				4				0	9

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:30 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:15 AM	0	2	0	2	1	0	0	1	0	0	0	0	3
Total Volume	0	3	0	3	3	0	0	3	0	0	0	0	6
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.375	0.000	0.375	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	3	0	3	3	0	0	3	0	0	0	0	6
Exiting Leg				3				3				0	6
Total				6				6				0	12

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	1	0	0	0	0	1
Grand Total	0	0	0	0	1	0	0	1	0	0	0	0	1
Approach %	0.0	0.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				1				0				0	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	0	0	0	0	1	0	0	1	0	0	0	0	1
% Approach Total	0.0	0.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	1	0	0	1	0	0	0	0	1
Exiting Leg				1				0				0	1
Total				1				1				0	2

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Whitwell Street from North						Whitwell Street from South						Carrolls Lane from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Whitwell Street from North						Whitwell Street from South						Carrolls Lane from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Whitwell Street from North						Whitwell Street from South						Carrolls Lane from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	5	5
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	5	5
Approach %	0	0	0	0	0		0	0	0	0	0		0	0	0	20	80		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	80	100	
Exiting Leg Total						0						0						5	5

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Whitwell Street from North						Whitwell Street from South						Carrolls Lane from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	5	5
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	20.0	80.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.625	0.625
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	5	5
Exiting Leg						0						0						5	5
Total						0						0						10	10

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	2	53	0	55	44	0	0	44	0	1	0	1	100
4:15 PM	1	52	0	53	46	1	0	47	2	2	0	4	104
4:30 PM	0	52	0	52	52	0	0	52	0	1	0	1	105
4:45 PM	0	53	0	53	32	0	0	32	0	0	0	0	85
Total	3	210	0	213	174	1	0	175	2	4	0	6	394
5:00 PM	1	51	0	52	36	0	0	36	0	0	0	0	88
5:15 PM	1	54	0	55	49	1	0	50	0	0	0	0	105
5:30 PM	0	65	0	65	41	0	0	41	0	0	0	0	106
5:45 PM	0	62	0	62	36	0	0	36	0	0	0	0	98
Total	2	232	0	234	162	1	0	163	0	0	0	0	397
Grand Total	5	442	0	447	336	2	0	338	2	4	0	6	791
Approach %	1.1	98.9	0.0		99.4	0.6	0.0		33.3	66.7	0.0		
Total %	0.6	55.9	0.0	56.5	42.5	0.3	0.0	42.7	0.3	0.5	0.0	0.8	
Exiting Leg Total				340				444				7	791
Cars	5	433	0	438	327	2	0	329	2	4	0	6	773
% Cars	100.0	98.0	0.0	98.0	97.3	100.0	0.0	97.3	100.0	100.0	0.0	100.0	97.7
Exiting Leg Total				331				435				7	773
Heavy Vehicles	0	9	0	9	9	0	0	9	0	0	0	0	18
% Heavy Vehicles	0.0	2.0	0.0	2.0	2.7	0.0	0.0	2.7	0.0	0.0	0.0	0.0	2.3
Exiting Leg Total				9				9				0	18

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
5:00 PM	1	51	0	52	36	0	0	36	0	0	0	0	88
5:15 PM	1	54	0	55	49	1	0	50	0	0	0	0	105
5:30 PM	0	65	0	65	41	0	0	41	0	0	0	0	106
5:45 PM	0	62	0	62	36	0	0	36	0	0	0	0	98
Total Volume	2	232	0	234	162	1	0	163	0	0	0	0	397
% Approach Total	0.9	99.1	0.0		99.4	0.6	0.0		0.0	0.0	0.0		
PHF	0.500	0.892	0.000	0.900	0.827	0.250	0.000	0.815	0.000	0.000	0.000	0.000	0.936
Cars	2	228	0	230	158	1	0	159	0	0	0	0	389
Cars %	100.0	98.3	0.0	98.3	97.5	100.0	0.0	97.5	0.0	0.0	0.0	0.0	98.0
Heavy Vehicles	0	4	0	4	4	0	0	4	0	0	0	0	8
Heavy Vehicles %	0.0	1.7	0.0	1.7	2.5	0.0	0.0	2.5	0.0	0.0	0.0	0.0	2.0
Cars Enter Leg	2	228	0	230	158	1	0	159	0	0	0	0	389
Heavy Enter Leg	0	4	0	4	4	0	0	4	0	0	0	0	8
Total Entering Leg	2	232	0	234	162	1	0	163	0	0	0	0	397
Cars Exiting Leg				158				228				3	389
Heavy Exiting Leg				4				4				0	8
Total Exiting Leg				162				232				3	397

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	2	51	0	53	42	0	0	42	0	1	0	1	96
4:15 PM	1	51	0	52	45	1	0	46	2	2	0	4	102
4:30 PM	0	51	0	51	51	0	0	51	0	1	0	1	103
4:45 PM	0	52	0	52	31	0	0	31	0	0	0	0	83
Total	3	205	0	208	169	1	0	170	2	4	0	6	384
5:00 PM	1	49	0	50	35	0	0	35	0	0	0	0	85
5:15 PM	1	54	0	55	48	1	0	49	0	0	0	0	104
5:30 PM	0	63	0	63	40	0	0	40	0	0	0	0	103
5:45 PM	0	62	0	62	35	0	0	35	0	0	0	0	97
Total	2	228	0	230	158	1	0	159	0	0	0	0	389
Grand Total	5	433	0	438	327	2	0	329	2	4	0	6	773
Approach %	1.1	98.9	0.0		99.4	0.6	0.0		33.3	66.7	0.0		
Total %	0.6	56.0	0.0	56.7	42.3	0.3	0.0	42.6	0.3	0.5	0.0	0.8	
Exiting Leg Total				331				435				7	773

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
5:00 PM	1	49	0	50	35	0	0	35	0	0	0	0	85
5:15 PM	1	54	0	55	48	1	0	49	0	0	0	0	104
5:30 PM	0	63	0	63	40	0	0	40	0	0	0	0	103
5:45 PM	0	62	0	62	35	0	0	35	0	0	0	0	97
Total Volume	2	228	0	230	158	1	0	159	0	0	0	0	389
% Approach Total	0.9	99.1	0.0		99.4	0.6	0.0		0.0	0.0	0.0		
PHF	0.500	0.905	0.000	0.913	0.823	0.250	0.000	0.811	0.000	0.000	0.000	0.000	0.935
Entering Leg	2	228	0	230	158	1	0	159	0	0	0	0	389
Exiting Leg				158				228				3	389
Total				388				387				3	778

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	2	0	2	2	0	0	2	0	0	0	0	4
4:15 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
4:30 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
4:45 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
Total	0	5	0	5	5	0	0	5	0	0	0	0	10
5:00 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
5:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
5:30 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
5:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	4	0	4	4	0	0	4	0	0	0	0	8
Grand Total	0	9	0	9	9	0	0	9	0	0	0	0	18
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	50.0	0.0	50.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				9				9				0	18
Buses	0	6	0	6	5	0	0	5	0	0	0	0	11
% Buses	0.0	66.7	0.0	66.7	55.6	0.0	0.0	55.6	0.0	0.0	0.0	0.0	61.1
Exiting Leg Total				5				6				0	11
Single-Unit Trucks	0	3	0	3	4	0	0	4	0	0	0	0	7
% Single-Unit	0.0	33.3	0.0	33.3	44.4	0.0	0.0	44.4	0.0	0.0	0.0	0.0	38.9
Exiting Leg Total				4				3				0	7
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	2	0	2	2	0	0	2	0	0	0	0	4
4:15 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
4:30 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
4:45 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
Total Volume	0	5	0	5	5	0	0	5	0	0	0	0	10
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.625	0.000	0.625	0.625	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.625
Buses	0	3	0	3	2	0	0	2	0	0	0	0	5
Buses %	0.0	60.0	0.0	60.0	40.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	50.0
Single-Unit Trucks	0	2	0	2	3	0	0	3	0	0	0	0	5
Single-Unit %	0.0	40.0	0.0	40.0	60.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	50.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	3	0	3	2	0	0	2	0	0	0	0	5
Single-Unit Trucks	0	2	0	2	3	0	0	3	0	0	0	0	5
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	5	0	5	5	0	0	5	0	0	0	0	10
Buses				2				3				0	5
Single-Unit Trucks				3				2				0	5
Articulated Trucks				0				0				0	0
Total Exiting Leg				5				5				0	10

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	1	46	0	47	38	0	0	38	0	1	0	1	86
4:15 PM	0	47	0	47	43	1	0	44	1	1	0	2	93
4:30 PM	0	49	0	49	46	0	0	46	0	1	0	1	96
4:45 PM	0	48	0	48	27	0	0	27	0	0	0	0	75
Total	1	190	0	191	154	1	0	155	1	3	0	4	350
5:00 PM	1	43	0	44	33	0	0	33	0	0	0	0	77
5:15 PM	1	51	0	52	46	0	0	46	0	0	0	0	98
5:30 PM	0	55	0	55	39	0	0	39	0	0	0	0	94
5:45 PM	0	58	0	58	34	0	0	34	0	0	0	0	92
Total	2	207	0	209	152	0	0	152	0	0	0	0	361
Grand Total	3	397	0	400	306	1	0	307	1	3	0	4	711
Approach %	0.8	99.3	0.0		99.7	0.3	0.0		25.0	75.0	0.0		
Total %	0.4	55.8	0.0	56.3	43.0	0.1	0.0	43.2	0.1	0.4	0.0	0.6	
Exiting Leg Total				309				398				4	711

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
5:00 PM	1	43	0	44	33	0	0	33	0	0	0	0	77
5:15 PM	1	51	0	52	46	0	0	46	0	0	0	0	98
5:30 PM	0	55	0	55	39	0	0	39	0	0	0	0	94
5:45 PM	0	58	0	58	34	0	0	34	0	0	0	0	92
Total Volume	2	207	0	209	152	0	0	152	0	0	0	0	361
% Approach Total	1.0	99.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.500	0.892	0.000	0.901	0.826	0.000	0.000	0.826	0.000	0.000	0.000	0.000	0.921
Entering Leg	2	207	0	209	152	0	0	152	0	0	0	0	361
Exiting Leg				152				207				2	361
Total				361				359				2	722

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	1	5	0	6	4	0	0	4	0	0	0	0	10
4:15 PM	1	4	0	5	2	0	0	2	1	1	0	2	9
4:30 PM	0	2	0	2	5	0	0	5	0	0	0	0	7
4:45 PM	0	4	0	4	4	0	0	4	0	0	0	0	8
Total	2	15	0	17	15	0	0	15	1	1	0	2	34
5:00 PM	0	6	0	6	2	0	0	2	0	0	0	0	8
5:15 PM	0	3	0	3	2	1	0	3	0	0	0	0	6
5:30 PM	0	8	0	8	1	0	0	1	0	0	0	0	9
5:45 PM	0	4	0	4	1	0	0	1	0	0	0	0	5
Total	0	21	0	21	6	1	0	7	0	0	0	0	28
Grand Total	2	36	0	38	21	1	0	22	1	1	0	2	62
Approach %	5.3	94.7	0.0		95.5	4.5	0.0		50.0	50.0	0.0		
Total %	3.2	58.1	0.0	61.3	33.9	1.6	0.0	35.5	1.6	1.6	0.0	3.2	
Exiting Leg Total				22				37				3	62

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	1	5	0	6	4	0	0	4	0	0	0	0	10
4:15 PM	1	4	0	5	2	0	0	2	1	1	0	2	9
4:30 PM	0	2	0	2	5	0	0	5	0	0	0	0	7
4:45 PM	0	4	0	4	4	0	0	4	0	0	0	0	8
Total Volume	2	15	0	17	15	0	0	15	1	1	0	2	34
% Approach Total	11.8	88.2	0.0		100.0	0.0	0.0		50.0	50.0	0.0		
PHF	0.500	0.750	0.000	0.708	0.750	0.000	0.000	0.750	0.250	0.250	0.000	0.250	0.850
Entering Leg	2	15	0	17	15	0	0	15	1	1	0	2	34
Exiting Leg				16				16				2	34
Total				33				31				4	68

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
4:15 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
4:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	3	2	0	0	2	0	0	0	0	5
5:00 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
5:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
5:30 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	3	3	0	0	3	0	0	0	0	6
Grand Total	0	6	0	6	5	0	0	5	0	0	0	0	11
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	54.5	0.0	54.5	45.5	0.0	0.0	45.5	0.0	0.0	0.0	0.0	
Exiting Leg Total				5				6				0	11

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
5:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
5:30 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
Total Volume	0	3	0	3	3	0	0	3	0	0	0	0	6
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.375	0.000	0.375	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	3	0	3	3	0	0	3	0	0	0	0	6
Exiting Leg				3				3				0	6
Total				6				6				0	12

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
4:45 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
Total	0	2	0	2	3	0	0	3	0	0	0	0	5
5:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	1	0	1	1	0	0	1	0	0	0	0	2
Grand Total	0	3	0	3	4	0	0	4	0	0	0	0	7
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	42.9	0.0	42.9	57.1	0.0	0.0	57.1	0.0	0.0	0.0	0.0	
Exiting Leg Total				4				3				0	7

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
4:45 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
Total Volume	0	2	0	2	3	0	0	3	0	0	0	0	5
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.500	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.625
Entering Leg	0	2	0	2	3	0	0	3	0	0	0	0	5
Exiting Leg				3				2				0	5
Total				5				5				0	10

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from North				Whitwell Street from South				Carrolls Lane from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Whitwell Street from North						Whitwell Street from South						Carrolls Lane from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from North						Whitwell Street from South						Carrolls Lane from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 B**
Location: **N: Whitwell Street S: Whitwell Street**
Location: **W: Carrolls Lane**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Whitwell Street from North						Whitwell Street from South						Carrolls Lane from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Approach %	0	0	0	0	0		0	0	0	0	0		0	0	0	100	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	100	
Exiting Leg Total						0						0						1	1

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from North						Whitwell Street from South						Carrolls Lane from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Exiting Leg						0						0						1	1
Total						0						0						2	2

PDI File #: **186173 C**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	1	2	0	3	3	40	0	43	32	1	0	33	79
7:15 AM	3	1	0	4	3	58	0	61	29	1	0	30	95
7:30 AM	0	0	0	0	0	58	0	58	36	1	0	37	95
7:45 AM	1	0	0	1	2	63	0	65	38	0	0	38	104
Total	5	3	0	8	8	219	0	227	135	3	0	138	373
8:00 AM	0	0	0	0	0	73	0	73	43	0	0	43	116
8:15 AM	0	1	0	1	2	47	0	49	25	1	0	26	76
8:30 AM	0	0	0	0	0	44	0	44	15	0	0	15	59
8:45 AM	2	0	0	2	0	41	0	41	33	1	0	34	77
Total	2	1	0	3	2	205	0	207	116	2	0	118	328
Grand Total	7	4	0	11	10	424	0	434	251	5	0	256	701
Approach %	63.6	36.4	0.0		2.3	97.7	0.0		98.0	2.0	0.0		
Total %	1.0	0.6	0.0	1.6	1.4	60.5	0.0	61.9	35.8	0.7	0.0	36.5	
Exiting Leg Total				15				255				431	701
Cars	7	4	0	11	9	414	0	423	246	4	0	250	684
% Cars	100.0	100.0	0.0	100.0	90.0	97.6	0.0	97.5	98.0	80.0	0.0	97.7	97.6
Exiting Leg Total				13				250				421	684
Heavy Vehicles	0	0	0	0	1	10	0	11	5	1	0	6	17
% Heavy Vehicles	0.0	0.0	0.0	0.0	10.0	2.4	0.0	2.5	2.0	20.0	0.0	2.3	2.4
Exiting Leg Total				2				5				10	17

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	3	1	0	4	3	58	0	61	29	1	0	30	95
7:30 AM	0	0	0	0	0	58	0	58	36	1	0	37	95
7:45 AM	1	0	0	1	2	63	0	65	38	0	0	38	104
8:00 AM	0	0	0	0	0	73	0	73	43	0	0	43	116
Total Volume	4	1	0	5	5	252	0	257	146	2	0	148	410
% Approach Total	80.0	20.0	0.0		1.9	98.1	0.0		98.6	1.4	0.0		
PHF	0.333	0.250	0.000	0.313	0.417	0.863	0.000	0.880	0.849	0.500	0.000	0.860	0.884
Cars	4	1	0	5	5	249	0	254	143	2	0	145	404
Cars %	100.0	100.0	0.0	100.0	100.0	98.8	0.0	98.8	97.9	100.0	0.0	98.0	98.5
Heavy Vehicles	0	0	0	0	0	3	0	3	3	0	0	3	6
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	1.2	0.0	1.2	2.1	0.0	0.0	2.0	1.5
Cars Enter Leg	4	1	0	5	5	249	0	254	143	2	0	145	404
Heavy Enter Leg	0	0	0	0	0	3	0	3	3	0	0	3	6
Total Entering Leg	4	1	0	5	5	252	0	257	146	2	0	148	410
Cars Exiting Leg				7				144				253	404
Heavy Exiting Leg				0				3				3	6
Total Exiting Leg				7				147				256	410

PDI File #: **186173 C**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	1	2	0	3	2	37	0	39	31	1	0	32	74
7:15 AM	3	1	0	4	3	58	0	61	28	1	0	29	94
7:30 AM	0	0	0	0	0	57	0	57	35	1	0	36	93
7:45 AM	1	0	0	1	2	62	0	64	38	0	0	38	103
Total	5	3	0	8	7	214	0	221	132	3	0	135	364
8:00 AM	0	0	0	0	0	72	0	72	42	0	0	42	114
8:15 AM	0	1	0	1	2	44	0	46	24	0	0	24	71
8:30 AM	0	0	0	0	0	43	0	43	15	0	0	15	58
8:45 AM	2	0	0	2	0	41	0	41	33	1	0	34	77
Total	2	1	0	3	2	200	0	202	114	1	0	115	320
Grand Total	7	4	0	11	9	414	0	423	246	4	0	250	684
Approach %	63.6	36.4	0.0		2.1	97.9	0.0		98.4	1.6	0.0		
Total %	1.0	0.6	0.0	1.6	1.3	60.5	0.0	61.8	36.0	0.6	0.0	36.5	
Exiting Leg Total				13				250				421	684

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	3	1	0	4	3	58	0	61	28	1	0	29	94
7:30 AM	0	0	0	0	0	57	0	57	35	1	0	36	93
7:45 AM	1	0	0	1	2	62	0	64	38	0	0	38	103
8:00 AM	0	0	0	0	0	72	0	72	42	0	0	42	114
Total Volume	4	1	0	5	5	249	0	254	143	2	0	145	404
% Approach Total	80.0	20.0	0.0		2.0	98.0	0.0		98.6	1.4	0.0		
PHF	0.333	0.250	0.000	0.313	0.417	0.865	0.000	0.882	0.851	0.500	0.000	0.863	0.886
Entering Leg	4	1	0	5	5	249	0	254	143	2	0	145	404
Exiting Leg				7				144				253	404
Total				12				398				398	808

PDI File #: **186173 C**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	1	3	0	4	1	0	0	1	5
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
7:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	1	5	0	6	3	0	0	3	9
8:00 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
8:15 AM	0	0	0	0	0	3	0	3	1	1	0	2	5
8:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	5	0	5	2	1	0	3	8
Grand Total	0	0	0	0	1	10	0	11	5	1	0	6	17
Approach %	0.0	0.0	0.0		9.1	90.9	0.0		83.3	16.7	0.0		
Total %	0.0	0.0	0.0	0.0	5.9	58.8	0.0	64.7	29.4	5.9	0.0	35.3	
Exiting Leg Total				2				5				10	17
Buses	0	0	0	0	1	4	0	5	2	0	0	2	7
% Buses	0.0	0.0	0.0	0.0	100.0	40.0	0.0	45.5	40.0	0.0	0.0	33.3	41.2
Exiting Leg Total				1				2				4	7
Single-Unit Trucks	0	0	0	0	0	6	0	6	3	1	0	4	10
% Single-Unit	0.0	0.0	0.0	0.0	0.0	60.0	0.0	54.5	60.0	100.0	0.0	66.7	58.8
Exiting Leg Total				1				3				6	10
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
7:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
8:15 AM	0	0	0	0	0	3	0	3	1	1	0	2	5
Total Volume	0	0	0	0	0	6	0	6	3	1	0	4	10
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		75.0	25.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.750	0.250	0.000	0.500	0.500
Buses	0	0	0	0	0	2	0	2	1	0	0	1	3
Buses %	0.0	0.0	0.0	0.0	0.0	33.3	0.0	33.3	33.3	0.0	0.0	25.0	30.0
Single-Unit Trucks	0	0	0	0	0	4	0	4	2	1	0	3	7
Single-Unit %	0.0	0.0	0.0	0.0	0.0	66.7	0.0	66.7	66.7	100.0	0.0	75.0	70.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	2	0	2	1	0	0	1	3
Single-Unit Trucks	0	0	0	0	0	4	0	4	2	1	0	3	7
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	0	6	0	6	3	1	0	4	10
Buses				0				1				2	3
Single-Unit Trucks				1				2				4	7
Articulated Trucks				0				0				0	0
Total Exiting Leg				1				3				6	10

PDI File #: **186173 C**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	1	2	0	3	0	35	0	35	30	1	0	31	69
7:15 AM	3	0	0	3	3	53	0	56	26	0	0	26	85
7:30 AM	0	0	0	0	0	52	0	52	32	1	0	33	85
7:45 AM	1	0	0	1	2	60	0	62	37	0	0	37	100
Total	5	2	0	7	5	200	0	205	125	2	0	127	339
8:00 AM	0	0	0	0	0	69	0	69	39	0	0	39	108
8:15 AM	0	1	0	1	2	41	0	43	22	0	0	22	66
8:30 AM	0	0	0	0	0	42	0	42	14	0	0	14	56
8:45 AM	1	0	0	1	0	40	0	40	33	1	0	34	75
Total	1	1	0	2	2	192	0	194	108	1	0	109	305
Grand Total	6	3	0	9	7	392	0	399	233	3	0	236	644
Approach %	66.7	33.3	0.0		1.8	98.2	0.0		98.7	1.3	0.0		
Total %	0.9	0.5	0.0	1.4	1.1	60.9	0.0	62.0	36.2	0.5	0.0	36.6	
Exiting Leg Total				10				236				398	644

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	3	0	0	3	3	53	0	56	26	0	0	26	85
7:30 AM	0	0	0	0	0	52	0	52	32	1	0	33	85
7:45 AM	1	0	0	1	2	60	0	62	37	0	0	37	100
8:00 AM	0	0	0	0	0	69	0	69	39	0	0	39	108
Total Volume	4	0	0	4	5	234	0	239	134	1	0	135	378
% Approach Total	100.0	0.0	0.0		2.1	97.9	0.0		99.3	0.7	0.0		
PHF	0.333	0.000	0.000	0.333	0.417	0.848	0.000	0.866	0.859	0.250	0.000	0.865	0.875
Entering Leg	4	0	0	4	5	234	0	239	134	1	0	135	378
Exiting Leg				6				134				238	378
Total				10				373				373	756

PDI File #: **186173 C**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	2	2	0	4	1	0	0	1	5
7:15 AM	0	1	0	1	0	5	0	5	2	1	0	3	9
7:30 AM	0	0	0	0	0	5	0	5	3	0	0	3	8
7:45 AM	0	0	0	0	0	2	0	2	1	0	0	1	3
Total	0	1	0	1	2	14	0	16	7	1	0	8	25
8:00 AM	0	0	0	0	0	3	0	3	3	0	0	3	6
8:15 AM	0	0	0	0	0	3	0	3	2	0	0	2	5
8:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
8:45 AM	1	0	0	1	0	1	0	1	0	0	0	0	2
Total	1	0	0	1	0	8	0	8	6	0	0	6	15
Grand Total	1	1	0	2	2	22	0	24	13	1	0	14	40
Approach %	50.0	50.0	0.0		8.3	91.7	0.0		92.9	7.1	0.0		
Total %	2.5	2.5	0.0	5.0	5.0	55.0	0.0	60.0	32.5	2.5	0.0	35.0	
Exiting Leg Total				3				14				23	40

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	0	1	0	1	0	5	0	5	2	1	0	3	9
7:30 AM	0	0	0	0	0	5	0	5	3	0	0	3	8
7:45 AM	0	0	0	0	0	2	0	2	1	0	0	1	3
8:00 AM	0	0	0	0	0	3	0	3	3	0	0	3	6
Total Volume	0	1	0	1	0	15	0	15	9	1	0	10	26
% Approach Total	0.0	100.0	0.0		0.0	100.0	0.0		90.0	10.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.000	0.750	0.000	0.750	0.750	0.250	0.000	0.833	0.722
Entering Leg	0	1	0	1	0	15	0	15	9	1	0	10	26
Exiting Leg				1				10				15	26
Total				2				25				25	52

PDI File #: **186173 C**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	1	2	0	3	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	1	3	0	4	1	0	0	1	5
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
8:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	1	0	0	1	2
Grand Total	0	0	0	0	1	4	0	5	2	0	0	2	7
Approach %	0.0	0.0	0.0		20.0	80.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	14.3	57.1	0.0	71.4	28.6	0.0	0.0	28.6	
Exiting Leg Total				1				2				4	7

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	1	2	0	3	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	0	0	0	1	3	0	4	1	0	0	1	5
% Approach Total	0.0	0.0	0.0		25.0	75.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.375	0.000	0.333	0.250	0.000	0.000	0.250	0.417
Entering Leg	0	0	0	0	1	3	0	4	1	0	0	1	5
Exiting Leg				1				1				3	5
Total				1				5				4	10

PDI File #: **186173 C**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	0	2	2	0	0	2	4
8:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:15 AM	0	0	0	0	0	2	0	2	1	1	0	2	4
8:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	4	0	4	1	1	0	2	6
Grand Total	0	0	0	0	0	6	0	6	3	1	0	4	10
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		75.0	25.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	60.0	0.0	60.0	30.0	10.0	0.0	40.0	
Exiting Leg Total				1				3				6	10

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:15 AM	0	0	0	0	0	2	0	2	1	1	0	2	4
Total Volume	0	0	0	0	0	4	0	4	2	1	0	3	7
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		66.7	33.3	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.500	0.250	0.000	0.375	0.438
Entering Leg	0	0	0	0	0	4	0	4	2	1	0	3	7
Exiting Leg				1				2				4	7
Total				1				6				7	14

PDI File #: **186173 C**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 C**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Northerly Site Driveway						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Northerly Site Driveway						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 C**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Northerly Site Driveway						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2
7:30 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	3	2	5	0	0	0	0	0	0	0	0	0	0	1	1	6
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	3	2	5	0	0	0	0	0	0	0	0	0	0	1	1	6
Approach %	0	0	0	60	40		0	0	0	0	0		0	0	0	0	100		
Total %	0	0	0	50	33.333	83.333	0	0	0	0	0	0	0	0	0	0	16.667	16.667	
Exiting Leg Total						5						0						1	6

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Northerly Site Driveway						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2
7:30 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	3	2	5	0	0	0	0	0	0	0	0	0	0	1	1	6
% Approach Total	0.0	0.0	0.0	60.0	40.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0		
PHF	0.000	0.000	0.000	0.375	0.500	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.750
Entering Leg	0	0	0	3	2	5	0	0	0	0	0	0	0	0	0	0	1	1	6
Exiting Leg						5						0						1	6
Total						10						0						2	12

PDI File #:	**186173 CC**
Location:	**N: Northerly Site Driveway**
Location:	**E: Whitwell Street W: Whitwell Street**
City, State:	**Quincy, MA**
Client:	**Tetratech/ I. Prizant**
Site Code:	**143-166451-17001**
Count Date:	**Tuesday, April 03, 2018**
Start Time:	**4:00 PM**
End Time:	**6:00 PM**
Class:	

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	1	1	0	2	1	47	0	48	51	1	0	52	102
4:15 PM	0	1	0	1	1	44	0	45	51	2	0	53	99
4:30 PM	0	1	0	1	1	53	0	54	51	0	0	51	106
4:45 PM	1	0	0	1	0	30	0	30	54	1	0	55	86
Total	2	3	0	5	3	174	0	177	207	4	0	211	393
5:00 PM	1	0	0	1	1	37	0	38	50	1	0	51	90
5:15 PM	0	1	0	1	2	50	0	52	52	0	0	52	105
5:30 PM	0	1	0	1	0	39	0	39	62	1	0	63	103
5:45 PM	0	0	0	0	1	38	0	39	64	1	0	65	104
Total	1	2	0	3	4	164	0	168	228	3	0	231	402
Grand Total	3	5	0	8	7	338	0	345	435	7	0	442	795
Approach %	37.5	62.5	0.0		2.0	98.0	0.0		98.4	1.6	0.0		
Total %	0.4	0.6	0.0	1.0	0.9	42.5	0.0	43.4	54.7	0.9	0.0	55.6	
Exiting Leg Total				14				440				341	795
Cars	3	5	0	8	6	329	0	335	427	6	0	433	776
% Cars	100.0	100.0	0.0	100.0	85.7	97.3	0.0	97.1	98.2	85.7	0.0	98.0	97.6
Exiting Leg Total				12				432				332	776
Heavy Vehicles	0	0	0	0	1	9	0	10	8	1	0	9	19
% Heavy Vehicles	0.0	0.0	0.0	0.0	14.3	2.7	0.0	2.9	1.8	14.3	0.0	2.0	2.4
Exiting Leg Total				2				8				9	19

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
5:00 PM	1	0	0	1	1	37	0	38	50	1	0	51	90
5:15 PM	0	1	0	1	2	50	0	52	52	0	0	52	105
5:30 PM	0	1	0	1	0	39	0	39	62	1	0	63	103
5:45 PM	0	0	0	0	1	38	0	39	64	1	0	65	104
Total Volume	1	2	0	3	4	164	0	168	228	3	0	231	402
% Approach Total	33.3	66.7	0.0		2.4	97.6	0.0		98.7	1.3	0.0		
PHF	0.250	0.500	0.000	0.750	0.500	0.820	0.000	0.808	0.891	0.750	0.000	0.888	0.957
Cars	1	2	0	3	4	160	0	164	224	3	0	227	394
Cars %	100.0	100.0	0.0	100.0	100.0	97.6	0.0	97.6	98.2	100.0	0.0	98.3	98.0
Heavy Vehicles	0	0	0	0	0	4	0	4	4	0	0	4	8
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	2.4	0.0	2.4	1.8	0.0	0.0	1.7	2.0
Cars Enter Leg	1	2	0	3	4	160	0	164	224	3	0	227	394
Heavy Enter Leg	0	0	0	0	0	4	0	4	4	0	0	4	8
Total Entering Leg	1	2	0	3	4	164	0	168	228	3	0	231	402
Cars Exiting Leg				7				226				161	394
Heavy Exiting Leg				0				4				4	8
Total Exiting Leg				7				230				165	402

PDI File #: **186173 CC**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Cars-Combined (Motorcycles, Cars, Light Goods)**

	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	1	1	0	2	0	45	0	45	49	1	0	50	97
4:15 PM	0	1	0	1	1	43	0	44	51	1	0	52	97
4:30 PM	0	1	0	1	1	52	0	53	50	0	0	50	104
4:45 PM	1	0	0	1	0	29	0	29	53	1	0	54	84
Total	2	3	0	5	2	169	0	171	203	3	0	206	382
5:00 PM	1	0	0	1	1	36	0	37	48	1	0	49	87
5:15 PM	0	1	0	1	2	49	0	51	52	0	0	52	104
5:30 PM	0	1	0	1	0	38	0	38	60	1	0	61	100
5:45 PM	0	0	0	0	1	37	0	38	64	1	0	65	103
Total	1	2	0	3	4	160	0	164	224	3	0	227	394
Grand Total	3	5	0	8	6	329	0	335	427	6	0	433	776
Approach %	37.5	62.5	0.0		1.8	98.2	0.0		98.6	1.4	0.0		
Total %	0.4	0.6	0.0	1.0	0.8	42.4	0.0	43.2	55.0	0.8	0.0	55.8	
Exiting Leg Total				12				432				332	776

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
5:00 PM	1	0	0	1	1	36	0	37	48	1	0	49	87
5:15 PM	0	1	0	1	2	49	0	51	52	0	0	52	104
5:30 PM	0	1	0	1	0	38	0	38	60	1	0	61	100
5:45 PM	0	0	0	0	1	37	0	38	64	1	0	65	103
Total Volume	1	2	0	3	4	160	0	164	224	3	0	227	394
% Approach Total	33.3	66.7	0.0		2.4	97.6	0.0		98.7	1.3	0.0		
PHF	0.250	0.500	0.000	0.750	0.500	0.816	0.000	0.804	0.875	0.750	0.000	0.873	0.947
Entering Leg	1	2	0	3	4	160	0	164	224	3	0	227	394
Exiting Leg				7				226				161	394
Total				10				390				388	788

PDI File #: **186173 CC**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	1	2	0	3	2	0	0	2	5
4:15 PM	0	0	0	0	0	1	0	1	0	1	0	1	2
4:30 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
4:45 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
Total	0	0	0	0	1	5	0	6	4	1	0	5	11
5:00 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	4	0	4	4	0	0	4	8
Grand Total	0	0	0	0	1	9	0	10	8	1	0	9	19
Approach %	0.0	0.0	0.0		10.0	90.0	0.0		88.9	11.1	0.0		
Total %	0.0	0.0	0.0	0.0	5.3	47.4	0.0	52.6	42.1	5.3	0.0	47.4	
Exiting Leg Total				2				8				9	19
Buses	0	0	0	0	1	5	0	6	5	1	0	6	12
% Buses	0.0	0.0	0.0	0.0	100.0	55.6	0.0	60.0	62.5	100.0	0.0	66.7	63.2
Exiting Leg Total				2				5				5	12
Single-Unit Trucks	0	0	0	0	0	4	0	4	3	0	0	3	7
% Single-Unit	0.0	0.0	0.0	0.0	0.0	44.4	0.0	40.0	37.5	0.0	0.0	33.3	36.8
Exiting Leg Total				0				3				4	7
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	1	2	0	3	2	0	0	2	5
4:15 PM	0	0	0	0	0	1	0	1	0	1	0	1	2
4:30 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
4:45 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
Total Volume	0	0	0	0	1	5	0	6	4	1	0	5	11
% Approach Total	0.0	0.0	0.0		16.7	83.3	0.0		80.0	20.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.625	0.000	0.500	0.500	0.250	0.000	0.625	0.550
Buses	0	0	0	0	1	2	0	3	2	1	0	3	6
Buses %	0.0	0.0	0.0	0.0	100.0	40.0	0.0	50.0	50.0	100.0	0.0	60.0	54.5
Single-Unit Trucks	0	0	0	0	0	3	0	3	2	0	0	2	5
Single-Unit %	0.0	0.0	0.0	0.0	0.0	60.0	0.0	50.0	50.0	0.0	0.0	40.0	45.5
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	1	2	0	3	2	1	0	3	6
Single-Unit Trucks	0	0	0	0	0	3	0	3	2	0	0	2	5
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	1	5	0	6	4	1	0	5	11
Buses				2				2				2	6
Single-Unit Trucks				0				2				3	5
Articulated Trucks				0				0				0	0
Total Exiting Leg				2				4				5	11

PDI File #: **186173 CC**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	1	1	0	2	0	40	0	40	42	1	0	43	85
4:15 PM	0	1	0	1	1	42	0	43	47	1	0	48	92
4:30 PM	0	1	0	1	1	47	0	48	44	0	0	44	93
4:45 PM	1	0	0	1	0	25	0	25	47	1	0	48	74
Total	2	3	0	5	2	154	0	156	180	3	0	183	344
5:00 PM	0	0	0	0	0	34	0	34	42	0	0	42	76
5:15 PM	0	1	0	1	2	47	0	49	49	0	0	49	99
5:30 PM	0	1	0	1	0	37	0	37	52	1	0	53	91
5:45 PM	0	0	0	0	1	36	0	37	60	1	0	61	98
Total	0	2	0	2	3	154	0	157	203	2	0	205	364
Grand Total	2	5	0	7	5	308	0	313	383	5	0	388	708
Approach %	28.6	71.4	0.0		1.6	98.4	0.0		98.7	1.3	0.0		
Total %	0.3	0.7	0.0	1.0	0.7	43.5	0.0	44.2	54.1	0.7	0.0	54.8	
Exiting Leg Total				10				388				310	708

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	34	0	34	42	0	0	42	76
5:15 PM	0	1	0	1	2	47	0	49	49	0	0	49	99
5:30 PM	0	1	0	1	0	37	0	37	52	1	0	53	91
5:45 PM	0	0	0	0	1	36	0	37	60	1	0	61	98
Total Volume	0	2	0	2	3	154	0	157	203	2	0	205	364
% Approach Total	0.0	100.0	0.0		1.9	98.1	0.0		99.0	1.0	0.0		
PHF	0.000	0.500	0.000	0.500	0.375	0.819	0.000	0.801	0.846	0.500	0.000	0.840	0.919
Entering Leg	0	2	0	2	3	154	0	157	203	2	0	205	364
Exiting Leg				5				205				154	364
Total				7				362				359	728

PDI File #: **186173 CC**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	5	0	5	7	0	0	7	12
4:15 PM	0	0	0	0	0	1	0	1	4	0	0	4	5
4:30 PM	0	0	0	0	0	5	0	5	6	0	0	6	11
4:45 PM	0	0	0	0	0	4	0	4	6	0	0	6	10
Total	0	0	0	0	0	15	0	15	23	0	0	23	38
5:00 PM	1	0	0	1	1	2	0	3	6	1	0	7	11
5:15 PM	0	0	0	0	0	2	0	2	3	0	0	3	5
5:30 PM	0	0	0	0	0	1	0	1	8	0	0	8	9
5:45 PM	0	0	0	0	0	1	0	1	4	0	0	4	5
Total	1	0	0	1	1	6	0	7	21	1	0	22	30
Grand Total	1	0	0	1	1	21	0	22	44	1	0	45	68
Approach %	100.0	0.0	0.0		4.5	95.5	0.0		97.8	2.2	0.0		
Total %	1.5	0.0	0.0	1.5	1.5	30.9	0.0	32.4	64.7	1.5	0.0	66.2	
Exiting Leg Total				2				44				22	68

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	5	0	5	7	0	0	7	12
4:15 PM	0	0	0	0	0	1	0	1	4	0	0	4	5
4:30 PM	0	0	0	0	0	5	0	5	6	0	0	6	11
4:45 PM	0	0	0	0	0	4	0	4	6	0	0	6	10
Total Volume	0	0	0	0	0	15	0	15	23	0	0	23	38
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.821	0.000	0.000	0.821	0.792
Entering Leg	0	0	0	0	0	15	0	15	23	0	0	23	38
Exiting Leg				0				23				15	38
Total				0				38				38	76

PDI File #: **186173 CC**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	1	1	0	2	1	0	0	1	3
4:15 PM	0	0	0	0	0	1	0	1	0	1	0	1	2
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	2	0	3	2	1	0	3	6
5:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	3	0	3	3	0	0	3	6
Grand Total	0	0	0	0	1	5	0	6	5	1	0	6	12
Approach %	0.0	0.0	0.0		16.7	83.3	0.0		83.3	16.7	0.0		
Total %	0.0	0.0	0.0	0.0	8.3	41.7	0.0	50.0	41.7	8.3	0.0	50.0	
Exiting Leg Total				2				5				5	12

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	1	1	0	2	1	0	0	1	3
4:15 PM	0	0	0	0	0	1	0	1	0	1	0	1	2
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	2	0	3	2	1	0	3	6
% Approach Total	0.0	0.0	0.0		33.3	66.7	0.0		66.7	33.3	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.500	0.000	0.375	0.500	0.250	0.000	0.750	0.500
Entering Leg	0	0	0	0	1	2	0	3	2	1	0	3	6
Exiting Leg				2				2				2	6
Total				2				5				5	12

PDI File #: **186173 CC**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
Total	0	0	0	0	0	3	0	3	2	0	0	2	5
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	1	0	1	1	0	0	1	2
Grand Total	0	0	0	0	0	4	0	4	3	0	0	3	7
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	57.1	0.0	57.1	42.9	0.0	0.0	42.9	
Exiting Leg Total				0				3				4	7

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
Total Volume	0	0	0	0	0	3	0	3	2	0	0	2	5
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.500	0.000	0.000	0.500	0.625
Entering Leg	0	0	0	0	0	3	0	3	2	0	0	2	5
Exiting Leg				0				2				3	5
Total				0				5				5	10

PDI File #: **186173 CC**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Northerly Site Driveway				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 CC**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Northerly Site Driveway						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Northerly Site Driveway						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 CC**
Location: **N: Northerly Site Driveway**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Northerly Site Driveway						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Approach %	0	0	0	0	100		0	0	0	0	0		0	0	0	0	0		
Total %	0	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg Total						1						0						0	1

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Northerly Site Driveway						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg						1						0						0	1
Total						2						0						0	2

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	40	1	0	41	1	2	0	3	0	34	1	35	79
7:15 AM	58	1	0	59	1	3	0	4	1	28	0	29	92
7:30 AM	50	0	0	50	3	8	0	11	1	33	0	34	95
7:45 AM	62	1	0	63	3	2	0	5	2	38	0	40	108
Total	210	3	0	213	8	15	0	23	4	133	1	138	374
8:00 AM	69	1	0	70	3	5	0	8	3	40	0	43	121
8:15 AM	45	1	0	46	5	2	0	7	0	27	0	27	80
8:30 AM	43	1	0	44	0	1	0	1	1	14	0	15	60
8:45 AM	38	0	0	38	0	2	0	2	0	33	0	33	73
Total	195	3	0	198	8	10	0	18	4	114	0	118	334
Grand Total	405	6	0	411	16	25	0	41	8	247	1	256	708
Approach %	98.5	1.5	0.0		39.0	61.0	0.0		3.1	96.5	0.4		
Total %	57.2	0.8	0.0	58.1	2.3	3.5	0.0	5.8	1.1	34.9	0.1	36.2	
Exiting Leg Total				263				14				431	708
Cars	394	5	0	399	16	25	0	41	8	242	1	251	691
% Cars	97.3	83.3	0.0	97.1	100.0	100.0	0.0	100.0	100.0	98.0	100.0	98.0	97.6
Exiting Leg Total				258				13				420	691
Heavy Vehicles	11	1	0	12	0	0	0	0	0	5	0	5	17
% Heavy Vehicles	2.7	16.7	0.0	2.9	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.0	2.4
Exiting Leg Total				5				1				11	17

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	58	1	0	59	1	3	0	4	1	28	0	29	92
7:30 AM	50	0	0	50	3	8	0	11	1	33	0	34	95
7:45 AM	62	1	0	63	3	2	0	5	2	38	0	40	108
8:00 AM	69	1	0	70	3	5	0	8	3	40	0	43	121
Total Volume	239	3	0	242	10	18	0	28	7	139	0	146	416
% Approach Total	98.8	1.2	0.0		35.7	64.3	0.0		4.8	95.2	0.0		
PHF	0.866	0.750	0.000	0.864	0.833	0.563	0.000	0.636	0.583	0.869	0.000	0.849	0.860
Cars	236	2	0	238	10	18	0	28	7	136	0	143	409
Cars %	98.7	66.7	0.0	98.3	100.0	100.0	0.0	100.0	100.0	97.8	0.0	97.9	98.3
Heavy Vehicles	3	1	0	4	0	0	0	0	0	3	0	3	7
Heavy Vehicles %	1.3	33.3	0.0	1.7	0.0	0.0	0.0	0.0	0.0	2.2	0.0	2.1	1.7
Cars Enter Leg	236	2	0	238	10	18	0	28	7	136	0	143	409
Heavy Enter Leg	3	1	0	4	0	0	0	0	0	3	0	3	7
Total Entering Leg	239	3	0	242	10	18	0	28	7	139	0	146	416
Cars Exiting Leg				146				9				254	409
Heavy Exiting Leg				3				1				3	7
Total Exiting Leg				149				10				257	416

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	36	1	0	37	1	2	0	3	0	33	1	34	74
7:15 AM	58	1	0	59	1	3	0	4	1	27	0	28	91
7:30 AM	49	0	0	49	3	8	0	11	1	32	0	33	93
7:45 AM	61	0	0	61	3	2	0	5	2	38	0	40	106
Total	204	2	0	206	8	15	0	23	4	130	1	135	364
8:00 AM	68	1	0	69	3	5	0	8	3	39	0	42	119
8:15 AM	42	1	0	43	5	2	0	7	0	26	0	26	76
8:30 AM	42	1	0	43	0	1	0	1	1	14	0	15	59
8:45 AM	38	0	0	38	0	2	0	2	0	33	0	33	73
Total	190	3	0	193	8	10	0	18	4	112	0	116	327
Grand Total	394	5	0	399	16	25	0	41	8	242	1	251	691
Approach %	98.7	1.3	0.0		39.0	61.0	0.0		3.2	96.4	0.4		
Total %	57.0	0.7	0.0	57.7	2.3	3.6	0.0	5.9	1.2	35.0	0.1	36.3	
Exiting Leg Total				258				13				420	691

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	58	1	0	59	1	3	0	4	1	27	0	28	91
7:30 AM	49	0	0	49	3	8	0	11	1	32	0	33	93
7:45 AM	61	0	0	61	3	2	0	5	2	38	0	40	106
8:00 AM	68	1	0	69	3	5	0	8	3	39	0	42	119
Total Volume	236	2	0	238	10	18	0	28	7	136	0	143	409
% Approach Total	99.2	0.8	0.0		35.7	64.3	0.0		4.9	95.1	0.0		
PHF	0.868	0.500	0.000	0.862	0.833	0.563	0.000	0.636	0.583	0.872	0.000	0.851	0.859
Entering Leg	236	2	0	238	10	18	0	28	7	136	0	143	409
Exiting Leg				146				9				254	409
Total				384				37				397	818

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	4	0	0	4	0	0	0	0	0	1	0	1	5
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:30 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
7:45 AM	1	1	0	2	0	0	0	0	0	0	0	0	2
Total	6	1	0	7	0	0	0	0	0	3	0	3	10
8:00 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
8:15 AM	3	0	0	3	0	0	0	0	0	1	0	1	4
8:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	0	0	5	0	0	0	0	0	2	0	2	7
Grand Total	11	1	0	12	0	0	0	0	0	5	0	5	17
Approach %	91.7	8.3	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	64.7	5.9	0.0	70.6	0.0	0.0	0.0	0.0	0.0	29.4	0.0	29.4	
Exiting Leg Total				5				1				11	17
Buses	5	0	0	5	0	0	0	0	0	2	0	2	7
% Buses	45.5	0.0	0.0	41.7	0.0	0.0	0.0	0.0	0.0	40.0	0.0	40.0	41.2
Exiting Leg Total				2				0				5	7
Single-Unit Trucks	5	1	0	6	0	0	0	0	0	3	0	3	9
% Single-Unit	45.5	100.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	60.0	52.9
Exiting Leg Total				3				1				5	9
Articulated Trucks	1	0	0	1	0	0	0	0	0	0	0	0	1
% Articulated	9.1	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
Exiting Leg Total				0				0				1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	4	0	0	4	0	0	0	0	0	1	0	1	5
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:30 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
7:45 AM	1	1	0	2	0	0	0	0	0	0	0	0	2
Total Volume	6	1	0	7	0	0	0	0	0	3	0	3	10
% Approach Total	85.7	14.3	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.375	0.250	0.000	0.438	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.500
Buses	4	0	0	4	0	0	0	0	0	1	0	1	5
Buses %	66.7	0.0	0.0	57.1	0.0	0.0	0.0	0.0	0.0	33.3	0.0	33.3	50.0
Single-Unit Trucks	2	1	0	3	0	0	0	0	0	2	0	2	5
Single-Unit %	33.3	100.0	0.0	42.9	0.0	0.0	0.0	0.0	0.0	66.7	0.0	66.7	50.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	4	0	0	4	0	0	0	0	0	1	0	1	5
Single-Unit Trucks	2	1	0	3	0	0	0	0	0	2	0	2	5
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	6	1	0	7	0	0	0	0	0	3	0	3	10
Buses				1				0				4	5
Single-Unit Trucks				2				1				2	5
Articulated Trucks				0				0				0	0
Total Exiting Leg				3				1				6	10

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	33	1	0	34	1	2	0	3	0	33	1	34	71
7:15 AM	53	1	0	54	1	3	0	4	1	25	0	26	84
7:30 AM	45	0	0	45	3	7	0	10	1	29	0	30	85
7:45 AM	57	0	0	57	3	2	0	5	2	36	0	38	100
Total	188	2	0	190	8	14	0	22	4	123	1	128	340
8:00 AM	65	1	0	66	1	5	0	6	2	37	0	39	111
8:15 AM	39	1	0	40	5	1	0	6	0	24	0	24	70
8:30 AM	41	1	0	42	0	1	0	1	1	14	0	15	58
8:45 AM	37	0	0	37	0	2	0	2	0	33	0	33	72
Total	182	3	0	185	6	9	0	15	3	108	0	111	311
Grand Total	370	5	0	375	14	23	0	37	7	231	1	239	651
Approach %	98.7	1.3	0.0		37.8	62.2	0.0		2.9	96.7	0.4		
Total %	56.8	0.8	0.0	57.6	2.2	3.5	0.0	5.7	1.1	35.5	0.2	36.7	
Exiting Leg Total				245				12				394	651

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	53	1	0	54	1	3	0	4	1	25	0	26	84
7:30 AM	45	0	0	45	3	7	0	10	1	29	0	30	85
7:45 AM	57	0	0	57	3	2	0	5	2	36	0	38	100
8:00 AM	65	1	0	66	1	5	0	6	2	37	0	39	111
Total Volume	220	2	0	222	8	17	0	25	6	127	0	133	380
% Approach Total	99.1	0.9	0.0		32.0	68.0	0.0		4.5	95.5	0.0		
PHF	0.846	0.500	0.000	0.841	0.667	0.607	0.000	0.625	0.750	0.858	0.000	0.853	0.856
Entering Leg	220	2	0	222	8	17	0	25	6	127	0	133	380
Exiting Leg				135				8				237	380
Total				357				33				370	760

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	3	0	0	3	0	0	0	0	0	0	0	0	3
7:15 AM	5	0	0	5	0	0	0	0	0	2	0	2	7
7:30 AM	4	0	0	4	0	1	0	1	0	3	0	3	8
7:45 AM	4	0	0	4	0	0	0	0	0	2	0	2	6
Total	16	0	0	16	0	1	0	1	0	7	0	7	24
8:00 AM	3	0	0	3	2	0	0	2	1	2	0	3	8
8:15 AM	3	0	0	3	0	1	0	1	0	2	0	2	6
8:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	8	0	0	8	2	1	0	3	1	4	0	5	16
Grand Total	24	0	0	24	2	2	0	4	1	11	0	12	40
Approach %	100.0	0.0	0.0		50.0	50.0	0.0		8.3	91.7	0.0		
Total %	60.0	0.0	0.0	60.0	5.0	5.0	0.0	10.0	2.5	27.5	0.0	30.0	
Exiting Leg Total				13				1				26	40

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	5	0	0	5	0	0	0	0	0	2	0	2	7
7:30 AM	4	0	0	4	0	1	0	1	0	3	0	3	8
7:45 AM	4	0	0	4	0	0	0	0	0	2	0	2	6
8:00 AM	3	0	0	3	2	0	0	2	1	2	0	3	8
Total Volume	16	0	0	16	2	1	0	3	1	9	0	10	29
% Approach Total	100.0	0.0	0.0		66.7	33.3	0.0		10.0	90.0	0.0		
PHF	0.800	0.000	0.000	0.800	0.250	0.250	0.000	0.375	0.250	0.750	0.000	0.833	0.906
Entering Leg	16	0	0	16	2	1	0	3	1	9	0	10	29
Exiting Leg				11				1				17	29
Total				27				4				27	58

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	3	0	0	3	0	0	0	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	4	0	0	4	0	0	0	0	0	1	0	1	5
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
8:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	0	1	0	1	2
Grand Total	5	0	0	5	0	0	0	0	0	2	0	2	7
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	71.4	0.0	0.0	71.4	0.0	0.0	0.0	0.0	0.0	28.6	0.0	28.6	
Exiting Leg Total				2				0				5	7

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	3	0	0	3	0	0	0	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Volume	4	0	0	4	0	0	0	0	0	1	0	1	5
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.333	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.417
Entering Leg	4	0	0	4	0	0	0	0	0	1	0	1	5
Exiting Leg				1				0				4	5
Total				5				0				5	10

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
7:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	2	1	0	3	0	0	0	0	0	2	0	2	5
8:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:15 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
8:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	0	0	3	0	0	0	0	0	1	0	1	4
Grand Total	5	1	0	6	0	0	0	0	0	3	0	3	9
Approach %	83.3	16.7	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	55.6	11.1	0.0	66.7	0.0	0.0	0.0	0.0	0.0	33.3	0.0	33.3	
Exiting Leg Total				3				1				5	9

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:30 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
7:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
8:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:15 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
Total Volume	3	1	0	4	0	0	0	0	0	2	0	2	6
% Approach Total	75.0	25.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.750	0.250	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.750
Entering Leg	3	1	0	4	0	0	0	0	0	2	0	2	6
Exiting Leg				2				1				3	6
Total				6				1				5	12

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	0	0	0	0	1
Grand Total	1	0	0	1	0	0	0	0	0	0	0	0	1
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Volume	1	0	0	1	0	0	0	0	0	0	0	0	1
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	1	0	0	1	0	0	0	0	0	0	0	0	1
Exiting Leg				0				0				1	1
Total				1				0				1	2

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Whitwell Street						Farrell Street						Whitwell Street						
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Whitwell Street						Farrell Street						Whitwell Street						
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Whitwell Street from East						Farrell Street from South						Whitwell Street from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	4
8:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	1	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	2
Total	0	0	0	1	0	1	0	0	0	1	1	2	0	0	0	1	2	3	6
Grand Total	0	0	0	1	0	1	0	0	0	1	5	6	0	0	0	1	2	3	10
Approach %	0	0	0	100	0		0	0	0	16.667	83.333		0	0	0	33.333	66.667		
Total %	0	0	0	10	0	10	0	0	0	10	50	60	0	0	0	10	20	30	
Exiting Leg Total						1						6						3	10

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Whitwell Street from East						Farrell Street from South						Whitwell Street from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:45 AM	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	3
8:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	1	2
Total Volume	0	0	0	1	0	1	0	0	0	1	3	4	0	0	0	1	1	2	7
% Approach Total	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	25.0	75.0		0.0	0.0	0.0	50.0	50.0		
PHF	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.250	0.250	0.333	0.000	0.000	0.000	0.250	0.250	0.500	0.583
Entering Leg	0	0	0	1	0	1	0	0	0	1	3	4	0	0	0	1	1	2	7
Exiting Leg						1						4						2	7
Total						2						8						4	14

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	46	1	0	47	1	0	0	1	2	48	0	50	98
4:15 PM	45	0	0	45	2	1	0	3	2	50	0	52	100
4:30 PM	52	2	0	54	0	3	0	3	4	50	0	54	111
4:45 PM	29	3	0	32	1	1	0	2	2	51	0	53	87
Total	172	6	0	178	4	5	0	9	10	199	0	209	396
5:00 PM	37	0	0	37	2	1	0	3	1	50	0	51	91
5:15 PM	51	2	0	53	1	0	0	1	1	51	0	52	106
5:30 PM	38	1	0	39	0	1	0	1	0	61	0	61	101
5:45 PM	38	3	0	41	3	1	0	4	1	67	0	68	113
Total	164	6	0	170	6	3	0	9	3	229	0	232	411
Grand Total	336	12	0	348	10	8	0	18	13	428	0	441	807
Approach %	96.6	3.4	0.0		55.6	44.4	0.0		2.9	97.1	0.0		
Total %	41.6	1.5	0.0	43.1	1.2	1.0	0.0	2.2	1.6	53.0	0.0	54.6	
Exiting Leg Total				438				25				344	807
Cars	327	11	0	338	10	8	0	18	13	421	0	434	790
% Cars	97.3	91.7	0.0	97.1	100.0	100.0	0.0	100.0	100.0	98.4	0.0	98.4	97.9
Exiting Leg Total				431				24				335	790
Heavy Vehicles	9	1	0	10	0	0	0	0	0	7	0	7	17
% Heavy Vehicles	2.7	8.3	0.0	2.9	0.0	0.0	0.0	0.0	0.0	1.6	0.0	1.6	2.1
Exiting Leg Total				7				1				9	17

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
5:00 PM	37	0	0	37	2	1	0	3	1	50	0	51	91
5:15 PM	51	2	0	53	1	0	0	1	1	51	0	52	106
5:30 PM	38	1	0	39	0	1	0	1	0	61	0	61	101
5:45 PM	38	3	0	41	3	1	0	4	1	67	0	68	113
Total Volume	164	6	0	170	6	3	0	9	3	229	0	232	411
% Approach Total	96.5	3.5	0.0		66.7	33.3	0.0		1.3	98.7	0.0		
PHF	0.804	0.500	0.000	0.802	0.500	0.750	0.000	0.563	0.750	0.854	0.000	0.853	0.909
Cars	160	6	0	166	6	3	0	9	3	226	0	229	404
Cars %	97.6	100.0	0.0	97.6	100.0	100.0	0.0	100.0	100.0	98.7	0.0	98.7	98.3
Heavy Vehicles	4	0	0	4	0	0	0	0	0	3	0	3	7
Heavy Vehicles %	2.4	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.3	1.7
Cars Enter Leg	160	6	0	166	6	3	0	9	3	226	0	229	404
Heavy Enter Leg	4	0	0	4	0	0	0	0	0	3	0	3	7
Total Entering Leg	164	6	0	170	6	3	0	9	3	229	0	232	411
Cars Exiting Leg				232				9				163	404
Heavy Exiting Leg				3				0				4	7
Total Exiting Leg				235				9				167	411

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Cars-Combined (Motorcycles, Cars, Light Goods)**

	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	44	1	0	45	1	0	0	1	2	46	0	48	94
4:15 PM	44	0	0	44	2	1	0	3	2	50	0	52	99
4:30 PM	51	1	0	52	0	3	0	3	4	49	0	53	108
4:45 PM	28	3	0	31	1	1	0	2	2	50	0	52	85
Total	167	5	0	172	4	5	0	9	10	195	0	205	386
5:00 PM	36	0	0	36	2	1	0	3	1	49	0	50	89
5:15 PM	50	2	0	52	1	0	0	1	1	51	0	52	105
5:30 PM	37	1	0	38	0	1	0	1	0	59	0	59	98
5:45 PM	37	3	0	40	3	1	0	4	1	67	0	68	112
Total	160	6	0	166	6	3	0	9	3	226	0	229	404
Grand Total	327	11	0	338	10	8	0	18	13	421	0	434	790
Approach %	96.7	3.3	0.0		55.6	44.4	0.0		3.0	97.0	0.0		
Total %	41.4	1.4	0.0	42.8	1.3	1.0	0.0	2.3	1.6	53.3	0.0	54.9	
Exiting Leg Total				431				24				335	790

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
5:00 PM	36	0	0	36	2	1	0	3	1	49	0	50	89
5:15 PM	50	2	0	52	1	0	0	1	1	51	0	52	105
5:30 PM	37	1	0	38	0	1	0	1	0	59	0	59	98
5:45 PM	37	3	0	40	3	1	0	4	1	67	0	68	112
Total Volume	160	6	0	166	6	3	0	9	3	226	0	229	404
% Approach Total	96.4	3.6	0.0		66.7	33.3	0.0		1.3	98.7	0.0		
PHF	0.800	0.500	0.000	0.798	0.500	0.750	0.000	0.563	0.750	0.843	0.000	0.842	0.902
Entering Leg	160	6	0	166	6	3	0	9	3	226	0	229	404
Exiting Leg				232				9				163	404
Total				398				18				392	808

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	2	0	0	2	0	0	0	0	0	2	0	2	4
4:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
4:30 PM	1	1	0	2	0	0	0	0	0	1	0	1	3
4:45 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
Total	5	1	0	6	0	0	0	0	0	4	0	4	10
5:00 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
5:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
5:30 PM	1	0	0	1	0	0	0	0	0	2	0	2	3
5:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	4	0	0	4	0	0	0	0	0	3	0	3	7
Grand Total	9	1	0	10	0	0	0	0	0	7	0	7	17
Approach %	90.0	10.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	52.9	5.9	0.0	58.8	0.0	0.0	0.0	0.0	0.0	41.2	0.0	41.2	
Exiting Leg Total				7				1				9	17
Buses	5	0	0	5	0	0	0	0	0	5	0	5	10
% Buses	55.6	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	71.4	0.0	71.4	58.8
Exiting Leg Total				5				0				5	10
Single-Unit Trucks	4	1	0	5	0	0	0	0	0	2	0	2	7
% Single-Unit	44.4	100.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	28.6	0.0	28.6	41.2
Exiting Leg Total				2				1				4	7
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	2	0	0	2	0	0	0	0	0	2	0	2	4
4:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
4:30 PM	1	1	0	2	0	0	0	0	0	1	0	1	3
4:45 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
Total Volume	5	1	0	6	0	0	0	0	0	4	0	4	10
% Approach Total	83.3	16.7	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.625	0.250	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.625
Buses	2	0	0	2	0	0	0	0	0	2	0	2	4
Buses %	40.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	50.0	0.0	50.0	40.0
Single-Unit Trucks	3	1	0	4	0	0	0	0	0	2	0	2	6
Single-Unit %	60.0	100.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	50.0	0.0	50.0	60.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	2	0	0	2	0	0	0	0	0	2	0	2	4
Single-Unit Trucks	3	1	0	4	0	0	0	0	0	2	0	2	6
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	5	1	0	6	0	0	0	0	0	4	0	4	10
Buses				2				0				2	4
Single-Unit Trucks				2				1				3	6
Articulated Trucks				0				0				0	0
Total Exiting Leg				4				1				5	10

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	39	1	0	40	0	0	0	0	1	43	0	44	84
4:15 PM	43	0	0	43	2	1	0	3	2	44	0	46	92
4:30 PM	47	1	0	48	0	3	0	3	2	42	0	44	95
4:45 PM	25	3	0	28	1	1	0	2	2	44	0	46	76
Total	154	5	0	159	3	5	0	8	7	173	0	180	347
5:00 PM	33	0	0	33	2	1	0	3	0	45	0	45	81
5:15 PM	48	2	0	50	1	0	0	1	1	49	0	50	101
5:30 PM	36	1	0	37	0	1	0	1	0	53	0	53	91
5:45 PM	36	3	0	39	3	1	0	4	1	63	0	64	107
Total	153	6	0	159	6	3	0	9	2	210	0	212	380
Grand Total	307	11	0	318	9	8	0	17	9	383	0	392	727
Approach %	96.5	3.5	0.0		52.9	47.1	0.0		2.3	97.7	0.0		
Total %	42.2	1.5	0.0	43.7	1.2	1.1	0.0	2.3	1.2	52.7	0.0	53.9	
Exiting Leg Total				392				20				315	727

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	39	1	0	40	0	0	0	0	1	43	0	44	84
4:15 PM	43	0	0	43	2	1	0	3	2	44	0	46	92
4:30 PM	47	1	0	48	0	3	0	3	2	42	0	44	95
4:45 PM	25	3	0	28	1	1	0	2	2	44	0	46	76
Total Volume	154	5	0	159	3	5	0	8	7	173	0	180	347
% Approach Total	96.9	3.1	0.0		37.5	62.5	0.0		3.9	96.1	0.0		
PHF	0.819	0.417	0.000	0.828	0.375	0.417	0.000	0.667	0.875	0.983	0.000	0.978	0.913
Entering Leg	154	5	0	159	3	5	0	8	7	173	0	180	347
Exiting Leg				176				12				159	347
Total				335				20				339	694

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	5	0	0	5	1	0	0	1	1	3	0	4	10
4:15 PM	1	0	0	1	0	0	0	0	0	6	0	6	7
4:30 PM	4	0	0	4	0	0	0	0	2	7	0	9	13
4:45 PM	3	0	0	3	0	0	0	0	0	6	0	6	9
Total	13	0	0	13	1	0	0	1	3	22	0	25	39
5:00 PM	3	0	0	3	0	0	0	0	1	4	0	5	8
5:15 PM	2	0	0	2	0	0	0	0	0	2	0	2	4
5:30 PM	1	0	0	1	0	0	0	0	0	6	0	6	7
5:45 PM	1	0	0	1	0	0	0	0	0	4	0	4	5
Total	7	0	0	7	0	0	0	0	1	16	0	17	24
Grand Total	20	0	0	20	1	0	0	1	4	38	0	42	63
Approach %	100.0	0.0	0.0		100.0	0.0	0.0		9.5	90.5	0.0		
Total %	31.7	0.0	0.0	31.7	1.6	0.0	0.0	1.6	6.3	60.3	0.0	66.7	
Exiting Leg Total				39				4				20	63

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	5	0	0	5	1	0	0	1	1	3	0	4	10
4:15 PM	1	0	0	1	0	0	0	0	0	6	0	6	7
4:30 PM	4	0	0	4	0	0	0	0	2	7	0	9	13
4:45 PM	3	0	0	3	0	0	0	0	0	6	0	6	9
Total Volume	13	0	0	13	1	0	0	1	3	22	0	25	39
% Approach Total	100.0	0.0	0.0		100.0	0.0	0.0		12.0	88.0	0.0		
PHF	0.650	0.000	0.000	0.650	0.250	0.000	0.000	0.250	0.375	0.786	0.000	0.694	0.750
Entering Leg	13	0	0	13	1	0	0	1	3	22	0	25	39
Exiting Leg				23				3				13	39
Total				36				4				38	78

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
4:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	2	0	0	0	0	0	2	0	2	4
5:00 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
5:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
5:30 PM	1	0	0	1	0	0	0	0	0	2	0	2	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	0	0	3	0	0	0	0	0	3	0	3	6
Grand Total	5	0	0	5	0	0	0	0	0	5	0	5	10
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	50.0	
Exiting Leg Total				5				0				5	10

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
5:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
5:30 PM	1	0	0	1	0	0	0	0	0	2	0	2	3
Total Volume	3	0	0	3	0	0	0	0	0	3	0	3	6
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.375	0.500
Entering Leg	3	0	0	3	0	0	0	0	0	3	0	3	6
Exiting Leg				3				0				3	6
Total				6				0				6	12

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	1	1	0	2	0	0	0	0	0	0	0	0	2
4:45 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
Total	3	1	0	4	0	0	0	0	0	2	0	2	6
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	1	0	0	1	0	0	0	0	0	0	0	0	1
Grand Total	4	1	0	5	0	0	0	0	0	2	0	2	7
Approach %	80.0	20.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	57.1	14.3	0.0	71.4	0.0	0.0	0.0	0.0	0.0	28.6	0.0	28.6	
Exiting Leg Total				2				1				4	7

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	1	1	0	2	0	0	0	0	0	0	0	0	2
4:45 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
Total Volume	3	1	0	4	0	0	0	0	0	2	0	2	6
% Approach Total	75.0	25.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.750	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.750
Entering Leg	3	1	0	4	0	0	0	0	0	2	0	2	6
Exiting Leg				2				1				3	6
Total				6				1				5	12

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from East				Farrell Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Whitwell Street						Farrell Street						Whitwell Street						
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street						Farrell Street						Whitwell Street						
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 D**
Location: **S: Farrell Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Whitwell Street from East						Farrell Street from South						Whitwell Street from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from East						Farrell Street from South						Whitwell Street from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	40	0	40	36	0	0	36	76
7:15 AM	0	0	0	0	0	59	0	59	30	0	0	30	89
7:30 AM	0	0	0	0	0	49	0	49	36	0	0	36	85
7:45 AM	0	0	0	0	0	61	0	61	41	0	0	41	102
Total	0	0	0	0	0	209	0	209	143	0	0	143	352
8:00 AM	1	0	0	1	1	69	0	70	43	0	0	43	114
8:15 AM	0	0	0	0	0	48	0	48	32	0	0	32	80
8:30 AM	0	0	0	0	0	43	0	43	14	0	0	14	57
8:45 AM	0	0	0	0	1	39	0	40	32	0	0	32	72
Total	1	0	0	1	2	199	0	201	121	0	0	121	323
Grand Total	1	0	0	1	2	408	0	410	264	0	0	264	675
Approach %	100.0	0.0	0.0		0.5	99.5	0.0		100.0	0.0	0.0		
Total %	0.1	0.0	0.0	0.1	0.3	60.4	0.0	60.7	39.1	0.0	0.0	39.1	
Exiting Leg Total				2				264				409	675
Cars	0	0	0	0	0	397	0	397	259	0	0	259	656
% Cars	0.0	0.0	0.0	0.0	0.0	97.3	0.0	96.8	98.1	0.0	0.0	98.1	97.2
Exiting Leg Total				0				259				397	656
Heavy Vehicles	1	0	0	1	2	11	0	13	5	0	0	5	19
% Heavy Vehicles	100.0	0.0	0.0	100.0	100.0	2.7	0.0	3.2	1.9	0.0	0.0	1.9	2.8
Exiting Leg Total				2				5				12	19

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	59	0	59	30	0	0	30	89
7:30 AM	0	0	0	0	0	49	0	49	36	0	0	36	85
7:45 AM	0	0	0	0	0	61	0	61	41	0	0	41	102
8:00 AM	1	0	0	1	1	69	0	70	43	0	0	43	114
Total Volume	1	0	0	1	1	238	0	239	150	0	0	150	390
% Approach Total	100.0	0.0	0.0		0.4	99.6	0.0		100.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.250	0.250	0.862	0.000	0.854	0.872	0.000	0.000	0.872	0.855
Cars	0	0	0	0	0	235	0	235	147	0	0	147	382
Cars %	0.0	0.0	0.0	0.0	0.0	98.7	0.0	98.3	98.0	0.0	0.0	98.0	97.9
Heavy Vehicles	1	0	0	1	1	3	0	4	3	0	0	3	8
Heavy Vehicles %	100.0	0.0	0.0	100.0	100.0	1.3	0.0	1.7	2.0	0.0	0.0	2.0	2.1
Cars Enter Leg	0	0	0	0	0	235	0	235	147	0	0	147	382
Heavy Enter Leg	1	0	0	1	1	3	0	4	3	0	0	3	8
Total Entering Leg	1	0	0	1	1	238	0	239	150	0	0	150	390
Cars Exiting Leg				0				147				235	382
Heavy Exiting Leg				1				3				4	8
Total Exiting Leg				1				150				239	390

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Cars-Combined (Motorcycles, Cars, Light Goods)**

	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	36	0	36	35	0	0	35	71
7:15 AM	0	0	0	0	0	59	0	59	29	0	0	29	88
7:30 AM	0	0	0	0	0	48	0	48	35	0	0	35	83
7:45 AM	0	0	0	0	0	59	0	59	41	0	0	41	100
Total	0	0	0	0	0	202	0	202	140	0	0	140	342
8:00 AM	0	0	0	0	0	69	0	69	42	0	0	42	111
8:15 AM	0	0	0	0	0	45	0	45	31	0	0	31	76
8:30 AM	0	0	0	0	0	42	0	42	14	0	0	14	56
8:45 AM	0	0	0	0	0	39	0	39	32	0	0	32	71
Total	0	0	0	0	0	195	0	195	119	0	0	119	314
Grand Total	0	0	0	0	0	397	0	397	259	0	0	259	656
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	60.5	0.0	60.5	39.5	0.0	0.0	39.5	
Exiting Leg Total				0				259				397	656

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	59	0	59	29	0	0	29	88
7:30 AM	0	0	0	0	0	48	0	48	35	0	0	35	83
7:45 AM	0	0	0	0	0	59	0	59	41	0	0	41	100
8:00 AM	0	0	0	0	0	69	0	69	42	0	0	42	111
Total Volume	0	0	0	0	0	235	0	235	147	0	0	147	382
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.851	0.000	0.851	0.875	0.000	0.000	0.875	0.860
Entering Leg	0	0	0	0	0	235	0	235	147	0	0	147	382
Exiting Leg				0				147				235	382
Total				0				382				382	764

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	4	0	4	1	0	0	1	5
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
7:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	2
Total	0	0	0	0	0	7	0	7	3	0	0	3	10
8:00 AM	1	0	0	1	1	0	0	1	1	0	0	1	3
8:15 AM	0	0	0	0	0	3	0	3	1	0	0	1	4
8:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	1	0	0	1	2	4	0	6	2	0	0	2	9
Grand Total	1	0	0	1	2	11	0	13	5	0	0	5	19
Approach %	100.0	0.0	0.0		15.4	84.6	0.0		100.0	0.0	0.0		
Total %	5.3	0.0	0.0	5.3	10.5	57.9	0.0	68.4	26.3	0.0	0.0	26.3	
Exiting Leg Total				2				5				12	19
Buses	0	0	0	0	0	5	0	5	2	0	0	2	7
% Buses	0.0	0.0	0.0	0.0	0.0	45.5	0.0	38.5	40.0	0.0	0.0	40.0	36.8
Exiting Leg Total				0				2				5	7
Single-Unit Trucks	1	0	0	1	2	5	0	7	3	0	0	3	11
% Single-Unit	100.0	0.0	0.0	100.0	100.0	45.5	0.0	53.8	60.0	0.0	0.0	60.0	57.9
Exiting Leg Total				2				3				6	11
Articulated Trucks	0	0	0	0	0	1	0	1	0	0	0	0	1
% Articulated	0.0	0.0	0.0	0.0	0.0	9.1	0.0	7.7	0.0	0.0	0.0	0.0	5.3
Exiting Leg Total				0				0				1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
7:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	2
8:00 AM	1	0	0	1	1	0	0	1	1	0	0	1	3
8:15 AM	0	0	0	0	0	3	0	3	1	0	0	1	4
Total Volume	1	0	0	1	1	6	0	7	3	0	0	3	11
% Approach Total	100.0	0.0	0.0		14.3	85.7	0.0		100.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.250	0.250	0.500	0.000	0.583	0.750	0.000	0.000	0.750	0.688
Buses	0	0	0	0	0	2	0	2	1	0	0	1	3
Buses %	0.0	0.0	0.0	0.0	0.0	33.3	0.0	28.6	33.3	0.0	0.0	33.3	27.3
Single-Unit Trucks	1	0	0	1	1	3	0	4	2	0	0	2	7
Single-Unit %	100.0	0.0	0.0	100.0	100.0	50.0	0.0	57.1	66.7	0.0	0.0	66.7	63.6
Articulated Trucks	0	0	0	0	0	1	0	1	0	0	0	0	1
Articulated %	0.0	0.0	0.0	0.0	0.0	16.7	0.0	14.3	0.0	0.0	0.0	0.0	9.1
Buses	0	0	0	0	0	2	0	2	1	0	0	1	3
Single-Unit Trucks	1	0	0	1	1	3	0	4	2	0	0	2	7
Articulated Trucks	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Entering Leg	1	0	0	1	1	6	0	7	3	0	0	3	11
Buses				0				1				2	3
Single-Unit Trucks				1				2				4	7
Articulated Trucks				0				0				1	1
Total Exiting Leg				1				3				7	11

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	33	0	33	35	0	0	35	68
7:15 AM	0	0	0	0	0	54	0	54	28	0	0	28	82
7:30 AM	0	0	0	0	0	44	0	44	32	0	0	32	76
7:45 AM	0	0	0	0	0	56	0	56	39	0	0	39	95
Total	0	0	0	0	0	187	0	187	134	0	0	134	321
8:00 AM	0	0	0	0	0	66	0	66	40	0	0	40	106
8:15 AM	0	0	0	0	0	43	0	43	28	0	0	28	71
8:30 AM	0	0	0	0	0	40	0	40	14	0	0	14	54
8:45 AM	0	0	0	0	0	38	0	38	32	0	0	32	70
Total	0	0	0	0	0	187	0	187	114	0	0	114	301
Grand Total	0	0	0	0	0	374	0	374	248	0	0	248	622
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	60.1	0.0	60.1	39.9	0.0	0.0	39.9	
Exiting Leg Total				0				248				374	622

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	54	0	54	28	0	0	28	82
7:30 AM	0	0	0	0	0	44	0	44	32	0	0	32	76
7:45 AM	0	0	0	0	0	56	0	56	39	0	0	39	95
8:00 AM	0	0	0	0	0	66	0	66	40	0	0	40	106
Total Volume	0	0	0	0	0	220	0	220	139	0	0	139	359
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.833	0.000	0.833	0.869	0.000	0.000	0.869	0.847
Entering Leg	0	0	0	0	0	220	0	220	139	0	0	139	359
Exiting Leg				0				139				220	359
Total				0				359				359	718

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	3	0	3	0	0	0	0	3
7:15 AM	0	0	0	0	0	5	0	5	1	0	0	1	6
7:30 AM	0	0	0	0	0	4	0	4	3	0	0	3	7
7:45 AM	0	0	0	0	0	3	0	3	2	0	0	2	5
Total	0	0	0	0	0	15	0	15	6	0	0	6	21
8:00 AM	0	0	0	0	0	3	0	3	2	0	0	2	5
8:15 AM	0	0	0	0	0	2	0	2	3	0	0	3	5
8:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	2
8:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	8	0	8	5	0	0	5	13
Grand Total	0	0	0	0	0	23	0	23	11	0	0	11	34
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	67.6	0.0	67.6	32.4	0.0	0.0	32.4	
Exiting Leg Total				0				11				23	34

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	5	0	5	1	0	0	1	6
7:30 AM	0	0	0	0	0	4	0	4	3	0	0	3	7
7:45 AM	0	0	0	0	0	3	0	3	2	0	0	2	5
8:00 AM	0	0	0	0	0	3	0	3	2	0	0	2	5
Total Volume	0	0	0	0	0	15	0	15	8	0	0	8	23
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.667	0.000	0.000	0.667	0.821
Entering Leg	0	0	0	0	0	15	0	15	8	0	0	8	23
Exiting Leg				0				8				15	23
Total				0				23				23	46

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Ambulance Entrance from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	3	0	3	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	4	0	4	1	0	0	1	5
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
8:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	1	0	0	1	2
Grand Total	0	0	0	0	0	5	0	5	2	0	0	2	7
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	71.4	0.0	71.4	28.6	0.0	0.0	28.6	
Exiting Leg Total				0				2				5	7

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Ambulance Entrance from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	3	0	3	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	4	0	4	1	0	0	1	5
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.333	0.250	0.000	0.000	0.250	0.417
Entering Leg	0	0	0	0	0	4	0	4	1	0	0	1	5
Exiting Leg				0				1				4	5
Total				0				5				5	10

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
7:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	3	0	3	2	0	0	2	5
8:00 AM	1	0	0	1	1	0	0	1	0	0	0	0	2
8:15 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
8:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	1	0	0	1	2	2	0	4	1	0	0	1	6
Grand Total	1	0	0	1	2	5	0	7	3	0	0	3	11
Approach %	100.0	0.0	0.0		28.6	71.4	0.0		100.0	0.0	0.0		
Total %	9.1	0.0	0.0	9.1	18.2	45.5	0.0	63.6	27.3	0.0	0.0	27.3	
Exiting Leg Total				2				3				6	11

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
7:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:00 AM	1	0	0	1	1	0	0	1	0	0	0	0	2
8:15 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
Total Volume	1	0	0	1	1	3	0	4	2	0	0	2	7
% Approach Total	100.0	0.0	0.0		25.0	75.0	0.0		100.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.250	0.250	0.750	0.000	1.000	0.500	0.000	0.000	0.500	0.875
Entering Leg	1	0	0	1	1	3	0	4	2	0	0	2	7
Exiting Leg				1				2				4	7
Total				2				6				6	14

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	0	0	0	1
Grand Total	0	0	0	0	0	1	0	1	0	0	0	0	1
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	1
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	1	0	1	0	0	0	0	1
Exiting Leg				0				0				1	1
Total				0				1				1	2

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Ambulance Entrance						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Ambulance Entrance						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Ambulance Entrance						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	1	0	1	4
7:15 AM	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	2
7:30 AM	0	0	0	1	1	2	0	0	0	0	1	1	0	0	0	0	0	0	3
7:45 AM	0	0	0	2	1	3	0	0	0	0	1	1	0	0	0	0	0	0	4
Total	0	0	0	6	3	9	0	0	0	0	3	3	0	0	0	1	0	1	13
8:00 AM	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	1	1	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
8:30 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	1	1	2	5
Grand Total	0	0	0	6	6	12	0	0	0	0	3	3	0	0	0	2	1	3	18
Approach %	0	0	0	50	50		0	0	0	0	100		0	0	0	66.667	33.333		
Total %	0	0	0	33.333	33.333	66.667	0	0	0	0	16.667	16.667	0	0	0	11.111	5.5556	16.667	
Exiting Leg Total						12						3						3	18

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Ambulance Entrance						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	1	0	1	4
7:15 AM	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	2
7:30 AM	0	0	0	1	1	2	0	0	0	0	1	1	0	0	0	0	0	0	3
7:45 AM	0	0	0	2	1	3	0	0	0	0	1	1	0	0	0	0	0	0	4
Total Volume	0	0	0	6	3	9	0	0	0	0	3	3	0	0	0	1	0	1	13
% Approach Total	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.500	0.750	0.750	0.000	0.000	0.000	0.000	0.750	0.750	0.000	0.000	0.000	0.250	0.000	0.250	0.813
Entering Leg	0	0	0	6	3	9	0	0	0	0	3	3	0	0	0	1	0	1	13
Exiting Leg						9						3						1	13
Total						18						6						2	26

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	1	0	1	0	49	0	49	53	0	0	53	103
4:15 PM	0	0	0	0	0	44	0	44	52	0	0	52	96
4:30 PM	0	0	0	0	0	54	0	54	57	0	0	57	111
4:45 PM	0	0	0	0	2	31	0	33	54	0	0	54	87
Total	0	1	0	1	2	178	0	180	216	0	0	216	397
5:00 PM	0	2	0	2	0	37	0	37	52	0	0	52	91
5:15 PM	0	0	0	0	0	53	0	53	53	0	0	53	106
5:30 PM	0	0	0	0	0	39	0	39	61	0	0	61	100
5:45 PM	0	0	0	0	0	41	0	41	67	0	0	67	108
Total	0	2	0	2	0	170	0	170	233	0	0	233	405
Grand Total	0	3	0	3	2	348	0	350	449	0	0	449	802
Approach %	0.0	100.0	0.0		0.6	99.4	0.0		100.0	0.0	0.0		
Total %	0.0	0.4	0.0	0.4	0.2	43.4	0.0	43.6	56.0	0.0	0.0	56.0	
Exiting Leg Total				2				452				348	802
Cars	0	1	0	1	0	337	0	337	441	0	0	441	779
% Cars	0.0	33.3	0.0	33.3	0.0	96.8	0.0	96.3	98.2	0.0	0.0	98.2	97.1
Exiting Leg Total				0				442				337	779
Heavy Vehicles	0	2	0	2	2	11	0	13	8	0	0	8	23
% Heavy Vehicles	0.0	66.7	0.0	66.7	100.0	3.2	0.0	3.7	1.8	0.0	0.0	1.8	2.9
Exiting Leg Total				2				10				11	23

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
5:00 PM	0	2	0	2	0	37	0	37	52	0	0	52	91
5:15 PM	0	0	0	0	0	53	0	53	53	0	0	53	106
5:30 PM	0	0	0	0	0	39	0	39	61	0	0	61	100
5:45 PM	0	0	0	0	0	41	0	41	67	0	0	67	108
Total Volume	0	2	0	2	0	170	0	170	233	0	0	233	405
% Approach Total	0.0	100.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.000	0.802	0.000	0.802	0.869	0.000	0.000	0.869	0.938
Cars	0	0	0	0	0	166	0	166	229	0	0	229	395
Cars %	0.0	0.0	0.0	0.0	0.0	97.6	0.0	97.6	98.3	0.0	0.0	98.3	97.5
Heavy Vehicles	0	2	0	2	0	4	0	4	4	0	0	4	10
Heavy Vehicles %	0.0	100.0	0.0	100.0	0.0	2.4	0.0	2.4	1.7	0.0	0.0	1.7	2.5
Cars Enter Leg	0	0	0	0	0	166	0	166	229	0	0	229	395
Heavy Enter Leg	0	2	0	2	0	4	0	4	4	0	0	4	10
Total Entering Leg	0	2	0	2	0	170	0	170	233	0	0	233	405
Cars Exiting Leg				0				229				166	395
Heavy Exiting Leg				0				6				4	10
Total Exiting Leg				0				235				170	405

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Cars-Combined (Motorcycles, Cars, Light Goods)**

	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	1	0	1	0	46	0	46	51	0	0	51	98
4:15 PM	0	0	0	0	0	43	0	43	52	0	0	52	95
4:30 PM	0	0	0	0	0	52	0	52	56	0	0	56	108
4:45 PM	0	0	0	0	0	30	0	30	53	0	0	53	83
Total	0	1	0	1	0	171	0	171	212	0	0	212	384
5:00 PM	0	0	0	0	0	36	0	36	50	0	0	50	86
5:15 PM	0	0	0	0	0	52	0	52	53	0	0	53	105
5:30 PM	0	0	0	0	0	38	0	38	59	0	0	59	97
5:45 PM	0	0	0	0	0	40	0	40	67	0	0	67	107
Total	0	0	0	0	0	166	0	166	229	0	0	229	395
Grand Total	0	1	0	1	0	337	0	337	441	0	0	441	779
Approach %	0.0	100.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.1	0.0	0.1	0.0	43.3	0.0	43.3	56.6	0.0	0.0	56.6	
Exiting Leg Total				0				442				337	779

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	36	0	36	50	0	0	50	86
5:15 PM	0	0	0	0	0	52	0	52	53	0	0	53	105
5:30 PM	0	0	0	0	0	38	0	38	59	0	0	59	97
5:45 PM	0	0	0	0	0	40	0	40	67	0	0	67	107
Total Volume	0	0	0	0	0	166	0	166	229	0	0	229	395
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.798	0.000	0.798	0.854	0.000	0.000	0.854	0.923
Entering Leg	0	0	0	0	0	166	0	166	229	0	0	229	395
Exiting Leg				0				229				166	395
Total				0				395				395	790

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	3	0	3	2	0	0	2	5
4:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
4:30 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
4:45 PM	0	0	0	0	2	1	0	3	1	0	0	1	4
Total	0	0	0	0	2	7	0	9	4	0	0	4	13
5:00 PM	0	2	0	2	0	1	0	1	2	0	0	2	5
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	2	0	2	0	4	0	4	4	0	0	4	10
Grand Total	0	2	0	2	2	11	0	13	8	0	0	8	23
Approach %	0.0	100.0	0.0		15.4	84.6	0.0		100.0	0.0	0.0		
Total %	0.0	8.7	0.0	8.7	8.7	47.8	0.0	56.5	34.8	0.0	0.0	34.8	
Exiting Leg Total				2				10				11	23
Buses	0	0	0	0	0	6	0	6	5	0	0	5	11
% Buses	0.0	0.0	0.0	0.0	0.0	54.5	0.0	46.2	62.5	0.0	0.0	62.5	47.8
Exiting Leg Total				0				5				6	11
Single-Unit Trucks	0	2	0	2	2	5	0	7	3	0	0	3	12
% Single-Unit	0.0	100.0	0.0	100.0	100.0	45.5	0.0	53.8	37.5	0.0	0.0	37.5	52.2
Exiting Leg Total				2				5				5	12
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	3	0	3	2	0	0	2	5
4:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
4:30 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
4:45 PM	0	0	0	0	2	1	0	3	1	0	0	1	4
Total Volume	0	0	0	0	2	7	0	9	4	0	0	4	13
% Approach Total	0.0	0.0	0.0		22.2	77.8	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.583	0.000	0.750	0.500	0.000	0.000	0.500	0.650
Buses	0	0	0	0	0	3	0	3	2	0	0	2	5
Buses %	0.0	0.0	0.0	0.0	0.0	42.9	0.0	33.3	50.0	0.0	0.0	50.0	38.5
Single-Unit Trucks	0	0	0	0	2	4	0	6	2	0	0	2	8
Single-Unit %	0.0	0.0	0.0	0.0	100.0	57.1	0.0	66.7	50.0	0.0	0.0	50.0	61.5
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	3	0	3	2	0	0	2	5
Single-Unit Trucks	0	0	0	0	2	4	0	6	2	0	0	2	8
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	2	7	0	9	4	0	0	4	13
Buses				0				2				3	5
Single-Unit Trucks				2				2				4	8
Articulated Trucks				0				0				0	0
Total Exiting Leg				2				4				7	13

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	1	0	1	0	41	0	41	44	0	0	44	86
4:15 PM	0	0	0	0	0	42	0	42	44	0	0	44	86
4:30 PM	0	0	0	0	0	47	0	47	51	0	0	51	98
4:45 PM	0	0	0	0	0	26	0	26	49	0	0	49	75
Total	0	1	0	1	0	156	0	156	188	0	0	188	345
5:00 PM	0	0	0	0	0	32	0	32	47	0	0	47	79
5:15 PM	0	0	0	0	0	50	0	50	50	0	0	50	100
5:30 PM	0	0	0	0	0	37	0	37	53	0	0	53	90
5:45 PM	0	0	0	0	0	39	0	39	61	0	0	61	100
Total	0	0	0	0	0	158	0	158	211	0	0	211	369
Grand Total	0	1	0	1	0	314	0	314	399	0	0	399	714
Approach %	0.0	100.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.1	0.0	0.1	0.0	44.0	0.0	44.0	55.9	0.0	0.0	55.9	
Exiting Leg Total				0				400				314	714

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	32	0	32	47	0	0	47	79
5:15 PM	0	0	0	0	0	50	0	50	50	0	0	50	100
5:30 PM	0	0	0	0	0	37	0	37	53	0	0	53	90
5:45 PM	0	0	0	0	0	39	0	39	61	0	0	61	100
Total Volume	0	0	0	0	0	158	0	158	211	0	0	211	369
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.790	0.000	0.790	0.865	0.000	0.000	0.865	0.923
Entering Leg	0	0	0	0	0	158	0	158	211	0	0	211	369
Exiting Leg				0				211				158	369
Total				0				369				369	738

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	5	0	5	7	0	0	7	12
4:15 PM	0	0	0	0	0	1	0	1	8	0	0	8	9
4:30 PM	0	0	0	0	0	5	0	5	5	0	0	5	10
4:45 PM	0	0	0	0	0	4	0	4	4	0	0	4	8
Total	0	0	0	0	0	15	0	15	24	0	0	24	39
5:00 PM	0	0	0	0	0	4	0	4	3	0	0	3	7
5:15 PM	0	0	0	0	0	2	0	2	3	0	0	3	5
5:30 PM	0	0	0	0	0	1	0	1	6	0	0	6	7
5:45 PM	0	0	0	0	0	1	0	1	6	0	0	6	7
Total	0	0	0	0	0	8	0	8	18	0	0	18	26
Grand Total	0	0	0	0	0	23	0	23	42	0	0	42	65
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	35.4	0.0	35.4	64.6	0.0	0.0	64.6	
Exiting Leg Total				0				42				23	65

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	5	0	5	7	0	0	7	12
4:15 PM	0	0	0	0	0	1	0	1	8	0	0	8	9
4:30 PM	0	0	0	0	0	5	0	5	5	0	0	5	10
4:45 PM	0	0	0	0	0	4	0	4	4	0	0	4	8
Total Volume	0	0	0	0	0	15	0	15	24	0	0	24	39
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.750	0.000	0.000	0.750	0.813
Entering Leg	0	0	0	0	0	15	0	15	24	0	0	24	39
Exiting Leg				0				24				15	39
Total				0				39				39	78

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Ambulance Entrance from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
4:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	3	0	3	2	0	0	2	5
5:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	3	0	3	3	0	0	3	6
Grand Total	0	0	0	0	0	6	0	6	5	0	0	5	11
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	54.5	0.0	54.5	45.5	0.0	0.0	45.5	
Exiting Leg Total				0				5				6	11

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Ambulance Entrance from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
Total Volume	0	0	0	0	0	3	0	3	3	0	0	3	6
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.375	0.000	0.000	0.375	0.500
Entering Leg	0	0	0	0	0	3	0	3	3	0	0	3	6
Exiting Leg				0				3				3	6
Total				0				6				6	12

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Ambulance Entrance from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	2
4:45 PM	0	0	0	0	2	1	0	3	1	0	0	1	4
Total	0	0	0	0	2	4	0	6	2	0	0	2	8
5:00 PM	0	2	0	2	0	0	0	0	1	0	0	1	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	2	0	2	0	1	0	1	1	0	0	1	4
Grand Total	0	2	0	2	2	5	0	7	3	0	0	3	12
Approach %	0.0	100.0	0.0		28.6	71.4	0.0		100.0	0.0	0.0		
Total %	0.0	16.7	0.0	16.7	16.7	41.7	0.0	58.3	25.0	0.0	0.0	25.0	
Exiting Leg Total				2				5				5	12

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Ambulance Entrance from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	2
4:45 PM	0	0	0	0	2	1	0	3	1	0	0	1	4
5:00 PM	0	2	0	2	0	0	0	0	1	0	0	1	3
Total Volume	0	2	0	2	2	3	0	5	2	0	0	2	9
% Approach Total	0.0	100.0	0.0		40.0	60.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.250	0.375	0.000	0.417	0.500	0.000	0.000	0.500	0.563
Entering Leg	0	2	0	2	2	3	0	5	2	0	0	2	9
Exiting Leg				2				4				3	9
Total				4				9				5	18

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Ambulance Entrance				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Ambulance Entrance						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Ambulance Entrance						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 E**
Location: **N: Ambulance Entrance**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Ambulance Entrance						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Grand Total	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Approach %	0	0	0	50	50		0	0	0	0	0		0	0	0	0	0		
Total %	0	0	0	50	50	100	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg Total						4						0						0	4

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Ambulance Entrance						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:30 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	3
% Approach Total	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.500	0.250	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Exiting Leg						3						0						0	3
Total						6						0						0	6

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	43	1	0	44	0	1	0	1	1	34	0	35	80
7:15 AM	57	0	0	57	4	1	0	5	1	30	0	31	93
7:30 AM	49	1	0	50	2	2	0	4	0	38	0	38	92
7:45 AM	64	1	0	65	2	0	0	2	0	42	0	42	109
Total	213	3	0	216	8	4	0	12	2	144	0	146	374
8:00 AM	53	2	0	55	2	2	0	4	2	38	0	40	99
8:15 AM	52	1	0	53	2	0	0	2	1	29	0	30	85
8:30 AM	35	1	0	36	4	3	0	7	0	16	0	16	59
8:45 AM	41	1	1	43	1	1	0	2	1	30	0	31	76
Total	181	5	1	187	9	6	0	15	4	113	0	117	319
Grand Total	394	8	1	403	17	10	0	27	6	257	0	263	693
Approach %	97.8	2.0	0.2		63.0	37.0	0.0		2.3	97.7	0.0		
Total %	56.9	1.2	0.1	58.2	2.5	1.4	0.0	3.9	0.9	37.1	0.0	38.0	
Exiting Leg Total				275				14				404	693
Cars	382	8	1	391	17	10	0	27	6	252	0	258	676
% Cars	97.0	100.0	100.0	97.0	100.0	100.0	0.0	100.0	100.0	98.1	0.0	98.1	97.5
Exiting Leg Total				270				14				392	676
Heavy Vehicles	12	0	0	12	0	0	0	0	0	5	0	5	17
% Heavy Vehicles	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	1.9	2.5
Exiting Leg Total				5				0				12	17

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	57	0	0	57	4	1	0	5	1	30	0	31	93
7:30 AM	49	1	0	50	2	2	0	4	0	38	0	38	92
7:45 AM	64	1	0	65	2	0	0	2	0	42	0	42	109
8:00 AM	53	2	0	55	2	2	0	4	2	38	0	40	99
Total Volume	223	4	0	227	10	5	0	15	3	148	0	151	393
% Approach Total	98.2	1.8	0.0		66.7	33.3	0.0		2.0	98.0	0.0		
PHF	0.871	0.500	0.000	0.873	0.625	0.625	0.000	0.750	0.375	0.881	0.000	0.899	0.901
Cars	219	4	0	223	10	5	0	15	3	145	0	148	386
Cars %	98.2	100.0	0.0	98.2	100.0	100.0	0.0	100.0	100.0	98.0	0.0	98.0	98.2
Heavy Vehicles	4	0	0	4	0	0	0	0	0	3	0	3	7
Heavy Vehicles %	1.8	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.0	1.8
Cars Enter Leg	219	4	0	223	10	5	0	15	3	145	0	148	386
Heavy Enter Leg	4	0	0	4	0	0	0	0	0	3	0	3	7
Total Entering Leg	223	4	0	227	10	5	0	15	3	148	0	151	393
Cars Exiting Leg				155				7				224	386
Heavy Exiting Leg				3				0				4	7
Total Exiting Leg				158				7				228	393

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	40	1	0	41	0	1	0	1	1	33	0	34	76
7:15 AM	57	0	0	57	4	1	0	5	1	29	0	30	92
7:30 AM	48	1	0	49	2	2	0	4	0	37	0	37	90
7:45 AM	61	1	0	62	2	0	0	2	0	42	0	42	106
Total	206	3	0	209	8	4	0	12	2	141	0	143	364
8:00 AM	53	2	0	55	2	2	0	4	2	37	0	39	98
8:15 AM	49	1	0	50	2	0	0	2	1	28	0	29	81
8:30 AM	34	1	0	35	4	3	0	7	0	16	0	16	58
8:45 AM	40	1	1	42	1	1	0	2	1	30	0	31	75
Total	176	5	1	182	9	6	0	15	4	111	0	115	312
Grand Total	382	8	1	391	17	10	0	27	6	252	0	258	676
Approach %	97.7	2.0	0.3		63.0	37.0	0.0		2.3	97.7	0.0		
Total %	56.5	1.2	0.1	57.8	2.5	1.5	0.0	4.0	0.9	37.3	0.0	38.2	
Exiting Leg Total				270				14				392	676

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	57	0	0	57	4	1	0	5	1	29	0	30	92
7:30 AM	48	1	0	49	2	2	0	4	0	37	0	37	90
7:45 AM	61	1	0	62	2	0	0	2	0	42	0	42	106
8:00 AM	53	2	0	55	2	2	0	4	2	37	0	39	98
Total Volume	219	4	0	223	10	5	0	15	3	145	0	148	386
% Approach Total	98.2	1.8	0.0		66.7	33.3	0.0		2.0	98.0	0.0		
PHF	0.898	0.500	0.000	0.899	0.625	0.625	0.000	0.750	0.375	0.863	0.000	0.881	0.910
Entering Leg	219	4	0	223	10	5	0	15	3	145	0	148	386
Exiting Leg				155				7				224	386
Total				378				22				372	772

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	3	0	0	3	0	0	0	0	0	1	0	1	4
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:30 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
7:45 AM	3	0	0	3	0	0	0	0	0	0	0	0	3
Total	7	0	0	7	0	0	0	0	0	3	0	3	10
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
8:15 AM	3	0	0	3	0	0	0	0	0	1	0	1	4
8:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	5	0	0	5	0	0	0	0	0	2	0	2	7
Grand Total	12	0	0	12	0	0	0	0	0	5	0	5	17
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	70.6	0.0	0.0	70.6	0.0	0.0	0.0	0.0	0.0	29.4	0.0	29.4	
Exiting Leg Total				5				0				12	17
Buses	4	0	0	4	0	0	0	0	0	2	0	2	6
% Buses	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	40.0	0.0	40.0	35.3
Exiting Leg Total				2				0				4	6
Single-Unit Trucks	8	0	0	8	0	0	0	0	0	3	0	3	11
% Single-Unit	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	60.0	0.0	60.0	64.7
Exiting Leg Total				3				0				8	11
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	3	0	0	3	0	0	0	0	0	1	0	1	4
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:30 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
7:45 AM	3	0	0	3	0	0	0	0	0	0	0	0	3
Total Volume	7	0	0	7	0	0	0	0	0	3	0	3	10
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.583	0.000	0.000	0.583	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.625
Buses	3	0	0	3	0	0	0	0	0	1	0	1	4
Buses %	42.9	0.0	0.0	42.9	0.0	0.0	0.0	0.0	0.0	33.3	0.0	33.3	40.0
Single-Unit Trucks	4	0	0	4	0	0	0	0	0	2	0	2	6
Single-Unit %	57.1	0.0	0.0	57.1	0.0	0.0	0.0	0.0	0.0	66.7	0.0	66.7	60.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	3	0	0	3	0	0	0	0	0	1	0	1	4
Single-Unit Trucks	4	0	0	4	0	0	0	0	0	2	0	2	6
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	7	0	0	7	0	0	0	0	0	3	0	3	10
Buses				1				0				3	4
Single-Unit Trucks				2				0				4	6
Articulated Trucks				0				0				0	0
Total Exiting Leg				3				0				7	10

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	35	1	0	36	0	1	0	1	1	32	0	33	70
7:15 AM	52	0	0	52	4	0	0	4	1	26	0	27	83
7:30 AM	46	1	0	47	2	2	0	4	0	34	0	34	85
7:45 AM	57	1	0	58	2	0	0	2	0	40	0	40	100
Total	190	3	0	193	8	3	0	11	2	132	0	134	338
8:00 AM	51	1	0	52	2	0	0	2	2	33	0	35	89
8:15 AM	46	1	0	47	2	0	0	2	1	26	0	27	76
8:30 AM	32	1	0	33	4	3	0	7	0	16	0	16	56
8:45 AM	39	1	1	41	1	1	0	2	1	30	0	31	74
Total	168	4	1	173	9	4	0	13	4	105	0	109	295
Grand Total	358	7	1	366	17	7	0	24	6	237	0	243	633
Approach %	97.8	1.9	0.3		70.8	29.2	0.0		2.5	97.5	0.0		
Total %	56.6	1.1	0.2	57.8	2.7	1.1	0.0	3.8	0.9	37.4	0.0	38.4	
Exiting Leg Total				255				13				365	633

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	52	0	0	52	4	0	0	4	1	26	0	27	83
7:30 AM	46	1	0	47	2	2	0	4	0	34	0	34	85
7:45 AM	57	1	0	58	2	0	0	2	0	40	0	40	100
8:00 AM	51	1	0	52	2	0	0	2	2	33	0	35	89
Total Volume	206	3	0	209	10	2	0	12	3	133	0	136	357
% Approach Total	98.6	1.4	0.0		83.3	16.7	0.0		2.2	97.8	0.0		
PHF	0.904	0.750	0.000	0.901	0.625	0.250	0.000	0.750	0.375	0.831	0.000	0.850	0.893
Entering Leg	206	3	0	209	10	2	0	12	3	133	0	136	357
Exiting Leg				143				6				208	357
Total				352				18				344	714

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	5	0	0	5	0	0	0	0	0	1	0	1	6
7:15 AM	5	0	0	5	0	1	0	1	0	3	0	3	9
7:30 AM	2	0	0	2	0	0	0	0	0	3	0	3	5
7:45 AM	4	0	0	4	0	0	0	0	0	2	0	2	6
Total	16	0	0	16	0	1	0	1	0	9	0	9	26
8:00 AM	2	1	0	3	0	2	0	2	0	4	0	4	9
8:15 AM	3	0	0	3	0	0	0	0	0	2	0	2	5
8:30 AM	2	0	0	2	0	0	0	0	0	0	0	0	2
8:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	8	1	0	9	0	2	0	2	0	6	0	6	17
Grand Total	24	1	0	25	0	3	0	3	0	15	0	15	43
Approach %	96.0	4.0	0.0		0.0	100.0	0.0		0.0	100.0	0.0		
Total %	55.8	2.3	0.0	58.1	0.0	7.0	0.0	7.0	0.0	34.9	0.0	34.9	
Exiting Leg Total				15				1				27	43

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	5	0	0	5	0	1	0	1	0	3	0	3	9
7:30 AM	2	0	0	2	0	0	0	0	0	3	0	3	5
7:45 AM	4	0	0	4	0	0	0	0	0	2	0	2	6
8:00 AM	2	1	0	3	0	2	0	2	0	4	0	4	9
Total Volume	13	1	0	14	0	3	0	3	0	12	0	12	29
% Approach Total	92.9	7.1	0.0		0.0	100.0	0.0		0.0	100.0	0.0		
PHF	0.650	0.250	0.000	0.700	0.000	0.375	0.000	0.375	0.000	0.750	0.000	0.750	0.806
Entering Leg	13	1	0	14	0	3	0	3	0	12	0	12	29
Exiting Leg				12				1				16	29
Total				26				4				28	58

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	2	0	0	2	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	3	0	0	3	0	0	0	0	0	1	0	1	4
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
8:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	0	1	0	1	2
Grand Total	4	0	0	4	0	0	0	0	0	2	0	2	6
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	33.3	0.0	33.3	
Exiting Leg Total				2				0				4	6

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	2	0	0	2	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Volume	3	0	0	3	0	0	0	0	0	1	0	1	4
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.375	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.500
Entering Leg	3	0	0	3	0	0	0	0	0	1	0	1	4
Exiting Leg				1				0				3	4
Total				4				0				4	8

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
7:45 AM	2	0	0	2	0	0	0	0	0	0	0	0	2
Total	4	0	0	4	0	0	0	0	0	2	0	2	6
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	2	0	0	2	0	0	0	0	0	1	0	1	3
8:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	4	0	0	4	0	0	0	0	0	1	0	1	5
Grand Total	8	0	0	8	0	0	0	0	0	3	0	3	11
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	72.7	0.0	0.0	72.7	0.0	0.0	0.0	0.0	0.0	27.3	0.0	27.3	
Exiting Leg Total				3				0				8	11

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:30 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
7:45 AM	2	0	0	2	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	2	0	0	2	0	0	0	0	0	1	0	1	3
Total Volume	5	0	0	5	0	0	0	0	0	2	0	2	7
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.625	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.583
Entering Leg	5	0	0	5	0	0	0	0	0	2	0	2	7
Exiting Leg				2				0				5	7
Total				7				0				7	14

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Whitwell Street						Ryden Street						Whitwell Street						
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Whitwell Street						Ryden Street						Whitwell Street						
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Whitwell Street from East						Ryden Street from South						Whitwell Street from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	1	0	1	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	1	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	4
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	2	3
Total	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	6	2	8	12
8:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
Total	0	0	0	0	1	1	0	0	0	1	1	2	0	0	0	0	0	0	3
Grand Total	0	0	0	0	1	1	0	0	0	1	5	6	0	0	0	6	2	8	15
Approach %	0	0	0	0	100		0	0	0	16.667	83.333		0	0	0	75	25		
Total %	0	0	0	0	6.6667	6.6667	0	0	0	6.6667	33.333	40	0	0	0	40	13.333	53.333	
Exiting Leg Total						1						6						8	15

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Whitwell Street from East						Ryden Street from South						Whitwell Street from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	1	0	1	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	1	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	4
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	2	3
Total Volume	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	6	2	8	12
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	75.0	25.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.750	0.250	0.500	0.750
Entering Leg	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	6	2	8	12
Exiting Leg						0						4						8	12
Total						0						8						16	24

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	45	2	0	47	3	1	0	4	0	52	0	52	103
4:15 PM	48	1	3	52	0	0	0	0	0	54	0	54	106
4:30 PM	50	3	0	53	1	1	0	2	1	50	0	51	106
4:45 PM	33	0	1	34	1	0	0	1	1	48	0	49	84
Total	176	6	4	186	5	2	0	7	2	204	0	206	399
5:00 PM	36	0	0	36	0	0	0	0	0	51	0	51	87
5:15 PM	51	2	0	53	1	1	0	2	1	55	0	56	111
5:30 PM	43	2	0	45	0	0	0	0	2	60	0	62	107
5:45 PM	41	1	1	43	1	0	0	1	2	63	0	65	109
Total	171	5	1	177	2	1	0	3	5	229	0	234	414
Grand Total	347	11	5	363	7	3	0	10	7	433	0	440	813
Approach %	95.6	3.0	1.4		70.0	30.0	0.0		1.6	98.4	0.0		
Total %	42.7	1.4	0.6	44.6	0.9	0.4	0.0	1.2	0.9	53.3	0.0	54.1	
Exiting Leg Total				445				18				350	813
Cars	334	11	5	350	6	3	0	9	7	423	0	430	789
% Cars	96.3	100.0	100.0	96.4	85.7	100.0	0.0	90.0	100.0	97.7	0.0	97.7	97.0
Exiting Leg Total				434				18				337	789
Heavy Vehicles	13	0	0	13	1	0	0	1	0	10	0	10	24
% Heavy Vehicles	3.7	0.0	0.0	3.6	14.3	0.0	0.0	10.0	0.0	2.3	0.0	2.3	3.0
Exiting Leg Total				11				0				13	24

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
5:00 PM	36	0	0	36	0	0	0	0	0	51	0	51	87
5:15 PM	51	2	0	53	1	1	0	2	1	55	0	56	111
5:30 PM	43	2	0	45	0	0	0	0	2	60	0	62	107
5:45 PM	41	1	1	43	1	0	0	1	2	63	0	65	109
Total Volume	171	5	1	177	2	1	0	3	5	229	0	234	414
% Approach Total	96.6	2.8	0.6		66.7	33.3	0.0		2.1	97.9	0.0		
PHF	0.838	0.625	0.250	0.835	0.500	0.250	0.000	0.375	0.625	0.909	0.000	0.900	0.932
Cars	168	5	1	174	2	1	0	3	5	223	0	228	405
Cars %	98.2	100.0	100.0	98.3	100.0	100.0	0.0	100.0	100.0	97.4	0.0	97.4	97.8
Heavy Vehicles	3	0	0	3	0	0	0	0	0	6	0	6	9
Heavy Vehicles %	1.8	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	2.6	0.0	2.6	2.2
Cars Enter Leg	168	5	1	174	2	1	0	3	5	223	0	228	405
Heavy Enter Leg	3	0	0	3	0	0	0	0	0	6	0	6	9
Total Entering Leg	171	5	1	177	2	1	0	3	5	229	0	234	414
Cars Exiting Leg				226				10				169	405
Heavy Exiting Leg				6				0				3	9
Total Exiting Leg				232				10				172	414

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	42	2	0	44	3	1	0	4	0	50	0	50	98
4:15 PM	47	1	3	51	0	0	0	0	0	54	0	54	105
4:30 PM	48	3	0	51	0	1	0	1	1	49	0	50	102
4:45 PM	29	0	1	30	1	0	0	1	1	47	0	48	79
Total	166	6	4	176	4	2	0	6	2	200	0	202	384
5:00 PM	36	0	0	36	0	0	0	0	0	47	0	47	83
5:15 PM	50	2	0	52	1	1	0	2	1	55	0	56	110
5:30 PM	42	2	0	44	0	0	0	0	2	58	0	60	104
5:45 PM	40	1	1	42	1	0	0	1	2	63	0	65	108
Total	168	5	1	174	2	1	0	3	5	223	0	228	405
Grand Total	334	11	5	350	6	3	0	9	7	423	0	430	789
Approach %	95.4	3.1	1.4		66.7	33.3	0.0		1.6	98.4	0.0		
Total %	42.3	1.4	0.6	44.4	0.8	0.4	0.0	1.1	0.9	53.6	0.0	54.5	
Exiting Leg Total				434				18				337	789

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
5:00 PM	36	0	0	36	0	0	0	0	0	47	0	47	83
5:15 PM	50	2	0	52	1	1	0	2	1	55	0	56	110
5:30 PM	42	2	0	44	0	0	0	0	2	58	0	60	104
5:45 PM	40	1	1	42	1	0	0	1	2	63	0	65	108
Total Volume	168	5	1	174	2	1	0	3	5	223	0	228	405
% Approach Total	96.6	2.9	0.6		66.7	33.3	0.0		2.2	97.8	0.0		
PHF	0.840	0.625	0.250	0.837	0.500	0.250	0.000	0.375	0.625	0.885	0.000	0.877	0.920
Entering Leg	168	5	1	174	2	1	0	3	5	223	0	228	405
Exiting Leg				226				10				169	405
Total				400				13				397	810

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	3	0	0	3	0	0	0	0	0	2	0	2	5
4:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
4:30 PM	2	0	0	2	1	0	0	1	0	1	0	1	4
4:45 PM	4	0	0	4	0	0	0	0	0	1	0	1	5
Total	10	0	0	10	1	0	0	1	0	4	0	4	15
5:00 PM	0	0	0	0	0	0	0	0	0	4	0	4	4
5:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
5:30 PM	1	0	0	1	0	0	0	0	0	2	0	2	3
5:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	3	0	0	3	0	0	0	0	0	6	0	6	9
Grand Total	13	0	0	13	1	0	0	1	0	10	0	10	24
Approach %	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	54.2	0.0	0.0	54.2	4.2	0.0	0.0	4.2	0.0	41.7	0.0	41.7	
Exiting Leg Total				11				0				13	24
Buses	6	0	0	6	0	0	0	0	0	5	0	5	11
% Buses	46.2	0.0	0.0	46.2	0.0	0.0	0.0	0.0	0.0	50.0	0.0	50.0	45.8
Exiting Leg Total				5				0				6	11
Single-Unit Trucks	7	0	0	7	1	0	0	1	0	5	0	5	13
% Single-Unit	53.8	0.0	0.0	53.8	100.0	0.0	0.0	100.0	0.0	50.0	0.0	50.0	54.2
Exiting Leg Total				6				0				7	13
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	3	0	0	3	0	0	0	0	0	2	0	2	5
4:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
4:30 PM	2	0	0	2	1	0	0	1	0	1	0	1	4
4:45 PM	4	0	0	4	0	0	0	0	0	1	0	1	5
Total Volume	10	0	0	10	1	0	0	1	0	4	0	4	15
% Approach Total	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.625	0.000	0.000	0.625	0.250	0.000	0.000	0.250	0.000	0.500	0.000	0.500	0.750
Buses	4	0	0	4	0	0	0	0	0	2	0	2	6
Buses %	40.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	50.0	40.0
Single-Unit Trucks	6	0	0	6	1	0	0	1	0	2	0	2	9
Single-Unit %	60.0	0.0	0.0	60.0	100.0	0.0	0.0	100.0	0.0	50.0	0.0	50.0	60.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	4	0	0	4	0	0	0	0	0	2	0	2	6
Single-Unit Trucks	6	0	0	6	1	0	0	1	0	2	0	2	9
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	10	0	0	10	1	0	0	1	0	4	0	4	15
Buses				2				0				4	6
Single-Unit Trucks				3				0				6	9
Articulated Trucks				0				0				0	0
Total Exiting Leg				5				0				10	15

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	39	2	0	41	3	1	0	4	0	44	0	44	89
4:15 PM	47	1	3	51	0	0	0	0	0	47	0	47	98
4:30 PM	42	3	0	45	0	1	0	1	1	48	0	49	95
4:45 PM	26	0	1	27	1	0	0	1	1	41	0	42	70
Total	154	6	4	164	4	2	0	6	2	180	0	182	352
5:00 PM	32	0	0	32	0	0	0	0	0	43	0	43	75
5:15 PM	48	2	0	50	1	1	0	2	0	53	0	53	105
5:30 PM	40	1	0	41	0	0	0	0	2	53	0	55	96
5:45 PM	39	1	1	41	0	0	0	0	2	60	0	62	103
Total	159	4	1	164	1	1	0	2	4	209	0	213	379
Grand Total	313	10	5	328	5	3	0	8	6	389	0	395	731
Approach %	95.4	3.0	1.5		62.5	37.5	0.0		1.5	98.5	0.0		
Total %	42.8	1.4	0.7	44.9	0.7	0.4	0.0	1.1	0.8	53.2	0.0	54.0	
Exiting Leg Total				399				16				316	731

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
5:00 PM	32	0	0	32	0	0	0	0	0	43	0	43	75
5:15 PM	48	2	0	50	1	1	0	2	0	53	0	53	105
5:30 PM	40	1	0	41	0	0	0	0	2	53	0	55	96
5:45 PM	39	1	1	41	0	0	0	0	2	60	0	62	103
Total Volume	159	4	1	164	1	1	0	2	4	209	0	213	379
% Approach Total	97.0	2.4	0.6		50.0	50.0	0.0		1.9	98.1	0.0		
PHF	0.828	0.500	0.250	0.820	0.250	0.250	0.000	0.250	0.500	0.871	0.000	0.859	0.902
Entering Leg	159	4	1	164	1	1	0	2	4	209	0	213	379
Exiting Leg				211				8				160	379
Total				375				10				373	758

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	3	0	0	3	0	0	0	0	0	6	0	6	9
4:15 PM	0	0	0	0	0	0	0	0	0	7	0	7	7
4:30 PM	6	0	0	6	0	0	0	0	0	1	0	1	7
4:45 PM	3	0	0	3	0	0	0	0	0	6	0	6	9
Total	12	0	0	12	0	0	0	0	0	20	0	20	32
5:00 PM	4	0	0	4	0	0	0	0	0	4	0	4	8
5:15 PM	2	0	0	2	0	0	0	0	1	2	0	3	5
5:30 PM	2	1	0	3	0	0	0	0	0	5	0	5	8
5:45 PM	1	0	0	1	1	0	0	1	0	3	0	3	5
Total	9	1	0	10	1	0	0	1	1	14	0	15	26
Grand Total	21	1	0	22	1	0	0	1	1	34	0	35	58
Approach %	95.5	4.5	0.0		100.0	0.0	0.0		2.9	97.1	0.0		
Total %	36.2	1.7	0.0	37.9	1.7	0.0	0.0	1.7	1.7	58.6	0.0	60.3	
Exiting Leg Total				35				2				21	58

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	3	0	0	3	0	0	0	0	0	6	0	6	9
4:15 PM	0	0	0	0	0	0	0	0	0	7	0	7	7
4:30 PM	6	0	0	6	0	0	0	0	0	1	0	1	7
4:45 PM	3	0	0	3	0	0	0	0	0	6	0	6	9
Total Volume	12	0	0	12	0	0	0	0	0	20	0	20	32
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.714	0.000	0.714	0.889
Entering Leg	12	0	0	12	0	0	0	0	0	20	0	20	32
Exiting Leg				20				0				12	32
Total				32				0				32	64

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	2	0	0	2	0	0	0	0	0	1	0	1	3
4:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
4:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	4	0	0	4	0	0	0	0	0	2	0	2	6
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
5:30 PM	1	0	0	1	0	0	0	0	0	2	0	2	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	2	0	0	0	0	0	3	0	3	5
Grand Total	6	0	0	6	0	0	0	0	0	5	0	5	11
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	54.5	0.0	0.0	54.5	0.0	0.0	0.0	0.0	0.0	45.5	0.0	45.5	
Exiting Leg Total				5				0				6	11

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	2	0	0	2	0	0	0	0	0	1	0	1	3
4:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
4:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Volume	4	0	0	4	0	0	0	0	0	2	0	2	6
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.500
Entering Leg	4	0	0	4	0	0	0	0	0	2	0	2	6
Exiting Leg				2				0				4	6
Total				6				0				6	12

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	2	0	0	2	1	0	0	1	0	0	0	0	3
4:45 PM	3	0	0	3	0	0	0	0	0	1	0	1	4
Total	6	0	0	6	1	0	0	1	0	2	0	2	9
5:00 PM	0	0	0	0	0	0	0	0	0	3	0	3	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	1	0	0	1	0	0	0	0	0	3	0	3	4
Grand Total	7	0	0	7	1	0	0	1	0	5	0	5	13
Approach %	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	53.8	0.0	0.0	53.8	7.7	0.0	0.0	7.7	0.0	38.5	0.0	38.5	
Exiting Leg Total				6				0				7	13

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	2	0	0	2	1	0	0	1	0	0	0	0	3
4:45 PM	3	0	0	3	0	0	0	0	0	1	0	1	4
5:00 PM	0	0	0	0	0	0	0	0	0	3	0	3	3
Total Volume	5	0	0	5	1	0	0	1	0	4	0	4	10
% Approach Total	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.417	0.000	0.000	0.417	0.250	0.000	0.000	0.250	0.000	0.333	0.000	0.333	0.625
Entering Leg	5	0	0	5	1	0	0	1	0	4	0	4	10
Exiting Leg				5				0				5	10
Total				10				1				9	20

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from East				Ryden Street from South				Whitwell Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Whitwell Street from East						Ryden Street from South						Whitwell Street from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from East						Ryden Street from South						Whitwell Street from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 F**
Location: **S: Ryden Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Whitwell Street from East						Ryden Street from South						Whitwell Street from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	2	2	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	2
Grand Total	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	2	2	6
Approach %	0	0	0	0	0		0	0	0	50	50		0	0	0	0	100		
Total %	0	0	0	0	0	0	0	0	0	33.333	33.333	66.667	0	0	0	0	33.333	33.333	
Exiting Leg Total						0						4						2	6

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Whitwell Street from East						Ryden Street from South						Whitwell Street from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	2	2	4
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	100.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.000	0.000	0.000	0.000	0.500	0.500	1.000
Entering Leg	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	2	2	4
Exiting Leg						0						2						2	4
Total						0						4						4	8

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	2	0	0	0	2	0	38	0	1	39	0	0	1	0	1	0	35	0	0	35	77
7:15 AM	0	0	2	0	2	0	59	0	0	59	2	0	1	0	3	0	33	0	0	33	97
7:30 AM	0	0	1	0	1	0	52	0	0	52	1	0	0	0	1	0	36	0	0	36	90
7:45 AM	0	0	0	0	0	0	61	0	0	61	0	0	2	0	2	0	43	0	0	43	106
Total	2	0	3	0	5	0	210	0	1	211	3	0	4	0	7	0	147	0	0	147	370
8:00 AM	0	0	1	0	1	0	69	0	0	69	0	0	1	0	1	0	46	0	0	46	117
8:15 AM	0	0	1	0	1	1	50	0	0	51	0	0	0	0	0	0	33	0	0	33	85
8:30 AM	0	0	0	0	0	0	41	1	0	42	1	0	0	0	1	0	18	0	0	18	61
8:45 AM	1	0	0	0	1	1	41	1	0	43	2	0	0	0	2	0	34	1	0	35	81
Total	1	0	2	0	3	2	201	2	0	205	3	0	1	0	4	0	131	1	0	132	344
Grand Total	3	0	5	0	8	2	411	2	1	416	6	0	5	0	11	0	278	1	0	279	714
Approach %	37.5	0.0	62.5	0.0		0.5	98.8	0.5	0.2		54.5	0.0	45.5	0.0		0.0	99.6	0.4	0.0		
Total %	0.4	0.0	0.7	0.0	1.1	0.3	57.6	0.3	0.1	58.3	0.8	0.0	0.7	0.0	1.5	0.0	38.9	0.1	0.0	39.1	
Exiting Leg Total					3					290					2					419	714
Cars	1	0	5	0	6	2	399	2	0	403	6	0	5	0	11	0	273	1	0	274	694
% Cars	33.3	0.0	100.0	0.0	75.0	100.0	97.1	100.0	0.0	96.9	100.0	0.0	100.0	0.0	100.0	0.0	98.2	100.0	0.0	98.2	97.2
Exiting Leg Total					3					284					2					405	694
Heavy Vehicles	2	0	0	0	2	0	12	0	1	13	0	0	0	0	0	0	5	0	0	5	20
% Heavy Vehicles	66.7	0.0	0.0	0.0	25.0	0.0	2.9	0.0	100.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.8	2.8
Exiting Leg Total					0					6					0					14	20

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	2	0	2	0	59	0	0	59	2	0	1	0	3	0	33	0	0	33	97
7:30 AM	0	0	1	0	1	0	52	0	0	52	1	0	0	0	1	0	36	0	0	36	90
7:45 AM	0	0	0	0	0	0	61	0	0	61	0	0	2	0	2	0	43	0	0	43	106
8:00 AM	0	0	1	0	1	0	69	0	0	69	0	0	1	0	1	0	46	0	0	46	117
Total Volume	0	0	4	0	4	0	241	0	0	241	3	0	4	0	7	0	158	0	0	158	410
% Approach Total	0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		42.9	0.0	57.1	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.500	0.000	0.500	0.000	0.873	0.000	0.000	0.873	0.375	0.000	0.500	0.000	0.583	0.000	0.859	0.000	0.000	0.859	0.876
Cars	0	0	4	0	4	0	236	0	0	236	3	0	4	0	7	0	155	0	0	155	402
Cars %	0.0	0.0	100.0	0.0	100.0	0.0	97.9	0.0	0.0	97.9	100.0	0.0	100.0	0.0	100.0	0.0	98.1	0.0	0.0	98.1	98.0
Heavy Vehicles	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	1.9	2.0
Cars Enter Leg	0	0	4	0	4	0	236	0	0	236	3	0	4	0	7	0	155	0	0	155	402
Heavy Enter Leg	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
Total Entering Leg	0	0	4	0	4	0	241	0	0	241	3	0	4	0	7	0	158	0	0	158	410
Cars Exiting Leg					0					162					0					240	402
Heavy Exiting Leg					0					3					0					5	8
Total Exiting Leg					0					165					0					245	410

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	36	0	0	36	0	0	1	0	1	0	34	0	0	34	71
7:15 AM	0	0	2	0	2	0	59	0	0	59	2	0	1	0	3	0	32	0	0	32	96
7:30 AM	0	0	1	0	1	0	50	0	0	50	1	0	0	0	1	0	36	0	0	36	88
7:45 AM	0	0	0	0	0	0	59	0	0	59	0	0	2	0	2	0	42	0	0	42	103
Total	0	0	3	0	3	0	204	0	0	204	3	0	4	0	7	0	144	0	0	144	358
8:00 AM	0	0	1	0	1	0	68	0	0	68	0	0	1	0	1	0	45	0	0	45	115
8:15 AM	0	0	1	0	1	1	47	0	0	48	0	0	0	0	0	0	32	0	0	32	81
8:30 AM	0	0	0	0	0	0	40	1	0	41	1	0	0	0	1	0	18	0	0	18	60
8:45 AM	1	0	0	0	1	1	40	1	0	42	2	0	0	0	2	0	34	1	0	35	80
Total	1	0	2	0	3	2	195	2	0	199	3	0	1	0	4	0	129	1	0	130	336
Grand Total	1	0	5	0	6	2	399	2	0	403	6	0	5	0	11	0	273	1	0	274	694
Approach %	16.7	0.0	83.3	0.0		0.5	99.0	0.5	0.0		54.5	0.0	45.5	0.0		0.0	99.6	0.4	0.0		
Total %	0.1	0.0	0.7	0.0	0.9	0.3	57.5	0.3	0.0	58.1	0.9	0.0	0.7	0.0	1.6	0.0	39.3	0.1	0.0	39.5	
Exiting Leg Total					3					284					2					405	694

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	2	0	2	0	59	0	0	59	2	0	1	0	3	0	32	0	0	32	96
7:30 AM	0	0	1	0	1	0	50	0	0	50	1	0	0	0	1	0	36	0	0	36	88
7:45 AM	0	0	0	0	0	0	59	0	0	59	0	0	2	0	2	0	42	0	0	42	103
8:00 AM	0	0	1	0	1	0	68	0	0	68	0	0	1	0	1	0	45	0	0	45	115
Total Volume	0	0	4	0	4	0	236	0	0	236	3	0	4	0	7	0	155	0	0	155	402
% Approach Total	0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		42.9	0.0	57.1	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.500	0.000	0.500	0.000	0.868	0.000	0.000	0.868	0.375	0.000	0.500	0.000	0.583	0.000	0.861	0.000	0.000	0.861	0.874
Entering Leg	0	0	4	0	4	0	236	0	0	236	3	0	4	0	7	0	155	0	0	155	402
Exiting Leg					0					162					0					240	402
Total					4					398					7					395	804

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	2	0	0	0	2	0	2	0	1	3	0	0	0	0	0	0	1	0	0	1	6
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
Total	2	0	0	0	2	0	6	0	1	7	0	0	0	0	0	0	3	0	0	3	12
8:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
8:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	2	0	0	2	8
Grand Total	2	0	0	0	2	0	12	0	1	13	0	0	0	0	0	0	5	0	0	5	20
Approach %	100.0	0.0	0.0	0.0		0.0	92.3	0.0	7.7		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	10.0	0.0	0.0	0.0	10.0	0.0	60.0	0.0	5.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	
Exiting Leg Total					0					6					0					14	20
Buses	2	0	0	0	2	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	7
% Buses	100.0	0.0	0.0	0.0	100.0	0.0	25.0	0.0	0.0	23.1	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	40.0	35.0
Exiting Leg Total					0					2					0					5	7
Single-Unit Trucks	0	0	0	0	0	0	8	0	1	9	0	0	0	0	0	0	3	0	0	3	12
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	100.0	69.2	0.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	60.0	60.0
Exiting Leg Total					0					4					0					8	12
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
Exiting Leg Total					0					0					0					1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	2	0	0	0	2	0	2	0	1	3	0	0	0	0	0	0	1	0	0	1	6
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
Total Volume	2	0	0	0	2	0	6	0	1	7	0	0	0	0	0	0	3	0	0	3	12
% Approach Total	100.0	0.0	0.0	0.0		0.0	85.7	0.0	14.3		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.750	0.000	0.250	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.500
Buses	2	0	0	0	2	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	5
Buses %	100.0	0.0	0.0	0.0	100.0	0.0	33.3	0.0	0.0	28.6	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	41.7
Single-Unit Trucks	0	0	0	0	0	0	4	0	1	5	0	0	0	0	0	0	2	0	0	2	7
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	100.0	71.4	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	66.7	58.3
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	2	0	0	0	2	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	5
Single-Unit Trucks	0	0	0	0	0	0	4	0	1	5	0	0	0	0	0	0	2	0	0	2	7
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	2	0	0	0	2	0	6	0	1	7	0	0	0	0	0	0	3	0	0	3	12
Buses					0					1					0					4	5
Single-Unit Trucks					0					3					0					4	7
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					0					4					0					8	12

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	32	0	0	32	0	0	1	0	1	0	34	0	0	34	67
7:15 AM	0	0	1	0	1	0	55	0	0	55	2	0	1	0	3	0	29	0	0	29	88
7:30 AM	0	0	1	0	1	0	48	0	0	48	1	0	0	0	1	0	35	0	0	35	85
7:45 AM	0	0	0	0	0	0	55	0	0	55	0	0	2	0	2	0	40	0	0	40	97
Total	0	0	2	0	2	0	190	0	0	190	3	0	4	0	7	0	138	0	0	138	337
8:00 AM	0	0	1	0	1	0	65	0	0	65	0	0	1	0	1	0	44	0	0	44	111
8:15 AM	0	0	1	0	1	1	43	0	0	44	0	0	0	0	0	0	29	0	0	29	74
8:30 AM	0	0	0	0	0	0	38	1	0	39	1	0	0	0	1	0	18	0	0	18	58
8:45 AM	1	0	0	0	1	1	39	1	0	41	2	0	0	0	2	0	34	1	0	35	79
Total	1	0	2	0	3	2	185	2	0	189	3	0	1	0	4	0	125	1	0	126	322
Grand Total	1	0	4	0	5	2	375	2	0	379	6	0	5	0	11	0	263	1	0	264	659
Approach %	20.0	0.0	80.0	0.0		0.5	98.9	0.5	0.0		54.5	0.0	45.5	0.0		0.0	99.6	0.4	0.0		
Total %	0.2	0.0	0.6	0.0	0.8	0.3	56.9	0.3	0.0	57.5	0.9	0.0	0.8	0.0	1.7	0.0	39.9	0.2	0.0	40.1	
Exiting Leg Total					3					273					2					381	659

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	1	0	1	0	55	0	0	55	2	0	1	0	3	0	29	0	0	29	88
7:30 AM	0	0	1	0	1	0	48	0	0	48	1	0	0	0	1	0	35	0	0	35	85
7:45 AM	0	0	0	0	0	0	55	0	0	55	0	0	2	0	2	0	40	0	0	40	97
8:00 AM	0	0	1	0	1	0	65	0	0	65	0	0	1	0	1	0	44	0	0	44	111
Total Volume	0	0	3	0	3	0	223	0	0	223	3	0	4	0	7	0	148	0	0	148	381
% Approach Total	0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		42.9	0.0	57.1	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.750	0.000	0.750	0.000	0.858	0.000	0.000	0.858	0.375	0.000	0.500	0.000	0.583	0.000	0.841	0.000	0.000	0.841	0.858
Entering Leg	0	0	3	0	3	0	223	0	0	223	3	0	4	0	7	0	148	0	0	148	381
Exiting Leg					0					154					0					227	381
Total					3					377					7					375	762

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	4
7:15 AM	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	8
7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
7:45 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	6
Total	0	0	1	0	1	0	14	0	0	14	0	0	0	0	0	0	6	0	0	6	21
8:00 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
8:15 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
8:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	4	0	0	4	14
Grand Total	0	0	1	0	1	0	24	0	0	24	0	0	0	0	0	0	10	0	0	10	35
Approach %	0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	2.9	0.0	2.9	0.0	68.6	0.0	0.0	68.6	0.0	0.0	0.0	0.0	0.0	0.0	28.6	0.0	0.0	28.6	
Exiting Leg Total					0					11					0					24	35

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	4
7:15 AM	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	8
7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
7:45 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	6
Total Volume	0	0	1	0	1	0	14	0	0	14	0	0	0	0	0	0	6	0	0	6	21
% Approach Total	0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.250	0.000	0.250	0.000	0.875	0.000	0.000	0.875	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.656
Entering Leg	0	0	1	0	1	0	14	0	0	14	0	0	0	0	0	0	6	0	0	6	21
Exiting Leg					0					7					0					14	21
Total					1					21					0					20	42

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	2	0	0	0	2	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	5
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Grand Total	2	0	0	0	2	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	7
Approach %	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	28.6	0.0	0.0	0.0	28.6	0.0	42.9	0.0	0.0	42.9	0.0	0.0	0.0	0.0	0.0	0.0	28.6	0.0	0.0	28.6	
Exiting Leg Total					0					2					0					5	7

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	2	0	0	0	2	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	5
% Approach Total	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.417
Entering Leg	2	0	0	0	2	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	5
Exiting Leg					0					1					0					4	5
Total					2					3					0					5	10

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0	1	0	0	1	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total	0	0	0	0	0	0	4	0	1	5	0	0	0	0	0	0	2	0	0	2	7
8:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	5
Grand Total	0	0	0	0	0	0	8	0	1	9	0	0	0	0	0	0	3	0	0	3	12
Approach %	0.0	0.0	0.0	0.0		0.0	88.9	0.0	11.1		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	8.3	75.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	
Exiting Leg Total					0					4					0					8	12

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0	1	0	0	1	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total Volume	0	0	0	0	0	0	4	0	1	5	0	0	0	0	0	0	2	0	0	2	7
% Approach Total	0.0	0.0	0.0	0.0		0.0	80.0	0.0	20.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.250	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.583
Entering Leg	0	0	0	0	0	0	4	0	1	5	0	0	0	0	0	0	2	0	0	2	7
Exiting Leg					0					3					0					4	7
Total					0					8					0					6	14

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg					0					0					0					1	1
Total					0					1					0					1	2

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Site Driveway							Whitwell Street							Nilsen Avenue							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							1							0							0	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Site Driveway							Whitwell Street							Nilsen Avenue							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Exiting Leg							0							1							0							0	1
Total							0							1							1							0	2

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Site Driveway from North							Whitwell Street from East							Nilsen Avenue from South							Whitwell Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	4	1	5	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	1	1	8
7:15 AM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	9
Total	0	0	0	0	13	3	16	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	1	1	2	22
8:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	0	0	0	4
8:45 AM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	2	5
Total	0	0	0	0	3	1	4	0	0	0	0	0	1	1	0	0	0	0	1	2	3	0	0	0	0	2	0	2	10
Grand Total	0	0	0	0	16	4	20	0	0	0	0	0	1	1	0	0	0	0	1	6	7	0	0	0	0	3	1	4	32
Approach %	0	0	0	0	80	20		0	0	0	0	0	100		0	0	0	0	14.3	85.7		0	0	0	0	75	25		
Total %	0	0	0	0	50	12.5	62.5	0	0	0	0	0	3.13	3.13	0	0	0	0	3.13	18.8	21.9	0	0	0	0	9.38	3.13	12.5	
Exiting Leg Total							20							1							7							4	32

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Site Driveway from North							Whitwell Street from East							Nilsen Avenue from South							Whitwell Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	4	1	5	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	1	1	8
7:15 AM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	9
Total Volume	0	0	0	0	13	3	16	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	1	1	2	22
% Approach Total	0.0	0.0	0.0	0.0	81.3	18.8		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	50.0	50.0		
PHF	0.000	0.000	0.000	0.000	0.464	0.750	0.571	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.611
Entering Leg	0	0	0	0	13	3	16	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	1	1	2	22
Exiting Leg							16							0							4							2	22
Total							32							0							8							4	44

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	2	0	0	0	2	0	47	1	0	48	1	0	0	0	1	0	52	0	0	52	103
4:15 PM	0	0	1	0	1	0	47	0	0	47	1	0	1	0	2	1	50	0	0	51	101
4:30 PM	1	0	0	0	1	0	55	0	0	55	0	0	2	0	2	2	50	0	0	52	110
4:45 PM	0	0	0	0	0	0	30	0	0	30	0	0	3	0	3	2	50	0	0	52	85
Total	3	0	1	0	4	0	179	1	0	180	2	0	6	0	8	5	202	0	0	207	399
5:00 PM	1	0	0	0	1	1	34	0	0	35	0	0	0	0	0	0	54	0	0	54	90
5:15 PM	0	0	1	0	1	0	53	1	0	54	1	0	1	0	2	2	52	0	0	54	111
5:30 PM	1	0	1	0	2	0	40	0	0	40	1	0	0	0	1	1	59	0	0	60	103
5:45 PM	1	0	0	0	1	0	44	1	0	45	0	0	0	0	0	1	65	0	0	66	112
Total	3	0	2	0	5	1	171	2	0	174	2	0	1	0	3	4	230	0	0	234	416
Grand Total	6	0	3	0	9	1	350	3	0	354	4	0	7	0	11	9	432	0	0	441	815
Approach %	66.7	0.0	33.3	0.0		0.3	98.9	0.8	0.0		36.4	0.0	63.6	0.0		2.0	98.0	0.0	0.0		
Total %	0.7	0.0	0.4	0.0	1.1	0.1	42.9	0.4	0.0	43.4	0.5	0.0	0.9	0.0	1.3	1.1	53.0	0.0	0.0	54.1	
Exiting Leg Total					1					439					12					363	815
Cars	4	0	3	0	7	1	340	3	0	344	4	0	6	0	10	8	422	0	0	430	791
% Cars	66.7	0.0	100.0	0.0	77.8	100.0	97.1	100.0	0.0	97.2	100.0	0.0	85.7	0.0	90.9	88.9	97.7	0.0	0.0	97.5	97.1
Exiting Leg Total					1					429					11					350	791
Heavy Vehicles	2	0	0	0	2	0	10	0	0	10	0	0	1	0	1	1	10	0	0	11	24
% Heavy Vehicles	33.3	0.0	0.0	0.0	22.2	0.0	2.9	0.0	0.0	2.8	0.0	0.0	14.3	0.0	9.1	11.1	2.3	0.0	0.0	2.5	2.9
Exiting Leg Total					0					10					1					13	24

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	1	0	0	0	1	1	34	0	0	35	0	0	0	0	0	0	54	0	0	54	90
5:15 PM	0	0	1	0	1	0	53	1	0	54	1	0	1	0	2	2	52	0	0	54	111
5:30 PM	1	0	1	0	2	0	40	0	0	40	1	0	0	0	1	1	59	0	0	60	103
5:45 PM	1	0	0	0	1	0	44	1	0	45	0	0	0	0	0	1	65	0	0	66	112
Total Volume	3	0	2	0	5	1	171	2	0	174	2	0	1	0	3	4	230	0	0	234	416
% Approach Total	60.0	0.0	40.0	0.0		0.6	98.3	1.1	0.0		66.7	0.0	33.3	0.0		1.7	98.3	0.0	0.0		
PHF	0.750	0.000	0.500	0.000	0.625	0.250	0.807	0.500	0.000	0.806	0.500	0.000	0.250	0.000	0.375	0.500	0.885	0.000	0.000	0.886	0.929
Cars	3	0	2	0	5	1	167	2	0	170	2	0	1	0	3	4	224	0	0	228	406
Cars %	100.0	0.0	100.0	0.0	100.0	100.0	97.7	100.0	0.0	97.7	100.0	0.0	100.0	0.0	100.0	100.0	97.4	0.0	0.0	97.4	97.6
Heavy Vehicles	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	6	0	0	6	10
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	2.6	2.4
Cars Enter Leg	3	0	2	0	5	1	167	2	0	170	2	0	1	0	3	4	224	0	0	228	406
Heavy Enter Leg	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	6	0	0	6	10
Total Entering Leg	3	0	2	0	5	1	171	2	0	174	2	0	1	0	3	4	230	0	0	234	416
Cars Exiting Leg					1					228					6					171	406
Heavy Exiting Leg					0					6					0					4	10
Total Exiting Leg					1					234					6					175	416

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Cars-Combined (Motorcycles, Cars, Light Goods)**

	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	46	1	0	47	1	0	0	0	1	0	50	0	0	50	98
4:15 PM	0	0	1	0	1	0	46	0	0	46	1	0	1	0	2	1	50	0	0	51	100
4:30 PM	1	0	0	0	1	0	53	0	0	53	0	0	2	0	2	1	49	0	0	50	106
4:45 PM	0	0	0	0	0	0	28	0	0	28	0	0	2	0	2	2	49	0	0	51	81
Total	1	0	1	0	2	0	173	1	0	174	2	0	5	0	7	4	198	0	0	202	385
5:00 PM	1	0	0	0	1	1	33	0	0	34	0	0	0	0	0	0	50	0	0	50	85
5:15 PM	0	0	1	0	1	0	52	1	0	53	1	0	1	0	2	2	52	0	0	54	110
5:30 PM	1	0	1	0	2	0	39	0	0	39	1	0	0	0	1	1	57	0	0	58	100
5:45 PM	1	0	0	0	1	0	43	1	0	44	0	0	0	0	0	1	65	0	0	66	111
Total	3	0	2	0	5	1	167	2	0	170	2	0	1	0	3	4	224	0	0	228	406
Grand Total	4	0	3	0	7	1	340	3	0	344	4	0	6	0	10	8	422	0	0	430	791
Approach %	57.1	0.0	42.9	0.0		0.3	98.8	0.9	0.0		40.0	0.0	60.0	0.0		1.9	98.1	0.0	0.0		
Total %	0.5	0.0	0.4	0.0	0.9	0.1	43.0	0.4	0.0	43.5	0.5	0.0	0.8	0.0	1.3	1.0	53.4	0.0	0.0	54.4	
Exiting Leg Total					1					429					11					350	791

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	1	0	0	0	1	1	33	0	0	34	0	0	0	0	0	0	50	0	0	50	85
5:15 PM	0	0	1	0	1	0	52	1	0	53	1	0	1	0	2	2	52	0	0	54	110
5:30 PM	1	0	1	0	2	0	39	0	0	39	1	0	0	0	1	1	57	0	0	58	100
5:45 PM	1	0	0	0	1	0	43	1	0	44	0	0	0	0	0	1	65	0	0	66	111
Total Volume	3	0	2	0	5	1	167	2	0	170	2	0	1	0	3	4	224	0	0	228	406
% Approach Total	60.0	0.0	40.0	0.0		0.6	98.2	1.2	0.0		66.7	0.0	33.3	0.0		1.8	98.2	0.0	0.0		
PHF	0.750	0.000	0.500	0.000	0.625	0.250	0.803	0.500	0.000	0.802	0.500	0.000	0.250	0.000	0.375	0.500	0.862	0.000	0.000	0.864	0.914
Entering Leg	3	0	2	0	5	1	167	2	0	170	2	0	1	0	3	4	224	0	0	228	406
Exiting Leg					1					228					6					171	406
Total					6					398					9					399	812

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Site Driveway from North					Whitwell Street from East					Nilsen Avenue from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	5
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	1	0	0	2	4
4:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	1	0	0	1	4
Total	2	0	0	0	2	0	6	0	0	6	0	0	1	0	1	1	4	0	0	5	14
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	5
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	6	0	0	6	10
Grand Total	2	0	0	0	2	0	10	0	0	10	0	0	1	0	1	1	10	0	0	11	24
Approach %	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		9.1	90.9	0.0	0.0		
Total %	8.3	0.0	0.0	0.0	8.3	0.0	41.7	0.0	0.0	41.7	0.0	0.0	4.2	0.0	4.2	4.2	41.7	0.0	0.0	45.8	
Exiting Leg Total					0					10					1					13	24
Buses	2	0	0	0	2	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	11
% Buses	100.0	0.0	0.0	0.0	100.0	0.0	40.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	45.5	45.8
Exiting Leg Total					0					5					0					6	11
Single-Unit Trucks	0	0	0	0	0	0	6	0	0	6	0	0	1	0	1	1	5	0	0	6	13
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	60.0	0.0	0.0	100.0	0.0	100.0	100.0	50.0	0.0	0.0	54.5	54.2
Exiting Leg Total					0					5					1					7	13
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Site Driveway from North					Whitwell Street from East					Nilsen Avenue from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	5
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	1	0	0	2	4
4:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	1	0	0	1	4
Total Volume	2	0	0	0	2	0	6	0	0	6	0	0	1	0	1	1	4	0	0	5	14
% Approach Total	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		20.0	80.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.250	0.000	0.250	0.250	0.500	0.000	0.000	0.625	0.700
Buses	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	5
Buses %	100.0	0.0	0.0	0.0	100.0	0.0	16.7	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	40.0	35.7
Single-Unit Trucks	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	1	2	0	0	3	9
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	83.3	0.0	0.0	83.3	0.0	0.0	100.0	0.0	100.0	100.0	50.0	0.0	0.0	60.0	64.3
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	5
Single-Unit Trucks	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	1	2	0	0	3	9
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	2	0	0	0	2	0	6	0	0	6	0	0	1	0	1	1	4	0	0	5	14
Buses					0					2					0					3	5
Single-Unit Trucks					0					2					1					6	9
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					0					4					1					9	14

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	42	1	0	43	1	0	0	0	1	0	44	0	0	44	88
4:15 PM	0	0	1	0	1	0	45	0	0	45	1	0	1	0	2	1	44	0	0	45	93
4:30 PM	1	0	0	0	1	0	49	0	0	49	0	0	2	0	2	1	44	0	0	45	97
4:45 PM	0	0	0	0	0	0	24	0	0	24	0	0	2	0	2	2	42	0	0	44	70
Total	1	0	1	0	2	0	160	1	0	161	2	0	5	0	7	4	174	0	0	178	348
5:00 PM	1	0	0	0	1	1	30	0	0	31	0	0	0	0	0	0	45	0	0	45	77
5:15 PM	0	0	1	0	1	0	50	1	0	51	1	0	1	0	2	2	49	0	0	51	105
5:30 PM	1	0	1	0	2	0	36	0	0	36	1	0	0	0	1	1	49	0	0	50	89
5:45 PM	1	0	0	0	1	0	42	1	0	43	0	0	0	0	0	1	58	0	0	59	103
Total	3	0	2	0	5	1	158	2	0	161	2	0	1	0	3	4	201	0	0	205	374
Grand Total	4	0	3	0	7	1	318	3	0	322	4	0	6	0	10	8	375	0	0	383	722
Approach %	57.1	0.0	42.9	0.0		0.3	98.8	0.9	0.0		40.0	0.0	60.0	0.0		2.1	97.9	0.0	0.0		
Total %	0.6	0.0	0.4	0.0	1.0	0.1	44.0	0.4	0.0	44.6	0.6	0.0	0.8	0.0	1.4	1.1	51.9	0.0	0.0	53.0	
Exiting Leg Total					1					382					11					328	722

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	1	0	0	0	1	1	30	0	0	31	0	0	0	0	0	0	45	0	0	45	77
5:15 PM	0	0	1	0	1	0	50	1	0	51	1	0	1	0	2	2	49	0	0	51	105
5:30 PM	1	0	1	0	2	0	36	0	0	36	1	0	0	0	1	1	49	0	0	50	89
5:45 PM	1	0	0	0	1	0	42	1	0	43	0	0	0	0	0	1	58	0	0	59	103
Total Volume	3	0	2	0	5	1	158	2	0	161	2	0	1	0	3	4	201	0	0	205	374
% Approach Total	60.0	0.0	40.0	0.0		0.6	98.1	1.2	0.0		66.7	0.0	33.3	0.0		2.0	98.0	0.0	0.0		
PHF	0.750	0.000	0.500	0.000	0.625	0.250	0.790	0.500	0.000	0.789	0.500	0.000	0.250	0.000	0.375	0.500	0.866	0.000	0.000	0.869	0.890
Entering Leg	3	0	2	0	5	1	158	2	0	161	2	0	1	0	3	4	201	0	0	205	374
Exiting Leg					1					205					6					162	374
Total					6					366					9					367	748

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	6	0	0	6	10
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	6	0	0	6	7
4:30 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	9
4:45 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	7	0	0	7	11
Total	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	24	0	0	24	37
5:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	8
5:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
5:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	8	0	0	8	11
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	7	0	0	7	8
Total	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	23	0	0	23	32
Grand Total	0	0	0	0	0	0	22	0	0	22	0	0	0	0	0	0	47	0	0	47	69
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	31.9	0.0	0.0	31.9	0.0	0.0	0.0	0.0	0.0	0.0	68.1	0.0	0.0	68.1	
Exiting Leg Total					0					47					0					22	69

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	6	0	0	6	10
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	6	0	0	6	7
4:30 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	9
4:45 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	7	0	0	7	11
Total Volume	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	24	0	0	24	37
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.813	0.000	0.000	0.813	0.000	0.000	0.000	0.000	0.000	0.000	0.857	0.000	0.000	0.857	0.841
Entering Leg	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	24	0	0	24	37
Exiting Leg					0					24					0					13	37
Total					0					37					0					37	74

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Site Driveway from North					Whitwell Street from East					Nilsen Avenue from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	5
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
Grand Total	2	0	0	0	2	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	11
Approach %	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	18.2	0.0	0.0	0.0	18.2	0.0	36.4	0.0	0.0	36.4	0.0	0.0	0.0	0.0	0.0	0.0	45.5	0.0	0.0	45.5	
Exiting Leg Total					0					5					0					6	11

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Site Driveway from North					Whitwell Street from East					Nilsen Avenue from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
Total Volume	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.375	0.500
Entering Leg	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
Exiting Leg					0					3					0					3	6
Total					0					6					0					6	12

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	0	0	0	1	3
4:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	1	0	0	1	4
Total	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	1	2	0	0	3	9
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4
Grand Total	0	0	0	0	0	0	6	0	0	6	0	0	1	0	1	1	5	0	0	6	13
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		16.7	83.3	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	46.2	0.0	0.0	46.2	0.0	0.0	7.7	0.0	7.7	7.7	38.5	0.0	0.0	46.2	
Exiting Leg Total					0					5					1					7	13

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Site Driveway					Whitwell Street					Nilsen Avenue					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	0	0	0	1	3
4:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	1	0	0	1	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
Total Volume	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	1	4	0	0	5	10
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		20.0	80.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.250	0.000	0.250	0.250	0.333	0.000	0.000	0.417	0.625
Entering Leg	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	1	4	0	0	5	10
Exiting Leg					0					4					1					5	10
Total					0					8					2					10	20

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Site Driveway from North					Whitwell Street from East					Nilsen Avenue from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Site Driveway from North					Whitwell Street from East					Nilsen Avenue from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg					0					0					0					0	0
Total					0					0					0					0	0

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Site Driveway							Whitwell Street							Nilsen Avenue							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							1							0							0							0	1

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Site Driveway							Whitwell Street							Nilsen Avenue							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg							0							0							0							0	0
Total							0							0							0							0	0

PDI File #: **186173 G**
Location: **N: Site Driveway S: Nilsen Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Site Driveway from North							Whitwell Street from East							Nilsen Avenue from South							Whitwell Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
Total	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	4
5:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	4
5:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	3
Total	0	0	0	0	1	4	5	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	0	1	1	10
Grand Total	0	0	0	0	2	5	7	0	0	0	0	0	0	0	0	0	0	0	4	2	6	0	0	0	0	0	1	1	14
Approach %	0	0	0	0	28.6	71.4		0	0	0	0	0	0		0	0	0	0	66.7	33.3		0	0	0	0	0	100		
Total %	0	0	0	0	14.3	35.7	50	0	0	0	0	0	0	0	0	0	0	0	28.6	14.3	42.9	0	0	0	0	0	7.14	7.14	
Exiting Leg Total							7							0							6							1	14

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Site Driveway from North							Whitwell Street from East							Nilsen Avenue from South							Whitwell Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	4
% Approach Total	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	4
Exiting Leg							2							0							2							0	4
Total							4							0							4							0	8

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	38	2	0	40	2	0	5	0	7	1	34	0	0	35	82
7:15 AM	0	0	0	0	0	0	54	0	0	54	2	0	0	0	2	0	38	0	0	38	94
7:30 AM	1	0	0	0	1	0	45	3	0	48	2	0	4	0	6	0	42	0	0	42	97
7:45 AM	0	0	0	0	0	0	64	1	0	65	1	0	0	0	1	5	40	1	0	46	112
Total	1	0	0	0	1	0	201	6	0	207	7	0	9	0	16	6	154	1	0	161	385
8:00 AM	0	0	0	0	0	0	66	0	0	66	2	0	2	0	4	0	44	0	0	44	114
8:15 AM	0	0	0	0	0	0	51	0	0	51	2	0	2	0	4	3	29	0	0	32	87
8:30 AM	0	0	0	0	0	0	37	0	0	37	0	0	1	0	1	0	19	0	0	19	57
8:45 AM	0	0	0	0	0	0	42	0	0	42	1	0	1	0	2	2	33	0	0	35	79
Total	0	0	0	0	0	0	196	0	0	196	5	0	6	0	11	5	125	0	0	130	337
Grand Total	1	0	0	0	1	0	397	6	0	403	12	0	15	0	27	11	279	1	0	291	722
Approach %	100.0	0.0	0.0	0.0		0.0	98.5	1.5	0.0		44.4	0.0	55.6	0.0		3.8	95.9	0.3	0.0		
Total %	0.1	0.0	0.0	0.0	0.1	0.0	55.0	0.8	0.0	55.8	1.7	0.0	2.1	0.0	3.7	1.5	38.6	0.1	0.0	40.3	
Exiting Leg Total					1					291					17					413	722
Cars	1	0	0	0	1	0	386	5	0	391	12	0	15	0	27	11	273	1	0	285	704
% Cars	100.0	0.0	0.0	0.0	100.0	0.0	97.2	83.3	0.0	97.0	100.0	0.0	100.0	0.0	100.0	100.0	97.8	100.0	0.0	97.9	97.5
Exiting Leg Total					1					285					16					402	704
Heavy Vehicles	0	0	0	0	0	0	11	1	0	12	0	0	0	0	0	0	6	0	0	6	18
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	2.8	16.7	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.1	2.5
Exiting Leg Total					0					6					1					11	18

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	54	0	0	54	2	0	0	0	2	0	38	0	0	38	94
7:30 AM	1	0	0	0	1	0	45	3	0	48	2	0	4	0	6	0	42	0	0	42	97
7:45 AM	0	0	0	0	0	0	64	1	0	65	1	0	0	0	1	5	40	1	0	46	112
8:00 AM	0	0	0	0	0	0	66	0	0	66	2	0	2	0	4	0	44	0	0	44	114
Total Volume	1	0	0	0	1	0	229	4	0	233	7	0	6	0	13	5	164	1	0	170	417
% Approach Total	100.0	0.0	0.0	0.0		0.0	98.3	1.7	0.0		53.8	0.0	46.2	0.0		2.9	96.5	0.6	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.867	0.333	0.000	0.883	0.875	0.000	0.375	0.000	0.542	0.250	0.932	0.250	0.000	0.924	0.914
Cars	1	0	0	0	1	0	225	4	0	229	7	0	6	0	13	5	161	1	0	167	410
Cars %	100.0	0.0	0.0	0.0	100.0	0.0	98.3	100.0	0.0	98.3	100.0	0.0	100.0	0.0	100.0	100.0	98.2	100.0	0.0	98.2	98.3
Heavy Vehicles	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.8	1.7
Cars Enter Leg	1	0	0	0	1	0	225	4	0	229	7	0	6	0	13	5	161	1	0	167	410
Heavy Enter Leg	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
Total Entering Leg	1	0	0	0	1	0	229	4	0	233	7	0	6	0	13	5	164	1	0	170	417
Cars Exiting Leg					1					168					9					232	410
Heavy Exiting Leg					0					3					0					4	7
Total Exiting Leg					1					171					9					236	417

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	37	1	0	38	2	0	5	0	7	1	32	0	0	33	78
7:15 AM	0	0	0	0	0	0	54	0	0	54	2	0	0	0	2	0	37	0	0	37	93
7:30 AM	1	0	0	0	1	0	44	3	0	47	2	0	4	0	6	0	41	0	0	41	95
7:45 AM	0	0	0	0	0	0	61	1	0	62	1	0	0	0	1	5	40	1	0	46	109
Total	1	0	0	0	1	0	196	5	0	201	7	0	9	0	16	6	150	1	0	157	375
8:00 AM	0	0	0	0	0	0	66	0	0	66	2	0	2	0	4	0	43	0	0	43	113
8:15 AM	0	0	0	0	0	0	48	0	0	48	2	0	2	0	4	3	28	0	0	31	83
8:30 AM	0	0	0	0	0	0	36	0	0	36	0	0	1	0	1	0	19	0	0	19	56
8:45 AM	0	0	0	0	0	0	40	0	0	40	1	0	1	0	2	2	33	0	0	35	77
Total	0	0	0	0	0	0	190	0	0	190	5	0	6	0	11	5	123	0	0	128	329
Grand Total	1	0	0	0	1	0	386	5	0	391	12	0	15	0	27	11	273	1	0	285	704
Approach %	100.0	0.0	0.0	0.0		0.0	98.7	1.3	0.0		44.4	0.0	55.6	0.0		3.9	95.8	0.4	0.0		
Total %	0.1	0.0	0.0	0.0	0.1	0.0	54.8	0.7	0.0	55.5	1.7	0.0	2.1	0.0	3.8	1.6	38.8	0.1	0.0	40.5	
Exiting Leg Total					1					285					16					402	704

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	54	0	0	54	2	0	0	0	2	0	37	0	0	37	93
7:30 AM	1	0	0	0	1	0	44	3	0	47	2	0	4	0	6	0	41	0	0	41	95
7:45 AM	0	0	0	0	0	0	61	1	0	62	1	0	0	0	1	5	40	1	0	46	109
8:00 AM	0	0	0	0	0	0	66	0	0	66	2	0	2	0	4	0	43	0	0	43	113
Total Volume	1	0	0	0	1	0	225	4	0	229	7	0	6	0	13	5	161	1	0	167	410
% Approach Total	100.0	0.0	0.0	0.0		0.0	98.3	1.7	0.0		53.8	0.0	46.2	0.0		3.0	96.4	0.6	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.852	0.333	0.000	0.867	0.875	0.000	0.375	0.000	0.542	0.250	0.936	0.250	0.000	0.908	0.907
Entering Leg	1	0	0	0	1	0	225	4	0	229	7	0	6	0	13	5	161	1	0	167	410
Exiting Leg					1					168					9					232	410
Total					2					397					22					399	820

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Driveway from North					Whitwell Street from East					Cranch Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	2	0	0	2	4
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
7:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	0	4	0	0	4	10
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
8:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	2	0	0	2	8
Grand Total	0	0	0	0	0	0	11	1	0	12	0	0	0	0	0	0	6	0	0	6	18
Approach %	0.0	0.0	0.0	0.0		0.0	91.7	8.3	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	61.1	5.6	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	
Exiting Leg Total					0					6					1					11	18
Buses	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	2	0	0	2	5
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	18.2	100.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	27.8
Exiting Leg Total					0					2					1					2	5
Single-Unit Trucks	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	4	0	0	4	12
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	72.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	66.7	66.7
Exiting Leg Total					0					4					0					8	12
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
Exiting Leg Total					0					0					0					1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Driveway from North					Whitwell Street from East					Cranch Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	2	0	0	2	4
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
7:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Total Volume	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	0	4	0	0	4	10
% Approach Total	0.0	0.0	0.0	0.0		0.0	83.3	16.7	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.417	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.625
Buses	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	3
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	20.0	100.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	30.0
Single-Unit Trucks	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	80.0	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	75.0	0.0	0.0	75.0	70.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	3
Single-Unit Trucks	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	0	4	0	0	4	10
Buses					0					1					1					1	3
Single-Unit Trucks					0					3					0					4	7
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					0					4					1					5	10

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	31	1	0	32	2	0	5	0	7	1	32	0	0	33	72
7:15 AM	0	0	0	0	0	0	50	0	0	50	2	0	0	0	2	0	34	0	0	34	86
7:30 AM	1	0	0	0	1	0	42	3	0	45	2	0	4	0	6	0	38	0	0	38	90
7:45 AM	0	0	0	0	0	0	57	1	0	58	1	0	0	0	1	5	40	1	0	46	105
Total	1	0	0	0	1	0	180	5	0	185	7	0	9	0	16	6	144	1	0	151	353
8:00 AM	0	0	0	0	0	0	63	0	0	63	2	0	2	0	4	0	39	0	0	39	106
8:15 AM	0	0	0	0	0	0	46	0	0	46	1	0	2	0	3	3	25	0	0	28	77
8:30 AM	0	0	0	0	0	0	36	0	0	36	0	0	0	0	0	0	19	0	0	19	55
8:45 AM	0	0	0	0	0	0	39	0	0	39	1	0	1	0	2	2	33	0	0	35	76
Total	0	0	0	0	0	0	184	0	0	184	4	0	5	0	9	5	116	0	0	121	314
Grand Total	1	0	0	0	1	0	364	5	0	369	11	0	14	0	25	11	260	1	0	272	667
Approach %	100.0	0.0	0.0	0.0		0.0	98.6	1.4	0.0		44.0	0.0	56.0	0.0		4.0	95.6	0.4	0.0		
Total %	0.1	0.0	0.0	0.0	0.1	0.0	54.6	0.7	0.0	55.3	1.6	0.0	2.1	0.0	3.7	1.6	39.0	0.1	0.0	40.8	
Exiting Leg Total					1					271					16					379	667

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	50	0	0	50	2	0	0	0	2	0	34	0	0	34	86
7:30 AM	1	0	0	0	1	0	42	3	0	45	2	0	4	0	6	0	38	0	0	38	90
7:45 AM	0	0	0	0	0	0	57	1	0	58	1	0	0	0	1	5	40	1	0	46	105
8:00 AM	0	0	0	0	0	0	63	0	0	63	2	0	2	0	4	0	39	0	0	39	106
Total Volume	1	0	0	0	1	0	212	4	0	216	7	0	6	0	13	5	151	1	0	157	387
% Approach Total	100.0	0.0	0.0	0.0		0.0	98.1	1.9	0.0		53.8	0.0	46.2	0.0		3.2	96.2	0.6	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.841	0.333	0.000	0.857	0.875	0.000	0.375	0.000	0.542	0.250	0.944	0.250	0.000	0.853	0.913
Entering Leg	1	0	0	0	1	0	212	4	0	216	7	0	6	0	13	5	151	1	0	157	387
Exiting Leg					1					158					9					219	387
Total					2					374					22					376	774

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	6
7:15 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
7:45 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	4
Total	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	0	6	0	0	6	22
8:00 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	7
8:15 AM	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	0	3	0	0	3	6
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	6	0	0	6	1	0	1	0	2	0	7	0	0	7	15
Grand Total	0	0	0	0	0	0	22	0	0	22	1	0	1	0	2	0	13	0	0	13	37
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		50.0	0.0	50.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	59.5	0.0	0.0	59.5	2.7	0.0	2.7	0.0	5.4	0.0	35.1	0.0	0.0	35.1	
Exiting Leg Total					0					14					0					23	37

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
7:45 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	4
8:00 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	7
Total Volume	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	10	0	0	10	23
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.813	0.000	0.000	0.813	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.625	0.821
Entering Leg	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	10	0	0	10	23
Exiting Leg					0					10					0					13	23
Total					0					23					0					23	46

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Grand Total	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	2	0	0	2	5
Approach %	0.0	0.0	0.0	0.0		0.0	66.7	33.3	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	40.0	20.0	0.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	40.0	
Exiting Leg Total					0					2					1					2	5

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	3
% Approach Total	0.0	0.0	0.0	0.0		0.0	50.0	50.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.750
Entering Leg	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	3
Exiting Leg					0					1					1					1	3
Total					0					3					1					2	6

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
7:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	5
Grand Total	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	4	0	0	4	12
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	
Exiting Leg Total					0					4					0					8	12

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
7:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.375	0.583
Entering Leg	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
Exiting Leg					0					3					0					4	7
Total					0					7					0					7	14

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg					0					0					0					1	1
Total					0					1					0					1	2

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Driveway							Whitwell Street							Cranch Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							0							0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Driveway							Whitwell Street							Cranch Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg							0							0							0							0	0
Total							0							0							0							0	0

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Driveway							Whitwell Street							Cranch Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	4	0	4	0	0	0	0	0	1	1	0	0	0	0	1	3	4	0	0	0	0	0	0	0	9
7:15 AM	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	5
7:30 AM	0	0	0	0	3	1	4	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
7:45 AM	0	0	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	2	0	2	12
Total	0	0	0	0	16	2	18	0	0	0	0	1	2	3	0	0	0	0	3	5	8	0	0	0	0	3	0	3	32
8:00 AM	0	0	0	0	3	1	4	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	2	2	8
8:15 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	5
8:45 AM	0	0	0	0	3	0	3	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	5
Total	0	0	0	0	8	3	11	0	0	0	0	0	2	2	0	0	0	0	1	3	4	0	0	0	0	0	2	2	19
Grand Total	0	0	0	0	24	5	29	0	0	0	0	1	4	5	0	0	0	0	4	8	12	0	0	0	0	3	2	5	51
Approach %	0	0	0	0	82.8	17.2		0	0	0	0	20	80		0	0	0	0	33.3	66.7		0	0	0	0	60	40		
Total %	0	0	0	0	47.1	9.8	56.9	0	0	0	0	1.96	7.84	9.8	0	0	0	0	7.84	15.7	23.5	0	0	0	0	5.88	3.92	9.8	
Exiting Leg Total							29							5							12							5	51

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Driveway							Whitwell Street							Cranch Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	4	0	4	0	0	0	0	0	1	1	0	0	0	0	1	3	4	0	0	0	0	0	0	0	9
7:15 AM	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	5
7:30 AM	0	0	0	0	3	1	4	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
7:45 AM	0	0	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	2	0	2	12
Total Volume	0	0	0	0	16	2	18	0	0	0	0	1	2	3	0	0	0	0	3	5	8	0	0	0	0	3	0	3	32
% Approach Total	0.0	0.0	0.0	0.0	88.9	11.1		0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	37.5	62.5		0.0	0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.571	0.500	0.643	0.000	0.000	0.000	0.000	0.250	0.500	0.375	0.000	0.000	0.000	0.000	0.750	0.417	0.500	0.000	0.000	0.000	0.000	0.375	0.000	0.375	0.667
Entering Leg	0	0	0	0	16	2	18	0	0	0	0	1	2	3	0	0	0	0	3	5	8	0	0	0	0	3	0	3	32
Exiting Leg							18							3							8							3	32
Total							36							6							16							6	64

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	47	0	0	47	3	0	0	0	3	1	55	0	0	56	106
4:15 PM	0	0	1	0	1	0	49	3	0	52	3	0	2	0	5	3	52	0	0	55	113
4:30 PM	0	0	0	0	0	0	52	2	1	55	2	0	0	0	2	6	39	0	0	45	102
4:45 PM	0	0	0	0	0	0	30	1	0	31	3	0	0	0	3	2	48	0	0	50	84
Total	0	0	1	0	1	0	178	6	1	185	11	0	2	0	13	12	194	0	0	206	405
5:00 PM	0	0	0	0	0	0	32	1	0	33	2	0	1	0	3	1	51	0	0	52	88
5:15 PM	0	0	0	0	0	0	51	2	0	53	1	0	3	0	4	0	55	0	0	55	112
5:30 PM	0	0	0	0	0	0	42	3	0	45	0	0	2	0	2	4	59	0	0	63	110
5:45 PM	0	0	0	0	0	0	40	0	0	40	1	0	2	0	3	3	60	0	0	63	106
Total	0	0	0	0	0	0	165	6	0	171	4	0	8	0	12	8	225	0	0	233	416
Grand Total	0	0	1	0	1	0	343	12	1	356	15	0	10	0	25	20	419	0	0	439	821
Approach %	0.0	0.0	100.0	0.0		0.0	96.3	3.4	0.3		60.0	0.0	40.0	0.0		4.6	95.4	0.0	0.0		
Total %	0.0	0.0	0.1	0.0	0.1	0.0	41.8	1.5	0.1	43.4	1.8	0.0	1.2	0.0	3.0	2.4	51.0	0.0	0.0	53.5	
Exiting Leg Total					0					436					32					353	821
Cars	0	0	1	0	1	0	334	11	1	346	15	0	10	0	25	20	411	0	0	431	803
% Cars	0.0	0.0	100.0	0.0	100.0	0.0	97.4	91.7	100.0	97.2	100.0	0.0	100.0	0.0	100.0	100.0	98.1	0.0	0.0	98.2	97.8
Exiting Leg Total					0					428					31					344	803
Heavy Vehicles	0	0	0	0	0	0	9	1	0	10	0	0	0	0	0	0	8	0	0	8	18
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	2.6	8.3	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	1.8	2.2
Exiting Leg Total					0					8					1					9	18

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	0	32	1	0	33	2	0	1	0	3	1	51	0	0	52	88
5:15 PM	0	0	0	0	0	0	51	2	0	53	1	0	3	0	4	0	55	0	0	55	112
5:30 PM	0	0	0	0	0	0	42	3	0	45	0	0	2	0	2	4	59	0	0	63	110
5:45 PM	0	0	0	0	0	0	40	0	0	40	1	0	2	0	3	3	60	0	0	63	106
Total Volume	0	0	0	0	0	0	165	6	0	171	4	0	8	0	12	8	225	0	0	233	416
% Approach Total	0.0	0.0	0.0	0.0		0.0	96.5	3.5	0.0		33.3	0.0	66.7	0.0		3.4	96.6	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.809	0.500	0.000	0.807	0.500	0.000	0.667	0.000	0.750	0.500	0.938	0.000	0.000	0.925	0.929
Cars	0	0	0	0	0	0	162	6	0	168	4	0	8	0	12	8	221	0	0	229	409
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	98.2	100.0	0.0	98.2	100.0	0.0	100.0	0.0	100.0	100.0	98.2	0.0	0.0	98.3	98.3
Heavy Vehicles	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	7
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.7	1.7
Cars Enter Leg	0	0	0	0	0	0	162	6	0	168	4	0	8	0	12	8	221	0	0	229	409
Heavy Enter Leg	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	7
Total Entering Leg	0	0	0	0	0	0	165	6	0	171	4	0	8	0	12	8	225	0	0	233	416
Cars Exiting Leg					0					225					14					170	409
Heavy Exiting Leg					0					4					0					3	7
Total Exiting Leg					0					229					14					173	416

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	46	0	0	46	3	0	0	0	3	1	53	0	0	54	103
4:15 PM	0	0	1	0	1	0	48	2	0	50	3	0	2	0	5	3	52	0	0	55	111
4:30 PM	0	0	0	0	0	0	49	2	1	52	2	0	0	0	2	6	38	0	0	44	98
4:45 PM	0	0	0	0	0	0	29	1	0	30	3	0	0	0	3	2	47	0	0	49	82
Total	0	0	1	0	1	0	172	5	1	178	11	0	2	0	13	12	190	0	0	202	394
5:00 PM	0	0	0	0	0	0	32	1	0	33	2	0	1	0	3	1	49	0	0	50	86
5:15 PM	0	0	0	0	0	0	50	2	0	52	1	0	3	0	4	0	55	0	0	55	111
5:30 PM	0	0	0	0	0	0	41	3	0	44	0	0	2	0	2	4	57	0	0	61	107
5:45 PM	0	0	0	0	0	0	39	0	0	39	1	0	2	0	3	3	60	0	0	63	105
Total	0	0	0	0	0	0	162	6	0	168	4	0	8	0	12	8	221	0	0	229	409
Grand Total	0	0	1	0	1	0	334	11	1	346	15	0	10	0	25	20	411	0	0	431	803
Approach %	0.0	0.0	100.0	0.0		0.0	96.5	3.2	0.3		60.0	0.0	40.0	0.0		4.6	95.4	0.0	0.0		
Total %	0.0	0.0	0.1	0.0	0.1	0.0	41.6	1.4	0.1	43.1	1.9	0.0	1.2	0.0	3.1	2.5	51.2	0.0	0.0	53.7	
Exiting Leg Total					0					428					31					344	803

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	0	32	1	0	33	2	0	1	0	3	1	49	0	0	50	86
5:15 PM	0	0	0	0	0	0	50	2	0	52	1	0	3	0	4	0	55	0	0	55	111
5:30 PM	0	0	0	0	0	0	41	3	0	44	0	0	2	0	2	4	57	0	0	61	107
5:45 PM	0	0	0	0	0	0	39	0	0	39	1	0	2	0	3	3	60	0	0	63	105
Total Volume	0	0	0	0	0	0	162	6	0	168	4	0	8	0	12	8	221	0	0	229	409
% Approach Total	0.0	0.0	0.0	0.0		0.0	96.4	3.6	0.0		33.3	0.0	66.7	0.0		3.5	96.5	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.810	0.500	0.000	0.808	0.500	0.000	0.667	0.000	0.750	0.500	0.921	0.000	0.000	0.909	0.921
Entering Leg	0	0	0	0	0	0	162	6	0	168	4	0	8	0	12	8	221	0	0	229	409
Exiting Leg					0					225					14					170	409
Total					0					393					26					399	818

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Driveway from North					Whitwell Street from East					Cranch Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
4:15 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total	0	0	0	0	0	0	6	1	0	7	0	0	0	0	0	0	4	0	0	4	11
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	7
Grand Total	0	0	0	0	0	0	9	1	0	10	0	0	0	0	0	0	8	0	0	8	18
Approach %	0.0	0.0	0.0	0.0		0.0	90.0	10.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	50.0	5.6	0.0	55.6	0.0	0.0	0.0	0.0	0.0	0.0	44.4	0.0	0.0	44.4	
Exiting Leg Total					0					8					1					9	18
Buses	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	9
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	44.4	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	62.5	0.0	0.0	62.5	50.0
Exiting Leg Total					0					5					0					4	9
Single-Unit Trucks	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	0	3	0	0	3	9
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	55.6	100.0	0.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	37.5	0.0	0.0	37.5	50.0
Exiting Leg Total					0					3					1					5	9
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Driveway from North					Whitwell Street from East					Cranch Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
4:15 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total Volume	0	0	0	0	0	0	6	1	0	7	0	0	0	0	0	0	4	0	0	4	11
% Approach Total	0.0	0.0	0.0	0.0		0.0	85.7	14.3	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.000	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.688
Buses	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	28.6	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	36.4
Single-Unit Trucks	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	2	0	0	2	7
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	66.7	100.0	0.0	71.4	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	63.6
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
Single-Unit Trucks	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	2	0	0	2	7
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	0	0	6	1	0	7	0	0	0	0	0	0	4	0	0	4	11
Buses					0					2					0					2	4
Single-Unit Trucks					0					2					1					4	7
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					0					4					1					6	11

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	42	0	0	42	3	0	0	0	3	1	48	0	0	49	94
4:15 PM	0	0	1	0	1	0	47	2	0	49	3	0	2	0	5	3	45	0	0	48	103
4:30 PM	0	0	0	0	0	0	43	2	0	45	2	0	0	0	2	6	35	0	0	41	88
4:45 PM	0	0	0	0	0	0	24	1	0	25	3	0	0	0	3	2	43	0	0	45	73
Total	0	0	1	0	1	0	156	5	0	161	11	0	2	0	13	12	171	0	0	183	358
5:00 PM	0	0	0	0	0	0	30	1	0	31	2	0	1	0	3	1	42	0	0	43	77
5:15 PM	0	0	0	0	0	0	48	2	0	50	1	0	3	0	4	0	54	0	0	54	108
5:30 PM	0	0	0	0	0	0	38	3	0	41	0	0	2	0	2	4	50	0	0	54	97
5:45 PM	0	0	0	0	0	0	38	0	0	38	1	0	2	0	3	2	57	0	0	59	100
Total	0	0	0	0	0	0	154	6	0	160	4	0	8	0	12	7	203	0	0	210	382
Grand Total	0	0	1	0	1	0	310	11	0	321	15	0	10	0	25	19	374	0	0	393	740
Approach %	0.0	0.0	100.0	0.0		0.0	96.6	3.4	0.0		60.0	0.0	40.0	0.0		4.8	95.2	0.0	0.0		
Total %	0.0	0.0	0.1	0.0	0.1	0.0	41.9	1.5	0.0	43.4	2.0	0.0	1.4	0.0	3.4	2.6	50.5	0.0	0.0	53.1	
Exiting Leg Total					0					390					30					320	740

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	0	30	1	0	31	2	0	1	0	3	1	42	0	0	43	77
5:15 PM	0	0	0	0	0	0	48	2	0	50	1	0	3	0	4	0	54	0	0	54	108
5:30 PM	0	0	0	0	0	0	38	3	0	41	0	0	2	0	2	4	50	0	0	54	97
5:45 PM	0	0	0	0	0	0	38	0	0	38	1	0	2	0	3	2	57	0	0	59	100
Total Volume	0	0	0	0	0	0	154	6	0	160	4	0	8	0	12	7	203	0	0	210	382
% Approach Total	0.0	0.0	0.0	0.0		0.0	96.3	3.8	0.0		33.3	0.0	66.7	0.0		3.3	96.7	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.802	0.500	0.000	0.800	0.500	0.000	0.667	0.000	0.750	0.438	0.890	0.000	0.000	0.890	0.884
Entering Leg	0	0	0	0	0	0	154	6	0	160	4	0	8	0	12	7	203	0	0	210	382
Exiting Leg					0					207					13					162	382
Total					0					367					25					372	764

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Driveway from North					Whitwell Street from East					Cranch Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	9
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	7	0	0	7	8
4:30 PM	0	0	0	0	0	0	6	0	1	7	0	0	0	0	0	0	3	0	0	3	10
4:45 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	9
Total	0	0	0	0	0	0	16	0	1	17	0	0	0	0	0	0	19	0	0	19	36
5:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	7	0	0	7	9
5:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
5:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	7	0	0	7	10
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	3	0	0	4	5
Total	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	1	18	0	0	19	27
Grand Total	0	0	0	0	0	0	24	0	1	25	0	0	0	0	0	1	37	0	0	38	63
Approach %	0.0	0.0	0.0	0.0		0.0	96.0	0.0	4.0		0.0	0.0	0.0	0.0		2.6	97.4	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	38.1	0.0	1.6	39.7	0.0	0.0	0.0	0.0	0.0	1.6	58.7	0.0	0.0	60.3	
Exiting Leg Total					0					38					1					24	63

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Driveway from North					Whitwell Street from East					Cranch Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	9
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	7	0	0	7	8
4:30 PM	0	0	0	0	0	0	6	0	1	7	0	0	0	0	0	0	3	0	0	3	10
4:45 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	9
Total Volume	0	0	0	0	0	0	16	0	1	17	0	0	0	0	0	0	19	0	0	19	36
% Approach Total	0.0	0.0	0.0	0.0		0.0	94.1	0.0	5.9		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.000	0.250	0.607	0.000	0.000	0.000	0.000	0.000	0.000	0.679	0.000	0.000	0.679	0.900
Entering Leg	0	0	0	0	0	0	16	0	1	17	0	0	0	0	0	0	19	0	0	19	36
Exiting Leg					0					20					0					16	36
Total					0					37					0					35	72

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Driveway from North					Whitwell Street from East					Cranch Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
Grand Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	9
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	44.4	0.0	0.0	44.4	0.0	0.0	0.0	0.0	0.0	0.0	55.6	0.0	0.0	55.6	
Exiting Leg Total					0					5					0					4	9

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Driveway from North					Whitwell Street from East					Cranch Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
Total Volume	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.375	0.500
Entering Leg	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
Exiting Leg					0					3					0					3	6
Total					0					6					0					6	12

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Driveway from North					Whitwell Street from East					Cranch Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
4:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	2	0	0	2	7
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Grand Total	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	0	3	0	0	3	9
Approach %	0.0	0.0	0.0	0.0		0.0	83.3	16.7	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	55.6	11.1	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	
Exiting Leg Total					0					3					1					5	9

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Driveway from North					Whitwell Street from East					Cranch Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
4:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	2	0	0	2	7
% Approach Total	0.0	0.0	0.0	0.0		0.0	80.0	20.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.250	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.583
Entering Leg	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	2	0	0	2	7
Exiting Leg					0					2					1					4	7
Total					0					7					1					6	14

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Driveway					Whitwell Street					Cranch Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg					0					0					0					0	0
Total					0					0					0					0	0

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Driveway							Whitwell Street							Cranch Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							0							0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Driveway							Whitwell Street							Cranch Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg							0							0							0							0	0
Total							0							0							0							0	0

PDI File #: **186173 H**
Location: **N: Driveway S: Cranch Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Driveway							Whitwell Street							Cranch Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3
4:30 PM	0	0	0	0	1	1	2	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	0	0	0	5
4:45 PM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
Total	0	0	0	0	3	3	6	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	1	1	2	11
5:00 PM	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	4
5:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
5:45 PM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
Total	0	0	0	0	0	6	6	0	0	0	0	1	1	2	0	0	0	0	1	0	1	0	0	0	0	0	2	2	11
Grand Total	0	0	0	0	3	9	12	0	0	0	0	1	2	3	0	0	0	0	2	1	3	0	0	0	0	1	3	4	22
Approach %	0	0	0	0	25	75		0	0	0	0	33.3	66.7		0	0	0	0	66.7	33.3		0	0	0	0	25	75		
Total %	0	0	0	0	13.6	40.9	54.5	0	0	0	0	4.55	9.09	13.6	0	0	0	0	9.09	4.55	13.6	0	0	0	0	4.55	13.6	18.2	
Exiting Leg Total							12							3							3							4	22

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Driveway							Whitwell Street							Cranch Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:15 PM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3
4:30 PM	0	0	0	0	1	1	2	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	0	0	0	5
4:45 PM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
5:00 PM	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	4
Total Volume	0	0	0	0	3	4	7	0	0	0	0	1	2	3	0	0	0	0	2	1	3	0	0	0	0	1	1	2	15
% Approach Total	0.0	0.0	0.0	0.0	42.9	57.1		0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	50.0	50.0		
PHF	0.000	0.000	0.000	0.000	0.750	1.000	0.875	0.000	0.000	0.000	0.000	0.250	0.500	0.375	0.000	0.000	0.000	0.000	0.500	0.250	0.375	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.750
Entering Leg	0	0	0	0	3	4	7	0	0	0	0	1	2	3	0	0	0	0	2	1	3	0	0	0	0	1	1	2	15
Exiting Leg							7							3							3							2	15
Total							14							6							6							4	30

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	3	0	3	1	0	0	1	1	0	0	1	5
7:15 AM	0	3	0	3	7	0	0	7	0	1	0	1	11
7:30 AM	0	2	0	2	2	0	0	2	0	1	0	1	5
7:45 AM	0	4	0	4	5	0	1	6	0	0	0	0	10
Total	0	12	0	12	15	0	1	16	1	2	0	3	31
8:00 AM	0	1	0	1	7	0	0	7	0	0	0	0	8
8:15 AM	0	3	0	3	5	0	0	5	0	0	0	0	8
8:30 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
8:45 AM	0	3	0	3	1	0	0	1	1	0	0	1	5
Total	0	8	0	8	14	0	0	14	1	0	0	1	23
Grand Total	0	20	0	20	29	0	1	30	2	2	0	4	54
Approach %	0.0	100.0	0.0		96.7	0.0	3.3		50.0	50.0	0.0		
Total %	0.0	37.0	0.0	37.0	53.7	0.0	1.9	55.6	3.7	3.7	0.0	7.4	
Exiting Leg Total				31				23				0	54
Cars	0	20	0	20	29	0	1	30	2	2	0	4	54
% Cars	0.0	100.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0
Exiting Leg Total				31				23				0	54
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	0	3	0	3	7	0	0	7	0	1	0	1	11
7:30 AM	0	2	0	2	2	0	0	2	0	1	0	1	5
7:45 AM	0	4	0	4	5	0	1	6	0	0	0	0	10
8:00 AM	0	1	0	1	7	0	0	7	0	0	0	0	8
Total Volume	0	10	0	10	21	0	1	22	0	2	0	2	34
% Approach Total	0.0	100.0	0.0		95.5	0.0	4.5		0.0	100.0	0.0		
PHF	0.000	0.625	0.000	0.625	0.750	0.000	0.250	0.786	0.000	0.500	0.000	0.500	0.773
Cars	0	10	0	10	21	0	1	22	0	2	0	2	34
Cars %	0.0	100.0	0.0	100.0	100.0	0.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cars Enter Leg	0	10	0	10	21	0	1	22	0	2	0	2	34
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	10	0	10	21	0	1	22	0	2	0	2	34
Cars Exiting Leg				23				11				0	34
Heavy Exiting Leg				0				0				0	0
Total Exiting Leg				23				11				0	34

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	3	0	3	1	0	0	1	1	0	0	1	5
7:15 AM	0	3	0	3	7	0	0	7	0	1	0	1	11
7:30 AM	0	2	0	2	2	0	0	2	0	1	0	1	5
7:45 AM	0	4	0	4	5	0	1	6	0	0	0	0	10
Total	0	12	0	12	15	0	1	16	1	2	0	3	31
8:00 AM	0	1	0	1	7	0	0	7	0	0	0	0	8
8:15 AM	0	3	0	3	5	0	0	5	0	0	0	0	8
8:30 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
8:45 AM	0	3	0	3	1	0	0	1	1	0	0	1	5
Total	0	8	0	8	14	0	0	14	1	0	0	1	23
Grand Total	0	20	0	20	29	0	1	30	2	2	0	4	54
Approach %	0.0	100.0	0.0		96.7	0.0	3.3		50.0	50.0	0.0		
Total %	0.0	37.0	0.0	37.0	53.7	0.0	1.9	55.6	3.7	3.7	0.0	7.4	
Exiting Leg Total				31				23				0	54

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	0	3	0	3	7	0	0	7	0	1	0	1	11
7:30 AM	0	2	0	2	2	0	0	2	0	1	0	1	5
7:45 AM	0	4	0	4	5	0	1	6	0	0	0	0	10
8:00 AM	0	1	0	1	7	0	0	7	0	0	0	0	8
Total Volume	0	10	0	10	21	0	1	22	0	2	0	2	34
% Approach Total	0.0	100.0	0.0		95.5	0.0	4.5		0.0	100.0	0.0		
PHF	0.000	0.625	0.000	0.625	0.750	0.000	0.250	0.786	0.000	0.500	0.000	0.500	0.773
Entering Leg	0	10	0	10	21	0	1	22	0	2	0	2	34
Exiting Leg				23				11				0	34
Total				33				33				2	68

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses				0				0				0	0
Single-Unit Trucks				0				0				0	0
Articulated Trucks				0				0				0	0
Total Exiting Leg				0				0				0	0

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	3	0	3	1	0	0	1	1	0	0	1	5
7:15 AM	0	3	0	3	7	0	0	7	0	0	0	0	10
7:30 AM	0	2	0	2	2	0	0	2	0	1	0	1	5
7:45 AM	0	4	0	4	5	0	1	6	0	0	0	0	10
Total	0	12	0	12	15	0	1	16	1	1	0	2	30
8:00 AM	0	1	0	1	6	0	0	6	0	0	0	0	7
8:15 AM	0	3	0	3	4	0	0	4	0	0	0	0	7
8:30 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
8:45 AM	0	3	0	3	1	0	0	1	1	0	0	1	5
Total	0	8	0	8	12	0	0	12	1	0	0	1	21
Grand Total	0	20	0	20	27	0	1	28	2	1	0	3	51
Approach %	0.0	100.0	0.0		96.4	0.0	3.6		66.7	33.3	0.0		
Total %	0.0	39.2	0.0	39.2	52.9	0.0	2.0	54.9	3.9	2.0	0.0	5.9	
Exiting Leg Total				28				23				0	51

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	0	3	0	3	7	0	0	7	0	0	0	0	10
7:30 AM	0	2	0	2	2	0	0	2	0	1	0	1	5
7:45 AM	0	4	0	4	5	0	1	6	0	0	0	0	10
8:00 AM	0	1	0	1	6	0	0	6	0	0	0	0	7
Total Volume	0	10	0	10	20	0	1	21	0	1	0	1	32
% Approach Total	0.0	100.0	0.0		95.2	0.0	4.8		0.0	100.0	0.0		
PHF	0.000	0.625	0.000	0.625	0.714	0.000	0.250	0.750	0.000	0.250	0.000	0.250	0.800
Entering Leg	0	10	0	10	20	0	1	21	0	1	0	1	32
Exiting Leg				21				11				0	32
Total				31				32				1	64

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	1	1
8:00 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	2	0	0	2	0	0	0	0	2
Grand Total	0	0	0	0	2	0	0	2	0	1	0	1	3
Approach %	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	66.7	0.0	0.0	66.7	0.0	33.3	0.0	33.3	
Exiting Leg Total				3				0				0	3

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	0	0	0	0	1	0	0	1	0	1	0	1	2
% Approach Total	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.250	0.000	0.250	0.500
Entering Leg	0	0	0	0	1	0	0	1	0	1	0	1	2
Exiting Leg				2				0				0	2
Total				2				1				1	4

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Euclid Avenue from East						Roselin Avenue from South						Euclid Avenue from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Euclid Avenue from East						Roselin Avenue from South						Euclid Avenue from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Euclid Avenue from East						Roselin Avenue from South						Euclid Avenue from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	4
7:15 AM	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	3
7:30 AM	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	4
7:45 AM	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	8
Total	0	0	0	2	17	19	0	0	0	0	0	0	0	0	0	0	0	0	19
8:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2
8:15 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	1	1	7
Grand Total	0	0	0	2	23	25	0	0	0	0	0	0	0	0	0	0	1	1	26
Approach %	0	0	0	8	92		0	0	0	0	0		0	0	0	0	100		
Total %	0	0	0	7.6923	88.462	96.154	0	0	0	0	0	0	0	0	0	0	3.8462	3.8462	
Exiting Leg Total						25						0						1	26

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Euclid Avenue from East						Roselin Avenue from South						Euclid Avenue from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	4
7:15 AM	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	3
7:30 AM	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	4
7:45 AM	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	8
Total Volume	0	0	0	2	17	19	0	0	0	0	0	0	0	0	0	0	0	0	19
% Approach Total	0.0	0.0	0.0	10.5	89.5		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.500	0.531	0.594	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.594
Entering Leg	0	0	0	2	17	19	0	0	0	0	0	0	0	0	0	0	0	0	19
Exiting Leg						19						0						0	19
Total						38						0						0	38

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	1	1	0	2	0	0	0	0	0	0	0	0	2
4:15 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
4:30 PM	0	0	1	1	4	1	0	5	0	0	0	0	6
4:45 PM	1	3	0	4	1	0	0	1	0	1	0	1	6
Total	2	6	1	9	6	1	0	7	0	1	0	1	17
5:00 PM	0	3	0	3	0	0	0	0	0	0	0	0	3
5:15 PM	1	3	0	4	5	2	0	7	0	2	0	2	13
5:30 PM	0	5	0	5	2	2	0	4	0	0	0	0	9
5:45 PM	1	2	1	4	5	0	0	5	1	0	0	1	10
Total	2	13	1	16	12	4	0	16	1	2	0	3	35
Grand Total	4	19	2	25	18	5	0	23	1	3	0	4	52
Approach %	16.0	76.0	8.0		78.3	21.7	0.0		25.0	75.0	0.0		
Total %	7.7	36.5	3.8	48.1	34.6	9.6	0.0	44.2	1.9	5.8	0.0	7.7	
Exiting Leg Total				23				20				9	52
Cars	4	19	2	25	18	5	0	23	1	3	0	4	52
% Cars	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0
Exiting Leg Total				23				20				9	52
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
5:00 PM	0	3	0	3	0	0	0	0	0	0	0	0	3
5:15 PM	1	3	0	4	5	2	0	7	0	2	0	2	13
5:30 PM	0	5	0	5	2	2	0	4	0	0	0	0	9
5:45 PM	1	2	1	4	5	0	0	5	1	0	0	1	10
Total Volume	2	13	1	16	12	4	0	16	1	2	0	3	35
% Approach Total	12.5	81.3	6.3		75.0	25.0	0.0		33.3	66.7	0.0		
PHF	0.500	0.650	0.250	0.800	0.600	0.500	0.000	0.571	0.250	0.250	0.000	0.375	0.673
Cars	2	13	1	16	12	4	0	16	1	2	0	3	35
Cars %	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cars Enter Leg	2	13	1	16	12	4	0	16	1	2	0	3	35
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	2	13	1	16	12	4	0	16	1	2	0	3	35
Cars Exiting Leg				15				14				6	35
Heavy Exiting Leg				0				0				0	0
Total Exiting Leg				15				14				6	35

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	1	1	0	2	0	0	0	0	0	0	0	0	2
4:15 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
4:30 PM	0	0	1	1	4	1	0	5	0	0	0	0	6
4:45 PM	1	3	0	4	1	0	0	1	0	1	0	1	6
Total	2	6	1	9	6	1	0	7	0	1	0	1	17
5:00 PM	0	3	0	3	0	0	0	0	0	0	0	0	3
5:15 PM	1	3	0	4	5	2	0	7	0	2	0	2	13
5:30 PM	0	5	0	5	2	2	0	4	0	0	0	0	9
5:45 PM	1	2	1	4	5	0	0	5	1	0	0	1	10
Total	2	13	1	16	12	4	0	16	1	2	0	3	35
Grand Total	4	19	2	25	18	5	0	23	1	3	0	4	52
Approach %	16.0	76.0	8.0		78.3	21.7	0.0		25.0	75.0	0.0		
Total %	7.7	36.5	3.8	48.1	34.6	9.6	0.0	44.2	1.9	5.8	0.0	7.7	
Exiting Leg Total				23				20				9	52

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
5:00 PM	0	3	0	3	0	0	0	0	0	0	0	0	3
5:15 PM	1	3	0	4	5	2	0	7	0	2	0	2	13
5:30 PM	0	5	0	5	2	2	0	4	0	0	0	0	9
5:45 PM	1	2	1	4	5	0	0	5	1	0	0	1	10
Total Volume	2	13	1	16	12	4	0	16	1	2	0	3	35
% Approach Total	12.5	81.3	6.3		75.0	25.0	0.0		33.3	66.7	0.0		
PHF	0.500	0.650	0.250	0.800	0.600	0.500	0.000	0.571	0.250	0.250	0.000	0.375	0.673
Entering Leg	2	13	1	16	12	4	0	16	1	2	0	3	35
Exiting Leg				15				14				6	35
Total				31				30				9	70

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses				0				0				0	0
Single-Unit Trucks				0				0				0	0
Articulated Trucks				0				0				0	0
Total Exiting Leg				0				0				0	0

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Motorcycles

	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	1	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	1	1	0	0	1	0	0	0	0	2
Total	0	1	1	2	1	0	0	1	0	0	0	0	3
Grand Total	0	1	1	2	2	0	0	2	0	0	0	0	4
Approach %	0.0	50.0	50.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	25.0	25.0	50.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				3				1				0	4

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	1	1	0	0	1	0	0	0	0	2
Total Volume	0	1	1	2	1	0	0	1	0	0	0	0	3
% Approach Total	0.0	50.0	50.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.250	0.250	0.500	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.375
Entering Leg	0	1	1	2	1	0	0	1	0	0	0	0	3
Exiting Leg				2				1				0	3
Total				4				2				0	6

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Euclid Avenue from East				Roselin Avenue from South				Euclid Avenue from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Euclid Avenue from East						Roselin Avenue from South						Euclid Avenue from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						1						0						0	1

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Euclid Avenue from East						Roselin Avenue from South						Euclid Avenue from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1
Exiting Leg						1						0						0	1
Total						1						1						0	2

PDI File #: **186173 I**
Location: **S: Roselin Avenue**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Euclid Avenue from East						Roselin Avenue from South						Euclid Avenue from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	8	1	9	0	0	0	0	0	0	0	0	0	0	0	0	9
Grand Total	0	0	0	9	2	11	0	0	0	0	0	0	0	0	0	0	0	0	11
Approach %	0	0	0	81.818	18.182		0	0	0	0	0		0	0	0	0	0		
Total %	0	0	0	81.818	18.182	100	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg Total						11						0						0	11

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Euclid Avenue from East						Roselin Avenue from South						Euclid Avenue from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	8	1	9	0	0	0	0	0	0	0	0	0	0	0	0	9
% Approach Total	0.0	0.0	0.0	88.9	11.1		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.667	0.250	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	0	0	8	1	9	0	0	0	0	0	0	0	0	0	0	0	0	9
Exiting Leg						9						0						0	9
Total						18						0						0	18

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	5	1	0	6	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	8
7:15 AM	0	5	0	0	5	0	0	1	0	1	1	4	0	0	5	0	0	0	0	0	11
7:30 AM	0	4	0	0	4	0	0	4	0	4	0	2	0	0	2	0	0	0	0	0	10
7:45 AM	0	6	0	0	6	0	0	5	0	5	1	7	0	0	8	0	0	0	0	0	19
Total	0	20	1	0	21	0	0	11	0	11	3	13	0	0	16	0	0	0	0	0	48
8:00 AM	0	1	0	0	1	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	7
8:15 AM	0	4	0	0	4	0	0	5	0	5	0	4	0	0	4	1	0	0	0	1	14
8:30 AM	0	2	0	0	2	0	0	0	0	0	0	3	0	1	4	0	0	0	0	0	6
8:45 AM	0	3	0	0	3	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	6
Total	0	10	0	0	10	0	0	9	0	9	0	12	0	1	13	1	0	0	0	1	33
Grand Total	0	30	1	0	31	0	0	20	0	20	3	25	0	1	29	1	0	0	0	1	81
Approach %	0.0	96.8	3.2	0.0		0.0	0.0	100.0	0.0		10.3	86.2	0.0	3.4		100.0	0.0	0.0	0.0		
Total %	0.0	37.0	1.2	0.0	38.3	0.0	0.0	24.7	0.0	24.7	3.7	30.9	0.0	1.2	35.8	1.2	0.0	0.0	0.0	1.2	
Exiting Leg Total					25					4					52					0	81
Cars	0	29	1	0	30	0	0	19	0	19	3	25	0	1	29	1	0	0	0	1	79
% Cars	0.0	96.7	100.0	0.0	96.8	0.0	0.0	95.0	0.0	95.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0	97.5
Exiting Leg Total					25					4					50					0	79
Heavy Vehicles	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
% Heavy Vehicles	0.0	3.3	0.0	0.0	3.2	0.0	0.0	5.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
Exiting Leg Total					0					0					2					0	2

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	4	0	0	4	0	0	4	0	4	0	2	0	0	2	0	0	0	0	0	10
7:45 AM	0	6	0	0	6	0	0	5	0	5	1	7	0	0	8	0	0	0	0	0	19
8:00 AM	0	1	0	0	1	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	7
8:15 AM	0	4	0	0	4	0	0	5	0	5	0	4	0	0	4	1	0	0	0	1	14
Total Volume	0	15	0	0	15	0	0	15	0	15	1	18	0	0	19	1	0	0	0	1	50
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		5.3	94.7	0.0	0.0		100.0	0.0	0.0	0.0		
PHF	0.000	0.625	0.000	0.000	0.625	0.000	0.000	0.750	0.000	0.750	0.250	0.643	0.000	0.000	0.594	0.250	0.000	0.000	0.000	0.250	0.658
Cars	0	15	0	0	15	0	0	14	0	14	1	18	0	0	19	1	0	0	0	1	49
Cars %	0.0	100.0	0.0	0.0	100.0	0.0	0.0	93.3	0.0	93.3	100.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0	98.0
Heavy Vehicles	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
Cars Enter Leg	0	15	0	0	15	0	0	14	0	14	1	18	0	0	19	1	0	0	0	1	49
Heavy Enter Leg	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Entering Leg	0	15	0	0	15	0	0	15	0	15	1	18	0	0	19	1	0	0	0	1	50
Cars Exiting Leg					18					1					30					0	49
Heavy Exiting Leg					0					0					1					0	1
Total Exiting Leg					18					1					31					0	50

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	5	1	0	6	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	8
7:15 AM	0	5	0	0	5	0	0	1	0	1	1	4	0	0	5	0	0	0	0	0	11
7:30 AM	0	4	0	0	4	0	0	4	0	4	0	2	0	0	2	0	0	0	0	0	10
7:45 AM	0	6	0	0	6	0	0	4	0	4	1	7	0	0	8	0	0	0	0	0	18
Total	0	20	1	0	21	0	0	10	0	10	3	13	0	0	16	0	0	0	0	0	47
8:00 AM	0	1	0	0	1	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	7
8:15 AM	0	4	0	0	4	0	0	5	0	5	0	4	0	0	4	1	0	0	0	1	14
8:30 AM	0	2	0	0	2	0	0	0	0	0	0	3	0	1	4	0	0	0	0	0	6
8:45 AM	0	2	0	0	2	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	5
Total	0	9	0	0	9	0	0	9	0	9	0	12	0	1	13	1	0	0	0	1	32
Grand Total	0	29	1	0	30	0	0	19	0	19	3	25	0	1	29	1	0	0	0	1	79
Approach %	0.0	96.7	3.3	0.0		0.0	0.0	100.0	0.0		10.3	86.2	0.0	3.4		100.0	0.0	0.0	0.0		
Total %	0.0	36.7	1.3	0.0	38.0	0.0	0.0	24.1	0.0	24.1	3.8	31.6	0.0	1.3	36.7	1.3	0.0	0.0	0.0	1.3	
Exiting Leg Total					25					4					50					0	79

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	4	0	0	4	0	0	4	0	4	0	2	0	0	2	0	0	0	0	0	10
7:45 AM	0	6	0	0	6	0	0	4	0	4	1	7	0	0	8	0	0	0	0	0	18
8:00 AM	0	1	0	0	1	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	7
8:15 AM	0	4	0	0	4	0	0	5	0	5	0	4	0	0	4	1	0	0	0	1	14
Total Volume	0	15	0	0	15	0	0	14	0	14	1	18	0	0	19	1	0	0	0	1	49
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		5.3	94.7	0.0	0.0		100.0	0.0	0.0	0.0		
PHF	0.000	0.625	0.000	0.000	0.625	0.000	0.000	0.700	0.000	0.700	0.250	0.643	0.000	0.000	0.594	0.250	0.000	0.000	0.000	0.250	0.681
Entering Leg	0	15	0	0	15	0	0	14	0	14	1	18	0	0	19	1	0	0	0	1	49
Exiting Leg					18					1					30					0	49
Total					33					15					49					1	98

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	50.0	0.0	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					2					0	2
Buses	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
Exiting Leg Total					0					0					1					0	1
Single-Unit Trucks	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Single-Unit	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
Exiting Leg Total					0					0					1					0	1
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Buses	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Buses					0					0					1					0	1
Single-Unit Trucks					0					0					0					0	0
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					0					0					1					0	1

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	4	1	0	5	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	7
7:15 AM	0	5	0	0	5	0	0	1	0	1	1	4	0	0	5	0	0	0	0	0	11
7:30 AM	0	4	0	0	4	0	0	4	0	4	0	2	0	0	2	0	0	0	0	0	10
7:45 AM	0	6	0	0	6	0	0	3	0	3	1	7	0	0	8	0	0	0	0	0	17
Total	0	19	1	0	20	0	0	9	0	9	3	13	0	0	16	0	0	0	0	0	45
8:00 AM	0	1	0	0	1	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	6
8:15 AM	0	4	0	0	4	0	0	5	0	5	0	3	0	0	3	1	0	0	0	1	13
8:30 AM	0	2	0	0	2	0	0	0	0	0	0	3	0	1	4	0	0	0	0	0	6
8:45 AM	0	2	0	0	2	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	5
Total	0	9	0	0	9	0	0	9	0	9	0	10	0	1	11	1	0	0	0	1	30
Grand Total	0	28	1	0	29	0	0	18	0	18	3	23	0	1	27	1	0	0	0	1	75
Approach %	0.0	96.6	3.4	0.0		0.0	0.0	100.0	0.0		11.1	85.2	0.0	3.7		100.0	0.0	0.0	0.0		
Total %	0.0	37.3	1.3	0.0	38.7	0.0	0.0	24.0	0.0	24.0	4.0	30.7	0.0	1.3	36.0	1.3	0.0	0.0	0.0	1.3	
Exiting Leg Total					23					4					48					0	75

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	4	0	0	4	0	0	4	0	4	0	2	0	0	2	0	0	0	0	0	10
7:45 AM	0	6	0	0	6	0	0	3	0	3	1	7	0	0	8	0	0	0	0	0	17
8:00 AM	0	1	0	0	1	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	6
8:15 AM	0	4	0	0	4	0	0	5	0	5	0	3	0	0	3	1	0	0	0	1	13
Total Volume	0	15	0	0	15	0	0	13	0	13	1	16	0	0	17	1	0	0	0	1	46
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		5.9	94.1	0.0	0.0		100.0	0.0	0.0	0.0		
PHF	0.000	0.625	0.000	0.000	0.625	0.000	0.000	0.650	0.000	0.650	0.250	0.571	0.000	0.000	0.531	0.250	0.000	0.000	0.000	0.250	0.676
Entering Leg	0	15	0	0	15	0	0	13	0	13	1	16	0	0	17	1	0	0	0	1	46
Exiting Leg					16					1					29					0	46
Total					31					14					46					1	92

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Grand Total	0	1	0	0	1	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	4
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	25.0	0.0	0.0	25.0	0.0	0.0	25.0	0.0	25.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					2					0					2					0	4

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	3
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	3
Exiting Leg					2					0					1					0	3
Total					2					1					3					0	6

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					1					0	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg					0					0					1					0	1
Total					0					1					1					0	2

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					1					0	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg					0					0					1					0	1
Total					1					0					1					0	2

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg					0					0					0					0	0
Total					0					0					0					0	0

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Roselin Avenue from North							Bedford Street from East							Roselin Avenue from South							Driveway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							0							0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Roselin Avenue from North							Bedford Street from East							Roselin Avenue from South							Driveway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg							0							0							0							0	0
Total							0							0							0							0	0

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Roselin Avenue from North							Bedford Street from East							Roselin Avenue from South							Driveway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	3	0	3	5
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	1	0	1	0	0	0	0	2	0	2	5
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	5	0	5	6
Total	0	0	0	0	0	0	0	0	0	0	0	1	5	6	0	0	0	0	1	0	1	0	0	0	0	11	0	11	18
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	1	1	2	5
8:15 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	1	0	1	4
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Total	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	2	3	5	0	0	0	0	4	1	5	12
Grand Total	0	0	0	0	1	0	1	0	0	0	0	1	6	7	0	0	0	0	3	3	6	0	0	0	0	15	1	16	30
Approach %	0	0	0	0	100	0		0	0	0	0	14.3	85.7		0	0	0	0	50	50		0	0	0	0	93.8	6.25		
Total %	0	0	0	0	3.33	0	3.33	0	0	0	0	3.33	20	23.3	0	0	0	0	10	10	20	0	0	0	0	50	3.33	53.3	
Exiting Leg Total							1							7							6							16	30

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Roselin Avenue from North							Bedford Street from East							Roselin Avenue from South							Driveway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	3	0	3	5
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	1	0	1	0	0	0	0	2	0	2	5
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	5	0	5	6
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	5	6	0	0	0	0	1	0	1	0	0	0	0	11	0	11	18
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	16.7	83.3		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.625	0.750	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.550	0.000	0.550	0.750
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	1	5	6	0	0	0	0	1	0	1	0	0	0	0	11	0	11	18
Exiting Leg							0							6							1							11	18
Total							0							12							2							22	36

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	1	0	1	1	3	0	0	4	0	0	0	0	0	5
4:15 PM	0	2	0	0	2	0	0	2	0	2	0	4	0	0	4	0	0	0	0	0	8
4:30 PM	0	2	0	0	2	1	0	1	0	2	1	4	0	0	5	0	0	0	0	0	9
4:45 PM	0	2	1	0	3	0	0	0	0	0	2	3	0	0	5	0	0	0	0	0	8
Total	0	6	1	0	7	1	0	4	0	5	4	14	0	0	18	0	0	0	0	0	30
5:00 PM	0	3	0	0	3	0	0	1	0	1	3	2	0	0	5	0	0	0	0	0	9
5:15 PM	0	2	0	0	2	0	0	2	0	2	1	8	0	0	9	0	0	0	0	0	13
5:30 PM	0	5	0	0	5	0	0	0	0	0	3	3	0	0	6	0	0	0	0	0	11
5:45 PM	0	3	0	0	3	0	0	1	0	1	2	6	0	0	8	0	0	1	0	1	13
Total	0	13	0	0	13	0	0	4	0	4	9	19	0	0	28	0	0	1	0	1	46
Grand Total	0	19	1	0	20	1	0	8	0	9	13	33	0	0	46	0	0	1	0	1	76
Approach %	0.0	95.0	5.0	0.0		11.1	0.0	88.9	0.0		28.3	71.7	0.0	0.0		0.0	0.0	100.0	0.0		
Total %	0.0	25.0	1.3	0.0	26.3	1.3	0.0	10.5	0.0	11.8	17.1	43.4	0.0	0.0	60.5	0.0	0.0	1.3	0.0	1.3	
Exiting Leg Total					35					14					27					0	76
Cars	0	17	1	0	18	1	0	8	0	9	13	32	0	0	45	0	0	1	0	1	73
% Cars	0.0	89.5	100.0	0.0	90.0	100.0	0.0	100.0	0.0	100.0	100.0	97.0	0.0	0.0	97.8	0.0	0.0	100.0	0.0	100.0	96.1
Exiting Leg Total					34					14					25					0	73
Heavy Vehicles	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
% Heavy Vehicles	0.0	10.5	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	3.9
Exiting Leg Total					1					0					2					0	3

PM Peak Hour Analysis from 12:00 PM to 06:00 PM begins at:

5:00 PM	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	3	0	0	3	0	0	1	0	1	3	2	0	0	5	0	0	0	0	0	9
5:15 PM	0	2	0	0	2	0	0	2	0	2	1	8	0	0	9	0	0	0	0	0	13
5:30 PM	0	5	0	0	5	0	0	0	0	0	3	3	0	0	6	0	0	0	0	0	11
5:45 PM	0	3	0	0	3	0	0	1	0	1	2	6	0	0	8	0	0	1	0	1	13
Total Volume	0	13	0	0	13	0	0	4	0	4	9	19	0	0	28	0	0	1	0	1	46
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		32.1	67.9	0.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.000	0.650	0.000	0.000	0.650	0.000	0.000	0.500	0.000	0.500	0.750	0.594	0.000	0.000	0.778	0.000	0.000	0.250	0.000	0.250	0.885
Cars	0	13	0	0	13	0	0	4	0	4	9	18	0	0	27	0	0	1	0	1	45
Cars %	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	100.0	100.0	94.7	0.0	0.0	96.4	0.0	0.0	100.0	0.0	100.0	97.8
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	2.2
Cars Enter Leg	0	13	0	0	13	0	0	4	0	4	9	18	0	0	27	0	0	1	0	1	45
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total Entering Leg	0	13	0	0	13	0	0	4	0	4	9	19	0	0	28	0	0	1	0	1	46
Cars Exiting Leg					19					9					17					0	45
Heavy Exiting Leg					1					0					0					0	1
Total Exiting Leg					20					9					17					0	46

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	1	0	1	1	3	0	0	4	0	0	0	0	0	5
4:15 PM	0	1	0	0	1	0	0	2	0	2	0	4	0	0	4	0	0	0	0	0	7
4:30 PM	0	1	0	0	1	1	0	1	0	2	1	4	0	0	5	0	0	0	0	0	8
4:45 PM	0	2	1	0	3	0	0	0	0	0	2	3	0	0	5	0	0	0	0	0	8
Total	0	4	1	0	5	1	0	4	0	5	4	14	0	0	18	0	0	0	0	0	28
5:00 PM	0	3	0	0	3	0	0	1	0	1	3	1	0	0	4	0	0	0	0	0	8
5:15 PM	0	2	0	0	2	0	0	2	0	2	1	8	0	0	9	0	0	0	0	0	13
5:30 PM	0	5	0	0	5	0	0	0	0	0	3	3	0	0	6	0	0	0	0	0	11
5:45 PM	0	3	0	0	3	0	0	1	0	1	2	6	0	0	8	0	0	1	0	1	13
Total	0	13	0	0	13	0	0	4	0	4	9	18	0	0	27	0	0	1	0	1	45
Grand Total	0	17	1	0	18	1	0	8	0	9	13	32	0	0	45	0	0	1	0	1	73
Approach %	0.0	94.4	5.6	0.0		11.1	0.0	88.9	0.0		28.9	71.1	0.0	0.0		0.0	0.0	100.0	0.0		
Total %	0.0	23.3	1.4	0.0	24.7	1.4	0.0	11.0	0.0	12.3	17.8	43.8	0.0	0.0	61.6	0.0	0.0	1.4	0.0	1.4	
Exiting Leg Total					34					14					25					0	73

PM Peak Hour Analysis from 12:00 PM to 06:00 PM begins at:

5:00 PM	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	3	0	0	3	0	0	1	0	1	3	1	0	0	4	0	0	0	0	0	8
5:15 PM	0	2	0	0	2	0	0	2	0	2	1	8	0	0	9	0	0	0	0	0	13
5:30 PM	0	5	0	0	5	0	0	0	0	0	3	3	0	0	6	0	0	0	0	0	11
5:45 PM	0	3	0	0	3	0	0	1	0	1	2	6	0	0	8	0	0	1	0	1	13
Total Volume	0	13	0	0	13	0	0	4	0	4	9	18	0	0	27	0	0	1	0	1	45
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		33.3	66.7	0.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.000	0.650	0.000	0.000	0.650	0.000	0.000	0.500	0.000	0.500	0.750	0.563	0.000	0.000	0.750	0.000	0.000	0.250	0.000	0.250	0.865
Entering Leg	0	13	0	0	13	0	0	4	0	4	9	18	0	0	27	0	0	1	0	1	45
Exiting Leg					19					9					17					0	45
Total					32					13					44					1	90

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Grand Total	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1					0					2					0	3
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total					0					0					0					0	0
Single-Unit Trucks	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
% Single-Unit	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Exiting Leg Total					1					0					2					0	3
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total					0					0					0					0	0

PM Peak Hour Analysis from 12:00 PM to 06:00 PM begins at:

4:15 PM	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total Volume	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.750
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
Single-Unit %	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
Buses					0					0					0					0	0
Single-Unit Trucks					1					0					2					0	3
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					1					0					2					0	3

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	1	0	1	1	1	0	0	2	0	0	0	0	0	3
4:15 PM	0	1	0	0	1	0	0	2	0	2	0	4	0	0	4	0	0	0	0	0	7
4:30 PM	0	1	0	0	1	0	0	1	0	1	1	4	0	0	5	0	0	0	0	0	7
4:45 PM	0	1	1	0	2	0	0	0	0	0	2	3	0	0	5	0	0	0	0	0	7
Total	0	3	1	0	4	0	0	4	0	4	4	12	0	0	16	0	0	0	0	0	24
5:00 PM	0	3	0	0	3	0	0	1	0	1	2	1	0	0	3	0	0	0	0	0	7
5:15 PM	0	1	0	0	1	0	0	2	0	2	1	8	0	0	9	0	0	0	0	0	12
5:30 PM	0	4	0	0	4	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	8
5:45 PM	0	3	0	0	3	0	0	1	0	1	2	5	0	0	7	0	0	1	0	1	12
Total	0	11	0	0	11	0	0	4	0	4	7	16	0	0	23	0	0	1	0	1	39
Grand Total	0	14	1	0	15	0	0	8	0	8	11	28	0	0	39	0	0	1	0	1	63
Approach %	0.0	93.3	6.7	0.0		0.0	0.0	100.0	0.0		28.2	71.8	0.0	0.0		0.0	0.0	100.0	0.0		
Total %	0.0	22.2	1.6	0.0	23.8	0.0	0.0	12.7	0.0	12.7	17.5	44.4	0.0	0.0	61.9	0.0	0.0	1.6	0.0	1.6	
Exiting Leg Total					29					12					22					0	63

PM Peak Hour Analysis from 12:00 PM to 06:00 PM begins at:

5:00 PM	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	3	0	0	3	0	0	1	0	1	2	1	0	0	3	0	0	0	0	0	7
5:15 PM	0	1	0	0	1	0	0	2	0	2	1	8	0	0	9	0	0	0	0	0	12
5:30 PM	0	4	0	0	4	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	8
5:45 PM	0	3	0	0	3	0	0	1	0	1	2	5	0	0	7	0	0	1	0	1	12
Total Volume	0	11	0	0	11	0	0	4	0	4	7	16	0	0	23	0	0	1	0	1	39
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		30.4	69.6	0.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.000	0.688	0.000	0.000	0.688	0.000	0.000	0.500	0.000	0.500	0.875	0.500	0.000	0.000	0.639	0.000	0.000	0.250	0.000	0.250	0.813
Entering Leg	0	11	0	0	11	0	0	4	0	4	7	16	0	0	23	0	0	1	0	1	39
Exiting Leg					17					7					15					0	39
Total					28					11					38					1	78

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	2	0	0	2	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	6
Grand Total	0	3	0	0	3	1	0	0	0	1	2	4	0	0	6	0	0	0	0	0	10
Approach %	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		33.3	66.7	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	30.0	0.0	0.0	30.0	10.0	0.0	0.0	0.0	10.0	20.0	40.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					5					2					3					0	10

PM Peak Hour Analysis from 12:00 PM to 06:00 PM begins at:

4:45 PM	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	3
Total Volume	0	3	0	0	3	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	6
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		66.7	33.3	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	3	0	0	3	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	6
Exiting Leg					1					2					3					0	6
Total					4					2					6					0	12

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					0	0

PM Peak Hour Analysis from 12:00 PM to 06:00 PM begins at:

4:00 PM	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg					0					0					0					0	0
Total					0					0					0					0	0

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Grand Total	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1					0					2					0	3

PM Peak Hour Analysis from 12:00 PM to 06:00 PM begins at:

4:15 PM	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total Volume	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
Exiting Leg					1					0					2					0	3
Total					3					0					3					0	6

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					0	0

PM Peak Hour Analysis from 12:00 PM to 06:00 PM begins at:

4:00 PM	Roselin Avenue from North					Bedford Street from East					Roselin Avenue from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg					0					0					0					0	0
Total					0					0					0					0	0

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

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46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Roselin Avenue from North							Bedford Street from East							Roselin Avenue from South							Driveway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							0							0	0

PM Peak Hour Analysis from 12:00 PM to 06:00 PM begins at:

4:00 PM	Roselin Avenue from North							Bedford Street from East							Roselin Avenue from South							Driveway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg							0							0							0							0	0
Total							0							0							0							0	0

PDI File #: **186173 J**
Location: **N: Roselin Avenue S: Roselin Avenue**
Location: **E: Bedford Street W: Driveway**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Roselin Avenue from North							Bedford Street from East							Roselin Avenue from South							Driveway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	3	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	3	4	5
Grand Total	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	2	5	7	9
Approach %	0	0	0	0	0	0		0	0	0	0	100	0		0	0	0	0	100	0		0	0	0	0	28.6	71.4		
Total %	0	0	0	0	0	0	0	0	0	0	0	11.1	0	11.1	0	0	0	0	11.1	0	11.1	0	0	0	0	22.2	55.6	77.8	
Exiting Leg Total							0							1							1							7	9

PM Peak Hour Analysis from 12:00 PM to 06:00 PM begins at:

4:15 PM	Roselin Avenue from North							Bedford Street from East							Roselin Avenue from South							Driveway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3	4	5
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	25.0	75.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.750	0.500	0.625
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3	4	5
Exiting Leg							0							1							0							4	5
Total							0							2							0							8	10

PDI File #:	**186173 K**
Location:	**N: Roselin Avenue**
Location:	**E: Whitwell Street W: Whitwell Street**
City, State:	**Quincy, MA**
Client:	**Tetratech/ I. Prizant**
Site Code:	**143-166451-17001**
Count Date:	**Tuesday, April 03, 2018**
Start Time:	**7:00 AM**
End Time:	**9:00 AM**
Class:	

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	5	2	0	7	1	34	0	35	37	1	0	38	80
7:15 AM	5	2	0	7	1	48	0	49	37	3	0	40	96
7:30 AM	5	4	0	9	1	43	0	44	38	2	0	40	93
7:45 AM	6	5	0	11	3	56	0	59	34	4	0	38	108
Total	21	13	0	34	6	181	0	187	146	10	0	156	377
8:00 AM	1	1	0	2	4	66	0	70	48	3	0	51	123
8:15 AM	6	3	0	9	0	43	1	44	29	4	0	33	86
8:30 AM	5	0	0	5	3	36	1	40	20	0	0	20	65
8:45 AM	5	0	0	5	0	36	0	36	34	0	0	34	75
Total	17	4	0	21	7	181	2	190	131	7	0	138	349
Grand Total	38	17	0	55	13	362	2	377	277	17	0	294	726
Approach %	69.1	30.9	0.0		3.4	96.0	0.5		94.2	5.8	0.0		
Total %	5.2	2.3	0.0	7.6	1.8	49.9	0.3	51.9	38.2	2.3	0.0	40.5	
Exiting Leg Total				30				296				400	726
Cars	38	16	0	54	13	350	1	364	271	17	0	288	706
% Cars	100.0	94.1	0.0	98.2	100.0	96.7	50.0	96.6	97.8	100.0	0.0	98.0	97.2
Exiting Leg Total				30				288				388	706
Heavy Vehicles	0	1	0	1	0	12	1	13	6	0	0	6	20
% Heavy Vehicles	0.0	5.9	0.0	1.8	0.0	3.3	50.0	3.4	2.2	0.0	0.0	2.0	2.8
Exiting Leg Total				0				8				12	20

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	5	2	0	7	1	48	0	49	37	3	0	40	96
7:30 AM	5	4	0	9	1	43	0	44	38	2	0	40	93
7:45 AM	6	5	0	11	3	56	0	59	34	4	0	38	108
8:00 AM	1	1	0	2	4	66	0	70	48	3	0	51	123
Total Volume	17	12	0	29	9	213	0	222	157	12	0	169	420
% Approach Total	58.6	41.4	0.0		4.1	95.9	0.0		92.9	7.1	0.0		
PHF	0.708	0.600	0.000	0.659	0.563	0.807	0.000	0.793	0.818	0.750	0.000	0.828	0.854
Cars	17	11	0	28	9	209	0	218	154	12	0	166	412
Cars %	100.0	91.7	0.0	96.6	100.0	98.1	0.0	98.2	98.1	100.0	0.0	98.2	98.1
Heavy Vehicles	0	1	0	1	0	4	0	4	3	0	0	3	8
Heavy Vehicles %	0.0	8.3	0.0	3.4	0.0	1.9	0.0	1.8	1.9	0.0	0.0	1.8	1.9
Cars Enter Leg	17	11	0	28	9	209	0	218	154	12	0	166	412
Heavy Enter Leg	0	1	0	1	0	4	0	4	3	0	0	3	8
Total Entering Leg	17	12	0	29	9	213	0	222	157	12	0	169	420
Cars Exiting Leg				21				165				226	412
Heavy Exiting Leg				0				4				4	8
Total Exiting Leg				21				169				230	420

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	5	2	0	7	1	31	0	32	35	1	0	36	75
7:15 AM	5	2	0	7	1	48	0	49	36	3	0	39	95
7:30 AM	5	4	0	9	1	42	0	43	38	2	0	40	92
7:45 AM	6	4	0	10	3	54	0	57	33	4	0	37	104
Total	21	12	0	33	6	175	0	181	142	10	0	152	366
8:00 AM	1	1	0	2	4	65	0	69	47	3	0	50	121
8:15 AM	6	3	0	9	0	40	1	41	28	4	0	32	82
8:30 AM	5	0	0	5	3	35	0	38	20	0	0	20	63
8:45 AM	5	0	0	5	0	35	0	35	34	0	0	34	74
Total	17	4	0	21	7	175	1	183	129	7	0	136	340
Grand Total	38	16	0	54	13	350	1	364	271	17	0	288	706
Approach %	70.4	29.6	0.0		3.6	96.2	0.3		94.1	5.9	0.0		
Total %	5.4	2.3	0.0	7.6	1.8	49.6	0.1	51.6	38.4	2.4	0.0	40.8	
Exiting Leg Total				30				288				388	706

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	5	2	0	7	1	48	0	49	36	3	0	39	95
7:30 AM	5	4	0	9	1	42	0	43	38	2	0	40	92
7:45 AM	6	4	0	10	3	54	0	57	33	4	0	37	104
8:00 AM	1	1	0	2	4	65	0	69	47	3	0	50	121
Total Volume	17	11	0	28	9	209	0	218	154	12	0	166	412
% Approach Total	60.7	39.3	0.0		4.1	95.9	0.0		92.8	7.2	0.0		
PHF	0.708	0.688	0.000	0.700	0.563	0.804	0.000	0.790	0.819	0.750	0.000	0.830	0.851
Entering Leg	17	11	0	28	9	209	0	218	154	12	0	166	412
Exiting Leg				21				165				226	412
Total				49				383				392	824

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	3	0	3	2	0	0	2	5
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
7:45 AM	0	1	0	1	0	2	0	2	1	0	0	1	4
Total	0	1	0	1	0	6	0	6	4	0	0	4	11
8:00 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
8:15 AM	0	0	0	0	0	3	0	3	1	0	0	1	4
8:30 AM	0	0	0	0	0	1	1	2	0	0	0	0	2
8:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	6	1	7	2	0	0	2	9
Grand Total	0	1	0	1	0	12	1	13	6	0	0	6	20
Approach %	0.0	100.0	0.0		0.0	92.3	7.7		100.0	0.0	0.0		
Total %	0.0	5.0	0.0	5.0	0.0	60.0	5.0	65.0	30.0	0.0	0.0	30.0	
Exiting Leg Total				0				8				12	20
Buses	0	1	0	1	0	4	0	4	2	0	0	2	7
% Buses	0.0	100.0	0.0	100.0	0.0	33.3	0.0	30.8	33.3	0.0	0.0	33.3	35.0
Exiting Leg Total				0				3				4	7
Single-Unit Trucks	0	0	0	0	0	7	1	8	4	0	0	4	12
% Single-Unit	0.0	0.0	0.0	0.0	0.0	58.3	100.0	61.5	66.7	0.0	0.0	66.7	60.0
Exiting Leg Total				0				5				7	12
Articulated Trucks	0	0	0	0	0	1	0	1	0	0	0	0	1
% Articulated	0.0	0.0	0.0	0.0	0.0	8.3	0.0	7.7	0.0	0.0	0.0	0.0	5.0
Exiting Leg Total				0				0				1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:45 AM	0	1	0	1	0	2	0	2	1	0	0	1	4
8:00 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
8:15 AM	0	0	0	0	0	3	0	3	1	0	0	1	4
8:30 AM	0	0	0	0	0	1	1	2	0	0	0	0	2
Total Volume	0	1	0	1	0	7	1	8	3	0	0	3	12
% Approach Total	0.0	100.0	0.0		0.0	87.5	12.5		100.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.000	0.583	0.250	0.667	0.750	0.000	0.000	0.750	0.750
Buses	0	1	0	1	0	2	0	2	1	0	0	1	4
Buses %	0.0	100.0	0.0	100.0	0.0	28.6	0.0	25.0	33.3	0.0	0.0	33.3	33.3
Single-Unit Trucks	0	0	0	0	0	4	1	5	2	0	0	2	7
Single-Unit %	0.0	0.0	0.0	0.0	0.0	57.1	100.0	62.5	66.7	0.0	0.0	66.7	58.3
Articulated Trucks	0	0	0	0	0	1	0	1	0	0	0	0	1
Articulated %	0.0	0.0	0.0	0.0	0.0	14.3	0.0	12.5	0.0	0.0	0.0	0.0	8.3
Buses	0	1	0	1	0	2	0	2	1	0	0	1	4
Single-Unit Trucks	0	0	0	0	0	4	1	5	2	0	0	2	7
Articulated Trucks	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Entering Leg	0	1	0	1	0	7	1	8	3	0	0	3	12
Buses				0				2				2	4
Single-Unit Trucks				0				3				4	7
Articulated Trucks				0				0				1	1
Total Exiting Leg				0				5				7	12

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	5	2	0	7	0	28	0	28	34	1	0	35	70
7:15 AM	4	2	0	6	1	45	0	46	35	3	0	38	90
7:30 AM	5	4	0	9	1	39	0	40	37	2	0	39	88
7:45 AM	5	4	0	9	3	52	0	55	33	4	0	37	101
Total	19	12	0	31	5	164	0	169	139	10	0	149	349
8:00 AM	1	1	0	2	2	62	0	64	44	3	0	47	113
8:15 AM	6	2	0	8	0	37	1	38	25	3	0	28	74
8:30 AM	5	0	0	5	3	34	0	37	20	0	0	20	62
8:45 AM	5	0	0	5	0	34	0	34	34	0	0	34	73
Total	17	3	0	20	5	167	1	173	123	6	0	129	322
Grand Total	36	15	0	51	10	331	1	342	262	16	0	278	671
Approach %	70.6	29.4	0.0		2.9	96.8	0.3		94.2	5.8	0.0		
Total %	5.4	2.2	0.0	7.6	1.5	49.3	0.1	51.0	39.0	2.4	0.0	41.4	
Exiting Leg Total				26				278				367	671

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	4	2	0	6	1	45	0	46	35	3	0	38	90
7:30 AM	5	4	0	9	1	39	0	40	37	2	0	39	88
7:45 AM	5	4	0	9	3	52	0	55	33	4	0	37	101
8:00 AM	1	1	0	2	2	62	0	64	44	3	0	47	113
Total Volume	15	11	0	26	7	198	0	205	149	12	0	161	392
% Approach Total	57.7	42.3	0.0		3.4	96.6	0.0		92.5	7.5	0.0		
PHF	0.750	0.688	0.000	0.722	0.583	0.798	0.000	0.801	0.847	0.750	0.000	0.856	0.867
Entering Leg	15	11	0	26	7	198	0	205	149	12	0	161	392
Exiting Leg				19				160				213	392
Total				45				365				374	784

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	1	3	0	4	1	0	0	1	5
7:15 AM	1	0	0	1	0	3	0	3	1	0	0	1	5
7:30 AM	0	0	0	0	0	3	0	3	1	0	0	1	4
7:45 AM	1	0	0	1	0	2	0	2	0	0	0	0	3
Total	2	0	0	2	1	11	0	12	3	0	0	3	17
8:00 AM	0	0	0	0	2	3	0	5	3	0	0	3	8
8:15 AM	0	1	0	1	0	3	0	3	3	1	0	4	8
8:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	1	0	1	2	8	0	10	6	1	0	7	18
Grand Total	2	1	0	3	3	19	0	22	9	1	0	10	35
Approach %	66.7	33.3	0.0		13.6	86.4	0.0		90.0	10.0	0.0		
Total %	5.7	2.9	0.0	8.6	8.6	54.3	0.0	62.9	25.7	2.9	0.0	28.6	
Exiting Leg Total				4				10				21	35

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	3	0	3	1	0	0	1	4
7:45 AM	1	0	0	1	0	2	0	2	0	0	0	0	3
8:00 AM	0	0	0	0	2	3	0	5	3	0	0	3	8
8:15 AM	0	1	0	1	0	3	0	3	3	1	0	4	8
Total Volume	1	1	0	2	2	11	0	13	7	1	0	8	23
% Approach Total	50.0	50.0	0.0		15.4	84.6	0.0		87.5	12.5	0.0		
PHF	0.250	0.250	0.000	0.500	0.250	0.917	0.000	0.650	0.583	0.250	0.000	0.500	0.719
Entering Leg	1	1	0	2	2	11	0	13	7	1	0	8	23
Exiting Leg				3				8				12	23
Total				5				21				20	46

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	1	0	1	0	1	0	0	0	0	2
Total	0	1	0	1	0	3	0	3	1	0	0	1	5
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
8:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	1	0	0	1	2
Grand Total	0	1	0	1	0	4	0	4	2	0	0	2	7
Approach %	0.0	100.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	14.3	0.0	14.3	0.0	57.1	0.0	57.1	28.6	0.0	0.0	28.6	
Exiting Leg Total				0				3				4	7

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	1	0	1	0	1	0	0	0	0	2
Total Volume	0	1	0	1	0	3	0	3	1	0	0	1	5
% Approach Total	0.0	100.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.000	0.375	0.000	0.375	0.250	0.000	0.000	0.250	0.625
Entering Leg	0	1	0	1	0	3	0	3	1	0	0	1	5
Exiting Leg				0				2				3	5
Total				1				5				4	10

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	1	0	1	2	0	0	2	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
7:45 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
Total	0	0	0	0	0	3	0	3	3	0	0	3	6
8:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:15 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
8:30 AM	0	0	0	0	0	1	1	2	0	0	0	0	2
8:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	4	1	5	1	0	0	1	6
Grand Total	0	0	0	0	0	7	1	8	4	0	0	4	12
Approach %	0.0	0.0	0.0		0.0	87.5	12.5		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	58.3	8.3	66.7	33.3	0.0	0.0	33.3	
Exiting Leg Total				0				5				7	12

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:45 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
8:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:15 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
8:30 AM	0	0	0	0	0	1	1	2	0	0	0	0	2
Total Volume	0	0	0	0	0	4	1	5	2	0	0	2	7
% Approach Total	0.0	0.0	0.0		0.0	80.0	20.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	1.000	0.250	0.625	0.500	0.000	0.000	0.500	0.875
Entering Leg	0	0	0	0	0	4	1	5	2	0	0	2	7
Exiting Leg				0				3				4	7
Total				0				8				6	14

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	0	0	0	1
Grand Total	0	0	0	0	0	1	0	1	0	0	0	0	1
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	1
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	1	0	1	0	0	0	0	1
Exiting Leg				0				0				1	1
Total				0				1				1	2

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Roselin Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Roselin Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Roselin Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	3
7:15 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
7:30 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	1	3	5
7:45 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	3
Total	0	0	0	6	1	7	0	0	0	0	0	0	0	0	0	5	1	6	13
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	1	0	1	3
8:45 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	3
Total	0	0	0	5	1	6	0	0	0	0	0	0	0	0	0	2	0	2	8
Grand Total	0	0	0	11	2	13	0	0	0	0	0	0	0	0	0	7	1	8	21
Approach %	0	0	0	84.615	15.385		0	0	0	0	0		0	0	0	87.5	12.5		
Total %	0	0	0	52.381	9.5238	61.905	0	0	0	0	0	0	0	0	0	33.333	4.7619	38.095	
Exiting Leg Total						13						0						8	21

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Roselin Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	3
7:15 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
7:30 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	1	3	5
7:45 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	3
Total Volume	0	0	0	6	1	7	0	0	0	0	0	0	0	0	0	5	1	6	13
% Approach Total	0.0	0.0	0.0	85.7	14.3		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	83.3	16.7		
PHF	0.000	0.000	0.000	0.750	0.250	0.875	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.250	0.500	0.650
Entering Leg	0	0	0	6	1	7	0	0	0	0	0	0	0	0	0	5	1	6	13
Exiting Leg						7						0						6	13
Total						14						0						12	26

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	1	0	0	1	2	47	0	49	52	1	0	53	103
4:15 PM	3	1	0	4	1	46	0	47	51	3	0	54	105
4:30 PM	2	1	0	3	2	55	0	57	43	4	0	47	107
4:45 PM	2	0	0	2	3	28	0	31	49	4	0	53	86
Total	8	2	0	10	8	176	0	184	195	12	0	207	401
5:00 PM	4	0	0	4	1	31	0	32	50	4	0	54	90
5:15 PM	3	2	0	5	3	47	0	50	47	6	0	53	108
5:30 PM	3	2	0	5	2	40	0	42	54	4	0	58	105
5:45 PM	3	0	0	3	1	38	0	39	57	5	0	62	104
Total	13	4	0	17	7	156	0	163	208	19	0	227	407
Grand Total	21	6	0	27	15	332	0	347	403	31	0	434	808
Approach %	77.8	22.2	0.0		4.3	95.7	0.0		92.9	7.1	0.0		
Total %	2.6	0.7	0.0	3.3	1.9	41.1	0.0	42.9	49.9	3.8	0.0	53.7	
Exiting Leg Total				46				409				353	808
Cars	21	5	0	26	15	322	0	337	394	30	0	424	787
% Cars	100.0	83.3	0.0	96.3	100.0	97.0	0.0	97.1	97.8	96.8	0.0	97.7	97.4
Exiting Leg Total				45				399				343	787
Heavy Vehicles	0	1	0	1	0	10	0	10	9	1	0	10	21
% Heavy Vehicles	0.0	16.7	0.0	3.7	0.0	3.0	0.0	2.9	2.2	3.2	0.0	2.3	2.6
Exiting Leg Total				1				10				10	21

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
5:00 PM	4	0	0	4	1	31	0	32	50	4	0	54	90
5:15 PM	3	2	0	5	3	47	0	50	47	6	0	53	108
5:30 PM	3	2	0	5	2	40	0	42	54	4	0	58	105
5:45 PM	3	0	0	3	1	38	0	39	57	5	0	62	104
Total Volume	13	4	0	17	7	156	0	163	208	19	0	227	407
% Approach Total	76.5	23.5	0.0		4.3	95.7	0.0		91.6	8.4	0.0		
PHF	0.813	0.500	0.000	0.850	0.583	0.830	0.000	0.815	0.912	0.792	0.000	0.915	0.942
Cars	13	4	0	17	7	152	0	159	203	18	0	221	397
Cars %	100.0	100.0	0.0	100.0	100.0	97.4	0.0	97.5	97.6	94.7	0.0	97.4	97.5
Heavy Vehicles	0	0	0	0	0	4	0	4	5	1	0	6	10
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	2.6	0.0	2.5	2.4	5.3	0.0	2.6	2.5
Cars Enter Leg	13	4	0	17	7	152	0	159	203	18	0	221	397
Heavy Enter Leg	0	0	0	0	0	4	0	4	5	1	0	6	10
Total Entering Leg	13	4	0	17	7	156	0	163	208	19	0	227	407
Cars Exiting Leg				25				207				165	397
Heavy Exiting Leg				1				5				4	10
Total Exiting Leg				26				212				169	407

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	1	0	0	1	2	46	0	48	50	1	0	51	100
4:15 PM	3	0	0	3	1	44	0	45	51	3	0	54	102
4:30 PM	2	1	0	3	2	54	0	56	42	4	0	46	105
4:45 PM	2	0	0	2	3	26	0	29	48	4	0	52	83
Total	8	1	0	9	8	170	0	178	191	12	0	203	390
5:00 PM	4	0	0	4	1	30	0	31	47	3	0	50	85
5:15 PM	3	2	0	5	3	46	0	49	47	6	0	53	107
5:30 PM	3	2	0	5	2	39	0	41	52	4	0	56	102
5:45 PM	3	0	0	3	1	37	0	38	57	5	0	62	103
Total	13	4	0	17	7	152	0	159	203	18	0	221	397
Grand Total	21	5	0	26	15	322	0	337	394	30	0	424	787
Approach %	80.8	19.2	0.0		4.5	95.5	0.0		92.9	7.1	0.0		
Total %	2.7	0.6	0.0	3.3	1.9	40.9	0.0	42.8	50.1	3.8	0.0	53.9	
Exiting Leg Total				45				399				343	787

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
5:00 PM	4	0	0	4	1	30	0	31	47	3	0	50	85
5:15 PM	3	2	0	5	3	46	0	49	47	6	0	53	107
5:30 PM	3	2	0	5	2	39	0	41	52	4	0	56	102
5:45 PM	3	0	0	3	1	37	0	38	57	5	0	62	103
Total Volume	13	4	0	17	7	152	0	159	203	18	0	221	397
% Approach Total	76.5	23.5	0.0		4.4	95.6	0.0		91.9	8.1	0.0		
PHF	0.813	0.500	0.000	0.850	0.583	0.826	0.000	0.811	0.890	0.750	0.000	0.891	0.928
Entering Leg	13	4	0	17	7	152	0	159	203	18	0	221	397
Exiting Leg				25				207				165	397
Total				42				366				386	794

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
4:15 PM	0	1	0	1	0	2	0	2	0	0	0	0	3
4:30 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
4:45 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
Total	0	1	0	1	0	6	0	6	4	0	0	4	11
5:00 PM	0	0	0	0	0	1	0	1	3	1	0	4	5
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	4	0	4	5	1	0	6	10
Grand Total	0	1	0	1	0	10	0	10	9	1	0	10	21
Approach %	0.0	100.0	0.0		0.0	100.0	0.0		90.0	10.0	0.0		
Total %	0.0	4.8	0.0	4.8	0.0	47.6	0.0	47.6	42.9	4.8	0.0	47.6	
Exiting Leg Total				1				10				10	21
Buses	0	0	0	0	0	4	0	4	5	0	0	5	9
% Buses	0.0	0.0	0.0	0.0	0.0	40.0	0.0	40.0	55.6	0.0	0.0	50.0	42.9
Exiting Leg Total				0				5				4	9
Single-Unit Trucks	0	1	0	1	0	6	0	6	4	1	0	5	12
% Single-Unit	0.0	100.0	0.0	100.0	0.0	60.0	0.0	60.0	44.4	100.0	0.0	50.0	57.1
Exiting Leg Total				1				5				6	12
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:15 PM	0	1	0	1	0	2	0	2	0	0	0	0	3
4:30 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
4:45 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
5:00 PM	0	0	0	0	0	1	0	1	3	1	0	4	5
Total Volume	0	1	0	1	0	6	0	6	5	1	0	6	13
% Approach Total	0.0	100.0	0.0		0.0	100.0	0.0		83.3	16.7	0.0		
PHF	0.000	0.250	0.000	0.250	0.000	0.750	0.000	0.750	0.417	0.250	0.000	0.375	0.650
Buses	0	0	0	0	0	2	0	2	2	0	0	2	4
Buses %	0.0	0.0	0.0	0.0	0.0	33.3	0.0	33.3	40.0	0.0	0.0	33.3	30.8
Single-Unit Trucks	0	1	0	1	0	4	0	4	3	1	0	4	9
Single-Unit %	0.0	100.0	0.0	100.0	0.0	66.7	0.0	66.7	60.0	100.0	0.0	66.7	69.2
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	2	0	2	2	0	0	2	4
Single-Unit Trucks	0	1	0	1	0	4	0	4	3	1	0	4	9
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	1	0	1	0	6	0	6	5	1	0	6	13
Buses				0				2				2	4
Single-Unit Trucks				1				4				4	9
Articulated Trucks				0				0				0	0
Total Exiting Leg				1				6				6	13

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	1	0	0	1	1	42	0	43	44	1	0	45	89
4:15 PM	3	0	0	3	1	43	0	44	48	3	0	51	98
4:30 PM	1	1	0	2	1	47	0	48	41	4	0	45	95
4:45 PM	1	0	0	1	3	23	0	26	45	4	0	49	76
Total	6	1	0	7	6	155	0	161	178	12	0	190	358
5:00 PM	4	0	0	4	1	27	0	28	43	2	0	45	77
5:15 PM	2	2	0	4	3	45	0	48	45	6	0	51	103
5:30 PM	3	1	0	4	2	36	0	38	47	2	0	49	91
5:45 PM	3	0	0	3	1	36	0	37	55	3	0	58	98
Total	12	3	0	15	7	144	0	151	190	13	0	203	369
Grand Total	18	4	0	22	13	299	0	312	368	25	0	393	727
Approach %	81.8	18.2	0.0		4.2	95.8	0.0		93.6	6.4	0.0		
Total %	2.5	0.6	0.0	3.0	1.8	41.1	0.0	42.9	50.6	3.4	0.0	54.1	
Exiting Leg Total				38				372				317	727

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
5:00 PM	4	0	0	4	1	27	0	28	43	2	0	45	77
5:15 PM	2	2	0	4	3	45	0	48	45	6	0	51	103
5:30 PM	3	1	0	4	2	36	0	38	47	2	0	49	91
5:45 PM	3	0	0	3	1	36	0	37	55	3	0	58	98
Total Volume	12	3	0	15	7	144	0	151	190	13	0	203	369
% Approach Total	80.0	20.0	0.0		4.6	95.4	0.0		93.6	6.4	0.0		
PHF	0.750	0.375	0.000	0.938	0.583	0.800	0.000	0.786	0.864	0.542	0.000	0.875	0.896
Entering Leg	12	3	0	15	7	144	0	151	190	13	0	203	369
Exiting Leg				20				193				156	369
Total				35				344				359	738

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Roselin Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	1	4	0	5	6	0	0	6	11
4:15 PM	0	0	0	0	0	1	0	1	3	0	0	3	4
4:30 PM	1	0	0	1	1	7	0	8	1	0	0	1	10
4:45 PM	1	0	0	1	0	3	0	3	3	0	0	3	7
Total	2	0	0	2	2	15	0	17	13	0	0	13	32
5:00 PM	0	0	0	0	0	3	0	3	4	1	0	5	8
5:15 PM	1	0	0	1	0	1	0	1	2	0	0	2	4
5:30 PM	0	1	0	1	0	3	0	3	5	2	0	7	11
5:45 PM	0	0	0	0	0	1	0	1	2	2	0	4	5
Total	1	1	0	2	0	8	0	8	13	5	0	18	28
Grand Total	3	1	0	4	2	23	0	25	26	5	0	31	60
Approach %	75.0	25.0	0.0		8.0	92.0	0.0		83.9	16.1	0.0		
Total %	5.0	1.7	0.0	6.7	3.3	38.3	0.0	41.7	43.3	8.3	0.0	51.7	
Exiting Leg Total				7				27				26	60

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Roselin Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	1	4	0	5	6	0	0	6	11
4:15 PM	0	0	0	0	0	1	0	1	3	0	0	3	4
4:30 PM	1	0	0	1	1	7	0	8	1	0	0	1	10
4:45 PM	1	0	0	1	0	3	0	3	3	0	0	3	7
Total Volume	2	0	0	2	2	15	0	17	13	0	0	13	32
% Approach Total	100.0	0.0	0.0		11.8	88.2	0.0		100.0	0.0	0.0		
PHF	0.500	0.000	0.000	0.500	0.500	0.536	0.000	0.531	0.542	0.000	0.000	0.542	0.727
Entering Leg	2	0	0	2	2	15	0	17	13	0	0	13	32
Exiting Leg				2				13				17	32
Total				4				30				30	64

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
4:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	2	0	0	2	3
5:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	3	0	3	3	0	0	3	6
Grand Total	0	0	0	0	0	4	0	4	5	0	0	5	9
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	44.4	0.0	44.4	55.6	0.0	0.0	55.6	
Exiting Leg Total				0				5				4	9

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
Total Volume	0	0	0	0	0	3	0	3	3	0	0	3	6
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.375	0.000	0.000	0.375	0.500
Entering Leg	0	0	0	0	0	3	0	3	3	0	0	3	6
Exiting Leg				0				3				3	6
Total				0				6				6	12

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
4:15 PM	0	1	0	1	0	1	0	1	0	0	0	0	2
4:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
Total	0	1	0	1	0	5	0	5	2	0	0	2	8
5:00 PM	0	0	0	0	0	0	0	0	2	1	0	3	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	1	0	1	2	1	0	3	4
Grand Total	0	1	0	1	0	6	0	6	4	1	0	5	12
Approach %	0.0	100.0	0.0		0.0	100.0	0.0		80.0	20.0	0.0		
Total %	0.0	8.3	0.0	8.3	0.0	50.0	0.0	50.0	33.3	8.3	0.0	41.7	
Exiting Leg Total				1				5				6	12

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:15 PM	0	1	0	1	0	1	0	1	0	0	0	0	2
4:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
5:00 PM	0	0	0	0	0	0	0	0	2	1	0	3	3
Total Volume	0	1	0	1	0	4	0	4	3	1	0	4	9
% Approach Total	0.0	100.0	0.0		0.0	100.0	0.0		75.0	25.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.000	0.500	0.000	0.500	0.375	0.250	0.000	0.333	0.750
Entering Leg	0	1	0	1	0	4	0	4	3	1	0	4	9
Exiting Leg				1				4				4	9
Total				2				8				8	18

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Roselin Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Roselin Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Roselin Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 K**
Location: **N: Roselin Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Roselin Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	1	3	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	1	3	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:15 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	2	3
5:30 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	1	2	3	5
Grand Total	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	3	3	6	9
Approach %	0	0	0	0	100		0	0	0	0	0		0	0	0	50	50		
Total %	0	0	0	0	33.333	33.333	0	0	0	0	0	0	0	0	0	33.333	33.333	66.667	
Exiting Leg Total						3						0						6	9

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Roselin Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	1	3	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	1	3	4
% Approach Total	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	66.7	33.3		
PHF	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.250
Entering Leg	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	1	3	4
Exiting Leg						1						0						3	4
Total						2						0						6	8

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	2	4	0	6	2	4	1	0	7	1	1	1	0	3	0	2	0	0	2	18
7:15 AM	0	1	0	0	1	2	3	0	0	5	0	7	0	0	7	0	0	0	0	0	13
7:30 AM	2	3	1	0	6	4	5	0	0	9	1	7	0	0	8	0	3	2	0	5	28
7:45 AM	0	2	6	0	8	6	7	1	0	14	0	7	0	0	7	0	4	1	0	5	34
Total	2	8	11	0	21	14	19	2	0	35	2	22	1	0	25	0	9	3	0	12	93
8:00 AM	0	2	1	0	3	4	5	0	0	9	0	4	0	0	4	0	3	0	0	3	19
8:15 AM	0	2	4	0	6	6	7	0	0	13	1	4	0	0	5	0	8	0	0	8	32
8:30 AM	0	1	1	0	2	1	3	1	0	5	0	1	0	0	1	0	1	1	0	2	10
8:45 AM	0	2	1	0	3	2	3	1	0	6	0	1	1	0	2	0	2	1	0	3	14
Total	0	7	7	0	14	13	18	2	0	33	1	10	1	0	12	0	14	2	0	16	75
Grand Total	2	15	18	0	35	27	37	4	0	68	3	32	2	0	37	0	23	5	0	28	168
Approach %	5.7	42.9	51.4	0.0		39.7	54.4	5.9	0.0		8.1	86.5	5.4	0.0		0.0	82.1	17.9	0.0		
Total %	1.2	8.9	10.7	0.0	20.8	16.1	22.0	2.4	0.0	40.5	1.8	19.0	1.2	0.0	22.0	0.0	13.7	3.0	0.0	16.7	
Exiting Leg Total					64					44					19					41	168
Cars	2	14	18	0	34	26	37	4	0	67	3	32	2	0	37	0	22	5	0	27	165
% Cars	100.0	93.3	100.0	0.0	97.1	96.3	100.0	100.0	0.0	98.5	100.0	100.0	100.0	0.0	100.0	0.0	95.7	100.0	0.0	96.4	98.2
Exiting Leg Total					63					43					18					41	165
Heavy Vehicles	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	3
% Heavy Vehicles	0.0	6.7	0.0	0.0	2.9	3.7	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	3.6	1.8
Exiting Leg Total					1					1					1					0	3

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	2	3	1	0	6	4	5	0	0	9	1	7	0	0	8	0	3	2	0	5	28
7:45 AM	0	2	6	0	8	6	7	1	0	14	0	7	0	0	7	0	4	1	0	5	34
8:00 AM	0	2	1	0	3	4	5	0	0	9	0	4	0	0	4	0	3	0	0	3	19
8:15 AM	0	2	4	0	6	6	7	0	0	13	1	4	0	0	5	0	8	0	0	8	32
Total Volume	2	9	12	0	23	20	24	1	0	45	2	22	0	0	24	0	18	3	0	21	113
% Approach Total	8.7	39.1	52.2	0.0		44.4	53.3	2.2	0.0		8.3	91.7	0.0	0.0		0.0	85.7	14.3	0.0		
PHF	0.250	0.750	0.500	0.000	0.719	0.833	0.857	0.250	0.000	0.804	0.500	0.786	0.000	0.000	0.750	0.000	0.563	0.375	0.000	0.656	0.831
Cars	2	8	12	0	22	20	24	1	0	45	2	22	0	0	24	0	18	3	0	21	112
Cars %	100.0	88.9	100.0	0.0	95.7	100.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0	100.0	0.0	100.0	100.0	0.0	100.0	99.1
Heavy Vehicles	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Heavy Vehicles %	0.0	11.1	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Cars Enter Leg	2	8	12	0	22	20	24	1	0	45	2	22	0	0	24	0	18	3	0	21	112
Heavy Enter Leg	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Entering Leg	2	9	12	0	23	20	24	1	0	45	2	22	0	0	24	0	18	3	0	21	113
Cars Exiting Leg					45					32					9					26	112
Heavy Exiting Leg					0					0					1					0	1
Total Exiting Leg					45					32					10					26	113

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	2	4	0	6	2	4	1	0	7	1	1	1	0	3	0	2	0	0	2	18
7:15 AM	0	1	0	0	1	1	3	0	0	4	0	7	0	0	7	0	0	0	0	0	12
7:30 AM	2	3	1	0	6	4	5	0	0	9	1	7	0	0	8	0	3	2	0	5	28
7:45 AM	0	1	6	0	7	6	7	1	0	14	0	7	0	0	7	0	4	1	0	5	33
Total	2	7	11	0	20	13	19	2	0	34	2	22	1	0	25	0	9	3	0	12	91
8:00 AM	0	2	1	0	3	4	5	0	0	9	0	4	0	0	4	0	3	0	0	3	19
8:15 AM	0	2	4	0	6	6	7	0	0	13	1	4	0	0	5	0	8	0	0	8	32
8:30 AM	0	1	1	0	2	1	3	1	0	5	0	1	0	0	1	0	0	1	0	1	9
8:45 AM	0	2	1	0	3	2	3	1	0	6	0	1	1	0	2	0	2	1	0	3	14
Total	0	7	7	0	14	13	18	2	0	33	1	10	1	0	12	0	13	2	0	15	74
Grand Total	2	14	18	0	34	26	37	4	0	67	3	32	2	0	37	0	22	5	0	27	165
Approach %	5.9	41.2	52.9	0.0		38.8	55.2	6.0	0.0		8.1	86.5	5.4	0.0		0.0	81.5	18.5	0.0		
Total %	1.2	8.5	10.9	0.0	20.6	15.8	22.4	2.4	0.0	40.6	1.8	19.4	1.2	0.0	22.4	0.0	13.3	3.0	0.0	16.4	
Exiting Leg Total					63					43					18					41	165

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	2	3	1	0	6	4	5	0	0	9	1	7	0	0	8	0	3	2	0	5	28
7:45 AM	0	1	6	0	7	6	7	1	0	14	0	7	0	0	7	0	4	1	0	5	33
8:00 AM	0	2	1	0	3	4	5	0	0	9	0	4	0	0	4	0	3	0	0	3	19
8:15 AM	0	2	4	0	6	6	7	0	0	13	1	4	0	0	5	0	8	0	0	8	32
Total Volume	2	8	12	0	22	20	24	1	0	45	2	22	0	0	24	0	18	3	0	21	112
% Approach Total	9.1	36.4	54.5	0.0		44.4	53.3	2.2	0.0		8.3	91.7	0.0	0.0		0.0	85.7	14.3	0.0		
PHF	0.250	0.667	0.500	0.000	0.786	0.833	0.857	0.250	0.000	0.804	0.500	0.786	0.000	0.000	0.750	0.000	0.563	0.375	0.000	0.656	0.848
Entering Leg	2	8	12	0	22	20	24	1	0	45	2	22	0	0	24	0	18	3	0	21	112
Exiting Leg					45					32					9					26	112
Total					67					77					33					47	224

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Grand Total	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	3
Approach %	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	33.3	0.0	0.0	33.3	33.3	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	
Exiting Leg Total					1					1					1					0	3
Buses	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
% Buses	0.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7
Exiting Leg Total					1					0					1					0	2
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	33.3
Exiting Leg Total					0					1					0					0	1
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
% Approach Total	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
Buses	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Buses %	0.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Buses					1					0					1					0	2
Single-Unit Trucks					0					0					0					0	0
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					1					0					1					0	2

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	2	4	0	6	1	3	1	0	5	1	0	1	0	2	0	2	0	0	2	15
7:15 AM	0	1	0	0	1	1	3	0	0	4	0	7	0	0	7	0	0	0	0	0	12
7:30 AM	2	3	0	0	5	4	5	0	0	9	1	7	0	0	8	0	3	2	0	5	27
7:45 AM	0	1	5	0	6	5	7	1	0	13	0	7	0	0	7	0	3	1	0	4	30
Total	2	7	9	0	18	11	18	2	0	31	2	21	1	0	24	0	8	3	0	11	84
8:00 AM	0	2	1	0	3	4	5	0	0	9	0	4	0	0	4	0	3	0	0	3	19
8:15 AM	0	2	4	0	6	5	7	0	0	12	0	4	0	0	4	0	7	0	0	7	29
8:30 AM	0	1	1	0	2	1	2	1	0	4	0	1	0	0	1	0	0	1	0	1	8
8:45 AM	0	2	1	0	3	2	3	1	0	6	0	1	1	0	2	0	2	1	0	3	14
Total	0	7	7	0	14	12	17	2	0	31	0	10	1	0	11	0	12	2	0	14	70
Grand Total	2	14	16	0	32	23	35	4	0	62	2	31	2	0	35	0	20	5	0	25	154
Approach %	6.3	43.8	50.0	0.0		37.1	56.5	6.5	0.0		5.7	88.6	5.7	0.0		0.0	80.0	20.0	0.0		
Total %	1.3	9.1	10.4	0.0	20.8	14.9	22.7	2.6	0.0	40.3	1.3	20.1	1.3	0.0	22.7	0.0	13.0	3.2	0.0	16.2	
Exiting Leg Total					59					38					18					39	154

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	2	3	0	0	5	4	5	0	0	9	1	7	0	0	8	0	3	2	0	5	27
7:45 AM	0	1	5	0	6	5	7	1	0	13	0	7	0	0	7	0	3	1	0	4	30
8:00 AM	0	2	1	0	3	4	5	0	0	9	0	4	0	0	4	0	3	0	0	3	19
8:15 AM	0	2	4	0	6	5	7	0	0	12	0	4	0	0	4	0	7	0	0	7	29
Total Volume	2	8	10	0	20	18	24	1	0	43	1	22	0	0	23	0	16	3	0	19	105
% Approach Total	10.0	40.0	50.0	0.0		41.9	55.8	2.3	0.0		4.3	95.7	0.0	0.0		0.0	84.2	15.8	0.0		
PHF	0.250	0.667	0.500	0.000	0.833	0.900	0.857	0.250	0.000	0.827	0.250	0.786	0.000	0.000	0.719	0.000	0.571	0.375	0.000	0.679	0.875
Entering Leg	2	8	10	0	20	18	24	1	0	43	1	22	0	0	23	0	16	3	0	19	105
Exiting Leg					43					27					9					26	105
Total					63					70					32					45	210

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	1	1	0	0	2	0	1	0	0	1	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	3
Total	0	0	2	0	2	2	1	0	0	3	0	1	0	0	1	0	1	0	0	1	7
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	1	0	0	1	3
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	1	0	0	2	1	0	0	0	1	0	1	0	0	1	4
Grand Total	0	0	2	0	2	3	2	0	0	5	1	1	0	0	2	0	2	0	0	2	11
Approach %	0.0	0.0	100.0	0.0		60.0	40.0	0.0	0.0		50.0	50.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	18.2	0.0	18.2	27.3	18.2	0.0	0.0	45.5	9.1	9.1	0.0	0.0	18.2	0.0	18.2	0.0	0.0	18.2	
Exiting Leg Total					4					5					0					2	11

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	1	1	0	0	2	0	1	0	0	1	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	3
Total Volume	0	0	2	0	2	2	1	0	0	3	0	1	0	0	1	0	1	0	0	1	7
% Approach Total	0.0	0.0	100.0	0.0		66.7	33.3	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.500	0.000	0.500	0.500	0.250	0.000	0.000	0.375	0.000	0.250	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.250	0.583
Entering Leg	0	0	2	0	2	2	1	0	0	3	0	1	0	0	1	0	1	0	0	1	7
Exiting Leg					3					3					0					1	7
Total					5					6					1					2	14

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Approach %	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	50.0	0.0	0.0	50.0	50.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1					0					1					0	2

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
% Approach Total	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Exiting Leg					1					0					1					0	2
Total					2					1					1					0	4

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	
Exiting Leg Total					0					1					0					0	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Exiting Leg					0					1					0					0	1
Total					0					1					0					1	2

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg					0					0					0					0	0
Total					0					0					0					0	0

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Dimmock Street from North							Glendale Road from East							Dimmock Street from South							Glendale Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							0							0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Dimmock Street from North							Glendale Road from East							Dimmock Street from South							Glendale Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg							0							0							0							0	0
Total							0							0							0							0	0

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Dimmock Street from North							Glendale Road from East							Dimmock Street from South							Glendale Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	4	4	0	0	0	0	0	1	1	0	0	0	0	1	0	1	7
7:15 AM	0	0	0	0	3	1	4	0	0	0	0	0	3	3	0	0	0	0	3	0	3	0	0	0	0	1	0	1	11
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	6	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total	0	0	0	0	4	1	5	0	0	0	0	1	19	20	0	0	0	0	3	1	4	0	0	0	0	2	0	2	31
8:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	3	3	0	0	0	0	0	1	1	0	0	0	0	1	0	1	6
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
8:30 AM	0	0	0	0	3	0	3	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	6
8:45 AM	0	0	0	0	2	0	2	0	0	0	0	0	2	2	0	0	0	0	0	1	1	0	0	0	0	2	0	2	7
Total	0	0	0	0	5	1	6	0	0	0	0	0	8	8	0	0	0	0	0	2	2	0	0	0	0	5	0	5	21
Grand Total	0	0	0	0	9	2	11	0	0	0	0	1	27	28	0	0	0	0	3	3	6	0	0	0	0	7	0	7	52
Approach %	0	0	0	0	81.8	18.2		0	0	0	0	3.57	96.4		0	0	0	0	50	50		0	0	0	0	100	0		
Total %	0	0	0	0	17.3	3.85	21.2	0	0	0	0	1.92	51.9	53.8	0	0	0	0	5.77	5.77	11.5	0	0	0	0	13.5	0	13.5	
Exiting Leg Total							11							28							6							7	52

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Dimmock Street from North							Glendale Road from East							Dimmock Street from South							Glendale Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	4	4	0	0	0	0	0	1	1	0	0	0	0	1	0	1	7
7:15 AM	0	0	0	0	3	1	4	0	0	0	0	0	3	3	0	0	0	0	3	0	3	0	0	0	0	1	0	1	11
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	6	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total Volume	0	0	0	0	4	1	5	0	0	0	0	1	19	20	0	0	0	0	3	1	4	0	0	0	0	2	0	2	31
% Approach Total	0.0	0.0	0.0	0.0	80.0	20.0		0.0	0.0	0.0	0.0	5.0	95.0		0.0	0.0	0.0	0.0	75.0	25.0		0.0	0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.333	0.250	0.313	0.000	0.000	0.000	0.000	0.250	0.792	0.714	0.000	0.000	0.000	0.000	0.250	0.250	0.333	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.705
Entering Leg	0	0	0	0	4	1	5	0	0	0	0	1	19	20	0	0	0	0	3	1	4	0	0	0	0	2	0	2	31
Exiting Leg							5							20							4							2	31
Total							10							40							8							4	62

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	1	3	1	0	5	1	3	0	0	4	0	0	0	0	0	0	6	0	0	6	15
4:15 PM	0	2	1	0	3	2	4	1	0	7	0	2	1	0	3	1	1	0	0	2	15
4:30 PM	1	3	1	0	5	1	2	0	0	3	1	3	1	0	5	1	2	1	0	4	17
4:45 PM	1	3	1	0	5	4	3	0	0	7	1	1	1	0	3	2	3	1	0	6	21
Total	3	11	4	0	18	8	12	1	0	21	2	6	3	0	11	4	12	2	0	18	68
5:00 PM	0	3	3	0	6	3	2	0	0	5	0	2	0	0	2	0	8	1	0	9	22
5:15 PM	0	4	3	0	7	2	2	0	0	4	0	8	0	0	8	1	12	0	0	13	32
5:30 PM	0	2	3	0	5	0	7	0	0	7	0	0	0	0	0	2	7	0	0	9	21
5:45 PM	2	5	3	0	10	1	3	1	0	5	0	4	1	0	5	0	5	2	0	7	27
Total	2	14	12	0	28	6	14	1	0	21	0	14	1	0	15	3	32	3	0	38	102
Grand Total	5	25	16	0	46	14	26	2	0	42	2	20	4	0	26	7	44	5	0	56	170
Approach %	10.9	54.3	34.8	0.0		33.3	61.9	4.8	0.0		7.7	76.9	15.4	0.0		12.5	78.6	8.9	0.0		
Total %	2.9	14.7	9.4	0.0	27.1	8.2	15.3	1.2	0.0	24.7	1.2	11.8	2.4	0.0	15.3	4.1	25.9	2.9	0.0	32.9	
Exiting Leg Total					39					62					34					35	170
Cars	5	25	16	0	46	14	26	2	0	42	2	20	4	0	26	7	44	5	0	56	170
% Cars	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0
Exiting Leg Total					39					62					34					35	170
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	3	3	0	6	3	2	0	0	5	0	2	0	0	2	0	8	1	0	9	22
5:15 PM	0	4	3	0	7	2	2	0	0	4	0	8	0	0	8	1	12	0	0	13	32
5:30 PM	0	2	3	0	5	0	7	0	0	7	0	0	0	0	0	2	7	0	0	9	21
5:45 PM	2	5	3	0	10	1	3	1	0	5	0	4	1	0	5	0	5	2	0	7	27
Total Volume	2	14	12	0	28	6	14	1	0	21	0	14	1	0	15	3	32	3	0	38	102
% Approach Total	7.1	50.0	42.9	0.0		28.6	66.7	4.8	0.0		0.0	93.3	6.7	0.0		7.9	84.2	7.9	0.0		
PHF	0.250	0.700	1.000	0.000	0.700	0.500	0.500	0.250	0.000	0.750	0.000	0.438	0.250	0.000	0.469	0.375	0.667	0.375	0.000	0.731	0.797
Cars	2	14	12	0	28	6	14	1	0	21	0	14	1	0	15	3	32	3	0	38	102
Cars %	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cars Enter Leg	2	14	12	0	28	6	14	1	0	21	0	14	1	0	15	3	32	3	0	38	102
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	2	14	12	0	28	6	14	1	0	21	0	14	1	0	15	3	32	3	0	38	102
Cars Exiting Leg					23					44					18					17	102
Heavy Exiting Leg					0					0					0					0	0
Total Exiting Leg					23					44					18					17	102

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	1	3	1	0	5	1	3	0	0	4	0	0	0	0	0	0	6	0	0	6	15
4:15 PM	0	2	1	0	3	2	4	1	0	7	0	2	1	0	3	1	1	0	0	2	15
4:30 PM	1	3	1	0	5	1	2	0	0	3	1	3	1	0	5	1	2	1	0	4	17
4:45 PM	1	3	1	0	5	4	3	0	0	7	1	1	1	0	3	2	3	1	0	6	21
Total	3	11	4	0	18	8	12	1	0	21	2	6	3	0	11	4	12	2	0	18	68
5:00 PM	0	3	3	0	6	3	2	0	0	5	0	2	0	0	2	0	8	1	0	9	22
5:15 PM	0	4	3	0	7	2	2	0	0	4	0	8	0	0	8	1	12	0	0	13	32
5:30 PM	0	2	3	0	5	0	7	0	0	7	0	0	0	0	0	2	7	0	0	9	21
5:45 PM	2	5	3	0	10	1	3	1	0	5	0	4	1	0	5	0	5	2	0	7	27
Total	2	14	12	0	28	6	14	1	0	21	0	14	1	0	15	3	32	3	0	38	102
Grand Total	5	25	16	0	46	14	26	2	0	42	2	20	4	0	26	7	44	5	0	56	170
Approach %	10.9	54.3	34.8	0.0		33.3	61.9	4.8	0.0		7.7	76.9	15.4	0.0		12.5	78.6	8.9	0.0		
Total %	2.9	14.7	9.4	0.0	27.1	8.2	15.3	1.2	0.0	24.7	1.2	11.8	2.4	0.0	15.3	4.1	25.9	2.9	0.0	32.9	
Exiting Leg Total					39					62					34					35	170

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	3	3	0	6	3	2	0	0	5	0	2	0	0	2	0	8	1	0	9	22
5:15 PM	0	4	3	0	7	2	2	0	0	4	0	8	0	0	8	1	12	0	0	13	32
5:30 PM	0	2	3	0	5	0	7	0	0	7	0	0	0	0	0	2	7	0	0	9	21
5:45 PM	2	5	3	0	10	1	3	1	0	5	0	4	1	0	5	0	5	2	0	7	27
Total Volume	2	14	12	0	28	6	14	1	0	21	0	14	1	0	15	3	32	3	0	38	102
% Approach Total	7.1	50.0	42.9	0.0		28.6	66.7	4.8	0.0		0.0	93.3	6.7	0.0		7.9	84.2	7.9	0.0		
PHF	0.250	0.700	1.000	0.000	0.700	0.500	0.500	0.250	0.000	0.750	0.000	0.438	0.250	0.000	0.469	0.375	0.667	0.375	0.000	0.731	0.797
Entering Leg	2	14	12	0	28	6	14	1	0	21	0	14	1	0	15	3	32	3	0	38	102
Exiting Leg					23					44					18					17	102
Total					51					65					33					55	204

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					0	0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total					0					0					0					0	0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total					0					0					0					0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses					0					0					0					0	0
Single-Unit Trucks					0					0					0					0	0
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					0					0					0					0	0

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	1	3	0	0	4	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	12
4:15 PM	0	2	1	0	3	2	4	0	0	6	0	1	1	0	2	1	1	0	0	2	13
4:30 PM	1	2	1	0	4	1	2	0	0	3	1	2	1	0	4	1	2	1	0	4	15
4:45 PM	1	3	1	0	5	4	3	0	0	7	1	1	1	0	3	2	3	1	0	6	21
Total	3	10	3	0	16	7	12	0	0	19	2	4	3	0	9	4	11	2	0	17	61
5:00 PM	0	3	3	0	6	3	2	0	0	5	0	2	0	0	2	0	8	1	0	9	22
5:15 PM	0	4	3	0	7	2	2	0	0	4	0	8	0	0	8	1	11	0	0	12	31
5:30 PM	0	2	3	0	5	0	7	0	0	7	0	0	0	0	0	2	6	0	0	8	20
5:45 PM	2	5	3	0	10	1	3	1	0	5	0	2	1	0	3	0	5	2	0	7	25
Total	2	14	12	0	28	6	14	1	0	21	0	12	1	0	13	3	30	3	0	36	98
Grand Total	5	24	15	0	44	13	26	1	0	40	2	16	4	0	22	7	41	5	0	53	159
Approach %	11.4	54.5	34.1	0.0		32.5	65.0	2.5	0.0		9.1	72.7	18.2	0.0		13.2	77.4	9.4	0.0		
Total %	3.1	15.1	9.4	0.0	27.7	8.2	16.4	0.6	0.0	25.2	1.3	10.1	2.5	0.0	13.8	4.4	25.8	3.1	0.0	33.3	
Exiting Leg Total					34					58					32					35	159

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	3	3	0	6	3	2	0	0	5	0	2	0	0	2	0	8	1	0	9	22
5:15 PM	0	4	3	0	7	2	2	0	0	4	0	8	0	0	8	1	11	0	0	12	31
5:30 PM	0	2	3	0	5	0	7	0	0	7	0	0	0	0	0	2	6	0	0	8	20
5:45 PM	2	5	3	0	10	1	3	1	0	5	0	2	1	0	3	0	5	2	0	7	25
Total Volume	2	14	12	0	28	6	14	1	0	21	0	12	1	0	13	3	30	3	0	36	98
% Approach Total	7.1	50.0	42.9	0.0		28.6	66.7	4.8	0.0		0.0	92.3	7.7	0.0		8.3	83.3	8.3	0.0		
PHF	0.250	0.700	1.000	0.000	0.700	0.500	0.500	0.250	0.000	0.750	0.000	0.375	0.250	0.000	0.406	0.375	0.682	0.375	0.000	0.750	0.790
Entering Leg	2	14	12	0	28	6	14	1	0	21	0	12	1	0	13	3	30	3	0	36	98
Exiting Leg					21					42					18					17	98
Total					49					63					31					53	196

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	3
4:15 PM	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	2
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	2	1	0	1	0	2	0	2	0	0	2	0	1	0	0	1	7
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	0	0	2	4
Grand Total	0	1	1	0	2	1	0	1	0	2	0	4	0	0	4	0	3	0	0	3	11
Approach %	0.0	50.0	50.0	0.0		50.0	0.0	50.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	9.1	9.1	0.0	18.2	9.1	0.0	9.1	0.0	18.2	0.0	36.4	0.0	0.0	36.4	0.0	27.3	0.0	0.0	27.3	
Exiting Leg Total					5					4					2					0	11

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	3
4:15 PM	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	2
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	2	1	0	1	0	2	0	2	0	0	2	0	1	0	0	1	7
% Approach Total	0.0	50.0	50.0	0.0		50.0	0.0	50.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.250	0.250	0.000	0.500	0.250	0.000	0.250	0.000	0.500	0.000	0.500	0.000	0.000	0.500	0.000	0.250	0.000	0.000	0.250	0.583
Entering Leg	0	1	1	0	2	1	0	1	0	2	0	2	0	0	2	0	1	0	0	1	7
Exiting Leg					3					2					2					0	7
Total					5					4					4					1	14

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg					0					0					0					0	0
Total					0					0					0					0	0

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg					0					0					0					0	0
Total					0					0					0					0	0

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dimmock Street from North					Glendale Road from East					Dimmock Street from South					Glendale Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg					0					0					0					0	0
Total					0					0					0					0	0

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Dimmock Street from North							Glendale Road from East							Dimmock Street from South							Glendale Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							0							0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dimmock Street from North							Glendale Road from East							Dimmock Street from South							Glendale Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg							0							0							0							0	0
Total							0							0							0							0	0

PDI File #: **186173 L**
Location: **N: Dimmock Street S: Dimmock Street**
Location: **E: Glendale Road W: Glendale Road**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Dimmock Street from North							Glendale Road from East							Dimmock Street from South							Glendale Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4
4:30 PM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	1	2	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1	3	4	9
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	3	3	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3	3	5
Total	0	0	0	0	0	0	0	0	0	0	0	4	1	5	0	0	0	0	0	0	0	0	0	0	0	0	8	8	13
Grand Total	0	0	0	0	1	1	2	0	0	0	0	7	1	8	0	0	0	0	0	0	0	0	0	0	0	1	11	12	22
Approach %	0	0	0	0	50	50		0	0	0	0	87.5	12.5		0	0	0	0	0	0		0	0	0	0	8.33	91.7		
Total %	0	0	0	0	4.55	4.55	9.09	0	0	0	0	31.8	4.55	36.4	0	0	0	0	0	0	0	0	0	0	0	4.55	50	54.5	
Exiting Leg Total							2							8							0							12	22

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dimmock Street from North							Glendale Road from East							Dimmock Street from South							Glendale Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4
4:30 PM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	2	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1	3	4	9
% Approach Total	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	25.0	75.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.375	0.500	0.563
Entering Leg	0	0	0	0	1	1	2	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1	3	4	9
Exiting Leg							2							3							0							4	9
Total							4							6							0							8	18

PDI File #:	**186173 M**
Location:	**N: Dimmock Street**
Location:	**E: Euclid Avenue W: Euclid Avenue**
City, State:	**Quincy, MA**
Client:	**Tetratech/ I. Prizant**
Site Code:	**143-166451-17001**
Count Date:	**Tuesday, April 03, 2018**
Start Time:	**7:00 AM**
End Time:	**9:00 AM**
Class:	

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	2	1	0	3	2	0	0	2	0	1	0	1	6
7:15 AM	1	0	0	1	1	0	0	1	2	6	0	8	10
7:30 AM	2	1	0	3	5	0	0	5	0	3	0	3	11
7:45 AM	2	1	0	3	3	1	0	4	2	4	0	6	13
Total	7	3	0	10	11	1	0	12	4	14	0	18	40
8:00 AM	1	1	0	2	0	0	0	0	4	4	0	8	10
8:15 AM	2	1	0	3	1	0	0	1	0	4	0	4	8
8:30 AM	2	0	0	2	0	0	0	0	1	1	0	2	4
8:45 AM	3	0	0	3	2	1	0	3	1	0	0	1	7
Total	8	2	0	10	3	1	0	4	6	9	0	15	29
Grand Total	15	5	0	20	14	2	0	16	10	23	0	33	69
Approach %	75.0	25.0	0.0		87.5	12.5	0.0		30.3	69.7	0.0		
Total %	21.7	7.2	0.0	29.0	20.3	2.9	0.0	23.2	14.5	33.3	0.0	47.8	
Exiting Leg Total				37				15				17	69
Cars	15	4	0	19	14	2	0	16	10	23	0	33	68
% Cars	100.0	80.0	0.0	95.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	98.6
Exiting Leg Total				37				14				17	68
Heavy Vehicles	0	1	0	1	0	0	0	0	0	0	0	0	1
% Heavy Vehicles	0.0	20.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
Exiting Leg Total				0				1				0	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	1	0	0	1	1	0	0	1	2	6	0	8	10
7:30 AM	2	1	0	3	5	0	0	5	0	3	0	3	11
7:45 AM	2	1	0	3	3	1	0	4	2	4	0	6	13
8:00 AM	1	1	0	2	0	0	0	0	4	4	0	8	10
Total Volume	6	3	0	9	9	1	0	10	8	17	0	25	44
% Approach Total	66.7	33.3	0.0		90.0	10.0	0.0		32.0	68.0	0.0		
PHF	0.750	0.750	0.000	0.750	0.450	0.250	0.000	0.500	0.500	0.708	0.000	0.781	0.846
Cars	6	2	0	8	9	1	0	10	8	17	0	25	43
Cars %	100.0	66.7	0.0	88.9	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	97.7
Heavy Vehicles	0	1	0	1	0	0	0	0	0	0	0	0	1
Heavy Vehicles %	0.0	33.3	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
Cars Enter Leg	6	2	0	8	9	1	0	10	8	17	0	25	43
Heavy Enter Leg	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Entering Leg	6	3	0	9	9	1	0	10	8	17	0	25	44
Cars Exiting Leg				26				10				7	43
Heavy Exiting Leg				0				1				0	1
Total Exiting Leg				26				11				7	44

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	2	1	0	3	2	0	0	2	0	1	0	1	6
7:15 AM	1	0	0	1	1	0	0	1	2	6	0	8	10
7:30 AM	2	1	0	3	5	0	0	5	0	3	0	3	11
7:45 AM	2	0	0	2	3	1	0	4	2	4	0	6	12
Total	7	2	0	9	11	1	0	12	4	14	0	18	39
8:00 AM	1	1	0	2	0	0	0	0	4	4	0	8	10
8:15 AM	2	1	0	3	1	0	0	1	0	4	0	4	8
8:30 AM	2	0	0	2	0	0	0	0	1	1	0	2	4
8:45 AM	3	0	0	3	2	1	0	3	1	0	0	1	7
Total	8	2	0	10	3	1	0	4	6	9	0	15	29
Grand Total	15	4	0	19	14	2	0	16	10	23	0	33	68
Approach %	78.9	21.1	0.0		87.5	12.5	0.0		30.3	69.7	0.0		
Total %	22.1	5.9	0.0	27.9	20.6	2.9	0.0	23.5	14.7	33.8	0.0	48.5	
Exiting Leg Total				37				14				17	68

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	1	0	0	1	1	0	0	1	2	6	0	8	10
7:30 AM	2	1	0	3	5	0	0	5	0	3	0	3	11
7:45 AM	2	0	0	2	3	1	0	4	2	4	0	6	12
8:00 AM	1	1	0	2	0	0	0	0	4	4	0	8	10
Total Volume	6	2	0	8	9	1	0	10	8	17	0	25	43
% Approach Total	75.0	25.0	0.0		90.0	10.0	0.0		32.0	68.0	0.0		
PHF	0.750	0.500	0.000	0.667	0.450	0.250	0.000	0.500	0.500	0.708	0.000	0.781	0.896
Entering Leg	6	2	0	8	9	1	0	10	8	17	0	25	43
Exiting Leg				26				10				7	43
Total				34				20				32	86

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	1	0	0	0	0	0	0	0	0	1
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				1				0	1
Buses	0	1	0	1	0	0	0	0	0	0	0	0	1
% Buses	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Exiting Leg Total				0				1				0	1
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Buses	0	1	0	1	0	0	0	0	0	0	0	0	1
Buses %	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	1	0	1	0	0	0	0	0	0	0	0	1
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	1	0	1	0	0	0	0	0	0	0	0	1
Buses				0				1				0	1
Single-Unit Trucks				0				0				0	0
Articulated Trucks				0				0				0	0
Total Exiting Leg				0				1				0	1

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	2	1	0	3	2	0	0	2	0	1	0	1	6
7:15 AM	1	0	0	1	1	0	0	1	2	6	0	8	10
7:30 AM	2	1	0	3	5	0	0	5	0	3	0	3	11
7:45 AM	2	0	0	2	3	1	0	4	2	4	0	6	12
Total	7	2	0	9	11	1	0	12	4	14	0	18	39
8:00 AM	1	1	0	2	0	0	0	0	3	4	0	7	9
8:15 AM	2	1	0	3	1	0	0	1	0	3	0	3	7
8:30 AM	2	0	0	2	0	0	0	0	1	1	0	2	4
8:45 AM	3	0	0	3	2	1	0	3	1	0	0	1	7
Total	8	2	0	10	3	1	0	4	5	8	0	13	27
Grand Total	15	4	0	19	14	2	0	16	9	22	0	31	66
Approach %	78.9	21.1	0.0		87.5	12.5	0.0		29.0	71.0	0.0		
Total %	22.7	6.1	0.0	28.8	21.2	3.0	0.0	24.2	13.6	33.3	0.0	47.0	
Exiting Leg Total				36				13				17	66

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	1	0	0	1	1	0	0	1	2	6	0	8	10
7:30 AM	2	1	0	3	5	0	0	5	0	3	0	3	11
7:45 AM	2	0	0	2	3	1	0	4	2	4	0	6	12
8:00 AM	1	1	0	2	0	0	0	0	3	4	0	7	9
Total Volume	6	2	0	8	9	1	0	10	7	17	0	24	42
% Approach Total	75.0	25.0	0.0		90.0	10.0	0.0		29.2	70.8	0.0		
PHF	0.750	0.500	0.000	0.667	0.450	0.250	0.000	0.500	0.583	0.708	0.000	0.750	0.875
Entering Leg	6	2	0	8	9	1	0	10	7	17	0	24	42
Exiting Leg				26				9				7	42
Total				34				19				31	84

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	1	0	2	2
Grand Total	0	0	0	0	0	0	0	0	1	1	0	2	2
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		50.0	50.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	100.0	
Exiting Leg Total				1				1				0	2

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	0	0	1	1	0	2	2
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		50.0	50.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.500	0.500
Entering Leg	0	0	0	0	0	0	0	0	1	1	0	2	2
Exiting Leg				1				1				0	2
Total				1				1				2	4

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	1	0	0	0	0	0	0	0	0	1
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				1				0	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	1	0	1	0	0	0	0	0	0	0	0	1
Exiting Leg				0				1				0	1
Total				1				1				0	2

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Dimmock Street						Euclid Avenue						Euclid Avenue						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Dimmock Street						Euclid Avenue						Euclid Avenue						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Dimmock Street from North						Euclid Avenue from East						Euclid Avenue from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
7:15 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	0	2	4
7:30 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
7:45 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	3	2	5	0	0	0	0	0	0	0	0	0	4	0	4	9
8:00 AM	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	1	0	1	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	2	2	4	0	0	0	0	1	1	0	0	0	1	0	1	6
Grand Total	0	0	0	5	4	9	0	0	0	0	1	1	0	0	0	5	0	5	15
Approach %	0	0	0	55.556	44.444		0	0	0	0	100		0	0	0	100	0		
Total %	0	0	0	33.333	26.667	60	0	0	0	0	6.6667	6.6667	0	0	0	33.333	0	33.333	
Exiting Leg Total						9						1						5	15

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Dimmock Street from North						Euclid Avenue from East						Euclid Avenue from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:15 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	0	2	4
7:30 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
7:45 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	1	0	1	3
Total Volume	0	0	0	3	2	5	0	0	0	0	1	1	0	0	0	4	0	4	10
% Approach Total	0.0	0.0	0.0	60.0	40.0		0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.375	0.500	0.625	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.500	0.000	0.500	0.625
Entering Leg	0	0	0	3	2	5	0	0	0	0	1	1	0	0	0	4	0	4	10
Exiting Leg						5						1						4	10
Total						10						2						8	20

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	4	2	0	6	0	0	0	0	0	0	0	0	6
4:15 PM	2	0	0	2	1	0	0	1	0	1	0	1	4
4:30 PM	0	2	0	2	0	0	0	0	0	4	0	4	6
4:45 PM	5	2	0	7	1	1	0	2	1	2	0	3	12
Total	11	6	0	17	2	1	0	3	1	7	0	8	28
5:00 PM	3	0	0	3	2	1	0	3	0	0	0	0	6
5:15 PM	2	3	0	5	4	1	0	5	3	4	0	7	17
5:30 PM	3	0	0	3	0	2	0	2	2	0	0	2	7
5:45 PM	2	4	0	6	0	3	0	3	1	5	0	6	15
Total	10	7	0	17	6	7	0	13	6	9	0	15	45
Grand Total	21	13	0	34	8	8	0	16	7	16	0	23	73
Approach %	61.8	38.2	0.0		50.0	50.0	0.0		30.4	69.6	0.0		
Total %	28.8	17.8	0.0	46.6	11.0	11.0	0.0	21.9	9.6	21.9	0.0	31.5	
Exiting Leg Total				24				20				29	73
Cars	20	13	0	33	8	8	0	16	7	16	0	23	72
% Cars	95.2	100.0	0.0	97.1	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	98.6
Exiting Leg Total				24				20				28	72
Heavy Vehicles	1	0	0	1	0	0	0	0	0	0	0	0	1
% Heavy Vehicles	4.8	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
Exiting Leg Total				0				0				1	1

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
5:00 PM	3	0	0	3	2	1	0	3	0	0	0	0	6
5:15 PM	2	3	0	5	4	1	0	5	3	4	0	7	17
5:30 PM	3	0	0	3	0	2	0	2	2	0	0	2	7
5:45 PM	2	4	0	6	0	3	0	3	1	5	0	6	15
Total Volume	10	7	0	17	6	7	0	13	6	9	0	15	45
% Approach Total	58.8	41.2	0.0		46.2	53.8	0.0		40.0	60.0	0.0		
PHF	0.833	0.438	0.000	0.708	0.375	0.583	0.000	0.650	0.500	0.450	0.000	0.536	0.662
Cars	10	7	0	17	6	7	0	13	6	9	0	15	45
Cars %	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cars Enter Leg	10	7	0	17	6	7	0	13	6	9	0	15	45
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	10	7	0	17	6	7	0	13	6	9	0	15	45
Cars Exiting Leg				15				13				17	45
Heavy Exiting Leg				0				0				0	0
Total Exiting Leg				15				13				17	45

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Cars-Combined (Motorcycles, Cars, Light Goods)**

	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	3	2	0	5	0	0	0	0	0	0	0	0	5
4:15 PM	2	0	0	2	1	0	0	1	0	1	0	1	4
4:30 PM	0	2	0	2	0	0	0	0	0	4	0	4	6
4:45 PM	5	2	0	7	1	1	0	2	1	2	0	3	12
Total	10	6	0	16	2	1	0	3	1	7	0	8	27
5:00 PM	3	0	0	3	2	1	0	3	0	0	0	0	6
5:15 PM	2	3	0	5	4	1	0	5	3	4	0	7	17
5:30 PM	3	0	0	3	0	2	0	2	2	0	0	2	7
5:45 PM	2	4	0	6	0	3	0	3	1	5	0	6	15
Total	10	7	0	17	6	7	0	13	6	9	0	15	45
Grand Total	20	13	0	33	8	8	0	16	7	16	0	23	72
Approach %	60.6	39.4	0.0		50.0	50.0	0.0		30.4	69.6	0.0		
Total %	27.8	18.1	0.0	45.8	11.1	11.1	0.0	22.2	9.7	22.2	0.0	31.9	
Exiting Leg Total				24				20				28	72

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
5:00 PM	3	0	0	3	2	1	0	3	0	0	0	0	6
5:15 PM	2	3	0	5	4	1	0	5	3	4	0	7	17
5:30 PM	3	0	0	3	0	2	0	2	2	0	0	2	7
5:45 PM	2	4	0	6	0	3	0	3	1	5	0	6	15
Total Volume	10	7	0	17	6	7	0	13	6	9	0	15	45
% Approach Total	58.8	41.2	0.0		46.2	53.8	0.0		40.0	60.0	0.0		
PHF	0.833	0.438	0.000	0.708	0.375	0.583	0.000	0.650	0.500	0.450	0.000	0.536	0.662
Entering Leg	10	7	0	17	6	7	0	13	6	9	0	15	45
Exiting Leg				15				13				17	45
Total				32				26				32	90

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	0	1	0	0	0	0	0	0	0	0	1
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				1	1
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Single-Unit Trucks	1	0	0	1	0	0	0	0	0	0	0	0	1
% Single-Unit	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Exiting Leg Total				0				0				1	1
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	0	0	0	0	0	0	0	1
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	1	0	0	1	0	0	0	0	0	0	0	0	1
Single-Unit %	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	1	0	0	1	0	0	0	0	0	0	0	0	1
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	1	0	0	1	0	0	0	0	0	0	0	0	1
Buses				0				0				0	0
Single-Unit Trucks				0				0				1	1
Articulated Trucks				0				0				0	0
Total Exiting Leg				0				0				1	1

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	3	2	0	5	0	0	0	0	0	0	0	0	5
4:15 PM	1	0	0	1	1	0	0	1	0	1	0	1	3
4:30 PM	0	1	0	1	0	0	0	0	0	2	0	2	3
4:45 PM	4	2	0	6	1	1	0	2	1	2	0	3	11
Total	8	5	0	13	2	1	0	3	1	5	0	6	22
5:00 PM	3	0	0	3	2	0	0	2	0	0	0	0	5
5:15 PM	2	3	0	5	3	1	0	4	3	4	0	7	16
5:30 PM	3	0	0	3	0	2	0	2	2	0	0	2	7
5:45 PM	2	4	0	6	0	1	0	1	1	3	0	4	11
Total	10	7	0	17	5	4	0	9	6	7	0	13	39
Grand Total	18	12	0	30	7	5	0	12	7	12	0	19	61
Approach %	60.0	40.0	0.0		58.3	41.7	0.0		36.8	63.2	0.0		
Total %	29.5	19.7	0.0	49.2	11.5	8.2	0.0	19.7	11.5	19.7	0.0	31.1	
Exiting Leg Total				19				19				23	61

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	3	2	0	5	0	0	0	0	0	0	0	0	5
4:15 PM	1	0	0	1	1	0	0	1	0	1	0	1	3
4:30 PM	0	1	0	1	0	0	0	0	0	2	0	2	3
4:45 PM	4	2	0	6	1	1	0	2	1	2	0	3	11
Total Volume	8	5	0	13	2	1	0	3	1	5	0	6	22
% Approach Total	61.5	38.5	0.0		66.7	33.3	0.0		16.7	83.3	0.0		
PHF	0.500	0.625	0.000	0.542	0.500	0.250	0.000	0.375	0.250	0.625	0.000	0.500	0.500
Entering Leg	8	5	0	13	2	1	0	3	1	5	0	6	22
Exiting Leg				7				6				9	22
Total				20				9				15	44

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
4:30 PM	0	1	0	1	0	0	0	0	0	2	0	2	3
4:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	2	1	0	3	0	0	0	0	0	2	0	2	5
5:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	2	0	2	0	2	0	2	4
Total	0	0	0	0	1	3	0	4	0	2	0	2	6
Grand Total	2	1	0	3	1	3	0	4	0	4	0	4	11
Approach %	66.7	33.3	0.0		25.0	75.0	0.0		0.0	100.0	0.0		
Total %	18.2	9.1	0.0	27.3	9.1	27.3	0.0	36.4	0.0	36.4	0.0	36.4	
Exiting Leg Total				5				1				5	11

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
4:30 PM	0	1	0	1	0	0	0	0	0	2	0	2	3
4:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	2	1	0	3	0	1	0	1	0	2	0	2	6
% Approach Total	66.7	33.3	0.0		0.0	100.0	0.0		0.0	100.0	0.0		
PHF	0.500	0.250	0.000	0.750	0.000	0.250	0.000	0.250	0.000	0.250	0.000	0.250	0.500
Entering Leg	2	1	0	3	0	1	0	1	0	2	0	2	6
Exiting Leg				2				1				3	6
Total				5				2				5	12

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	0	1	0	0	0	0	0	0	0	0	1
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				1	1

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	0	0	0	0	0	0	0	1
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	1	0	0	1	0	0	0	0	0	0	0	0	1
Exiting Leg				0				0				1	1
Total				1				0				1	2

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dimmock Street from North				Euclid Avenue from East				Euclid Avenue from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Dimmock Street						Euclid Avenue						Euclid Avenue						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dimmock Street						Euclid Avenue						Euclid Avenue						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 M**
Location: **N: Dimmock Street**
Location: **E: Euclid Avenue W: Euclid Avenue**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Dimmock Street from North						Euclid Avenue from East						Euclid Avenue from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	1	2
Total	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	3	3	4
Grand Total	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	5	5	6
Approach %	0	0	0	0	0		0	0	0	100	0		0	0	0	0	100		
Total %	0	0	0	0	0	0	0	0	0	16.667	0	16.667	0	0	0	0	83.333	83.333	
Exiting Leg Total						0						1						5	6

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dimmock Street from North						Euclid Avenue from East						Euclid Avenue from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.500
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
Exiting Leg						0						0						2	2
Total						0						0						4	4

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	1	0	1	1	0	0	1	2	1	0	3	5
7:15 AM	0	2	0	2	1	2	0	3	0	0	0	0	5
7:30 AM	0	1	0	1	2	0	0	2	1	1	0	2	5
7:45 AM	1	2	0	3	2	0	0	2	1	0	0	1	6
Total	1	6	0	7	6	2	0	8	4	2	0	6	21
8:00 AM	0	4	0	4	0	0	0	0	1	0	0	1	5
8:15 AM	0	1	0	1	1	1	0	2	0	1	0	1	4
8:30 AM	0	1	0	1	0	1	0	1	0	0	0	0	2
8:45 AM	0	1	0	1	2	0	1	3	1	0	0	1	5
Total	0	7	0	7	3	2	1	6	2	1	0	3	16
Grand Total	1	13	0	14	9	4	1	14	6	3	0	9	37
Approach %	7.1	92.9	0.0		64.3	28.6	7.1		66.7	33.3	0.0		
Total %	2.7	35.1	0.0	37.8	24.3	10.8	2.7	37.8	16.2	8.1	0.0	24.3	
Exiting Leg Total				12				20				5	37
Cars	0	13	0	13	9	4	1	14	6	3	0	9	36
% Cars	0.0	100.0	0.0	92.9	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	97.3
Exiting Leg Total				12				20				4	36
Heavy Vehicles	1	0	0	1	0	0	0	0	0	0	0	0	1
% Heavy Vehicles	100.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
Exiting Leg Total				0				0				1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	1	0	1	1	0	0	1	2	1	0	3	5
7:15 AM	0	2	0	2	1	2	0	3	0	0	0	0	5
7:30 AM	0	1	0	1	2	0	0	2	1	1	0	2	5
7:45 AM	1	2	0	3	2	0	0	2	1	0	0	1	6
Total Volume	1	6	0	7	6	2	0	8	4	2	0	6	21
% Approach Total	14.3	85.7	0.0		75.0	25.0	0.0		66.7	33.3	0.0		
PHF	0.250	0.750	0.000	0.583	0.750	0.250	0.000	0.667	0.500	0.500	0.000	0.500	0.875
Cars	0	6	0	6	6	2	0	8	4	2	0	6	20
Cars %	0.0	100.0	0.0	85.7	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	95.2
Heavy Vehicles	1	0	0	1	0	0	0	0	0	0	0	0	1
Heavy Vehicles %	100.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
Cars Enter Leg	0	6	0	6	6	2	0	8	4	2	0	6	20
Heavy Enter Leg	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Entering Leg	1	6	0	7	6	2	0	8	4	2	0	6	21
Cars Exiting Leg				8				10				2	20
Heavy Exiting Leg				0				0				1	1
Total Exiting Leg				8				10				3	21

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Euclid Avenue				Bedford Street				Bedford Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	1	0	1	1	0	0	1	2	1	0	3	5
7:15 AM	0	2	0	2	1	2	0	3	0	0	0	0	5
7:30 AM	0	1	0	1	2	0	0	2	1	1	0	2	5
7:45 AM	0	2	0	2	2	0	0	2	1	0	0	1	5
Total	0	6	0	6	6	2	0	8	4	2	0	6	20
8:00 AM	0	4	0	4	0	0	0	0	1	0	0	1	5
8:15 AM	0	1	0	1	1	1	0	2	0	1	0	1	4
8:30 AM	0	1	0	1	0	1	0	1	0	0	0	0	2
8:45 AM	0	1	0	1	2	0	1	3	1	0	0	1	5
Total	0	7	0	7	3	2	1	6	2	1	0	3	16
Grand Total	0	13	0	13	9	4	1	14	6	3	0	9	36
Approach %	0.0	100.0	0.0		64.3	28.6	7.1		66.7	33.3	0.0		
Total %	0.0	36.1	0.0	36.1	25.0	11.1	2.8	38.9	16.7	8.3	0.0	25.0	
Exiting Leg Total				12				20				4	36

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Euclid Avenue				Bedford Street				Bedford Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	1	0	1	1	0	0	1	2	1	0	3	5
7:15 AM	0	2	0	2	1	2	0	3	0	0	0	0	5
7:30 AM	0	1	0	1	2	0	0	2	1	1	0	2	5
7:45 AM	0	2	0	2	2	0	0	2	1	0	0	1	5
Total Volume	0	6	0	6	6	2	0	8	4	2	0	6	20
% Approach Total	0.0	100.0	0.0		75.0	25.0	0.0		66.7	33.3	0.0		
PHF	0.000	0.750	0.000	0.750	0.750	0.250	0.000	0.667	0.500	0.500	0.000	0.500	1.000
Entering Leg	0	6	0	6	6	2	0	8	4	2	0	6	20
Exiting Leg				8				10				2	20
Total				14				18				8	40

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Euclid Avenue				Bedford Street				Bedford Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	1	0	0	1	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	0	1	0	0	0	0	0	0	0	0	1
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				1	1
Buses	1	0	0	1	0	0	0	0	0	0	0	0	1
% Buses	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Exiting Leg Total				0				0				1	1
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Euclid Avenue				Bedford Street				Bedford Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Volume	1	0	0	1	0	0	0	0	0	0	0	0	1
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Buses	1	0	0	1	0	0	0	0	0	0	0	0	1
Buses %	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	1	0	0	1	0	0	0	0	0	0	0	0	1
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	1	0	0	1	0	0	0	0	0	0	0	0	1
Buses				0				0				1	1
Single-Unit Trucks				0				0				0	0
Articulated Trucks				0				0				0	0
Total Exiting Leg				0				0				1	1

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	1	0	1	1	0	0	1	2	1	0	3	5
7:15 AM	0	1	0	1	1	2	0	3	0	0	0	0	4
7:30 AM	0	1	0	1	2	0	0	2	1	1	0	2	5
7:45 AM	0	2	0	2	1	0	0	1	1	0	0	1	4
Total	0	5	0	5	5	2	0	7	4	2	0	6	18
8:00 AM	0	3	0	3	0	0	0	0	1	0	0	1	4
8:15 AM	0	1	0	1	1	1	0	2	0	1	0	1	4
8:30 AM	0	1	0	1	0	1	0	1	0	0	0	0	2
8:45 AM	0	1	0	1	2	0	1	3	1	0	0	1	5
Total	0	6	0	6	3	2	1	6	2	1	0	3	15
Grand Total	0	11	0	11	8	4	1	13	6	3	0	9	33
Approach %	0.0	100.0	0.0		61.5	30.8	7.7		66.7	33.3	0.0		
Total %	0.0	33.3	0.0	33.3	24.2	12.1	3.0	39.4	18.2	9.1	0.0	27.3	
Exiting Leg Total				11				18				4	33

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	1	0	1	1	0	0	1	2	1	0	3	5
7:15 AM	0	1	0	1	1	2	0	3	0	0	0	0	4
7:30 AM	0	1	0	1	2	0	0	2	1	1	0	2	5
7:45 AM	0	2	0	2	1	0	0	1	1	0	0	1	4
Total Volume	0	5	0	5	5	2	0	7	4	2	0	6	18
% Approach Total	0.0	100.0	0.0		71.4	28.6	0.0		66.7	33.3	0.0		
PHF	0.000	0.625	0.000	0.625	0.625	0.250	0.000	0.583	0.500	0.500	0.000	0.500	0.900
Entering Leg	0	5	0	5	5	2	0	7	4	2	0	6	18
Exiting Leg				7				9				2	18
Total				12				16				8	36

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Euclid Avenue				Bedford Street				Bedford Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	1	0	1	1	0	0	1	0	0	0	0	2
8:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	1
Grand Total	0	2	0	2	1	0	0	1	0	0	0	0	3
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	66.7	0.0	66.7	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	
Exiting Leg Total				1				2				0	3

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Euclid Avenue				Bedford Street				Bedford Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	2	1	0	0	1	0	0	0	0	3
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.500	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	2	0	2	1	0	0	1	0	0	0	0	3
Exiting Leg				1				2				0	3
Total				3				3				0	6

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	1	0	0	1	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	0	1	0	0	0	0	0	0	0	0	1
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Volume	1	0	0	1	0	0	0	0	0	0	0	0	1
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	1	0	0	1	0	0	0	0	0	0	0	0	1
Exiting Leg				0				0				1	1
Total				1				0				1	2

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Euclid Avenue						Bedford Street						Bedford Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Euclid Avenue						Bedford Street						Bedford Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Euclid Avenue						Bedford Street						Bedford Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
Grand Total	0	0	0	1	0	1	0	0	0	0	1	1	0	0	0	0	0	0	2
Approach %	0	0	0	100	0		0	0	0	0	100		0	0	0	0	0		
Total %	0	0	0	50	0	50	0	0	0	0	50	50	0	0	0	0	0	0	
Exiting Leg Total						1						1						0	2

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Euclid Avenue						Bedford Street						Bedford Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg						1						0						0	1
Total						2						0						0	2

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	2	2	0	4	0	0	0	0	4
4:15 PM	0	0	0	0	2	0	0	2	0	0	0	0	2
4:30 PM	1	2	0	3	2	1	0	3	2	0	0	2	8
4:45 PM	1	2	1	4	2	0	0	2	2	0	0	2	8
Total	2	4	1	7	8	3	0	11	4	0	0	4	22
5:00 PM	0	0	0	0	1	0	0	1	0	1	0	1	2
5:15 PM	1	1	0	2	3	1	0	4	1	0	0	1	7
5:30 PM	0	1	0	1	2	1	0	3	0	0	0	0	4
5:45 PM	0	3	0	3	2	1	0	3	0	1	0	1	7
Total	1	5	0	6	8	3	0	11	1	2	0	3	20
Grand Total	3	9	1	13	16	6	0	22	5	2	0	7	42
Approach %	23.1	69.2	7.7		72.7	27.3	0.0		71.4	28.6	0.0		
Total %	7.1	21.4	2.4	31.0	38.1	14.3	0.0	52.4	11.9	4.8	0.0	16.7	
Exiting Leg Total				19				14				9	42
Cars	3	9	1	13	16	6	0	22	5	2	0	7	42
% Cars	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0
Exiting Leg Total				19				14				9	42
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:30 PM	1	2	0	3	2	1	0	3	2	0	0	2	8
4:45 PM	1	2	1	4	2	0	0	2	2	0	0	2	8
5:00 PM	0	0	0	0	1	0	0	1	0	1	0	1	2
5:15 PM	1	1	0	2	3	1	0	4	1	0	0	1	7
Total Volume	3	5	1	9	8	2	0	10	5	1	0	6	25
% Approach Total	33.3	55.6	11.1		80.0	20.0	0.0		83.3	16.7	0.0		
PHF	0.750	0.625	0.250	0.563	0.667	0.500	0.000	0.625	0.625	0.250	0.000	0.750	0.781
Cars	3	5	1	9	8	2	0	10	5	1	0	6	25
Cars %	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cars Enter Leg	3	5	1	9	8	2	0	10	5	1	0	6	25
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	3	5	1	9	8	2	0	10	5	1	0	6	25
Cars Exiting Leg				10				10				5	25
Heavy Exiting Leg				0				0				0	0
Total Exiting Leg				10				10				5	25

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Euclid Avenue				Bedford Street				Bedford Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	2	2	0	4	0	0	0	0	4
4:15 PM	0	0	0	0	2	0	0	2	0	0	0	0	2
4:30 PM	1	2	0	3	2	1	0	3	2	0	0	2	8
4:45 PM	1	2	1	4	2	0	0	2	2	0	0	2	8
Total	2	4	1	7	8	3	0	11	4	0	0	4	22
5:00 PM	0	0	0	0	1	0	0	1	0	1	0	1	2
5:15 PM	1	1	0	2	3	1	0	4	1	0	0	1	7
5:30 PM	0	1	0	1	2	1	0	3	0	0	0	0	4
5:45 PM	0	3	0	3	2	1	0	3	0	1	0	1	7
Total	1	5	0	6	8	3	0	11	1	2	0	3	20
Grand Total	3	9	1	13	16	6	0	22	5	2	0	7	42
Approach %	23.1	69.2	7.7		72.7	27.3	0.0		71.4	28.6	0.0		
Total %	7.1	21.4	2.4	31.0	38.1	14.3	0.0	52.4	11.9	4.8	0.0	16.7	
Exiting Leg Total				19				14				9	42

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Euclid Avenue				Bedford Street				Bedford Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:30 PM	1	2	0	3	2	1	0	3	2	0	0	2	8
4:45 PM	1	2	1	4	2	0	0	2	2	0	0	2	8
5:00 PM	0	0	0	0	1	0	0	1	0	1	0	1	2
5:15 PM	1	1	0	2	3	1	0	4	1	0	0	1	7
Total Volume	3	5	1	9	8	2	0	10	5	1	0	6	25
% Approach Total	33.3	55.6	11.1		80.0	20.0	0.0		83.3	16.7	0.0		
PHF	0.750	0.625	0.250	0.563	0.667	0.500	0.000	0.625	0.625	0.250	0.000	0.750	0.781
Entering Leg	3	5	1	9	8	2	0	10	5	1	0	6	25
Exiting Leg				10				10				5	25
Total				19				20				11	50

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Euclid Avenue				Bedford Street				Bedford Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Euclid Avenue				Bedford Street				Bedford Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses				0				0				0	0
Single-Unit Trucks				0				0				0	0
Articulated Trucks				0				0				0	0
Total Exiting Leg				0				0				0	0

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	2	2	0	4	0	0	0	0	4
4:15 PM	0	0	0	0	2	0	0	2	0	0	0	0	2
4:30 PM	1	1	0	2	2	1	0	3	2	0	0	2	7
4:45 PM	1	2	1	4	2	0	0	2	2	0	0	2	8
Total	2	3	1	6	8	3	0	11	4	0	0	4	21
5:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
5:15 PM	1	1	0	2	3	1	0	4	1	0	0	1	7
5:30 PM	0	1	0	1	2	1	0	3	0	0	0	0	4
5:45 PM	0	3	0	3	1	1	0	2	0	0	0	0	5
Total	1	5	0	6	7	3	0	10	1	0	0	1	17
Grand Total	3	8	1	12	15	6	0	21	5	0	0	5	38
Approach %	25.0	66.7	8.3		71.4	28.6	0.0		100.0	0.0	0.0		
Total %	7.9	21.1	2.6	31.6	39.5	15.8	0.0	55.3	13.2	0.0	0.0	13.2	
Exiting Leg Total				16				13				9	38

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:30 PM	1	1	0	2	2	1	0	3	2	0	0	2	7
4:45 PM	1	2	1	4	2	0	0	2	2	0	0	2	8
5:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
5:15 PM	1	1	0	2	3	1	0	4	1	0	0	1	7
Total Volume	3	4	1	8	8	2	0	10	5	0	0	5	23
% Approach Total	37.5	50.0	12.5		80.0	20.0	0.0		100.0	0.0	0.0		
PHF	0.750	0.500	0.250	0.500	0.667	0.500	0.000	0.625	0.625	0.000	0.000	0.625	0.719
Entering Leg	3	4	1	8	8	2	0	10	5	0	0	5	23
Exiting Leg				9				9				5	23
Total				17				19				10	46

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Euclid Avenue				Bedford Street				Bedford Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	0	1	0	1	0	1	2
Total	0	0	0	0	1	0	0	1	0	2	0	2	3
Grand Total	0	1	0	1	1	0	0	1	0	2	0	2	4
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	25.0	0.0	25.0	25.0	0.0	0.0	25.0	0.0	50.0	0.0	50.0	
Exiting Leg Total				3				1				0	4

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Euclid Avenue				Bedford Street				Bedford Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	1	0	1	0	0	0	0	0	0	0	0	1
Exiting Leg				0				1				0	1
Total				1				1				0	2

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Euclid Avenue from North				Bedford Street from East				Bedford Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Euclid Avenue from North						Bedford Street from East						Bedford Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Euclid Avenue from North						Bedford Street from East						Bedford Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 N**
Location: **N: Euclid Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Euclid Avenue from North						Bedford Street from East						Bedford Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Euclid Avenue from North						Bedford Street from East						Bedford Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	1	0	1	0	33	0	0	33	4	0	2	0	6	0	39	0	0	39	79
7:15 AM	0	0	0	0	0	0	45	0	0	45	3	0	1	0	4	0	39	0	0	39	88
7:30 AM	0	0	0	0	0	0	43	0	0	43	2	0	1	0	3	0	43	0	0	43	89
7:45 AM	0	0	0	0	0	0	57	0	0	57	0	0	1	0	1	0	40	0	0	40	98
Total	0	0	1	0	1	0	178	0	0	178	9	0	5	0	14	0	161	0	0	161	354
8:00 AM	1	0	0	0	1	0	69	0	0	69	1	0	0	0	1	0	48	0	0	48	119
8:15 AM	0	0	0	0	0	0	41	0	0	41	1	0	1	0	2	1	31	0	0	32	75
8:30 AM	0	0	0	0	0	0	39	1	0	40	2	0	0	0	2	1	24	0	0	25	67
8:45 AM	0	0	0	0	0	1	37	2	0	40	1	0	0	0	1	0	34	0	0	34	75
Total	1	0	0	0	1	1	186	3	0	190	5	0	1	0	6	2	137	0	0	139	336
Grand Total	1	0	1	0	2	1	364	3	0	368	14	0	6	0	20	2	298	0	0	300	690
Approach %	50.0	0.0	50.0	0.0		0.3	98.9	0.8	0.0		70.0	0.0	30.0	0.0		0.7	99.3	0.0	0.0		
Total %	0.1	0.0	0.1	0.0	0.3	0.1	52.8	0.4	0.0	53.3	2.0	0.0	0.9	0.0	2.9	0.3	43.2	0.0	0.0	43.5	
Exiting Leg Total					1					313					5					371	690
Cars	1	0	1	0	2	1	352	3	0	356	14	0	6	0	20	2	291	0	0	293	671
% Cars	100.0	0.0	100.0	0.0	100.0	100.0	96.7	100.0	0.0	96.7	100.0	0.0	100.0	0.0	100.0	100.0	97.7	0.0	0.0	97.7	97.2
Exiting Leg Total					1					306					5					359	671
Heavy Vehicles	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	7	0	0	7	19
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	2.3	2.8
Exiting Leg Total					0					7					0					12	19

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	45	0	0	45	3	0	1	0	4	0	39	0	0	39	88
7:30 AM	0	0	0	0	0	0	43	0	0	43	2	0	1	0	3	0	43	0	0	43	89
7:45 AM	0	0	0	0	0	0	57	0	0	57	0	0	1	0	1	0	40	0	0	40	98
8:00 AM	1	0	0	0	1	0	69	0	0	69	1	0	0	0	1	0	48	0	0	48	119
Total Volume	1	0	0	0	1	0	214	0	0	214	6	0	3	0	9	0	170	0	0	170	394
% Approach Total	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		66.7	0.0	33.3	0.0		0.0	100.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.775	0.000	0.000	0.775	0.500	0.000	0.750	0.000	0.563	0.000	0.885	0.000	0.000	0.885	0.828
Cars	1	0	0	0	1	0	209	0	0	209	6	0	3	0	9	0	165	0	0	165	384
Cars %	100.0	0.0	0.0	0.0	100.0	0.0	97.7	0.0	0.0	97.7	100.0	0.0	100.0	0.0	100.0	0.0	97.1	0.0	0.0	97.1	97.5
Heavy Vehicles	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	5	0	0	5	10
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	2.9	2.5
Cars Enter Leg	1	0	0	0	1	0	209	0	0	209	6	0	3	0	9	0	165	0	0	165	384
Heavy Enter Leg	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	5	0	0	5	10
Total Entering Leg	1	0	0	0	1	0	214	0	0	214	6	0	3	0	9	0	170	0	0	170	394
Cars Exiting Leg					0					171					0					213	384
Heavy Exiting Leg					0					5					0					5	10
Total Exiting Leg					0					176					0					218	394

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	1	0	1	0	31	0	0	31	4	0	2	0	6	0	38	0	0	38	76
7:15 AM	0	0	0	0	0	0	45	0	0	45	3	0	1	0	4	0	38	0	0	38	87
7:30 AM	0	0	0	0	0	0	42	0	0	42	2	0	1	0	3	0	43	0	0	43	88
7:45 AM	0	0	0	0	0	0	55	0	0	55	0	0	1	0	1	0	37	0	0	37	93
Total	0	0	1	0	1	0	173	0	0	173	9	0	5	0	14	0	156	0	0	156	344
8:00 AM	1	0	0	0	1	0	67	0	0	67	1	0	0	0	1	0	47	0	0	47	116
8:15 AM	0	0	0	0	0	0	38	0	0	38	1	0	1	0	2	1	30	0	0	31	71
8:30 AM	0	0	0	0	0	0	38	1	0	39	2	0	0	0	2	1	24	0	0	25	66
8:45 AM	0	0	0	0	0	1	36	2	0	39	1	0	0	0	1	0	34	0	0	34	74
Total	1	0	0	0	1	1	179	3	0	183	5	0	1	0	6	2	135	0	0	137	327
Grand Total	1	0	1	0	2	1	352	3	0	356	14	0	6	0	20	2	291	0	0	293	671
Approach %	50.0	0.0	50.0	0.0		0.3	98.9	0.8	0.0		70.0	0.0	30.0	0.0		0.7	99.3	0.0	0.0		
Total %	0.1	0.0	0.1	0.0	0.3	0.1	52.5	0.4	0.0	53.1	2.1	0.0	0.9	0.0	3.0	0.3	43.4	0.0	0.0	43.7	
Exiting Leg Total					1					306					5					359	671

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	45	0	0	45	3	0	1	0	4	0	38	0	0	38	87
7:30 AM	0	0	0	0	0	0	42	0	0	42	2	0	1	0	3	0	43	0	0	43	88
7:45 AM	0	0	0	0	0	0	55	0	0	55	0	0	1	0	1	0	37	0	0	37	93
8:00 AM	1	0	0	0	1	0	67	0	0	67	1	0	0	0	1	0	47	0	0	47	116
Total Volume	1	0	0	0	1	0	209	0	0	209	6	0	3	0	9	0	165	0	0	165	384
% Approach Total	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		66.7	0.0	33.3	0.0		0.0	100.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.780	0.000	0.000	0.780	0.500	0.000	0.750	0.000	0.563	0.000	0.878	0.000	0.000	0.878	0.828
Entering Leg	1	0	0	0	1	0	209	0	0	209	6	0	3	0	9	0	165	0	0	165	384
Exiting Leg					0					171					0					213	384
Total					1					380					9					378	768

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Driveway from North					Whitwell Street from East					Klondike Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
Total	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	5	0	0	5	10
8:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
8:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	2	0	0	2	9
Grand Total	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	7	0	0	7	19
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	63.2	0.0	0.0	63.2	0.0	0.0	0.0	0.0	0.0	0.0	36.8	0.0	0.0	36.8	
Exiting Leg Total					0					7					0					12	19
Buses	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	42.9	0.0	0.0	42.9	31.6
Exiting Leg Total					0					3					0					3	6
Single-Unit Trucks	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	4	0	0	4	12
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	57.1	0.0	0.0	57.1	63.2
Exiting Leg Total					0					4					0					8	12
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
Exiting Leg Total					0					0					0					1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Driveway from North					Whitwell Street from East					Klondike Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
8:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
8:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
Total Volume	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	5	0	0	5	13
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.000	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.000	0.417	0.000	0.000	0.417	0.650
Buses	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	40.0	30.8
Single-Unit Trucks	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	62.5	0.0	0.0	62.5	0.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	60.0	61.5
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	12.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7
Buses	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
Single-Unit Trucks	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Entering Leg	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	5	0	0	5	13
Buses					0					2					0					2	4
Single-Unit Trucks					0					3					0					5	8
Articulated Trucks					0					0					0					1	1
Total Exiting Leg					0					5					0					8	13

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	1	0	1	0	26	0	0	26	4	0	2	0	6	0	34	0	0	34	67
7:15 AM	0	0	0	0	0	0	43	0	0	43	3	0	1	0	4	0	36	0	0	36	83
7:30 AM	0	0	0	0	0	0	39	0	0	39	2	0	1	0	3	0	40	0	0	40	82
7:45 AM	0	0	0	0	0	0	52	0	0	52	0	0	1	0	1	0	33	0	0	33	86
Total	0	0	1	0	1	0	160	0	0	160	9	0	5	0	14	0	143	0	0	143	318
8:00 AM	1	0	0	0	1	0	62	0	0	62	1	0	0	0	1	0	44	0	0	44	108
8:15 AM	0	0	0	0	0	0	35	0	0	35	1	0	1	0	2	0	28	0	0	28	65
8:30 AM	0	0	0	0	0	0	37	1	0	38	2	0	0	0	2	1	23	0	0	24	64
8:45 AM	0	0	0	0	0	1	35	2	0	38	1	0	0	0	1	0	34	0	0	34	73
Total	1	0	0	0	1	1	169	3	0	173	5	0	1	0	6	1	129	0	0	130	310
Grand Total	1	0	1	0	2	1	329	3	0	333	14	0	6	0	20	1	272	0	0	273	628
Approach %	50.0	0.0	50.0	0.0		0.3	98.8	0.9	0.0		70.0	0.0	30.0	0.0		0.4	99.6	0.0	0.0		
Total %	0.2	0.0	0.2	0.0	0.3	0.2	52.4	0.5	0.0	53.0	2.2	0.0	1.0	0.0	3.2	0.2	43.3	0.0	0.0	43.5	
Exiting Leg Total					1					287					4					336	628

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	43	0	0	43	3	0	1	0	4	0	36	0	0	36	83
7:30 AM	0	0	0	0	0	0	39	0	0	39	2	0	1	0	3	0	40	0	0	40	82
7:45 AM	0	0	0	0	0	0	52	0	0	52	0	0	1	0	1	0	33	0	0	33	86
8:00 AM	1	0	0	0	1	0	62	0	0	62	1	0	0	0	1	0	44	0	0	44	108
Total Volume	1	0	0	0	1	0	196	0	0	196	6	0	3	0	9	0	153	0	0	153	359
% Approach Total	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		66.7	0.0	33.3	0.0		0.0	100.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.790	0.000	0.000	0.790	0.500	0.000	0.750	0.000	0.563	0.000	0.869	0.000	0.000	0.869	0.831
Entering Leg	1	0	0	0	1	0	196	0	0	196	6	0	3	0	9	0	153	0	0	153	359
Exiting Leg					0					159					0					200	359
Total					1					355					9					353	718

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Driveway from North					Whitwell Street from East					Klondike Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	9
7:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
7:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
7:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	7
Total	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	13	0	0	13	26
8:00 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
8:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	1	2	0	0	3	6
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
8:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	1	6	0	0	7	17
Grand Total	0	0	0	0	0	0	23	0	0	23	0	0	0	0	0	1	19	0	0	20	43
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		5.0	95.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	53.5	0.0	0.0	53.5	0.0	0.0	0.0	0.0	0.0	2.3	44.2	0.0	0.0	46.5	
Exiting Leg Total					0					19					1					23	43

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Driveway from North					Whitwell Street from East					Klondike Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
7:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	7
8:00 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
8:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	1	2	0	0	3	6
Total Volume	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	1	12	0	0	13	27
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		7.7	92.3	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.700	0.000	0.000	0.700	0.000	0.000	0.000	0.000	0.000	0.250	0.750	0.000	0.000	0.813	0.844
Entering Leg	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	1	12	0	0	13	27
Exiting Leg					0					12					1					14	27
Total					0					26					1					27	54

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Grand Total	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	
Exiting Leg Total					0					3					0					3	6

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total Volume	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.500
Entering Leg	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
Exiting Leg					0					2					0					2	4
Total					0					4					0					4	8

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
Total	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
8:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	6
Grand Total	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	4	0	0	4	12
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	
Exiting Leg Total					0					4					0					8	12

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
8:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total Volume	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.375	0.667
Entering Leg	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
Exiting Leg					0					3					0					5	8
Total					0					8					0					8	16

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg					0					0					0					1	1
Total					0					1					0					1	2

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Driveway							Whitwell Street							Klondike Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							0							0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Driveway							Whitwell Street							Klondike Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg							0							0							0							0	0
Total							0							0							0							0	0

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Driveway							Whitwell Street							Klondike Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	4
7:15 AM	0	0	0	0	2	0	2	0	0	0	0	0	2	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	5
7:30 AM	0	0	0	0	3	1	4	0	0	0	0	0	2	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	8
7:45 AM	0	0	0	0	2	0	2	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	4
Total	0	0	0	0	10	1	11	0	0	0	0	0	5	5	0	0	0	0	0	5	5	0	0	0	0	0	0	0	21
8:00 AM	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	2	0	2	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	0	0	0	5
8:30 AM	0	0	0	0	3	0	3	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	1	0	1	6
8:45 AM	0	0	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	8
Total	0	0	0	0	14	0	14	0	0	0	0	0	2	2	0	0	0	0	1	4	5	0	0	0	0	1	0	1	22
Grand Total	0	0	0	0	24	1	25	0	0	0	0	0	7	7	0	0	0	0	1	9	10	0	0	0	0	1	0	1	43
Approach %	0	0	0	0	96	4		0	0	0	0	0	100		0	0	0	0	10	90		0	0	0	0	100	0		
Total %	0	0	0	0	55.8	2.33	58.1	0	0	0	0	0	16.3	16.3	0	0	0	0	2.33	20.9	23.3	0	0	0	0	2.33	0	2.33	
Exiting Leg Total							25							7							10							1	43

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Driveway							Whitwell Street							Klondike Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	2	0	2	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	0	0	0	5
8:30 AM	0	0	0	0	3	0	3	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	1	0	1	6
8:45 AM	0	0	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	8
Total Volume	0	0	0	0	14	0	14	0	0	0	0	0	2	2	0	0	0	0	1	4	5	0	0	0	0	1	0	1	22
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	20.0	80.0		0.0	0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.583	0.000	0.583	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.000	0.250	0.500	0.625	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.688
Entering Leg	0	0	0	0	14	0	14	0	0	0	0	0	2	2	0	0	0	0	1	4	5	0	0	0	0	1	0	1	22
Exiting Leg							14							2							5							1	22
Total							28							4							10							2	44

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	50	0	0	50	0	0	0	0	0	1	54	0	0	55	105
4:15 PM	0	0	0	0	0	0	49	4	0	53	0	0	0	0	0	2	52	0	0	54	107
4:30 PM	0	0	0	0	0	0	55	1	0	56	0	0	2	0	2	0	45	0	0	45	103
4:45 PM	0	0	0	0	0	0	29	1	0	30	1	0	2	0	3	0	48	0	0	48	81
Total	0	0	0	0	0	0	183	6	0	189	1	0	4	0	5	3	199	0	0	202	396
5:00 PM	0	0	0	0	0	0	33	2	0	35	1	0	0	0	1	0	50	0	0	50	86
5:15 PM	0	0	0	0	0	0	50	4	0	54	1	0	1	0	2	0	49	0	0	49	105
5:30 PM	0	0	0	0	0	0	46	3	0	49	3	0	0	0	3	2	52	0	0	54	106
5:45 PM	0	0	0	0	0	0	37	0	0	37	0	0	0	0	0	1	56	0	0	57	94
Total	0	0	0	0	0	0	166	9	0	175	5	0	1	0	6	3	207	0	0	210	391
Grand Total	0	0	0	0	0	0	349	15	0	364	6	0	5	0	11	6	406	0	0	412	787
Approach %	0.0	0.0	0.0	0.0		0.0	95.9	4.1	0.0		54.5	0.0	45.5	0.0		1.5	98.5	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	44.3	1.9	0.0	46.3	0.8	0.0	0.6	0.0	1.4	0.8	51.6	0.0	0.0	52.4	
Exiting Leg Total					0					412					21					354	787
Cars	0	0	0	0	0	0	340	15	0	355	6	0	4	0	10	6	395	0	0	401	766
% Cars	0.0	0.0	0.0	0.0	0.0	0.0	97.4	100.0	0.0	97.5	100.0	0.0	80.0	0.0	90.9	100.0	97.3	0.0	0.0	97.3	97.3
Exiting Leg Total					0					401					21					344	766
Heavy Vehicles	0	0	0	0	0	0	9	0	0	9	0	0	1	0	1	0	11	0	0	11	21
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	2.5	0.0	0.0	20.0	0.0	9.1	0.0	2.7	0.0	0.0	2.7	2.7
Exiting Leg Total					0					11					0					10	21

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	50	0	0	50	0	0	0	0	0	1	54	0	0	55	105
4:15 PM	0	0	0	0	0	0	49	4	0	53	0	0	0	0	0	2	52	0	0	54	107
4:30 PM	0	0	0	0	0	0	55	1	0	56	0	0	2	0	2	0	45	0	0	45	103
4:45 PM	0	0	0	0	0	0	29	1	0	30	1	0	2	0	3	0	48	0	0	48	81
Total Volume	0	0	0	0	0	0	183	6	0	189	1	0	4	0	5	3	199	0	0	202	396
% Approach Total	0.0	0.0	0.0	0.0		0.0	96.8	3.2	0.0		20.0	0.0	80.0	0.0		1.5	98.5	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.832	0.375	0.000	0.844	0.250	0.000	0.500	0.000	0.417	0.375	0.921	0.000	0.000	0.918	0.925
Cars	0	0	0	0	0	0	178	6	0	184	1	0	3	0	4	3	193	0	0	196	384
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	97.3	100.0	0.0	97.4	100.0	0.0	75.0	0.0	80.0	100.0	97.0	0.0	0.0	97.0	97.0
Heavy Vehicles	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	0	6	0	0	6	12
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	2.6	0.0	0.0	25.0	0.0	20.0	0.0	3.0	0.0	0.0	3.0	3.0
Cars Enter Leg	0	0	0	0	0	0	178	6	0	184	1	0	3	0	4	3	193	0	0	196	384
Heavy Enter Leg	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	0	6	0	0	6	12
Total Entering Leg	0	0	0	0	0	0	183	6	0	189	1	0	4	0	5	3	199	0	0	202	396
Cars Exiting Leg					0					194					9					181	384
Heavy Exiting Leg					0					6					0					6	12
Total Exiting Leg					0					200					9					187	396

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Driveway from North					Whitwell Street from East					Klondike Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	49	0	0	49	0	0	0	0	0	1	51	0	0	52	101
4:15 PM	0	0	0	0	0	0	47	4	0	51	0	0	0	0	0	2	51	0	0	53	104
4:30 PM	0	0	0	0	0	0	55	1	0	56	0	0	1	0	1	0	44	0	0	44	101
4:45 PM	0	0	0	0	0	0	27	1	0	28	1	0	2	0	3	0	47	0	0	47	78
Total	0	0	0	0	0	0	178	6	0	184	1	0	3	0	4	3	193	0	0	196	384
5:00 PM	0	0	0	0	0	0	32	2	0	34	1	0	0	0	1	0	47	0	0	47	82
5:15 PM	0	0	0	0	0	0	49	4	0	53	1	0	1	0	2	0	49	0	0	49	104
5:30 PM	0	0	0	0	0	0	45	3	0	48	3	0	0	0	3	2	50	0	0	52	103
5:45 PM	0	0	0	0	0	0	36	0	0	36	0	0	0	0	0	1	56	0	0	57	93
Total	0	0	0	0	0	0	162	9	0	171	5	0	1	0	6	3	202	0	0	205	382
Grand Total	0	0	0	0	0	0	340	15	0	355	6	0	4	0	10	6	395	0	0	401	766
Approach %	0.0	0.0	0.0	0.0		0.0	95.8	4.2	0.0		60.0	0.0	40.0	0.0		1.5	98.5	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	44.4	2.0	0.0	46.3	0.8	0.0	0.5	0.0	1.3	0.8	51.6	0.0	0.0	52.3	
Exiting Leg Total					0					401					21					344	766

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Driveway from North					Whitwell Street from East					Klondike Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	49	0	0	49	0	0	0	0	0	1	51	0	0	52	101
4:15 PM	0	0	0	0	0	0	47	4	0	51	0	0	0	0	0	2	51	0	0	53	104
4:30 PM	0	0	0	0	0	0	55	1	0	56	0	0	1	0	1	0	44	0	0	44	101
4:45 PM	0	0	0	0	0	0	27	1	0	28	1	0	2	0	3	0	47	0	0	47	78
Total Volume	0	0	0	0	0	0	178	6	0	184	1	0	3	0	4	3	193	0	0	196	384
% Approach Total	0.0	0.0	0.0	0.0		0.0	96.7	3.3	0.0		25.0	0.0	75.0	0.0		1.5	98.5	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.809	0.375	0.000	0.821	0.250	0.000	0.375	0.000	0.333	0.375	0.946	0.000	0.000	0.925	0.923
Entering Leg	0	0	0	0	0	0	178	6	0	184	1	0	3	0	4	3	193	0	0	196	384
Exiting Leg					0					194					9					181	384
Total					0					378					13					377	768

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Driveway from North					Whitwell Street from East					Klondike Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4
4:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	2
4:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
Total	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	0	6	0	0	6	12
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	9
Grand Total	0	0	0	0	0	0	9	0	0	9	0	0	1	0	1	0	11	0	0	11	21
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	42.9	0.0	0.0	42.9	0.0	0.0	4.8	0.0	4.8	0.0	52.4	0.0	0.0	52.4	
Exiting Leg Total					0					11					0					10	21
Buses	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	9
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	44.4	0.0	0.0	44.4	0.0	0.0	0.0	0.0	0.0	0.0	45.5	0.0	0.0	45.5	42.9
Exiting Leg Total					0					5					0					4	9
Single-Unit Trucks	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	0	6	0	0	6	12
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	55.6	0.0	0.0	55.6	0.0	0.0	100.0	0.0	100.0	0.0	54.5	0.0	0.0	54.5	57.1
Exiting Leg Total					0					6					0					6	12
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Driveway from North					Whitwell Street from East					Klondike Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4
4:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	2
4:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
Total Volume	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	0	6	0	0	6	12
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.625	0.000	0.000	0.250	0.000	0.250	0.000	0.500	0.000	0.000	0.500	0.750
Buses	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	25.0
Single-Unit Trucks	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	4	0	0	4	9
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	80.0	0.0	0.0	80.0	0.0	0.0	100.0	0.0	100.0	0.0	66.7	0.0	0.0	66.7	75.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
Single-Unit Trucks	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	4	0	0	4	9
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	0	6	0	0	6	12
Buses					0					2					0					1	3
Single-Unit Trucks					0					4					0					5	9
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					0					6					0					6	12

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	43	0	0	43	0	0	0	0	0	1	46	0	0	47	90
4:15 PM	0	0	0	0	0	0	46	4	0	50	0	0	0	0	0	2	44	0	0	46	96
4:30 PM	0	0	0	0	0	0	47	1	0	48	0	0	1	0	1	0	37	0	0	37	86
4:45 PM	0	0	0	0	0	0	24	1	0	25	1	0	2	0	3	0	41	0	0	41	69
Total	0	0	0	0	0	0	160	6	0	166	1	0	3	0	4	3	168	0	0	171	341
5:00 PM	0	0	0	0	0	0	29	2	0	31	0	0	0	0	0	0	44	0	0	44	75
5:15 PM	0	0	0	0	0	0	48	3	0	51	1	0	1	0	2	0	47	0	0	47	100
5:30 PM	0	0	0	0	0	0	43	3	0	46	3	0	0	0	3	2	44	0	0	46	95
5:45 PM	0	0	0	0	0	0	35	0	0	35	0	0	0	0	0	1	53	0	0	54	89
Total	0	0	0	0	0	0	155	8	0	163	4	0	1	0	5	3	188	0	0	191	359
Grand Total	0	0	0	0	0	0	315	14	0	329	5	0	4	0	9	6	356	0	0	362	700
Approach %	0.0	0.0	0.0	0.0		0.0	95.7	4.3	0.0		55.6	0.0	44.4	0.0		1.7	98.3	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	45.0	2.0	0.0	47.0	0.7	0.0	0.6	0.0	1.3	0.9	50.9	0.0	0.0	51.7	
Exiting Leg Total					0					361					20					319	700

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	43	0	0	43	0	0	0	0	0	1	46	0	0	47	90
4:15 PM	0	0	0	0	0	0	46	4	0	50	0	0	0	0	0	2	44	0	0	46	96
4:30 PM	0	0	0	0	0	0	47	1	0	48	0	0	1	0	1	0	37	0	0	37	86
4:45 PM	0	0	0	0	0	0	24	1	0	25	1	0	2	0	3	0	41	0	0	41	69
Total Volume	0	0	0	0	0	0	160	6	0	166	1	0	3	0	4	3	168	0	0	171	341
% Approach Total	0.0	0.0	0.0	0.0		0.0	96.4	3.6	0.0		25.0	0.0	75.0	0.0		1.8	98.2	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.851	0.375	0.000	0.830	0.250	0.000	0.375	0.000	0.333	0.375	0.913	0.000	0.000	0.910	0.888
Entering Leg	0	0	0	0	0	0	160	6	0	166	1	0	3	0	4	3	168	0	0	171	341
Exiting Leg					0					169					9					163	341
Total					0					335					13					334	682

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	5	0	0	5	11
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	7	0	0	7	8
4:30 PM	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	7	0	0	7	15
4:45 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	6	0	0	6	9
Total	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	0	25	0	0	25	43
5:00 PM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	0	3	0	0	3	7
5:15 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	2	0	0	2	4
5:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	6	0	0	6	8
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4
Total	0	0	0	0	0	0	7	1	0	8	1	0	0	0	1	0	14	0	0	14	23
Grand Total	0	0	0	0	0	0	25	1	0	26	1	0	0	0	1	0	39	0	0	39	66
Approach %	0.0	0.0	0.0	0.0		0.0	96.2	3.8	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	37.9	1.5	0.0	39.4	1.5	0.0	0.0	0.0	1.5	0.0	59.1	0.0	0.0	59.1	
Exiting Leg Total					0					40					1					25	66

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	5	0	0	5	11
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	7	0	0	7	8
4:30 PM	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	7	0	0	7	15
4:45 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	6	0	0	6	9
Total Volume	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	0	25	0	0	25	43
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.563	0.000	0.000	0.563	0.000	0.000	0.000	0.000	0.000	0.000	0.893	0.000	0.000	0.893	0.717
Entering Leg	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	0	25	0	0	25	43
Exiting Leg					0					25					0					18	43
Total					0					43					0					43	86

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Driveway from North					Whitwell Street from East					Klondike Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
Grand Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	9
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	44.4	0.0	0.0	44.4	0.0	0.0	0.0	0.0	0.0	0.0	55.6	0.0	0.0	55.6	
Exiting Leg Total					0					5					0					4	9

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Driveway from North					Whitwell Street from East					Klondike Street from South					Whitwell Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
Total Volume	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.375	0.500
Entering Leg	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
Exiting Leg					0					3					0					3	6
Total					0					6					0					6	12

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
Total	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	4	0	0	4	9
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
Grand Total	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	0	6	0	0	6	12
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	41.7	0.0	0.0	41.7	0.0	0.0	8.3	0.0	8.3	0.0	50.0	0.0	0.0	50.0	
Exiting Leg Total					0					6					0					6	12

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
Total Volume	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	4	0	0	4	9
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.250	0.000	0.250	0.000	0.500	0.000	0.000	0.500	0.750
Entering Leg	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	4	0	0	4	9
Exiting Leg					0					4					0					5	9
Total					0					8					1					9	18

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Driveway					Whitwell Street					Klondike Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg					0					0					0					0	0
Total					0					0					0					0	0

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Driveway							Whitwell Street							Klondike Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							0							0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Driveway							Whitwell Street							Klondike Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg							0							0							0							0	0
Total							0							0							0							0	0

PDI File #: **186173 O**
Location: **N: Driveway S: Klondike Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

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Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Driveway							Whitwell Street							Klondike Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	5
5:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	3
5:15 PM	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	2	3	0	0	0	0	0	0	0	4
Total	0	0	0	0	2	5	7	0	0	0	0	1	0	1	0	0	0	0	2	2	4	0	0	0	0	1	1	2	14
Grand Total	0	0	0	0	3	7	10	0	0	0	0	1	0	1	0	0	0	0	4	2	6	0	0	0	0	1	1	2	19
Approach %	0	0	0	0	30	70		0	0	0	0	100	0		0	0	0	0	66.7	33.3		0	0	0	0	50	50		
Total %	0	0	0	0	15.8	36.8	52.6	0	0	0	0	5.26	0	5.26	0	0	0	0	21.1	10.5	31.6	0	0	0	0	5.26	5.26	10.5	
Exiting Leg Total							10							1							6							2	19

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Driveway							Whitwell Street							Klondike Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	5
% Approach Total	0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.500	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625
Entering Leg	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	5
Exiting Leg							3							0							2							0	5
Total							6							0							4							0	10

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	1	2	0	3	3
7:15 AM	1	1	0	2	0	0	0	0	0	2	0	2	4
7:30 AM	0	1	0	1	2	0	0	2	2	1	0	3	6
7:45 AM	2	2	0	4	1	1	0	2	2	3	0	5	11
Total	3	4	0	7	3	1	0	4	5	8	0	13	24
8:00 AM	0	4	0	4	0	0	0	0	1	5	0	6	10
8:15 AM	3	1	0	4	0	0	0	0	0	3	0	3	7
8:30 AM	2	0	0	2	1	0	0	1	0	0	0	0	3
8:45 AM	1	2	0	3	0	0	0	0	0	5	0	5	8
Total	6	7	0	13	1	0	0	1	1	13	0	14	28
Grand Total	9	11	0	20	4	1	0	5	6	21	0	27	52
Approach %	45.0	55.0	0.0		80.0	20.0	0.0		22.2	77.8	0.0		
Total %	17.3	21.2	0.0	38.5	7.7	1.9	0.0	9.6	11.5	40.4	0.0	51.9	
Exiting Leg Total				25				17				10	52
Cars	9	11	0	20	4	1	0	5	6	21	0	27	52
% Cars	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0
Exiting Leg Total				25				17				10	52
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:30 AM	0	1	0	1	2	0	0	2	2	1	0	3	6
7:45 AM	2	2	0	4	1	1	0	2	2	3	0	5	11
8:00 AM	0	4	0	4	0	0	0	0	1	5	0	6	10
8:15 AM	3	1	0	4	0	0	0	0	0	3	0	3	7
Total Volume	5	8	0	13	3	1	0	4	5	12	0	17	34
% Approach Total	38.5	61.5	0.0		75.0	25.0	0.0		29.4	70.6	0.0		
PHF	0.417	0.500	0.000	0.813	0.375	0.250	0.000	0.500	0.625	0.600	0.000	0.708	0.773
Cars	5	8	0	13	3	1	0	4	5	12	0	17	34
Cars %	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cars Enter Leg	5	8	0	13	3	1	0	4	5	12	0	17	34
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	5	8	0	13	3	1	0	4	5	12	0	17	34
Cars Exiting Leg				15				13				6	34
Heavy Exiting Leg				0				0				0	0
Total Exiting Leg				15				13				6	34

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	1	2	0	3	3
7:15 AM	1	1	0	2	0	0	0	0	0	2	0	2	4
7:30 AM	0	1	0	1	2	0	0	2	2	1	0	3	6
7:45 AM	2	2	0	4	1	1	0	2	2	3	0	5	11
Total	3	4	0	7	3	1	0	4	5	8	0	13	24
8:00 AM	0	4	0	4	0	0	0	0	1	5	0	6	10
8:15 AM	3	1	0	4	0	0	0	0	0	3	0	3	7
8:30 AM	2	0	0	2	1	0	0	1	0	0	0	0	3
8:45 AM	1	2	0	3	0	0	0	0	0	5	0	5	8
Total	6	7	0	13	1	0	0	1	1	13	0	14	28
Grand Total	9	11	0	20	4	1	0	5	6	21	0	27	52
Approach %	45.0	55.0	0.0		80.0	20.0	0.0		22.2	77.8	0.0		
Total %	17.3	21.2	0.0	38.5	7.7	1.9	0.0	9.6	11.5	40.4	0.0	51.9	
Exiting Leg Total				25				17				10	52

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:30 AM	0	1	0	1	2	0	0	2	2	1	0	3	6
7:45 AM	2	2	0	4	1	1	0	2	2	3	0	5	11
8:00 AM	0	4	0	4	0	0	0	0	1	5	0	6	10
8:15 AM	3	1	0	4	0	0	0	0	0	3	0	3	7
Total Volume	5	8	0	13	3	1	0	4	5	12	0	17	34
% Approach Total	38.5	61.5	0.0		75.0	25.0	0.0		29.4	70.6	0.0		
PHF	0.417	0.500	0.000	0.813	0.375	0.250	0.000	0.500	0.625	0.600	0.000	0.708	0.773
Entering Leg	5	8	0	13	3	1	0	4	5	12	0	17	34
Exiting Leg				15				13				6	34
Total				28				17				23	68

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Bedford Street				Maywood Avenue				Bedford Street				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Bedford Street				Maywood Avenue				Bedford Street				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses				0				0				0	0
Single-Unit Trucks				0				0				0	0
Articulated Trucks				0				0				0	0
Total Exiting Leg				0				0				0	0

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	1	1	0	2	2
7:15 AM	1	1	0	2	0	0	0	0	0	1	0	1	3
7:30 AM	0	0	0	0	2	0	0	2	2	1	0	3	5
7:45 AM	2	2	0	4	1	1	0	2	2	3	0	5	11
Total	3	3	0	6	3	1	0	4	5	6	0	11	21
8:00 AM	0	4	0	4	0	0	0	0	0	4	0	4	8
8:15 AM	3	1	0	4	0	0	0	0	0	3	0	3	7
8:30 AM	2	0	0	2	1	0	0	1	0	0	0	0	3
8:45 AM	1	2	0	3	0	0	0	0	0	5	0	5	8
Total	6	7	0	13	1	0	0	1	0	12	0	12	26
Grand Total	9	10	0	19	4	1	0	5	5	18	0	23	47
Approach %	47.4	52.6	0.0		80.0	20.0	0.0		21.7	78.3	0.0		
Total %	19.1	21.3	0.0	40.4	8.5	2.1	0.0	10.6	10.6	38.3	0.0	48.9	
Exiting Leg Total				22				15				10	47

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:30 AM	0	0	0	0	2	0	0	2	2	1	0	3	5
7:45 AM	2	2	0	4	1	1	0	2	2	3	0	5	11
8:00 AM	0	4	0	4	0	0	0	0	0	4	0	4	8
8:15 AM	3	1	0	4	0	0	0	0	0	3	0	3	7
Total Volume	5	7	0	12	3	1	0	4	4	11	0	15	31
% Approach Total	41.7	58.3	0.0		75.0	25.0	0.0		26.7	73.3	0.0		
PHF	0.417	0.438	0.000	0.750	0.375	0.250	0.000	0.500	0.500	0.688	0.000	0.750	0.705
Entering Leg	5	7	0	12	3	1	0	4	4	11	0	15	31
Exiting Leg				14				11				6	31
Total				26				15				21	62

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	2	0	2	3
8:00 AM	0	0	0	0	0	0	0	0	1	1	0	2	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	1	0	2	2
Grand Total	0	1	0	1	0	0	0	0	1	3	0	4	5
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		25.0	75.0	0.0		
Total %	0.0	20.0	0.0	20.0	0.0	0.0	0.0	0.0	20.0	60.0	0.0	80.0	
Exiting Leg Total				3				2				0	5

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	1	1	0	2	2
Total Volume	0	1	0	1	0	0	0	0	1	2	0	3	4
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		33.3	66.7	0.0		
PHF	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.500	0.000	0.375	0.500
Entering Leg	0	1	0	1	0	0	0	0	1	2	0	3	4
Exiting Leg				2				2				0	4
Total				3				2				3	8

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Bedford Street						Maywood Avenue						Bedford Street						
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Bedford Street						Maywood Avenue						Bedford Street						
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Bedford Street from East						Maywood Avenue from South						Bedford Street from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	1	2	3	0	0	0	0	3	3	0	0	0	0	0	0	6
7:15 AM	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	2	1	3	0	0	0	0	2	2	0	0	0	0	0	0	5
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
Total	0	0	0	3	5	8	0	0	0	0	6	6	0	0	0	0	0	0	14
8:00 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	1	1	2	4
8:15 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	3	3	0	0	0	1	2	3	0	0	0	1	1	2	8
Grand Total	0	0	0	3	8	11	0	0	0	1	8	9	0	0	0	1	1	2	22
Approach %	0	0	0	27.273	72.727		0	0	0	11.111	88.889		0	0	0	50	50		
Total %	0	0	0	13.636	36.364	50	0	0	0	4.5455	36.364	40.909	0	0	0	4.5455	4.5455	9.0909	
Exiting Leg Total						11						9						2	22

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Bedford Street from East						Maywood Avenue from South						Bedford Street from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	1	2	3	0	0	0	0	3	3	0	0	0	0	0	0	6
7:15 AM	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	2	1	3	0	0	0	0	2	2	0	0	0	0	0	0	5
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
Total Volume	0	0	0	3	5	8	0	0	0	0	6	6	0	0	0	0	0	0	14
% Approach Total	0.0	0.0	0.0	37.5	62.5		0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.375	0.625	0.667	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.583
Entering Leg	0	0	0	3	5	8	0	0	0	0	6	6	0	0	0	0	0	0	14
Exiting Leg						8						6						0	14
Total						16						12						0	28

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	2	3	0	5	1	1	0	2	1	0	0	1	8
4:15 PM	2	1	0	3	0	1	0	1	0	1	0	1	5
4:30 PM	3	0	0	3	0	0	0	0	0	3	0	3	6
4:45 PM	1	1	0	2	1	0	0	1	0	4	0	4	7
Total	8	5	0	13	2	2	0	4	1	8	0	9	26
5:00 PM	2	0	0	2	0	1	0	1	0	0	0	0	3
5:15 PM	6	4	0	10	1	0	0	1	1	1	0	2	13
5:30 PM	3	2	0	5	2	1	0	3	0	2	0	2	10
5:45 PM	3	0	0	3	2	0	0	2	2	1	0	3	8
Total	14	6	0	20	5	2	0	7	3	4	0	7	34
Grand Total	22	11	0	33	7	4	0	11	4	12	0	16	60
Approach %	66.7	33.3	0.0		63.6	36.4	0.0		25.0	75.0	0.0		
Total %	36.7	18.3	0.0	55.0	11.7	6.7	0.0	18.3	6.7	20.0	0.0	26.7	
Exiting Leg Total				19				15				26	60
Cars	22	11	0	33	7	4	0	11	4	12	0	16	60
% Cars	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0
Exiting Leg Total				19				15				26	60
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
5:00 PM	2	0	0	2	0	1	0	1	0	0	0	0	3
5:15 PM	6	4	0	10	1	0	0	1	1	1	0	2	13
5:30 PM	3	2	0	5	2	1	0	3	0	2	0	2	10
5:45 PM	3	0	0	3	2	0	0	2	2	1	0	3	8
Total Volume	14	6	0	20	5	2	0	7	3	4	0	7	34
% Approach Total	70.0	30.0	0.0		71.4	28.6	0.0		42.9	57.1	0.0		
PHF	0.583	0.375	0.000	0.500	0.625	0.500	0.000	0.583	0.375	0.500	0.000	0.583	0.654
Cars	14	6	0	20	5	2	0	7	3	4	0	7	34
Cars %	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cars Enter Leg	14	6	0	20	5	2	0	7	3	4	0	7	34
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	14	6	0	20	5	2	0	7	3	4	0	7	34
Cars Exiting Leg				9				9				16	34
Heavy Exiting Leg				0				0				0	0
Total Exiting Leg				9				9				16	34

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	2	3	0	5	1	1	0	2	1	0	0	1	8
4:15 PM	2	1	0	3	0	1	0	1	0	1	0	1	5
4:30 PM	3	0	0	3	0	0	0	0	0	3	0	3	6
4:45 PM	1	1	0	2	1	0	0	1	0	4	0	4	7
Total	8	5	0	13	2	2	0	4	1	8	0	9	26
5:00 PM	2	0	0	2	0	1	0	1	0	0	0	0	3
5:15 PM	6	4	0	10	1	0	0	1	1	1	0	2	13
5:30 PM	3	2	0	5	2	1	0	3	0	2	0	2	10
5:45 PM	3	0	0	3	2	0	0	2	2	1	0	3	8
Total	14	6	0	20	5	2	0	7	3	4	0	7	34
Grand Total	22	11	0	33	7	4	0	11	4	12	0	16	60
Approach %	66.7	33.3	0.0		63.6	36.4	0.0		25.0	75.0	0.0		
Total %	36.7	18.3	0.0	55.0	11.7	6.7	0.0	18.3	6.7	20.0	0.0	26.7	
Exiting Leg Total				19				15				26	60

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
5:00 PM	2	0	0	2	0	1	0	1	0	0	0	0	3
5:15 PM	6	4	0	10	1	0	0	1	1	1	0	2	13
5:30 PM	3	2	0	5	2	1	0	3	0	2	0	2	10
5:45 PM	3	0	0	3	2	0	0	2	2	1	0	3	8
Total Volume	14	6	0	20	5	2	0	7	3	4	0	7	34
% Approach Total	70.0	30.0	0.0		71.4	28.6	0.0		42.9	57.1	0.0		
PHF	0.583	0.375	0.000	0.500	0.625	0.500	0.000	0.583	0.375	0.500	0.000	0.583	0.654
Entering Leg	14	6	0	20	5	2	0	7	3	4	0	7	34
Exiting Leg				9				9				16	34
Total				29				16				23	68

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Bedford Street				Maywood Avenue				Bedford Street				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Bedford Street				Maywood Avenue				Bedford Street				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses				0				0				0	0
Single-Unit Trucks				0				0				0	0
Articulated Trucks				0				0				0	0
Total Exiting Leg				0				0				0	0

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	2	3	0	5	1	1	0	2	0	0	0	0	7
4:15 PM	2	1	0	3	0	1	0	1	0	1	0	1	5
4:30 PM	3	0	0	3	0	0	0	0	0	2	0	2	5
4:45 PM	1	0	0	1	1	0	0	1	0	4	0	4	6
Total	8	4	0	12	2	2	0	4	0	7	0	7	23
5:00 PM	1	0	0	1	0	1	0	1	0	0	0	0	2
5:15 PM	6	3	0	9	1	0	0	1	1	1	0	2	12
5:30 PM	2	2	0	4	2	1	0	3	0	2	0	2	9
5:45 PM	2	0	0	2	2	0	0	2	2	1	0	3	7
Total	11	5	0	16	5	2	0	7	3	4	0	7	30
Grand Total	19	9	0	28	7	4	0	11	3	11	0	14	53
Approach %	67.9	32.1	0.0		63.6	36.4	0.0		21.4	78.6	0.0		
Total %	35.8	17.0	0.0	52.8	13.2	7.5	0.0	20.8	5.7	20.8	0.0	26.4	
Exiting Leg Total				18				12				23	53

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
5:00 PM	1	0	0	1	0	1	0	1	0	0	0	0	2
5:15 PM	6	3	0	9	1	0	0	1	1	1	0	2	12
5:30 PM	2	2	0	4	2	1	0	3	0	2	0	2	9
5:45 PM	2	0	0	2	2	0	0	2	2	1	0	3	7
Total Volume	11	5	0	16	5	2	0	7	3	4	0	7	30
% Approach Total	68.8	31.3	0.0		71.4	28.6	0.0		42.9	57.1	0.0		
PHF	0.458	0.417	0.000	0.444	0.625	0.500	0.000	0.583	0.375	0.500	0.000	0.583	0.625
Entering Leg	11	5	0	16	5	2	0	7	3	4	0	7	30
Exiting Leg				9				8				13	30
Total				25				15				20	60

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
4:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	1	1	0	2	3
5:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
5:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
5:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	3	1	0	4	0	0	0	0	0	0	0	0	4
Grand Total	3	2	0	5	0	0	0	0	1	1	0	2	7
Approach %	60.0	40.0	0.0		0.0	0.0	0.0		50.0	50.0	0.0		
Total %	42.9	28.6	0.0	71.4	0.0	0.0	0.0	0.0	14.3	14.3	0.0	28.6	
Exiting Leg Total				1				3				3	7

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
4:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
5:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	1	2	0	3	0	0	0	0	0	1	0	1	4
% Approach Total	33.3	66.7	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.250	0.500	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	1.000
Entering Leg	1	2	0	3	0	0	0	0	0	1	0	1	4
Exiting Leg				1				2				1	4
Total				4				2				2	8

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Bedford Street from East				Maywood Avenue from South				Bedford Street from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Bedford Street						Maywood Avenue						Bedford Street						
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Bedford Street						Maywood Avenue						Bedford Street						
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 P**
Location: **S: Maywood Avenue**
Location: **E: Bedford Street W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Bedford Street from East						Maywood Avenue from South						Bedford Street from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	1	0	1	0	0	0	3	0	3	0	0	0	0	0	0	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	0	0	3	0	3	0	0	0	0	0	0	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	1	1	0	0	0	1	0	1	0	0	0	0	0	0	2
5:45 PM	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	2
Total	0	0	0	1	1	2	0	0	0	2	0	2	0	0	0	0	0	0	4
Grand Total	0	0	0	2	1	3	0	0	0	5	0	5	0	0	0	0	0	0	8
Approach %	0	0	0	66.667	33.333		0	0	0	100	0		0	0	0	0	0		
Total %	0	0	0	25	12.5	37.5	0	0	0	62.5	0	62.5	0	0	0	0	0	0	
Exiting Leg Total						3						5						0	8

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Bedford Street from East						Maywood Avenue from South						Bedford Street from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	1	0	1	0	0	0	3	0	3	0	0	0	0	0	0	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	0	1	0	0	0	3	0	3	0	0	0	0	0	0	4
% Approach Total	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	1	0	1	0	0	0	3	0	3	0	0	0	0	0	0	4
Exiting Leg						1						3						0	4
Total						2						6						0	8

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	1	0	0	1	0	31	0	31	44	0	0	44	76
7:15 AM	0	1	0	1	0	45	0	45	38	0	0	38	84
7:30 AM	1	1	0	2	1	41	0	42	47	1	0	48	92
7:45 AM	2	2	0	4	0	56	0	56	39	2	0	41	101
Total	4	4	0	8	1	173	0	174	168	3	0	171	353
8:00 AM	4	0	0	4	0	64	0	64	47	0	0	47	115
8:15 AM	2	0	0	2	0	40	0	40	33	0	0	33	75
8:30 AM	0	0	0	0	0	40	0	40	25	1	0	26	66
8:45 AM	2	1	0	3	0	38	0	38	36	0	0	36	77
Total	8	1	0	9	0	182	0	182	141	1	0	142	333
Grand Total	12	5	0	17	1	355	0	356	309	4	0	313	686
Approach %	70.6	29.4	0.0		0.3	99.7	0.0		98.7	1.3	0.0		
Total %	1.7	0.7	0.0	2.5	0.1	51.7	0.0	51.9	45.0	0.6	0.0	45.6	
Exiting Leg Total				5				314				367	686
Cars	12	5	0	17	1	344	0	345	302	4	0	306	668
% Cars	100.0	100.0	0.0	100.0	100.0	96.9	0.0	96.9	97.7	100.0	0.0	97.8	97.4
Exiting Leg Total				5				307				356	668
Heavy Vehicles	0	0	0	0	0	11	0	11	7	0	0	7	18
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	3.1	0.0	3.1	2.3	0.0	0.0	2.2	2.6
Exiting Leg Total				0				7				11	18

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	0	1	0	1	0	45	0	45	38	0	0	38	84
7:30 AM	1	1	0	2	1	41	0	42	47	1	0	48	92
7:45 AM	2	2	0	4	0	56	0	56	39	2	0	41	101
8:00 AM	4	0	0	4	0	64	0	64	47	0	0	47	115
Total Volume	7	4	0	11	1	206	0	207	171	3	0	174	392
% Approach Total	63.6	36.4	0.0		0.5	99.5	0.0		98.3	1.7	0.0		
PHF	0.438	0.500	0.000	0.688	0.250	0.805	0.000	0.809	0.910	0.375	0.000	0.906	0.852
Cars	7	4	0	11	1	202	0	203	166	3	0	169	383
Cars %	100.0	100.0	0.0	100.0	100.0	98.1	0.0	98.1	97.1	100.0	0.0	97.1	97.7
Heavy Vehicles	0	0	0	0	0	4	0	4	5	0	0	5	9
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	1.9	0.0	1.9	2.9	0.0	0.0	2.9	2.3
Cars Enter Leg	7	4	0	11	1	202	0	203	166	3	0	169	383
Heavy Enter Leg	0	0	0	0	0	4	0	4	5	0	0	5	9
Total Entering Leg	7	4	0	11	1	206	0	207	171	3	0	174	392
Cars Exiting Leg				4				170				209	383
Heavy Exiting Leg				0				5				4	9
Total Exiting Leg				4				175				213	392

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Cars-Combined (Motorcycles, Cars, Light Goods)**

	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	1	0	0	1	0	29	0	29	43	0	0	43	73
7:15 AM	0	1	0	1	0	45	0	45	37	0	0	37	83
7:30 AM	1	1	0	2	1	40	0	41	47	1	0	48	91
7:45 AM	2	2	0	4	0	53	0	53	36	2	0	38	95
Total	4	4	0	8	1	167	0	168	163	3	0	166	342
8:00 AM	4	0	0	4	0	64	0	64	46	0	0	46	114
8:15 AM	2	0	0	2	0	37	0	37	32	0	0	32	71
8:30 AM	0	0	0	0	0	39	0	39	25	1	0	26	65
8:45 AM	2	1	0	3	0	37	0	37	36	0	0	36	76
Total	8	1	0	9	0	177	0	177	139	1	0	140	326
Grand Total	12	5	0	17	1	344	0	345	302	4	0	306	668
Approach %	70.6	29.4	0.0		0.3	99.7	0.0		98.7	1.3	0.0		
Total %	1.8	0.7	0.0	2.5	0.1	51.5	0.0	51.6	45.2	0.6	0.0	45.8	
Exiting Leg Total				5				307				356	668

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	0	1	0	1	0	45	0	45	37	0	0	37	83
7:30 AM	1	1	0	2	1	40	0	41	47	1	0	48	91
7:45 AM	2	2	0	4	0	53	0	53	36	2	0	38	95
8:00 AM	4	0	0	4	0	64	0	64	46	0	0	46	114
Total Volume	7	4	0	11	1	202	0	203	166	3	0	169	383
% Approach Total	63.6	36.4	0.0		0.5	99.5	0.0		98.2	1.8	0.0		
PHF	0.438	0.500	0.000	0.688	0.250	0.789	0.000	0.793	0.883	0.375	0.000	0.880	0.840
Entering Leg	7	4	0	11	1	202	0	203	166	3	0	169	383
Exiting Leg				4				170				209	383
Total				15				373				378	766

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	2	0	2	1	0	0	1	3
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
7:45 AM	0	0	0	0	0	3	0	3	3	0	0	3	6
Total	0	0	0	0	0	6	0	6	5	0	0	5	11
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
8:15 AM	0	0	0	0	0	3	0	3	1	0	0	1	4
8:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	5	0	5	2	0	0	2	7
Grand Total	0	0	0	0	0	11	0	11	7	0	0	7	18
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	61.1	0.0	61.1	38.9	0.0	0.0	38.9	
Exiting Leg Total				0				7				11	18
Buses	0	0	0	0	0	3	0	3	3	0	0	3	6
% Buses	0.0	0.0	0.0	0.0	0.0	27.3	0.0	27.3	42.9	0.0	0.0	42.9	33.3
Exiting Leg Total				0				3				3	6
Single-Unit Trucks	0	0	0	0	0	7	0	7	4	0	0	4	11
% Single-Unit	0.0	0.0	0.0	0.0	0.0	63.6	0.0	63.6	57.1	0.0	0.0	57.1	61.1
Exiting Leg Total				0				4				7	11
Articulated Trucks	0	0	0	0	0	1	0	1	0	0	0	0	1
% Articulated	0.0	0.0	0.0	0.0	0.0	9.1	0.0	9.1	0.0	0.0	0.0	0.0	5.6
Exiting Leg Total				0				0				1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
7:45 AM	0	0	0	0	0	3	0	3	3	0	0	3	6
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
8:15 AM	0	0	0	0	0	3	0	3	1	0	0	1	4
Total Volume	0	0	0	0	0	7	0	7	5	0	0	5	12
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.583	0.000	0.583	0.417	0.000	0.000	0.417	0.500
Buses	0	0	0	0	0	2	0	2	2	0	0	2	4
Buses %	0.0	0.0	0.0	0.0	0.0	28.6	0.0	28.6	40.0	0.0	0.0	40.0	33.3
Single-Unit Trucks	0	0	0	0	0	4	0	4	3	0	0	3	7
Single-Unit %	0.0	0.0	0.0	0.0	0.0	57.1	0.0	57.1	60.0	0.0	0.0	60.0	58.3
Articulated Trucks	0	0	0	0	0	1	0	1	0	0	0	0	1
Articulated %	0.0	0.0	0.0	0.0	0.0	14.3	0.0	14.3	0.0	0.0	0.0	0.0	8.3
Buses	0	0	0	0	0	2	0	2	2	0	0	2	4
Single-Unit Trucks	0	0	0	0	0	4	0	4	3	0	0	3	7
Articulated Trucks	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Entering Leg	0	0	0	0	0	7	0	7	5	0	0	5	12
Buses				0				2				2	4
Single-Unit Trucks				0				3				4	7
Articulated Trucks				0				0				1	1
Total Exiting Leg				0				5				7	12

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	1	0	0	1	0	25	0	25	42	0	0	42	68
7:15 AM	0	1	0	1	0	44	0	44	36	0	0	36	81
7:30 AM	1	0	0	1	1	37	0	38	44	1	0	45	84
7:45 AM	2	2	0	4	0	51	0	51	35	2	0	37	92
Total	4	3	0	7	1	157	0	158	157	3	0	160	325
8:00 AM	3	0	0	3	0	59	0	59	44	0	0	44	106
8:15 AM	2	0	0	2	0	34	0	34	30	0	0	30	66
8:30 AM	0	0	0	0	0	38	0	38	24	1	0	25	63
8:45 AM	2	1	0	3	0	37	0	37	36	0	0	36	76
Total	7	1	0	8	0	168	0	168	134	1	0	135	311
Grand Total	11	4	0	15	1	325	0	326	291	4	0	295	636
Approach %	73.3	26.7	0.0		0.3	99.7	0.0		98.6	1.4	0.0		
Total %	1.7	0.6	0.0	2.4	0.2	51.1	0.0	51.3	45.8	0.6	0.0	46.4	
Exiting Leg Total				5				295				336	636

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	0	1	0	1	0	44	0	44	36	0	0	36	81
7:30 AM	1	0	0	1	1	37	0	38	44	1	0	45	84
7:45 AM	2	2	0	4	0	51	0	51	35	2	0	37	92
8:00 AM	3	0	0	3	0	59	0	59	44	0	0	44	106
Total Volume	6	3	0	9	1	191	0	192	159	3	0	162	363
% Approach Total	66.7	33.3	0.0		0.5	99.5	0.0		98.1	1.9	0.0		
PHF	0.500	0.375	0.000	0.563	0.250	0.809	0.000	0.814	0.903	0.375	0.000	0.900	0.856
Entering Leg	6	3	0	9	1	191	0	192	159	3	0	162	363
Exiting Leg				4				162				197	363
Total				13				354				359	726

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	4	0	4	1	0	0	1	5
7:15 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
7:30 AM	0	1	0	1	0	3	0	3	3	0	0	3	7
7:45 AM	0	0	0	0	0	2	0	2	1	0	0	1	3
Total	0	1	0	1	0	10	0	10	6	0	0	6	17
8:00 AM	1	0	0	1	0	5	0	5	2	0	0	2	8
8:15 AM	0	0	0	0	0	3	0	3	2	0	0	2	5
8:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	9	0	9	5	0	0	5	15
Grand Total	1	1	0	2	0	19	0	19	11	0	0	11	32
Approach %	50.0	50.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	3.1	3.1	0.0	6.3	0.0	59.4	0.0	59.4	34.4	0.0	0.0	34.4	
Exiting Leg Total				0				12				20	32

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:30 AM	0	1	0	1	0	3	0	3	3	0	0	3	7
7:45 AM	0	0	0	0	0	2	0	2	1	0	0	1	3
8:00 AM	1	0	0	1	0	5	0	5	2	0	0	2	8
8:15 AM	0	0	0	0	0	3	0	3	2	0	0	2	5
Total Volume	1	1	0	2	0	13	0	13	8	0	0	8	23
% Approach Total	50.0	50.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.250	0.250	0.000	0.500	0.000	0.650	0.000	0.650	0.667	0.000	0.000	0.667	0.719
Entering Leg	1	1	0	2	0	13	0	13	8	0	0	8	23
Exiting Leg				0				9				14	23
Total				2				22				22	46

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
Total	0	0	0	0	0	2	0	2	2	0	0	2	4
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
8:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	1	0	0	1	2
Grand Total	0	0	0	0	0	3	0	3	3	0	0	3	6
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	50.0	0.0	50.0	50.0	0.0	0.0	50.0	
Exiting Leg Total				0				3				3	6

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
Total Volume	0	0	0	0	0	2	0	2	2	0	0	2	4
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.500	0.000	0.000	0.500	0.500
Entering Leg	0	0	0	0	0	2	0	2	2	0	0	2	4
Exiting Leg				0				2				2	4
Total				0				4				4	8

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
7:45 AM	0	0	0	0	0	2	0	2	2	0	0	2	4
Total	0	0	0	0	0	4	0	4	3	0	0	3	7
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
8:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	3	0	3	1	0	0	1	4
Grand Total	0	0	0	0	0	7	0	7	4	0	0	4	11
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	63.6	0.0	63.6	36.4	0.0	0.0	36.4	
Exiting Leg Total				0				4				7	11

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
7:45 AM	0	0	0	0	0	2	0	2	2	0	0	2	4
Total Volume	0	0	0	0	0	4	0	4	3	0	0	3	7
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.375	0.000	0.000	0.375	0.438
Entering Leg	0	0	0	0	0	4	0	4	3	0	0	3	7
Exiting Leg				0				3				4	7
Total				0				7				7	14

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	0	0	0	1
Grand Total	0	0	0	0	0	1	0	1	0	0	0	0	1
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	1
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	1	0	1	0	0	0	0	1
Exiting Leg				0				0				1	1
Total				0				1				1	2

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Maywood Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Maywood Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Maywood Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	3
7:15 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	4	0	4	6
7:30 AM	0	0	0	7	1	8	0	0	0	0	0	0	0	0	0	2	0	2	10
7:45 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	1	3	5
Total	0	0	0	13	1	14	0	0	0	0	0	0	0	0	0	9	1	10	24
8:00 AM	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
8:15 AM	0	0	0	3	0	3	0	0	0	0	1	1	0	0	0	1	0	1	5
8:30 AM	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	2	0	2	7
8:45 AM	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	0	0	0	17	0	17	0	0	0	0	1	1	0	0	0	3	0	3	21
Grand Total	0	0	0	30	1	31	0	0	0	0	1	1	0	0	0	12	1	13	45
Approach %	0	0	0	96.774	3.2258		0	0	0	0	100		0	0	0	92.308	7.6923		
Total %	0	0	0	66.667	2.2222	68.889	0	0	0	0	2.2222	2.2222	0	0	0	26.667	2.2222	28.889	
Exiting Leg Total						31						1						13	45

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Maywood Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:15 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	4	0	4	6
7:30 AM	0	0	0	7	1	8	0	0	0	0	0	0	0	0	0	2	0	2	10
7:45 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	1	3	5
8:00 AM	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Total Volume	0	0	0	15	1	16	0	0	0	0	0	0	0	0	0	8	1	9	25
% Approach Total	0.0	0.0	0.0	93.8	6.3		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	88.9	11.1		
PHF	0.000	0.000	0.000	0.536	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.563	0.625
Entering Leg	0	0	0	15	1	16	0	0	0	0	0	0	0	0	0	8	1	9	25
Exiting Leg						16						0						9	25
Total						32						0						18	50

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	4	0	0	4	0	46	0	46	53	2	0	55	105
4:15 PM	1	0	0	1	1	53	0	54	51	1	0	52	107
4:30 PM	0	0	0	0	0	55	0	55	45	0	0	45	100
4:45 PM	0	1	0	1	0	30	0	30	47	1	0	48	79
Total	5	1	0	6	1	184	0	185	196	4	0	200	391
5:00 PM	0	0	0	0	0	35	0	35	48	2	0	50	85
5:15 PM	2	2	0	4	0	52	0	52	51	1	0	52	108
5:30 PM	0	1	0	1	0	51	0	51	52	3	0	55	107
5:45 PM	1	1	0	2	1	35	0	36	55	1	0	56	94
Total	3	4	0	7	1	173	0	174	206	7	0	213	394
Grand Total	8	5	0	13	2	357	0	359	402	11	0	413	785
Approach %	61.5	38.5	0.0		0.6	99.4	0.0		97.3	2.7	0.0		
Total %	1.0	0.6	0.0	1.7	0.3	45.5	0.0	45.7	51.2	1.4	0.0	52.6	
Exiting Leg Total				13				407				365	785
Cars	8	5	0	13	2	348	0	350	391	11	0	402	765
% Cars	100.0	100.0	0.0	100.0	100.0	97.5	0.0	97.5	97.3	100.0	0.0	97.3	97.5
Exiting Leg Total				13				396				356	765
Heavy Vehicles	0	0	0	0	0	9	0	9	11	0	0	11	20
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	2.5	0.0	2.5	2.7	0.0	0.0	2.7	2.5
Exiting Leg Total				0				11				9	20

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	35	0	35	48	2	0	50	85
5:15 PM	2	2	0	4	0	52	0	52	51	1	0	52	108
5:30 PM	0	1	0	1	0	51	0	51	52	3	0	55	107
5:45 PM	1	1	0	2	1	35	0	36	55	1	0	56	94
Total Volume	3	4	0	7	1	173	0	174	206	7	0	213	394
% Approach Total	42.9	57.1	0.0		0.6	99.4	0.0		96.7	3.3	0.0		
PHF	0.375	0.500	0.000	0.438	0.250	0.832	0.000	0.837	0.936	0.583	0.000	0.951	0.912
Cars	3	4	0	7	1	169	0	170	201	7	0	208	385
Cars %	100.0	100.0	0.0	100.0	100.0	97.7	0.0	97.7	97.6	100.0	0.0	97.7	97.7
Heavy Vehicles	0	0	0	0	0	4	0	4	5	0	0	5	9
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	2.3	0.0	2.3	2.4	0.0	0.0	2.3	2.3
Cars Enter Leg	3	4	0	7	1	169	0	170	201	7	0	208	385
Heavy Enter Leg	0	0	0	0	0	4	0	4	5	0	0	5	9
Total Entering Leg	3	4	0	7	1	173	0	174	206	7	0	213	394
Cars Exiting Leg				8				205				172	385
Heavy Exiting Leg				0				5				4	9
Total Exiting Leg				8				210				176	394

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	4	0	0	4	0	45	0	45	50	2	0	52	101
4:15 PM	1	0	0	1	1	51	0	52	50	1	0	51	104
4:30 PM	0	0	0	0	0	55	0	55	44	0	0	44	99
4:45 PM	0	1	0	1	0	28	0	28	46	1	0	47	76
Total	5	1	0	6	1	179	0	180	190	4	0	194	380
5:00 PM	0	0	0	0	0	34	0	34	45	2	0	47	81
5:15 PM	2	2	0	4	0	51	0	51	51	1	0	52	107
5:30 PM	0	1	0	1	0	50	0	50	50	3	0	53	104
5:45 PM	1	1	0	2	1	34	0	35	55	1	0	56	93
Total	3	4	0	7	1	169	0	170	201	7	0	208	385
Grand Total	8	5	0	13	2	348	0	350	391	11	0	402	765
Approach %	61.5	38.5	0.0		0.6	99.4	0.0		97.3	2.7	0.0		
Total %	1.0	0.7	0.0	1.7	0.3	45.5	0.0	45.8	51.1	1.4	0.0	52.5	
Exiting Leg Total				13				396				356	765

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	34	0	34	45	2	0	47	81
5:15 PM	2	2	0	4	0	51	0	51	51	1	0	52	107
5:30 PM	0	1	0	1	0	50	0	50	50	3	0	53	104
5:45 PM	1	1	0	2	1	34	0	35	55	1	0	56	93
Total Volume	3	4	0	7	1	169	0	170	201	7	0	208	385
% Approach Total	42.9	57.1	0.0		0.6	99.4	0.0		96.6	3.4	0.0		
PHF	0.375	0.500	0.000	0.438	0.250	0.828	0.000	0.833	0.914	0.583	0.000	0.929	0.900
Entering Leg	3	4	0	7	1	169	0	170	201	7	0	208	385
Exiting Leg				8				205				172	385
Total				15				375				380	770

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	1	0	1	3	0	0	3	4
4:15 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
Total	0	0	0	0	0	5	0	5	6	0	0	6	11
5:00 PM	0	0	0	0	0	1	0	1	3	0	0	3	4
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	4	0	4	5	0	0	5	9
Grand Total	0	0	0	0	0	9	0	9	11	0	0	11	20
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	45.0	0.0	45.0	55.0	0.0	0.0	55.0	
Exiting Leg Total				0				11				9	20
Buses	0	0	0	0	0	4	0	4	5	0	0	5	9
% Buses	0.0	0.0	0.0	0.0	0.0	44.4	0.0	44.4	45.5	0.0	0.0	45.5	45.0
Exiting Leg Total				0				5				4	9
Single-Unit Trucks	0	0	0	0	0	5	0	5	6	0	0	6	11
% Single-Unit	0.0	0.0	0.0	0.0	0.0	55.6	0.0	55.6	54.5	0.0	0.0	54.5	55.0
Exiting Leg Total				0				6				5	11
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	1	0	1	3	0	0	3	4
4:15 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
Total Volume	0	0	0	0	0	5	0	5	6	0	0	6	11
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.625	0.500	0.000	0.000	0.500	0.688
Buses	0	0	0	0	0	1	0	1	2	0	0	2	3
Buses %	0.0	0.0	0.0	0.0	0.0	20.0	0.0	20.0	33.3	0.0	0.0	33.3	27.3
Single-Unit Trucks	0	0	0	0	0	4	0	4	4	0	0	4	8
Single-Unit %	0.0	0.0	0.0	0.0	0.0	80.0	0.0	80.0	66.7	0.0	0.0	66.7	72.7
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	1	0	1	2	0	0	2	3
Single-Unit Trucks	0	0	0	0	0	4	0	4	4	0	0	4	8
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	0	5	0	5	6	0	0	6	11
Buses				0				2				1	3
Single-Unit Trucks				0				4				4	8
Articulated Trucks				0				0				0	0
Total Exiting Leg				0				6				5	11

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	3	0	0	3	0	41	0	41	45	2	0	47	91
4:15 PM	1	0	0	1	1	50	0	51	45	1	0	46	98
4:30 PM	0	0	0	0	0	48	0	48	37	0	0	37	85
4:45 PM	0	0	0	0	0	25	0	25	41	1	0	42	67
Total	4	0	0	4	1	164	0	165	168	4	0	172	341
5:00 PM	0	0	0	0	0	31	0	31	42	2	0	44	75
5:15 PM	2	2	0	4	0	49	0	49	50	1	0	51	104
5:30 PM	0	1	0	1	0	48	0	48	45	3	0	48	97
5:45 PM	1	1	0	2	1	33	0	34	53	1	0	54	90
Total	3	4	0	7	1	161	0	162	190	7	0	197	366
Grand Total	7	4	0	11	2	325	0	327	358	11	0	369	707
Approach %	63.6	36.4	0.0		0.6	99.4	0.0		97.0	3.0	0.0		
Total %	1.0	0.6	0.0	1.6	0.3	46.0	0.0	46.3	50.6	1.6	0.0	52.2	
Exiting Leg Total				13				362				332	707

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	31	0	31	42	2	0	44	75
5:15 PM	2	2	0	4	0	49	0	49	50	1	0	51	104
5:30 PM	0	1	0	1	0	48	0	48	45	3	0	48	97
5:45 PM	1	1	0	2	1	33	0	34	53	1	0	54	90
Total Volume	3	4	0	7	1	161	0	162	190	7	0	197	366
% Approach Total	42.9	57.1	0.0		0.6	99.4	0.0		96.4	3.6	0.0		
PHF	0.375	0.500	0.000	0.438	0.250	0.821	0.000	0.827	0.896	0.583	0.000	0.912	0.880
Entering Leg	3	4	0	7	1	161	0	162	190	7	0	197	366
Exiting Leg				8				194				164	366
Total				15				356				361	732

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	1	0	0	1	0	4	0	4	5	0	0	5	10
4:15 PM	0	0	0	0	0	1	0	1	5	0	0	5	6
4:30 PM	0	0	0	0	0	7	0	7	7	0	0	7	14
4:45 PM	0	1	0	1	0	3	0	3	5	0	0	5	9
Total	1	1	0	2	0	15	0	15	22	0	0	22	39
5:00 PM	0	0	0	0	0	3	0	3	3	0	0	3	6
5:15 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
5:30 PM	0	0	0	0	0	2	0	2	5	0	0	5	7
5:45 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
Total	0	0	0	0	0	8	0	8	11	0	0	11	19
Grand Total	1	1	0	2	0	23	0	23	33	0	0	33	58
Approach %	50.0	50.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	1.7	1.7	0.0	3.4	0.0	39.7	0.0	39.7	56.9	0.0	0.0	56.9	
Exiting Leg Total				0				34				24	58

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	1	0	0	1	0	4	0	4	5	0	0	5	10
4:15 PM	0	0	0	0	0	1	0	1	5	0	0	5	6
4:30 PM	0	0	0	0	0	7	0	7	7	0	0	7	14
4:45 PM	0	1	0	1	0	3	0	3	5	0	0	5	9
Total Volume	1	1	0	2	0	15	0	15	22	0	0	22	39
% Approach Total	50.0	50.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.250	0.250	0.000	0.500	0.000	0.536	0.000	0.536	0.786	0.000	0.000	0.786	0.696
Entering Leg	1	1	0	2	0	15	0	15	22	0	0	22	39
Exiting Leg				0				23				16	39
Total				2				38				38	78

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
4:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	2	0	0	2	3
5:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	3	0	3	3	0	0	3	6
Grand Total	0	0	0	0	0	4	0	4	5	0	0	5	9
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	44.4	0.0	44.4	55.6	0.0	0.0	55.6	
Exiting Leg Total				0				5				4	9

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
Total Volume	0	0	0	0	0	3	0	3	3	0	0	3	6
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.375	0.000	0.000	0.375	0.500
Entering Leg	0	0	0	0	0	3	0	3	3	0	0	3	6
Exiting Leg				0				3				3	6
Total				0				6				6	12

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
4:15 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
Total	0	0	0	0	0	4	0	4	4	0	0	4	8
5:00 PM	0	0	0	0	0	0	0	0	2	0	0	2	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	1	0	1	2	0	0	2	3
Grand Total	0	0	0	0	0	5	0	5	6	0	0	6	11
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	45.5	0.0	45.5	54.5	0.0	0.0	54.5	
Exiting Leg Total				0				6				5	11

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
4:15 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
Total Volume	0	0	0	0	0	4	0	4	4	0	0	4	8
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.500	0.000	0.000	0.500	0.667
Entering Leg	0	0	0	0	0	4	0	4	4	0	0	4	8
Exiting Leg				0				4				4	8
Total				0				8				8	16

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Maywood Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Maywood Avenue						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	
Exiting Leg Total						0						0						1	1

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Maywood Avenue						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Exiting Leg						0						0						1	1
Total						0						0						2	2

PDI File #: **186173 Q**
Location: **N: Maywood Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Maywood Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	1	1	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	3	3	5
5:00 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2
Total	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	1	1	5
Grand Total	0	0	0	2	3	5	0	0	0	1	0	1	0	0	0	0	4	4	10
Approach %	0	0	0	40	60		0	0	0	100	0		0	0	0	0	100		
Total %	0	0	0	20	30	50	0	0	0	10	0	10	0	0	0	0	40	40	
Exiting Leg Total						5						1						4	10

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Maywood Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:15 PM	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	1	1	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	2	0	2	0	0	0	1	0	1	0	0	0	0	3	3	6
% Approach Total	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	100.0		
PHF	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.375	0.375	0.500
Entering Leg	0	0	0	2	0	2	0	0	0	1	0	1	0	0	0	0	3	3	6
Exiting Leg						2						1						3	6
Total						4						2						6	12

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	4	0	4	7	0	0	7	2	0	0	2	13
7:15 AM	0	3	0	3	5	2	0	7	2	0	0	2	12
7:30 AM	0	5	0	5	6	0	0	6	2	1	0	3	14
7:45 AM	1	8	0	9	12	3	0	15	3	1	0	4	28
Total	1	20	0	21	30	5	0	35	9	2	0	11	67
8:00 AM	2	8	0	10	7	1	0	8	4	1	0	5	23
8:15 AM	3	10	0	13	9	2	0	11	2	0	0	2	26
8:30 AM	0	5	0	5	6	2	0	8	1	0	1	2	15
8:45 AM	1	3	0	4	5	3	0	8	4	1	0	5	17
Total	6	26	0	32	27	8	0	35	11	2	1	14	81
Grand Total	7	46	0	53	57	13	0	70	20	4	1	25	148
Approach %	13.2	86.8	0.0		81.4	18.6	0.0		80.0	16.0	4.0		
Total %	4.7	31.1	0.0	35.8	38.5	8.8	0.0	47.3	13.5	2.7	0.7	16.9	
Exiting Leg Total				61				66				21	148
Cars	7	45	0	52	56	13	0	69	20	4	1	25	146
% Cars	100.0	97.8	0.0	98.1	98.2	100.0	0.0	98.6	100.0	100.0	100.0	100.0	98.6
Exiting Leg Total				60				65				21	146
Heavy Vehicles	0	1	0	1	1	0	0	1	0	0	0	0	2
% Heavy Vehicles	0.0	2.2	0.0	1.9	1.8	0.0	0.0	1.4	0.0	0.0	0.0	0.0	1.4
Exiting Leg Total				1				1				0	2

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:45 AM	1	8	0	9	12	3	0	15	3	1	0	4	28
8:00 AM	2	8	0	10	7	1	0	8	4	1	0	5	23
8:15 AM	3	10	0	13	9	2	0	11	2	0	0	2	26
8:30 AM	0	5	0	5	6	2	0	8	1	0	1	2	15
Total Volume	6	31	0	37	34	8	0	42	10	2	1	13	92
% Approach Total	16.2	83.8	0.0		81.0	19.0	0.0		76.9	15.4	7.7		
PHF	0.500	0.775	0.000	0.712	0.708	0.667	0.000	0.700	0.625	0.500	0.250	0.650	0.821
Cars	6	30	0	36	34	8	0	42	10	2	1	13	91
Cars %	100.0	96.8	0.0	97.3	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0	98.9
Heavy Vehicles	0	1	0	1	0	0	0	0	0	0	0	0	1
Heavy Vehicles %	0.0	3.2	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Cars Enter Leg	6	30	0	36	34	8	0	42	10	2	1	13	91
Heavy Enter Leg	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Entering Leg	6	31	0	37	34	8	0	42	10	2	1	13	92
Cars Exiting Leg				36				40				15	91
Heavy Exiting Leg				0				1				0	1
Total Exiting Leg				36				41				15	92

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	4	0	4	7	0	0	7	2	0	0	2	13
7:15 AM	0	3	0	3	4	2	0	6	2	0	0	2	11
7:30 AM	0	5	0	5	6	0	0	6	2	1	0	3	14
7:45 AM	1	8	0	9	12	3	0	15	3	1	0	4	28
Total	1	20	0	21	29	5	0	34	9	2	0	11	66
8:00 AM	2	8	0	10	7	1	0	8	4	1	0	5	23
8:15 AM	3	10	0	13	9	2	0	11	2	0	0	2	26
8:30 AM	0	4	0	4	6	2	0	8	1	0	1	2	14
8:45 AM	1	3	0	4	5	3	0	8	4	1	0	5	17
Total	6	25	0	31	27	8	0	35	11	2	1	14	80
Grand Total	7	45	0	52	56	13	0	69	20	4	1	25	146
Approach %	13.5	86.5	0.0		81.2	18.8	0.0		80.0	16.0	4.0		
Total %	4.8	30.8	0.0	35.6	38.4	8.9	0.0	47.3	13.7	2.7	0.7	17.1	
Exiting Leg Total				60				65				21	146

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:30 AM	0	5	0	5	6	0	0	6	2	1	0	3	14
7:45 AM	1	8	0	9	12	3	0	15	3	1	0	4	28
8:00 AM	2	8	0	10	7	1	0	8	4	1	0	5	23
8:15 AM	3	10	0	13	9	2	0	11	2	0	0	2	26
Total Volume	6	31	0	37	34	6	0	40	11	3	0	14	91
% Approach Total	16.2	83.8	0.0		85.0	15.0	0.0		78.6	21.4	0.0		
PHF	0.500	0.775	0.000	0.712	0.708	0.500	0.000	0.667	0.688	0.750	0.000	0.700	0.813
Entering Leg	6	31	0	37	34	6	0	40	11	3	0	14	91
Exiting Leg				37				42				12	91
Total				74				82				26	182

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	1
Grand Total	0	1	0	1	1	0	0	1	0	0	0	0	2
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	50.0	0.0	50.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				1				1				0	2
Buses	0	0	0	0	1	0	0	1	0	0	0	0	1
% Buses	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	50.0
Exiting Leg Total				1				0				0	1
Single-Unit Trucks	0	1	0	1	0	0	0	0	0	0	0	0	1
% Single-Unit	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
Exiting Leg Total				0				1				0	1
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	0	0	1	0	0	0	0	1
% Approach Total	0.0	0.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250
Buses	0	0	0	0	1	0	0	1	0	0	0	0	1
Buses %	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	1	0	0	1	0	0	0	0	1
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	1	0	0	1	0	0	0	0	1
Buses				1				0				0	1
Single-Unit Trucks				0				0				0	0
Articulated Trucks				0				0				0	0
Total Exiting Leg				1				0				0	1

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	4	0	4	5	0	0	5	1	0	0	1	10
7:15 AM	0	3	0	3	4	2	0	6	1	0	0	1	10
7:30 AM	0	4	0	4	6	0	0	6	2	1	0	3	13
7:45 AM	1	6	0	7	11	3	0	14	3	1	0	4	25
Total	1	17	0	18	26	5	0	31	7	2	0	9	58
8:00 AM	2	8	0	10	7	1	0	8	3	1	0	4	22
8:15 AM	3	8	0	11	9	2	0	11	2	0	0	2	24
8:30 AM	0	3	0	3	5	2	0	7	1	0	1	2	12
8:45 AM	1	3	0	4	5	3	0	8	4	1	0	5	17
Total	6	22	0	28	26	8	0	34	10	2	1	13	75
Grand Total	7	39	0	46	52	13	0	65	17	4	1	22	133
Approach %	15.2	84.8	0.0		80.0	20.0	0.0		77.3	18.2	4.5		
Total %	5.3	29.3	0.0	34.6	39.1	9.8	0.0	48.9	12.8	3.0	0.8	16.5	
Exiting Leg Total				56				56				21	133

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:30 AM	0	4	0	4	6	0	0	6	2	1	0	3	13
7:45 AM	1	6	0	7	11	3	0	14	3	1	0	4	25
8:00 AM	2	8	0	10	7	1	0	8	3	1	0	4	22
8:15 AM	3	8	0	11	9	2	0	11	2	0	0	2	24
Total Volume	6	26	0	32	33	6	0	39	10	3	0	13	84
% Approach Total	18.8	81.3	0.0		84.6	15.4	0.0		76.9	23.1	0.0		
PHF	0.500	0.813	0.000	0.727	0.750	0.500	0.000	0.696	0.833	0.750	0.000	0.813	0.840
Entering Leg	6	26	0	32	33	6	0	39	10	3	0	13	84
Exiting Leg				36				36				12	84
Total				68				75				25	168

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	2	0	0	2	1	0	0	1	3
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:45 AM	0	2	0	2	1	0	0	1	0	0	0	0	3
Total	0	3	0	3	3	0	0	3	2	0	0	2	8
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
8:15 AM	0	2	0	2	0	0	0	0	0	0	0	0	2
8:30 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	3	1	0	0	1	1	0	0	1	5
Grand Total	0	6	0	6	4	0	0	4	3	0	0	3	13
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		100.0	0.0	0.0		
Total %	0.0	46.2	0.0	46.2	30.8	0.0	0.0	30.8	23.1	0.0	0.0	23.1	
Exiting Leg Total				4				9				0	13

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	2	0	0	2	1	0	0	1	3
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:45 AM	0	2	0	2	1	0	0	1	0	0	0	0	3
Total Volume	0	3	0	3	3	0	0	3	2	0	0	2	8
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.375	0.000	0.375	0.375	0.000	0.000	0.375	0.500	0.000	0.000	0.500	0.667
Entering Leg	0	3	0	3	3	0	0	3	2	0	0	2	8
Exiting Leg				3				5				0	8
Total				6				8				2	16

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	1	0	0	1	0	0	0	0	1
Approach %	0.0	0.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				1				0				0	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	0	0	1	0	0	0	0	1
% Approach Total	0.0	0.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	1	0	0	1	0	0	0	0	1
Exiting Leg				1				0				0	1
Total				1				1				0	2

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	1
Grand Total	0	1	0	1	0	0	0	0	0	0	0	0	1
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				1				0	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	1	0	1	0	0	0	0	0	0	0	0	1
Exiting Leg				0				1				0	1
Total				1				1				0	2

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Glendale Road from North						Glendale Road from South						Bedford Street from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Glendale Road from North						Glendale Road from South						Bedford Street from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Glendale Road from North						Glendale Road from South						Bedford Street from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	7	0	7	0	0	0	0	7	7	0	0	0	2	1	3	17
7:15 AM	0	0	0	4	0	4	0	0	0	0	4	4	0	0	0	1	0	1	9
7:30 AM	0	0	0	4	1	5	0	0	0	2	9	11	0	0	0	2	1	3	19
7:45 AM	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	3
Total	0	0	0	15	1	16	0	0	0	2	23	25	0	0	0	5	2	7	48
8:00 AM	0	0	0	1	0	1	0	0	0	0	2	2	0	0	0	0	0	0	3
8:15 AM	0	0	0	2	0	2	0	0	0	0	12	12	0	0	0	0	0	0	14
8:30 AM	0	0	0	1	0	1	0	0	0	1	6	7	0	0	0	0	0	0	8
8:45 AM	0	0	0	0	0	0	0	0	0	0	7	7	0	0	0	0	0	0	7
Total	0	0	0	4	0	4	0	0	0	1	27	28	0	0	0	0	0	0	32
Grand Total	0	0	0	19	1	20	0	0	0	3	50	53	0	0	0	5	2	7	80
Approach %	0	0	0	95	5		0	0	0	5.6604	94.34		0	0	0	71.429	28.571		
Total %	0	0	0	23.75	1.25	25	0	0	0	3.75	62.5	66.25	0	0	0	6.25	2.5	8.75	
Exiting Leg Total						20						53						7	80

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Glendale Road from North						Glendale Road from South						Bedford Street from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	7	0	7	0	0	0	0	7	7	0	0	0	2	1	3	17
7:15 AM	0	0	0	4	0	4	0	0	0	0	4	4	0	0	0	1	0	1	9
7:30 AM	0	0	0	4	1	5	0	0	0	2	9	11	0	0	0	2	1	3	19
7:45 AM	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	3
Total Volume	0	0	0	15	1	16	0	0	0	2	23	25	0	0	0	5	2	7	48
% Approach Total	0.0	0.0	0.0	93.8	6.3		0.0	0.0	0.0	8.0	92.0		0.0	0.0	0.0	71.4	28.6		
PHF	0.000	0.000	0.000	0.536	0.250	0.571	0.000	0.000	0.000	0.250	0.639	0.568	0.000	0.000	0.000	0.625	0.500	0.583	0.632
Entering Leg	0	0	0	15	1	16	0	0	0	2	23	25	0	0	0	5	2	7	48
Exiting Leg						16						25						7	48
Total						32						50						14	96

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	6	0	6	6	5	0	11	1	0	0	1	18
4:15 PM	1	2	0	3	7	2	0	9	0	1	0	1	13
4:30 PM	0	3	0	3	3	3	0	6	2	0	0	2	11
4:45 PM	0	5	0	5	8	2	0	10	5	1	0	6	21
Total	1	16	0	17	24	12	0	36	8	2	0	10	63
5:00 PM	1	10	0	11	5	1	0	6	0	0	0	0	17
5:15 PM	0	13	1	14	3	10	0	13	1	1	0	2	29
5:30 PM	0	9	0	9	6	5	0	11	1	4	0	5	25
5:45 PM	0	7	0	7	4	3	0	7	0	2	0	2	16
Total	1	39	1	41	18	19	0	37	2	7	0	9	87
Grand Total	2	55	1	58	42	31	0	73	10	9	0	19	150
Approach %	3.4	94.8	1.7		57.5	42.5	0.0		52.6	47.4	0.0		
Total %	1.3	36.7	0.7	38.7	28.0	20.7	0.0	48.7	6.7	6.0	0.0	12.7	
Exiting Leg Total				52				65				33	150
Cars	2	55	1	58	42	31	0	73	10	9	0	19	150
% Cars	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0
Exiting Leg Total				52				65				33	150
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:45 PM	0	5	0	5	8	2	0	10	5	1	0	6	21
5:00 PM	1	10	0	11	5	1	0	6	0	0	0	0	17
5:15 PM	0	13	1	14	3	10	0	13	1	1	0	2	29
5:30 PM	0	9	0	9	6	5	0	11	1	4	0	5	25
Total Volume	1	37	1	39	22	18	0	40	7	6	0	13	92
% Approach Total	2.6	94.9	2.6		55.0	45.0	0.0		53.8	46.2	0.0		
PHF	0.250	0.712	0.250	0.696	0.688	0.450	0.000	0.769	0.350	0.375	0.000	0.542	0.793
Cars	1	37	1	39	22	18	0	40	7	6	0	13	92
Cars %	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	100.0
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cars Enter Leg	1	37	1	39	22	18	0	40	7	6	0	13	92
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	1	37	1	39	22	18	0	40	7	6	0	13	92
Cars Exiting Leg				29				44				19	92
Heavy Exiting Leg				0				0				0	0
Total Exiting Leg				29				44				19	92

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	6	0	6	6	5	0	11	1	0	0	1	18
4:15 PM	1	2	0	3	7	2	0	9	0	1	0	1	13
4:30 PM	0	3	0	3	3	3	0	6	2	0	0	2	11
4:45 PM	0	5	0	5	8	2	0	10	5	1	0	6	21
Total	1	16	0	17	24	12	0	36	8	2	0	10	63
5:00 PM	1	10	0	11	5	1	0	6	0	0	0	0	17
5:15 PM	0	13	1	14	3	10	0	13	1	1	0	2	29
5:30 PM	0	9	0	9	6	5	0	11	1	4	0	5	25
5:45 PM	0	7	0	7	4	3	0	7	0	2	0	2	16
Total	1	39	1	41	18	19	0	37	2	7	0	9	87
Grand Total	2	55	1	58	42	31	0	73	10	9	0	19	150
Approach %	3.4	94.8	1.7		57.5	42.5	0.0		52.6	47.4	0.0		
Total %	1.3	36.7	0.7	38.7	28.0	20.7	0.0	48.7	6.7	6.0	0.0	12.7	
Exiting Leg Total				52				65				33	150

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:45 PM	0	5	0	5	8	2	0	10	5	1	0	6	21
5:00 PM	1	10	0	11	5	1	0	6	0	0	0	0	17
5:15 PM	0	13	1	14	3	10	0	13	1	1	0	2	29
5:30 PM	0	9	0	9	6	5	0	11	1	4	0	5	25
Total Volume	1	37	1	39	22	18	0	40	7	6	0	13	92
% Approach Total	2.6	94.9	2.6		55.0	45.0	0.0		53.8	46.2	0.0		
PHF	0.250	0.712	0.250	0.696	0.688	0.450	0.000	0.769	0.350	0.375	0.000	0.542	0.793
Entering Leg	1	37	1	39	22	18	0	40	7	6	0	13	92
Exiting Leg				29				44				19	92
Total				68				84				32	184

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses				0				0				0	0
Single-Unit Trucks				0				0				0	0
Articulated Trucks				0				0				0	0
Total Exiting Leg				0				0				0	0

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	4	0	4	5	5	0	10	1	0	0	1	15
4:15 PM	1	2	0	3	7	2	0	9	0	1	0	1	13
4:30 PM	0	3	0	3	3	3	0	6	1	0	0	1	10
4:45 PM	0	5	0	5	8	2	0	10	5	1	0	6	21
Total	1	14	0	15	23	12	0	35	7	2	0	9	59
5:00 PM	1	10	0	11	5	0	0	5	0	0	0	0	16
5:15 PM	0	12	1	13	3	9	0	12	1	1	0	2	27
5:30 PM	0	8	0	8	6	4	0	10	1	3	0	4	22
5:45 PM	0	5	0	5	4	2	0	6	0	2	0	2	13
Total	1	35	1	37	18	15	0	33	2	6	0	8	78
Grand Total	2	49	1	52	41	27	0	68	9	8	0	17	137
Approach %	3.8	94.2	1.9		60.3	39.7	0.0		52.9	47.1	0.0		
Total %	1.5	35.8	0.7	38.0	29.9	19.7	0.0	49.6	6.6	5.8	0.0	12.4	
Exiting Leg Total				50				58				29	137

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:45 PM	0	5	0	5	8	2	0	10	5	1	0	6	21
5:00 PM	1	10	0	11	5	0	0	5	0	0	0	0	16
5:15 PM	0	12	1	13	3	9	0	12	1	1	0	2	27
5:30 PM	0	8	0	8	6	4	0	10	1	3	0	4	22
Total Volume	1	35	1	37	22	15	0	37	7	5	0	12	86
% Approach Total	2.7	94.6	2.7		59.5	40.5	0.0		58.3	41.7	0.0		
PHF	0.250	0.729	0.250	0.712	0.688	0.417	0.000	0.771	0.350	0.417	0.000	0.500	0.796
Entering Leg	1	35	1	37	22	15	0	37	7	5	0	12	86
Exiting Leg				28				42				16	86
Total				65				79				28	172

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	2	1	0	0	1	1	0	0	1	4
5:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:15 PM	0	1	0	1	0	1	0	1	0	0	0	0	2
5:30 PM	0	1	0	1	0	1	0	1	0	1	0	1	3
5:45 PM	0	2	0	2	0	1	0	1	0	0	0	0	3
Total	0	4	0	4	0	4	0	4	0	1	0	1	9
Grand Total	0	6	0	6	1	4	0	5	1	1	0	2	13
Approach %	0.0	100.0	0.0		20.0	80.0	0.0		50.0	50.0	0.0		
Total %	0.0	46.2	0.0	46.2	7.7	30.8	0.0	38.5	7.7	7.7	0.0	15.4	
Exiting Leg Total				2				7				4	13

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:15 PM	0	1	0	1	0	1	0	1	0	0	0	0	2
5:30 PM	0	1	0	1	0	1	0	1	0	1	0	1	3
5:45 PM	0	2	0	2	0	1	0	1	0	0	0	0	3
Total Volume	0	4	0	4	0	4	0	4	0	1	0	1	9
% Approach Total	0.0	100.0	0.0		0.0	100.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.500	0.000	0.500	0.000	1.000	0.000	1.000	0.000	0.250	0.000	0.250	0.750
Entering Leg	0	4	0	4	0	4	0	4	0	1	0	1	9
Exiting Leg				1				4				4	9
Total				5				8				5	18

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Glendale Road from North				Glendale Road from South				Bedford Street from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Glendale Road from North						Glendale Road from South						Bedford Street from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Glendale Road from North						Glendale Road from South						Bedford Street from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 R**
Location: **N: Glendale Road S: Glendale Road**
Location: **W: Bedford Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Glendale Road from North						Glendale Road from South						Bedford Street from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	2
4:15 PM	0	0	0	1	1	2	0	0	0	2	0	2	0	0	0	1	0	1	5
4:30 PM	0	0	0	1	2	3	0	0	0	4	1	5	0	0	0	1	1	2	10
4:45 PM	0	0	0	0	3	3	0	0	0	2	1	3	0	0	0	0	0	0	6
Total	0	0	0	2	6	8	0	0	0	9	3	12	0	0	0	2	1	3	23
5:00 PM	0	0	0	0	3	3	0	0	0	2	0	2	0	0	0	0	0	0	5
5:15 PM	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	1	1	2	0	0	0	3	0	3	0	0	0	0	0	0	5
5:45 PM	0	0	0	0	1	1	0	0	0	7	0	7	0	0	0	0	0	0	8
Total	0	0	0	1	7	8	0	0	0	12	0	12	0	0	0	0	0	0	20
Grand Total	0	0	0	3	13	16	0	0	0	21	3	24	0	0	0	2	1	3	43
Approach %	0	0	0	18.75	81.25		0	0	0	87.5	12.5		0	0	0	66.667	33.333		
Total %	0	0	0	6.9767	30.233	37.209	0	0	0	48.837	6.9767	55.814	0	0	0	4.6512	2.3256	6.9767	
Exiting Leg Total						16						24						3	43

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Glendale Road from North						Glendale Road from South						Bedford Street from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:15 PM	0	0	0	1	1	2	0	0	0	2	0	2	0	0	0	1	0	1	5
4:30 PM	0	0	0	1	2	3	0	0	0	4	1	5	0	0	0	1	1	2	10
4:45 PM	0	0	0	0	3	3	0	0	0	2	1	3	0	0	0	0	0	0	6
5:00 PM	0	0	0	0	3	3	0	0	0	2	0	2	0	0	0	0	0	0	5
Total Volume	0	0	0	2	9	11	0	0	0	10	2	12	0	0	0	2	1	3	26
% Approach Total	0.0	0.0	0.0	18.2	81.8		0.0	0.0	0.0	83.3	16.7		0.0	0.0	0.0	66.7	33.3		
PHF	0.000	0.000	0.000	0.500	0.750	0.917	0.000	0.000	0.000	0.625	0.500	0.600	0.000	0.000	0.000	0.500	0.250	0.375	0.650
Entering Leg	0	0	0	2	9	11	0	0	0	10	2	12	0	0	0	2	1	3	26
Exiting Leg						11						12						3	26
Total						22						24						6	52

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	3	5	0	8	5	30	2	0	37	4	2	1	0	7	0	44	0	0	44	96
7:15 AM	0	0	4	0	4	3	41	1	0	45	2	1	6	0	9	1	45	0	0	46	104
7:30 AM	0	0	7	0	7	4	43	2	0	49	4	2	1	0	7	0	46	1	0	47	110
7:45 AM	0	0	9	0	9	11	55	3	0	69	2	4	0	0	6	2	36	1	0	39	123
Total	0	3	25	0	28	23	169	8	0	200	12	9	8	0	29	3	171	2	0	176	433
8:00 AM	1	0	12	0	13	6	63	2	0	71	7	1	1	0	9	0	50	0	0	50	143
8:15 AM	0	2	10	0	12	11	41	3	0	55	5	1	0	0	6	1	31	0	0	32	105
8:30 AM	0	1	5	0	6	8	35	1	0	44	4	0	2	0	6	0	25	0	0	25	81
8:45 AM	0	0	8	0	8	7	38	0	0	45	7	0	2	0	9	0	37	0	0	37	99
Total	1	3	35	0	39	32	177	6	0	215	23	2	5	0	30	1	143	0	0	144	428
Grand Total	1	6	60	0	67	55	346	14	0	415	35	11	13	0	59	4	314	2	0	320	861
Approach %	1.5	9.0	89.6	0.0		13.3	83.4	3.4	0.0		59.3	18.6	22.0	0.0		1.3	98.1	0.6	0.0		
Total %	0.1	0.7	7.0	0.0	7.8	6.4	40.2	1.6	0.0	48.2	4.1	1.3	1.5	0.0	6.9	0.5	36.5	0.2	0.0	37.2	
Exiting Leg Total					68					409					24					360	861
Cars	1	6	60	0	67	55	334	14	0	403	35	10	13	0	58	4	307	2	0	313	841
% Cars	100.0	100.0	100.0	0.0	100.0	100.0	96.5	100.0	0.0	97.1	100.0	90.9	100.0	0.0	98.3	100.0	97.8	100.0	0.0	97.8	97.7
Exiting Leg Total					67					402					24					348	841
Heavy Vehicles	0	0	0	0	0	0	12	0	0	12	0	1	0	0	1	0	7	0	0	7	20
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	2.9	0.0	9.1	0.0	0.0	1.7	0.0	2.2	0.0	0.0	2.2	2.3
Exiting Leg Total					1					7					0					12	20

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	7	0	7	4	43	2	0	49	4	2	1	0	7	0	46	1	0	47	110
7:45 AM	0	0	9	0	9	11	55	3	0	69	2	4	0	0	6	2	36	1	0	39	123
8:00 AM	1	0	12	0	13	6	63	2	0	71	7	1	1	0	9	0	50	0	0	50	143
8:15 AM	0	2	10	0	12	11	41	3	0	55	5	1	0	0	6	1	31	0	0	32	105
Total Volume	1	2	38	0	41	32	202	10	0	244	18	8	2	0	28	3	163	2	0	168	481
% Approach Total	2.4	4.9	92.7	0.0		13.1	82.8	4.1	0.0		64.3	28.6	7.1	0.0		1.8	97.0	1.2	0.0		
PHF	0.250	0.250	0.792	0.000	0.788	0.727	0.802	0.833	0.000	0.859	0.643	0.500	0.500	0.000	0.778	0.375	0.815	0.500	0.000	0.840	0.841
Cars	1	2	38	0	41	32	194	10	0	236	18	8	2	0	28	3	158	2	0	163	468
Cars %	100.0	100.0	100.0	0.0	100.0	100.0	96.0	100.0	0.0	96.7	100.0	100.0	100.0	0.0	100.0	100.0	96.9	100.0	0.0	97.0	97.3
Heavy Vehicles	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	5	0	0	5	13
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	3.0	2.7
Cars Enter Leg	1	2	38	0	41	32	194	10	0	236	18	8	2	0	28	3	158	2	0	163	468
Heavy Enter Leg	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	5	0	0	5	13
Total Entering Leg	1	2	38	0	41	32	202	10	0	244	18	8	2	0	28	3	163	2	0	168	481
Cars Exiting Leg					42					214					15					197	468
Heavy Exiting Leg					0					5					0					8	13
Total Exiting Leg					42					219					15					205	481

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	3	5	0	8	5	28	2	0	35	4	2	1	0	7	0	43	0	0	43	93
7:15 AM	0	0	4	0	4	3	41	1	0	45	2	0	6	0	8	1	44	0	0	45	102
7:30 AM	0	0	7	0	7	4	42	2	0	48	4	2	1	0	7	0	45	1	0	46	108
7:45 AM	0	0	9	0	9	11	52	3	0	66	2	4	0	0	6	2	34	1	0	37	118
Total	0	3	25	0	28	23	163	8	0	194	12	8	8	0	28	3	166	2	0	171	421
8:00 AM	1	0	12	0	13	6	62	2	0	70	7	1	1	0	9	0	49	0	0	49	141
8:15 AM	0	2	10	0	12	11	38	3	0	52	5	1	0	0	6	1	30	0	0	31	101
8:30 AM	0	1	5	0	6	8	34	1	0	43	4	0	2	0	6	0	25	0	0	25	80
8:45 AM	0	0	8	0	8	7	37	0	0	44	7	0	2	0	9	0	37	0	0	37	98
Total	1	3	35	0	39	32	171	6	0	209	23	2	5	0	30	1	141	0	0	142	420
Grand Total	1	6	60	0	67	55	334	14	0	403	35	10	13	0	58	4	307	2	0	313	841
Approach %	1.5	9.0	89.6	0.0		13.6	82.9	3.5	0.0		60.3	17.2	22.4	0.0		1.3	98.1	0.6	0.0		
Total %	0.1	0.7	7.1	0.0	8.0	6.5	39.7	1.7	0.0	47.9	4.2	1.2	1.5	0.0	6.9	0.5	36.5	0.2	0.0	37.2	
Exiting Leg Total					67					402					24					348	841

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	4	0	4	3	41	1	0	45	2	0	6	0	8	1	44	0	0	45	102
7:30 AM	0	0	7	0	7	4	42	2	0	48	4	2	1	0	7	0	45	1	0	46	108
7:45 AM	0	0	9	0	9	11	52	3	0	66	2	4	0	0	6	2	34	1	0	37	118
8:00 AM	1	0	12	0	13	6	62	2	0	70	7	1	1	0	9	0	49	0	0	49	141
Total Volume	1	0	32	0	33	24	197	8	0	229	15	7	8	0	30	3	172	2	0	177	469
% Approach Total	3.0	0.0	97.0	0.0		10.5	86.0	3.5	0.0		50.0	23.3	26.7	0.0		1.7	97.2	1.1	0.0		
PHF	0.250	0.000	0.667	0.000	0.635	0.545	0.794	0.667	0.000	0.818	0.536	0.438	0.333	0.000	0.833	0.375	0.878	0.500	0.000	0.903	0.832
Entering Leg	1	0	32	0	33	24	197	8	0	229	15	7	8	0	30	3	172	2	0	177	469
Exiting Leg					33					219					11					206	469
Total					66					448					41					383	938

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
7:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5
Total	0	0	0	0	0	0	6	0	0	6	0	1	0	0	1	0	5	0	0	5	12
8:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
8:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	2	0	0	2	8
Grand Total	0	0	0	0	0	0	12	0	0	12	0	1	0	0	1	0	7	0	0	7	20
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	60.0	0.0	5.0	0.0	0.0	5.0	0.0	35.0	0.0	0.0	35.0	
Exiting Leg Total					1					7					0					12	20
Buses	0	0	0	0	0	0	3	0	0	3	0	1	0	0	1	0	3	0	0	3	7
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	0.0	100.0	0.0	0.0	100.0	0.0	42.9	0.0	0.0	42.9	35.0
Exiting Leg Total					1					3					0					3	7
Single-Unit Trucks	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	4	0	0	4	12
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	57.1	0.0	0.0	57.1	60.0
Exiting Leg Total					0					4					0					8	12
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
Exiting Leg Total					0					0					0					1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
7:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5
8:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
8:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
Total Volume	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	5	0	0	5	13
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.000	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.625	0.650
Buses	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	40.0	30.8
Single-Unit Trucks	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	62.5	0.0	0.0	62.5	0.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	60.0	61.5
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	12.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7
Buses	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
Single-Unit Trucks	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Entering Leg	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	5	0	0	5	13
Buses					0					2					0					2	4
Single-Unit Trucks					0					3					0					5	8
Articulated Trucks					0					0					0					1	1
Total Exiting Leg					0					5					0					8	13

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	3	4	0	7	3	23	2	0	28	4	2	1	0	7	0	39	0	0	39	81
7:15 AM	0	0	3	0	3	3	39	1	0	43	2	0	5	0	7	0	41	0	0	41	94
7:30 AM	0	0	6	0	6	4	42	1	0	47	4	2	0	0	6	0	41	1	0	42	101
7:45 AM	0	0	7	0	7	10	49	3	0	62	2	4	0	0	6	2	33	1	0	36	111
Total	0	3	20	0	23	20	153	7	0	180	12	8	6	0	26	2	154	2	0	158	387
8:00 AM	1	0	11	0	12	6	59	2	0	67	7	1	1	0	9	0	47	0	0	47	135
8:15 AM	0	2	8	0	10	10	34	3	0	47	5	1	0	0	6	0	28	0	0	28	91
8:30 AM	0	1	3	0	4	7	33	1	0	41	3	0	2	0	5	0	25	0	0	25	75
8:45 AM	0	0	8	0	8	7	37	0	0	44	6	0	2	0	8	0	37	0	0	37	97
Total	1	3	30	0	34	30	163	6	0	199	21	2	5	0	28	0	137	0	0	137	398
Grand Total	1	6	50	0	57	50	316	13	0	379	33	10	11	0	54	2	291	2	0	295	785
Approach %	1.8	10.5	87.7	0.0		13.2	83.4	3.4	0.0		61.1	18.5	20.4	0.0		0.7	98.6	0.7	0.0		
Total %	0.1	0.8	6.4	0.0	7.3	6.4	40.3	1.7	0.0	48.3	4.2	1.3	1.4	0.0	6.9	0.3	37.1	0.3	0.0	37.6	
Exiting Leg Total					62					374					21					328	785

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	3	0	3	3	39	1	0	43	2	0	5	0	7	0	41	0	0	41	94
7:30 AM	0	0	6	0	6	4	42	1	0	47	4	2	0	0	6	0	41	1	0	42	101
7:45 AM	0	0	7	0	7	10	49	3	0	62	2	4	0	0	6	2	33	1	0	36	111
8:00 AM	1	0	11	0	12	6	59	2	0	67	7	1	1	0	9	0	47	0	0	47	135
Total Volume	1	0	27	0	28	23	189	7	0	219	15	7	6	0	28	2	162	2	0	166	441
% Approach Total	3.6	0.0	96.4	0.0		10.5	86.3	3.2	0.0		53.6	25.0	21.4	0.0		1.2	97.6	1.2	0.0		
PHF	0.250	0.000	0.614	0.000	0.583	0.575	0.801	0.583	0.000	0.817	0.536	0.438	0.300	0.000	0.778	0.250	0.862	0.500	0.000	0.883	0.817
Entering Leg	1	0	27	0	28	23	189	7	0	219	15	7	6	0	28	2	162	2	0	166	441
Exiting Leg					32					204					9					196	441
Total					60					423					37					362	882

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	1	0	1	2	5	0	0	7	0	0	0	0	0	0	4	0	0	4	12
7:15 AM	0	0	1	0	1	0	2	0	0	2	0	0	1	0	1	1	3	0	0	4	8
7:30 AM	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	4	0	0	4	7
7:45 AM	0	0	2	0	2	1	3	0	0	4	0	0	0	0	0	0	1	0	0	1	7
Total	0	0	5	0	5	3	10	1	0	14	0	0	2	0	2	1	12	0	0	13	34
8:00 AM	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	6
8:15 AM	0	0	2	0	2	1	4	0	0	5	0	0	0	0	0	1	2	0	0	3	10
8:30 AM	0	0	2	0	2	1	1	0	0	2	1	0	0	0	1	0	0	0	0	0	5
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Total	0	0	5	0	5	2	8	0	0	10	2	0	0	0	2	1	4	0	0	5	22
Grand Total	0	0	10	0	10	5	18	1	0	24	2	0	2	0	4	2	16	0	0	18	56
Approach %	0.0	0.0	100.0	0.0		20.8	75.0	4.2	0.0		50.0	0.0	50.0	0.0		11.1	88.9	0.0	0.0		
Total %	0.0	0.0	17.9	0.0	17.9	8.9	32.1	1.8	0.0	42.9	3.6	0.0	3.6	0.0	7.1	3.6	28.6	0.0	0.0	32.1	
Exiting Leg Total					5					28					3					20	56

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	1	0	1	2	5	0	0	7	0	0	0	0	0	0	4	0	0	4	12
7:15 AM	0	0	1	0	1	0	2	0	0	2	0	0	1	0	1	1	3	0	0	4	8
7:30 AM	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	4	0	0	4	7
7:45 AM	0	0	2	0	2	1	3	0	0	4	0	0	0	0	0	0	1	0	0	1	7
Total Volume	0	0	5	0	5	3	10	1	0	14	0	0	2	0	2	1	12	0	0	13	34
% Approach Total	0.0	0.0	100.0	0.0		21.4	71.4	7.1	0.0		0.0	0.0	100.0	0.0		7.7	92.3	0.0	0.0		
PHF	0.000	0.000	0.625	0.000	0.625	0.375	0.500	0.250	0.000	0.500	0.000	0.000	0.500	0.000	0.500	0.250	0.750	0.000	0.000	0.813	0.708
Entering Leg	0	0	5	0	5	3	10	1	0	14	0	0	2	0	2	1	12	0	0	13	34
Exiting Leg					3					17					2					12	34
Total					8					31					4					25	68

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	0	2	0	0	2	5
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Grand Total	0	0	0	0	0	0	3	0	0	3	0	1	0	0	1	0	3	0	0	3	7
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	42.9	0.0	0.0	42.9	0.0	14.3	0.0	0.0	14.3	0.0	42.9	0.0	0.0	42.9	
Exiting Leg Total					1					3					0					3	7

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total Volume	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	0	2	0	0	2	5
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.250	0.000	0.000	0.250	0.000	0.500	0.000	0.000	0.500	0.625
Entering Leg	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	0	2	0	0	2	5
Exiting Leg					1					2					0					2	5
Total					1					4					1					4	10

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
7:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
8:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	5
Grand Total	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	4	0	0	4	12
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	
Exiting Leg Total					0					4					0					8	12

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
7:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
8:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total Volume	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.667
Entering Leg	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
Exiting Leg					0					3					0					5	8
Total					0					8					0					8	16

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg					0					0					0					1	1
Total					0					1					0					1	2

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Glendale Road							Whitwell Street							Deldorf Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							0							0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Glendale Road							Whitwell Street							Deldorf Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg							0							0							0							0	0
Total							0							0							0							0	0

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Glendale Road from North							Whitwell Street from East							Deldorf Street from South							Whitwell Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	3	0	3	4
7:30 AM	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	2	2	0	0	0	0	0	0	0	4
7:45 AM	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	5	1	6	11
Total	0	0	0	0	5	0	5	0	0	0	0	0	1	1	0	0	0	0	1	5	6	0	0	0	0	9	1	10	22
8:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	1	0	1	4
8:15 AM	0	0	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	3	0	3	8
8:30 AM	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	3
8:45 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	5	2	7	0	0	0	0	0	2	2	0	0	0	0	1	2	3	0	0	0	0	4	0	4	16
Grand Total	0	0	0	0	10	2	12	0	0	0	0	0	3	3	0	0	0	0	2	7	9	0	0	0	0	13	1	14	38
Approach %	0	0	0	0	83.3	16.7		0	0	0	0	0	100		0	0	0	0	22.2	77.8		0	0	0	0	92.9	7.14		
Total %	0	0	0	0	26.3	5.26	31.6	0	0	0	0	0	7.89	7.89	0	0	0	0	5.26	18.4	23.7	0	0	0	0	34.2	2.63	36.8	
Exiting Leg Total							12							3							9							14	38

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Glendale Road from North							Whitwell Street from East							Deldorf Street from South							Whitwell Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:30 AM	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	2	2	0	0	0	0	0	0	0	4
7:45 AM	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	5	1	6	11
8:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	1	0	1	4
8:15 AM	0	0	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	3	0	3	8
Total Volume	0	0	0	0	8	1	9	0	0	0	0	0	2	2	0	0	0	0	2	4	6	0	0	0	0	9	1	10	27
% Approach Total	0.0	0.0	0.0	0.0	88.9	11.1		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	90.0	10.0		
PHF	0.000	0.000	0.000	0.000	0.667	0.250	0.563	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.000	0.500	0.500	0.750	0.000	0.000	0.000	0.000	0.450	0.250	0.417	0.614
Entering Leg	0	0	0	0	8	1	9	0	0	0	0	0	2	2	0	0	0	0	2	4	6	0	0	0	0	9	1	10	27
Exiting Leg							9							2							6							10	27
Total							18							4							12							20	54

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	6	0	6	6	43	4	0	53	5	0	2	0	7	2	48	1	0	51	117
4:15 PM	1	0	1	0	2	10	54	8	0	72	6	0	2	0	8	1	50	1	0	52	134
4:30 PM	0	1	5	0	6	7	53	5	0	65	1	1	1	0	3	0	44	0	0	44	118
4:45 PM	0	0	10	0	10	7	30	2	0	39	4	2	0	0	6	1	48	0	0	49	104
Total	1	1	22	0	24	30	180	19	0	229	16	3	5	0	24	4	190	2	0	196	473
5:00 PM	0	2	7	0	9	6	32	4	0	42	6	0	1	0	7	0	51	0	0	51	109
5:15 PM	1	0	16	0	17	12	53	10	0	75	1	0	1	0	2	1	50	0	0	51	145
5:30 PM	1	0	9	0	10	11	48	7	0	66	4	1	3	0	8	1	51	1	0	53	137
5:45 PM	0	0	5	0	5	7	34	8	0	49	1	0	0	0	1	4	51	1	0	56	111
Total	2	2	37	0	41	36	167	29	0	232	12	1	5	0	18	6	203	2	0	211	502
Grand Total	3	3	59	0	65	66	347	48	0	461	28	4	10	0	42	10	393	4	0	407	975
Approach %	4.6	4.6	90.8	0.0		14.3	75.3	10.4	0.0		66.7	9.5	23.8	0.0		2.5	96.6	1.0	0.0		
Total %	0.3	0.3	6.1	0.0	6.7	6.8	35.6	4.9	0.0	47.3	2.9	0.4	1.0	0.0	4.3	1.0	40.3	0.4	0.0	41.7	
Exiting Leg Total					74					480					61					360	975
Cars	3	3	59	0	65	66	339	47	0	452	28	4	9	0	41	10	382	4	0	396	954
% Cars	100.0	100.0	100.0	0.0	100.0	100.0	97.7	97.9	0.0	98.0	100.0	100.0	90.0	0.0	97.6	100.0	97.2	100.0	0.0	97.3	97.8
Exiting Leg Total					74					469					60					351	954
Heavy Vehicles	0	0	0	0	0	0	8	1	0	9	0	0	1	0	1	0	11	0	0	11	21
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.1	0.0	2.0	0.0	0.0	10.0	0.0	2.4	0.0	2.8	0.0	0.0	2.7	2.2
Exiting Leg Total					0					11					1					9	21

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	2	7	0	9	6	32	4	0	42	6	0	1	0	7	0	51	0	0	51	109
5:15 PM	1	0	16	0	17	12	53	10	0	75	1	0	1	0	2	1	50	0	0	51	145
5:30 PM	1	0	9	0	10	11	48	7	0	66	4	1	3	0	8	1	51	1	0	53	137
5:45 PM	0	0	5	0	5	7	34	8	0	49	1	0	0	0	1	4	51	1	0	56	111
Total Volume	2	2	37	0	41	36	167	29	0	232	12	1	5	0	18	6	203	2	0	211	502
% Approach Total	4.9	4.9	90.2	0.0		15.5	72.0	12.5	0.0		66.7	5.6	27.8	0.0		2.8	96.2	0.9	0.0		
PHF	0.500	0.250	0.578	0.000	0.603	0.750	0.788	0.725	0.000	0.773	0.500	0.250	0.417	0.000	0.563	0.375	0.995	0.500	0.000	0.942	0.866
Cars	2	2	37	0	41	36	164	29	0	229	12	1	5	0	18	6	198	2	0	206	494
Cars %	100.0	100.0	100.0	0.0	100.0	100.0	98.2	100.0	0.0	98.7	100.0	100.0	100.0	0.0	100.0	100.0	97.5	100.0	0.0	97.6	98.4
Heavy Vehicles	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	8
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	2.4	1.6
Cars Enter Leg	2	2	37	0	41	36	164	29	0	229	12	1	5	0	18	6	198	2	0	206	494
Heavy Enter Leg	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	8
Total Entering Leg	2	2	37	0	41	36	167	29	0	232	12	1	5	0	18	6	203	2	0	211	502
Cars Exiting Leg					39					247					37					171	494
Heavy Exiting Leg					0					5					0					3	8
Total Exiting Leg					39					252					37					174	502

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	6	0	6	6	42	4	0	52	5	0	2	0	7	2	45	1	0	48	113
4:15 PM	1	0	1	0	2	10	53	7	0	70	6	0	1	0	7	1	49	1	0	51	130
4:30 PM	0	1	5	0	6	7	51	5	0	63	1	1	1	0	3	0	43	0	0	43	115
4:45 PM	0	0	10	0	10	7	29	2	0	38	4	2	0	0	6	1	47	0	0	48	102
Total	1	1	22	0	24	30	175	18	0	223	16	3	4	0	23	4	184	2	0	190	460
5:00 PM	0	2	7	0	9	6	32	4	0	42	6	0	1	0	7	0	48	0	0	48	106
5:15 PM	1	0	16	0	17	12	52	10	0	74	1	0	1	0	2	1	50	0	0	51	144
5:30 PM	1	0	9	0	10	11	47	7	0	65	4	1	3	0	8	1	49	1	0	51	134
5:45 PM	0	0	5	0	5	7	33	8	0	48	1	0	0	0	1	4	51	1	0	56	110
Total	2	2	37	0	41	36	164	29	0	229	12	1	5	0	18	6	198	2	0	206	494
Grand Total	3	3	59	0	65	66	339	47	0	452	28	4	9	0	41	10	382	4	0	396	954
Approach %	4.6	4.6	90.8	0.0		14.6	75.0	10.4	0.0		68.3	9.8	22.0	0.0		2.5	96.5	1.0	0.0		
Total %	0.3	0.3	6.2	0.0	6.8	6.9	35.5	4.9	0.0	47.4	2.9	0.4	0.9	0.0	4.3	1.0	40.0	0.4	0.0	41.5	
Exiting Leg Total					74					469					60					351	954

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	2	7	0	9	6	32	4	0	42	6	0	1	0	7	0	48	0	0	48	106
5:15 PM	1	0	16	0	17	12	52	10	0	74	1	0	1	0	2	1	50	0	0	51	144
5:30 PM	1	0	9	0	10	11	47	7	0	65	4	1	3	0	8	1	49	1	0	51	134
5:45 PM	0	0	5	0	5	7	33	8	0	48	1	0	0	0	1	4	51	1	0	56	110
Total Volume	2	2	37	0	41	36	164	29	0	229	12	1	5	0	18	6	198	2	0	206	494
% Approach Total	4.9	4.9	90.2	0.0		15.7	71.6	12.7	0.0		66.7	5.6	27.8	0.0		2.9	96.1	1.0	0.0		
PHF	0.500	0.250	0.578	0.000	0.603	0.750	0.788	0.725	0.000	0.774	0.500	0.250	0.417	0.000	0.563	0.375	0.971	0.500	0.000	0.920	0.858
Entering Leg	2	2	37	0	41	36	164	29	0	229	12	1	5	0	18	6	198	2	0	206	494
Exiting Leg					39					247					37					171	494
Total					80					476					55					377	988

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4
4:15 PM	0	0	0	0	0	0	1	1	0	2	0	0	1	0	1	0	1	0	0	1	4
4:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total	0	0	0	0	0	0	5	1	0	6	0	0	1	0	1	0	6	0	0	6	13
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	8
Grand Total	0	0	0	0	0	0	8	1	0	9	0	0	1	0	1	0	11	0	0	11	21
Approach %	0.0	0.0	0.0	0.0		0.0	88.9	11.1	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	38.1	4.8	0.0	42.9	0.0	0.0	4.8	0.0	4.8	0.0	52.4	0.0	0.0	52.4	
Exiting Leg Total					0					11					1					9	21
Buses	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	9
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	44.4	0.0	0.0	0.0	0.0	0.0	0.0	45.5	0.0	0.0	45.5	42.9
Exiting Leg Total					0					5					0					4	9
Single-Unit Trucks	0	0	0	0	0	0	4	1	0	5	0	0	1	0	1	0	6	0	0	6	12
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	50.0	100.0	0.0	55.6	0.0	0.0	100.0	0.0	100.0	0.0	54.5	0.0	0.0	54.5	57.1
Exiting Leg Total					0					6					1					5	12
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4
4:15 PM	0	0	0	0	0	0	1	1	0	2	0	0	1	0	1	0	1	0	0	1	4
4:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total Volume	0	0	0	0	0	0	5	1	0	6	0	0	1	0	1	0	6	0	0	6	13
% Approach Total	0.0	0.0	0.0	0.0		0.0	83.3	16.7	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.250	0.000	0.750	0.000	0.000	0.250	0.000	0.250	0.000	0.500	0.000	0.000	0.500	0.813
Buses	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	30.8
Single-Unit Trucks	0	0	0	0	0	0	3	1	0	4	0	0	1	0	1	0	4	0	0	4	9
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	60.0	100.0	0.0	66.7	0.0	0.0	100.0	0.0	100.0	0.0	66.7	0.0	0.0	66.7	69.2
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
Single-Unit Trucks	0	0	0	0	0	0	3	1	0	4	0	0	1	0	1	0	4	0	0	4	9
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	0	0	5	1	0	6	0	0	1	0	1	0	6	0	0	6	13
Buses					0					2					0					2	4
Single-Unit Trucks					0					4					1					4	9
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					0					6					1					6	13

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	4	0	4	5	38	3	0	46	4	0	2	0	6	2	40	1	0	43	99
4:15 PM	1	0	1	0	2	9	52	6	0	67	5	0	1	0	6	1	42	1	0	44	119
4:30 PM	0	1	4	0	5	6	44	5	0	55	1	1	0	0	2	0	37	0	0	37	99
4:45 PM	0	0	10	0	10	7	26	1	0	34	4	2	0	0	6	1	40	0	0	41	91
Total	1	1	19	0	21	27	160	15	0	202	14	3	3	0	20	4	159	2	0	165	408
5:00 PM	0	2	7	0	9	5	28	4	0	37	6	0	1	0	7	0	43	0	0	43	96
5:15 PM	1	0	15	0	16	11	51	9	0	71	1	0	1	0	2	1	50	0	0	51	140
5:30 PM	1	0	8	0	9	10	44	6	0	60	4	1	3	0	8	1	43	1	0	45	122
5:45 PM	0	0	4	0	4	6	32	5	0	43	1	0	0	0	1	4	49	1	0	54	102
Total	2	2	34	0	38	32	155	24	0	211	12	1	5	0	18	6	185	2	0	193	460
Grand Total	3	3	53	0	59	59	315	39	0	413	26	4	8	0	38	10	344	4	0	358	868
Approach %	5.1	5.1	89.8	0.0		14.3	76.3	9.4	0.0		68.4	10.5	21.1	0.0		2.8	96.1	1.1	0.0		
Total %	0.3	0.3	6.1	0.0	6.8	6.8	36.3	4.5	0.0	47.6	3.0	0.5	0.9	0.0	4.4	1.2	39.6	0.5	0.0	41.2	
Exiting Leg Total					67					423					52					326	868

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	2	7	0	9	5	28	4	0	37	6	0	1	0	7	0	43	0	0	43	96
5:15 PM	1	0	15	0	16	11	51	9	0	71	1	0	1	0	2	1	50	0	0	51	140
5:30 PM	1	0	8	0	9	10	44	6	0	60	4	1	3	0	8	1	43	1	0	45	122
5:45 PM	0	0	4	0	4	6	32	5	0	43	1	0	0	0	1	4	49	1	0	54	102
Total Volume	2	2	34	0	38	32	155	24	0	211	12	1	5	0	18	6	185	2	0	193	460
% Approach Total	5.3	5.3	89.5	0.0		15.2	73.5	11.4	0.0		66.7	5.6	27.8	0.0		3.1	95.9	1.0	0.0		
PHF	0.500	0.250	0.567	0.000	0.594	0.727	0.760	0.667	0.000	0.743	0.500	0.250	0.417	0.000	0.563	0.375	0.925	0.500	0.000	0.894	0.821
Entering Leg	2	2	34	0	38	32	155	24	0	211	12	1	5	0	18	6	185	2	0	193	460
Exiting Leg					35					231					32					162	460
Total					73					442					50					355	920

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	2	0	2	1	4	1	0	6	1	0	0	0	1	0	5	0	0	5	14
4:15 PM	0	0	0	0	0	1	1	1	0	3	1	0	0	0	1	0	7	0	0	7	11
4:30 PM	0	0	1	0	1	1	7	0	0	8	0	0	1	0	1	0	6	0	0	6	16
4:45 PM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	7	0	0	7	11
Total	0	0	3	0	3	3	15	3	0	21	2	0	1	0	3	0	25	0	0	25	52
5:00 PM	0	0	0	0	0	1	4	0	0	5	0	0	0	0	0	0	5	0	0	5	10
5:15 PM	0	0	1	0	1	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	4
5:30 PM	0	0	1	0	1	1	3	1	0	5	0	0	0	0	0	0	6	0	0	6	12
5:45 PM	0	0	1	0	1	1	1	3	0	5	0	0	0	0	0	0	2	0	0	2	8
Total	0	0	3	0	3	4	9	5	0	18	0	0	0	0	0	0	13	0	0	13	34
Grand Total	0	0	6	0	6	7	24	8	0	39	2	0	1	0	3	0	38	0	0	38	86
Approach %	0.0	0.0	100.0	0.0		17.9	61.5	20.5	0.0		66.7	0.0	33.3	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	7.0	0.0	7.0	8.1	27.9	9.3	0.0	45.3	2.3	0.0	1.2	0.0	3.5	0.0	44.2	0.0	0.0	44.2	
Exiting Leg Total					7					46					8					25	86

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	2	0	2	1	4	1	0	6	1	0	0	0	1	0	5	0	0	5	14
4:15 PM	0	0	0	0	0	1	1	1	0	3	1	0	0	0	1	0	7	0	0	7	11
4:30 PM	0	0	1	0	1	1	7	0	0	8	0	0	1	0	1	0	6	0	0	6	16
4:45 PM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	7	0	0	7	11
Total Volume	0	0	3	0	3	3	15	3	0	21	2	0	1	0	3	0	25	0	0	25	52
% Approach Total	0.0	0.0	100.0	0.0		14.3	71.4	14.3	0.0		66.7	0.0	33.3	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.375	0.000	0.375	0.750	0.536	0.750	0.000	0.656	0.500	0.000	0.250	0.000	0.750	0.000	0.893	0.000	0.000	0.893	0.813
Entering Leg	0	0	3	0	3	3	15	3	0	21	2	0	1	0	3	0	25	0	0	25	52
Exiting Leg					3					30					3					16	52
Total					6					51					6					41	104

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
Grand Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	9
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	44.4	0.0	0.0	44.4	0.0	0.0	0.0	0.0	0.0	0.0	55.6	0.0	0.0	55.6	
Exiting Leg Total					0					5					0					4	9

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
Total Volume	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.375	0.500
Entering Leg	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
Exiting Leg					0					3					0					3	6
Total					0					6					0					6	12

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
4:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	3
4:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	3	1	0	4	0	0	1	0	1	0	4	0	0	4	9
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
Grand Total	0	0	0	0	0	0	4	1	0	5	0	0	1	0	1	0	6	0	0	6	12
Approach %	0.0	0.0	0.0	0.0		0.0	80.0	20.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	33.3	8.3	0.0	41.7	0.0	0.0	8.3	0.0	8.3	0.0	50.0	0.0	0.0	50.0	
Exiting Leg Total					0					6					1					5	12

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
4:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	3
4:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	0	0	0	0	0	0	3	1	0	4	0	0	1	0	1	0	4	0	0	4	9
% Approach Total	0.0	0.0	0.0	0.0		0.0	75.0	25.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.250	0.000	0.500	0.000	0.000	0.250	0.000	0.250	0.000	0.500	0.000	0.000	0.500	0.750
Entering Leg	0	0	0	0	0	0	3	1	0	4	0	0	1	0	1	0	4	0	0	4	9
Exiting Leg					0					4					1					4	9
Total					0					8					2					8	18

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Glendale Road					Whitwell Street					Deldorf Street					Whitwell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg					0					0					0					0	0
Total					0					0					0					0	0

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Glendale Road							Whitwell Street							Deldorf Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							0							0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Glendale Road							Whitwell Street							Deldorf Street							Whitwell Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg							0							0							0							0	0
Total							0							0							0							0	0

PDI File #: **186173 S**
Location: **N: Glendale Road S: Deldorf Street**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Glendale Road from North							Whitwell Street from East							Deldorf Street from South							Whitwell Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
4:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4
5:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	3
5:15 PM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
Total	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	4	4	8
Grand Total	0	0	0	0	1	3	4	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	6	6	12
Approach %	0	0	0	0	25	75		0	0	0	0	100	0		0	0	0	0	100	0		0	0	0	0	0	100		
Total %	0	0	0	0	8.33	25	33.3	0	0	0	0	8.33	0	8.33	0	0	0	0	8.33	0	8.33	0	0	0	0	0	50	50	
Exiting Leg Total							4							1							1							6	12

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Glendale Road from North							Whitwell Street from East							Deldorf Street from South							Whitwell Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	3
5:15 PM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
Total Volume	0	0	0	0	1	2	3	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	3	3	8
% Approach Total	0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.250	0.375	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.750	0.750	0.667
Entering Leg	0	0	0	0	1	2	3	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	3	3	8
Exiting Leg							3							1							1							3	8
Total							6							2							2							6	16

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Dixwell Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	8	0	8	3	35	0	38	51	1	0	52	98
7:15 AM	2	13	0	15	7	45	0	52	53	0	0	53	120
7:30 AM	2	12	0	14	7	44	0	51	53	3	0	56	121
7:45 AM	4	8	0	12	4	66	0	70	48	0	0	48	130
Total	8	41	0	49	21	190	0	211	205	4	0	209	469
8:00 AM	0	8	0	8	3	74	0	77	68	1	0	69	154
8:15 AM	2	5	0	7	3	51	0	54	46	1	0	47	108
8:30 AM	1	7	0	8	0	43	0	43	31	3	0	34	85
8:45 AM	3	6	0	9	4	44	0	48	55	1	0	56	113
Total	6	26	0	32	10	212	0	222	200	6	0	206	460
Grand Total	14	67	0	81	31	402	0	433	405	10	0	415	929
Approach %	17.3	82.7	0.0		7.2	92.8	0.0		97.6	2.4	0.0		
Total %	1.5	7.2	0.0	8.7	3.3	43.3	0.0	46.6	43.6	1.1	0.0	44.7	
Exiting Leg Total				41				472				416	929
Cars	14	67	0	81	30	391	0	421	396	10	0	406	908
% Cars	100.0	100.0	0.0	100.0	96.8	97.3	0.0	97.2	97.8	100.0	0.0	97.8	97.7
Exiting Leg Total				40				463				405	908
Heavy Vehicles	0	0	0	0	1	11	0	12	9	0	0	9	21
% Heavy Vehicles	0.0	0.0	0.0	0.0	3.2	2.7	0.0	2.8	2.2	0.0	0.0	2.2	2.3
Exiting Leg Total				1				9				11	21

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Dixwell Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	2	13	0	15	7	45	0	52	53	0	0	53	120
7:30 AM	2	12	0	14	7	44	0	51	53	3	0	56	121
7:45 AM	4	8	0	12	4	66	0	70	48	0	0	48	130
8:00 AM	0	8	0	8	3	74	0	77	68	1	0	69	154
Total Volume	8	41	0	49	21	229	0	250	222	4	0	226	525
% Approach Total	16.3	83.7	0.0		8.4	91.6	0.0		98.2	1.8	0.0		
PHF	0.500	0.788	0.000	0.817	0.750	0.774	0.000	0.812	0.816	0.333	0.000	0.819	0.852
Cars	8	41	0	49	20	224	0	244	217	4	0	221	514
Cars %	100.0	100.0	0.0	100.0	95.2	97.8	0.0	97.6	97.7	100.0	0.0	97.8	97.9
Heavy Vehicles	0	0	0	0	1	5	0	6	5	0	0	5	11
Heavy Vehicles %	0.0	0.0	0.0	0.0	4.8	2.2	0.0	2.4	2.3	0.0	0.0	2.2	2.1
Cars Enter Leg	8	41	0	49	20	224	0	244	217	4	0	221	514
Heavy Enter Leg	0	0	0	0	1	5	0	6	5	0	0	5	11
Total Entering Leg	8	41	0	49	21	229	0	250	222	4	0	226	525
Cars Exiting Leg				24				258				232	514
Heavy Exiting Leg				1				5				5	11
Total Exiting Leg				25				263				237	525

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	8	0	8	3	34	0	37	50	1	0	51	96
7:15 AM	2	13	0	15	7	45	0	52	52	0	0	52	119
7:30 AM	2	12	0	14	6	43	0	49	52	3	0	55	118
7:45 AM	4	8	0	12	4	63	0	67	46	0	0	46	125
Total	8	41	0	49	20	185	0	205	200	4	0	204	458
8:00 AM	0	8	0	8	3	73	0	76	67	1	0	68	152
8:15 AM	2	5	0	7	3	48	0	51	45	1	0	46	104
8:30 AM	1	7	0	8	0	42	0	42	30	3	0	33	83
8:45 AM	3	6	0	9	4	43	0	47	54	1	0	55	111
Total	6	26	0	32	10	206	0	216	196	6	0	202	450
Grand Total	14	67	0	81	30	391	0	421	396	10	0	406	908
Approach %	17.3	82.7	0.0		7.1	92.9	0.0		97.5	2.5	0.0		
Total %	1.5	7.4	0.0	8.9	3.3	43.1	0.0	46.4	43.6	1.1	0.0	44.7	
Exiting Leg Total				40				463				405	908

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	2	13	0	15	7	45	0	52	52	0	0	52	119
7:30 AM	2	12	0	14	6	43	0	49	52	3	0	55	118
7:45 AM	4	8	0	12	4	63	0	67	46	0	0	46	125
8:00 AM	0	8	0	8	3	73	0	76	67	1	0	68	152
Total Volume	8	41	0	49	20	224	0	244	217	4	0	221	514
% Approach Total	16.3	83.7	0.0		8.2	91.8	0.0		98.2	1.8	0.0		
PHF	0.500	0.788	0.000	0.817	0.714	0.767	0.000	0.803	0.810	0.333	0.000	0.813	0.845
Entering Leg	8	41	0	49	20	224	0	244	217	4	0	221	514
Exiting Leg				24				258				232	514
Total				73				502				453	1028

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	1	1	0	2	1	0	0	1	3
7:45 AM	0	0	0	0	0	3	0	3	2	0	0	2	5
Total	0	0	0	0	1	5	0	6	5	0	0	5	11
8:00 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
8:15 AM	0	0	0	0	0	3	0	3	1	0	0	1	4
8:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
8:45 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
Total	0	0	0	0	0	6	0	6	4	0	0	4	10
Grand Total	0	0	0	0	1	11	0	12	9	0	0	9	21
Approach %	0.0	0.0	0.0		8.3	91.7	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	4.8	52.4	0.0	57.1	42.9	0.0	0.0	42.9	
Exiting Leg Total				1				9				11	21
Buses	0	0	0	0	1	3	0	4	4	0	0	4	8
% Buses	0.0	0.0	0.0	0.0	100.0	27.3	0.0	33.3	44.4	0.0	0.0	44.4	38.1
Exiting Leg Total				1				4				3	8
Single-Unit Trucks	0	0	0	0	0	7	0	7	5	0	0	5	12
% Single-Unit	0.0	0.0	0.0	0.0	0.0	63.6	0.0	58.3	55.6	0.0	0.0	55.6	57.1
Exiting Leg Total				0				5				7	12
Articulated Trucks	0	0	0	0	0	1	0	1	0	0	0	0	1
% Articulated	0.0	0.0	0.0	0.0	0.0	9.1	0.0	8.3	0.0	0.0	0.0	0.0	4.8
Exiting Leg Total				0				0				1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	1	1	0	2	1	0	0	1	3
7:45 AM	0	0	0	0	0	3	0	3	2	0	0	2	5
8:00 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
8:15 AM	0	0	0	0	0	3	0	3	1	0	0	1	4
Total Volume	0	0	0	0	1	8	0	9	5	0	0	5	14
% Approach Total	0.0	0.0	0.0		11.1	88.9	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.667	0.000	0.750	0.625	0.000	0.000	0.625	0.700
Buses	0	0	0	0	1	2	0	3	2	0	0	2	5
Buses %	0.0	0.0	0.0	0.0	100.0	25.0	0.0	33.3	40.0	0.0	0.0	40.0	35.7
Single-Unit Trucks	0	0	0	0	0	5	0	5	3	0	0	3	8
Single-Unit %	0.0	0.0	0.0	0.0	0.0	62.5	0.0	55.6	60.0	0.0	0.0	60.0	57.1
Articulated Trucks	0	0	0	0	0	1	0	1	0	0	0	0	1
Articulated %	0.0	0.0	0.0	0.0	0.0	12.5	0.0	11.1	0.0	0.0	0.0	0.0	7.1
Buses	0	0	0	0	1	2	0	3	2	0	0	2	5
Single-Unit Trucks	0	0	0	0	0	5	0	5	3	0	0	3	8
Articulated Trucks	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Entering Leg	0	0	0	0	1	8	0	9	5	0	0	5	14
Buses				1				2				2	5
Single-Unit Trucks				0				3				5	8
Articulated Trucks				0				0				1	1
Total Exiting Leg				1				5				8	14

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	7	0	7	3	27	0	30	46	0	0	46	83
7:15 AM	2	13	0	15	6	43	0	49	48	0	0	48	112
7:30 AM	2	12	0	14	6	42	0	48	47	3	0	50	112
7:45 AM	2	8	0	10	4	60	0	64	42	0	0	42	116
Total	6	40	0	46	19	172	0	191	183	3	0	186	423
8:00 AM	0	8	0	8	3	70	0	73	63	1	0	64	145
8:15 AM	2	5	0	7	3	44	0	47	42	1	0	43	97
8:30 AM	1	7	0	8	0	40	0	40	29	2	0	31	79
8:45 AM	3	6	0	9	4	41	0	45	53	1	0	54	108
Total	6	26	0	32	10	195	0	205	187	5	0	192	429
Grand Total	12	66	0	78	29	367	0	396	370	8	0	378	852
Approach %	15.4	84.6	0.0		7.3	92.7	0.0		97.9	2.1	0.0		
Total %	1.4	7.7	0.0	9.2	3.4	43.1	0.0	46.5	43.4	0.9	0.0	44.4	
Exiting Leg Total				37				436				379	852

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:15 AM	2	13	0	15	6	43	0	49	48	0	0	48	112
7:30 AM	2	12	0	14	6	42	0	48	47	3	0	50	112
7:45 AM	2	8	0	10	4	60	0	64	42	0	0	42	116
8:00 AM	0	8	0	8	3	70	0	73	63	1	0	64	145
Total Volume	6	41	0	47	19	215	0	234	200	4	0	204	485
% Approach Total	12.8	87.2	0.0		8.1	91.9	0.0		98.0	2.0	0.0		
PHF	0.750	0.788	0.000	0.783	0.792	0.768	0.000	0.801	0.794	0.333	0.000	0.797	0.836
Entering Leg	6	41	0	47	19	215	0	234	200	4	0	204	485
Exiting Leg				23				241				221	485
Total				70				475				425	970

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	1	0	1	0	7	0	7	4	1	0	5	13
7:15 AM	0	0	0	0	1	2	0	3	4	0	0	4	7
7:30 AM	0	0	0	0	0	1	0	1	5	0	0	5	6
7:45 AM	2	0	0	2	0	3	0	3	4	0	0	4	9
Total	2	1	0	3	1	13	0	14	17	1	0	18	35
8:00 AM	0	0	0	0	0	3	0	3	4	0	0	4	7
8:15 AM	0	0	0	0	0	4	0	4	3	0	0	3	7
8:30 AM	0	0	0	0	0	2	0	2	1	1	0	2	4
8:45 AM	0	0	0	0	0	2	0	2	1	0	0	1	3
Total	0	0	0	0	0	11	0	11	9	1	0	10	21
Grand Total	2	1	0	3	1	24	0	25	26	2	0	28	56
Approach %	66.7	33.3	0.0		4.0	96.0	0.0		92.9	7.1	0.0		
Total %	3.6	1.8	0.0	5.4	1.8	42.9	0.0	44.6	46.4	3.6	0.0	50.0	
Exiting Leg Total				3				27				26	56

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	1	0	1	0	7	0	7	4	1	0	5	13
7:15 AM	0	0	0	0	1	2	0	3	4	0	0	4	7
7:30 AM	0	0	0	0	0	1	0	1	5	0	0	5	6
7:45 AM	2	0	0	2	0	3	0	3	4	0	0	4	9
Total Volume	2	1	0	3	1	13	0	14	17	1	0	18	35
% Approach Total	66.7	33.3	0.0		7.1	92.9	0.0		94.4	5.6	0.0		
PHF	0.250	0.250	0.000	0.375	0.250	0.464	0.000	0.500	0.850	0.250	0.000	0.900	0.673
Entering Leg	2	1	0	3	1	13	0	14	17	1	0	18	35
Exiting Leg				2				18				15	35
Total				5				32				33	70

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Dixwell Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
7:45 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
Total	0	0	0	0	1	2	0	3	2	0	0	2	5
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
8:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	1	0	1	2	0	0	2	3
Grand Total	0	0	0	0	1	3	0	4	4	0	0	4	8
Approach %	0.0	0.0	0.0		25.0	75.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	12.5	37.5	0.0	50.0	50.0	0.0	0.0	50.0	
Exiting Leg Total				1				4				3	8

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Dixwell Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
7:45 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
Total Volume	0	0	0	0	1	2	0	3	2	0	0	2	5
% Approach Total	0.0	0.0	0.0		33.3	66.7	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.500	0.000	0.750	0.500	0.000	0.000	0.500	0.625
Entering Leg	0	0	0	0	1	2	0	3	2	0	0	2	5
Exiting Leg				1				2				2	5
Total				1				5				4	10

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Dixwell Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
7:45 AM	0	0	0	0	0	2	0	2	1	0	0	1	3
Total	0	0	0	0	0	3	0	3	3	0	0	3	6
8:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:15 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
8:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
8:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	4	0	4	2	0	0	2	6
Grand Total	0	0	0	0	0	7	0	7	5	0	0	5	12
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	58.3	0.0	58.3	41.7	0.0	0.0	41.7	
Exiting Leg Total				0				5				7	12

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Dixwell Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
7:45 AM	0	0	0	0	0	2	0	2	1	0	0	1	3
8:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:15 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
Total Volume	0	0	0	0	0	5	0	5	3	0	0	3	8
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.625	0.750	0.000	0.000	0.750	0.667
Entering Leg	0	0	0	0	0	5	0	5	3	0	0	3	8
Exiting Leg				0				3				5	8
Total				0				8				8	16

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	0	0	0	1
Grand Total	0	0	0	0	0	1	0	1	0	0	0	0	1
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				1	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	1
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	1	0	1	0	0	0	0	1
Exiting Leg				0				0				1	1
Total				0				1				1	2

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
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Bicycles (on Roadway and Crosswalks)

	Dixwell Avenue						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Dixwell Avenue						Whitwell Street						Whitwell Street						
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Dixwell Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	5	0	5	0	0	0	1	0	1	0	0	0	0	0	0	6
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
7:30 AM	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
7:45 AM	0	0	0	3	0	3	0	0	0	0	1	1	0	0	0	0	0	0	4
Total	0	0	0	12	0	12	0	0	0	1	2	3	0	0	0	0	0	0	15
8:00 AM	0	0	0	5	0	5	0	0	0	1	0	1	0	0	0	0	0	0	6
8:15 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2
8:30 AM	0	0	0	5	0	5	0	0	0	0	2	2	0	0	0	2	0	2	9
8:45 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	11	0	11	0	0	0	1	4	5	0	0	0	2	0	2	18
Grand Total	0	0	0	23	0	23	0	0	0	2	6	8	0	0	0	2	0	2	33
Approach %	0	0	0	100	0		0	0	0	25	75		0	0	0	100	0		
Total %	0	0	0	69.697	0	69.697	0	0	0	6.0606	18.182	24.242	0	0	0	6.0606	0	6.0606	
Exiting Leg Total						23						8						2	33

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Dixwell Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:45 AM	0	0	0	3	0	3	0	0	0	0	1	1	0	0	0	0	0	0	4
8:00 AM	0	0	0	5	0	5	0	0	0	1	0	1	0	0	0	0	0	0	6
8:15 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2
8:30 AM	0	0	0	5	0	5	0	0	0	0	2	2	0	0	0	2	0	2	9
Total Volume	0	0	0	13	0	13	0	0	0	1	5	6	0	0	0	2	0	2	21
% Approach Total	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	16.7	83.3		0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.650	0.000	0.650	0.000	0.000	0.000	0.250	0.625	0.750	0.000	0.000	0.000	0.250	0.000	0.250	0.583
Entering Leg	0	0	0	13	0	13	0	0	0	1	5	6	0	0	0	2	0	2	21
Exiting Leg						13						6						2	21
Total						26						12						4	42

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Dixwell Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	8	0	8	7	58	0	65	62	1	0	63	136
4:15 PM	1	4	0	5	2	69	0	71	59	0	0	59	135
4:30 PM	1	9	0	10	3	64	0	67	49	1	0	50	127
4:45 PM	2	7	0	9	6	38	0	44	62	2	0	64	117
Total	4	28	0	32	18	229	0	247	232	4	0	236	515
5:00 PM	1	11	0	12	5	38	0	43	65	0	0	65	120
5:15 PM	1	7	0	8	6	76	0	82	66	0	0	66	156
5:30 PM	1	15	0	16	10	67	0	77	66	0	0	66	159
5:45 PM	1	6	0	7	7	49	0	56	58	1	0	59	122
Total	4	39	0	43	28	230	0	258	255	1	0	256	557
Grand Total	8	67	0	75	46	459	0	505	487	5	0	492	1072
Approach %	10.7	89.3	0.0		9.1	90.9	0.0		99.0	1.0	0.0		
Total %	0.7	6.3	0.0	7.0	4.3	42.8	0.0	47.1	45.4	0.5	0.0	45.9	
Exiting Leg Total				51				554				467	1072
Cars	8	67	0	75	46	450	0	496	476	5	0	481	1052
% Cars	100.0	100.0	0.0	100.0	100.0	98.0	0.0	98.2	97.7	100.0	0.0	97.8	98.1
Exiting Leg Total				51				543				458	1052
Heavy Vehicles	0	0	0	0	0	9	0	9	11	0	0	11	20
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	2.0	0.0	1.8	2.3	0.0	0.0	2.2	1.9
Exiting Leg Total				0				11				9	20

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Dixwell Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
5:00 PM	1	11	0	12	5	38	0	43	65	0	0	65	120
5:15 PM	1	7	0	8	6	76	0	82	66	0	0	66	156
5:30 PM	1	15	0	16	10	67	0	77	66	0	0	66	159
5:45 PM	1	6	0	7	7	49	0	56	58	1	0	59	122
Total Volume	4	39	0	43	28	230	0	258	255	1	0	256	557
% Approach Total	9.3	90.7	0.0		10.9	89.1	0.0		99.6	0.4	0.0		
PHF	1.000	0.650	0.000	0.672	0.700	0.757	0.000	0.787	0.966	0.250	0.000	0.970	0.876
Cars	4	39	0	43	28	227	0	255	250	1	0	251	549
Cars %	100.0	100.0	0.0	100.0	100.0	98.7	0.0	98.8	98.0	100.0	0.0	98.0	98.6
Heavy Vehicles	0	0	0	0	0	3	0	3	5	0	0	5	8
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.2	2.0	0.0	0.0	2.0	1.4
Cars Enter Leg	4	39	0	43	28	227	0	255	250	1	0	251	549
Heavy Enter Leg	0	0	0	0	0	3	0	3	5	0	0	5	8
Total Entering Leg	4	39	0	43	28	230	0	258	255	1	0	256	557
Cars Exiting Leg				29				289				231	549
Heavy Exiting Leg				0				5				3	8
Total Exiting Leg				29				294				234	557

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	8	0	8	7	57	0	64	59	1	0	60	132
4:15 PM	1	4	0	5	2	67	0	69	58	0	0	58	132
4:30 PM	1	9	0	10	3	62	0	65	48	1	0	49	124
4:45 PM	2	7	0	9	6	37	0	43	61	2	0	63	115
Total	4	28	0	32	18	223	0	241	226	4	0	230	503
5:00 PM	1	11	0	12	5	38	0	43	62	0	0	62	117
5:15 PM	1	7	0	8	6	75	0	81	66	0	0	66	155
5:30 PM	1	15	0	16	10	66	0	76	64	0	0	64	156
5:45 PM	1	6	0	7	7	48	0	55	58	1	0	59	121
Total	4	39	0	43	28	227	0	255	250	1	0	251	549
Grand Total	8	67	0	75	46	450	0	496	476	5	0	481	1052
Approach %	10.7	89.3	0.0		9.3	90.7	0.0		99.0	1.0	0.0		
Total %	0.8	6.4	0.0	7.1	4.4	42.8	0.0	47.1	45.2	0.5	0.0	45.7	
Exiting Leg Total				51				543				458	1052

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
5:00 PM	1	11	0	12	5	38	0	43	62	0	0	62	117
5:15 PM	1	7	0	8	6	75	0	81	66	0	0	66	155
5:30 PM	1	15	0	16	10	66	0	76	64	0	0	64	156
5:45 PM	1	6	0	7	7	48	0	55	58	1	0	59	121
Total Volume	4	39	0	43	28	227	0	255	250	1	0	251	549
% Approach Total	9.3	90.7	0.0		11.0	89.0	0.0		99.6	0.4	0.0		
PHF	1.000	0.650	0.000	0.672	0.700	0.757	0.000	0.787	0.947	0.250	0.000	0.951	0.880
Entering Leg	4	39	0	43	28	227	0	255	250	1	0	251	549
Exiting Leg				29				289				231	549
Total				72				544				482	1098

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	1	0	1	3	0	0	3	4
4:15 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
4:30 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
4:45 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
Total	0	0	0	0	0	6	0	6	6	0	0	6	12
5:00 PM	0	0	0	0	0	0	0	0	3	0	0	3	3
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	3	0	3	5	0	0	5	8
Grand Total	0	0	0	0	0	9	0	9	11	0	0	11	20
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	45.0	0.0	45.0	55.0	0.0	0.0	55.0	
Exiting Leg Total				0				11				9	20
Buses	0	0	0	0	0	4	0	4	5	0	0	5	9
% Buses	0.0	0.0	0.0	0.0	0.0	44.4	0.0	44.4	45.5	0.0	0.0	45.5	45.0
Exiting Leg Total				0				5				4	9
Single-Unit Trucks	0	0	0	0	0	5	0	5	6	0	0	6	11
% Single-Unit	0.0	0.0	0.0	0.0	0.0	55.6	0.0	55.6	54.5	0.0	0.0	54.5	55.0
Exiting Leg Total				0				6				5	11
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	1	0	1	3	0	0	3	4
4:15 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
4:30 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
4:45 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
Total Volume	0	0	0	0	0	6	0	6	6	0	0	6	12
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.500	0.000	0.000	0.500	0.750
Buses	0	0	0	0	0	2	0	2	2	0	0	2	4
Buses %	0.0	0.0	0.0	0.0	0.0	33.3	0.0	33.3	33.3	0.0	0.0	33.3	33.3
Single-Unit Trucks	0	0	0	0	0	4	0	4	4	0	0	4	8
Single-Unit %	0.0	0.0	0.0	0.0	0.0	66.7	0.0	66.7	66.7	0.0	0.0	66.7	66.7
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	2	0	2	2	0	0	2	4
Single-Unit Trucks	0	0	0	0	0	4	0	4	4	0	0	4	8
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	0	6	0	6	6	0	0	6	12
Buses				0				2				2	4
Single-Unit Trucks				0				4				4	8
Articulated Trucks				0				0				0	0
Total Exiting Leg				0				6				6	12

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Dixwell Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	7	0	7	6	50	0	56	50	1	0	51	114
4:15 PM	1	3	0	4	2	64	0	66	51	0	0	51	121
4:30 PM	0	8	0	8	3	55	0	58	44	0	0	44	110
4:45 PM	2	7	0	9	5	33	0	38	54	2	0	56	103
Total	3	25	0	28	16	202	0	218	199	3	0	202	448
5:00 PM	1	10	0	11	5	34	0	39	57	0	0	57	107
5:15 PM	0	7	0	7	4	73	0	77	63	0	0	63	147
5:30 PM	1	15	0	16	10	61	0	71	57	0	0	57	144
5:45 PM	1	5	0	6	7	43	0	50	54	1	0	55	111
Total	3	37	0	40	26	211	0	237	231	1	0	232	509
Grand Total	6	62	0	68	42	413	0	455	430	4	0	434	957
Approach %	8.8	91.2	0.0		9.2	90.8	0.0		99.1	0.9	0.0		
Total %	0.6	6.5	0.0	7.1	4.4	43.2	0.0	47.5	44.9	0.4	0.0	45.4	
Exiting Leg Total				46				492				419	957

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Dixwell Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
5:00 PM	1	10	0	11	5	34	0	39	57	0	0	57	107
5:15 PM	0	7	0	7	4	73	0	77	63	0	0	63	147
5:30 PM	1	15	0	16	10	61	0	71	57	0	0	57	144
5:45 PM	1	5	0	6	7	43	0	50	54	1	0	55	111
Total Volume	3	37	0	40	26	211	0	237	231	1	0	232	509
% Approach Total	7.5	92.5	0.0		11.0	89.0	0.0		99.6	0.4	0.0		
PHF	0.750	0.617	0.000	0.625	0.650	0.723	0.000	0.769	0.917	0.250	0.000	0.921	0.866
Entering Leg	3	37	0	40	26	211	0	237	231	1	0	232	509
Exiting Leg				27				268				214	509
Total				67				505				446	1018

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	1	0	1	1	7	0	8	9	0	0	9	18
4:15 PM	0	1	0	1	0	3	0	3	7	0	0	7	11
4:30 PM	1	1	0	2	0	7	0	7	4	1	0	5	14
4:45 PM	0	0	0	0	1	4	0	5	7	0	0	7	12
Total	1	3	0	4	2	21	0	23	27	1	0	28	55
5:00 PM	0	1	0	1	0	4	0	4	5	0	0	5	10
5:15 PM	1	0	0	1	2	2	0	4	3	0	0	3	8
5:30 PM	0	0	0	0	0	5	0	5	7	0	0	7	12
5:45 PM	0	1	0	1	0	5	0	5	4	0	0	4	10
Total	1	2	0	3	2	16	0	18	19	0	0	19	40
Grand Total	2	5	0	7	4	37	0	41	46	1	0	47	95
Approach %	28.6	71.4	0.0		9.8	90.2	0.0		97.9	2.1	0.0		
Total %	2.1	5.3	0.0	7.4	4.2	38.9	0.0	43.2	48.4	1.1	0.0	49.5	
Exiting Leg Total				5				51				39	95

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	1	0	1	1	7	0	8	9	0	0	9	18
4:15 PM	0	1	0	1	0	3	0	3	7	0	0	7	11
4:30 PM	1	1	0	2	0	7	0	7	4	1	0	5	14
4:45 PM	0	0	0	0	1	4	0	5	7	0	0	7	12
Total Volume	1	3	0	4	2	21	0	23	27	1	0	28	55
% Approach Total	25.0	75.0	0.0		8.7	91.3	0.0		96.4	3.6	0.0		
PHF	0.250	0.750	0.000	0.500	0.500	0.750	0.000	0.719	0.750	0.250	0.000	0.778	0.764
Entering Leg	1	3	0	4	2	21	0	23	27	1	0	28	55
Exiting Leg				3				30				22	55
Total				7				53				50	110

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Dixwell Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
4:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	2	0	2	2	0	0	2	4
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	0	2	3	0	0	3	5
Grand Total	0	0	0	0	0	4	0	4	5	0	0	5	9
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	44.4	0.0	44.4	55.6	0.0	0.0	55.6	
Exiting Leg Total				0				5				4	9

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Dixwell Avenue from North				Whitwell Street from East				Whitwell Street from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
Total Volume	0	0	0	0	0	3	0	3	3	0	0	3	6
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.375	0.000	0.000	0.375	0.500
Entering Leg	0	0	0	0	0	3	0	3	3	0	0	3	6
Exiting Leg				0				3				3	6
Total				0				6				6	12

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
4:15 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
4:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	4	0	4	4	0	0	4	8
5:00 PM	0	0	0	0	0	0	0	0	2	0	0	2	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	1	0	1	2	0	0	2	3
Grand Total	0	0	0	0	0	5	0	5	6	0	0	6	11
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	45.5	0.0	45.5	54.5	0.0	0.0	54.5	
Exiting Leg Total				0				6				5	11

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	1	0	1	2	0	0	2	3
4:15 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
4:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	0	0	0	0	0	4	0	4	4	0	0	4	8
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.500	0.000	0.000	0.500	0.667
Entering Leg	0	0	0	0	0	4	0	4	4	0	0	4	8
Exiting Leg				0				4				4	8
Total				0				8				8	16

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dixwell Avenue				Whitwell Street				Whitwell Street				
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Dixwell Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Dixwell Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186173 T**
Location: **N: Dixwell Avenue**
Location: **E: Whitwell Street W: Whitwell Street**
City, State: **Quincy, MA**
Client: **Tetratech/ I. Prizant**
Site Code: **143-166451-17001**
Count Date: **Tuesday, April 03, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Dixwell Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	1	5	6	0	0	0	0	0	0	0	0	0	0	0	0	6
4:15 PM	0	0	0	0	2	2	0	0	0	0	3	3	0	0	0	0	0	0	5
4:30 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	1	1	0	0	0	2	0	2	0	0	0	0	0	0	3
Total	0	0	0	1	9	10	0	0	0	2	3	5	0	0	0	0	0	0	15
5:00 PM	0	0	0	2	2	4	0	0	0	2	0	2	0	0	0	0	2	2	8
5:15 PM	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	4
5:30 PM	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	1	1	2	4
Total	0	0	0	3	8	11	0	0	0	2	2	4	0	0	0	1	3	4	19
Grand Total	0	0	0	4	17	21	0	0	0	4	5	9	0	0	0	1	3	4	34
Approach %	0	0	0	19.048	80.952		0	0	0	44.444	55.556		0	0	0	25	75		
Total %	0	0	0	11.765	50	61.765	0	0	0	11.765	14.706	26.471	0	0	0	2.9412	8.8235	11.765	
Exiting Leg Total						21						9						4	34

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Dixwell Avenue from North						Whitwell Street from East						Whitwell Street from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	2	2	4	0	0	0	2	0	2	0	0	0	0	2	2	8
5:15 PM	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	4
5:30 PM	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	1	1	2	4
Total Volume	0	0	0	3	8	11	0	0	0	2	2	4	0	0	0	1	3	4	19
% Approach Total	0.0	0.0	0.0	27.3	72.7		0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	25.0	75.0		
PHF	0.000	0.000	0.000	0.375	0.667	0.688	0.000	0.000	0.000	0.250	0.250	0.500	0.000	0.000	0.000	0.250	0.375	0.500	0.594
Entering Leg	0	0	0	3	8	11	0	0	0	2	2	4	0	0	0	1	3	4	19
Exiting Leg						11						4						4	19
Total						22						8						8	38

Appendix C

Seasonal Adjustment Data

114 Whitwell Street Redevelopment Project
Quincy, MA

Seasonal Adjustment Calculations

Count Station/Year	April Seasonal Adjustment Factor	June Seasonal Adjustment Factor
Sta H8483 - 2015	0.99	1.06
Sta H8489 - 2015	1.01	0.93
Sta 8489 - 2014	1.00	0.89
Average	**1.00**	**0.96**

Average - no seasonal adjustment required

Appendix D

General Background Traffic Growth Calculations

114 Whitwell Street Redevelopment Project

Quincy, MA

General Background Growth Rate

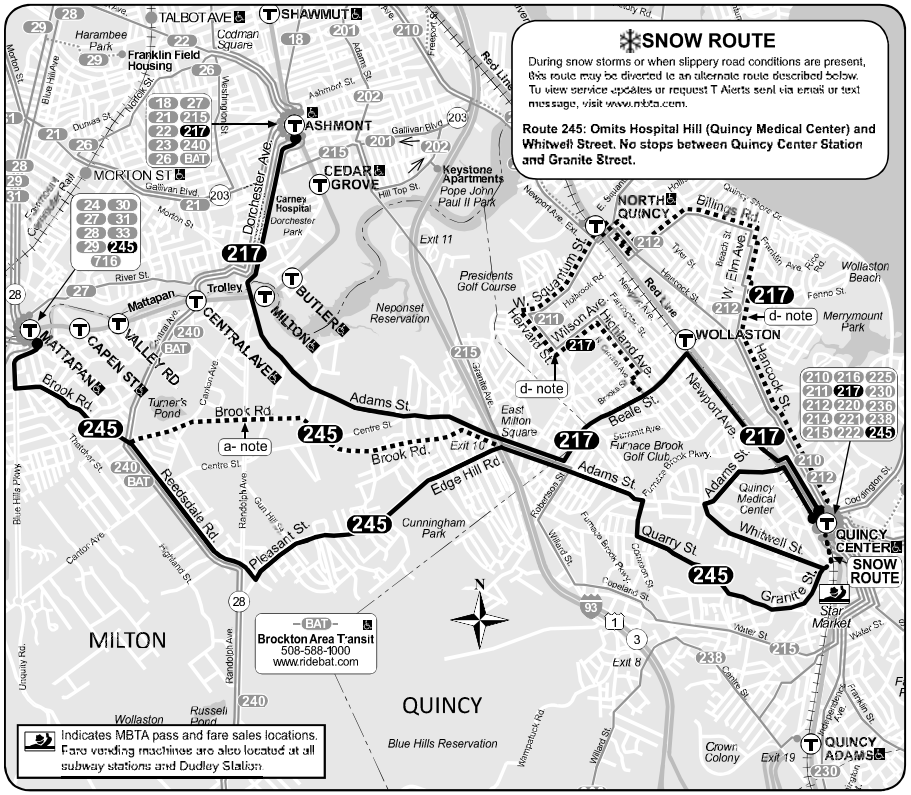
Year	Sta H8489	% Change (per year)
2009	187,883	-
2010	189,462	**0.84%**
2011	189,763	**0.16%**
2012	191,361	**0.84%**
2013	193,321	**1.02%**
2014	189,437	**-2.01%**
2015	188,886	**-0.29%**
	Average % Change	**0.09%**

Use 1% per year growth rate

Appendix E

Public Transportation Data

Route 217 Quincy Center Station - Ashmont Station
Route 245 Quincy Center Station - Mattapan Station



217•245

Spring April 1, 2018 - June 23, 2018

217 Quincy Center Station-Ashmont Station

245 Quincy Center Station-Mattapan Station

Serving

- Quincy Medical Center
- Carney Hospital
- Milton Hospital
- Pierce Square
- Mattapan High Speed Line
- Red Line
- Old Colony Commuter Rail

Massachusetts Bay Transportation Authority

massDOT Massachusetts Department of Transportation

Information 617-222-3200 • 1-800-392-6100
(TTY) 617-222-5146 • www.mbta.com

217 Weekday

Inbound				Outbound			
Leave Quincy Center Station	Arrive Newport Ave. @ Beale St.	Arrive E. Milton Square	Arrive Ashmont Station	Leave Ashmont Station	Arrive E. Milton Square	Arrive Newport Ave. @ Beale St.	Arrive Quincy Center Station
6:20A	6:24A	6:27A	6:40A	d 7:00A	7:08A	.....	7:37A
6:50	6:54	6:57	7:10	d 7:25	7:35	.....	8:08
cds 2:35P	**.....**	**.....**	**.....**	**3:20P**	**3:31P**	**3:39P**	**3:47P**
.....	**.....**	**de 3:00P**	**3:14P**	**5:50**	**5:57**	**6:02**	**6:07**
5:20	**5:24**	**5:32**	**5:43**				

c - Departs Hollis Avenue at Newbury Avenue to Bryant Avenue at Upton Street
d - Via North Quincy
e - Departs East Squantum Street at Newbury Avenue at 2:40 pm
s - Does NOT run during school vacation

No Route 217 service on Saturday or Sunday.

All buses are accessible to persons with disabilities

Fare	Local Bus	Bus + Bus	Rapid Transit	Bus + Rapid Transit
CharlieCard	$1.70	$1.70	$2.25	$2.25
CharlieTicket	$2.00	$2.00	$2.75	$4.75
Cash-on-Board	$2.00	$4.00	$2.75	$4.75
Student*	$0.85	$0.85	$1.10	$1.10
Senior/TAP**	$0.85	$0.85	$1.10	$1.10

VALID PASSES: LinkPass ($84.50/mo.); Local Bus ($55/mo.); *Student LinkPass ($30.00/mo.); **Senior/TAP LinkPass ($30/mo.); and express bus, commuter rail, and boat passes.
FREE FARES: Children 11 and under ride free when accompanied by an adult; Blind Access CharlieCard holders ride free and if using a guide, the guide rides free.
* Requires Student CharlieCard, available to students through participating middle schools and high schools.
** Requires Senior/TAP CharlieCard, available to Medicare cardholders, seniors 65+, and persons with disabilities.

Spring 2018 Holidays
April 16: see Weekday May 28: see Sunday

Route 217
Quincy Center Station - Ashmont Station

245 Weekday

Inbound			Outbound		
Leave Quincy Center Station	Arrive E. Milton Square	Arrive Mattapan Station	Leave Mattapan Station	Arrive E. Milton Square	Arrive Quincy Center Station
6:05A	6:15A	6:29A	6:35A	6:49A	7:06A
6:45	6:55	7:11	7:17	7:31	7:49
a 7:20	7:33	7:47	a 7:55	8:08	8:27
8:00	8:13	8:30	8:37	8:51	9:09
9:15	9:28	9:42	9:47	10:00	10:14
10:30	10:41	10:55	11:00	11:13	11:27
11:45	11:56	**12:10P**			
12:45P	**12:56P**	**1:10P**	**12:15P**	**12:28P**	**12:41P**
a 2:02	**2:15**	**2:28**	**1:15**	**1:29**	**1:43**
hs 2:40	**.....**	**.....**	**b 2:35**	**2:49**	**3:07**
3:15	**3:30**	**3:46**	**3:55**	**4:12**	**4:27**
a 4:00	**4:14**	**4:26**	**a 4:35**	**4:46**	**5:04**
4:30	**4:45**	**4:59**	**5:05**	**5:20**	**5:40**
a 5:03	**5:17**	**5:30**	**a 5:35**	**5:46**	**6:04**
5:35	**5:50**	**6:05**	**6:10**	**6:25**	**6:40**
6:15	**6:29**	**6:43**	**6:50**	**7:05**	**7:19**
7:15	**7:30**	**7:44**	**7:50**	**8:04**	**8:17**

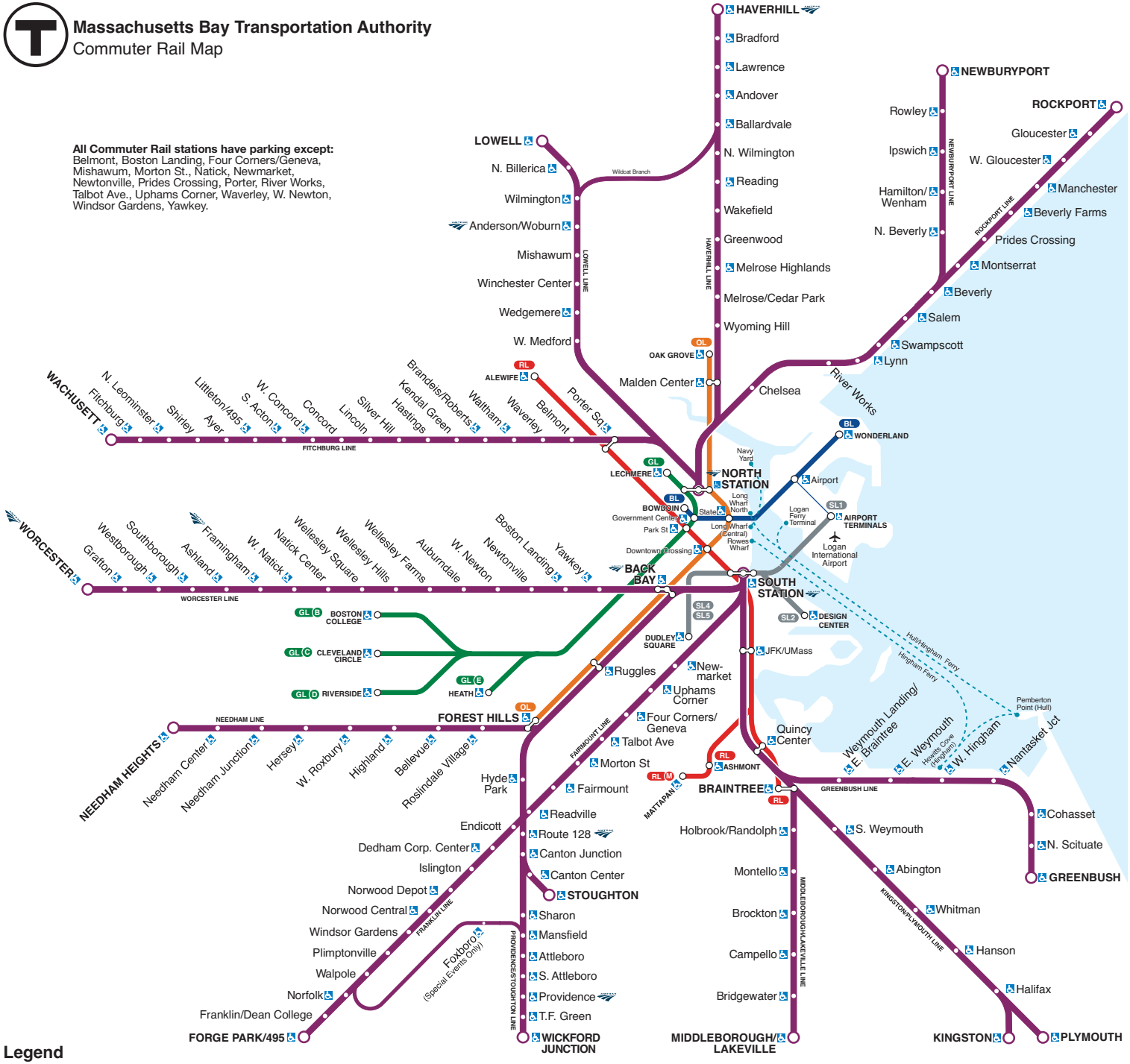
a - Via Brook Road
b - Via Canton Avenue
h - Departs Hancock Street at St. Ann's Road to Newport Avenue at Beale Street.
s - Does NOT run during school vacation

No Route 245 service on Saturday or Sunday.

Route 245
Quincy Center Station - Mattapan Station

Massachusetts Bay Transportation Authority
Commuter Rail Map

All Commuter Rail stations have parking except:
Belmont, Boston Landing, Four Corners/Geneva, Mishawum, Morton St., Natick, Newmarket, Newtonville, Prides Crossing, Porter, River Works, Talbot Ave., Uphams Corner, Waverley, W. Newton, Windsor Gardens, Yawkey.



Legend

- COMMUTER RAIL LINES
- Under Construction
- Terminus Station
- RL RED LINE
- M MATTAPAN LINE
- OL ORANGE LINE
- SL SILVER LINE and branches SL1 SL4 SL2 SL5
- GL GREEN LINE and branches B C D E
- BL BLUE LINE
- Accessible station — All MBTA and Massport bus and ferry services are accessible
- Transfer station
- FERRY
- Free Logan Airport shuttle bus
- Amtrak service

Customer Communications & Travel Info
617-222-3200, 1-800-392-6100,
TTY 617-222-5146, www.mbta.com

MBTA Transit Police: **911**
TTY 617-222-1200

Elevator/escalator/lift updates: 800-392-6100

 Not to scale

Fares

PRICE PER TRIP	Local Bus	Bus + Bus	Rapid Transit	Bus + Rapid Transit
CharlieCard	$1.70	$1.70	$2.25	$2.25
CharlieTicket	$2.00	$2.00	$2.75	$4.75***
Cash-on-Board	$2.00	$4.00	$2.75	$4.75***
Student*	$0.85	$0.85	$1.10	$1.10
Senior/TAP**	$0.85	$0.85	$1.10	$1.10
UNLIMITED TRIP PASSES				
1-Day	$12.00	$12.00	$12.00	$12.00
7-Day	$21.25	$21.25	$21.25	$21.25
Monthly	$55.00	$55.00	$84.50	$84.50
Senior/TAP Monthly$30.00/month for unlimited travel on Local Bus and Rapid Transit				

VALID PASSES: LinkPass ($84.50/mo.); Student LinkPass* ($30/mo.) ; Senior/TAP LinkPass* ($30/mo.); and express bus, commuter rail, and boat passes.

FREE FARES: Children 11 and under ride free when accompanied by an adult; Blind Access CharlieCard holders ride free: if using a guide, the guide rides free

* Available to students through participating middle schools and high schools.

** Available to Medicare cardholders, seniors 65+, and persons with disabilities.

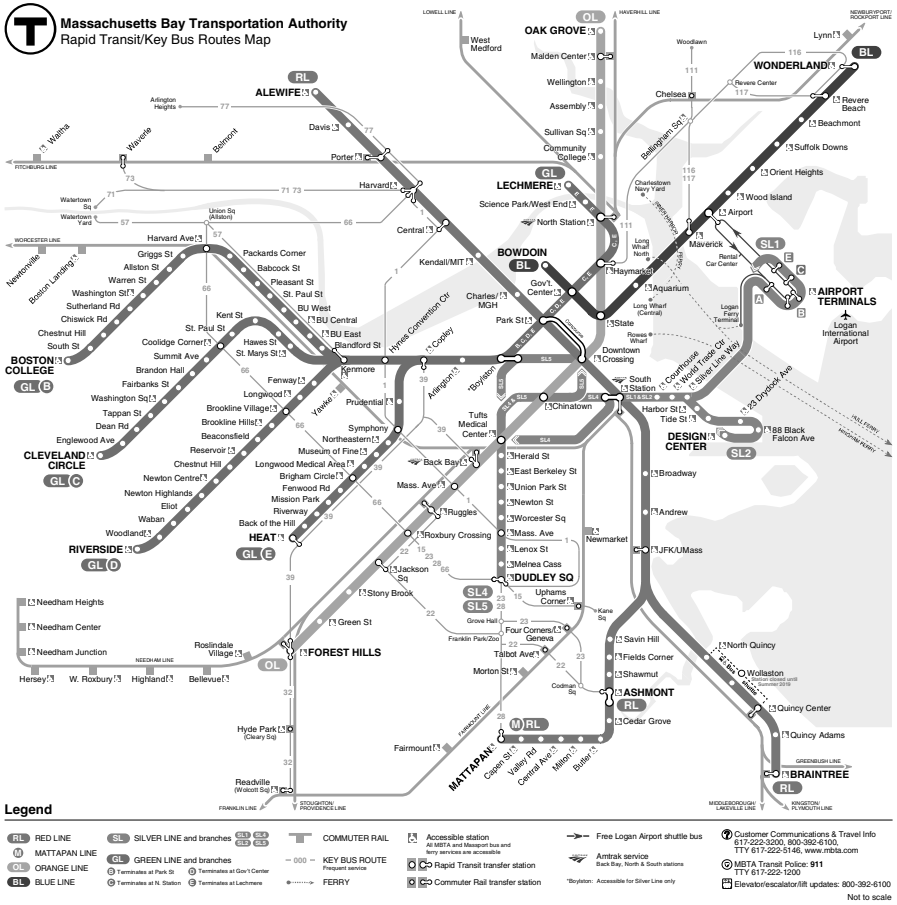
*** For Silver Line SL4 or SL5 pay $2.75. Also see "transfers."

TRANSFERS

If paying with a CharlieTicket or CharlieCard, discounted transfers that are available are automatic — just use the same ticket or card throughout your trip. If paying with cash onboard a vehicle, free transfers are only allowed between rapid transit lines and inside paid platform areas at gated stations.

SCHEDULES

Schedules are available at the following stations: Park Street, Airport, Malden, Harvard, Haymarket (Green Line Level), Back Bay, Downtown Crossing (Orange Line Level), and Quincy Center, or ask a Customer Service Agent. Schedules are also available at the State Transportation Building (10 Park Plaza), 45 High St, and online at mbta.com.



Rapid Transit

Spring April 1, 2018 - June 23, 2018

Massachusetts Bay Transportation Authority

massDOT Massachusetts Department of Transportation

Information 617-222-3200 • 1-800-392-6100
(TTY) 617-222-5146 • www.mbta.com

Weekday

Rapid Transit Line	First Trip	AM Peak	Midday	PM Peak	Evening	Late Night	Last Trip
Red Line							
Alewife	5:24AM	9 min	14 min	9 min	12 min	12 min	12:15AM
Braintree*	5:15AM	9 min	14 min	9 min	12 min	12 min	12:17AM
Alewife	5:16AM	9 min	14 min	9 min	12 min	12 min	w 12:22AM
Ashmont	5:16AM	9 min	14 min	9 min	12 min	12 min	w 12:30AM
"M" Ashmont	5:17AM	5 min	8 min	5 min	12 min	12 min	w 1:05AM
Mattapan	5:05AM	5 min	8 min	5 min	12 min	12 min	12:53AM
Blue Line							
Wonderland	5:13AM	5 min	9 min	5 min	9 min	9 min	12:28AM
Orient Heights	5:13AM	5 min	9 min	5 min	9 min	9 min	12:33AM
Bowdoin	5:29AM	5 min	9 min	5 min	9 min	9 min	w 1:00AM
Orange Line							
Oak Grove	5:16AM	6 min	9 min	6 min	10 min	10 min	w 12:30AM
Forest Hills	5:16AM	6 min	9 min	6 min	10 min	10 min	w 12:28AM
Green Line							
B Boston College	5:01AM	6 min	8 min	6 min	8 min	9 min	12:10AM
Park Street	5:42AM	6 min	8 min	6 min	8 min	9 min	w 12:52AM
C Cleveland Circle	5:01AM[1]	6 min	9 min	7 min	7 min	10 min	12:10AM
North Station	5:55AM	6 min	9 min	7 min	7 min	10 min	w 12:46AM
D Riverside	4:56AM	6 min	8 min	6 min	8 min	11 min	12:05AM
Government Ctr.	5:41AM	6 min	8 min	6 min	8 min	11 min	w 12:49AM
E Lechmere	5:01AM	6 min	8 min	6 min	9 min	9 min	12:30AM
Heath Street	5:38AM	6 min	8 min	6 min	9 min	9 min	12:47AM[3]
Silver Line							
SL1 Logan Airport	5:38AM	8 min	8 min	10 min	8 min	12 min	f 12:44AM
South Station	5:40AM	8 min	8 min	10 min	8 min	12 min	12:30AM
SL2 Design Center	6:03AM	5 min	10 min	5 min	9 min	15 min	12:30AM
South Station	5:45AM	5 min	10 min	5 min	9 min	15 min	12:50AM
Additional Waterfront-only service							
Silver Line Way	5:28AM	10 min	**Use SL1/SL2**				
South Station	5:35AM	10 min					12:53AM
SL4 Dudley Station	5:20AM	12 min	16 min	14 min	12 min	19 min	12:20AM
South Station	5:35AM	12 min	16 min	14 min	12 min	19 min	12:39AM
SL5 Dudley Station	5:15AM	8 min	10 min	8 min	7 min	17 min	12:53AM
Downtown Xing	5:32AM	8 min	10 min	8 min	7 min	17 min	w 1:07AM

Saturday

Rapid Transit Line	First Trip	AM Peak	PM Peak	Evening	Late Night	Last Trip
Red Line						
Alewife	5:24AM	14 min	14 min	14 min	14 min	12:15AM
Braintree*	5:15AM	14 min	14 min	14 min	14 min	12:17AM
Alewife	5:16AM	14 min	14 min	14 min	14 min	w 12:22AM
Ashmont	5:16AM	14 min	14 min	14 min	14 min	w 12:30AM
"M" Ashmont	5:15AM	26 min	12 min	12 min	26 min	w 1:05AM
Mattapan	5:05AM	26 min	12 min	12 min	26 min	12:53AM
Blue Line						
Wonderland	5:25AM	9 min	9 min	9 min	13 min	12:28AM
Orient Heights	5:13AM	9 min	9 min	9 min	13 min	12:33AM
Bowdoin	5:29AM	9 min	9 min	9 min	13 min	w 1:00AM
Orange Line						
Oak Grove	5:16AM	10 min	9 min	11 min	11 min	w 12:30AM
Forest Hills	5:16AM	10 min	9 min	11 min	11 min	w 12:28AM
Green Line						
B Boston College	4:45AM[2]	11 min	7 min	7 min	11 min	12:09AM
Park Street	5:40AM	11 min	7 min	7 min	11 min	w 12:52AM
C Cleveland Circle	4:50AM[2]	10 min	9 min	8 min	10 min	12:10AM
North Station	5:30AM	10 min	9 min	8 min	10 min	w 12:46AM
D Riverside	4:55AM	13 min	9 min	8 min	10 min	12:02AM
Government Ctr.	5:38AM	13 min	9 min	8 min	10 min	w 12:49AM
E Lechmere	5:01AM	11 min	9 min	11 min	11 min	12:30AM
Heath Street	5:39AM	11 min	9 min	11 min	11 min	12:47AM[3]
Silver Line						
SL1 Logan Airport	5:33AM	12 min	12 min	12 min	12 min	f 12:45AM
South Station	5:35AM	12 min	12 min	12 min	12 min	12:30AM
SL2 Design Center	6:10AM	15 min	15 min	15 min	15 min	12:35AM
South Station	5:50AM	15 min	15 min	15 min	15 min	12:49AM
Additional Waterfront-only service						
Silver Line Way	5:28AM	**Use SL1/SL2**				
South Station						12:26AM
SL4 Dudley Station	5:23AM	15 min	15 min	15 min	20 min	12:20AM
South Station	5:40AM	15 min	15 min	15 min	20 min	12:40AM
SL5 Dudley Station	5:19AM	10 min	10 min	11 min	11 min	12:46AM
Downtown Xing	5:34AM	10 min	10 min	11 min	11 min	w 1:00AM

Sunday

Rapid Transit Line	First Trip	AM Peak	PM Peak	Evening	Late Night	Last Trip
Red Line						
Alewife	6:08AM	15 min	15 min	15 min	16 min	12:15AM
Braintree*	6:00AM	15 min	15 min	15 min	16 min	12:17AM
Alewife	6:00AM	15 min	15 min	15 min	16 min	w 12:22AM
Ashmont	6:00AM	15 min	15 min	15 min	16 min	w 12:30AM
"M" Ashmont	6:03AM	26 min	12 min	12 min	26 min	w 1:05AM
Mattapan	5:51AM	26 min	12 min	12 min	26 min	12:53AM
Blue Line						
Wonderland	5:58AM	13 min	9 min	9 min	13 min	12:28AM
Orient Heights	6:03AM	13 min	9 min	9 min	13 min	12:33AM
Bowdoin	6:21AM	13 min	9 min	9 min	13 min	w 1:00AM
Orange Line						
Oak Grove	6:00AM	13 min	11 min	11 min	11 min	w 12:30AM
Forest Hills	6:00AM	13 min	11 min	11 min	11 min	w 12:28AM
Green Line						
B Boston College	5:20AM[2]	12 min	9 min	7 min	10 min	12:10AM
Park Street	6:12AM	12 min	9 min	7 min	10 min	w 12:52AM
C Cleveland Circle	5:30AM[2]	12 min	11 min	9 min	12 min	12:10AM
North Station	6:06AM	12 min	11 min	9 min	12 min	w 12:46AM
D Riverside	5:25AM	13 min	11 min	11 min	11 min	12:05AM
Government Ctr.	6:10AM	13 min	11 min	11 min	11 min	w 12:49AM
E Lechmere	5:35AM	12 min	12 min	12 min	12 min	12:30AM
Heath Street	6:15AM	12 min	12 min	12 min	12 min	12:47AM[3]
Silver Line						
SL1 Logan Airport	5:50AM	12 min	8 min	8 min	8 min	f 12:45AM
South Station	6:12AM	12 min	8 min	8 min	8 min	12:30AM
SL2 Design Center	6:50AM	15 min	15 min	15 min	15 min	12:34AM
South Station	6:35AM	15 min	15 min	15 min	15 min	12:48AM
Additional Waterfront-only service						
Silver Line Way	6:05AM	**Use SL1/SL2**				
South Station						1:01AM
SL4 Dudley Station	6:02AM	15 min	15 min	15 min	20 min	12:20AM
South Station	6:20AM	15 min	15 min	15 min	20 min	12:40AM
SL5 Dudley Station	6:00AM	10 min	8 min	9 min	9 min	12:25AM
Downtown Xing	6:15AM	10 min	8 min	9 min	9 min	w 12:47AM

Schedule Periods (approximate):

AM Rush Hour:	6:30 AM - 9:00 AM
Midday:	9:00 AM - 3:30 PM
PM Rush Hour:	3:30 PM - 6:30 PM
Evening:	6:30 PM - 8:00 PM
Late Night:	8:00 PM - CLOSE

Red Line Note:
*Braintree Line:
Due to construction on Wollaston Station the station will be closed. During construction shuttle buses will operate between Wollaston, North Quincy, and Quincy Center Stations. Please visit mbta.com/alerts for updated service information.

Mattapan Note:
Saturday and Sunday before 10:00 AM and after 8:00 PM trips depart every 26 minutes and the rest of the day every 12 minutes. Also, see Mattapan Line Schedule Card.

Green Line Notes:
1 - The first two C Line AM inbound trips run through to Lechmere Station on weekdays.

2 - The first B Line and second C Line AM inbound trips run through to Lechmere Station on weekends.

3 - The 12:32AM trip from Heath St is the last connecting train to other lines downtown. The 12:47AM trip from Heath St. runs in service to Lechmere with no guaranteed connections.

f - After exiting Ted Williams Tunnel bus will only service World Trade Center and South Station stops.

w - Last trips wait at some stations, primarily in the Downtown area, for connecting service. Departure times are approximate.

Spring 2018 Holidays
April 16: see Weekday May 28: see Sunday

GREENBUSH LINE effective May 21, 2018

Massachusetts Bay Transportation Authority

KEOLIS

Monday to Friday

Inbound to Boston

ZONE	STATION	TRAIN #	070	072	074	076	078	080	082	084	086	088	090	092
			AM							PM				
	Bikes Allowed													
6	Greenbush		5:40	6:37	7:03	7:50	8:50	10:35	11:50	2:11	3:47	5:20	7:05	8:10
5	North Scituate		5:47	6:44	7:10	7:57	8:57	10:42	11:57	2:18	3:54	5:27	7:12	8:17
4	Cohasset		5:54	6:51	7:17	8:04	9:04	10:48	12:04	2:25	4:01	5:38	7:22	8:23
4	Nantasket Junction		5:58	6:55	7:21	8:08	9:08	10:51	12:08	2:28	4:04	5:42	7:26	8:26
3	West Hingham		6:03	7:00	7:26	8:13	9:13	10:56	12:13	2:33	4:09	5:47	7:31	8:31
2	East Weymouth		6:07	7:04	7:30	8:17	9:17	11:03	12:17	2:37	4:12	5:53	7:35	8:34
2	Weymouth Landing/East Braintree		6:13	7:10	7:36	8:23	9:23	11:09	12:23	2:43	4:18	5:59	7:41	8:40
1	Quincy Center		L 6:22	-	L 7:46	L 8:32	L 9:32	L 11:18	L 12:32	L 2:52	L 4:28	-	L 7:53	L 8:49
1A	JFK/UMass		L 6:30	L 7:28	-	-	-	-	-	-	-	-	-	-
1A	South Station		6:38	7:36	8:03	8:49	9:49	11:34	12:48	3:09	4:46	6:34	8:07	9:07

Trains in purple box indicate peak period trains.

Monday to Friday

Outbound from Boston

ZONE	STATION	TRAIN #	071	073	075	077	079	081	083	085	087	089	091	093
			AM			PM								
	Bikes Allowed													
1A	South Station		6:54	9:25	10:30	12:41	2:27	4:02	4:52	5:19	5:45	6:38	8:25	10:00
1A	JFK/UMass		-	-	-	-	-	4:08	-	5:26	-	-	-	-
1	Quincy Center		-	9:38	10:43	12:54	2:40	-	5:05	5:34	5:58	6:51	8:38	10:13
2	Weymouth Landing/East Braintree		L 7:17	9:47	10:52	1:03	2:49	4:24	5:14	5:42	6:07	7:00	8:47	10:22
2	East Weymouth		L 7:23	9:53	10:58	1:08	2:55	4:30	5:20	5:48	6:13	7:06	8:53	10:28
3	West Hingham		7:30	9:57	11:03	1:12	2:59	4:34	5:24	5:52	6:17	7:10	8:56	10:32
4	Nantasket Junction		7:34	10:02	11:07	1:17	3:04	4:39	5:29	5:58	6:22	7:15	9:00	10:37
4	Cohasset		7:37	10:05	11:10	1:20	3:08	4:43	5:33	6:01	6:25	7:19	9:03	10:40
5	North Scituate		7:45	10:13	11:18	1:28	3:16	4:51	5:41	6:09	6:33	7:27	9:12	10:48
6	Greenbush		7:55	10:23	11:28	1:39	3:25	4:59	5:51	6:19	6:43	7:36	9:22	10:57

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Keep in Mind:

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Times listed are departure times. To ensure you make your train, please be on the platform ready to board prior to departure time.

Presidents' Day and 4th of July operate on a **Saturday service schedule.**

New Year's Day, Memorial Day, Labor Day, Thanksgiving Day, and Christmas Day operate on a **Sunday service schedule**.

For all other holiday schedules, please check MBTA.com or call 617-222-3200.

Times in purple with "f" indicate a flag stop: Passengers must tell the conductor that they wish to leave. Passengers waiting to board must be visible on the platform for the train to stop.

Times in blue with "L" indicate an early departure: The train may leave ahead of schedule at these stops.

Bikes: Bicycles are allowed on trains with the bicycle symbol shown below the train number.

High level platform and bridge plate available. Visit **mbta.com/accessibility** for more information.

Saturday & Sunday

Inbound to Boston

ZONE	STATION	SATURDAY TRAIN # / SUNDAY TRAIN #	1070 / 2070	1072 / 2072	1074 / 2074	1076 / 2076	1078 / 2078	1080 / 2080	1082 / 2082	1084 / 2084
			AM			PM				
	Bikes Allowed									
6	Greenbush		7:15	9:30	11:08	12:20	2:10	3:55	6:30	9:30
5	North Scituate		7:22	9:37	11:15	12:27	2:17	4:02	6:37	9:37
4	Cohasset		7:29	9:44	11:22	12:34	2:23	4:09	6:44	9:44
4	Nantasket Junction		7:32	9:47	11:26	12:37	2:26	4:12	6:47	9:47
3	West Hingham		7:37	9:52	11:31	12:42	2:31	4:17	6:52	9:52
2	East Weymouth		7:41	9:56	11:38	12:46	2:35	4:21	6:56	9:56
2	Weymouth Landing/East Braintree		7:47	10:02	11:44	12:52	2:41	4:27	7:02	10:02
1	Quincy Center		L 7:56	L 10:12	L 11:53	L 1:01	L 2:50	L 4:36	L 7:11	L 10:11
1A	JFK/UMass		L 8:04	L 10:20	L 12:01	L 1:09	L 2:59	L 4:44	L 7:19	L 10:19
1A	South Station		8:12	10:28	12:07	1:18	3:07	4:53	7:27	10:26

Saturday & Sunday

Outbound to Boston

ZONE	STATION	SATURDAY TRAIN # / SUNDAY TRAIN #	1071 / 2071	1073 / 2073	1075 / 2075	1077 / 2077	1079 / 2079	1081 / 2081	1083 / 2083	1085 / 2085
			AM			PM				
	Bikes Allowed									
1A	South Station		8:05	9:45	11:03	12:55	2:45	5:10	8:00	10:55
1A	JFK/UMass		f 8:12	f 9:51	f 11:09	f 1:01	f 2:51	f 5:16	f 8:06	f 11:01
1	Quincy Center		L 8:19	L 9:59	L 11:17	L 1:09	L 2:59	L 5:24	L 8:14	L 11:09
2	Weymouth Landing/East Braintree		L 8:28	10:08	11:26	1:18	3:08	5:33	8:23	11:18
2	East Weymouth		L 8:33	10:14	11:32	1:24	3:13	5:39	8:29	11:24
3	West Hingham		8:37	10:18	11:36	1:28	3:17	5:43	8:33	11:28
4	Nantasket Junction		8:42	10:22	11:41	1:33	3:22	5:48	8:38	11:33
4	Cohasset		8:45	10:25	11:44	1:36	3:25	5:51	8:41	11:37
5	North Scituate		8:53	10:33	11:52	1:44	3:33	5:59	8:49	11:45
6	Greenbush		9:02	10:42	12:02	1:54	3:42	6:08	8:58	11:54

KINGSTON/PLYMOUTH LINE effective May 21, 2018

Massachusetts Bay Transportation Authority

KEOLIS

Monday to Friday

Inbound to Boston

			AM					PM						
ZONE	STATION	TRAIN #	032	034	036	038	040	060	062	064	048	052	066	056
	Bikes Allowed													
8	Plymouth		-	-	-	-	-	10:08	12:06	2:28	-	-	7:45	-
8	Kingston		5:32	6:19	7:11	7:36	8:37	10:48	-	1:35	4:02	6:27	7:23	8:53
7	Halifax		5:42	6:29	7:21	7:46	8:47	10:58	12:16	2:38	4:12	6:40	7:55	9:03
6	Hanson		5:47	6:34	7:26	7:51	8:52	11:03	12:21	2:43	4:17	6:45	8:00	9:08
5	Whitman		5:52	6:39	7:31	7:56	8:57	11:08	12:26	2:48	4:22	6:55	8:08	9:13
4	Abington		5:56	6:43	7:35	8:00	9:01	11:12	12:30	2:52	4:26	6:58	8:12	9:17
3	South Weymouth		6:01	6:49	7:42	8:05	9:06	11:20	12:37	2:57	4:31	7:03	8:17	9:22
2	Braintree		-	L 6:57	L 7:50	L 8:13	L 9:14	L 11:27	L 12:45	L 3:05	L 4:38	L 7:11	L 8:25	L 9:29
1	Quincy Center		-	-	-	-	-	-	-	-	-	-	-	-
1A	JFK/UMass		L 6:21	-	L 8:03	L 8:27	L 9:27	-	L 12:58	-	-	-	-	-
1A	South Station		6:29	7:17	8:10	8:35	9:34	11:46	1:05	3:26	4:59	7:28	8:45	9:49

Trains in purple box indicate peak period trains.

Monday to Friday

Outbound from Boston

			AM			PM								
ZONE	STATION	TRAIN #	033	061	063	065	041	043	045	047	067	051	055	057
	Bikes Allowed													
1A	South Station		7:11	8:56	10:50	12:25	2:47	4:20	5:00	5:38	6:15	7:29	9:30	10:40
1A	JFK/UMass		-	-	-	-	2:53	4:26	5:06	-	-	-	9:36	10:46
1	Quincy Center		-	9:09	-	-	-	-	-	5:51	-	-	-	-
2	Braintree		L 7:32	9:15	11:08	12:44	3:07	4:40	5:19	5:57	6:33	7:47	9:48	10:59
3	South Weymouth		L 7:39	9:22	11:15	12:51	3:14	4:47	5:26	6:04	6:40	7:54	9:55	11:06
4	Abington		7:44	9:27	11:20	12:57	3:19	4:52	5:31	6:09	6:45	7:59	10:00	11:11
5	Whitman		7:47	9:31	11:24	1:01	3:23	4:56	5:35	6:13	6:48	8:03	10:03	11:15
6	Hanson		7:57	9:36	11:29	1:06	3:28	5:01	5:40	6:18	6:53	8:08	10:08	11:20
7	Halifax		8:02	9:41	11:34	1:11	3:33	5:06	5:45	6:23	6:58	8:13	10:13	11:25
8	Kingston		8:12	10:28	-	1:23	3:45	5:18	5:57	6:35	7:11	8:26	10:26	11:36
8	Plymouth		-	9:54	11:47	1:52	-	-	-	-	7:37	-	-	-

Trains in purple box indicate peak period trains.

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Times listed are departure times. To ensure you make your train, please be on the platform ready to board prior to departure time.

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For all other holiday schedules, please check MBTA.com or call 617-222-3200.

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Times in blue with "L" indicate an early departure: The train may leave ahead of schedule at these stops.

Bikes: Bicycles are allowed on trains with the bicycle symbol shown below the train number.

High level platform and bridge plate available.
Visit **mbta.com/accessibility** for more information.

Saturday & Sunday

Inbound to Boston

			AM				PM			
		SATURDAY TRAIN #	1032	1034	1052	1036	1054	1038	1056	1040
ZONE	STATION	SUNDAY TRAIN #	2032	2034	2052	2036	2054	2038	2056	2040
	Bikes Allowed									
8	Plymouth		-	-	9:37	-	12:55	-	6:54	-
8	Kingston		7:00	8:50	10:05	11:30	1:22	3:35	6:28	9:37
7	Halifax		7:10	9:00	10:15	11:40	1:32	3:45	7:04	9:47
6	Hanson		7:15	9:05	10:20	11:45	1:37	3:50	7:09	9:52
5	Whitman		7:20	9:12	10:25	11:50	1:42	3:55	7:14	9:57
4	Abington		7:24	9:16	10:29	11:54	1:46	3:59	7:18	10:00
3	South Weymouth		7:29	9:21	10:37	11:59	1:51	4:04	7:23	10:05
2	Braintree		L 7:37	L 9:28	L 10:44	L 12:06	L 1:58	L 4:12	L 7:30	L 10:12
1	Quincy Center		L 7:43	-	L 10:50	-	L 2:04	-	L 7:36	L 10:18
1A	JFK/UMass		L 7:51	L 9:41	L 10:57	L 12:19	L 2:11	L 4:25	L 7:43	L 10:25
1A	South Station		7:58	9:49	11:04	12:26	2:19	4:32	7:51	10:33

Saturday & Sunday

Outbound from Boston

			AM			PM				
		SATURDAY TRAIN #	1051	1033	1053	1035	1037	1055	1039	1041
ZONE	STATION	SUNDAY TRAIN #	2051	2033	2053	2035	2037	2055	2039	2041
	Bikes Allowed									
1A	South Station		8:30	10:05	11:47	2:00	4:10	5:20	8:20	10:45
1A	JFK/UMass		f 8:36	f 10:11	f 11:53	f 2:06	f 4:16	f 5:26	f 8:26	f 10:51
1	Quincy Center		f 8:43	f 10:18	f 12:00	f 2:13	f 4:23	f 5:33	f 8:33	f 10:58
2	Braintree		8:50	10:25	12:07	2:19	4:29	5:40	8:39	11:04
3	South Weymouth		8:57	10:32	12:14	2:26	4:36	5:47	8:46	11:11
4	Abington		9:02	10:37	12:19	2:31	4:41	5:52	8:51	11:16
5	Whitman		9:06	10:41	12:23	2:35	4:45	5:56	8:55	11:20
6	Hanson		9:11	10:46	12:28	2:40	4:50	6:01	9:00	11:25
7	Halifax		9:16	10:51	12:33	2:45	4:55	6:06	9:05	11:30
8	Kingston		9:55	11:03	1:12	2:57	5:08	6:18	9:17	11:42
8	Plymouth		9:27	-	12:45	-	-	6:44	-	-

MIDDLEBOROUGH LINE effective May 21, 2018

Massachusetts Bay Transportation Authority

KEOLIS

Monday to Friday

Inbound to Boston

ZONE	STATION	TRAIN #	AM 002	004	006	008	010	012	014	PM 016	018	020	022	028
	Bikes Allowed		🚲					🚲	🚲	🚲	🚲	🚲	🚲	🚲
8	Middleborough/Lakeville	♿	5:20	6:00	6:58	7:20	8:07	9:38	11:10	1:08	3:25	4:54	6:05	9:25
6	Bridgewater	♿	5:30	6:10	7:08	7:30	8:17	9:48	11:20	1:18	3:35	5:04	6:20	9:35
5	Campello	♿	5:37	6:18	7:16	7:38	8:25	9:56	11:28	1:26	3:43	f 5:11	f 6:28	9:42
4	Brockton	♿	5:41	6:22	7:20	7:42	8:29	10:00	11:32	1:30	3:47	f 5:15	f 6:33	9:46
4	Montello	♿	5:44	6:25	7:23	7:45	8:32	10:03	11:35	1:33	3:50	f 5:18	f 6:37	9:49
3	Holbrook/Randolph	♿	5:49	6:30	7:28	7:50	8:37	10:08	11:40	1:38	3:55	f 5:23	f 6:42	9:54
2	Braintree	♿	L 5:56	-	-	-	L 8:44	-	-	L 1:44	L 4:03	L 5:31	L 6:48	L 10:00
1	Quincy Center	♿	-	L 6:42	L 7:39	L 8:01	-	L 10:20	L 11:51	L 1:49	-	-	-	L 10:05
1A	JFK/UMass	♿	L 6:10	-	L 7:48	L 8:11	L 8:58	-	-	-	-	-	-	-
1A	South Station	♿	6:17	6:58	7:56	8:18	9:05	10:36	12:07	2:06	4:24	6:06	7:15	10:22

Trains in purple box indicate peak period trains.

Monday to Friday

Outbound from Boston

ZONE	STATION	TRAIN #	AM 003	005	007	009	PM 015	017	019	021	023	025	027	029
	Bikes Allowed		🚲	🚲	🚲	🚲	🚲						🚲	🚲
1A	South Station	♿	6:35	8:24	9:57	11:57	2:10	3:43	4:40	5:12	5:57	6:52	8:07	10:30
1A	JFK/UMass	♿	-	-	-	-	-	3:49	-	-	6:03	-	8:13	-
1	Quincy Center	♿	L 6:49	-	10:10	12:10	2:23	3:57	4:53	5:25	6:11	7:05	8:21	10:43
2	Braintree	♿	L 6:55	L 8:43	-	-	-	-	-	-	-	-	-	-
3	Holbrook/Randolph	♿	f 7:03	8:51	10:22	12:23	2:36	4:10	5:06	5:37	6:23	7:17	8:34	10:56
4	Montello	♿	f 7:08	8:56	10:27	12:28	2:41	4:15	5:11	5:42	6:28	7:22	8:39	11:01
4	Brockton	♿	f 7:12	8:59	10:30	12:31	2:44	4:18	5:14	5:45	6:31	7:25	8:42	11:04
5	Campello	♿	7:20	9:03	10:34	12:35	2:48	4:22	5:18	5:49	6:35	7:29	8:46	11:08
6	Bridgewater	♿	7:38	9:11	10:42	12:43	2:56	4:30	5:26	5:57	6:43	7:37	8:54	11:16
8	Middleborough/Lakeville	♿	7:50	9:24	10:53	12:55	3:10	4:41	5:38	6:10	6:55	7:50	9:05	11:27

Trains in purple box indicate peak period trains.

Keep in Mind:

This schedule will be effective from May 21, 2018 and will replace the schedule of November 20, 2017.

Times listed are departure times. To ensure you make your train, please be on the platform ready to board prior to departure time.

Presidents' Day and 4th of July operate on a **Saturday service schedule.**

New Year's Day, Memorial Day, Labor Day, Thanksgiving Day, and Christmas Day operate on a **Sunday service schedule**.

For all other holiday schedules, please check MBTA.com or call 617-222-3200.

Times in purple with "f" indicate a flag stop: Passengers must tell the conductor that they wish to leave. Passengers waiting to board must be visible on the platform for the train to stop.

Times in blue with "L" indicate an early departure: The train may leave ahead of schedule at these stops.

Bikes: Bicycles are allowed on trains with the bicycle symbol shown below the train number.

High level platform and bridge plate available.
Visit **mbta.com/accessibility** for more information.

Saturday & Sunday

Inbound to Boston

ZONE	STATION	SATURDAY TRAIN # / SUNDAY TRAIN #	AM 1002 / 2002	1004 / 2004	1006 / 2006	PM 1008 / 2008	1010 / 2010	1012 / 2012	1014 / 2014	1016 / 2016
	Bikes Allowed		🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲
8	Middleborough/Lakeville	♿	6:50	8:22	10:28	12:43	1:53	4:06	7:04	9:22
6	Bridgewater	♿	7:00	8:32	10:38	12:53	2:03	4:16	7:14	9:32
5	Campello	♿	7:07	8:40	10:46	1:01	2:11	4:24	7:22	9:40
4	Brockton	♿	7:11	8:44	10:50	1:05	2:15	4:28	7:26	9:44
4	Montello	♿	7:14	8:47	10:53	1:08	2:18	4:31	7:29	9:47
3	Holbrook/Randolph	♿	7:19	8:52	10:58	1:13	2:23	4:37	7:34	9:52
2	Braintree	♿	L 7:25	-	L 11:04	-	L 2:29	-	-	-
1	Quincy Center	♿	L 7:31	L 9:05	L 11:10	L 1:24	L 2:36	L 4:47	L 7:45	L 10:03
1A	JFK/UMass	♿	L 7:39	L 9:13	L 11:17	L 1:32	L 2:44	L 4:55	L 7:53	L 10:11
1A	South Station	♿	7:46	9:20	11:24	1:40	2:51	5:03	8:00	10:18

Saturday & Sunday

Outbound from Boston

ZONE	STATION	SATURDAY TRAIN # / SUNDAY TRAIN #	AM 1001 / 2001	1003 / 2003	PM 1005 / 2005	1007 / 2007	1009 / 2009	1011 / 2011	1013 / 2013	1015 / 2015
	Bikes Allowed		🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲
1A	South Station	♿	8:40	11:20	12:34	2:10	3:35	5:40	8:10	10:35
1A	JFK/UMass	♿	f 8:46	f 11:26	f 12:40	f 2:16	f 3:41	f 5:46	f 8:16	f 10:41
1	Quincy Center	♿	f 8:53	f 11:33	f 12:47	f 2:24	f 3:49	f 5:54	f 8:24	f 10:49
2	Braintree	♿	9:00	-	12:54	-	3:56	6:01	-	-
3	Holbrook/Randolph	♿	9:07	11:47	1:00	2:37	4:02	6:07	8:36	11:02
4	Montello	♿	9:12	11:52	1:05	2:42	4:07	6:12	8:41	11:07
4	Brockton	♿	9:15	11:55	1:08	2:45	4:10	6:15	8:44	11:11
5	Campello	♿	9:19	11:59	1:12	2:49	4:14	6:19	8:48	11:15
6	Bridgewater	♿	9:27	12:07	1:20	2:57	4:24	6:27	8:56	11:23
8	Middleborough/Lakeville	♿	9:38	12:18	1:32	3:10	4:34	6:38	9:08	11:34

Appendix F

Crash Data

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Quincy

COUNT DATE : 4/3/2018

DISTRICT : 6

UNSIGNALIZED : [ ]

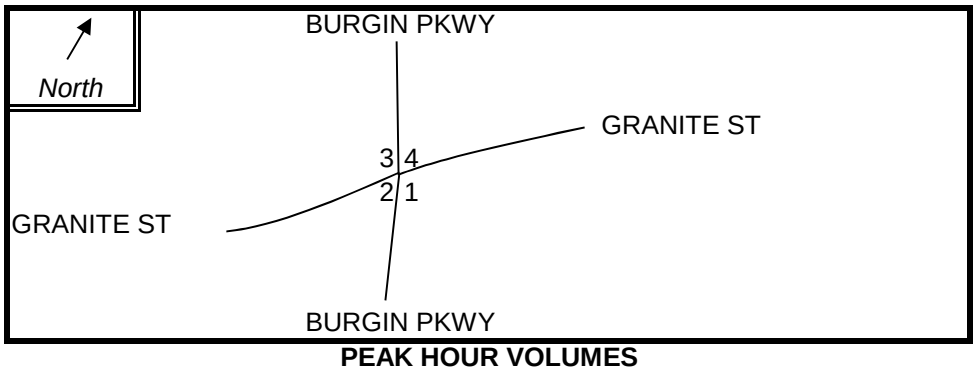
SIGNALIZED : [X]

~ INTERSECTION DATA ~

MAJOR STREET : THOMAS E. BURGIN PARKWAY

MINOR STREET(S) : GRANITE STREET

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4		Total Peak Hourly Approach Volume
DIRECTION :	NB	EB	SB	WB		
PEAK HOURLY VOLUMES (PM) :	647	332	1,033	345		**2,357**

" K " FACTOR : **0.09**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **26,189**

TOTAL # OF CRASHES : 40

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **13.33**

CRASH RATE CALCULATION : 1.39

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : District 6 Average = 0.70, Statewide Average = 0.77

Project Title & Date: 114 Whitwell Street, May 2018

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Quincy

COUNT DATE : 4/3/2018

DISTRICT : 6

UNSIGNALIZED : [ ]

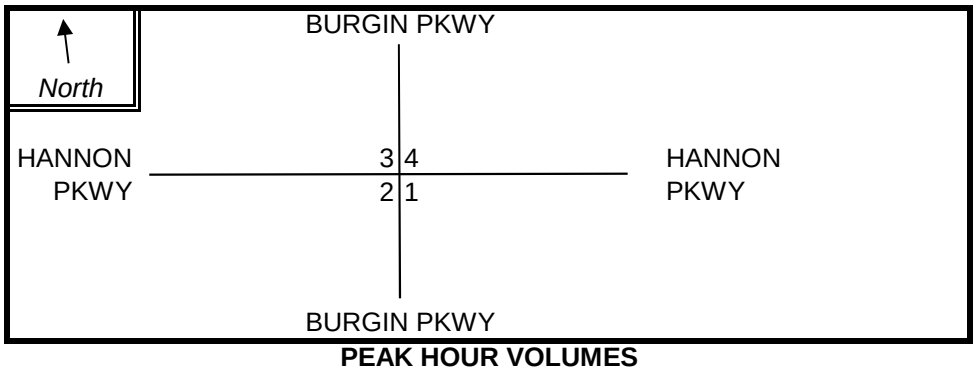
SIGNALIZED : [X]

~ INTERSECTION DATA ~

MAJOR STREET : THOMAS E. BURGIN PARKWAY

MINOR STREET(S) : WALTER J. HANNON PARKWAY

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4		Total Peak Hourly Approach Volume
DIRECTION :	NB	EB	SB	WB		
PEAK HOURLY VOLUMES (PM) :	1,090	355	836	717		**2,998**

" K " FACTOR : **0.09**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **33,311**

TOTAL # OF CRASHES : 48

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **16.00**

CRASH RATE CALCULATION : 1.32

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : District 6 Average = 0.70, Statewide Average = 0.77

Project Title & Date: 114 Whitwell Street, May 2018

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Quincy

COUNT DATE : 4/3/2018

DISTRICT : 6

UNSIGNALIZED : [ ]

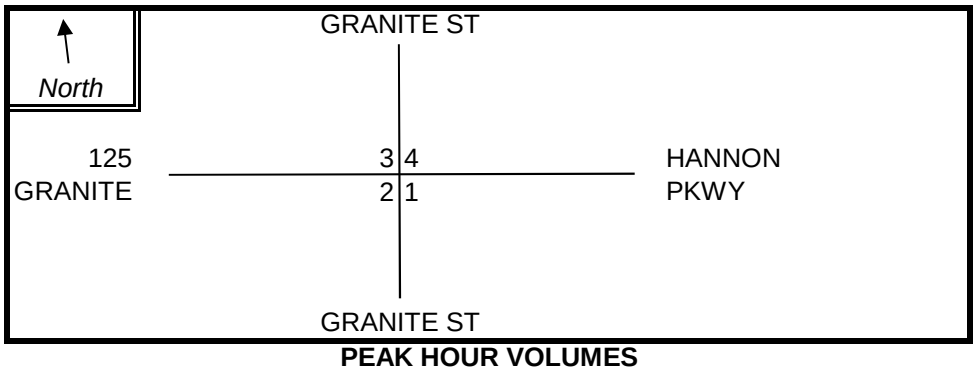
SIGNALIZED : [X]

~ INTERSECTION DATA ~

MAJOR STREET : GRANITE STREET

MINOR STREET(S) : WALTER J. HANNON PARKWAY

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4		Total Peak Hourly Approach Volume
DIRECTION :	NB	EB	SB	WB		
PEAK HOURLY VOLUMES (PM) :	402	25	441	403		**1,271**

" K " FACTOR : **0.09**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **14,122**

TOTAL # OF CRASHES : 18

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **6.00**

CRASH RATE CALCULATION : 1.16

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : District 6 Average = 0.70, Statewide Average = 0.77

Project Title & Date: 114 Whitwell Street, May 2018

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Quincy

COUNT DATE : 4/3/2018

DISTRICT : 6

UNSIGNALIZED : [ ]

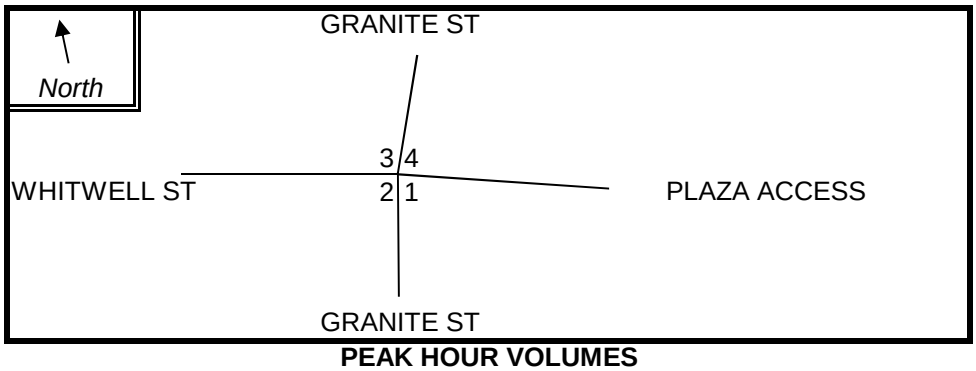
SIGNALIZED : [X]

~ INTERSECTION DATA ~

MAJOR STREET : GRANITE STREET

MINOR STREET(S) : WHITWELL STREET

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4		Total Peak Hourly Approach Volume
DIRECTION :	NB	EB	SB	WB		
PEAK HOURLY VOLUMES (PM) :	407	295	296	103		**1,101**

" K " FACTOR : **0.09**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **12,233**

TOTAL # OF CRASHES : 12

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **4.00**

CRASH RATE CALCULATION : **0.90**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : District 6 Average = 0.70, Statewide Average = 0.77

Project Title & Date: 114 Whitwell Street, May 2018

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Quincy

COUNT DATE : 4/3/2018

DISTRICT : 6

UNSIGNALIZED : X

SIGNALIZED :

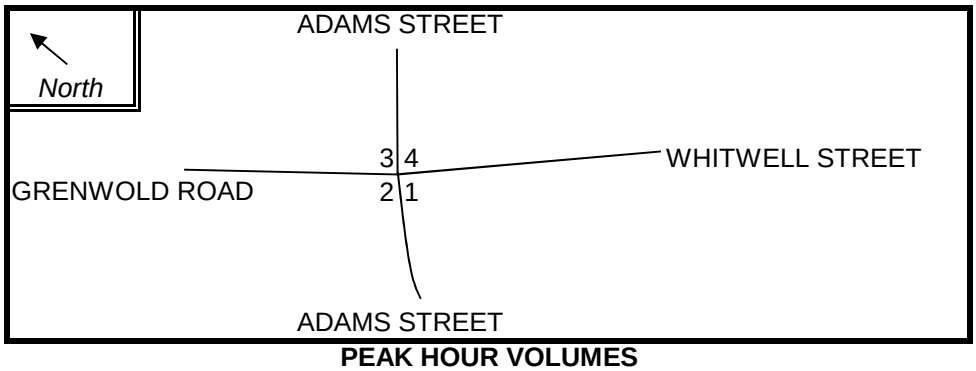
~ INTERSECTION DATA ~

MAJOR STREET : ADAMS STREET

MINOR STREET(S) : WHITWELL STREET

GRENWOLD ROAD

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4		Total Peak Hourly Approach Volume
DIRECTION :	NB	EB	SB	WB		
PEAK HOURLY VOLUMES (AM) :	510	4	328	164		**1,006**

" K " FACTOR : **0.09**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **11,178**

TOTAL # OF CRASHES : 5

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **1.67**

CRASH RATE CALCULATION : **0.41**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : District 6 Average = 0.53, Statewide Average = 0.58

Project Title & Date: 114 Whitwell Street, May 2018

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Quincy

COUNT DATE : 4/3/2018

DISTRICT : 6

UNSIGNALIZED : X

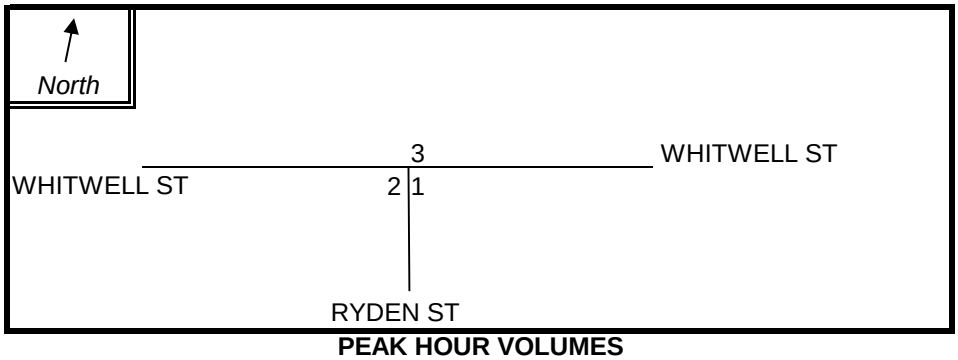
SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : WHITWELL STREET

MINOR STREET(S) : RYDEN STREET

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3			Total Peak Hourly Approach Volume
DIRECTION :	NB	EB	WB			
PEAK HOURLY VOLUMES (PM) :	3	234	177			414

" K " FACTOR : **0.09**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **4,600**

TOTAL # OF CRASHES : 1

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.33**

CRASH RATE CALCULATION : 0.20

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : District 6 Average = 0.53, Statewide Average = 0.58

Project Title & Date: 114 Whitwell Street, May 2018

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Quincy

COUNT DATE : 4/3/2018

DISTRICT : 6

UNSIGNALIZED : X

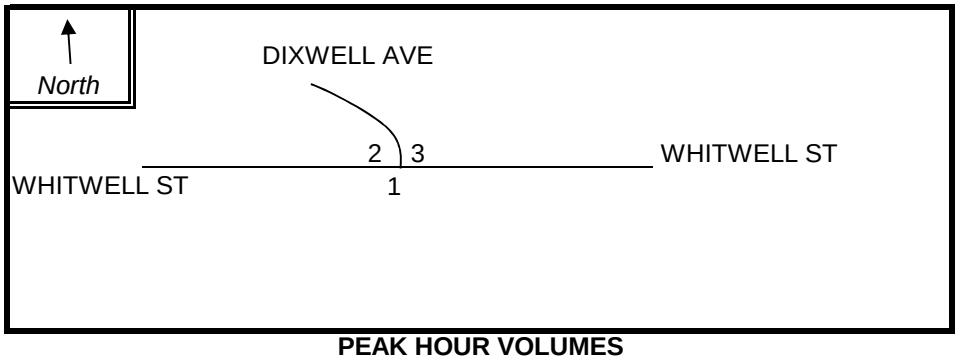
SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : WHITWELL STREET

MINOR STREET(S) : DIXWELL AVENUE

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3			Total Peak Hourly Approach Volume
DIRECTION :	EB	SB	WB			
PEAK HOURLY VOLUMES (PM) :	256	43	258			557

" K " FACTOR : **0.09**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **6,189**

TOTAL # OF CRASHES : 1

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.33**

CRASH RATE CALCULATION : 0.15

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : District 6 Average = 0.53, Statewide Average = 0.58

Project Title & Date: 114 Whitwell Street, May 2018

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Quincy

COUNT DATE : 4/3/2018

DISTRICT : 6

UNSIGNALIZED : X

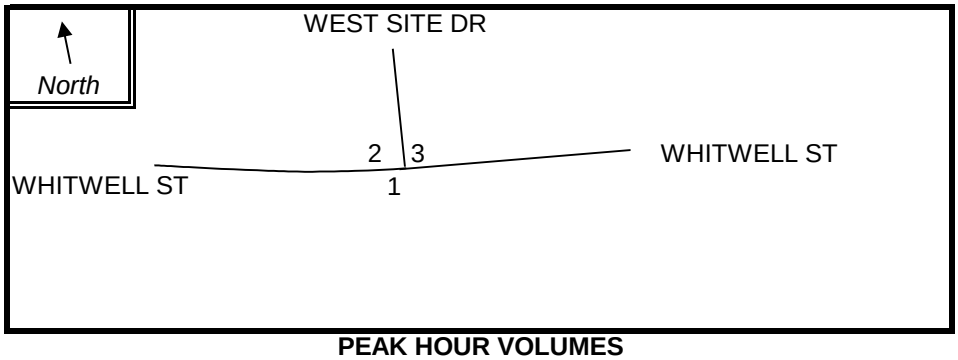
SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : WHITWELL STREET

MINOR STREET(S) : WEST SITE DRIVEWAY

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3			Total Peak Hourly Approach Volume
DIRECTION :	EB	SB	WB			
PEAK HOURLY VOLUMES (AM) :	231	3	168			402

" K " FACTOR : **0.09**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **4,467**

TOTAL # OF CRASHES : 1

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.33**

CRASH RATE CALCULATION : 0.20

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : District 6 Average = 0.53, Statewide Average = 0.58

Project Title & Date: 114 Whitwell Street, May 2018

MassDOT Crash Report for QUINCY for the year 2013

Crash Number	City/Town Name	Crash Date	Crash Time	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	Distance from Nearest Roadway Intersection	Distance from Nearest Milemarker	Distance from Nearest Exit	Distance from Nearest Landmark	Non Motorist Type	X Coordinate	Y Coordinate
Burgin Parkway/Granite Street																							
3390237	QUINCY	05-Mar-2013	7:14 PM	Non-fatal injury	1	1	0	Unknown	V1: Not reported	V1:Not reported	V1: Not reported	V1: Not reported	Dry	Dark - lighted roadway	Clear	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET					P2:Pedestrian	240933.5849	888807.4534
3408531	QUINCY	02-Apr-2013	10:43 AM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning left	V1:Eastbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	GRANITE STREET / HONORABLE THOMAS S BURGIN PARKWAY						240933.5849	888807.4534
3496832	QUINCY	13-Apr-2013	8:51 PM	Not Reported	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Not reported	V1:Southbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Not reported	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - lighted roadway	Clear/Clear	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240933.5849	888807.4534
3430580	QUINCY	07-May-2013	9:08 AM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear	GRANITE STREET / HONORABLE THOMAS S BURGIN PARKWAY						240933.5849	888807.4534
3471231	QUINCY	03-Jun-2013	6:12 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Not reported / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	GRANITE STREET / HONORABLE THOMAS S BURGIN PARKWAY						240933.5849	888807.4534
3492431	QUINCY	19-Jun-2013	4:21 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2:Changing lanes	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Slush	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240933.5849	888807.4534
3563610	QUINCY	24-Jul-2013	3:37 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	GRANITE STREET / HONORABLE THOMAS S BURGIN PARKWAY						240952.3292	888732.5785
3583551	QUINCY	03-Aug-2013	4:26 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Turning left	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear/Clear	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240933.5849	888807.4534
3600347	QUINCY	18-Aug-2013	00:00 AM	Not Reported	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted roadway	Clear/Clear	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240933.5849	888807.4534
3603644	QUINCY	01-Sep-2013	9:31 AM	Unknown	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Wet	Daylight	Rain/Cloudy	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240933.5849	888807.4534
3659672	QUINCY	23-Oct-2013	8:17 AM	Property damage only (none injured)	2	0	0	Angle	V1: Changing lanes / V2:Travelling straight ahead	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240933.5849	888807.4534
3685080	QUINCY	03-Nov-2013	2:09 PM	Not Reported	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Changing lanes	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Cloudy	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240933.5849	888807.4534
3709909	QUINCY	27-Nov-2013	9:21 AM	Non-fatal injury	2	2	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Wet	Daylight	Rain/Cloudy	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240933.5849	888807.4534
Burgin Parkway/Hannon Parkway																							
3369907	QUINCY	22-Jan-2013	2:27 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Turning right / V2:Travelling straight ahead	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / WALTER J HANNON PARKWAY						240929.40489	888500.00612
3375049	QUINCY	02-Feb-2013	8:47 AM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning right	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / WALTER J HANNON PARKWAY						240929.40489	888500.00612
3385906	QUINCY	14-Feb-2013	4:03 PM	Non-fatal injury	2	1	0	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / WALTER J HANNON PARKWAY						240929.4049	888500.0061
3380587	QUINCY	27-Mar-2013	3:19 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Changing lanes	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Single-unit truck (2-axle, 6-tire) / V2:Passenger car	Dry	Daylight	Cloudy	HONORABLE THOMAS S BURGIN PARKWAY / WALTER HANNON PARKWAY						240929.4049	888500.0061
3415348	QUINCY	09-Apr-2013	11:36 AM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning left	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	WALTER J HANNON PARKWAY / HONORABLE THOMAS S BURGIN PARKWAY						240929.4049	888500.0061
3603343	QUINCY	11-Sep-2013	11:49 AM	Property damage only (none injured)	1	0	0	Rear-end	V1: Slowing or stopped in traffic	V1:Northbound	V1: Collision with motor vehicle in traffic	V1: Passenger car	Dry	Daylight	Clear/Clear		HONORABLE THOMAS S BURGIN PARKWAY / WALTER J HANNON PARKWAY			100 feet S from SCHOOL ST BRIDGE		240889.6328	888218.9268
3603344	QUINCY	11-Sep-2013	12:36 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning right	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / WALTER J HANNON PARKWAY						240929.4049	888500.0061
3608020	QUINCY	25-Sep-2013	6:54 PM	Property damage only (none injured)	3	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Travelling straight ahead	V1:Northbound / V2:Northbound / V3:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V3:Passenger car	Dry	Dark - lighted roadway	Clear	HONORABLE THOMAS S BURGIN PARKWAY / WALTER J HANNON PARKWAY						240929.4049	888500.0061
3632255	QUINCY	09-Oct-2013	1:06 PM	Property damage only (none injured)	3	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Travelling straight ahead	V1:Northbound / V2:Northbound / V3:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car / V3:Passenger car	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / WALTER J HANNON PARKWAY						240929.4049	888500.0061
3685067	QUINCY	01-Nov-2013	9:23 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning right	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted roadway	Clear	ACCESS ROAD / HONORABLE THOMAS S BURGIN PARKWAY						240929.4049	888500.0061
3688830	QUINCY	08-Nov-2013	5:15 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:Northbound / V2:Northbound	V1: Not reported / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Not reported	Dark - lighted roadway	Clear/Clear	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
Granite Street/Hannon Parkway																							
3371247	QUINCY	14-Jan-2013	11:30 AM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Wet	Daylight	Cloudy		125 GRANITE STREET					240771.31192	888527.53682
3375136	QUINCY	05-Feb-2013	2:06 PM	Non-fatal injury	2	1	0	Angle	V1: Travelling straight ahead / V2:Entering traffic lane	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Cloudy		100 GRANITE STREET					240800.2618	888590.7872
3401932	QUINCY	05-Apr-2013	1:07 PM	Non-fatal injury	1	1	0	Single vehicle crash	V1: Travelling straight ahead	V1:Not reported	V1: Collision with cyclist (bicycle, tricycle, unicycle, pedal car)	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear	WALTER J HANNON PARKWAY / GRANITE STREET				125 GRANITE STREET	P2:Pedestrian	240773.4313	888531.0579
3525255	QUINCY	02-Jul-2013	2:05 PM	Non-fatal injury	1	1	0	Single vehicle crash	V1: Travelling straight ahead	V1:Eastbound	V1: Collision with motor vehicle in traffic	V1: Passenger car	Dry	Daylight	Cloudy/Rain		125 GRANITE STREET			WATER FOUNTAIN		240771.3119	888527.5368
3632142	QUINCY	05-Oct-2013	1:10 AM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning left	V1:Westbound / V2:Northbound	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted roadway	Cloudy	GRANITE STREET / WALTER J HANNON PARKWAY						240773.4313	888531.0579
3709943	QUINCY	03-Dec-2013	1:44 PM	Non-fatal injury	1	1	0	Single vehicle crash	V1: Travelling straight ahead	V1:Southbound	V1: Collision with other fixed object (wall, building, tunnel, etc.)	V1: Passenger car	Dry	Daylight	Cloudy/Clear		50 feet S from intersection GRANITE ST / 125 GRANITE STREET					240771.3119	888527.5368
Granite Street/Whitwell Street																							

Crash Number	City/Town Name	Crash Date	Crash Time	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	Distance from Nearest Roadway Intersection	Distance from Nearest Milemarker	Distance from Nearest Exit	Distance from Nearest Landmark	Non Motorist Type	X Coordinate	Y Coordinate
3369905	QUINCY	22-Jan-2013	1:35 PM	Non-fatal injury	3	1	0	Sideswipe, same direction	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Travelling straight ahead	V1:Eastbound / V2:Eastbound / V3:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car / V3:Passenger car	Dry	Daylight	Cloudy	GRANITE STREET / WHITWELL STREET						240838.47625	888714.59658
Whitwell Street/Adams Street																							
3370064	QUINCY	16-Jan-2013	6:33 AM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Not reported / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Snow	Dawn	Snow	ADAMS STREET / WHITWELL STREET						239787.94543	889277.40029
3375334	QUINCY	03-Feb-2013	9:23 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Northbound	V1: Collision with utility pole	V1: Passenger car	Wet	Daylight	Snow	WHITWELL STREET / ADAMS STREET						239787.9454	889277.4003
Whitwell Street/Ryden Street																							
3659643	QUINCY	12-Oct-2013	12:02 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Turning left	V1:Not reported / V2:Not reported	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Daylight	Cloudy/Cloudy	WHITWELL STREET / RYDEN STREET						240081.7402	888983.605

MassDOT Crash Report for QUINCY for the year 2014

Crash Number	City/Town Name	Crash Date	Crash Time	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	Distance from Nearest Roadway Intersection	Distance from Nearest Milemarker	Distance from Nearest Exit	Distance from Nearest Landmark	Non Motorist Type	X Coordinate	Y Coordinate
Burgin Parkway/Granite Street																							
3790726	QUINCY	18-Feb-2014	7:48 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Changing lanes / V2:Travelling straight ahead	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Wet	Dark - lighted roadway	Snow	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET					P3:Pedestrian	240933.5849	888807.4534
3790739	QUINCY	22-Feb-2014	7:40 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Dark - lighted roadway	Clear	BURGIN PARKWAY / GRANITE STREET						240940.95	888790.3101
3838492	QUINCY	19-Apr-2014	6:45 PM	Non-fatal injury	1	1	0	Head-on	V1: Travelling straight ahead	V1:Northbound	V1: Collision with cyclist (bicycle, tricycle, unicycle, pedal car)	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET					P1:Pedalcyclist (bicycle, tricycle, unicycle, pedal car)	240933.5849	888807.4534
3887762	QUINCY	02-Jun-2014	3:48 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning left	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240933.5849	888807.4534
3887844	QUINCY	06-Jun-2014	7:59 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Turning left	V1:Northbound	V1: Collision with light pole or other post/support	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Cloudy	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240933.5849	888807.4534
3919910	QUINCY	24-Jul-2014	3:57 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Turning right	V1:Northbound	V1: Collision with pedestrian	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET					P1:Pedestrian	240933.5849	888807.4534
3966542	QUINCY	04-Sep-2014	7:51 PM	Not Reported	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Southbound	V1: Collision with pedestrian	V1: Passenger car	Dry	Dark - lighted roadway	Clear/Clear	BURGIN PARKWAY / GRANITE STREET						240933.585	888807.4538
3989441	QUINCY	26-Nov-2014	9:42 AM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning left	V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Wet	Daylight	Rain	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240933.5849	888807.4534
3989503	QUINCY	11-Nov-2014	1:59 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning left	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240933.5849	888807.4534
4004126	QUINCY	15-Dec-2014	12:46 PM	Property damage only (none injured)	2	0	0	Angle	V1: Slowing or stopped in traffic / V2:Changing lanes	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear		HONORABLE THOMAS S BURGIN PARKWAY					240935.6088	888797.6231
4004173	QUINCY	23-Dec-2014	4:58 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Turning left / V2:Turning left	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Not reported	V1: Passenger car / V2:Passenger car	Wet	Dark - lighted roadway	Rain	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240936.6804	888800.248
4004212	QUINCY	30-Dec-2014	5:30 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Turning left / V2:Turning left	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted roadway	Clear	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240933.5849	888807.4534
4004245	QUINCY	08-Dec-2014	8:54 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Southbound / V2:Southbound	V1: Not reported / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Snow	Dark - lighted roadway	Snow	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240933.5849	888807.4534
Burgin Parkway/Hannon Parkway																							
3790671	QUINCY	09-Feb-2014	4:54 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning right / V2:Turning right	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Dusk	Cloudy	HONORABLE THOMAS S BURGIN PARKWAY / WALTER J HANNON PARKWAY						240930.9609	888514.0088
3798305	QUINCY	18-Mar-2014	2:53 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear/Clear	HONORABLE THOMAS S BURGIN PARKWAY / WALTER J HANNON PARKWAY						240929.4049	888500.0061
3838000	QUINCY	30-Apr-2014	5:40 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Turning left / V2:Turning left	V1:Southbound / V2:Southbound	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Wet	Daylight	Rain	HONORABLE THOMAS S BURGIN PARKWAY / WALTER J HANNON PRKWY						240929.4049	888500.0061
3838116	QUINCY	24-Apr-2014	10:01 AM	Property damage only (none injured)	3	0	0	Rear-end	V1: Travelling straight ahead / V2:Travelling straight ahead / V3:Travelling straight ahead	V1:Northbound / V2:Northbound / V3:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V3:Passenger car	Dry	Daylight	Not Reported	HONORABLE THOMAS S BURGIN PARKWAY / WALTER HANNON PKWY						240929.4049	888500.0061
3838133	QUINCY	08-Apr-2014	12:58 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Changing lanes / V2:Travelling straight ahead	V1:Not reported / V2:Not reported	V1: Not reported / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Not reported	Daylight	Cloudy	HONORABLE THOMAS S BURGIN PARKWAY / WALTER J HANNON PARKWAY						240929.4049	888500.0061
3879285	QUINCY	15-May-2014	00:00 AM	Property damage only (none injured)	2	0	0	Angle	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Not reported	Dark - lighted roadway	Cloudy	WALTER J HANNON PARKWAY / HONORABLE THOMAS S BURGIN PARKWAY						240929.4049	888500.0061
3919762	QUINCY	23-Jul-2014	8:13 AM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
3919879	QUINCY	13-Jul-2014	6:37 PM	Not Reported	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear/Clear	WALTER J HANNON PARKWAY / BURGIN PARKWAY						240929.4049	888500.0061
3966499	QUINCY	23-Sep-2014	9:09 AM	Property damage only (none injured)	2	0	0	Angle	V1: Turning right / V2:Travelling straight ahead	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
3966564	QUINCY	09-Sep-2014	7:29 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning right / V2:Travelling straight ahead	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - lighted roadway	Clear	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
3973920	QUINCY	01-Oct-2014	5:37 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Slowing or stopped in traffic / V2:Overtaking/passing	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Wet	Daylight	Rain/Cloudy	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
3989413	QUINCY	20-Nov-2014	1:55 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2:Turning right	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
3989449	QUINCY	26-Nov-2014	5:05 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Northbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Wet	Dark - lighted roadway	Rain	WALTER J HANNON PARKWAY / HONORABLE THOMAS S BURGIN PARKWAY						240929.4049	888500.0061
3989467	QUINCY	30-Nov-2014	11:02 AM	Not Reported	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2:Turning right	V1:Not reported / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
4004121	QUINCY	01-Dec-2014	4:25 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Not reported	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Dusk	Rain	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061

Crash Number	City/Town Name	Crash Date	Crash Time	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	Distance from Nearest Roadway Intersection	Distance from Nearest Milemarker	Distance from Nearest Exit	Distance from Nearest Landmark	Non Motorist Type	X Coordinate	Y Coordinate
4004145	QUINCY	18-Dec-2014	5:37 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning right / V2:Travelling straight ahead	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - lighted roadway	Clear		HONORABLE THOMAS S BURGIN PARKWAY					240929.1293	888499.2204
4004224	QUINCY	03-Dec-2014	11:20 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - lighted roadway	Clear/Clear	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
Granite Street/Hannon Parkway																							
3791666	QUINCY	27-Feb-2014	10:07 AM	Non-fatal injury	2	1	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Single-unit truck (2-axle, 6-tire)	Dry	Daylight	Clear		125 GRANITE STREET					240771.3119	888527.5368
3798328	QUINCY	24-Mar-2014	10:42 PM	Non-fatal injury	2	1	0	Angle	V1: Travelling straight ahead / V2:Turning left	V1:Southbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - lighted roadway	Clear	GRANITE STREET / WALTER J HANNON PARKWAY						240773.4313	888531.0579
3879333	QUINCY	20-May-2014	5:36 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear/Clear	GRANITE STREET / WALTER J HANNON PARKWAY						240773.4313	888531.0579
3879341	QUINCY	23-May-2014	6:43 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Turning left	V1:Northbound	V1: Collision with light pole or other post/support	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Daylight	Cloudy		GRANITE ST / 125 WALTER HANNON PARKWAY					240771.3119	888527.5368
3879354	QUINCY	29-May-2014	8:31 AM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning left	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear		GRANITE STREET / ACCESS ROAD					240772.2723	888529.1324
3887879	QUINCY	16-Jun-2014	8:03 AM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning right	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear	GRANITE STREET / ACCESS ROAD						240773.4313	888531.0579
3973966	QUINCY	25-Oct-2014	4:00 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Unknown / V2:Unknown	V1:Unknown / V2:Unknown	V1: Not reported / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear		GRANITE ST					240800.2618	888590.7872
Granite Street/Whitwell Street																							
3792175	QUINCY	23-Feb-2014	7:59 PM	Not Reported	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Not reported	V1: Not reported	V1: Passenger car	Dry	Dark - lighted roadway	Clear/Cloudy		42 GRANITE STREET / WHITWELL STREET					240838.4763	888714.5966
3973917	QUINCY	01-Oct-2014	12:16 PM	Not Reported	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Wet	Daylight	Rain/Cloudy	GRANITE ST / WHITWELL ST						240838.4762	888714.5966
3989468	QUINCY	30-Nov-2014	2:13 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Turning left / V2:Turning right	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	GRANITE ST / WHITWELL ST						240838.4762	888714.5966
4004117	QUINCY	15-Dec-2014	7:37 AM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear	GRANITE ST / WHITWELL ST						240838.4762	888714.5966
4004177	QUINCY	23-Dec-2014	7:58 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Dark - lighted roadway	Rain	WHITWELL STREET / GRANITE STREET						240838.4762	888714.5966
Whitwell Street/Adams Street																							
3734743	QUINCY	18-Jan-2014	2:40 PM	Property damage only (none injured)	2	0	0	Angle	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Ice	Daylight	Snow/Snow	ADAMS ST / WHITWELL ST						239787.9454	889277.4003
3919766	QUINCY	24-Jul-2014	5:07 PM	Property damage only (none injured)	1	0	0	Sideswipe, same direction	V1: Turning right	V1:Eastbound	V1: Collision with cyclist (bicycle, tricycle, unicycle, pedal car)	V1: Passenger car	Dry	Daylight	Cloudy	ADAMS ST / WHITWELL ST					P2:Pedalcyclist (bicycle, tricycle, unicycle, pedal car)	239787.9454	889277.4003
4004151	QUINCY	20-Dec-2014	8:01 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Northbound	V1: Collision with light pole or other post/support	V1: Passenger car	Ice	Dark - lighted roadway	Snow/Snow	ADAMS ST / WHITWELL ST						239787.9454	889277.4003
Whitwell Street/Dixwell Street																							
4005583	QUINCY	17-Nov-2014	4:58 PM	Non-fatal injury	1	1	0	Sideswipe, opposite direction	V1: Not reported	V1:Not reported	V1: Not reported	V1: Not reported	Wet	Dark - lighted roadway	Cloudy/Rain	DIXWELL AVENUE / WHITWELL STREET					P1:Pedestrian	240809.4643	888722.3145

MassDOT Crash Report for QUINCY for the year 2015

Crash Number	City/Town Name	Crash Date	Crash Time	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	Distance from Nearest Roadway Intersection	Distance from Nearest Milemarker	Distance from Nearest Exit	Distance from Nearest Landmark	Non Motorist Type	X Coordinate	Y Coordinate
Burgin Parkway/Granite Street																							
4065143	QUINCY	09-Jun-2015	2:48 PM	Property damage only (none injured)	2	0	0	Angle	V1: Unknown / V2:Unknown	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear		HONORABLE THOMAS S BURGIN PARKWAY					240934.8675	888795.8074
4065145	QUINCY	09-Jun-2015	6:25 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Changing lanes / V2:Travelling straight ahead	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Cloudy		GRANITE ST					240938.3155	888800.8908
4038426	QUINCY	31-Mar-2015	7:39 AM	Property damage	2	0	0	Angle	V1: Changing lanes /	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle	V1: Passenger car / V2:Light	Dry	Daylight	Clear	GRANITE STREET /						240936.6804	888800.248
4049999	QUINCY	03-Apr-2015	9:47 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Turning right / V2:Turning right	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - lighted roadway	Clear	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240936.6804	888800.248
4050069	QUINCY	14-Apr-2015	6:27 AM	Not Reported	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2:Changing lanes	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Cloudy	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240936.6804	888800.248
4050010	QUINCY	22-Apr-2015	9:57 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Wet	Dark - lighted roadway	Rain	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240936.6804	888800.248
4076045	QUINCY	30-Jul-2015	4:11 PM	Non-fatal injury	5	2	0	Angle	V1: Turning left / V2:Travelling straight ahead / V3:Slowing or stopped in traffic / V4:Slowing or stopped in traffic / V5:Slowing or stopped in traffic	V1:Eastbound / V2:Northbound / V3:Southbound / V4:Southbound / V5:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic / V4: Collision with motor vehicle in traffic / V5: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V3:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V4:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V5:Motorcycle	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240936.6804	888800.248
4091290	QUINCY	05-Aug-2015	3:36 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear		GRANITE STREET					240945.9064	888767.4902
4091266	QUINCY	27-Aug-2015	7:35 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - lighted roadway	Clear		GRANITE STREET					240935.9263	888802.4949
4124860	QUINCY	16-Oct-2015	7:17 AM	Not Reported	2	0	0	Rear-end	V1: Turning right / V2:Turning right	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Cloudy	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240936.6804	888800.248
4124899	QUINCY	23-Oct-2015	8:21 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted roadway	Clear	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240936.6804	888800.248
4151840	QUINCY	01-Dec-2015	5:28 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Turning left / V2:Turning left	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Wet	Dark - lighted roadway	Rain	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240936.6804	888800.248
4110760	QUINCY	30-Sep-2015	2:27 AM	Unknown	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Dark - lighted roadway	Clear	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240936.6804	888800.248
4151861	QUINCY	17-Dec-2015	4:30 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Wet	Dark - lighted roadway	Rain/Rain	HONORABLE THOMAS S BURGIN PARKWAY / GRANITE STREET						240936.6804	888800.248
Burgin Parkway/Hannon Parkway																							
4024338	QUINCY	09-Jan-2015	2:15 PM	Property damage only (none injured)	2	0	0	Angle	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Single-unit truck (2-axle, 6-tire)	Wet	Daylight	Clear	WALTER J HANNON PARKWAY / HONORABLE THOMAS S BURGIN PARKWAY						240929.4049	888500.0061
4034053	QUINCY	11-Feb-2015	4:26 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Daylight	Cloudy	HONORABLE THOMAS S BURGIN PARKWAY / HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
4038452	QUINCY	11-Mar-2015	12:30 PM	Not Reported	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2:Changing lanes	V1:Not reported / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear		HONORABLE THOMAS S BURGIN PARKWAY					240933.8349	888499.8534
4038457	QUINCY	12-Mar-2015	12:21 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
4050042	QUINCY	07-Apr-2015	12:11 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning right	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Cloudy	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
4050028	QUINCY	28-Apr-2015	5:26 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2:Turning right	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear/Clear		HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD					240929.498	888499.1537
4057130	QUINCY	04-May-2015	11:43 AM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Truck/trailer / V2:Passenger car	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
4056883	QUINCY	17-May-2015	4:45 AM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Dawn	Clear/Clear	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
4065231	QUINCY	24-Jun-2015	1:29 PM	Property damage only (none injured)	2	0	0	Not reported	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Not reported	Not reported	Not Reported	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
4065257	QUINCY	30-Jun-2015	12:04 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Turning right / V2:Travelling straight ahead	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
4091294	QUINCY	05-Aug-2015	9:19 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2:Turning left	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - lighted roadway	Clear	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061

Crash Number	City/Town Name	Crash Date	Crash Time	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	Distance from Nearest Roadway Intersection	Distance from Nearest Milemarker	Distance from Nearest Exit	Distance from Nearest Landmark	Non Motorist Type	X Coordinate	Y Coordinate
4110764	QUINCY	30-Sep-2015	7:37 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Changing lanes / V2:Travelling straight ahead	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - lighted roadway	Cloudy	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
4124920	QUINCY	27-Oct-2015	7:15 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning right	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted roadway	Clear		HONORABLE THOMAS S BURGIN PARKWAY					240929.1517	888499.284
4146345	QUINCY	04-Nov-2015	2:57 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning right	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
4146318	QUINCY	24-Nov-2015	10:13 AM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
4151836	QUINCY	01-Dec-2015	7:52 AM	Non-fatal injury	2	1	0	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
4151951	QUINCY	06-Dec-2015	11:47 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Northbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted roadway	Clear	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
4151818	QUINCY	11-Dec-2015	5:22 PM	Non-fatal injury	2	1	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Dark - lighted roadway	Clear	ACCESS ROAD / HONORABLE THOMAS S BURGIN PARKWAY						240929.4049	888500.0061
4151926	QUINCY	30-Dec-2015	12:20 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Cloudy	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
4151929	QUINCY	31-Dec-2015	12:39 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY / ACCESS ROAD						240929.4049	888500.0061
Granite Street/Hannon Parkway																							
4034169	QUINCY	28-Feb-2015	3:38 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Entering traffic lane	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear	GRANITE STREET / ACCESS ROAD						240773.4313	888531.0579
4056885	QUINCY	17-May-2015	4:46 PM	Non-fatal injury	2	2	0	Angle	V1: Travelling straight ahead / V2:Turning left	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear/Clear		GRANITE ST					240771.3119	888527.5368
4056942	QUINCY	26-May-2015	11:46 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	V1: Entering traffic lane / V2:Travelling straight ahead	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Cloudy	GRANITE STREET / ACCESS ROAD						240773.4313	888531.0579
4065184	QUINCY	02-Jun-2015	2:57 PM	Non-fatal injury	2	1	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Unknown / V2:Unknown	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Cloudy		GRANITE ST					240771.3119	888527.5368
4151822	QUINCY	12-Dec-2015	3:10 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Unknown / V2:Unknown	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear		GRANITE STREET					240809.405	888611.7535
Granite Street/Whitwell Street																							
4065190	QUINCY	14-Jun-2015	11:18 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted roadway	Clear/Clear	GRANITE ST / WHITWELL ST						240838.4762	888714.5966
4091295	QUINCY	05-Aug-2015	8:34 PM	Property damage only (none injured)	1	0	0	Angle	V1: Turning left	V1:Southbound	V1: Collision with motor vehicle in traffic	V1: Passenger car	Dry	Dark - lighted roadway	Clear	GRANITE ST / WHITWELL ST						240838.4762	888714.5966
4110743	QUINCY	26-Sep-2015	8:25 AM	Property damage only (none injured)	1	0	0	Head-on	V1: Turning right	V1:Westbound	V1: Collision with utility pole	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear		GRANITE ST					240844.881	888679.9556
4125204	QUINCY	03-Oct-2015	2:53 AM	Not Reported	1	0	0	Single vehicle crash	V1: Unknown	V1:Northbound	V1: Collision with utility pole	V1: Passenger car	Wet	Dark - lighted roadway	Rain	GRANITE STREET / WHITWELL STREET						240838.4762	888714.5966
4146329	QUINCY	27-Nov-2015	12:19 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear	GRANITE ST / WHITWELL ST						240838.4762	888714.5966
4151877	QUINCY	18-Dec-2015	7:10 PM	Non-fatal injury	2	2	0	Angle	V1: Travelling straight ahead / V2:Turning left	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Dark - lighted roadway	Cloudy	GRANITE ST / WHITWELL ST						240838.4762	888714.5966
Whitwell Street/West Site Driveway																							
4124816	QUINCY	09-Oct-2015	5:29 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Dusk	Rain		FARRELL STREET					239996.6328	889021.9682

Appendix G

Project Trip Generation Calculations

Future Trip Generation - Proposed Residential & Retail Uses

Land Use Code 220 - Multifamily Housing (Low-Rise) - General Urban/Suburban						Size: 55 DWELLING UNITS		
Time Period	R^2 Value	Use Equation or Rate?	Equation	Rate	Percent Enter	In	Out	Total
Weekday Daily	0.96	Equation	T=7.56(x)-40.86	7.32	50%	187	187	374
AM Street Peak Hour	0.90	Equation	Ln(T)=.95Ln(X)-0.51	0.46	23%	6	21	27
PM Street Peak Hour	0.86	Equation	Ln(T)=.89Ln(x)-0.02	0.56	63%	22	13	35
Saturday Daily	0.93	Equation	T=14.01(x)-521.69	8.14	50%	124	124	248
Saturday Peak Hour	0.92	Equation	T=1.08(x)-33.24	0.7	49%	13	13	26

Note: If R^2 is greater than or equal to 0.75 the equation is used to calculate trips, otherwise the rate is used.

Source: *Trip Generation*, *Tenth Edition*, (Institute of Transportation Engineers, 2017).

Note: Rates are for a General Urban/Suburban setting. Entering percentage not available for the Saturday peak hour - assumed the entering percentage for the Saturday peak hour for ITE Land Use 221 - Multifamily Housing (Mid-Rise)

Land Use Code 221 - Multifamily Housing (Mid-Rise) - General Urban/Suburban						Size: 543 DWELLING UNITS		
Time Period	R^2 Value	Use Equation or Rate?	Equation	Rate	Percent Enter	In	Out	Total
Weekday Daily	0.77	Equation	T=5.45(x)-1.75	5.44	50%	1479	1479	2958
AM Street Peak Hour	0.67	Rate	Ln(T)=.98Ln(X)-0.98	0.36	26%	51	144	195
PM Street Peak Hour	0.72	Rate	Ln(T)=.96Ln(x)-0.63	0.44	61%	146	93	239
Saturday Daily	0.73	Rate	T=3.04(x)+417.11	4.91	50%	1333	1333	2666
Saturday Peak Hour	0.89	Equation	T=0.42(x)+6.73	0.44	49%	115	120	235

Note: If R^2 is greater than or equal to 0.75 the equation is used to calculate trips, otherwise the rate is used.

Source: *Trip Generation*, *Tenth Edition*, (Institute of Transportation Engineers, 2017).

Land Use Code 820- Shopping Center						Size: 5 KSF		
Time Period	R^2 Value	Use Equation or Rate?	Equation	Rate	Percent Enter	In	Out	Total
Weekday Daily		Rate		37.75	50%	94	94	188
AM Street Peak Hour		Rate		0.94	62%	3	2	5
PM Street Peak Hour		Rate		3.81	48%	9	10	19
Saturday Daily		Rate		46.12	50%	115	115	230
Saturday Peak Hour		Rate		4.50	52%	12	11	23

Note: If R^2 is greater than or equal to 0.75 the equation is used to calculate trips, otherwise the rate is used.

Source: *Trip Generation*, *Tenth Edition*, (Institute of Transportation Engineers, 2017).

Appendix H

Mode Share Data

U.S. Census Residential Mode Split

	Site Location	
	Census Tract 4181.01, Norfolk County, Massachusetts	
	Estimate	Percentage
Car, truck, or van:	1,661	66.23%
Drove alone	1,535	61.20%
Carpooled:	126	5.02%
In 2-person carpool	52	2.07%
In 3-person carpool	8	0.32%
In 4-person carpool	0	0.00%
In 5- or 6-person carpool	0	0.00%
In 7-or-more-person carpool	66	2.63%
Public transportation (excluding taxicab):	821	32.74%
Bus or trolley bus	20	0.80%
Streetcar or trolley car (carro publico in Puerto Rico)	0	0.00%
Subway or elevated	801	31.94%
Railroad	0	0.00%
Ferryboat	0	0.00%
Walked	13	0.52%
Bicycle	0	0.00%
Other	13	0.52%
Taxicab	0	0.00%
Motorcycle	0	0.00%
Worked at home	13	0.52%
Total:	**2,508**	

Source: U.S. Census Universe: Workers 16 years and over 2009-2013 American Community Survey 5-Year Estimates

Appendix I

Traffic projection Model

TRAFFIC PROJECTION MODEL
WEEKDAY MORNING PEAK HOUR
114 WHITWELL STREET - QUINCY, MA

		2018 Existing Condition								2025 No Build Condition	2025 Build Condition					
Intersection	**Movement**	**June 2017 AM Traffic Counts**	**June 2017 AM Traffic Count Balancing Adjustments**	**June 2017 AM Balanced Traffic Counts**	**April 2018 AM Traffic Counts**	**April 2018 AM Traffic Count Balancing Adjustments**	**April 2018 AM Balanced Traffic Counts**	**2018 AM Peak Hour Balancing**	**2018 Existing AM Peak Hour Traffic Volumes**	**2025 No-Build AM Peak Hour Traffic Volumes**	**% Enter**	**% Exit**	**AM Peak Hour New Site Trips (Total)**	**AM Peak Hour Trip Adjustments (Removal of Existing Site Trips)**	**Net New AM Peak Hour Site Trips**	**2025 Build AM Peak Hour Volumes**
Adams Street & Grenwold Road	NBL	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	NBT	0	0	0	393	0	393	0	**393**	**421**	0%	0%	0	0	0	**421**
	NBR	0	0	0	122	0	122	0	**122**	**131**	41%	0%	17	-2	15	**146**
	SBL	0	0	0	25	0	25	0	**25**	**27**	9%	0%	4	0	4	**31**
	SBT	0	0	0	388	0	388	0	**388**	**416**	0%	0%	0	0	0	**416**
	SBR	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	EBL	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	EBT	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	EBR	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	WBL	0	0	0	208	0	208	0	**208**	**223**	0%	41%	48	-4	44	**267**
	WBT	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	WBR	0	0	0	47	0	47	0	**47**	**50**	0%	9%	10	-1	9	**59**
Carrolls Lane & Whitwell Street	NBL	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	NBR	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	EBT	0	0	0	145	0	145	0	**145**	**155**	50%	0%	21	-2	19	**174**
	EBR	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	WBL	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	WBT	0	0	0	256	0	256	0	**256**	**274**	0%	50%	58	-5	53	**327**
Whitwell Street & Northerly Site Driveway	SBL	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	-1	-1	**0**
	SBR	0	0	0	4	0	4	0	**4**	**4**	0%	0%	0	-4	-4	**0**
	EBL	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	-2	-2	**0**
	EBT	0	0	0	146	0	146	0	**146**	**157**	50%	0%	21	0	21	**178**
	WBT	0	0	0	252	0	252	0	**252**	**270**	0%	50%	58	-1	57	**327**
	WBR	0	0	0	5	0	5	0	**5**	**5**	0%	0%	0	-5	-5	**0**
Farrell Street & Whitwell Street	NBL	0	0	0	18	0	18	0	**18**	**19**	0%	0%	0	0	0	**19**
	NBR	0	0	0	10	0	10	0	**10**	**11**	0%	0%	0	0	0	**11**
	EBT	0	0	0	139	0	139	0	**139**	**149**	50%	0%	21	-1	20	**169**
	EBR	0	0	0	7	0	7	0	**7**	**8**	0%	0%	0	0	0	**8**
	WBL	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	WBT	0	0	0	239	0	239	0	**239**	**256**	0%	50%	58	-6	52	**308**
Whitwell Street & Ambulance Access	SBL	0	0	0	0	0	0	0	**0**	**0**	0%	25%	29	0	29	**29**
	SBR	0	0	0	1	0	1	0	**1**	**1**	0%	23%	27	-1	26	**27**
	EBL	0	0	0	0	0	0	0	**0**	**0**	23%	0%	10	0	10	**10**
	EBT	0	0	0	150	0	150	0	**150**	**161**	27%	0%	11	-1	10	**171**
	WBT	0	0	0	238	0	238	0	**238**	**255**	0%	27%	31	-5	26	**281**
	WBR	0	0	0	1	0	1	0	**1**	**1**	25%	0%	11	-1	10	**11**
Ryden Street & Whitwell Street	NBL	0	0	0	5	0	5	0	**5**	**5**	0%	0%	0	0	0	**5**
	NBR	0	0	0	10	0	10	0	**10**	**11**	0%	0%	0	0	0	**11**
	EBT	0	0	0	148	0	148	0	**148**	**159**	27%	25%	40	-1	39	**198**
	EBR	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	WBL	0	0	0	4	0	4	0	**4**	**4**	0%	0%	0	0	0	**4**
	WBT	0	0	0	223	0	223	15	**238**	**255**	25%	27%	42	-6	36	**291**
Nilsen Avenue/Site Driveway & Whitwell Street	NBL	0	0	0	4	0	4	0	**4**	**4**	0%	0%	0	0	0	**4**
	NBT	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	NBR	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	SBL	0	0	0	4	0	4	0	**4**	**4**	0%	25%	29	-4	25	**29**
	SBT	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	SBR	0	0	0	0	0	0	0	**0**	**0**	0%	27%	32	0	32	**32**
	EBL	0	0	0	0	0	0	0	**0**	**0**	27%	0%	11	0	11	**11**
	EBT	0	0	0	158	0	158	0	**158**	**169**	0%	25%	29	-1	28	**197**
	EBR	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	WBL	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	WBT	0	0	0	241	0	241	0	**241**	**258**	25%	0%	10	-6	4	**262**
	WBR	0	0	0	0	0	0	0	**0**	**0**	25%	0%	11	0	11	**11**
Cranch Street & Whitwell Street	NBL	0	0	0	6	0	6	0	**6**	**6**	0%	0%	0	0	0	**6**
	NBR	0	0	0	7	0	7	0	**7**	**8**	0%	0%	0	0	0	**8**
	EBT	0	0	0	165	0	165	0	**165**	**177**	0%	50%	58	-5	53	**230**
	EBR	0	0	0	5	0	5	0	**5**	**5**	0%	0%	0	0	0	**5**
	WBL	0	0	0	4	0	4	0	**4**	**4**	0%	0%	0	0	0	**4**
	WBT	0	0	0	229	0	229	0	**229**	**246**	50%	0%	21	-6	15	**261**

TRAFFIC PROJECTION MODEL
WEEKDAY MORNING PEAK HOUR
114 WHITWELL STREET - QUINCY, MA

		2018 Existing Condition								2025 No Build Condition	2025 Build Condition					
Intersection	**Movement**	**June 2017 AM Traffic Counts**	**June 2017 AM Traffic Count Balancing Adjustments**	**June 2017 AM Balanced Traffic Counts**	**April 2018 AM Traffic Counts**	**April 2018 AM Traffic Count Balancing Adjustments**	**April 2018 AM Balanced Traffic Counts**	**2018 AM Peak Hour Balancing**	**2018 Existing AM Peak Hour Traffic Volumes**	**2025 No-Build AM Peak Hour Traffic Volumes**	**% Enter**	**% Exit**	**AM Peak Hour New Site Trips (Total)**	**AM Peak Hour Trip Adjustments (Removal of Existing Site Trips)**	**Net New AM Peak Hour Site Trips**	**2025 Build AM Peak Hour Volumes**
Whitwell Street & Roselin Avenue	SBL	0	0	0	12	0	12	0	**12**	**13**	0%	0%	0	0	0	**13**
	SBR	0	0	0	17	0	17	0	**17**	**18**	3%	0%	1	0	1	**19**
	EBL	0	0	0	12	0	12	0	**12**	**13**	0%	3%	3	0	3	**16**
	EBT	0	0	0	157	0	157	0	**157**	**168**	0%	47%	55	-5	50	**218**
	WBT	0	0	0	213	0	213	0	**213**	**228**	47%	0%	20	-6	14	**242**
	WBR	0	0	0	9	0	9	0	**9**	**10**	0%	0%	0	0	0	**10**
Klondike Street & Whitwell Street	NBL	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	NBR	0	0	0	6	0	6	0	**6**	**6**	0%	0%	0	0	0	**6**
	EBT	0	0	0	170	0	170	0	**170**	**182**	0%	47%	55	-5	50	**232**
	EBR	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	WBL	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	WBT	0	0	0	214	0	214	0	**214**	**229**	47%	0%	20	-6	14	**243**
Whitwell Street & Maywood Avenue	SBL	0	0	0	4	0	4	0	**4**	**4**	0%	0%	0	0	0	**4**
	SBR	0	0	0	7	0	7	0	**7**	**8**	0%	0%	0	0	0	**8**
	EBL	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	EBT	0	0	0	171	0	171	0	**171**	**183**	0%	47%	55	-5	50	**233**
	WBT	0	0	0	206	0	206	0	**206**	**221**	47%	0%	20	-6	14	**235**
	WBR	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
Deldorf Street/Glendale Road & Whitwell Street	NBL	0	0	0	8	0	8	0	**8**	**9**	0%	0%	0	0	0	**9**
	NBT	0	0	0	8	0	8	0	**8**	**9**	0%	0%	0	0	0	**9**
	NBR	0	0	0	15	0	15	0	**15**	**16**	0%	0%	0	0	0	**16**
	SBL	0	0	0	32	0	32	0	**32**	**34**	0%	0%	0	0	0	**34**
	SBT	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	SBR	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	EBL	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	EBT	0	0	0	177	0	177	0	**177**	**190**	0%	47%	55	-5	50	**240**
	EBR	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	WBL	0	0	0	8	0	8	0	**8**	**9**	0%	0%	0	0	0	**9**
	WBT	0	0	0	202	0	202	0	**202**	**217**	47%	0%	20	-6	14	**231**
	WBR	0	0	0	24	0	24	0	**24**	**26**	0%	0%	0	0	0	**26**
Whitwell Street & Dixwell Avenue	SBL	0	0	0	41	0	41	0	**41**	**44**	0%	0%	0	0	0	**44**
	SBR	0	0	0	8	0	8	0	**8**	**9**	0%	0%	0	0	0	**9**
	EBL	0	0	0	4	0	4	0	**4**	**4**	0%	0%	0	0	0	**4**
	EBT	0	0	0	222	0	222	1	**223**	**240**	0%	47%	55	-5	50	**290**
	WBT	0	0	0	229	0	229	0	**229**	**246**	47%	0%	20	-6	14	**260**
	WBR	0	0	0	21	0	21	0	**21**	**23**	0%	0%	0	0	0	**23**
Granite Street & Whitwell Street/Plaza Access	NBL	164	0	164	0	0	0	30	**196**	**210**	37%	0%	16	-5	11	**221**
	NBT	226	0	226	0	0	0	0	**229**	**246**	0%	0%	0	0	0	**246**
	NBR	14	0	14	0	0	0	0	**14**	**15**	0%	0%	0	0	0	**15**
	SBL	46	0	46	0	0	0	0	**46**	**49**	0%	0%	0	0	0	**49**
	SBT	187	0	187	0	0	0	0	**189**	**203**	0%	0%	0	0	0	**203**
	SBR	22	0	22	0	0	0	10	**32**	**35**	10%	0%	4	-1	3	**38**
	EBL	68	0	68	0	0	0	9	**78**	**84**	0%	10%	12	-2	10	**94**
	EBT	25	0	25	0	0	0	0	**25**	**27**	0%	0%	0	0	0	**27**
	EBR	142	0	142	0	0	0	18	**161**	**173**	0%	37%	43	-3	40	**213**
	WBL	5	0	5	0	0	0	0	**5**	**5**	0%	0%	0	0	0	**5**
	WBT	22	0	22	0	0	0	0	**22**	**24**	0%	0%	0	0	0	**24**
	WBR	41	0	41	0	0	0	0	**41**	**44**	0%	0%	0	0	0	**44**
Roselin Avenue & Bedford Street	NBT	0	0	0	18	0	18	0	**18**	**19**	0%	3%	3	0	3	**22**
	NBR	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	SBL	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	SBT	0	0	0	16	0	16	0	**16**	**17**	3%	0%	1	0	1	**18**
	WBL	0	0	0	11	0	11	0	**11**	**12**	0%	0%	0	0	0	**12**
	WBR	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
Roselin Avenue & Euclid Avenue	NBL	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	NBR	0	0	0	21	0	21	0	**21**	**23**	0%	3%	3	0	3	**26**
	EBT	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	EBR	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	WBL	0	0	0	10	0	10	0	**10**	**11**	3%	0%	1	0	1	**12**
	WBT	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**

TRAFFIC PROJECTION MODEL
WEEKDAY MORNING PEAK HOUR
114 WHITWELL STREET - QUINCY, MA

		2018 Existing Condition								2025 No Build Condition	2025 Build Condition					
Intersection	**Movement**	**June 2017 AM Traffic Counts**	**June 2017 AM Traffic Count Balancing Adjustments**	**June 2017 AM Balanced Traffic Counts**	**April 2018 AM Traffic Counts**	**April 2018 AM Traffic Count Balancing Adjustments**	**April 2018 AM Balanced Traffic Counts**	**2018 AM Peak Hour Balancing**	**2018 Existing AM Peak Hour Traffic Volumes**	**2025 No-Build AM Peak Hour Traffic Volumes**	**% Enter**	**% Exit**	**AM Peak Hour New Site Trips (Total)**	**AM Peak Hour Trip Adjustments (Removal of Existing Site Trips)**	**Net New AM Peak Hour Site Trips**	**2025 Build AM Peak Hour Volumes**
Maywood Avenue & Bedford Street	NBL	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	NBR	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	EBT	0	0	0	11	0	11	0	**11**	**12**	0%	0%	0	0	0	**12**
	EBR	0	0	0	5	0	5	0	**5**	**5**	0%	0%	0	0	0	**5**
	WBL	0	0	0	8	0	8	0	**8**	**9**	0%	0%	0	0	0	**9**
	WBT	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
Glendale Road & Bedford Street	NBL	0	0	0	6	0	6	0	**6**	**6**	0%	0%	0	0	0	**6**
	NBT	0	0	0	30	0	30	0	**30**	**32**	0%	0%	0	0	0	**32**
	SBT	0	0	0	24	0	24	0	**24**	**26**	0%	0%	0	0	0	**26**
	SBR	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	EBL	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	EBR	0	0	0	11	0	11	0	**11**	**12**	0%	0%	0	0	0	**12**
Bedford Street & Euclid Avenue	SBL	0	0	0	9	0	9	0	**9**	**10**	0%	0%	0	0	0	**10**
	SBR	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	EBL	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	EBT	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	WBT	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	WBR	0	0	0	5	0	5	0	**5**	**5**	0%	0%	0	0	0	**5**
Euclid Avenue & Dimmock Street	SBL	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	SBR	0	0	0	6	0	6	0	**6**	**6**	3%	0%	1	0	1	**7**
	EBL	0	0	0	17	0	17	0	**17**	**18**	0%	3%	3	0	3	**21**
	EBT	0	0	0	8	0	8	0	**8**	**9**	0%	0%	0	0	0	**9**
	WBT	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	WBR	0	0	0	9	0	9	0	**9**	**10**	0%	0%	0	0	0	**10**
Dimmock Street & Glendale Road	NBL	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	NBT	0	0	0	25	0	25	0	**25**	**27**	0%	3%	3	0	3	**30**
	NBR	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	SBL	0	0	0	8	0	8	0	**8**	**9**	0%	0%	0	0	0	**9**
	SBT	0	0	0	8	0	8	0	**8**	**9**	3%	0%	1	0	1	**10**
	SBR	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	EBL	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	EBT	0	0	0	10	0	10	0	**10**	**11**	0%	0%	0	0	0	**11**
	EBR	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	WBL	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	WBT	0	0	0	20	0	20	0	**20**	**21**	0%	0%	0	0	0	**21**
	WBR	0	0	0	16	0	16	0	**16**	**17**	0%	0%	0	0	0	**17**
Granite Street & 125 Granite Street Driveway/Walter J. Hannon Pkwy	NBL	5	0	5	0	0	0	0	**5**	**5**	0%	0%	0	0	0	**5**
	NBT	273	0	273	0	0	0	30	**306**	**328**	23%	0%	10	-4	6	**334**
	NBR	111	0	111	0	0	0	0	**112**	**121**	0%	0%	0	0	0	**121**
	SBL	109	0	109	0	0	0	0	**110**	**118**	0%	14%	16	-1	15	**133**
	SBT	225	0	225	0	0	0	0	**227**	**243**	0%	23%	27	-2	25	**268**
	SBR	3	0	3	0	0	0	0	**3**	**3**	0%	0%	0	0	0	**3**
	EBL	9	0	9	0	0	0	0	**9**	**10**	0%	0%	0	0	0	**10**
	EBT	2	0	2	0	0	0	0	**2**	**2**	0%	0%	0	0	0	**2**
	EBR	9	0	9	0	0	0	0	**9**	**10**	0%	0%	0	0	0	**10**
	WBL	127	0	127	0	0	0	0	**128**	**137**	0%	0%	0	0	0	**137**
	WBT	8	0	8	0	0	0	0	**8**	**9**	0%	0%	0	0	0	**9**
	WBR	123	0	123	0	0	0	0	**124**	**133**	14%	0%	6	-1	5	**138**
Thomas E. Burgin Pkwy & Granite Street	NBT	797	0	797	0	0	0	0	**806**	**864**	0%	0%	0	0	0	**864**
	NBR	136	0	136	0	0	0	0	**137**	**147**	0%	0%	0	0	0	**147**
	SBL	62	0	62	0	0	0	0	**63**	**68**	0%	0%	0	0	0	**68**
	SBT	446	0	446	0	0	0	0	**450**	**483**	0%	0%	0	0	0	**483**
	SBR	151	0	151	0	0	0	0	**153**	**164**	5%	0%	2	-1	1	**165**
	EBL	176	0	176	0	0	0	0	**178**	**191**	0%	5%	6	-1	5	**196**
	EBT	137	0	137	0	0	0	0	**140**	**150**	0%	5%	6	-1	5	**155**
	EBR	30	0	30	0	0	0	0	**30**	**32**	0%	0%	0	0	0	**32**
	WBL	115	0	115	0	0	0	0	**116**	**124**	0%	0%	0	0	0	**124**
	WBT	124	0	124	0	0	0	0	**125**	**134**	5%	0%	2	0	2	**136**
	WBR	129	0	129	0	0	0	0	**130**	**139**	0%	0%	0	0	0	**139**

TRAFFIC PROJECTION MODEL
WEEKDAY MORNING PEAK HOUR
114 WHITWELL STREET - QUINCY, MA

		2018 Existing Condition								2025 No Build Condition	2025 Build Condition					
Intersection	**Movement**	**June 2017 AM Traffic Counts**	**June 2017 AM Traffic Count Balancing Adjustments**	**June 2017 AM Balanced Traffic Counts**	**April 2018 AM Traffic Counts**	**April 2018 AM Traffic Count Balancing Adjustments**	**April 2018 AM Balanced Traffic Counts**	**2018 AM Peak Hour Balancing**	**2018 Existing AM Peak Hour Traffic Volumes**	**2025 No-Build AM Peak Hour Traffic Volumes**	**% Enter**	**% Exit**	**AM Peak Hour New Site Trips (Total)**	**AM Peak Hour Trip Adjustments (Removal of Existing Site Trips)**	**Net New AM Peak Hour Site Trips**	**2025 Build AM Peak Hour Volumes**
Thomas E. Burgin Pkwy & Walter J. Hannon Pkwy/Paul Harold Bridge	NBL	109	0	109	0	0	0	0	**111**	**119**	6%	0%	3	0	3	**122**
	NBT	756	0	756	0	0	0	0	**764**	**819**	0%	0%	0	0	0	**819**
	NBR	179	0	179	0	0	0	4	**185**	**198**	0%	0%	0	0	0	**198**
	SBT	576	0	576	0	0	0	0	**582**	**624**	0%	0%	0	0	0	**624**
	SBR	13	0	13	0	0	0	0	**14**	**15**	0%	0%	0	0	0	**15**
	EBT	76	0	76	0	0	0	0	**77**	**83**	0%	8%	9	0	9	**92**
	EBR	146	0	146	0	0	0	0	**147**	**158**	0%	6%	7	-1	6	**164**
	WBL	341	0	341	0	0	0	0	**344**	**369**	0%	0%	0	0	0	**369**
	WBT	134	0	134	0	0	0	0	**135**	**145**	8%	0%	3	-1	2	**147**
	WBR	177	0	177	0	0	0	0	**179**	**192**	0%	0%	0	0	0	**192**

TRAFFIC PROJECTION MODEL
WEEKDAY EVENING PEAK HOUR
114 WHITWELL STREET - QUINCY, MA

		2018 Existing Condition								2025 No Build Condition	2025 Build Condition					
Intersection	**Movement**	**June 2017 PM Traffic Counts**	**June 2017 PM Traffic Count Balancing Adjustments**	**June 2017 PM Balanced Traffic Counts**	**April 2018 PM Traffic Counts**	**April 2018 PM Traffic Count Balancing Adjustments**	**April 2018 PM Balanced Traffic Counts**	**2018 PM Peak Hour Balancing**	**2018 Existing PM Peak Hour Traffic Volumes**	**2025 No-Build PM Peak Hour Traffic Volumes**	**% Enter**	**% Exit**	**PM Peak Hour New Site Trips (Total)**	**PM Peak Hour Trip Adjustments (Removal of Existing Site Trips)**	**Net New PM Peak Hour Site Trips**	**2025 Build PM Peak Hour Volumes**
Adams Street & Grenwold Road	NBL	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	NBT	0	0	0	311	0	311	0	**311**	**333**	0%	0%	0	0	0	**333**
	NBR	0	0	0	198	0	198	0	**198**	**212**	41%	0%	53	-3	50	**262**
	SBL	0	0	0	34	0	34	0	**34**	**36**	9%	0%	11	0	11	**47**
	SBT	0	0	0	292	0	292	0	**292**	**313**	0%	0%	0	0	0	**313**
	SBR	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	EBL	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	EBT	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	EBR	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	WBL	0	0	0	128	0	128	0	**128**	**137**	0%	41%	35	-3	32	**169**
	WBT	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	WBR	0	0	0	33	0	33	0	**33**	**35**	0%	9%	8	-1	7	**42**
Carrolls Lane & Whitwell Street	NBL	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	NBR	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	EBT	0	0	0	232	0	232	0	**232**	**249**	50%	0%	64	-3	61	**310**
	EBR	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	WBL	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	WBT	0	0	0	162	0	162	0	**162**	**174**	0%	50%	43	-4	39	**213**
Whitwell Street & Northerly Site Driveway	SBL	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	-2	-2	**0**
	SBR	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	-1	-1	**0**
	EBL	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	-3	-3	**0**
	EBT	0	0	0	228	0	228	0	**228**	**244**	50%	0%	64	0	64	**308**
	WBT	0	0	0	164	0	164	0	**164**	**176**	0%	50%	43	-3	40	**216**
	WBR	0	0	0	4	0	4	0	**4**	**4**	0%	0%	0	-4	-4	**0**
Farrell Street & Whitwell Street	NBL	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	NBR	0	0	0	6	0	6	0	**6**	**6**	0%	0%	0	0	0	**6**
	EBT	0	0	0	229	0	229	0	**229**	**246**	50%	0%	64	-2	62	**308**
	EBR	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	WBL	0	0	0	6	0	6	0	**6**	**6**	0%	0%	0	0	0	**6**
	WBT	0	0	0	164	0	164	0	**164**	**176**	0%	50%	43	-7	36	**212**
Whitwell Street & Ambulance Access	SBL	0	0	0	2	0	2	0	**2**	**2**	0%	25%	21	-2	19	**21**
	SBR	0	0	0	0	0	0	0	**0**	**0**	0%	23%	19	0	19	**19**
	EBL	0	0	0	0	0	0	0	**0**	**0**	23%	0%	29	0	29	**29**
	EBT	0	0	0	233	0	233	0	**233**	**250**	27%	0%	35	-2	33	**283**
	WBT	0	0	0	170	0	170	0	**170**	**182**	0%	27%	24	-7	17	**199**
	WBR	0	0	0	0	0	0	0	**0**	**0**	25%	0%	32	0	32	**32**
Ryden Street & Whitwell Street	NBL	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	NBR	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	EBT	0	0	0	229	0	229	0	**229**	**246**	27%	25%	56	-4	52	**298**
	EBR	0	0	0	5	0	5	0	**5**	**5**	0%	0%	0	0	0	**5**
	WBL	0	0	0	6	0	6	0	**6**	**6**	0%	0%	0	0	0	**6**
	WBT	0	0	0	171	0	171	0	**171**	**183**	25%	27%	56	-7	49	**232**
Nilsen Avenue/Site Driveway & Whitwell Street	NBL	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	NBT	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	NBR	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	SBL	0	0	0	2	0	2	0	**2**	**2**	0%	25%	21	-2	19	**21**
	SBT	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	SBR	0	0	0	3	0	3	0	**3**	**3**	0%	27%	23	-3	20	**23**
	EBL	0	0	0	0	0	0	0	**0**	**0**	27%	0%	34	0	34	**34**
	EBT	0	0	0	230	0	230	0	**230**	**247**	0%	25%	22	-4	18	**265**
	EBR	0	0	0	4	0	4	0	**4**	**4**	0%	0%	0	0	0	**4**
	WBL	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	WBT	0	0	0	171	0	171	0	**171**	**183**	25%	0%	33	-4	29	**212**
	WBR	0	0	0	1	0	1	0	**1**	**1**	25%	0%	32	-1	31	**32**
Cranch Street & Whitwell Street	NBL	0	0	0	8	0	8	0	**8**	**9**	0%	0%	0	0	0	**9**
	NBR	0	0	0	4	0	4	0	**4**	**4**	0%	0%	0	0	0	**4**
	EBT	0	0	0	225	0	225	0	**225**	**241**	0%	50%	43	-6	37	**278**
	EBR	0	0	0	8	0	8	0	**8**	**9**	0%	0%	0	0	0	**9**
	WBL	0	0	0	6	0	6	0	**6**	**6**	0%	0%	0	0	0	**6**
	WBT	0	0	0	165	0	165	0	**165**	**177**	50%	0%	65	-5	60	**237**

TRAFFIC PROJECTION MODEL
WEEKDAY EVENING PEAK HOUR
114 WHITWELL STREET - QUINCY, MA

		2018 Existing Condition								2025 No Build Condition	2025 Build Condition					
Intersection	**Movement**	**June 2017 PM Traffic Counts**	**June 2017 PM Traffic Count Balancing Adjustments**	**June 2017 PM Balanced Traffic Counts**	**April 2018 PM Traffic Counts**	**April 2018 PM Traffic Count Balancing Adjustments**	**April 2018 PM Balanced Traffic Counts**	**2018 PM Peak Hour Balancing**	**2018 Existing PM Peak Hour Traffic Volumes**	**2025 No-Build PM Peak Hour Traffic Volumes**	**% Enter**	**% Exit**	**PM Peak Hour New Site Trips (Total)**	**PM Peak Hour Trip Adjustments (Removal of Existing Site Trips)**	**Net New PM Peak Hour Site Trips**	**2025 Build PM Peak Hour Volumes**
Whitwell Street & Roselin Avenue	SBL	0	0	0	4	0	4	0	**4**	**4**	0%	0%	0	0	0	**4**
	SBR	0	0	0	13	0	13	0	**13**	**14**	3%	0%	4	-1	3	**17**
	EBL	0	0	0	19	0	19	0	**19**	**20**	0%	3%	3	0	3	**23**
	EBT	0	0	0	208	0	208	0	**208**	**223**	0%	47%	40	-6	34	**257**
	WBT	0	0	0	156	0	156	0	**156**	**167**	47%	0%	61	-4	57	**224**
	WBR	0	0	0	7	0	7	0	**7**	**8**	0%	0%	0	0	0	**8**
Klondike Street & Whitwell Street	NBL	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	NBR	0	0	0	5	0	5	0	**5**	**5**	0%	0%	0	0	0	**5**
	EBT	0	0	0	207	0	207	0	**207**	**222**	0%	47%	40	-6	34	**256**
	EBR	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	WBL	0	0	0	9	0	9	0	**9**	**10**	0%	0%	0	0	0	**10**
	WBT	0	0	0	166	0	166	0	**166**	**178**	47%	0%	61	-4	57	**235**
Whitwell Street & Maywood Avenue	SBL	0	0	0	4	0	4	0	**4**	**4**	0%	0%	0	0	0	**4**
	SBR	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	EBL	0	0	0	7	0	7	0	**7**	**8**	0%	0%	0	0	0	**8**
	EBT	0	0	0	206	0	206	0	**206**	**221**	0%	47%	40	-6	34	**255**
	WBT	0	0	0	173	0	173	0	**173**	**185**	47%	0%	61	-4	57	**242**
	WBR	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
Deldorf Street/Glendale Road & Whitwell Street	NBL	0	0	0	5	0	5	0	**5**	**5**	0%	0%	0	0	0	**5**
	NBT	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	NBR	0	0	0	12	0	12	0	**12**	**13**	0%	0%	0	0	0	**13**
	SBL	0	0	0	37	0	37	0	**37**	**40**	0%	0%	0	0	0	**40**
	SBT	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	SBR	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	EBL	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	EBT	0	0	0	203	0	203	0	**203**	**218**	0%	47%	40	-6	34	**252**
	EBR	0	0	0	6	0	6	0	**6**	**6**	0%	0%	0	0	0	**6**
	WBL	0	0	0	29	0	29	0	**29**	**31**	0%	0%	0	0	0	**31**
	WBT	0	0	0	167	0	167	0	**167**	**179**	47%	0%	61	-4	57	**236**
	WBR	0	0	0	36	0	36	0	**36**	**39**	0%	0%	0	0	0	**39**
Whitwell Street & Dixwell Avenue	SBL	0	0	0	39	0	39	0	**39**	**42**	0%	0%	0	0	0	**42**
	SBR	0	0	0	4	0	4	0	**4**	**4**	0%	0%	0	0	0	**4**
	EBL	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	EBT	0	0	0	255	0	255	1	**256**	**275**	0%	47%	40	-6	34	**309**
	WBT	0	0	0	230	0	230	0	**230**	**247**	47%	0%	61	-4	57	**304**
	WBR	0	0	0	28	0	28	0	**28**	**30**	0%	0%	0	0	0	**30**
Granite Street & Whitwell Street/Plaza Access	NBL	182	0	182	0	0	0	12	**197**	**211**	37%	0%	48	-3	45	**256**
	NBT	195	0	195	0	0	0	0	**197**	**211**	0%	0%	0	0	0	**211**
	NBR	13	0	13	0	0	0	0	**13**	**14**	0%	0%	0	0	0	**14**
	SBL	28	0	28	0	0	0	0	**28**	**30**	0%	0%	0	0	0	**30**
	SBT	232	0	232	0	0	0	0	**234**	**251**	0%	0%	0	0	0	**251**
	SBR	26	0	26	0	0	0	8	**34**	**37**	10%	0%	13	-1	12	**49**
	EBL	72	0	72	0	0	0	7	**80**	**86**	0%	10%	8	-2	6	**92**
	EBT	23	0	23	0	0	0	0	**23**	**25**	0%	0%	0	0	0	**25**
	EBR	170	0	170	0	0	0	20	**192**	**206**	0%	37%	32	-4	28	**234**
	WBL	12	0	12	0	0	0	0	**12**	**13**	0%	0%	0	0	0	**13**
	WBT	27	0	27	0	0	0	0	**27**	**29**	0%	0%	0	0	0	**29**
	WBR	63	0	63	0	0	0	0	**64**	**69**	0%	0%	0	0	0	**69**
Roselin Avenue & Bedford Street	NBT	0	0	0	19	0	19	0	**19**	**20**	0%	3%	3	0	3	**23**
	NBR	0	0	0	9	0	9	0	**9**	**10**	0%	0%	0	0	0	**10**
	SBL	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	SBT	0	0	0	13	0	13	0	**13**	**14**	3%	0%	4	-1	3	**17**
	WBL	0	0	0	4	0	4	0	**4**	**4**	0%	0%	0	0	0	**4**
	WBR	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
Roselin Avenue & Euclid Avenue	NBL	0	0	0	4	0	4	0	**4**	**4**	0%	0%	0	0	0	**4**
	NBR	0	0	0	12	0	12	0	**12**	**13**	0%	3%	3	0	3	**16**
	EBT	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	EBR	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	WBL	0	0	0	14	0	14	0	**14**	**15**	3%	0%	4	-1	3	**18**
	WBT	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**

TRAFFIC PROJECTION MODEL
WEEKDAY EVENING PEAK HOUR
114 WHITWELL STREET - QUINCY, MA

		2018 Existing Condition								2025 No Build Condition	2025 Build Condition					
Intersection	**Movement**	**June 2017 PM Traffic Counts**	**June 2017 PM Traffic Count Balancing Adjustments**	**June 2017 PM Balanced Traffic Counts**	**April 2018 PM Traffic Counts**	**April 2018 PM Traffic Count Balancing Adjustments**	**April 2018 PM Balanced Traffic Counts**	**2018 PM Peak Hour Balancing**	**2018 Existing PM Peak Hour Traffic Volumes**	**2025 No-Build PM Peak Hour Traffic Volumes**	**% Enter**	**% Exit**	**PM Peak Hour New Site Trips (Total)**	**PM Peak Hour Trip Adjustments (Removal of Existing Site Trips)**	**Net New PM Peak Hour Site Trips**	**2025 Build PM Peak Hour Volumes**
Maywood Avenue & Bedford Street	NBL	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	NBR	0	0	0	5	0	5	0	**5**	**5**	0%	0%	0	0	0	**5**
	EBT	0	0	0	4	0	4	0	**4**	**4**	0%	0%	0	0	0	**4**
	EBR	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	WBL	0	0	0	6	0	6	0	**6**	**6**	0%	0%	0	0	0	**6**
	WBT	0	0	0	14	0	14	0	**14**	**15**	0%	0%	0	0	0	**15**
Glendale Road & Bedford Street	NBL	0	0	0	19	0	19	0	**19**	**20**	0%	0%	0	0	0	**20**
	NBT	0	0	0	18	0	18	0	**18**	**19**	0%	0%	0	0	0	**19**
	SBT	0	0	0	40	0	40	0	**40**	**43**	0%	0%	0	0	0	**43**
	SBR	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	EBL	0	0	0	7	0	7	0	**7**	**8**	0%	0%	0	0	0	**8**
	EBR	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
Bedford Street & Euclid Avenue	SBL	0	0	0	5	0	5	0	**5**	**5**	0%	0%	0	0	0	**5**
	SBR	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	EBL	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	EBT	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	WBT	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	WBR	0	0	0	8	0	8	0	**8**	**9**	0%	0%	0	0	0	**9**
Euclid Avenue & Dimmock Street	SBL	0	0	0	7	0	7	0	**7**	**8**	0%	0%	0	0	0	**8**
	SBR	0	0	0	10	0	10	0	**10**	**11**	3%	0%	4	-1	3	**14**
	EBL	0	0	0	9	0	9	0	**9**	**10**	0%	3%	3	0	3	**13**
	EBT	0	0	0	6	0	6	0	**6**	**6**	0%	0%	0	0	0	**6**
	WBT	0	0	0	7	0	7	0	**7**	**8**	0%	0%	0	0	0	**8**
	WBR	0	0	0	6	0	6	0	**6**	**6**	0%	0%	0	0	0	**6**
Dimmock Street & Glendale Road	NBL	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	NBT	0	0	0	14	0	14	0	**14**	**15**	0%	3%	3	0	3	**18**
	NBR	0	0	0	0	0	0	0	**0**	**0**	0%	0%	0	0	0	**0**
	SBL	0	0	0	12	0	12	0	**12**	**13**	0%	0%	0	0	0	**13**
	SBT	0	0	0	14	0	14	0	**14**	**15**	3%	0%	4	-1	3	**18**
	SBR	0	0	0	2	0	2	0	**2**	**2**	0%	0%	0	0	0	**2**
	EBL	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	EBT	0	0	0	32	0	32	0	**32**	**34**	0%	0%	0	0	0	**34**
	EBR	0	0	0	3	0	3	0	**3**	**3**	0%	0%	0	0	0	**3**
	WBL	0	0	0	1	0	1	0	**1**	**1**	0%	0%	0	0	0	**1**
	WBT	0	0	0	14	0	14	0	**14**	**15**	0%	0%	0	0	0	**15**
	WBR	0	0	0	6	0	6	0	**6**	**6**	0%	0%	0	0	0	**6**
Granite Street & 125 Granite Street Driveway/Walter J. Hannon Pkwy	NBL	4	0	4	0	0	0	0	**4**	**4**	0%	0%	0	0	0	**4**
	NBT	226	0	226	0	0	0	7	**235**	**252**	23%	0%	29	-2	27	**279**
	NBR	161	0	161	0	0	0	0	**163**	**175**	0%	0%	0	0	0	**175**
	SBL	182	0	182	0	0	0	0	**184**	**197**	0%	14%	12	-2	10	**207**
	SBT	229	0	229	0	0	0	20	**251**	**269**	0%	23%	20	-2	18	**287**
	SBR	6	0	6	0	0	0	0	**6**	**6**	0%	0%	0	0	0	**6**
	EBL	3	0	3	0	0	0	0	**3**	**3**	0%	0%	0	0	0	**3**
	EBT	8	0	8	0	0	0	0	**8**	**9**	0%	0%	0	0	0	**9**
	EBR	14	0	14	0	0	0	0	**14**	**15**	0%	0%	0	0	0	**15**
	WBL	222	0	222	0	0	0	0	**224**	**240**	0%	0%	0	0	0	**240**
	WBT	21	0	21	0	0	0	0	**21**	**23**	0%	0%	0	0	0	**23**
	WBR	151	0	151	0	0	0	5	**158**	**170**	14%	0%	19	-1	18	**188**
Thomas E. Burgin Pkwy & Granite Street	NBT	504	0	504	0	0	0	0	**509**	**547**	0%	0%	0	0	0	**547**
	NBR	137	0	137	0	0	0	0	**138**	**148**	0%	0%	0	0	0	**148**
	SBL	159	0	159	0	0	0	0	**161**	**173**	0%	0%	0	0	0	**173**
	SBT	701	0	701	0	0	0	0	**708**	**759**	0%	0%	0	0	0	**759**
	SBR	162	0	162	0	0	0	0	**164**	**176**	5%	0%	7	-1	6	**182**
	EBL	139	0	139	0	0	0	0	**140**	**150**	0%	5%	4	-1	3	**153**
	EBT	169	0	169	0	0	0	0	**171**	**183**	0%	5%	4	-1	3	**186**
	EBR	21	0	21	0	0	0	0	**21**	**23**	0%	0%	0	0	0	**23**
	WBL	106	0	106	0	0	0	0	**107**	**115**	0%	0%	0	0	0	**115**
	WBT	131	0	131	0	0	0	0	**132**	**142**	5%	0%	6	0	6	**148**
	WBR	105	0	105	0	0	0	0	**106**	**114**	0%	0%	0	0	0	**114**

TRAFFIC PROJECTION MODEL
WEEKDAY EVENING PEAK HOUR
114 WHITWELL STREET - QUINCY, MA

		2018 Existing Condition								2025 No Build Condition	2025 Build Condition					
Intersection	**Movement**	**June 2017 PM Traffic Counts**	**June 2017 PM Traffic Count Balancing Adjustments**	**June 2017 PM Balanced Traffic Counts**	**April 2018 PM Traffic Counts**	**April 2018 PM Traffic Count Balancing Adjustments**	**April 2018 PM Balanced Traffic Counts**	**2018 PM Peak Hour Balancing**	**2018 Existing PM Peak Hour Traffic Volumes**	**2025 No-Build PM Peak Hour Traffic Volumes**	**% Enter**	**% Exit**	**PM Peak Hour New Site Trips (Total)**	**PM Peak Hour Trip Adjustments (Removal of Existing Site Trips)**	**Net New PM Peak Hour Site Trips**	**2025 Build PM Peak Hour Volumes**
Thomas E. Burgin Pkwy & Walter J. Hannon Pkwy/Paul Harold Bridge	NBL	103	0	103	0	0	0	1	**105**	**113**	6%	0%	8	0	8	**121**
	NBT	512	0	512	0	0	0	0	**520**	**558**	0%	0%	0	0	0	**558**
	NBR	460	0	460	0	0	0	0	**465**	**499**	0%	0%	0	0	0	**499**
	SBT	802	0	802	0	0	0	0	**810**	**869**	0%	0%	0	0	0	**869**
	SBR	26	0	26	0	0	0	0	**26**	**28**	0%	0%	0	0	0	**28**
	EBT	208	0	208	0	0	0	0	**210**	**225**	0%	8%	7	-1	6	**231**
	EBR	143	0	143	0	0	0	0	**145**	**156**	0%	6%	5	-1	4	**160**
	WBL	315	0	315	0	0	0	0	**318**	**341**	0%	0%	0	0	0	**341**
	WBT	265	0	265	0	0	0	4	**272**	**292**	8%	0%	11	-1	10	**302**
	WBR	126	0	126	0	0	0	0	**127**	**137**	0%	0%	0	0	0	**137**

Appendix J

Capacity Analysis Worksheets

2018 Existing Weekday Morning Peak

Signalized Locations

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	Ø3
Lane Configurations											
Traffic Volume (vph)	78	25	161	5	22	196	229	46	189	32	
Future Volume (vph)	78	25	161	5	22	196	229	46	189	32	
Lane Group Flow (vph)	0	115	179	0	72	202	250	0	255	35	
Turn Type	Perm	NA	Perm	Perm	NA	D.P+P	NA	Perm	NA	Perm	
Protected Phases		4			4	1	1 2		2		3
Permitted Phases	4		4	4		2		2		2	
Detector Phase	4	4	4	4	4	1	1 2	2	2	2	
Switch Phase											
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	6.0		15.0	15.0	15.0	7.0
Minimum Split (s)	18.0	18.0	18.0	18.0	18.0	9.0		21.0	21.0	21.0	15.0
Total Split (s)	18.0	18.0	18.0	18.0	18.0	9.0		31.0	31.0	31.0	15.0
Total Split (%)	24.7%	24.7%	24.7%	24.7%	24.7%	12.3%		42.5%	42.5%	42.5%	21%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0		4.0	4.0	4.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0		2.0	2.0	2.0	0.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0			0.0	0.0	
Total Lost Time (s)		6.0	6.0		6.0	3.0			6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lead		Lag	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None		Min	Min	Min	None
v/c Ratio		0.33	0.33		0.16	0.39	0.15		0.31	0.07	
Control Delay		24.6	6.3		12.6	13.8	9.8		19.7	0.2	
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Delay		24.6	6.3		12.6	13.8	9.8		19.7	0.2	
Queue Length 50th (ft)		39	0		9	48	27		42	0	
Queue Length 95th (ft)		81	44		39	89	48		72	0	
Internal Link Dist (ft)		105			145		498		339		
Turn Bay Length (ft)			30			70				80	
Base Capacity (vph)		348	540		447	513	2249		1378	790	
Starvation Cap Reductn		0	0		0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0		0	0	
Reduced v/c Ratio		0.33	0.33		0.16	0.39	0.11		0.19	0.04	

Intersection Summary

Cycle Length: 73
Actuated Cycle Length: 57
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Granite Street & Whitwell Street/Plaza Access

Ø1	Ø2	Ø3	Ø4
9 s	31 s	15 s	18 s

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	25	161	5	22	41	196	229	14	46	189	32
Future Volume (vph)	78	25	161	5	22	41	196	229	14	46	189	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	10	11	11	13	13	12
Grade (%)		-6%			0%			0%			-1%	
Total Lost time (s)		6.0	6.0		6.0		3.0	3.0			6.0	6.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95			0.95	1.00
Frt		1.00	0.85		0.92		1.00	0.99			1.00	0.85
Flt Protected		0.96	1.00		1.00		0.95	1.00			0.99	1.00
Satd. Flow (prot)		2137	1867		1969		1668	3396			3654	1623
Flt Permitted		0.73	1.00		0.98		0.59	1.00			0.84	1.00
Satd. Flow (perm)		1622	1867		1928		1043	3396			3089	1623
Peak-hour factor, PHF	0.90	0.90	0.90	0.94	0.94	0.94	0.97	0.97	0.97	0.92	0.92	0.92
Adj. Flow (vph)	87	28	179	5	23	44	202	236	14	50	205	35
RTOR Reduction (vph)	0	0	141	0	35	0	0	7	0	0	0	26
Lane Group Flow (vph)	0	115	38	0	37	0	202	243	0	0	255	9
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	2%	0%	0%	2%	0%
Turn Type	Perm	NA	Perm	Perm	NA		D.P+P	NA		Perm	NA	Perm
Protected Phases		4			4		1	1 2			2	
Permitted Phases	4		4	4			2			2		2
Actuated Green, G (s)		12.2	12.2		12.2		21.4	24.4			15.3	15.3
Effective Green, g (s)		12.2	12.2		12.2		21.4	24.4			15.3	15.3
Actuated g/C Ratio		0.21	0.21		0.21		0.37	0.42			0.27	0.27
Clearance Time (s)		6.0	6.0		6.0		3.0				6.0	6.0
Vehicle Extension (s)		2.0	2.0		2.0		2.0				2.0	2.0
Lane Grp Cap (vph)		342	394		407		452	1436			819	430
v/s Ratio Prot							c0.05	0.07				
v/s Ratio Perm		c0.07	0.02		0.02		c0.12				0.08	0.01
v/c Ratio		0.34	0.10		0.09		0.45	0.17			0.31	0.02
Uniform Delay, d1		19.3	18.3		18.3		13.0	10.3			17.0	15.7
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2		0.2	0.0		0.0		0.3	0.0			0.1	0.0
Delay (s)		19.5	18.4		18.3		13.2	10.4			17.1	15.7
Level of Service		B	B		B		B	B			B	B
Approach Delay (s)		18.8			18.3			11.7			16.9	
Approach LOS		B			B			B			B	

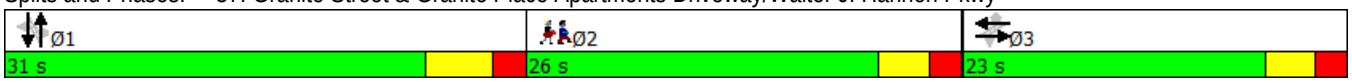
Intersection Summary			
HCM 2000 Control Delay	15.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	57.7	Sum of lost time (s)	17.0
Intersection Capacity Utilization	49.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	Ø2
Lane Configurations										
Traffic Volume (vph)	9	2	128	8	124	5	306	110	227	
Future Volume (vph)	9	2	128	8	124	5	306	110	227	
Lane Group Flow (vph)	0	24	0	151	138	0	460	120	250	
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA	
Protected Phases		3		3			1		1	2
Permitted Phases	3		3		3	1		1		
Detector Phase	3	3	3	3	3	1	1	1	1	
Switch Phase										
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	10.0	10.0	10.0	10.0	13.0
Minimum Split (s)	17.0	17.0	17.0	17.0	17.0	16.0	16.0	16.0	16.0	26.0
Total Split (s)	23.0	23.0	23.0	23.0	23.0	31.0	31.0	31.0	31.0	26.0
Total Split (%)	28.8%	28.8%	28.8%	28.8%	28.8%	38.8%	38.8%	38.8%	38.8%	33%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		6.0	6.0	6.0	
Lead/Lag						Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	None
v/c Ratio		0.05		0.46	0.26		0.42	0.42	0.40	
Control Delay		18.6		30.0	6.9		17.2	26.2	21.4	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	
Total Delay		18.6		30.0	6.9		17.2	26.2	21.4	
Queue Length 50th (ft)		4		58	0		72	43	88	
Queue Length 95th (ft)		22		125	43		124	100	164	
Internal Link Dist (ft)		48		429			362		498	
Turn Bay Length (ft)										
Base Capacity (vph)		584		432	646		1417	380	826	
Starvation Cap Reductn		0		0	0		0	0	0	
Spillback Cap Reductn		0		0	0		0	0	0	
Storage Cap Reductn		0		0	0		0	0	0	
Reduced v/c Ratio		0.04		0.35	0.21		0.32	0.32	0.30	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 61.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 37: Granite Street & Granite Place Apartments Driveway/Walter J. Hannon Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	2	9	128	8	124	5	306	112	110	227	3
Future Volume (vph)	9	2	9	128	8	124	5	306	112	110	227	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	12	12	14	10	10	10	10	11	11
Grade (%)		0%			4%			0%			0%	
Total Lost time (s)		5.0			5.0	5.0		6.0		6.0	6.0	
Lane Util. Factor		1.00			1.00	1.00		0.95		1.00	1.00	
Frt		0.94			1.00	0.85		0.96		1.00	1.00	
Flt Protected		0.98			0.96	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1975			1746	1688		3187		1668	1815	
Flt Permitted		0.87			0.72	1.00		0.95		0.48	1.00	
Satd. Flow (perm)		1759			1318	1688		3034		837	1815	
Peak-hour factor, PHF	0.83	0.83	0.83	0.90	0.90	0.90	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	2	11	142	9	138	5	333	122	120	247	3
RTOR Reduction (vph)	0	8	0	0	0	104	0	44	0	0	1	0
Lane Group Flow (vph)	0	16	0	0	151	34	0	416	0	120	249	0
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	2%	0%	1%	1%	0%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		3			3			1			1	
Permitted Phases	3			3		3	1			1		
Actuated Green, G (s)		15.3			15.3	15.3		21.1		21.1	21.1	
Effective Green, g (s)		15.3			15.3	15.3		21.1		21.1	21.1	
Actuated g/C Ratio		0.24			0.24	0.24		0.34		0.34	0.34	
Clearance Time (s)		5.0			5.0	5.0		6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)		429			321	411		1021		281	610	
v/s Ratio Prot											0.14	
v/s Ratio Perm		0.01			c0.11	0.02		0.14		c0.14		
v/c Ratio		0.04			0.47	0.08		0.41		0.43	0.41	
Uniform Delay, d1		18.1			20.2	18.3		16.0		16.1	16.0	
Progression Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.0			1.1	0.1		0.3		1.0	0.4	
Delay (s)		18.1			21.3	18.4		16.3		17.2	16.4	
Level of Service		B			C	B		B		B	B	
Approach Delay (s)		18.1			19.9			16.3			16.7	
Approach LOS		B			B			B			B	

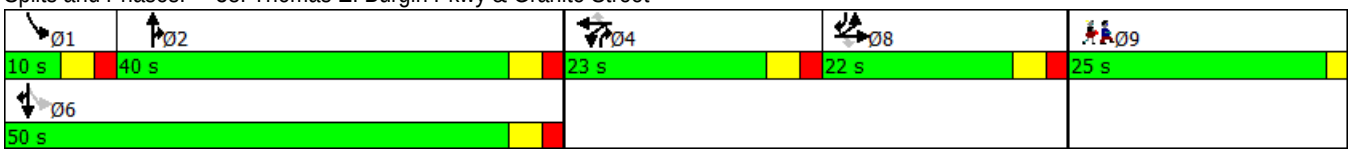
Intersection Summary			
HCM 2000 Control Delay	17.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	62.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations												
Traffic Volume (vph)	178	140	30	116	125	130	806	137	63	450	153	
Future Volume (vph)	178	140	30	116	125	130	806	137	63	450	153	
Lane Group Flow (vph)	180	141	30	81	170	135	822	140	0	529	158	
Turn Type	Split	NA	Perm	Split	NA	Perm	NA	pt+ov	pm+pt	NA	pt+ov	
Protected Phases	8	8		4	4		2	2 4	1	6	6 8	9
Permitted Phases			8			4			6			
Detector Phase	8	8	8	4	4	4	2	2 4	1	6	6 8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	8.0		5.0	8.0		5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	13.0		10.0	13.0		25.0
Total Split (s)	22.0	22.0	22.0	23.0	23.0	23.0	40.0		10.0	50.0		25.0
Total Split (%)	18.3%	18.3%	18.3%	19.2%	19.2%	19.2%	33.3%		8.3%	41.7%		21%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			5.0		
Lead/Lag							Lag		Lead			
Lead-Lag Optimize?							Yes		Yes			
Recall Mode	None	None	None	None	None	None	None		None	None		None
v/c Ratio	0.63	0.27	0.08	0.39	0.40	0.38	0.71	0.16		0.68	0.18	
Control Delay	53.7	42.2	0.4	49.5	45.5	11.6	32.1	2.6		33.6	3.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	53.7	42.2	0.4	49.5	45.5	11.6	32.1	2.6		33.6	3.4	
Queue Length 50th (ft)	108	41	0	53	56	0	245	0		156	9	
Queue Length 95th (ft)	#232	84	0	117	102	57	342	28		234	25	
Internal Link Dist (ft)		339			337		842			574		
Turn Bay Length (ft)			65	115		100		175			50	
Base Capacity (vph)	368	684	474	349	721	499	1532	962		1243	1086	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.49	0.21	0.06	0.23	0.24	0.27	0.54	0.15		0.43	0.15	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 93.3
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 38: Thomas E. Burgin Pkwy & Granite Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	178	140	30	116	125	130	0	806	137	63	450	153
Future Volume (vph)	178	140	30	116	125	130	0	806	137	63	450	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	16	12	12	16	11	11	10	11	11	11
Grade (%)		1%			2%			1%			-1%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	0.91	0.91	1.00		0.95	1.00		0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	0.99	1.00		1.00	1.00		0.99	1.00
Satd. Flow (prot)	1796	3339	1821	1610	3325	1812		3438	1485		3455	1553
Flt Permitted	0.95	1.00	1.00	0.95	0.99	1.00		1.00	1.00		0.66	1.00
Satd. Flow (perm)	1796	3339	1821	1610	3325	1812		3438	1485		2292	1553
Peak-hour factor, PHF	0.99	0.99	0.99	0.96	0.96	0.96	0.98	0.98	0.98	0.97	0.97	0.97
Adj. Flow (vph)	180	141	30	121	130	135	0	822	140	65	464	158
RTOR Reduction (vph)	0	0	25	0	0	117	0	0	66	0	0	53
Lane Group Flow (vph)	180	141	5	81	170	18	0	822	74	0	529	105
Heavy Vehicles (%)	0%	4%	0%	1%	2%	0%	0%	1%	1%	0%	1%	1%
Turn Type	Split	NA	Perm	Split	NA	Perm		NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	8	8		4	4			2	2 4	1	6	6 8
Permitted Phases			8			4				6		
Actuated Green, G (s)	14.8	14.8	14.8	12.1	12.1	12.1		31.6	48.7		31.6	46.4
Effective Green, g (s)	14.8	14.8	14.8	12.1	12.1	12.1		31.6	48.7		31.6	46.4
Actuated g/C Ratio	0.16	0.16	0.16	0.13	0.13	0.13		0.34	0.53		0.34	0.50
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	288	537	292	211	437	238		1180	786		787	783
v/s Ratio Prot	c0.10	0.04		0.05	c0.05			c0.24	0.05			0.07
v/s Ratio Perm			0.00			0.01					0.23	
v/c Ratio	0.62	0.26	0.02	0.38	0.39	0.07		0.70	0.09		0.67	0.13
Uniform Delay, d1	36.0	33.8	32.5	36.5	36.6	35.0		26.1	10.7		25.8	12.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	4.2	0.3	0.0	1.2	0.6	0.1		1.8	0.1		2.3	0.1
Delay (s)	40.2	34.1	32.5	37.7	37.1	35.2		27.9	10.8		28.1	12.2
Level of Service	D	C	C	D	D	D		C	B		C	B
Approach Delay (s)		37.1			36.6			25.4			24.4	
Approach LOS		D			D			C			C	

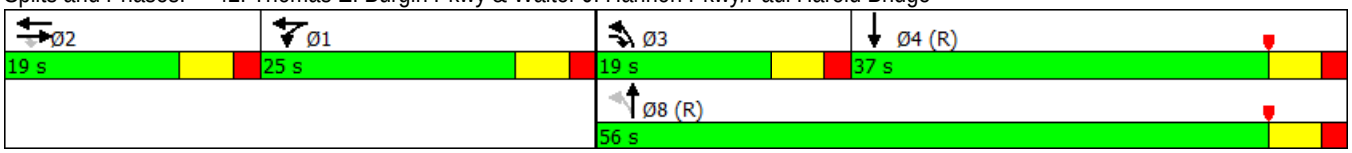
Intersection Summary			
HCM 2000 Control Delay	28.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Configurations							
Traffic Volume (vph)	77	147	344	135	111	764	582
Future Volume (vph)	77	147	344	135	111	764	582
Lane Group Flow (vph)	83	158	374	342	114	979	621
Turn Type	NA	pm+ov	Prot	NA	pm+pt	NA	NA
Protected Phases	2	3	1	1 2	3	8	4
Permitted Phases		2			8		
Detector Phase	2	3	1	1 2	3	8	4
Switch Phase							
Minimum Initial (s)	6.0	4.0	6.0		4.0	6.0	6.0
Minimum Split (s)	19.0	10.0	12.0		10.0	12.0	25.0
Total Split (s)	19.0	19.0	25.0		19.0	56.0	37.0
Total Split (%)	19.0%	19.0%	25.0%		19.0%	56.0%	37.0%
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lag		Lead		Lag
Lead-Lag Optimize?							
Recall Mode	Min	None	Min		None	C-Min	C-Min
v/c Ratio	0.35	0.38	0.68	0.53	0.29	0.54	0.48
Control Delay	44.4	9.6	41.2	19.2	14.8	16.7	26.1
Queue Delay	0.0	0.0	0.2	5.7	0.0	0.0	0.0
Total Delay	44.4	9.6	41.4	24.8	14.8	16.7	26.1
Queue Length 50th (ft)	49	18	128	161	37	205	160
Queue Length 95th (ft)	96	46	169	208	68	270	226
Internal Link Dist (ft)	429			223		311	842
Turn Bay Length (ft)					200		
Base Capacity (vph)	243	485	627	671	449	1824	1302
Starvation Cap Reductn	0	0	29	265	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.33	0.63	0.84	0.25	0.54	0.48

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 15 (15%), Referenced to phase 4:SBT and 8:NBTL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 42: Thomas E. Burgin Pkwy & Walter J. Hannon Pkwy/Paul Harold Bridge



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	77	147	344	135	179	111	764	185	0	582	14
Future Volume (vph)	0	77	147	344	135	179	111	764	185	0	582	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	12	11	11	11
Grade (%)		1%			1%			0%			0%	
Total Lost time (s)		6.0	6.0	6.0	6.0		6.0	6.0			6.0	
Lane Util. Factor		1.00	1.00	0.97	1.00		1.00	0.95			0.95	
Frt		1.00	0.85	1.00	0.91		1.00	0.97			1.00	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)		1872	1607	3302	1693		1805	3430			3443	
Flt Permitted		1.00	1.00	0.95	1.00		0.29	1.00			1.00	
Satd. Flow (perm)		1872	1607	3302	1693		542	3430			3443	
Peak-hour factor, PHF	0.93	0.93	0.93	0.92	0.92	0.92	0.97	0.97	0.97	0.96	0.96	0.96
Adj. Flow (vph)	0	83	158	374	147	195	114	788	191	0	606	15
RTOR Reduction (vph)	0	0	77	0	50	0	0	20	0	0	2	0
Lane Group Flow (vph)	0	83	81	374	292	0	114	959	0	0	619	0
Heavy Vehicles (%)	0%	1%	0%	2%	1%	3%	0%	1%	7%	0%	1%	0%
Turn Type		NA	pm+ov	Prot	NA		pm+pt	NA			NA	
Protected Phases		2	3	1	1 2		3	8			4	
Permitted Phases			2				8					
Actuated Green, G (s)		12.6	21.4	16.8	35.4		52.6	52.6			37.8	
Effective Green, g (s)		12.6	21.4	16.8	35.4		52.6	52.6			37.8	
Actuated g/C Ratio		0.13	0.21	0.17	0.35		0.53	0.53			0.38	
Clearance Time (s)		6.0	6.0	6.0			6.0	6.0			6.0	
Vehicle Extension (s)		3.0	3.0	3.0			3.0	3.0			3.0	
Lane Grp Cap (vph)		235	343	554	599		396	1804			1301	
v/s Ratio Prot		0.04	0.02	c0.11	c0.17		0.03	c0.28			0.18	
v/s Ratio Perm			0.03				0.13					
v/c Ratio		0.35	0.24	0.68	0.49		0.29	0.53			0.48	
Uniform Delay, d1		40.0	32.5	39.0	25.2		13.1	15.6			23.6	
Progression Factor		1.00	1.00	0.91	0.85		1.00	1.00			1.00	
Incremental Delay, d2		0.9	0.4	3.0	0.6		0.4	1.1			1.2	
Delay (s)		40.9	32.9	38.4	22.0		13.5	16.7			24.8	
Level of Service		D	C	D	C		B	B			C	
Approach Delay (s)		35.6			30.6			16.4			24.8	
Approach LOS		D			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	23.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Unsignalized Locations

Intersection	
Int Delay, s/veh	45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	3	1	208	2	47	0	393	122	25	388	1
Future Vol, veh/h	0	3	1	208	2	47	0	393	122	25	388	1
Conflicting Peds, #/hr	1	0	0	0	0	1	3	0	4	4	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	Free	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	9	-	-	0	-	-	1	-	-	1	-
Peak Hour Factor	50	50	50	87	87	87	78	78	78	81	81	81
Heavy Vehicles, %	0	0	0	0	0	2	0	2	1	8	2	0
Mvmt Flow	0	6	2	239	2	54	0	504	156	31	479	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1050	1052	483	1053	1053	509	483	0	-	508	0	0
Stage 1	544	544	-	508	508	-	-	-	-	-	-	-
Stage 2	506	508	-	545	545	-	-	-	-	-	-	-
Critical Hdwy	8.9	8.3	7.1	7.1	6.5	6.22	4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	7.9	7.3	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.9	7.3	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.318	2.2	-	-	2.272	-	-
Pot Cap-1 Maneuver	122	135	521	~ 206	228	564	1090	-	0	1027	-	-
Stage 1	401	398	-	551	542	-	-	-	0	-	-	-
Stage 2	429	420	-	526	522	-	-	-	0	-	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	106	128	520	~ 191	217	561	1090	-	-	1026	-	-
Mov Cap-2 Maneuver	106	128	-	~ 191	217	-	-	-	-	-	-	-
Stage 1	400	381	-	548	539	-	-	-	-	-	-	-
Stage 2	386	418	-	495	499	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	29	199.3	0	0.5
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1090	-	158	230	1026	-	-
HCM Lane V/C Ratio	-	-	0.051	1.284	0.03	-	-
HCM Control Delay (s)	0	-	29	199.3	8.6	0	-
HCM Lane LOS	A	-	D	F	A	A	-
HCM 95th %tile Q(veh)	0	-	0.2	15.4	0.1	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	145	1	0	256	1	1
Future Vol, veh/h	145	1	0	256	1	1
Conflicting Peds, #/hr	0	4	4	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	0	-1	-
Peak Hour Factor	91	91	87	87	25	25
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	159	1	0	294	4	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	164	0	458	164
Stage 1	-	-	-	-	164	-
Stage 2	-	-	-	-	294	-
Critical Hdwy	-	-	4.1	-	6.2	6.1
Critical Hdwy Stg 1	-	-	-	-	5.2	-
Critical Hdwy Stg 2	-	-	-	-	5.2	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1427	-	579	890
Stage 1	-	-	-	-	878	-
Stage 2	-	-	-	-	773	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1427	-	577	887
Mov Cap-2 Maneuver	-	-	-	-	577	-
Stage 1	-	-	-	-	875	-
Stage 2	-	-	-	-	773	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	699	-	-	1427	-
HCM Lane V/C Ratio	0.011	-	-	-	-
HCM Control Delay (s)	10.2	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	146	252	5	1	4
Future Vol, veh/h	2	146	252	5	1	4
Conflicting Peds, #/hr	3	0	0	3	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	88	88	31	31
Heavy Vehicles, %	0	2	1	0	0	0
Mvmt Flow	2	170	286	6	3	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	295	0	-	0	466	293
Stage 1	-	-	-	-	292	-
Stage 2	-	-	-	-	174	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1278	-	-	-	559	751
Stage 1	-	-	-	-	762	-
Stage 2	-	-	-	-	861	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1277	-	-	-	555	748
Mov Cap-2 Maneuver	-	-	-	-	555	-
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	857	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1277	-	-	-	699
HCM Lane V/C Ratio	0.002	-	-	-	0.023
HCM Control Delay (s)	7.8	0	-	-	10.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	139	7	3	239	18	10
Future Vol, veh/h	139	7	3	239	18	10
Conflicting Peds, #/hr	0	3	3	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	86	86	64	64
Heavy Vehicles, %	2	0	33	1	0	0
Mvmt Flow	164	8	3	278	28	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	175	0	456	172
Stage 1	-	-	-	-	171	-
Stage 2	-	-	-	-	285	-
Critical Hdwy	-	-	4.43	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.497	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1234	-	566	877
Stage 1	-	-	-	-	864	-
Stage 2	-	-	-	-	768	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1233	-	563	874
Mov Cap-2 Maneuver	-	-	-	-	563	-
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	766	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	645	-	-	1233	-
HCM Lane V/C Ratio	0.068	-	-	0.003	-
HCM Control Delay (s)	11	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	150	238	1	0	1
Future Vol, veh/h	0	150	238	1	0	1
Conflicting Peds, #/hr	8	0	0	8	3	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	85	85	25	25
Heavy Vehicles, %	0	2	1	100	0	100
Mvmt Flow	0	172	280	1	0	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	289	0	-	0	464	290
Stage 1	-	-	-	-	289	-
Stage 2	-	-	-	-	175	-
Critical Hdwy	4.1	-	-	-	6.4	7.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	4.2
Pot Cap-1 Maneuver	1284	-	-	-	560	566
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	860	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1283	-	-	-	551	561
Mov Cap-2 Maneuver	-	-	-	-	551	-
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	853	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1283	-	-	-	561
HCM Lane V/C Ratio	-	-	-	-	0.007
HCM Control Delay (s)	0	-	-	-	11.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	148	3	4	238	5	10
Future Vol, veh/h	148	3	4	238	5	10
Conflicting Peds, #/hr	0	2	2	0	7	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	87	87	75	75
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	164	3	5	274	7	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	170	0	458	169
Stage 1	-	-	-	-	168	-
Stage 2	-	-	-	-	290	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1420	-	565	880
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	764	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1419	-	558	878
Mov Cap-2 Maneuver	-	-	-	-	558	-
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	756	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	737	-	-	1419	-
HCM Lane V/C Ratio	0.027	-	-	0.003	-
HCM Control Delay (s)	10	-	-	7.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	158	0	0	241	0	4	0	3	4	0	0
Future Vol, veh/h	0	158	0	0	241	0	4	0	3	4	0	0
Conflicting Peds, #/hr	12	0	2	2	0	12	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	2	-	-	-3	-
Peak Hour Factor	86	86	86	87	87	87	58	58	58	50	50	50
Heavy Vehicles, %	0	2	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	0	184	0	0	277	0	7	0	5	8	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	289	0	0	186	0	0	464	475	186	475	475	290
Stage 1	-	-	-	-	-	-	186	186	-	289	289	-
Stage 2	-	-	-	-	-	-	278	289	-	186	186	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.9	6.4	6.5	5.9	5.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.5	4.9	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.5	4.9	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1284	-	-	1401	-	-	486	466	852	545	532	772
Stage 1	-	-	-	-	-	-	804	734	-	759	710	-
Stage 2	-	-	-	-	-	-	711	655	-	846	773	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1283	-	-	1401	-	-	484	459	850	534	524	761
Mov Cap-2 Maneuver	-	-	-	-	-	-	484	459	-	534	524	-
Stage 1	-	-	-	-	-	-	802	732	-	749	701	-
Stage 2	-	-	-	-	-	-	710	646	-	841	771	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	11.2	11.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	594	1283	-	-	1401	-	-	534
HCM Lane V/C Ratio	0.02	-	-	-	-	-	-	0.015
HCM Control Delay (s)	11.2	0	-	-	0	-	-	11.8
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	165	5	4	229	6	7
Future Vol, veh/h	165	5	4	229	6	7
Conflicting Peds, #/hr	0	5	5	0	5	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	8	-
Peak Hour Factor	92	92	88	88	54	54
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	179	5	5	260	11	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	190	0	461	190
Stage 1	-	-	-	-	187	-
Stage 2	-	-	-	-	274	-
Critical Hdwy	-	-	4.1	-	8	7
Critical Hdwy Stg 1	-	-	-	-	7	-
Critical Hdwy Stg 2	-	-	-	-	7	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1396	-	458	822
Stage 1	-	-	-	-	782	-
Stage 2	-	-	-	-	688	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1391	-	451	815
Mov Cap-2 Maneuver	-	-	-	-	451	-
Stage 1	-	-	-	-	778	-
Stage 2	-	-	-	-	682	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	594	-	-	1391	-
HCM Lane V/C Ratio	0.041	-	-	0.003	-
HCM Control Delay (s)	11.3	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	157	213	9	12	17
Future Vol, veh/h	12	157	213	9	12	17
Conflicting Peds, #/hr	5	0	0	5	0	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	-5	-
Peak Hour Factor	83	83	79	25	66	66
Heavy Vehicles, %	0	2	2	0	8	0
Mvmt Flow	14	189	270	36	18	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	311	0	-	0	511	298
Stage 1	-	-	-	-	293	-
Stage 2	-	-	-	-	218	-
Critical Hdwy	4.1	-	-	-	5.48	5.7
Critical Hdwy Stg 1	-	-	-	-	4.48	-
Critical Hdwy Stg 2	-	-	-	-	4.48	-
Follow-up Hdwy	2.2	-	-	-	3.572	3.3
Pot Cap-1 Maneuver	1261	-	-	-	590	778
Stage 1	-	-	-	-	807	-
Stage 2	-	-	-	-	854	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1254	-	-	-	577	770
Mov Cap-2 Maneuver	-	-	-	-	577	-
Stage 1	-	-	-	-	803	-
Stage 2	-	-	-	-	839	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1254	-	-	-	676
HCM Lane V/C Ratio	0.012	-	-	-	0.065
HCM Control Delay (s)	7.9	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	170	0	0	214	3	6
Future Vol, veh/h	170	0	0	214	3	6
Conflicting Peds, #/hr	0	4	4	0	0	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	78	78	56	56
Heavy Vehicles, %	3	0	0	2	0	0
Mvmt Flow	191	0	0	274	5	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	195	0	469	200
Stage 1	-	-	-	-	195	-
Stage 2	-	-	-	-	274	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1390	-	556	846
Stage 1	-	-	-	-	843	-
Stage 2	-	-	-	-	777	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1383	-	554	840
Mov Cap-2 Maneuver	-	-	-	-	554	-
Stage 1	-	-	-	-	841	-
Stage 2	-	-	-	-	777	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	717	-	-	1383	-
HCM Lane V/C Ratio	0.022	-	-	-	-
HCM Control Delay (s)	10.1	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	171	206	1	4	7
Future Vol, veh/h	3	171	206	1	4	7
Conflicting Peds, #/hr	16	0	0	16	9	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	81	81	69	69
Heavy Vehicles, %	0	3	2	0	0	0
Mvmt Flow	3	188	254	1	6	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	272	0	-	0	475	271
Stage 1	-	-	-	-	271	-
Stage 2	-	-	-	-	204	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1303	-	-	-	552	773
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	835	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1303	-	-	-	531	759
Mov Cap-2 Maneuver	-	-	-	-	531	-
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	818	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1303	-	-	-	656
HCM Lane V/C Ratio	0.003	-	-	-	0.024
HCM Control Delay (s)	7.8	0	-	-	10.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	177	3	8	202	24	8	8	15	32	0	1
Future Vol, veh/h	2	177	3	8	202	24	8	8	15	32	0	1
Conflicting Peds, #/hr	10	0	20	20	0	10	4	0	2	2	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	6	-	-	1	-	-	-5	-
Peak Hour Factor	91	91	91	82	82	82	86	86	86	63	63	63
Heavy Vehicles, %	0	3	0	0	2	0	0	13	0	0	0	0
Mvmt Flow	2	195	3	10	246	29	9	9	17	51	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	286	0	0	218	0	0	506	526	218	506	512	275
Stage 1	-	-	-	-	-	-	221	221	-	290	290	-
Stage 2	-	-	-	-	-	-	285	305	-	216	222	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.83	6.3	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.83	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.83	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.117	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1288	-	-	1364	-	-	467	429	822	552	540	799
Stage 1	-	-	-	-	-	-	776	692	-	783	733	-
Stage 2	-	-	-	-	-	-	715	632	-	840	769	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1283	-	-	1361	-	-	452	411	805	519	518	786
Mov Cap-2 Maneuver	-	-	-	-	-	-	452	411	-	519	518	-
Stage 1	-	-	-	-	-	-	760	677	-	772	718	-
Stage 2	-	-	-	-	-	-	704	619	-	807	753	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	11.9	12.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	556	1283	-	-	1361	-	-	524
HCM Lane V/C Ratio	0.065	0.002	-	-	0.007	-	-	0.1
HCM Control Delay (s)	11.9	7.8	0	-	7.7	0	-	12.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	223	229	21	41	8
Future Vol, veh/h	4	223	229	21	41	8
Conflicting Peds, #/hr	12	0	0	12	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-6	6	-	-10	-
Peak Hour Factor	82	82	81	81	82	82
Heavy Vehicles, %	0	2	2	5	0	0
Mvmt Flow	5	272	283	26	50	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	321	0	-	0	593	308
Stage 1	-	-	-	-	308	-
Stage 2	-	-	-	-	285	-
Critical Hdwy	4.1	-	-	-	4.4	5.2
Critical Hdwy Stg 1	-	-	-	-	3.4	-
Critical Hdwy Stg 2	-	-	-	-	3.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1250	-	-	-	656	802
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	900	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1250	-	-	-	635	791
Mov Cap-2 Maneuver	-	-	-	-	635	-
Stage 1	-	-	-	-	878	-
Stage 2	-	-	-	-	884	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1250	-	-	-	656
HCM Lane V/C Ratio	0.004	-	-	-	0.091
HCM Control Delay (s)	7.9	0	-	-	11
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	0	18	2	0	16
Future Vol, veh/h	11	0	18	2	0	16
Conflicting Peds, #/hr	3	0	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	10	-	5	-	-	0
Peak Hour Factor	55	55	63	63	67	67
Heavy Vehicles, %	9	0	0	0	0	0
Mvmt Flow	20	0	29	3	0	24

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	62	35	0	0	37	0
Stage 1	35	-	-	-	-	-
Stage 2	27	-	-	-	-	-
Critical Hdwy	8.49	7.2	-	-	4.1	-
Critical Hdwy Stg 1	7.49	-	-	-	-	-
Critical Hdwy Stg 2	7.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	896	1034	-	-	1587	-
Stage 1	951	-	-	-	-	-
Stage 2	963	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	890	1029	-	-	1587	-
Mov Cap-2 Maneuver	890	-	-	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	960	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	890	1587	-
HCM Lane V/C Ratio	-	-	0.022	-	-
HCM Control Delay (s)	-	-	9.1	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	7.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	0	10	0	1	21
Future Vol, veh/h	2	0	10	0	1	21
Conflicting Peds, #/hr	0	0	0	0	1	16
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-6	-
Peak Hour Factor	50	50	63	63	79	79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	0	16	0	1	27

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	4	0	37	20
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	33	-
Critical Hdwy	-	-	4.1	-	5.2	5.6
Critical Hdwy Stg 1	-	-	-	-	4.2	-
Critical Hdwy Stg 2	-	-	-	-	4.2	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1631	-	993	1067
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	1006	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1606	-	982	1051
Mov Cap-2 Maneuver	-	-	-	-	982	-
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	995	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.3	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1048	-	-	1606	-
HCM Lane V/C Ratio	0.027	-	-	0.01	-
HCM Control Delay (s)	8.5	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	11	5	8	3	1	3
Future Vol, veh/h	11	5	8	3	1	3
Conflicting Peds, #/hr	0	5	5	0	2	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	0	0	-
Peak Hour Factor	71	71	81	81	50	50
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	15	7	10	4	2	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	28	0	49	29
Stage 1	-	-	-	-	24	-
Stage 2	-	-	-	-	25	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1599	-	965	1052
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	1003	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1593	-	954	1044
Mov Cap-2 Maneuver	-	-	-	-	954	-
Stage 1	-	-	-	-	1000	-
Stage 2	-	-	-	-	996	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.3	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1020	-	-	1593	-
HCM Lane V/C Ratio	0.008	-	-	0.006	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	11	6	30	24	3
Future Vol, veh/h	3	11	6	30	24	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	5	-5	-
Peak Hour Factor	70	70	60	60	68	68
Heavy Vehicles, %	0	0	0	3	0	0
Mvmt Flow	4	16	10	50	35	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	108	38	40	0	-	0
Stage 1	38	-	-	-	-	-
Stage 2	70	-	-	-	-	-
Critical Hdwy	4.4	5.2	4.1	-	-	-
Critical Hdwy Stg 1	3.4	-	-	-	-	-
Critical Hdwy Stg 2	3.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	950	1051	1583	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	996	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	944	1051	1583	-	-	-
Mov Cap-2 Maneuver	944	-	-	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	990	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	1.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1583	-	1026	-	-
HCM Lane V/C Ratio	0.006	-	0.019	-	-
HCM Control Delay (s)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	3	2	5	9	1
Future Vol, veh/h	1	3	2	5	9	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-10	10	-	0	-
Peak Hour Factor	50	50	58	58	63	63
Heavy Vehicles, %	0	0	0	0	0	100
Mvmt Flow	2	6	3	9	14	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	12	0	-	0	18	8
Stage 1	-	-	-	-	8	-
Stage 2	-	-	-	-	10	-
Critical Hdwy	4.1	-	-	-	6.4	7.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	4.2
Pot Cap-1 Maneuver	1620	-	-	-	1005	847
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1018	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1620	-	-	-	1004	847
Mov Cap-2 Maneuver	-	-	-	-	1004	-
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1017	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1620	-	-	-	986
HCM Lane V/C Ratio	0.001	-	-	-	0.016
HCM Control Delay (s)	7.2	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	8	1	9	3	6
Future Vol, veh/h	17	8	1	9	3	6
Conflicting Peds, #/hr	5	0	0	5	1	4
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	11	-
Peak Hour Factor	78	78	50	50	75	75
Heavy Vehicles, %	0	0	0	0	33	0
Mvmt Flow	22	10	2	18	4	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	25	0	-	0	71	20
Stage 1	-	-	-	-	16	-
Stage 2	-	-	-	-	55	-
Critical Hdwy	4.1	-	-	-	8.93	7.3
Critical Hdwy Stg 1	-	-	-	-	7.93	-
Critical Hdwy Stg 2	-	-	-	-	7.93	-
Follow-up Hdwy	2.2	-	-	-	3.797	3.3
Pot Cap-1 Maneuver	1603	-	-	-	825	1057
Stage 1	-	-	-	-	923	-
Stage 2	-	-	-	-	865	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1597	-	-	-	806	1049
Mov Cap-2 Maneuver	-	-	-	-	806	-
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	849	-

Approach	EB	WB	SB
HCM Control Delay, s	5	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1597	-	-	-	953
HCM Lane V/C Ratio	0.014	-	-	-	0.013
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	10	0	1	20	16	0	25	1	8	8	2
Future Vol, veh/h	3	10	0	1	20	16	0	25	1	8	8	2
Peak Hour Factor	0.65	0.65	0.65	0.66	0.66	0.66	0.81	0.81	0.81	0.56	0.56	0.56
Heavy Vehicles, %	0	0	0	0	0	6	0	0	0	0	13	0
Mvmt Flow	5	15	0	2	30	24	0	31	1	14	14	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.2	7	7.2	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	23%	3%	44%
Vol Thru, %	96%	77%	54%	44%
Vol Right, %	4%	0%	43%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	26	13	37	18
LT Vol	0	3	1	8
Through Vol	25	10	20	8
RT Vol	1	0	16	2
Lane Flow Rate	32	20	56	32
Geometry Grp	1	1	1	1
Degree of Util (X)	0.036	0.023	0.059	0.036
Departure Headway (Hd)	4.035	4.102	3.774	4.08
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	885	870	947	876
Service Time	2.068	2.137	1.806	2.113
HCM Lane V/C Ratio	0.036	0.023	0.059	0.037
HCM Control Delay	7.2	7.2	7	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2	0.1

2018 Existing Weekday Evening Peak

Signalized Locations

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	Ø3
Lane Configurations											
Traffic Volume (vph)	80	23	192	12	27	197	197	28	234	34	
Future Volume (vph)	80	23	192	12	27	197	197	28	234	34	
Lane Group Flow (vph)	0	112	209	0	121	205	219	0	270	35	
Turn Type	Perm	NA	Perm	Perm	NA	D.P+P	NA	Perm	NA	Perm	
Protected Phases		4			4	1	1 2		2		3
Permitted Phases	4		4	4		2		2		2	
Detector Phase	4	4	4	4	4	1	1 2	2	2	2	
Switch Phase											
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	6.0		15.0	15.0	15.0	7.0
Minimum Split (s)	18.0	18.0	18.0	18.0	18.0	9.0		21.0	21.0	21.0	15.0
Total Split (s)	18.0	18.0	18.0	18.0	18.0	9.0		31.0	31.0	31.0	15.0
Total Split (%)	24.7%	24.7%	24.7%	24.7%	24.7%	12.3%		42.5%	42.5%	42.5%	21%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0		4.0	4.0	4.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0		2.0	2.0	2.0	0.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0			0.0	0.0	
Total Lost Time (s)		6.0	6.0		6.0	3.0			6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lead		Lag	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None		Min	Min	Min	None
v/c Ratio		0.31	0.37		0.26	0.40	0.13		0.30	0.07	
Control Delay		24.2	6.2		12.3	13.9	9.6		19.5	0.2	
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Delay		24.2	6.2		12.3	13.9	9.6		19.5	0.2	
Queue Length 50th (ft)		38	0		15	49	24		45	0	
Queue Length 95th (ft)		79	48		49	90	42		75	0	
Internal Link Dist (ft)		105			145		498		339		
Turn Bay Length (ft)			30			70				80	
Base Capacity (vph)		359	564		462	513	2245		1503	790	
Starvation Cap Reductn		0	0		0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0		0	0	
Reduced v/c Ratio		0.31	0.37		0.26	0.40	0.10		0.18	0.04	

Intersection Summary

Cycle Length: 73
Actuated Cycle Length: 57
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Granite Street & Whitwell Street/Plaza Access

Ø1	Ø2	Ø3	Ø4
9 s	31 s	15 s	18 s

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	23	192	12	27	64	197	197	13	28	234	34
Future Volume (vph)	80	23	192	12	27	64	197	197	13	28	234	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	10	11	11	13	13	12
Grade (%)		-6%			0%			0%			-1%	
Total Lost time (s)		6.0	6.0		6.0		3.0	3.0			6.0	6.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95			0.95	1.00
Frt		1.00	0.85		0.92		1.00	0.99			1.00	0.85
Flt Protected		0.96	1.00		0.99		0.95	1.00			0.99	1.00
Satd. Flow (prot)		2135	1867		1962		1685	3393			3729	1623
Flt Permitted		0.75	1.00		0.95		0.59	1.00			0.90	1.00
Satd. Flow (perm)		1674	1867		1882		1038	3393			3368	1623
Peak-hour factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85	0.96	0.96	0.96	0.97	0.97	0.97
Adj. Flow (vph)	87	25	209	14	32	75	205	205	14	29	241	35
RTOR Reduction (vph)	0	0	165	0	59	0	0	8	0	0	0	26
Lane Group Flow (vph)	0	112	44	0	62	0	205	211	0	0	270	9
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	0%	2%	0%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		D.P+P	NA		Perm	NA	Perm
Protected Phases		4			4		1	1 2			2	
Permitted Phases	4		4	4			2			2		2
Actuated Green, G (s)		12.2	12.2		12.2		21.4	24.4			15.3	15.3
Effective Green, g (s)		12.2	12.2		12.2		21.4	24.4			15.3	15.3
Actuated g/C Ratio		0.21	0.21		0.21		0.37	0.42			0.27	0.27
Clearance Time (s)		6.0	6.0		6.0		3.0				6.0	6.0
Vehicle Extension (s)		2.0	2.0		2.0		2.0				2.0	2.0
Lane Grp Cap (vph)		353	394		397		453	1434			893	430
v/s Ratio Prot							c0.05	0.06				
v/s Ratio Perm		c0.07	0.02		0.03		c0.12				0.08	0.01
v/c Ratio		0.32	0.11		0.16		0.45	0.15			0.30	0.02
Uniform Delay, d1		19.2	18.4		18.6		13.0	10.2			16.9	15.7
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2		0.2	0.0		0.1		0.3	0.0			0.1	0.0
Delay (s)		19.4	18.4		18.6		13.3	10.3			17.0	15.7
Level of Service		B	B		B		B	B			B	B
Approach Delay (s)		18.8			18.6			11.7			16.9	
Approach LOS		B			B			B			B	

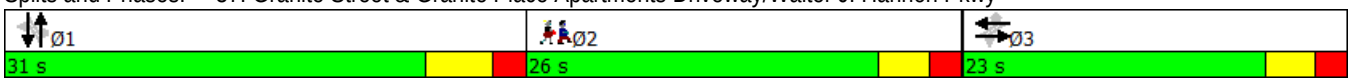
Intersection Summary			
HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	57.7	Sum of lost time (s)	17.0
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	Ø2
Lane Configurations										
Traffic Volume (vph)	3	8	224	21	158	4	235	184	251	
Future Volume (vph)	3	8	224	21	158	4	235	184	251	
Lane Group Flow (vph)	0	32	0	253	163	0	441	190	265	
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA	
Protected Phases		3		3			1		1	2
Permitted Phases	3		3		3	1		1		
Detector Phase	3	3	3	3	3	1	1	1	1	
Switch Phase										
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	10.0	10.0	10.0	10.0	13.0
Minimum Split (s)	17.0	17.0	17.0	17.0	17.0	16.0	16.0	16.0	16.0	26.0
Total Split (s)	23.0	23.0	23.0	23.0	23.0	31.0	31.0	31.0	31.0	26.0
Total Split (%)	28.8%	28.8%	28.8%	28.8%	28.8%	38.8%	38.8%	38.8%	38.8%	33%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		6.0	6.0	6.0	
Lead/Lag						Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	None
v/c Ratio		0.06		0.69	0.28		0.40	0.67	0.44	
Control Delay		16.4		38.7	6.5		12.5	37.0	22.4	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	
Total Delay		16.4		38.7	6.5		12.5	37.0	22.4	
Queue Length 50th (ft)		6		121	0		51	83	105	
Queue Length 95th (ft)		22		#248	46		91	#183	174	
Internal Link Dist (ft)		48		429			362		498	
Turn Bay Length (ft)										
Base Capacity (vph)		647		446	670		1479	399	846	
Starvation Cap Reductn		0		0	0		0	0	0	
Spillback Cap Reductn		0		0	0		0	0	0	
Storage Cap Reductn		0		0	0		0	0	0	
Reduced v/c Ratio		0.05		0.57	0.24		0.30	0.48	0.31	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 62.7
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 37: Granite Street & Granite Place Apartments Driveway/Walter J. Hannon Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	8	14	224	21	158	4	235	163	184	251	6
Future Volume (vph)	3	8	14	224	21	158	4	235	163	184	251	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	12	12	14	10	10	10	10	11	11
Grade (%)		0%			4%			0%			0%	
Total Lost time (s)		5.0			5.0	5.0		6.0		6.0	6.0	
Lane Util. Factor		1.00			1.00	1.00		0.95		1.00	1.00	
Frt		0.92			1.00	0.85		0.94		1.00	1.00	
Flt Protected		0.99			0.96	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1977			1781	1688		3144		1685	1830	
Flt Permitted		0.96			0.72	1.00		0.95		0.49	1.00	
Satd. Flow (perm)		1911			1343	1688		2995		863	1830	
Peak-hour factor, PHF	0.78	0.78	0.78	0.97	0.97	0.97	0.91	0.91	0.91	0.97	0.97	0.97
Adj. Flow (vph)	4	10	18	231	22	163	4	258	179	190	259	6
RTOR Reduction (vph)	0	13	0	0	0	119	0	121	0	0	1	0
Lane Group Flow (vph)	0	19	0	0	253	44	0	320	0	190	264	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		3			3			1			1	
Permitted Phases	3			3		3	1			1		
Actuated Green, G (s)		17.3			17.3	17.3		20.5		20.5	20.5	
Effective Green, g (s)		17.3			17.3	17.3		20.5		20.5	20.5	
Actuated g/C Ratio		0.27			0.27	0.27		0.32		0.32	0.32	
Clearance Time (s)		5.0			5.0	5.0		6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)		519			364	458		963		277	588	
v/s Ratio Prot											0.14	
v/s Ratio Perm		0.01			c0.19	0.03		0.11		c0.22		
v/c Ratio		0.04			0.70	0.10		0.33		0.69	0.45	
Uniform Delay, d1		17.1			20.8	17.4		16.4		18.8	17.1	
Progression Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.0			5.7	0.1		0.2		6.9	0.5	
Delay (s)		17.1			26.5	17.4		16.6		25.7	17.7	
Level of Service		B			C	B		B		C	B	
Approach Delay (s)		17.1			23.0			16.6			21.0	
Approach LOS		B			C			B			C	

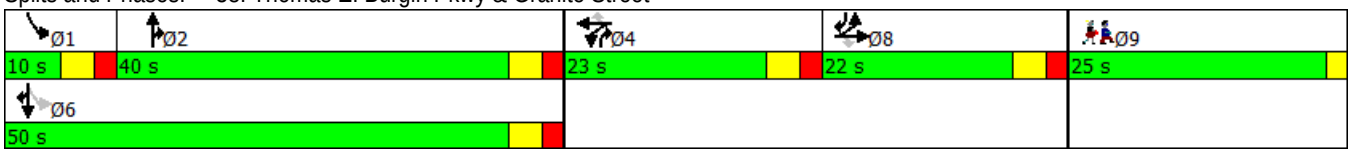
Intersection Summary			
HCM 2000 Control Delay	20.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	63.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations												
Traffic Volume (vph)	140	171	21	107	132	106	509	138	161	708	164	
Future Volume (vph)	140	171	21	107	132	106	509	138	161	708	164	
Lane Group Flow (vph)	147	180	22	82	172	113	525	142	0	914	173	
Turn Type	Split	NA	Perm	Split	NA	Perm	NA	pt+ov	pm+pt	NA	pt+ov	
Protected Phases	8	8		4	4		2	2 4	1	6	6 8	9
Permitted Phases			8			4			6			
Detector Phase	8	8	8	4	4	4	2	2 4	1	6	6 8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	8.0		5.0	8.0		5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	13.0		10.0	13.0		25.0
Total Split (s)	22.0	22.0	22.0	23.0	23.0	23.0	40.0		10.0	50.0		25.0
Total Split (%)	18.3%	18.3%	18.3%	19.2%	19.2%	19.2%	33.3%		8.3%	41.7%		21%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			5.0		
Lead/Lag							Lag		Lead			
Lead-Lag Optimize?							Yes		Yes			
Recall Mode	None	None	None	None	None	None	None		None	None		None
v/c Ratio	0.64	0.41	0.06	0.45	0.45	0.35	0.35	0.15		0.86	0.19	
Control Delay	59.7	47.5	0.4	54.8	49.7	9.5	23.8	2.4		40.8	4.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	59.7	47.5	0.4	54.8	49.7	9.5	23.8	2.4		40.8	4.9	
Queue Length 50th (ft)	101	63	0	62	65	0	138	0		328	19	
Queue Length 95th (ft)	178	104	0	119	103	42	205	28		#518	37	
Internal Link Dist (ft)		339			337		842			574		
Turn Bay Length (ft)			65	115		100		175			50	
Base Capacity (vph)	295	566	406	281	586	421	1499	1027		1058	944	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.50	0.32	0.05	0.29	0.29	0.27	0.35	0.14		0.86	0.18	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 106.2
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 38: Thomas E. Burgin Pkwy & Granite Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	171	21	107	132	106	0	509	138	161	708	164
Future Volume (vph)	140	171	21	107	132	106	0	509	138	161	708	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	16	12	12	16	11	11	10	11	11	11
Grade (%)		1%			2%			1%			-1%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	0.91	0.91	1.00		0.95	1.00		0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	0.99	1.00		1.00	1.00		0.99	1.00
Satd. Flow (prot)	1796	3438	1821	1610	3358	1812		3438	1485		3475	1553
Flt Permitted	0.95	1.00	1.00	0.95	0.99	1.00		1.00	1.00		0.69	1.00
Satd. Flow (perm)	1796	3438	1821	1610	3358	1812		3438	1485		2426	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.94	0.94	0.94	0.97	0.97	0.97	0.95	0.95	0.95
Adj. Flow (vph)	147	180	22	114	140	113	0	525	142	169	745	173
RTOR Reduction (vph)	0	0	19	0	0	100	0	0	57	0	0	29
Lane Group Flow (vph)	147	180	3	82	172	13	0	525	85	0	914	144
Heavy Vehicles (%)	0%	1%	0%	1%	1%	0%	0%	1%	1%	0%	0%	1%
Turn Type	Split	NA	Perm	Split	NA	Perm		NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	8	8		4	4			2	2 4	1	6	6 8
Permitted Phases			8			4				6		
Actuated Green, G (s)	13.6	13.6	13.6	12.1	12.1	12.1		46.3	63.4		46.3	59.9
Effective Green, g (s)	13.6	13.6	13.6	12.1	12.1	12.1		46.3	63.4		46.3	59.9
Actuated g/C Ratio	0.13	0.13	0.13	0.11	0.11	0.11		0.44	0.60		0.44	0.56
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	229	440	233	183	382	206		1498	886		1057	875
v/s Ratio Prot	c0.08	0.05		0.05	c0.05			0.15	0.06			0.09
v/s Ratio Perm			0.00			0.01					c0.38	
v/c Ratio	0.64	0.41	0.01	0.45	0.45	0.06		0.35	0.10		0.86	0.16
Uniform Delay, d1	44.0	42.6	40.4	43.9	43.9	42.0		19.9	9.1		27.1	11.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	6.0	0.6	0.0	1.7	0.8	0.1		0.1	0.0		7.5	0.1
Delay (s)	50.0	43.2	40.5	45.7	44.8	42.1		20.1	9.2		34.6	11.2
Level of Service	D	D	D	D	D	D		C	A		C	B
Approach Delay (s)		45.9			44.2			17.8			30.9	
Approach LOS		D			D			B			C	

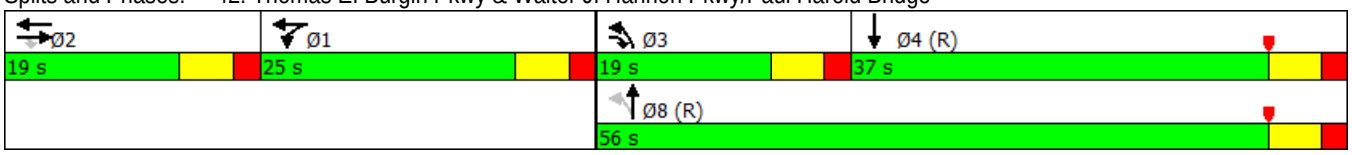
Intersection Summary			
HCM 2000 Control Delay	31.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	106.2	Sum of lost time (s)	22.0
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Configurations							
Traffic Volume (vph)	210	145	318	272	105	520	810
Future Volume (vph)	210	145	318	272	105	520	810
Lane Group Flow (vph)	226	156	331	415	108	1015	862
Turn Type	NA	pm+ov	Prot	NA	pm+pt	NA	NA
Protected Phases	2	3	1	1 2	3	8	4
Permitted Phases		2			8		
Detector Phase	2	3	1	1 2	3	8	4
Switch Phase							
Minimum Initial (s)	6.0	4.0	6.0		4.0	6.0	6.0
Minimum Split (s)	19.0	10.0	12.0		10.0	12.0	25.0
Total Split (s)	19.0	19.0	25.0		19.0	56.0	37.0
Total Split (%)	19.0%	19.0%	25.0%		19.0%	56.0%	37.0%
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lag		Lead		Lag
Lead-Lag Optimize?							
Recall Mode	Min	None	Min		None	C-Min	C-Min
v/c Ratio	0.92	0.37	0.62	0.64	0.36	0.53	0.65
Control Delay	85.1	9.5	34.6	20.6	16.1	11.5	29.0
Queue Delay	0.0	0.0	0.0	9.7	0.0	0.1	0.0
Total Delay	85.1	9.5	34.6	30.3	16.1	11.6	29.0
Queue Length 50th (ft)	144	18	108	240	33	142	235
Queue Length 95th (ft)	#286	45	143	241	65	208	330
Internal Link Dist (ft)	429			223		311	842
Turn Bay Length (ft)					200		
Base Capacity (vph)	245	490	633	698	367	1917	1333
Starvation Cap Reductn	0	0	0	248	0	0	0
Spillback Cap Reductn	0	0	0	0	0	161	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.32	0.52	0.92	0.29	0.58	0.65

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 21 (21%), Referenced to phase 4:SBT and 8:NBTL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 42: Thomas E. Burgin Pkwy & Walter J. Hannon Pkwy/Paul Harold Bridge



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	210	145	318	272	127	105	520	465	0	810	26
Future Volume (vph)	0	210	145	318	272	127	105	520	465	0	810	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	12	11	11	11
Grade (%)		1%			1%			0%			0%	
Total Lost time (s)		6.0	6.0	6.0	6.0		6.0	6.0			6.0	
Lane Util. Factor		1.00	1.00	0.97	1.00		1.00	0.95			0.95	
Frt		1.00	0.85	1.00	0.95		1.00	0.93			1.00	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)		1890	1607	3335	1795		1805	3337			3473	
Flt Permitted		1.00	1.00	0.95	1.00		0.17	1.00			1.00	
Satd. Flow (perm)		1890	1607	3335	1795		331	3337			3473	
Peak-hour factor, PHF	0.93	0.93	0.93	0.96	0.96	0.96	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	226	156	331	283	132	108	536	479	0	835	27
RTOR Reduction (vph)	0	0	77	0	18	0	0	152	0	0	2	0
Lane Group Flow (vph)	0	226	79	331	397	0	108	863	0	0	860	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	1%	0%	1%	0%	0%	0%	0%
Turn Type		NA	pm+ov	Prot	NA		pm+pt	NA			NA	
Protected Phases		2	3	1	1 2		3	8			4	
Permitted Phases			2				8					
Actuated Green, G (s)		13.0	21.6	16.1	35.1		52.9	52.9			38.3	
Effective Green, g (s)		13.0	21.6	16.1	35.1		52.9	52.9			38.3	
Actuated g/C Ratio		0.13	0.22	0.16	0.35		0.53	0.53			0.38	
Clearance Time (s)		6.0	6.0	6.0			6.0	6.0			6.0	
Vehicle Extension (s)		3.0	3.0	3.0			3.0	3.0			3.0	
Lane Grp Cap (vph)		245	347	536	630		301	1765			1330	
v/s Ratio Prot		c0.12	0.02	0.10	c0.22		0.03	c0.26			c0.25	
v/s Ratio Perm			0.03				0.16					
v/c Ratio		0.92	0.23	0.62	0.63		0.36	0.49			0.65	
Uniform Delay, d1		43.0	32.3	39.1	27.1		14.4	15.0			25.3	
Progression Factor		1.00	1.00	0.78	0.66		1.00	1.00			1.00	
Incremental Delay, d2		37.0	0.3	1.7	1.7		0.7	1.0			2.4	
Delay (s)		80.0	32.7	32.3	19.5		15.1	15.9			27.7	
Level of Service		E	C	C	B		B	B			C	
Approach Delay (s)		60.7			25.2			15.9			27.7	
Approach LOS		E			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	26.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Unsignalized Locations

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	3	128	3	33	1	311	198	34	292	2
Future Vol, veh/h	0	1	3	128	3	33	1	311	198	34	292	2
Conflicting Peds, #/hr	0	0	0	0	0	0	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	Free	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	9	-	-	0	-	-	1	-	-	1	-
Peak Hour Factor	33	33	33	84	84	84	80	80	80	87	87	87
Heavy Vehicles, %	0	0	0	1	0	9	0	1	1	6	1	0
Mvmt Flow	0	3	9	152	4	39	1	389	248	39	336	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	811	809	340	812	810	389	341	0	-	389	0	0
Stage 1	418	418	-	391	391	-	-	-	-	-	-	-
Stage 2	393	391	-	421	419	-	-	-	-	-	-	-
Critical Hdwy	8.9	8.3	7.1	7.11	6.5	6.29	4.1	-	-	4.16	-	-
Critical Hdwy Stg 1	7.9	7.3	-	6.11	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.9	7.3	-	6.11	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.509	4	3.381	2.2	-	-	2.254	-	-
Pot Cap-1 Maneuver	200	211	649	299	316	644	1229	-	0	1148	-	-
Stage 1	500	482	-	635	611	-	-	-	0	-	-	-
Stage 2	522	502	-	612	593	-	-	-	0	-	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	179	201	647	282	302	644	1229	-	-	1148	-	-
Mov Cap-2 Maneuver	179	201	-	282	302	-	-	-	-	-	-	-
Stage 1	498	460	-	634	610	-	-	-	-	-	-	-
Stage 2	487	501	-	574	566	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.9	27	0	0.9
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1229	-	416	354	1148	-	-
HCM Lane V/C Ratio	0.001	-	0.029	0.552	0.034	-	-
HCM Control Delay (s)	7.9	0	13.9	27	8.2	0	-
HCM Lane LOS	A	A	B	D	A	A	-
HCM 95th %tile Q(veh)	0	-	0.1	3.2	0.1	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	232	2	1	162	0	0
Future Vol, veh/h	232	2	1	162	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	0	-1	-
Peak Hour Factor	90	90	82	82	92	92
Heavy Vehicles, %	2	0	0	3	0	0
Mvmt Flow	258	2	1	198	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	260	0	459	259
Stage 1	-	-	-	-	259	-
Stage 2	-	-	-	-	200	-
Critical Hdwy	-	-	4.1	-	6.2	6.1
Critical Hdwy Stg 1	-	-	-	-	5.2	-
Critical Hdwy Stg 2	-	-	-	-	5.2	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1316	-	578	790
Stage 1	-	-	-	-	800	-
Stage 2	-	-	-	-	848	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1316	-	577	790
Mov Cap-2 Maneuver	-	-	-	-	577	-
Stage 1	-	-	-	-	800	-
Stage 2	-	-	-	-	847	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1316	-
HCM Lane V/C Ratio	-	-	-	0.001	-
HCM Control Delay (s)	0	-	-	7.7	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	228	164	4	2	1
Future Vol, veh/h	3	228	164	4	2	1
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	81	81	75	75
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	3	256	202	5	3	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	208	0	-	0	469	206
Stage 1	-	-	-	-	206	-
Stage 2	-	-	-	-	263	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1375	-	-	-	556	840
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	786	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1375	-	-	-	553	839
Mov Cap-2 Maneuver	-	-	-	-	553	-
Stage 1	-	-	-	-	832	-
Stage 2	-	-	-	-	783	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1375	-	-	-	624
HCM Lane V/C Ratio	0.002	-	-	-	0.006
HCM Control Delay (s)	7.6	0	-	-	10.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	229	3	6	164	3	6
Future Vol, veh/h	229	3	6	164	3	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	80	80	56	56
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	269	4	8	205	5	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	273	0	491	271
Stage 1	-	-	-	-	271	-
Stage 2	-	-	-	-	220	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1302	-	540	773
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	821	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1302	-	536	773
Mov Cap-2 Maneuver	-	-	-	-	536	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	815	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	674	-	-	1302	-
HCM Lane V/C Ratio	0.024	-	-	0.006	-
HCM Control Delay (s)	10.5	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	233	170	0	2	0
Future Vol, veh/h	0	233	170	0	2	0
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	80	80	25	25
Heavy Vehicles, %	0	2	2	0	100	0
Mvmt Flow	0	268	213	0	8	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	216	0	-	0	484	216
Stage 1	-	-	-	-	216	-
Stage 2	-	-	-	-	268	-
Critical Hdwy	4.1	-	-	-	7.4	6.2
Critical Hdwy Stg 1	-	-	-	-	6.4	-
Critical Hdwy Stg 2	-	-	-	-	6.4	-
Follow-up Hdwy	2.2	-	-	-	4.4	3.3
Pot Cap-1 Maneuver	1366	-	-	-	401	829
Stage 1	-	-	-	-	634	-
Stage 2	-	-	-	-	596	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1366	-	-	-	399	827
Mov Cap-2 Maneuver	-	-	-	-	399	-
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	594	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1366	-	-	-	399
HCM Lane V/C Ratio	-	-	-	-	0.02
HCM Control Delay (s)	0	-	-	-	14.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	229	5	6	171	1	2
Future Vol, veh/h	229	5	6	171	1	2
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	84	84	38	38
Heavy Vehicles, %	3	0	0	2	0	0
Mvmt Flow	254	6	7	204	3	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	262	0	477	259
Stage 1	-	-	-	-	259	-
Stage 2	-	-	-	-	218	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1314	-	551	785
Stage 1	-	-	-	-	789	-
Stage 2	-	-	-	-	823	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1314	-	547	784
Mov Cap-2 Maneuver	-	-	-	-	547	-
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	818	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	685	-	-	1314	-
HCM Lane V/C Ratio	0.012	-	-	0.005	-
HCM Control Delay (s)	10.3	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	230	4	2	171	1	1	0	2	2	0	3
Future Vol, veh/h	0	230	4	2	171	1	1	0	2	2	0	3
Conflicting Peds, #/hr	5	0	4	4	0	5	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	2	-	-	-3	-
Peak Hour Factor	89	89	89	81	81	81	38	38	38	63	63	63
Heavy Vehicles, %	0	3	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	0	258	4	2	211	1	3	0	5	3	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	217	0	0	267	0	0	485	487	265	485	489	218
Stage 1	-	-	-	-	-	-	265	265	-	222	222	-
Stage 2	-	-	-	-	-	-	220	222	-	263	267	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.9	6.4	6.5	5.9	5.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.5	4.9	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.5	4.9	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1365	-	-	1308	-	-	470	458	767	537	523	842
Stage 1	-	-	-	-	-	-	723	673	-	815	751	-
Stage 2	-	-	-	-	-	-	768	706	-	780	723	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1364	-	-	1308	-	-	464	453	764	530	517	836
Mov Cap-2 Maneuver	-	-	-	-	-	-	464	453	-	530	517	-
Stage 1	-	-	-	-	-	-	720	670	-	810	745	-
Stage 2	-	-	-	-	-	-	761	701	-	775	720	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	10.8	10.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	629	1364	-	-	1308	-	-	679
HCM Lane V/C Ratio	0.013	-	-	-	0.002	-	-	0.012
HCM Control Delay (s)	10.8	0	-	-	7.8	0	-	10.4
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	225	8	6	165	8	4
Future Vol, veh/h	225	8	6	165	8	4
Conflicting Peds, #/hr	0	1	1	0	2	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	8	-
Peak Hour Factor	93	93	81	81	75	75
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	242	9	7	204	11	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	252	0	468	249
Stage 1	-	-	-	-	247	-
Stage 2	-	-	-	-	221	-
Critical Hdwy	-	-	4.1	-	8	7
Critical Hdwy Stg 1	-	-	-	-	7	-
Critical Hdwy Stg 2	-	-	-	-	7	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1325	-	453	752
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	744	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1322	-	449	750
Mov Cap-2 Maneuver	-	-	-	-	449	-
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	738	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	518	-	-	1322	-
HCM Lane V/C Ratio	0.031	-	-	0.006	-
HCM Control Delay (s)	12.2	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	208	156	7	4	13
Future Vol, veh/h	19	208	156	7	4	13
Conflicting Peds, #/hr	1	0	0	1	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	-5	-
Peak Hour Factor	92	92	82	82	85	85
Heavy Vehicles, %	2	5	3	0	0	0
Mvmt Flow	21	226	190	9	5	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	200	0	-	0	463	199
Stage 1	-	-	-	-	196	-
Stage 2	-	-	-	-	267	-
Critical Hdwy	4.12	-	-	-	5.4	5.7
Critical Hdwy Stg 1	-	-	-	-	4.4	-
Critical Hdwy Stg 2	-	-	-	-	4.4	-
Follow-up Hdwy	2.218	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1372	-	-	-	638	871
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	843	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1368	-	-	-	625	867
Mov Cap-2 Maneuver	-	-	-	-	625	-
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	827	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1368	-	-	-	795
HCM Lane V/C Ratio	0.015	-	-	-	0.025
HCM Control Delay (s)	7.7	0	-	-	9.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	207	3	9	166	1	5
Future Vol, veh/h	207	3	9	166	1	5
Conflicting Peds, #/hr	0	4	4	0	2	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	81	81	50	50
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	225	3	11	205	2	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	232	0	460	232
Stage 1	-	-	-	-	231	-
Stage 2	-	-	-	-	229	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1348	-	563	812
Stage 1	-	-	-	-	812	-
Stage 2	-	-	-	-	814	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1347	-	555	809
Mov Cap-2 Maneuver	-	-	-	-	555	-
Stage 1	-	-	-	-	810	-
Stage 2	-	-	-	-	805	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	752	-	-	1347	-
HCM Lane V/C Ratio	0.016	-	-	0.008	-
HCM Control Delay (s)	9.9	-	-	7.7	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	206	173	1	4	3
Future Vol, veh/h	7	206	173	1	4	3
Conflicting Peds, #/hr	4	0	0	4	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	84	84	44	44
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	7	217	206	1	9	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	211	0	-	0	443	212
Stage 1	-	-	-	-	211	-
Stage 2	-	-	-	-	232	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1372	-	-	-	576	833
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	811	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1371	-	-	-	567	828
Mov Cap-2 Maneuver	-	-	-	-	567	-
Stage 1	-	-	-	-	825	-
Stage 2	-	-	-	-	803	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1371	-	-	-	656
HCM Lane V/C Ratio	0.005	-	-	-	0.024
HCM Control Delay (s)	7.6	0	-	-	10.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	203	6	29	167	36	5	1	12	37	2	2
Future Vol, veh/h	2	203	6	29	167	36	5	1	12	37	2	2
Conflicting Peds, #/hr	3	0	0	0	0	3	4	0	0	0	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	6	-	-	1	-	-	-5	-
Peak Hour Factor	94	94	94	77	77	77	56	56	56	60	60	60
Heavy Vehicles, %	0	3	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	2	216	6	38	217	47	9	2	21	62	3	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	267	0	0	222	0	0	546	565	219	554	546	247
Stage 1	-	-	-	-	-	-	223	223	-	319	319	-
Stage 2	-	-	-	-	-	-	323	342	-	235	227	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.7	6.3	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1308	-	-	1359	-	-	438	423	821	520	521	824
Stage 1	-	-	-	-	-	-	774	714	-	761	717	-
Stage 2	-	-	-	-	-	-	681	629	-	825	767	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1303	-	-	1359	-	-	421	407	821	490	501	818
Mov Cap-2 Maneuver	-	-	-	-	-	-	421	407	-	490	501	-
Stage 1	-	-	-	-	-	-	772	713	-	757	691	-
Stage 2	-	-	-	-	-	-	650	606	-	800	765	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1	11.1	13.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	622	1303	-	-	1359	-	-	500
HCM Lane V/C Ratio	0.052	0.002	-	-	0.028	-	-	0.137
HCM Control Delay (s)	11.1	7.8	0	-	7.7	0	-	13.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.5

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	256	230	28	39	4
Future Vol, veh/h	1	256	230	28	39	4
Conflicting Peds, #/hr	11	0	0	11	4	4
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-6	6	-	-10	-
Peak Hour Factor	97	97	79	79	67	67
Heavy Vehicles, %	0	2	1	0	0	0
Mvmt Flow	1	264	291	35	58	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	338	0	-	0	590	324
Stage 1	-	-	-	-	320	-
Stage 2	-	-	-	-	270	-
Critical Hdwy	4.1	-	-	-	4.4	5.2
Critical Hdwy Stg 1	-	-	-	-	3.4	-
Critical Hdwy Stg 2	-	-	-	-	3.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1232	-	-	-	657	790
Stage 1	-	-	-	-	885	-
Stage 2	-	-	-	-	906	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1227	-	-	-	640	777
Mov Cap-2 Maneuver	-	-	-	-	640	-
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	894	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1227	-	-	-	651
HCM Lane V/C Ratio	0.001	-	-	-	0.099
HCM Control Delay (s)	7.9	0	-	-	11.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	0	19	9	0	13
Future Vol, veh/h	4	0	19	9	0	13
Conflicting Peds, #/hr	1	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	10	-	5	-	-	0
Peak Hour Factor	50	50	78	78	65	65
Heavy Vehicles, %	0	0	5	0	0	0
Mvmt Flow	8	0	24	12	0	20

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	51	30	0	0	36	0
Stage 1	30	-	-	-	-	-
Stage 2	21	-	-	-	-	-
Critical Hdwy	8.4	7.2	-	-	4.1	-
Critical Hdwy Stg 1	7.4	-	-	-	-	-
Critical Hdwy Stg 2	7.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	936	1042	-	-	1588	-
Stage 1	981	-	-	-	-	-
Stage 2	995	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	935	1042	-	-	1588	-
Mov Cap-2 Maneuver	935	-	-	-	-	-
Stage 1	981	-	-	-	-	-
Stage 2	994	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	935	1588	-
HCM Lane V/C Ratio	-	-	0.009	-	-
HCM Control Delay (s)	-	-	8.9	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	6.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	1	14	2	4	12
Future Vol, veh/h	2	1	14	2	4	12
Conflicting Peds, #/hr	0	0	0	0	0	9
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-6	-
Peak Hour Factor	38	38	57	57	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	3	25	4	5	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	60	16
Stage 1	-	-	-	-	7	-
Stage 2	-	-	-	-	53	-
Critical Hdwy	-	-	4.1	-	5.2	5.6
Critical Hdwy Stg 1	-	-	-	-	4.2	-
Critical Hdwy Stg 2	-	-	-	-	4.2	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1625	-	971	1072
Stage 1	-	-	-	-	1024	-
Stage 2	-	-	-	-	992	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1611	-	955	1063
Mov Cap-2 Maneuver	-	-	-	-	955	-
Stage 1	-	-	-	-	1024	-
Stage 2	-	-	-	-	976	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.4	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1034	-	-	1611	-
HCM Lane V/C Ratio	0.019	-	-	0.015	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	4	3	6	14	2	5
Future Vol, veh/h	4	3	6	14	2	5
Conflicting Peds, #/hr	0	2	2	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	0	0	-
Peak Hour Factor	58	58	50	50	58	58
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	5	12	28	3	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	14	0	63	13
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	52	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1617	-	948	1073
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	976	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1615	-	939	1070
Mov Cap-2 Maneuver	-	-	-	-	939	-
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	968	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1029	-	-	1615	-
HCM Lane V/C Ratio	0.012	-	-	0.007	-
HCM Control Delay (s)	8.5	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	2	19	18	40	1
Future Vol, veh/h	7	2	19	18	40	1
Conflicting Peds, #/hr	8	12	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	5	-5	-
Peak Hour Factor	45	45	71	71	73	73
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	16	4	27	25	55	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	142	67	56	0	-	0
Stage 1	55	-	-	-	-	-
Stage 2	87	-	-	-	-	-
Critical Hdwy	4.4	5.2	4.1	-	-	-
Critical Hdwy Stg 1	3.4	-	-	-	-	-
Critical Hdwy Stg 2	3.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	926	1021	1562	-	-	-
Stage 1	1003	-	-	-	-	-
Stage 2	988	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	909	1010	1546	-	-	-
Mov Cap-2 Maneuver	909	-	-	-	-	-
Stage 1	1003	-	-	-	-	-
Stage 2	970	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	3.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1546	-	930	-	-
HCM Lane V/C Ratio	0.017	-	0.022	-	-
HCM Control Delay (s)	7.4	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	1	3	8	5	1
Future Vol, veh/h	2	1	3	8	5	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-10	10	-	0	-
Peak Hour Factor	75	75	69	69	50	50
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	1	4	12	10	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	16	0	-	0	17	10
Stage 1	-	-	-	-	10	-
Stage 2	-	-	-	-	7	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1615	-	-	-	1006	1077
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	1021	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1615	-	-	-	1004	1077
Mov Cap-2 Maneuver	-	-	-	-	1004	-
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	1019	-

Approach	EB	WB	SB
HCM Control Delay, s	4.8	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1615	-	-	-	1015
HCM Lane V/C Ratio	0.002	-	-	-	0.012
HCM Control Delay (s)	7.2	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	6	7	6	7	10
Future Vol, veh/h	9	6	7	6	7	10
Conflicting Peds, #/hr	0	0	0	0	1	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	11	-
Peak Hour Factor	54	54	65	65	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	17	11	11	9	10	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	20	0	-	0	60	18
Stage 1	-	-	-	-	15	-
Stage 2	-	-	-	-	45	-
Critical Hdwy	4.1	-	-	-	8.6	7.3
Critical Hdwy Stg 1	-	-	-	-	7.6	-
Critical Hdwy Stg 2	-	-	-	-	7.6	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1609	-	-	-	917	1061
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	956	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1605	-	-	-	907	1058
Mov Cap-2 Maneuver	-	-	-	-	907	-
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	945	-

Approach	EB	WB	SB
HCM Control Delay, s	4.4	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1605	-	-	-	990
HCM Lane V/C Ratio	0.01	-	-	-	0.024
HCM Control Delay (s)	7.3	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	32	3	1	14	6	1	14	0	12	14	2
Future Vol, veh/h	3	32	3	1	14	6	1	14	0	12	14	2
Peak Hour Factor	0.73	0.73	0.73	0.75	0.75	0.75	0.47	0.47	0.47	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	44	4	1	19	8	2	30	0	17	20	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.1	7.3	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	8%	5%	43%
Vol Thru, %	93%	84%	67%	50%
Vol Right, %	0%	8%	29%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	38	21	28
LT Vol	1	3	1	12
Through Vol	14	32	14	14
RT Vol	0	3	6	2
Lane Flow Rate	32	52	28	40
Geometry Grp	1	1	1	1
Degree of Util (X)	0.036	0.058	0.03	0.046
Departure Headway (Hd)	4.083	4.015	3.902	4.105
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	873	889	912	869
Service Time	2.125	2.054	1.948	2.146
HCM Lane V/C Ratio	0.037	0.058	0.031	0.046
HCM Control Delay	7.3	7.3	7.1	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1	0.1

2025 No-Build Weekday Morning Peak

Signalized Locations

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	Ø3
Lane Configurations											
Traffic Volume (vph)	84	27	173	5	24	210	246	49	203	35	
Future Volume (vph)	84	27	173	5	24	210	246	49	203	35	
Lane Group Flow (vph)	0	123	192	0	78	216	269	0	274	38	
Turn Type	Perm	NA	Perm	Perm	NA	D.P+P	NA	Perm	NA	Perm	
Protected Phases		4			4	1	1 2		2		3
Permitted Phases	4		4	4		2		2		2	
Detector Phase	4	4	4	4	4	1	1 2	2	2	2	
Switch Phase											
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	6.0		15.0	15.0	15.0	7.0
Minimum Split (s)	18.0	18.0	18.0	18.0	18.0	9.0		21.0	21.0	21.0	15.0
Total Split (s)	22.0	22.0	22.0	22.0	22.0	17.0		26.0	26.0	26.0	15.0
Total Split (%)	27.5%	27.5%	27.5%	27.5%	27.5%	21.3%		32.5%	32.5%	32.5%	19%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0		4.0	4.0	4.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0		2.0	2.0	2.0	0.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0			0.0	0.0	
Total Lost Time (s)		6.0	6.0		6.0	3.0			6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lead		Lag	Lag	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None		Min	Min	Min	None
v/c Ratio		0.36	0.35		0.18	0.38	0.15		0.35	0.08	
Control Delay		28.0	6.7		14.1	12.5	9.4		23.1	0.3	
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Delay		28.0	6.7		14.1	12.5	9.4		23.1	0.3	
Queue Length 50th (ft)		45	0		11	52	30		50	0	
Queue Length 95th (ft)		98	49		45	100	54		93	0	
Internal Link Dist (ft)		105			145		498		339		
Turn Bay Length (ft)			30			70				80	
Base Capacity (vph)		434	642		554	662	2001		1028	617	
Starvation Cap Reductn		0	0		0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0		0	0	
Reduced v/c Ratio		0.28	0.30		0.14	0.33	0.13		0.27	0.06	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 61.7
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Granite Street & Whitwell Street/Plaza Access

Ø1	Ø2	Ø3	Ø4
17 s	26 s	15 s	22 s

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	27	173	5	24	44	210	246	15	49	203	35
Future Volume (vph)	84	27	173	5	24	44	210	246	15	49	203	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	10	11	11	13	13	12
Grade (%)		-6%			0%			0%			-1%	
Total Lost time (s)		6.0	6.0		6.0		3.0	3.0			6.0	6.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95			0.95	1.00
Frt		1.00	0.85		0.92		1.00	0.99			1.00	0.85
Flt Protected		0.96	1.00		1.00		0.95	1.00			0.99	1.00
Satd. Flow (prot)		2137	1867		1972		1668	3396			3654	1623
Flt Permitted		0.73	1.00		0.98		0.58	1.00			0.83	1.00
Satd. Flow (perm)		1614	1867		1934		1024	3396			3062	1623
Peak-hour factor, PHF	0.90	0.90	0.90	0.94	0.94	0.94	0.97	0.97	0.97	0.92	0.92	0.92
Adj. Flow (vph)	93	30	192	5	26	47	216	254	15	53	221	38
RTOR Reduction (vph)	0	0	152	0	37	0	0	6	0	0	0	28
Lane Group Flow (vph)	0	123	40	0	41	0	216	263	0	0	274	10
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	2%	0%	0%	2%	0%
Turn Type	Perm	NA	Perm	Perm	NA		D.P+P	NA		Perm	NA	Perm
Protected Phases		4			4		1	1 2			2	
Permitted Phases	4		4	4			2			2		2
Actuated Green, G (s)		13.0	13.0		13.0		25.3	28.3			15.8	15.8
Effective Green, g (s)		13.0	13.0		13.0		25.3	28.3			15.8	15.8
Actuated g/C Ratio		0.21	0.21		0.21		0.41	0.46			0.25	0.25
Clearance Time (s)		6.0	6.0		6.0		3.0				6.0	6.0
Vehicle Extension (s)		2.0	2.0		2.0		2.0				2.0	2.0
Lane Grp Cap (vph)		337	390		404		515	1547			779	412
v/s Ratio Prot							c0.06	0.08				
v/s Ratio Perm		c0.08	0.02		0.02		c0.11				0.09	0.01
v/c Ratio		0.36	0.10		0.10		0.42	0.17			0.35	0.02
Uniform Delay, d1		21.0	19.8		19.8		12.5	10.0			19.0	17.4
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2		0.2	0.0		0.0		0.2	0.0			0.1	0.0
Delay (s)		21.3	19.9		19.9		12.7	10.0			19.1	17.4
Level of Service		C	B		B		B	A			B	B
Approach Delay (s)		20.4			19.9			11.2			18.9	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	62.1	Sum of lost time (s)	17.0
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	Ø2
Lane Configurations										
Traffic Volume (vph)	10	2	137	9	133	5	328	118	243	
Future Volume (vph)	10	2	137	9	133	5	328	118	243	
Lane Group Flow (vph)	0	26	0	162	148	0	494	128	267	
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA	
Protected Phases		3		3			1		1	2
Permitted Phases	3		3		3	1		1		
Detector Phase	3	3	3	3	3	1	1	1	1	
Switch Phase										
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	10.0	10.0	10.0	10.0	13.0
Minimum Split (s)	17.0	17.0	17.0	17.0	17.0	16.0	16.0	16.0	16.0	26.0
Total Split (s)	21.0	21.0	21.0	21.0	21.0	32.0	32.0	32.0	32.0	27.0
Total Split (%)	26.3%	26.3%	26.3%	26.3%	26.3%	40.0%	40.0%	40.0%	40.0%	34%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		6.0	6.0	6.0	
Lead/Lag						Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	None
v/c Ratio		0.06		0.50	0.28		0.45	0.47	0.43	
Control Delay		19.0		32.0	7.1		17.2	27.4	21.3	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	
Total Delay		19.0		32.0	7.1		17.2	27.4	21.3	
Queue Length 50th (ft)		5		66	0		82	48	97	
Queue Length 95th (ft)		23		#141	45		129	105	169	
Internal Link Dist (ft)		48		429			362		498	
Turn Bay Length (ft)										
Base Capacity (vph)		524		389	603		1495	380	873	
Starvation Cap Reductn		0		0	0		0	0	0	
Spillback Cap Reductn		0		0	0		0	0	0	
Storage Cap Reductn		0		0	0		0	0	0	
Reduced v/c Ratio		0.05		0.42	0.25		0.33	0.34	0.31	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 61.1
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 37: Granite Street & Granite Place Apartments Driveway/Walter J. Hannon Pkwy

Ø1	Ø2	Ø3
32 s	27 s	21 s

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	2	10	137	9	133	5	328	121	118	243	3
Future Volume (vph)	10	2	10	137	9	133	5	328	121	118	243	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	12	12	14	10	10	10	10	11	11
Grade (%)		0%			4%			0%			0%	
Total Lost time (s)		5.0			5.0	5.0		6.0		6.0	6.0	
Lane Util. Factor		1.00			1.00	1.00		0.95		1.00	1.00	
Frt		0.94			1.00	0.85		0.96		1.00	1.00	
Flt Protected		0.98			0.96	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1974			1746	1688		3187		1668	1816	
Flt Permitted		0.86			0.72	1.00		0.95		0.45	1.00	
Satd. Flow (perm)		1743			1316	1688		3034		790	1816	
Peak-hour factor, PHF	0.83	0.83	0.83	0.90	0.90	0.90	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	2	12	152	10	148	5	357	132	128	264	3
RTOR Reduction (vph)	0	9	0	0	0	112	0	46	0	0	1	0
Lane Group Flow (vph)	0	17	0	0	162	36	0	448	0	128	266	0
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	2%	0%	1%	1%	0%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		3			3			1			1	
Permitted Phases	3			3		3	1			1		
Actuated Green, G (s)		15.1			15.1	15.1		21.0		21.0	21.0	
Effective Green, g (s)		15.1			15.1	15.1		21.0		21.0	21.0	
Actuated g/C Ratio		0.24			0.24	0.24		0.34		0.34	0.34	
Clearance Time (s)		5.0			5.0	5.0		6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)		423			319	409		1024		266	613	
v/s Ratio Prot											0.15	
v/s Ratio Perm		0.01			c0.12	0.02		0.15		c0.16		
v/c Ratio		0.04			0.51	0.09		0.44		0.48	0.43	
Uniform Delay, d1		18.0			20.3	18.2		16.0		16.3	16.0	
Progression Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.0			1.3	0.1		0.3		1.4	0.5	
Delay (s)		18.0			21.6	18.3		16.3		17.7	16.5	
Level of Service		B			C	B		B		B	B	
Approach Delay (s)		18.0			20.0			16.3			16.9	
Approach LOS		B			C			B			B	

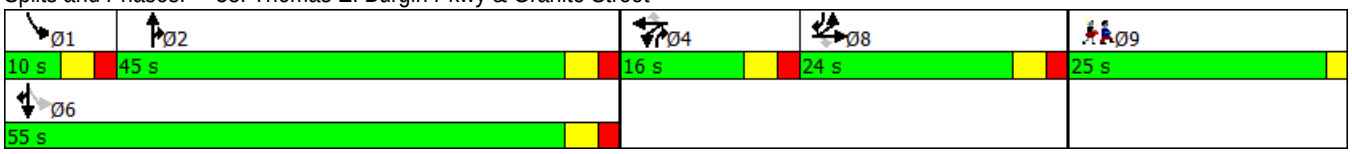
Intersection Summary			
HCM 2000 Control Delay	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	62.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations												
Traffic Volume (vph)	191	150	32	124	134	139	864	147	68	483	164	
Future Volume (vph)	191	150	32	124	134	139	864	147	68	483	164	
Lane Group Flow (vph)	193	152	32	88	181	145	882	150	0	568	169	
Turn Type	Split	NA	Perm	Split	NA	Perm	NA	pt+ov	pm+pt	NA	pt+ov	
Protected Phases	8	8		4	4		2	2 4	1	6	6 8	9
Permitted Phases			8			4			6			
Detector Phase	8	8	8	4	4	4	2	2 4	1	6	6 8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	8.0		5.0	8.0		5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	13.0		10.0	13.0		25.0
Total Split (s)	24.0	24.0	24.0	16.0	16.0	16.0	45.0		10.0	55.0		25.0
Total Split (%)	20.0%	20.0%	20.0%	13.3%	13.3%	13.3%	37.5%		8.3%	45.8%		21%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			5.0		
Lead/Lag							Lag		Lead			
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None		None	None		None
v/c Ratio	0.65	0.27	0.08	0.50	0.50	0.44	0.71	0.18		0.71	0.19	
Control Delay	53.4	41.4	0.4	58.2	51.3	13.3	31.1	3.1		33.4	2.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	53.4	41.4	0.4	58.2	51.3	13.3	31.1	3.1		33.4	2.8	
Queue Length 50th (ft)	121	46	0	61	63	0	272	2		174	8	
Queue Length 95th (ft)	#224	88	0	#145	115	63	346	32		242	25	
Internal Link Dist (ft)		339			337		842			574		
Turn Bay Length (ft)			65	115		100		175			50	
Base Capacity (vph)	402	747	506	208	431	361	1681	920		1281	1150	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.48	0.20	0.06	0.42	0.42	0.40	0.52	0.16		0.44	0.15	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 95
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 38: Thomas E. Burgin Pkwy & Granite Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	191	150	32	124	134	139	0	864	147	68	483	164
Future Volume (vph)	191	150	32	124	134	139	0	864	147	68	483	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	16	12	12	16	11	11	10	11	11	11
Grade (%)		1%			2%			1%			-1%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	0.91	0.91	1.00		0.95	1.00		0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	0.99	1.00		1.00	1.00		0.99	1.00
Satd. Flow (prot)	1796	3339	1821	1610	3326	1812		3438	1485		3455	1553
Flt Permitted	0.95	1.00	1.00	0.95	0.99	1.00		1.00	1.00		0.64	1.00
Satd. Flow (perm)	1796	3339	1821	1610	3326	1812		3438	1485		2222	1553
Peak-hour factor, PHF	0.99	0.99	0.99	0.96	0.96	0.96	0.98	0.98	0.98	0.97	0.97	0.97
Adj. Flow (vph)	193	152	32	129	140	145	0	882	150	70	498	169
RTOR Reduction (vph)	0	0	27	0	0	129	0	0	68	0	0	56
Lane Group Flow (vph)	193	152	5	88	181	16	0	882	82	0	568	113
Heavy Vehicles (%)	0%	4%	0%	1%	2%	0%	0%	1%	1%	0%	1%	1%
Turn Type	Split	NA	Perm	Split	NA	Perm		NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	8	8		4	4			2	2 4	1	6	6 8
Permitted Phases			8			4				6		
Actuated Green, G (s)	15.8	15.8	15.8	10.4	10.4	10.4		34.1	49.5		34.1	49.9
Effective Green, g (s)	15.8	15.8	15.8	10.4	10.4	10.4		34.1	49.5		34.1	49.9
Actuated g/C Ratio	0.17	0.17	0.17	0.11	0.11	0.11		0.36	0.53		0.36	0.53
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	302	562	306	178	368	200		1249	783		807	826
v/s Ratio Prot	c0.11	0.05		c0.05	0.05			c0.26	0.05			0.07
v/s Ratio Perm			0.00			0.01					0.26	
v/c Ratio	0.64	0.27	0.02	0.49	0.49	0.08		0.71	0.10		0.70	0.14
Uniform Delay, d1	36.3	34.0	32.5	39.2	39.2	37.4		25.6	11.1		25.5	11.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	4.4	0.3	0.0	2.2	1.0	0.2		1.8	0.1		2.8	0.1
Delay (s)	40.7	34.2	32.6	41.4	40.3	37.6		27.4	11.1		28.3	11.2
Level of Service	D	C	C	D	D	D		C	B		C	B
Approach Delay (s)		37.4			39.6			25.0			24.4	
Approach LOS		D			D			C			C	

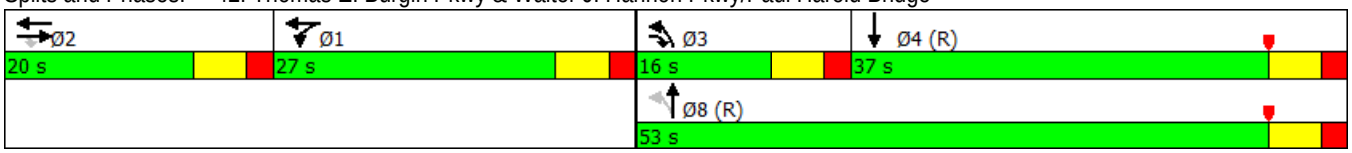
Intersection Summary			
HCM 2000 Control Delay	29.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	93.8	Sum of lost time (s)	22.0
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Configurations							
Traffic Volume (vph)	83	158	369	145	119	819	624
Future Volume (vph)	83	158	369	145	119	819	624
Lane Group Flow (vph)	89	170	401	367	123	1048	666
Turn Type	NA	pm+ov	Prot	NA	pm+pt	NA	NA
Protected Phases	2	3	1	1 2	3	8	4
Permitted Phases		2			8		
Detector Phase	2	3	1	1 2	3	8	4
Switch Phase							
Minimum Initial (s)	6.0	4.0	6.0		4.0	6.0	6.0
Minimum Split (s)	19.0	10.0	12.0		10.0	12.0	25.0
Total Split (s)	20.0	16.0	27.0		16.0	53.0	37.0
Total Split (%)	20.0%	16.0%	27.0%		16.0%	53.0%	37.0%
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lag		Lead		Lag
Lead-Lag Optimize?							
Recall Mode	Min	None	Min		None	C-Min	C-Min
v/c Ratio	0.35	0.39	0.67	0.53	0.35	0.60	0.55
Control Delay	43.3	10.0	28.7	10.4	17.2	19.4	29.0
Queue Delay	0.0	0.0	0.3	1.1	0.0	0.0	0.0
Total Delay	43.3	10.0	29.0	11.6	17.2	19.4	29.0
Queue Length 50th (ft)	52	21	118	16	41	237	181
Queue Length 95th (ft)	100	49	92	100	77	317	251
Internal Link Dist (ft)	429			223		311	842
Turn Bay Length (ft)					200		
Base Capacity (vph)	262	455	693	723	371	1742	1222
Starvation Cap Reductn	0	0	48	171	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.37	0.62	0.66	0.33	0.60	0.55

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 77 (77%), Referenced to phase 4:SBT and 8:NBTL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 42: Thomas E. Burgin Pkwy & Walter J. Hannon Pkwy/Paul Harold Bridge



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	83	158	369	145	192	119	819	198	0	624	15
Future Volume (vph)	0	83	158	369	145	192	119	819	198	0	624	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	12	11	11	11
Grade (%)		1%			1%			0%			0%	
Total Lost time (s)		6.0	6.0	6.0	6.0		6.0	6.0			6.0	
Lane Util. Factor		1.00	1.00	0.97	1.00		1.00	0.95			0.95	
Frt		1.00	0.85	1.00	0.91		1.00	0.97			1.00	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)		1872	1607	3302	1693		1805	3430			3443	
Flt Permitted		1.00	1.00	0.95	1.00		0.25	1.00			1.00	
Satd. Flow (perm)		1872	1607	3302	1693		471	3430			3443	
Peak-hour factor, PHF	0.93	0.93	0.93	0.92	0.92	0.92	0.97	0.97	0.97	0.96	0.96	0.96
Adj. Flow (vph)	0	89	170	401	158	209	123	844	204	0	650	16
RTOR Reduction (vph)	0	0	76	0	50	0	0	20	0	0	1	0
Lane Group Flow (vph)	0	89	94	401	317	0	123	1028	0	0	665	0
Heavy Vehicles (%)	0%	1%	0%	2%	1%	3%	0%	1%	7%	0%	1%	0%
Turn Type		NA	pm+ov	Prot	NA		pm+pt	NA			NA	
Protected Phases		2	3	1	1 2		3	8			4	
Permitted Phases			2				8					
Actuated Green, G (s)		13.6	22.4	18.2	37.8		50.2	50.2			35.4	
Effective Green, g (s)		13.6	22.4	18.2	37.8		50.2	50.2			35.4	
Actuated g/C Ratio		0.14	0.22	0.18	0.38		0.50	0.50			0.35	
Clearance Time (s)		6.0	6.0	6.0			6.0	6.0			6.0	
Vehicle Extension (s)		3.0	3.0	3.0			3.0	3.0			3.0	
Lane Grp Cap (vph)		254	359	600	639		353	1721			1218	
v/s Ratio Prot		0.05	0.02	c0.12	c0.19		0.03	c0.30			0.19	
v/s Ratio Perm			0.04				0.14					
v/c Ratio		0.35	0.26	0.67	0.50		0.35	0.60			0.55	
Uniform Delay, d1		39.2	32.0	38.1	23.8		14.8	17.7			25.9	
Progression Factor		1.00	1.00	0.62	0.43		1.00	1.00			1.00	
Incremental Delay, d2		0.8	0.4	2.5	0.5		0.6	1.5			1.8	
Delay (s)		40.0	32.4	26.2	10.8		15.4	19.3			27.6	
Level of Service		D	C	C	B		B	B			C	
Approach Delay (s)		35.0			18.8			18.8			27.6	
Approach LOS		D			B			B			C	

Intersection Summary			
HCM 2000 Control Delay	22.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Unsignalized Locations

Intersection	
Int Delay, s/veh	74.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	3	1	223	2	50	0	421	131	27	416	1
Future Vol, veh/h	0	3	1	223	2	50	0	421	131	27	416	1
Conflicting Peds, #/hr	1	0	0	0	0	1	3	0	4	4	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	Free	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	9	-	-	0	-	-	1	-	-	1	-
Peak Hour Factor	50	50	50	87	87	87	78	78	78	81	81	81
Heavy Vehicles, %	0	0	0	0	0	2	0	2	1	8	2	0
Mvmt Flow	0	6	2	256	2	57	0	540	168	33	514	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1126	1128	517	1129	1128	545	518	0	-	544	0	0
Stage 1	584	584	-	544	544	-	-	-	-	-	-	-
Stage 2	542	544	-	585	584	-	-	-	-	-	-	-
Critical Hdwy	8.9	8.3	7.1	7.1	6.5	6.22	4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	7.9	7.3	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.9	7.3	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.318	2.2	-	-	2.272	-	-
Pot Cap-1 Maneuver	105	117	494	~ 183	206	538	1058	-	0	995	-	-
Stage 1	374	374	-	527	522	-	-	-	0	-	-	-
Stage 2	403	398	-	501	501	-	-	-	0	-	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	89	111	493	~ 168	195	535	1058	-	-	994	-	-
Mov Cap-2 Maneuver	89	111	-	~ 168	195	-	-	-	-	-	-	-
Stage 1	373	355	-	524	519	-	-	-	-	-	-	-
Stage 2	358	396	-	467	476	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.7	$ 330	0	0.5
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1058	-	138	199	994	-	-
HCM Lane V/C Ratio	-	-	0.058	1.588	0.034	-	-
HCM Control Delay (s)	0	-	32.7	$ 330	8.7	0	-
HCM Lane LOS	A	-	D	F	A	A	-
HCM 95th %tile Q(veh)	0	-	0.2	20.4	0.1	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	155	1	0	274	1	1
Future Vol, veh/h	155	1	0	274	1	1
Conflicting Peds, #/hr	0	4	4	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	0	-1	-
Peak Hour Factor	91	91	87	87	25	25
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	170	1	0	315	4	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	175	0	490	175
Stage 1	-	-	-	-	175	-
Stage 2	-	-	-	-	315	-
Critical Hdwy	-	-	4.1	-	6.2	6.1
Critical Hdwy Stg 1	-	-	-	-	5.2	-
Critical Hdwy Stg 2	-	-	-	-	5.2	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1414	-	556	878
Stage 1	-	-	-	-	869	-
Stage 2	-	-	-	-	758	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1414	-	554	875
Mov Cap-2 Maneuver	-	-	-	-	554	-
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	758	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	678	-	-	1414	-
HCM Lane V/C Ratio	0.012	-	-	-	-
HCM Control Delay (s)	10.4	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	157	270	5	1	4
Future Vol, veh/h	2	157	270	5	1	4
Conflicting Peds, #/hr	3	0	0	3	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	88	88	31	31
Heavy Vehicles, %	0	2	1	0	0	0
Mvmt Flow	2	183	307	6	3	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	316	0	-	0	500	314
Stage 1	-	-	-	-	313	-
Stage 2	-	-	-	-	187	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1256	-	-	-	534	731
Stage 1	-	-	-	-	746	-
Stage 2	-	-	-	-	850	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1255	-	-	-	530	728
Mov Cap-2 Maneuver	-	-	-	-	530	-
Stage 1	-	-	-	-	744	-
Stage 2	-	-	-	-	846	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1255	-	-	-	677
HCM Lane V/C Ratio	0.002	-	-	-	0.024
HCM Control Delay (s)	7.9	0	-	-	10.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	149	8	3	256	19	10
Future Vol, veh/h	149	8	3	256	19	10
Conflicting Peds, #/hr	0	3	3	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	86	86	64	64
Heavy Vehicles, %	2	0	33	1	0	0
Mvmt Flow	175	9	3	298	30	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	188	0	488	184
Stage 1	-	-	-	-	183	-
Stage 2	-	-	-	-	305	-
Critical Hdwy	-	-	4.43	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.497	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1220	-	543	864
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	752	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1219	-	540	861
Mov Cap-2 Maneuver	-	-	-	-	540	-
Stage 1	-	-	-	-	851	-
Stage 2	-	-	-	-	750	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	620	-	-	1219	-
HCM Lane V/C Ratio	0.073	-	-	0.003	-
HCM Control Delay (s)	11.3	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	161	255	1	0	1
Future Vol, veh/h	0	161	255	1	0	1
Conflicting Peds, #/hr	8	0	0	8	3	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	85	85	25	25
Heavy Vehicles, %	0	2	1	100	0	100
Mvmt Flow	0	185	300	1	0	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	309	0	-	0	497	310
Stage 1	-	-	-	-	309	-
Stage 2	-	-	-	-	188	-
Critical Hdwy	4.1	-	-	-	6.4	7.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	4.2
Pot Cap-1 Maneuver	1263	-	-	-	536	549
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	849	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1262	-	-	-	528	544
Mov Cap-2 Maneuver	-	-	-	-	528	-
Stage 1	-	-	-	-	743	-
Stage 2	-	-	-	-	843	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1262	-	-	-	544
HCM Lane V/C Ratio	-	-	-	-	0.007
HCM Control Delay (s)	0	-	-	-	11.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	159	3	4	255	5	11
Future Vol, veh/h	159	3	4	255	5	11
Conflicting Peds, #/hr	0	2	2	0	7	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	87	87	75	75
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	177	3	5	293	7	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	182	0	489	181
Stage 1	-	-	-	-	180	-
Stage 2	-	-	-	-	309	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1405	-	542	867
Stage 1	-	-	-	-	856	-
Stage 2	-	-	-	-	749	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1404	-	535	865
Mov Cap-2 Maneuver	-	-	-	-	535	-
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	741	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	725	-	-	1404	-
HCM Lane V/C Ratio	0.029	-	-	0.003	-
HCM Control Delay (s)	10.1	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	169	0	0	258	0	4	0	3	4	0	0
Future Vol, veh/h	0	169	0	0	258	0	4	0	3	4	0	0
Conflicting Peds, #/hr	12	0	2	2	0	12	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	2	-	-	-3	-
Peak Hour Factor	86	86	86	87	87	87	58	58	58	50	50	50
Heavy Vehicles, %	0	2	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	0	197	0	0	297	0	7	0	5	8	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	309	0	0	199	0	0	497	508	199	508	508	310
Stage 1	-	-	-	-	-	-	199	199	-	309	309	-
Stage 2	-	-	-	-	-	-	298	309	-	199	199	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.9	6.4	6.5	5.9	5.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.5	4.9	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.5	4.9	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1263	-	-	1385	-	-	461	445	838	521	512	754
Stage 1	-	-	-	-	-	-	790	724	-	743	698	-
Stage 2	-	-	-	-	-	-	692	641	-	835	765	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1262	-	-	1385	-	-	460	438	836	511	504	743
Mov Cap-2 Maneuver	-	-	-	-	-	-	460	438	-	511	504	-
Stage 1	-	-	-	-	-	-	788	722	-	733	689	-
Stage 2	-	-	-	-	-	-	691	632	-	830	763	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	11.5	12.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	570	1262	-	-	1385	-	-	511
HCM Lane V/C Ratio	0.021	-	-	-	-	-	-	0.016
HCM Control Delay (s)	11.5	0	-	-	0	-	-	12.2
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	177	5	4	246	6	8
Future Vol, veh/h	177	5	4	246	6	8
Conflicting Peds, #/hr	0	5	5	0	5	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	8	-
Peak Hour Factor	92	92	88	88	54	54
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	192	5	5	280	11	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	203	0	494	203
Stage 1	-	-	-	-	200	-
Stage 2	-	-	-	-	294	-
Critical Hdwy	-	-	4.1	-	8	7
Critical Hdwy Stg 1	-	-	-	-	7	-
Critical Hdwy Stg 2	-	-	-	-	7	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1381	-	432	806
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	668	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1376	-	426	799
Mov Cap-2 Maneuver	-	-	-	-	426	-
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	662	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	581	-	-	1376	-
HCM Lane V/C Ratio	0.045	-	-	0.003	-
HCM Control Delay (s)	11.5	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	168	228	10	13	18
Future Vol, veh/h	13	168	228	10	13	18
Conflicting Peds, #/hr	5	0	0	5	0	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	-5	-
Peak Hour Factor	83	83	79	25	66	66
Heavy Vehicles, %	0	2	2	0	8	0
Mvmt Flow	16	202	289	40	20	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	334	0	-	0	548	319
Stage 1	-	-	-	-	314	-
Stage 2	-	-	-	-	234	-
Critical Hdwy	4.1	-	-	-	5.48	5.7
Critical Hdwy Stg 1	-	-	-	-	4.48	-
Critical Hdwy Stg 2	-	-	-	-	4.48	-
Follow-up Hdwy	2.2	-	-	-	3.572	3.3
Pot Cap-1 Maneuver	1237	-	-	-	567	759
Stage 1	-	-	-	-	794	-
Stage 2	-	-	-	-	844	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1231	-	-	-	553	751
Mov Cap-2 Maneuver	-	-	-	-	553	-
Stage 1	-	-	-	-	790	-
Stage 2	-	-	-	-	827	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1231	-	-	-	653
HCM Lane V/C Ratio	0.013	-	-	-	0.072
HCM Control Delay (s)	8	0	-	-	10.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	182	0	0	229	3	6
Future Vol, veh/h	182	0	0	229	3	6
Conflicting Peds, #/hr	0	4	4	0	0	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	78	78	56	56
Heavy Vehicles, %	3	0	0	2	0	0
Mvmt Flow	204	0	0	294	5	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	208	0	502	213
Stage 1	-	-	-	-	208	-
Stage 2	-	-	-	-	294	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1375	-	533	832
Stage 1	-	-	-	-	832	-
Stage 2	-	-	-	-	761	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1368	-	531	826
Mov Cap-2 Maneuver	-	-	-	-	531	-
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	761	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	697	-	-	1368	-
HCM Lane V/C Ratio	0.023	-	-	-	-
HCM Control Delay (s)	10.3	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	183	221	1	4	8
Future Vol, veh/h	3	183	221	1	4	8
Conflicting Peds, #/hr	16	0	0	16	9	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	81	81	69	69
Heavy Vehicles, %	0	3	2	0	0	0
Mvmt Flow	3	201	273	1	6	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	290	0	-	0	506	289
Stage 1	-	-	-	-	289	-
Stage 2	-	-	-	-	217	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1283	-	-	-	530	755
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	824	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1283	-	-	-	510	742
Mov Cap-2 Maneuver	-	-	-	-	510	-
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	807	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1283	-	-	-	644
HCM Lane V/C Ratio	0.003	-	-	-	0.027
HCM Control Delay (s)	7.8	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	190	3	9	217	26	9	9	16	34	0	1
Future Vol, veh/h	2	190	3	9	217	26	9	9	16	34	0	1
Conflicting Peds, #/hr	10	0	20	20	0	10	4	0	2	2	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	6	-	-	1	-	-	-5	-
Peak Hour Factor	91	91	91	82	82	82	86	86	86	63	63	63
Heavy Vehicles, %	0	3	0	0	2	0	0	13	0	0	0	0
Mvmt Flow	2	209	3	11	265	32	10	10	19	54	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	306	0	0	232	0	0	542	563	232	543	548	294
Stage 1	-	-	-	-	-	-	235	235	-	312	312	-
Stage 2	-	-	-	-	-	-	307	328	-	231	236	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.83	6.3	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.83	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.83	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.117	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1266	-	-	1348	-	-	441	408	807	528	520	781
Stage 1	-	-	-	-	-	-	763	682	-	766	721	-
Stage 2	-	-	-	-	-	-	695	617	-	828	762	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1261	-	-	1345	-	-	426	391	790	493	498	769
Mov Cap-2 Maneuver	-	-	-	-	-	-	426	391	-	493	498	-
Stage 1	-	-	-	-	-	-	747	668	-	755	705	-
Stage 2	-	-	-	-	-	-	684	604	-	793	746	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	12.4	13.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	528	1261	-	-	1345	-	-	498
HCM Lane V/C Ratio	0.075	0.002	-	-	0.008	-	-	0.112
HCM Control Delay (s)	12.4	7.9	0	-	7.7	0	-	13.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	240	246	23	44	9
Future Vol, veh/h	4	240	246	23	44	9
Conflicting Peds, #/hr	12	0	0	12	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-6	6	-	-10	-
Peak Hour Factor	82	82	81	81	82	82
Heavy Vehicles, %	0	2	2	5	0	0
Mvmt Flow	5	293	304	28	54	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	344	0	-	0	635	330
Stage 1	-	-	-	-	330	-
Stage 2	-	-	-	-	305	-
Critical Hdwy	4.1	-	-	-	4.4	5.2
Critical Hdwy Stg 1	-	-	-	-	3.4	-
Critical Hdwy Stg 2	-	-	-	-	3.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1226	-	-	-	634	785
Stage 1	-	-	-	-	880	-
Stage 2	-	-	-	-	891	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1226	-	-	-	614	775
Mov Cap-2 Maneuver	-	-	-	-	614	-
Stage 1	-	-	-	-	868	-
Stage 2	-	-	-	-	875	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1226	-	-	-	636
HCM Lane V/C Ratio	0.004	-	-	-	0.102
HCM Control Delay (s)	7.9	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	0	19	2	0	17
Future Vol, veh/h	12	0	19	2	0	17
Conflicting Peds, #/hr	3	0	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	10	-	5	-	-	0
Peak Hour Factor	55	55	63	63	67	67
Heavy Vehicles, %	9	0	0	0	0	0
Mvmt Flow	22	0	30	3	0	25

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	65	37	0	0	38	0
Stage 1	37	-	-	-	-	-
Stage 2	28	-	-	-	-	-
Critical Hdwy	8.49	7.2	-	-	4.1	-
Critical Hdwy Stg 1	7.49	-	-	-	-	-
Critical Hdwy Stg 2	7.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	891	1030	-	-	1585	-
Stage 1	948	-	-	-	-	-
Stage 2	962	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	885	1026	-	-	1585	-
Mov Cap-2 Maneuver	885	-	-	-	-	-
Stage 1	944	-	-	-	-	-
Stage 2	959	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	885	1585	-
HCM Lane V/C Ratio	-	-	0.025	-	-
HCM Control Delay (s)	-	-	9.2	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	7.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	0	11	0	1	23
Future Vol, veh/h	2	0	11	0	1	23
Conflicting Peds, #/hr	0	0	0	0	1	16
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-6	-
Peak Hour Factor	50	50	63	63	79	79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	0	17	0	1	29

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	4	0	40	20
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	36	-
Critical Hdwy	-	-	4.1	-	5.2	5.6
Critical Hdwy Stg 1	-	-	-	-	4.2	-
Critical Hdwy Stg 2	-	-	-	-	4.2	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1631	-	990	1067
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	1004	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1606	-	978	1051
Mov Cap-2 Maneuver	-	-	-	-	978	-
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	992	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.3	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1048	-	-	1606	-
HCM Lane V/C Ratio	0.029	-	-	0.011	-
HCM Control Delay (s)	8.5	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	12	5	9	3	1	3
Future Vol, veh/h	12	5	9	3	1	3
Conflicting Peds, #/hr	0	5	5	0	2	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	0	0	-
Peak Hour Factor	71	71	81	81	50	50
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	17	7	11	4	2	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	29	0	53	30
Stage 1	-	-	-	-	25	-
Stage 2	-	-	-	-	28	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1597	-	960	1050
Stage 1	-	-	-	-	1003	-
Stage 2	-	-	-	-	1000	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1591	-	949	1043
Mov Cap-2 Maneuver	-	-	-	-	949	-
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	992	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.5	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1018	-	-	1591	-
HCM Lane V/C Ratio	0.008	-	-	0.007	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	12	6	32	26	3
Future Vol, veh/h	3	12	6	32	26	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	5	-5	-
Peak Hour Factor	70	70	60	60	68	68
Heavy Vehicles, %	0	0	0	3	0	0
Mvmt Flow	4	17	10	53	38	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	113	40	43	0	-	0
Stage 1	40	-	-	-	-	-
Stage 2	73	-	-	-	-	-
Critical Hdwy	4.4	5.2	4.1	-	-	-
Critical Hdwy Stg 1	3.4	-	-	-	-	-
Critical Hdwy Stg 2	3.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	946	1049	1579	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	995	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	939	1049	1579	-	-	-
Mov Cap-2 Maneuver	939	-	-	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	988	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	1.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1579	-	1025	-	-
HCM Lane V/C Ratio	0.006	-	0.021	-	-
HCM Control Delay (s)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	3	2	5	10	1
Future Vol, veh/h	1	3	2	5	10	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-10	10	-	0	-
Peak Hour Factor	50	50	58	58	63	63
Heavy Vehicles, %	0	0	0	0	0	100
Mvmt Flow	2	6	3	9	16	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	12	0	-	0	18	8
Stage 1	-	-	-	-	8	-
Stage 2	-	-	-	-	10	-
Critical Hdwy	4.1	-	-	-	6.4	7.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	4.2
Pot Cap-1 Maneuver	1620	-	-	-	1005	847
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1018	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1620	-	-	-	1004	847
Mov Cap-2 Maneuver	-	-	-	-	1004	-
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1017	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1620	-	-	-	987
HCM Lane V/C Ratio	0.001	-	-	-	0.018
HCM Control Delay (s)	7.2	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	9	1	10	3	6
Future Vol, veh/h	18	9	1	10	3	6
Conflicting Peds, #/hr	5	0	0	5	1	4
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	11	-
Peak Hour Factor	78	78	50	50	75	75
Heavy Vehicles, %	0	0	0	0	33	0
Mvmt Flow	23	12	2	20	4	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	27	0	-	0	76	21
Stage 1	-	-	-	-	17	-
Stage 2	-	-	-	-	59	-
Critical Hdwy	4.1	-	-	-	8.93	7.3
Critical Hdwy Stg 1	-	-	-	-	7.93	-
Critical Hdwy Stg 2	-	-	-	-	7.93	-
Follow-up Hdwy	2.2	-	-	-	3.797	3.3
Pot Cap-1 Maneuver	1600	-	-	-	817	1056
Stage 1	-	-	-	-	921	-
Stage 2	-	-	-	-	859	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1594	-	-	-	798	1048
Mov Cap-2 Maneuver	-	-	-	-	798	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	842	-

Approach	EB	WB	SB
HCM Control Delay, s	4.9	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1594	-	-	-	949
HCM Lane V/C Ratio	0.014	-	-	-	0.013
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	11	0	1	21	17	0	27	1	9	9	2
Future Vol, veh/h	3	11	0	1	21	17	0	27	1	9	9	2
Peak Hour Factor	0.65	0.65	0.65	0.66	0.66	0.66	0.81	0.81	0.81	0.56	0.56	0.56
Heavy Vehicles, %	0	0	0	0	0	6	0	0	0	0	13	0
Mvmt Flow	5	17	0	2	32	26	0	33	1	16	16	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.1	7.2	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	21%	3%	45%
Vol Thru, %	96%	79%	54%	45%
Vol Right, %	4%	0%	44%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	14	39	20
LT Vol	0	3	1	9
Through Vol	27	11	21	9
RT Vol	1	0	17	2
Lane Flow Rate	35	22	59	36
Geometry Grp	1	1	1	1
Degree of Util (X)	0.039	0.025	0.062	0.041
Departure Headway (Hd)	4.047	4.111	3.782	4.097
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	882	867	943	871
Service Time	2.084	2.152	1.821	2.133
HCM Lane V/C Ratio	0.04	0.025	0.063	0.041
HCM Control Delay	7.2	7.3	7.1	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2	0.1

2025 No-Build Weekday Evening Peak

Signalized Locations

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	Ø3
Lane Configurations											
Traffic Volume (vph)	86	25	206	13	29	211	211	30	251	37	
Future Volume (vph)	86	25	206	13	29	211	211	30	251	37	
Lane Group Flow (vph)	0	120	224	0	130	220	235	0	290	38	
Turn Type	Perm	NA	Perm	Perm	NA	D.P+P	NA	Perm	NA	Perm	
Protected Phases		4			4	1	1 2		2		3
Permitted Phases	4		4	4		2		2		2	
Detector Phase	4	4	4	4	4	1	1 2	2	2	2	
Switch Phase											
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	6.0		15.0	15.0	15.0	7.0
Minimum Split (s)	18.0	18.0	18.0	18.0	18.0	9.0		21.0	21.0	21.0	15.0
Total Split (s)	22.0	22.0	22.0	22.0	22.0	18.0		25.0	25.0	25.0	15.0
Total Split (%)	27.5%	27.5%	27.5%	27.5%	27.5%	22.5%		31.3%	31.3%	31.3%	19%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0		4.0	4.0	4.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.0		2.0	2.0	2.0	0.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0			0.0	0.0	
Total Lost Time (s)		6.0	6.0		6.0	3.0			6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lead		Lag	Lag	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None		Min	Min	Min	None
v/c Ratio		0.34	0.39		0.28	0.39	0.14		0.34	0.08	
Control Delay		27.3	6.5		13.4	12.7	9.3		23.1	0.3	
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Delay		27.3	6.5		13.4	12.7	9.3		23.1	0.3	
Queue Length 50th (ft)		44	0		17	53	26		53	0	
Queue Length 95th (ft)		96	53		57	104	48		100	0	
Internal Link Dist (ft)		105			145		498		339		
Turn Bay Length (ft)			30			70				80	
Base Capacity (vph)		451	664		563	678	1951		1067	591	
Starvation Cap Reductn		0	0		0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0		0	0	
Reduced v/c Ratio		0.27	0.34		0.23	0.32	0.12		0.27	0.06	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 61.9
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Granite Street & Whitwell Street/Plaza Access

Ø1	Ø2	Ø3	Ø4
18 s	25 s	15 s	22 s

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	25	206	13	29	69	211	211	14	30	251	37
Future Volume (vph)	86	25	206	13	29	69	211	211	14	30	251	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	10	11	11	13	13	12
Grade (%)		-6%			0%			0%			-1%	
Total Lost time (s)		6.0	6.0		6.0		3.0	3.0			6.0	6.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95			0.95	1.00
Frt		1.00	0.85		0.92		1.00	0.99			1.00	0.85
Flt Protected		0.96	1.00		0.99		0.95	1.00			0.99	1.00
Satd. Flow (prot)		2135	1867		1961		1685	3393			3729	1623
Flt Permitted		0.76	1.00		0.95		0.57	1.00			0.89	1.00
Satd. Flow (perm)		1683	1867		1880		1018	3393			3353	1623
Peak-hour factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85	0.96	0.96	0.96	0.97	0.97	0.97
Adj. Flow (vph)	93	27	224	15	34	81	220	220	15	31	259	38
RTOR Reduction (vph)	0	0	177	0	64	0	0	7	0	0	0	28
Lane Group Flow (vph)	0	120	47	0	66	0	220	228	0	0	290	10
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	0%	2%	0%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		D.P+P	NA		Perm	NA	Perm
Protected Phases		4			4		1	1 2			2	
Permitted Phases	4		4	4			2			2		2
Actuated Green, G (s)		13.1	13.1		13.1		25.3	28.3			15.7	15.7
Effective Green, g (s)		13.1	13.1		13.1		25.3	28.3			15.7	15.7
Actuated g/C Ratio		0.21	0.21		0.21		0.41	0.45			0.25	0.25
Clearance Time (s)		6.0	6.0		6.0		3.0				6.0	6.0
Vehicle Extension (s)		2.0	2.0		2.0		2.0				2.0	2.0
Lane Grp Cap (vph)		354	393		395		517	1543			846	409
v/s Ratio Prot							c0.07	0.07				
v/s Ratio Perm		c0.07	0.03		0.04		c0.11				0.09	0.01
v/c Ratio		0.34	0.12		0.17		0.43	0.15			0.34	0.02
Uniform Delay, d1		20.9	19.9		20.1		12.6	9.9			19.0	17.5
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2		0.2	0.0		0.1		0.2	0.0			0.1	0.0
Delay (s)		21.1	19.9		20.2		12.8	9.9			19.1	17.5
Level of Service		C	B		C		B	A			B	B
Approach Delay (s)		20.3			20.2			11.3			18.9	
Approach LOS		C			C			B			B	

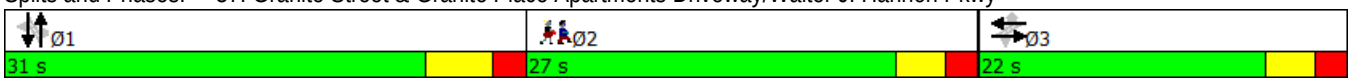
Intersection Summary			
HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	62.2	Sum of lost time (s)	17.0
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	Ø2
Lane Configurations										
Traffic Volume (vph)	3	9	240	23	170	4	252	197	269	
Future Volume (vph)	3	9	240	23	170	4	252	197	269	
Lane Group Flow (vph)	0	35	0	271	175	0	473	203	283	
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA	
Protected Phases		3		3			1		1	2
Permitted Phases	3		3		3	1		1		
Detector Phase	3	3	3	3	3	1	1	1	1	
Switch Phase										
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0	10.0	10.0	10.0	10.0	13.0
Minimum Split (s)	17.0	17.0	17.0	17.0	17.0	16.0	16.0	16.0	16.0	26.0
Total Split (s)	22.0	22.0	22.0	22.0	22.0	31.0	31.0	31.0	31.0	27.0
Total Split (%)	27.5%	27.5%	27.5%	27.5%	27.5%	38.8%	38.8%	38.8%	38.8%	34%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		6.0	6.0	6.0	
Lead/Lag						Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	None
v/c Ratio		0.07		0.74	0.30		0.41	0.72	0.45	
Control Delay		16.4		43.2	6.4		12.3	41.0	22.2	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	
Total Delay		16.4		43.2	6.4		12.3	41.0	22.2	
Queue Length 50th (ft)		6		132	0		54	90	111	
Queue Length 95th (ft)		24		#276	48		95	#205	183	
Internal Link Dist (ft)		48		429			362		498	
Turn Bay Length (ft)										
Base Capacity (vph)		560		381	605		1364	339	767	
Starvation Cap Reductn		0		0	0		0	0	0	
Spillback Cap Reductn		0		0	0		0	0	0	
Storage Cap Reductn		0		0	0		0	0	0	
Reduced v/c Ratio		0.06		0.71	0.29		0.35	0.60	0.37	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 65
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 37: Granite Street & Granite Place Apartments Driveway/Walter J. Hannon Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	9	15	240	23	170	4	252	175	197	269	6
Future Volume (vph)	3	9	15	240	23	170	4	252	175	197	269	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	12	12	14	10	10	10	10	11	11
Grade (%)		0%			4%			0%			0%	
Total Lost time (s)		5.0			5.0	5.0		6.0		6.0	6.0	
Lane Util. Factor		1.00			1.00	1.00		0.95		1.00	1.00	
Frt		0.93			1.00	0.85		0.94		1.00	1.00	
Flt Protected		0.99			0.96	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1984			1781	1688		3144		1685	1831	
Flt Permitted		0.96			0.72	1.00		0.95		0.46	1.00	
Satd. Flow (perm)		1921			1340	1688		2995		812	1831	
Peak-hour factor, PHF	0.78	0.78	0.78	0.97	0.97	0.97	0.91	0.91	0.91	0.97	0.97	0.97
Adj. Flow (vph)	4	12	19	247	24	175	4	277	192	203	277	6
RTOR Reduction (vph)	0	14	0	0	0	128	0	127	0	0	1	0
Lane Group Flow (vph)	0	21	0	0	271	47	0	346	0	203	282	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		3			3			1			1	
Permitted Phases	3			3		3	1			1		
Actuated Green, G (s)		17.8			17.8	17.8		22.5		22.5	22.5	
Effective Green, g (s)		17.8			17.8	17.8		22.5		22.5	22.5	
Actuated g/C Ratio		0.27			0.27	0.27		0.34		0.34	0.34	
Clearance Time (s)		5.0			5.0	5.0		6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)		512			357	450		1010		273	617	
v/s Ratio Prot											0.15	
v/s Ratio Perm		0.01			c0.20	0.03		0.12		c0.25		
v/c Ratio		0.04			0.76	0.10		0.34		0.74	0.46	
Uniform Delay, d1		18.1			22.5	18.4		16.6		19.5	17.3	
Progression Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.0			9.0	0.1		0.2		10.4	0.5	
Delay (s)		18.2			31.4	18.5		16.8		30.0	17.9	
Level of Service		B			C	B		B		C	B	
Approach Delay (s)		18.2			26.4			16.8			22.9	
Approach LOS		B			C			B			C	

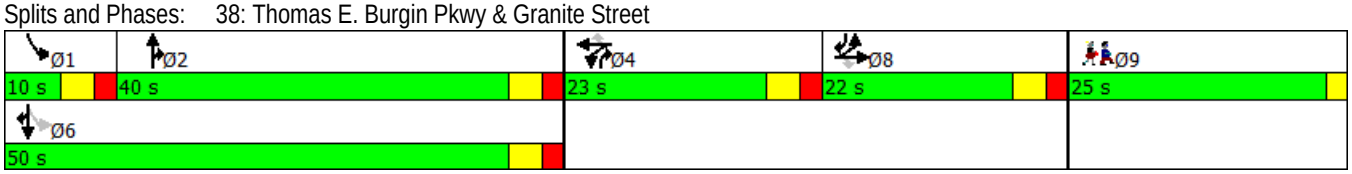
Intersection Summary			
HCM 2000 Control Delay	21.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	66.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations												
Traffic Volume (vph)	150	183	23	115	142	114	547	148	173	759	176	
Future Volume (vph)	150	183	23	115	142	114	547	148	173	759	176	
Lane Group Flow (vph)	158	193	24	89	184	121	564	153	0	981	185	
Turn Type	Split	NA	Perm	Split	NA	Perm	NA	pt+ov	pm+pt	NA	pt+ov	
Protected Phases	8	8		4	4		2	2 4	1	6	6 8	9
Permitted Phases			8			4			6			
Detector Phase	8	8	8	4	4	4	2	2 4	1	6	6 8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	8.0		5.0	8.0		5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	13.0		10.0	13.0		25.0
Total Split (s)	22.0	22.0	22.0	23.0	23.0	23.0	40.0		10.0	50.0		25.0
Total Split (%)	18.3%	18.3%	18.3%	19.2%	19.2%	19.2%	33.3%		8.3%	41.7%		21%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			5.0		
Lead/Lag							Lag		Lead			
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None		None	None		None
v/c Ratio	0.67	0.43	0.07	0.48	0.47	0.37	0.38	0.16		0.96	0.20	
Control Delay	61.5	47.9	0.4	55.7	50.1	10.8	24.5	2.4		53.1	5.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	61.5	47.9	0.4	55.7	50.1	10.8	24.5	2.4		53.1	5.2	
Queue Length 50th (ft)	110	68	0	68	70	0	154	0		~411	21	
Queue Length 95th (ft)	190	110	0	127	109	49	221	29		#588	41	
Internal Link Dist (ft)		339			337		842			574		
Turn Bay Length (ft)			65	115		100		175			50	
Base Capacity (vph)	293	562	404	279	582	418	1489	1025		1024	939	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.54	0.34	0.06	0.32	0.32	0.29	0.38	0.15		0.96	0.20	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 106.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 38: Thomas E. Burgin Pkwy & Granite Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	183	23	115	142	114	0	547	148	173	759	176
Future Volume (vph)	150	183	23	115	142	114	0	547	148	173	759	176
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	16	12	12	16	11	11	10	11	11	11
Grade (%)		1%			2%			1%			-1%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	0.91	0.91	1.00		0.95	1.00		0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	0.99	1.00		1.00	1.00		0.99	1.00
Satd. Flow (prot)	1796	3438	1821	1610	3359	1812		3438	1485		3475	1553
Flt Permitted	0.95	1.00	1.00	0.95	0.99	1.00		1.00	1.00		0.67	1.00
Satd. Flow (perm)	1796	3438	1821	1610	3359	1812		3438	1485		2363	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.94	0.94	0.94	0.97	0.97	0.97	0.95	0.95	0.95
Adj. Flow (vph)	158	193	24	122	151	121	0	564	153	182	799	185
RTOR Reduction (vph)	0	0	21	0	0	107	0	0	62	0	0	29
Lane Group Flow (vph)	158	193	3	89	184	14	0	564	91	0	981	156
Heavy Vehicles (%)	0%	1%	0%	1%	1%	0%	0%	1%	1%	0%	0%	1%
Turn Type	Split	NA	Perm	Split	NA	Perm		NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	8	8		4	4			2	2 4	1	6	6 8
Permitted Phases			8			4				6		
Actuated Green, G (s)	14.0	14.0	14.0	12.5	12.5	12.5		46.3	63.8		46.3	60.3
Effective Green, g (s)	14.0	14.0	14.0	12.5	12.5	12.5		46.3	63.8		46.3	60.3
Actuated g/C Ratio	0.13	0.13	0.13	0.12	0.12	0.12		0.43	0.60		0.43	0.56
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	234	449	238	188	392	211		1487	885		1022	875
v/s Ratio Prot	c0.09	0.06		c0.06	0.05			0.16	0.06			0.10
v/s Ratio Perm			0.00			0.01					c0.42	
v/c Ratio	0.68	0.43	0.01	0.47	0.47	0.07		0.38	0.10		0.96	0.18
Uniform Delay, d1	44.3	42.8	40.5	44.2	44.2	42.1		20.6	9.3		29.4	11.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	7.5	0.7	0.0	1.9	0.9	0.1		0.2	0.1		18.9	0.1
Delay (s)	51.8	43.5	40.5	46.1	45.0	42.2		20.8	9.3		48.4	11.4
Level of Service	D	D	D	D	D	D		C	A		D	B
Approach Delay (s)		46.8			44.4			18.3			42.5	
Approach LOS		D			D			B			D	

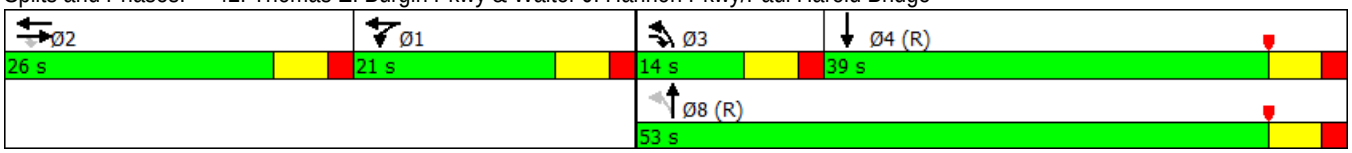
Intersection Summary			
HCM 2000 Control Delay	36.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	107.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	70.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Configurations							
Traffic Volume (vph)	225	156	341	292	113	558	869
Future Volume (vph)	225	156	341	292	113	558	869
Lane Group Flow (vph)	242	168	355	447	116	1089	925
Turn Type	NA	pm+ov	Prot	NA	pm+pt	NA	NA
Protected Phases	2	3	1	1 2	3	8	4
Permitted Phases		2			8		
Detector Phase	2	3	1	1 2	3	8	4
Switch Phase							
Minimum Initial (s)	6.0	4.0	6.0		4.0	6.0	6.0
Minimum Split (s)	19.0	10.0	12.0		10.0	12.0	25.0
Total Split (s)	26.0	14.0	21.0		14.0	53.0	39.0
Total Split (%)	26.0%	14.0%	21.0%		14.0%	53.0%	39.0%
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lag		Lead		Lag
Lead-Lag Optimize?							
Recall Mode	Min	None	Min		None	C-Min	C-Min
v/c Ratio	0.66	0.33	0.73	0.61	0.50	0.62	0.77
Control Delay	46.9	8.6	37.4	15.6	22.5	15.2	34.8
Queue Delay	0.0	0.0	0.0	5.3	0.0	0.2	0.0
Total Delay	47.0	8.6	37.4	20.8	22.5	15.5	34.8
Queue Length 50th (ft)	143	20	114	201	41	190	280
Queue Length 95th (ft)	225	51	140	147	74	258	359
Internal Link Dist (ft)	429			223		311	842
Turn Bay Length (ft)					200		
Base Capacity (vph)	378	509	500	731	239	1766	1201
Starvation Cap Reductn	0	0	0	218	0	0	0
Spillback Cap Reductn	2	0	0	0	0	172	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.33	0.71	0.87	0.49	0.68	0.77

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBTL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 42: Thomas E. Burgin Pkwy & Walter J. Hannon Pkwy/Paul Harold Bridge



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	225	156	341	292	137	113	558	499	0	869	28
Future Volume (vph)	0	225	156	341	292	137	113	558	499	0	869	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	12	11	11	11
Grade (%)		1%			1%			0%			0%	
Total Lost time (s)		6.0	6.0	6.0	6.0		6.0	6.0			6.0	
Lane Util. Factor		1.00	1.00	0.97	1.00		1.00	0.95			0.95	
Frt		1.00	0.85	1.00	0.95		1.00	0.93			1.00	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)		1890	1607	3335	1794		1805	3337			3473	
Flt Permitted		1.00	1.00	0.95	1.00		0.12	1.00			1.00	
Satd. Flow (perm)		1890	1607	3335	1794		235	3337			3473	
Peak-hour factor, PHF	0.93	0.93	0.93	0.96	0.96	0.96	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	242	168	355	304	143	116	575	514	0	896	29
RTOR Reduction (vph)	0	0	72	0	17	0	0	157	0	0	2	0
Lane Group Flow (vph)	0	242	96	355	430	0	116	932	0	0	923	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	1%	0%	1%	0%	0%	0%	0%
Turn Type		NA	pm+ov	Prot	NA		pm+pt	NA			NA	
Protected Phases		2	3	1	1 2		3	8			4	
Permitted Phases			2				8					
Actuated Green, G (s)		19.3	27.0	14.5	39.8		48.2	48.2			34.5	
Effective Green, g (s)		19.3	27.0	14.5	39.8		48.2	48.2			34.5	
Actuated g/C Ratio		0.19	0.27	0.14	0.40		0.48	0.48			0.34	
Clearance Time (s)		6.0	6.0	6.0			6.0	6.0			6.0	
Vehicle Extension (s)		3.0	3.0	3.0			3.0	3.0			3.0	
Lane Grp Cap (vph)		364	433	483	714		234	1608			1198	
v/s Ratio Prot		0.13	0.02	c0.11	c0.24		0.04	c0.28			c0.27	
v/s Ratio Perm			0.04				0.20					
v/c Ratio		0.66	0.22	0.73	0.60		0.50	0.58			0.77	
Uniform Delay, d1		37.4	28.4	40.9	23.8		18.0	18.6			29.2	
Progression Factor		1.00	1.00	0.73	0.56		1.00	1.00			1.00	
Incremental Delay, d2		4.5	0.3	4.4	1.1		1.7	1.5			4.8	
Delay (s)		41.9	28.6	34.3	14.5		19.7	20.1			34.0	
Level of Service		D	C	C	B		B	C			C	
Approach Delay (s)		36.4			23.3			20.1			34.0	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Unsignalized Locations

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	3	137	3	35	1	333	212	36	313	2
Future Vol, veh/h	0	1	3	137	3	35	1	333	212	36	313	2
Conflicting Peds, #/hr	0	0	0	0	0	0	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	Free	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	9	-	-	0	-	-	1	-	-	1	-
Peak Hour Factor	33	33	33	84	84	84	80	80	80	87	87	87
Heavy Vehicles, %	0	0	0	1	0	9	0	1	1	6	1	0
Mvmt Flow	0	3	9	163	4	42	1	416	265	41	360	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	868	866	364	869	867	416	365	0	-	416	0	0
Stage 1	447	447	-	419	419	-	-	-	-	-	-	-
Stage 2	421	419	-	450	448	-	-	-	-	-	-	-
Critical Hdwy	8.9	8.3	7.1	7.11	6.5	6.29	4.1	-	-	4.16	-	-
Critical Hdwy Stg 1	7.9	7.3	-	6.11	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.9	7.3	-	6.11	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.509	4	3.381	2.2	-	-	2.254	-	-
Pot Cap-1 Maneuver	178	190	626	273	293	622	1205	-	0	1122	-	-
Stage 1	476	461	-	614	593	-	-	-	0	-	-	-
Stage 2	498	481	-	590	576	-	-	-	0	-	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	158	181	624	256	278	622	1205	-	-	1122	-	-
Mov Cap-2 Maneuver	158	181	-	256	278	-	-	-	-	-	-	-
Stage 1	474	439	-	613	592	-	-	-	-	-	-	-
Stage 2	461	481	-	551	548	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.6	34.8	0	0.9
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1205	-	387	321	1122	-	-
HCM Lane V/C Ratio	0.001	-	0.031	0.649	0.037	-	-
HCM Control Delay (s)	8	0	14.6	34.8	8.3	0	-
HCM Lane LOS	A	A	B	D	A	A	-
HCM 95th %tile Q(veh)	0	-	0.1	4.3	0.1	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	249	2	1	174	0	0
Future Vol, veh/h	249	2	1	174	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	0	-1	-
Peak Hour Factor	90	90	82	82	92	92
Heavy Vehicles, %	2	0	0	3	0	0
Mvmt Flow	277	2	1	212	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	279	0	493	278
Stage 1	-	-	-	-	278	-
Stage 2	-	-	-	-	215	-
Critical Hdwy	-	-	4.1	-	6.2	6.1
Critical Hdwy Stg 1	-	-	-	-	5.2	-
Critical Hdwy Stg 2	-	-	-	-	5.2	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1295	-	554	772
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	836	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1295	-	553	772
Mov Cap-2 Maneuver	-	-	-	-	553	-
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	835	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1295	-
HCM Lane V/C Ratio	-	-	-	0.001	-
HCM Control Delay (s)	0	-	-	7.8	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	244	176	4	2	1
Future Vol, veh/h	3	244	176	4	2	1
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	81	81	75	75
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	3	274	217	5	3	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	223	0	-	0	502	221
Stage 1	-	-	-	-	221	-
Stage 2	-	-	-	-	281	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1358	-	-	-	533	824
Stage 1	-	-	-	-	821	-
Stage 2	-	-	-	-	771	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1358	-	-	-	530	823
Mov Cap-2 Maneuver	-	-	-	-	530	-
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	768	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1358	-	-	-	601
HCM Lane V/C Ratio	0.002	-	-	-	0.007
HCM Control Delay (s)	7.7	0	-	-	11
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	246	3	6	176	3	6
Future Vol, veh/h	246	3	6	176	3	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	80	80	56	56
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	289	4	8	220	5	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	293	0	526	291
Stage 1	-	-	-	-	291	-
Stage 2	-	-	-	-	235	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1280	-	516	753
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	809	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1280	-	512	753
Mov Cap-2 Maneuver	-	-	-	-	512	-
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	803	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	651	-	-	1280	-
HCM Lane V/C Ratio	0.025	-	-	0.006	-
HCM Control Delay (s)	10.7	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	250	182	0	2	0
Future Vol, veh/h	0	250	182	0	2	0
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	80	80	25	25
Heavy Vehicles, %	0	2	2	0	100	0
Mvmt Flow	0	287	228	0	8	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	231	0	-	0	518	231
Stage 1	-	-	-	-	231	-
Stage 2	-	-	-	-	287	-
Critical Hdwy	4.1	-	-	-	7.4	6.2
Critical Hdwy Stg 1	-	-	-	-	6.4	-
Critical Hdwy Stg 2	-	-	-	-	6.4	-
Follow-up Hdwy	2.2	-	-	-	4.4	3.3
Pot Cap-1 Maneuver	1349	-	-	-	381	813
Stage 1	-	-	-	-	623	-
Stage 2	-	-	-	-	582	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1349	-	-	-	379	811
Mov Cap-2 Maneuver	-	-	-	-	379	-
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	580	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1349	-	-	-	379
HCM Lane V/C Ratio	-	-	-	-	0.021
HCM Control Delay (s)	0	-	-	-	14.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	246	5	6	183	1	2
Future Vol, veh/h	246	5	6	183	1	2
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	84	84	38	38
Heavy Vehicles, %	3	0	0	2	0	0
Mvmt Flow	273	6	7	218	3	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	281	0	510	278
Stage 1	-	-	-	-	278	-
Stage 2	-	-	-	-	232	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1293	-	527	766
Stage 1	-	-	-	-	774	-
Stage 2	-	-	-	-	811	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1293	-	523	765
Mov Cap-2 Maneuver	-	-	-	-	523	-
Stage 1	-	-	-	-	773	-
Stage 2	-	-	-	-	806	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	663	-	-	1293	-
HCM Lane V/C Ratio	0.012	-	-	0.006	-
HCM Control Delay (s)	10.5	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	247	4	2	183	1	1	0	2	2	0	3
Future Vol, veh/h	0	247	4	2	183	1	1	0	2	2	0	3
Conflicting Peds, #/hr	5	0	4	4	0	5	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	2	-	-	-3	-
Peak Hour Factor	89	89	89	81	81	81	38	38	38	63	63	63
Heavy Vehicles, %	0	3	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	0	278	4	2	226	1	3	0	5	3	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	232	0	0	286	0	0	519	521	284	518	522	233
Stage 1	-	-	-	-	-	-	284	284	-	236	236	-
Stage 2	-	-	-	-	-	-	235	237	-	282	286	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.9	6.4	6.5	5.9	5.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.5	4.9	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.5	4.9	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1348	-	-	1288	-	-	444	437	748	514	504	827
Stage 1	-	-	-	-	-	-	705	659	-	803	742	-
Stage 2	-	-	-	-	-	-	753	694	-	764	712	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1347	-	-	1288	-	-	438	432	745	507	498	822
Mov Cap-2 Maneuver	-	-	-	-	-	-	438	432	-	507	498	-
Stage 1	-	-	-	-	-	-	702	656	-	799	736	-
Stage 2	-	-	-	-	-	-	746	689	-	759	709	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	11	10.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	604	1347	-	-	1288	-	-	658
HCM Lane V/C Ratio	0.013	-	-	-	0.002	-	-	0.012
HCM Control Delay (s)	11	0	-	-	7.8	0	-	10.5
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	241	9	6	177	9	4
Future Vol, veh/h	241	9	6	177	9	4
Conflicting Peds, #/hr	0	1	1	0	2	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	8	-
Peak Hour Factor	93	93	81	81	75	75
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	259	10	7	219	12	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	270	0	500	267
Stage 1	-	-	-	-	265	-
Stage 2	-	-	-	-	235	-
Critical Hdwy	-	-	4.1	-	8	7
Critical Hdwy Stg 1	-	-	-	-	7	-
Critical Hdwy Stg 2	-	-	-	-	7	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1305	-	428	732
Stage 1	-	-	-	-	697	-
Stage 2	-	-	-	-	729	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1302	-	424	730
Mov Cap-2 Maneuver	-	-	-	-	424	-
Stage 1	-	-	-	-	696	-
Stage 2	-	-	-	-	723	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	12.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	487	-	-	1302	-
HCM Lane V/C Ratio	0.036	-	-	0.006	-
HCM Control Delay (s)	12.7	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	223	167	8	4	14
Future Vol, veh/h	20	223	167	8	4	14
Conflicting Peds, #/hr	1	0	0	1	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	-5	-
Peak Hour Factor	92	92	82	82	85	85
Heavy Vehicles, %	2	5	3	0	0	0
Mvmt Flow	22	242	204	10	5	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	214	0	-	0	496	213
Stage 1	-	-	-	-	210	-
Stage 2	-	-	-	-	286	-
Critical Hdwy	4.12	-	-	-	5.4	5.7
Critical Hdwy Stg 1	-	-	-	-	4.4	-
Critical Hdwy Stg 2	-	-	-	-	4.4	-
Follow-up Hdwy	2.218	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1356	-	-	-	616	857
Stage 1	-	-	-	-	880	-
Stage 2	-	-	-	-	831	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1352	-	-	-	603	853
Mov Cap-2 Maneuver	-	-	-	-	603	-
Stage 1	-	-	-	-	879	-
Stage 2	-	-	-	-	814	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1352	-	-	-	781
HCM Lane V/C Ratio	0.016	-	-	-	0.027
HCM Control Delay (s)	7.7	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	222	3	10	178	1	5
Future Vol, veh/h	222	3	10	178	1	5
Conflicting Peds, #/hr	0	4	4	0	2	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	81	81	50	50
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	241	3	12	220	2	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	249	0	493	248
Stage 1	-	-	-	-	247	-
Stage 2	-	-	-	-	246	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1328	-	539	796
Stage 1	-	-	-	-	799	-
Stage 2	-	-	-	-	800	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1327	-	531	793
Mov Cap-2 Maneuver	-	-	-	-	531	-
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	790	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	733	-	-	1327	-
HCM Lane V/C Ratio	0.016	-	-	0.009	-
HCM Control Delay (s)	10	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	221	185	1	4	3
Future Vol, veh/h	8	221	185	1	4	3
Conflicting Peds, #/hr	4	0	0	4	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	84	84	44	44
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	8	233	220	1	9	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	225	0	-	0	474	226
Stage 1	-	-	-	-	225	-
Stage 2	-	-	-	-	249	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1356	-	-	-	553	818
Stage 1	-	-	-	-	817	-
Stage 2	-	-	-	-	797	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1355	-	-	-	544	814
Mov Cap-2 Maneuver	-	-	-	-	544	-
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	788	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1355	-	-	-	634
HCM Lane V/C Ratio	0.006	-	-	-	0.025
HCM Control Delay (s)	7.7	0	-	-	10.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	218	6	31	179	39	5	1	13	40	2	2
Future Vol, veh/h	2	218	6	31	179	39	5	1	13	40	2	2
Conflicting Peds, #/hr	3	0	0	0	0	3	4	0	0	0	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	6	-	-	1	-	-	-5	-
Peak Hour Factor	94	94	94	77	77	77	56	56	56	60	60	60
Heavy Vehicles, %	0	3	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	2	232	6	40	232	51	9	2	23	67	3	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	286	0	0	238	0	0	585	606	235	593	584	265
Stage 1	-	-	-	-	-	-	239	239	-	341	341	-
Stage 2	-	-	-	-	-	-	346	367	-	252	243	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.7	6.3	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1288	-	-	1341	-	-	412	400	804	496	501	808
Stage 1	-	-	-	-	-	-	759	702	-	745	706	-
Stage 2	-	-	-	-	-	-	661	613	-	812	758	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1283	-	-	1341	-	-	395	383	804	464	480	802
Mov Cap-2 Maneuver	-	-	-	-	-	-	395	383	-	464	480	-
Stage 1	-	-	-	-	-	-	757	701	-	741	678	-
Stage 2	-	-	-	-	-	-	629	589	-	785	756	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1	11.3	14
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	604	1283	-	-	1341	-	-	474
HCM Lane V/C Ratio	0.056	0.002	-	-	0.03	-	-	0.155
HCM Control Delay (s)	11.3	7.8	0	-	7.8	0	-	14
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.5

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	275	247	30	42	4
Future Vol, veh/h	1	275	247	30	42	4
Conflicting Peds, #/hr	11	0	0	11	4	4
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-6	6	-	-10	-
Peak Hour Factor	97	97	79	79	67	67
Heavy Vehicles, %	0	2	1	0	0	0
Mvmt Flow	1	284	313	38	63	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	362	0	-	0	633	347
Stage 1	-	-	-	-	343	-
Stage 2	-	-	-	-	290	-
Critical Hdwy	4.1	-	-	-	4.4	5.2
Critical Hdwy Stg 1	-	-	-	-	3.4	-
Critical Hdwy Stg 2	-	-	-	-	3.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1208	-	-	-	635	772
Stage 1	-	-	-	-	875	-
Stage 2	-	-	-	-	898	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1203	-	-	-	619	759
Mov Cap-2 Maneuver	-	-	-	-	619	-
Stage 1	-	-	-	-	864	-
Stage 2	-	-	-	-	886	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1203	-	-	-	629
HCM Lane V/C Ratio	0.001	-	-	-	0.109
HCM Control Delay (s)	8	0	-	-	11.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	0	20	10	0	14
Future Vol, veh/h	4	0	20	10	0	14
Conflicting Peds, #/hr	1	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	10	-	5	-	-	0
Peak Hour Factor	50	50	78	78	65	65
Heavy Vehicles, %	0	0	5	0	0	0
Mvmt Flow	8	0	26	13	0	22

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	55	32	0	0	38	0
Stage 1	32	-	-	-	-	-
Stage 2	23	-	-	-	-	-
Critical Hdwy	8.4	7.2	-	-	4.1	-
Critical Hdwy Stg 1	7.4	-	-	-	-	-
Critical Hdwy Stg 2	7.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	929	1038	-	-	1585	-
Stage 1	978	-	-	-	-	-
Stage 2	992	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	928	1038	-	-	1585	-
Mov Cap-2 Maneuver	928	-	-	-	-	-
Stage 1	978	-	-	-	-	-
Stage 2	991	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	928	1585	-
HCM Lane V/C Ratio	-	-	0.009	-	-
HCM Control Delay (s)	-	-	8.9	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	6.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	1	15	2	4	13
Future Vol, veh/h	2	1	15	2	4	13
Conflicting Peds, #/hr	0	0	0	0	0	9
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-6	-
Peak Hour Factor	38	38	57	57	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	3	26	4	5	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	63	16
Stage 1	-	-	-	-	7	-
Stage 2	-	-	-	-	56	-
Critical Hdwy	-	-	4.1	-	5.2	5.6
Critical Hdwy Stg 1	-	-	-	-	4.2	-
Critical Hdwy Stg 2	-	-	-	-	4.2	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1625	-	968	1072
Stage 1	-	-	-	-	1024	-
Stage 2	-	-	-	-	990	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1611	-	953	1063
Mov Cap-2 Maneuver	-	-	-	-	953	-
Stage 1	-	-	-	-	1024	-
Stage 2	-	-	-	-	974	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.4	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1035	-	-	1611	-
HCM Lane V/C Ratio	0.021	-	-	0.016	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	4	3	6	15	2	5
Future Vol, veh/h	4	3	6	15	2	5
Conflicting Peds, #/hr	0	2	2	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	0	0	-
Peak Hour Factor	58	58	50	50	58	58
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	5	12	30	3	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	14	0	65	13
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	54	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1617	-	946	1073
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	974	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1615	-	937	1070
Mov Cap-2 Maneuver	-	-	-	-	937	-
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	966	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1028	-	-	1615	-
HCM Lane V/C Ratio	0.012	-	-	0.007	-
HCM Control Delay (s)	8.5	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	2	20	19	43	1
Future Vol, veh/h	8	2	20	19	43	1
Conflicting Peds, #/hr	8	12	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	5	-5	-
Peak Hour Factor	45	45	71	71	73	73
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	18	4	28	27	59	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	151	72	60	0	-	0
Stage 1	60	-	-	-	-	-
Stage 2	91	-	-	-	-	-
Critical Hdwy	4.4	5.2	4.1	-	-	-
Critical Hdwy Stg 1	3.4	-	-	-	-	-
Critical Hdwy Stg 2	3.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	920	1016	1556	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	986	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	903	1005	1540	-	-	-
Mov Cap-2 Maneuver	903	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	968	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	3.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1540	-	922	-	-
HCM Lane V/C Ratio	0.018	-	0.024	-	-
HCM Control Delay (s)	7.4	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	1	3	9	5	1
Future Vol, veh/h	2	1	3	9	5	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-10	10	-	0	-
Peak Hour Factor	75	75	69	69	50	50
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	1	4	13	10	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	17	0	-	0	18	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	7	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1613	-	-	-	1005	1076
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	1021	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1613	-	-	-	1003	1076
Mov Cap-2 Maneuver	-	-	-	-	1003	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	1019	-

Approach	EB	WB	SB
HCM Control Delay, s	4.8	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1613	-	-	-	1014
HCM Lane V/C Ratio	0.002	-	-	-	0.012
HCM Control Delay (s)	7.2	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	6	8	6	8	11
Future Vol, veh/h	10	6	8	6	8	11
Conflicting Peds, #/hr	0	0	0	0	1	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	11	-
Peak Hour Factor	54	54	65	65	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	19	11	12	9	11	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	22	0	-	0	66	20
Stage 1	-	-	-	-	17	-
Stage 2	-	-	-	-	49	-
Critical Hdwy	4.1	-	-	-	8.6	7.3
Critical Hdwy Stg 1	-	-	-	-	7.6	-
Critical Hdwy Stg 2	-	-	-	-	7.6	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1607	-	-	-	907	1057
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	950	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1603	-	-	-	896	1054
Mov Cap-2 Maneuver	-	-	-	-	896	-
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	939	-

Approach	EB	WB	SB
HCM Control Delay, s	4.5	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1603	-	-	-	981
HCM Lane V/C Ratio	0.012	-	-	-	0.027
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	34	3	1	15	6	1	15	0	13	15	2
Future Vol, veh/h	3	34	3	1	15	6	1	15	0	13	15	2
Peak Hour Factor	0.73	0.73	0.73	0.75	0.75	0.75	0.47	0.47	0.47	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	47	4	1	20	8	2	32	0	19	21	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.1	7.3	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	7%	5%	43%
Vol Thru, %	94%	85%	68%	50%
Vol Right, %	0%	7%	27%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	16	40	22	30
LT Vol	1	3	1	13
Through Vol	15	34	15	15
RT Vol	0	3	6	2
Lane Flow Rate	34	55	29	43
Geometry Grp	1	1	1	1
Degree of Util (X)	0.039	0.061	0.032	0.049
Departure Headway (Hd)	4.092	4.025	3.92	4.119
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	871	885	907	866
Service Time	2.136	2.069	1.97	2.162
HCM Lane V/C Ratio	0.039	0.062	0.032	0.05
HCM Control Delay	7.3	7.3	7.1	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1	0.2

2025 Build Weekday Morning Peak

Signalized Locations

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	27	213	5	24	44	221	246	15	49	203	38
Future Volume (vph)	94	27	213	5	24	44	221	246	15	49	203	38
Satd. Flow (prot)	0	2136	1867	0	1973	0	1668	3398	0	0	3653	1623
Flt Permitted		0.723			0.977		0.583				0.830	
Satd. Flow (perm)	0	1604	1867	0	1933	0	1024	3398	0	0	3062	1623
Satd. Flow (RTOR)			219		47			11				109
Lane Group Flow (vph)	0	134	237	0	78	0	228	269	0	0	274	41
Turn Type	Perm	NA	Perm	Perm	NA		D.P+P	NA		Perm	NA	Perm
Protected Phases		4			4		1	1 2			2	
Permitted Phases	4		4	4			2			2		2
Total Split (s)	22.0	22.0	22.0	22.0	22.0		17.0			26.0	26.0	26.0
Total Lost Time (s)		6.0	6.0		6.0		3.0				6.0	6.0
Act Effct Green (s)		13.1	13.1		13.1		28.7	31.8			15.8	15.8
Actuated g/C Ratio		0.21	0.21		0.21		0.46	0.51			0.25	0.25
v/c Ratio		0.40	0.42		0.18		0.40	0.15			0.35	0.08
Control Delay		28.6	7.9		14.1		12.8	9.4			23.4	0.3
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Delay		28.6	7.9		14.1		12.8	9.4			23.4	0.3
LOS		C	A		B		B	A			C	A
Approach Delay		15.4			14.1			11.0			20.4	
Approach LOS		B			B			B			C	
Queue Length 50th (ft)		50	6		11		55	30			51	0
Queue Length 95th (ft)		106	62		45		108	56			94	0
Internal Link Dist (ft)		105			145			498			339	
Turn Bay Length (ft)			30				70					80
Base Capacity (vph)		428	659		551		660	1996			1023	615
Starvation Cap Reductn		0	0		0		0	0			0	0
Spillback Cap Reductn		0	0		0		0	0			0	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		0.31	0.36		0.14		0.35	0.13			0.27	0.07

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 62.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.42
Intersection Signal Delay: 14.8 — Intersection LOS: B
Intersection Capacity Utilization 51.4% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 14: Granite Street & Whitwell Street/Plaza Access

Ø1	Ø2	Ø3	Ø4
17 s	26 s	15 s	22 s

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Total Split (s)	15.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	27	213	5	24	44	221	246	15	49	203	38
Future Volume (vph)	94	27	213	5	24	44	221	246	15	49	203	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	10	11	11	13	13	12
Grade (%)		-6%			0%			0%			-1%	
Total Lost time (s)		6.0	6.0		6.0		3.0	3.0			6.0	6.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95			0.95	1.00
Frt		1.00	0.85		0.92		1.00	0.99			1.00	0.85
Flt Protected		0.96	1.00		1.00		0.95	1.00			0.99	1.00
Satd. Flow (prot)		2135	1867		1972		1668	3396			3654	1623
Flt Permitted		0.72	1.00		0.98		0.58	1.00			0.83	1.00
Satd. Flow (perm)		1603	1867		1933		1024	3396			3061	1623
Peak-hour factor, PHF	0.90	0.90	0.90	0.94	0.94	0.94	0.97	0.97	0.97	0.92	0.92	0.92
Adj. Flow (vph)	104	30	237	5	26	47	228	254	15	53	221	41
RTOR Reduction (vph)	0	0	173	0	37	0	0	6	0	0	0	31
Lane Group Flow (vph)	0	134	64	0	41	0	228	263	0	0	274	10
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	2%	0%	0%	2%	0%
Turn Type	Perm	NA	Perm	Perm	NA		D.P+P	NA		Perm	NA	Perm
Protected Phases		4			4		1	1 2			2	
Permitted Phases	4		4	4			2			2		2
Actuated Green, G (s)		13.1	13.1		13.1		25.6	28.6			15.8	15.8
Effective Green, g (s)		13.1	13.1		13.1		25.6	28.6			15.8	15.8
Actuated g/C Ratio		0.21	0.21		0.21		0.41	0.46			0.25	0.25
Clearance Time (s)		6.0	6.0		6.0		3.0				6.0	6.0
Vehicle Extension (s)		2.0	2.0		2.0		2.0				2.0	2.0
Lane Grp Cap (vph)		335	391		405		520	1554			773	410
v/s Ratio Prot							c0.07	0.08				
v/s Ratio Perm		c0.08	0.03		0.02		c0.11				0.09	0.01
v/c Ratio		0.40	0.16		0.10		0.44	0.17			0.35	0.03
Uniform Delay, d1		21.3	20.2		19.9		12.6	10.0			19.2	17.6
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2		0.3	0.1		0.0		0.2	0.0			0.1	0.0
Delay (s)		21.6	20.3		20.0		12.8	10.0			19.3	17.6
Level of Service		C	C		B		B	A			B	B
Approach Delay (s)		20.8			20.0			11.3			19.0	
Approach LOS		C			B			B			B	

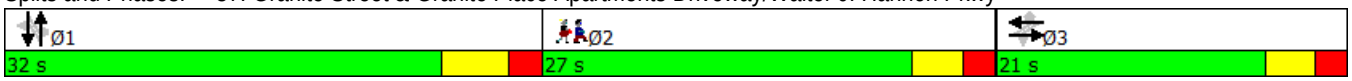
Intersection Summary			
HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	62.5	Sum of lost time (s)	17.0
Intersection Capacity Utilization	51.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	2	10	137	9	138	5	334	121	133	268	3
Future Volume (vph)	10	2	10	137	9	138	5	334	121	133	268	3
Satd. Flow (prot)	0	1973	0	0	1745	1688	0	3188	0	1668	1815	0
Flt Permitted		0.863			0.720			0.951		0.446		
Satd. Flow (perm)	0	1743	0	0	1316	1688	0	3032	0	783	1815	0
Satd. Flow (RTOR)		12				153		67			1	
Lane Group Flow (vph)	0	26	0	0	162	153	0	500	0	145	294	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		3			3			1			1	
Permitted Phases	3			3		3	1			1		
Total Split (s)	21.0	21.0		21.0	21.0	21.0	32.0	32.0		32.0	32.0	
Total Lost Time (s)		5.0			5.0	5.0		6.0		6.0	6.0	
Act Effct Green (s)		15.2			15.2	15.2		21.8		21.8	21.8	
Actuated g/C Ratio		0.25			0.25	0.25		0.35		0.35	0.35	
v/c Ratio		0.06			0.50	0.29		0.45		0.53	0.46	
Control Delay		19.2			32.6	7.1		17.1		29.1	21.6	
Queue Delay		0.0			0.0	0.0		0.0		0.0	0.0	
Total Delay		19.2			32.6	7.1		17.1		29.1	21.6	
LOS		B			C	A		B		C	C	
Approach Delay		19.2			20.2			17.1			24.1	
Approach LOS		B			C			B			C	
Queue Length 50th (ft)		5			70	0		84		56	110	
Queue Length 95th (ft)		23			#141	46		132		121	187	
Internal Link Dist (ft)		48			429			362			498	
Turn Bay Length (ft)												
Base Capacity (vph)		517			384	600		1473		371	861	
Starvation Cap Reductn		0			0	0		0		0	0	
Spillback Cap Reductn		0			0	0		0		0	0	
Storage Cap Reductn		0			0	0		0		0	0	
Reduced v/c Ratio		0.05			0.42	0.26		0.34		0.39	0.34	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 61.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 20.3 Intersection LOS: C
Intersection Capacity Utilization 56.4% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 37: Granite Street & Granite Place Apartments Driveway/Walter J. Hannon Pkwy



Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Total Split (s)	27.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	2	10	137	9	138	5	334	121	133	268	3
Future Volume (vph)	10	2	10	137	9	138	5	334	121	133	268	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	12	12	14	10	10	10	10	11	11
Grade (%)		0%			4%			0%			0%	
Total Lost time (s)		5.0			5.0	5.0		6.0		6.0	6.0	
Lane Util. Factor		1.00			1.00	1.00		0.95		1.00	1.00	
Frt		0.94			1.00	0.85		0.96		1.00	1.00	
Flt Protected		0.98			0.96	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1974			1746	1688		3188		1668	1816	
Flt Permitted		0.86			0.72	1.00		0.95		0.45	1.00	
Satd. Flow (perm)		1743			1316	1688		3035		783	1816	
Peak-hour factor, PHF	0.83	0.83	0.83	0.90	0.90	0.90	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	2	12	152	10	153	5	363	132	145	291	3
RTOR Reduction (vph)	0	9	0	0	0	116	0	44	0	0	1	0
Lane Group Flow (vph)	0	17	0	0	162	37	0	456	0	145	293	0
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	2%	0%	1%	1%	0%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		3			3			1			1	
Permitted Phases	3			3		3	1			1		
Actuated Green, G (s)		15.2			15.2	15.2		21.8		21.8	21.8	
Effective Green, g (s)		15.2			15.2	15.2		21.8		21.8	21.8	
Actuated g/C Ratio		0.24			0.24	0.24		0.35		0.35	0.35	
Clearance Time (s)		5.0			5.0	5.0		6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)		420			317	407		1050		270	628	
v/s Ratio Prot											0.16	
v/s Ratio Perm		0.01			c0.12	0.02		0.15		c0.19		
v/c Ratio		0.04			0.51	0.09		0.43		0.54	0.47	
Uniform Delay, d1		18.3			20.7	18.5		15.9		16.5	16.1	
Progression Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.0			1.4	0.1		0.3		2.1	0.6	
Delay (s)		18.4			22.1	18.6		16.1		18.6	16.6	
Level of Service		B			C	B		B		B	B	
Approach Delay (s)		18.4			20.4			16.1			17.3	
Approach LOS		B			C			B			B	

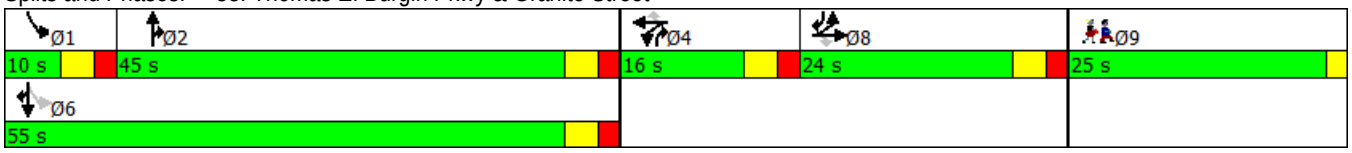
Intersection Summary			
HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	63.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	56.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	196	155	32	124	136	139	0	864	147	68	483	165
Future Volume (vph)	196	155	32	124	136	139	0	864	147	68	483	165
Satd. Flow (prot)	1796	3339	1821	1610	3327	1812	0	3438	1485	0	3456	1553
Flt Permitted	0.950			0.950	0.989						0.639	
Satd. Flow (perm)	1796	3339	1821	1610	3327	1812	0	3438	1485	0	2222	1553
Satd. Flow (RTOR)			127			145			145			120
Lane Group Flow (vph)	198	157	32	88	183	145	0	882	150	0	568	170
Turn Type	Split	NA	Perm	Split	NA	Perm		NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	8	8		4	4			2	2 4	1	6	6 8
Permitted Phases			8			4				6		
Total Split (s)	24.0	24.0	24.0	16.0	16.0	16.0		45.0		10.0	55.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0			5.0	
Act Effct Green (s)	16.0	16.0	16.0	10.4	10.4	10.4		34.2	50.2		34.2	52.2
Actuated g/C Ratio	0.17	0.17	0.17	0.11	0.11	0.11		0.36	0.53		0.36	0.55
v/c Ratio	0.66	0.28	0.08	0.50	0.50	0.44		0.72	0.18		0.71	0.19
Control Delay	53.7	41.4	0.4	58.4	51.5	13.4		31.2	3.1		33.5	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	53.7	41.4	0.4	58.4	51.5	13.4		31.2	3.1		33.5	2.8
LOS	D	D	A	E	D	B		C	A		C	A
Approach Delay		44.3			39.7			27.1			26.4	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	125	48	0	62	64	0		273	2		176	9
Queue Length 95th (ft)	#242	90	0	#145	117	63		346	32		242	25
Internal Link Dist (ft)		339			337			842			574	
Turn Bay Length (ft)			65	115		100			175			50
Base Capacity (vph)	400	744	504	207	429	360		1674	918		1279	1149
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.49	0.21	0.06	0.43	0.43	0.40		0.53	0.16		0.44	0.15

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 95.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 31.5 — Intersection LOS: C
Intersection Capacity Utilization 71.6% — ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 38: Thomas E. Burgin Pkwy & Granite Street



Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	25.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	196	155	32	124	136	139	0	864	147	68	483	165
Future Volume (vph)	196	155	32	124	136	139	0	864	147	68	483	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	16	12	12	16	11	11	10	11	11	11
Grade (%)		1%			2%			1%			-1%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	0.91	0.91	1.00		0.95	1.00		0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	0.99	1.00		1.00	1.00		0.99	1.00
Satd. Flow (prot)	1796	3339	1821	1610	3326	1812		3438	1485		3455	1553
Flt Permitted	0.95	1.00	1.00	0.95	0.99	1.00		1.00	1.00		0.64	1.00
Satd. Flow (perm)	1796	3339	1821	1610	3326	1812		3438	1485		2220	1553
Peak-hour factor, PHF	0.99	0.99	0.99	0.96	0.96	0.96	0.98	0.98	0.98	0.97	0.97	0.97
Adj. Flow (vph)	198	157	32	129	142	145	0	882	150	70	498	170
RTOR Reduction (vph)	0	0	27	0	0	129	0	0	69	0	0	56
Lane Group Flow (vph)	198	157	5	88	183	16	0	882	81	0	568	114
Heavy Vehicles (%)	0%	4%	0%	1%	2%	0%	0%	1%	1%	0%	1%	1%
Turn Type	Split	NA	Perm	Split	NA	Perm		NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	8	8		4	4			2	2 4	1	6	6 8
Permitted Phases			8			4				6		
Actuated Green, G (s)	16.0	16.0	16.0	10.4	10.4	10.4		34.2	49.6		34.2	50.2
Effective Green, g (s)	16.0	16.0	16.0	10.4	10.4	10.4		34.2	49.6		34.2	50.2
Actuated g/C Ratio	0.17	0.17	0.17	0.11	0.11	0.11		0.36	0.53		0.36	0.53
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	305	567	309	177	367	200		1249	782		806	828
v/s Ratio Prot	c0.11	0.05		0.05	c0.06			c0.26	0.05			0.07
v/s Ratio Perm			0.00			0.01					0.26	
v/c Ratio	0.65	0.28	0.02	0.50	0.50	0.08		0.71	0.10		0.70	0.14
Uniform Delay, d1	36.4	34.0	32.5	39.4	39.4	37.6		25.6	11.1		25.6	11.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	4.7	0.3	0.0	2.2	1.1	0.2		1.8	0.1		2.8	0.1
Delay (s)	41.1	34.3	32.5	41.6	40.5	37.7		27.5	11.2		28.4	11.1
Level of Service	D	C	C	D	D	D		C	B		C	B
Approach Delay (s)		37.6			39.7			25.1			24.5	
Approach LOS		D			D			C			C	

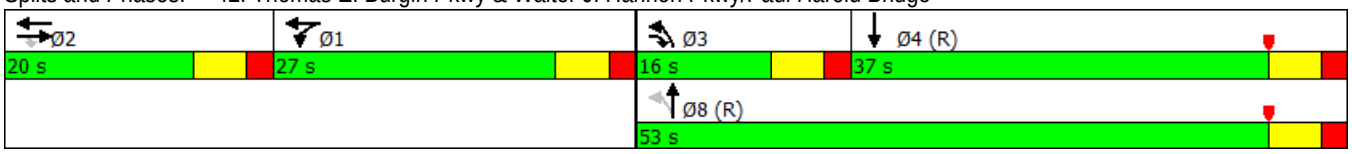
Intersection Summary			
HCM 2000 Control Delay	29.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	94.1	Sum of lost time (s)	22.0
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	92	164	369	147	192	122	819	198	0	624	15
Future Volume (vph)	0	92	164	369	147	192	122	819	198	0	624	15
Satd. Flow (prot)	0	1872	1607	3302	1694	0	1805	3431	0	0	3442	0
Flt Permitted				0.950			0.248					
Satd. Flow (perm)	0	1872	1607	3302	1694	0	471	3431	0	0	3442	0
Satd. Flow (RTOR)			98		80			40			2	
Lane Group Flow (vph)	0	99	176	401	369	0	126	1048	0	0	666	0
Turn Type		NA	pm+ov	Prot	NA		pm+pt	NA			NA	
Protected Phases		2	3	1	1 2		3	8			4	
Permitted Phases			2				8					
Total Split (s)		20.0	16.0	27.0			16.0	53.0			37.0	
Total Lost Time (s)		6.0	6.0	6.0			6.0	6.0			6.0	
Act Effct Green (s)		13.6	22.5	18.2	37.8		50.2	50.2			35.3	
Actuated g/C Ratio		0.14	0.22	0.18	0.38		0.50	0.50			0.35	
v/c Ratio		0.39	0.40	0.67	0.53		0.36	0.60			0.55	
Control Delay		44.2	10.4	28.7	10.5		17.3	19.4			29.0	
Queue Delay		0.0	0.0	0.3	1.2		0.0	0.0			0.0	
Total Delay		44.2	10.4	29.0	11.7		17.3	19.4			29.0	
LOS		D	B	C	B		B	B			C	
Approach Delay		22.5			20.7			19.2			29.0	
Approach LOS		C			C			B			C	
Queue Length 50th (ft)		58	23	118	17		42	237			181	
Queue Length 95th (ft)		109	52	93	102		79	317			251	
Internal Link Dist (ft)		429			223			311			842	
Turn Bay Length (ft)							200					
Base Capacity (vph)		262	456	693	722		371	1741			1220	
Starvation Cap Reductn		0	0	48	170		0	0			0	
Spillback Cap Reductn		0	0	0	0		0	0			0	
Storage Cap Reductn		0	0	0	0		0	0			0	
Reduced v/c Ratio		0.38	0.39	0.62	0.67		0.34	0.60			0.55	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 77 (77%), Referenced to phase 4:SBT and 8:NBTL, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 22.2 — Intersection LOS: C
Intersection Capacity Utilization 59.0% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 42: Thomas E. Burgin Pkwy & Walter J. Hannon Pkwy/Paul Harold Bridge



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	92	164	369	147	192	122	819	198	0	624	15
Future Volume (vph)	0	92	164	369	147	192	122	819	198	0	624	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	12	11	11	11
Grade (%)		1%			1%			0%			0%	
Total Lost time (s)		6.0	6.0	6.0	6.0		6.0	6.0			6.0	
Lane Util. Factor		1.00	1.00	0.97	1.00		1.00	0.95			0.95	
Frt		1.00	0.85	1.00	0.92		1.00	0.97			1.00	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)		1872	1607	3302	1694		1805	3430			3443	
Flt Permitted		1.00	1.00	0.95	1.00		0.25	1.00			1.00	
Satd. Flow (perm)		1872	1607	3302	1694		470	3430			3443	
Peak-hour factor, PHF	0.93	0.93	0.93	0.92	0.92	0.92	0.97	0.97	0.97	0.96	0.96	0.96
Adj. Flow (vph)	0	99	176	401	160	209	126	844	204	0	650	16
RTOR Reduction (vph)	0	0	76	0	50	0	0	20	0	0	1	0
Lane Group Flow (vph)	0	99	100	401	319	0	126	1028	0	0	665	0
Heavy Vehicles (%)	0%	1%	0%	2%	1%	3%	0%	1%	7%	0%	1%	0%
Turn Type		NA	pm+ov	Prot	NA		pm+pt	NA			NA	
Protected Phases		2	3	1	1 2		3	8			4	
Permitted Phases			2				8					
Actuated Green, G (s)		13.6	22.5	18.2	37.8		50.2	50.2			35.3	
Effective Green, g (s)		13.6	22.5	18.2	37.8		50.2	50.2			35.3	
Actuated g/C Ratio		0.14	0.22	0.18	0.38		0.50	0.50			0.35	
Clearance Time (s)		6.0	6.0	6.0			6.0	6.0			6.0	
Vehicle Extension (s)		3.0	3.0	3.0			3.0	3.0			3.0	
Lane Grp Cap (vph)		254	361	600	640		354	1721			1215	
v/s Ratio Prot		0.05	0.02	c0.12	c0.19		0.03	c0.30			0.19	
v/s Ratio Perm			0.04				0.15					
v/c Ratio		0.39	0.28	0.67	0.50		0.36	0.60			0.55	
Uniform Delay, d1		39.4	32.0	38.1	23.8		14.8	17.7			25.9	
Progression Factor		1.00	1.00	0.62	0.43		1.00	1.00			1.00	
Incremental Delay, d2		1.0	0.4	2.5	0.6		0.6	1.5			1.8	
Delay (s)		40.4	32.4	26.2	10.9		15.4	19.3			27.7	
Level of Service		D	C	C	B		B	B			C	
Approach Delay (s)		35.3			18.8			18.8			27.7	
Approach LOS		D			B			B			C	

Intersection Summary			
HCM 2000 Control Delay	22.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Unsignalized Locations

Intersection	
Int Delay, s/veh	127.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	3	1	267	2	59	0	421	146	31	416	1
Future Vol, veh/h	0	3	1	267	2	59	0	421	146	31	416	1
Conflicting Peds, #/hr	1	0	0	0	0	1	3	0	4	4	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	Free	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	9	-	-	0	-	-	1	-	-	1	-
Peak Hour Factor	50	50	50	87	87	87	78	78	78	81	81	81
Heavy Vehicles, %	0	0	0	0	0	2	0	2	1	8	2	0
Mvmt Flow	0	6	2	307	2	68	0	540	187	38	514	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1136	1138	517	1139	1138	545	518	0	-	544	0	0
Stage 1	594	594	-	544	544	-	-	-	-	-	-	-
Stage 2	542	544	-	595	594	-	-	-	-	-	-	-
Critical Hdwy	8.9	8.3	7.1	7.1	6.5	6.22	4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	7.9	7.3	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.9	7.3	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.318	2.2	-	-	2.272	-	-
Pot Cap-1 Maneuver	102	115	494	~ 180	203	538	1058	-	0	995	-	-
Stage 1	368	369	-	527	522	-	-	-	0	-	-	-
Stage 2	403	398	-	494	496	-	-	-	0	-	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	84	108	493	~ 164	191	535	1058	-	-	994	-	-
Mov Cap-2 Maneuver	84	108	-	~ 164	191	-	-	-	-	-	-	-
Stage 1	367	348	-	524	519	-	-	-	-	-	-	-
Stage 2	350	396	-	457	468	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	33.6	$ 497.4	0	0.6
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1058	-	134	191	994	-	-
HCM Lane V/C Ratio	-	-	0.06	1.974	0.039	-	-
HCM Control Delay (s)	0	-	33.6	$ 497.4	8.8	0	-
HCM Lane LOS	A	-	D	F	A	A	-
HCM 95th %tile Q(veh)	0	-	0.2	28.3	0.1	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	174	1	0	327	1	1
Future Vol, veh/h	174	1	0	327	1	1
Conflicting Peds, #/hr	0	4	4	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	0	-1	-
Peak Hour Factor	91	91	87	87	25	25
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	191	1	0	376	4	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	196	0	572	196
Stage 1	-	-	-	-	196	-
Stage 2	-	-	-	-	376	-
Critical Hdwy	-	-	4.1	-	6.2	6.1
Critical Hdwy Stg 1	-	-	-	-	5.2	-
Critical Hdwy Stg 2	-	-	-	-	5.2	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1389	-	501	855
Stage 1	-	-	-	-	851	-
Stage 2	-	-	-	-	713	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1389	-	500	853
Mov Cap-2 Maneuver	-	-	-	-	500	-
Stage 1	-	-	-	-	849	-
Stage 2	-	-	-	-	713	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	630	-	-	1389	-
HCM Lane V/C Ratio	0.013	-	-	-	-
HCM Control Delay (s)	10.8	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	169	8	3	308	19	11
Future Vol, veh/h	169	8	3	308	19	11
Conflicting Peds, #/hr	0	3	3	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	86	86	64	64
Heavy Vehicles, %	2	0	33	1	0	0
Mvmt Flow	199	9	3	358	30	17

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	211	0	572	208
Stage 1	-	-	-	-	207	-
Stage 2	-	-	-	-	365	-
Critical Hdwy	-	-	4.43	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.497	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1195	-	485	837
Stage 1	-	-	-	-	832	-
Stage 2	-	-	-	-	707	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1194	-	483	834
Mov Cap-2 Maneuver	-	-	-	-	483	-
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	705	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	571	-	-	1194	-
HCM Lane V/C Ratio	0.082	-	-	0.003	-
HCM Control Delay (s)	11.9	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	171	281	11	29	27
Future Vol, veh/h	10	171	281	11	29	27
Conflicting Peds, #/hr	8	0	0	8	3	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	85	85	25	25
Heavy Vehicles, %	0	2	1	100	0	100
Mvmt Flow	11	197	331	13	116	108

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	352	0	-	0	568	346
Stage 1	-	-	-	-	345	-
Stage 2	-	-	-	-	223	-
Critical Hdwy	4.1	-	-	-	6.4	7.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	4.2
Pot Cap-1 Maneuver	1218	-	-	-	488	521
Stage 1	-	-	-	-	722	-
Stage 2	-	-	-	-	819	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1217	-	-	-	476	516
Mov Cap-2 Maneuver	-	-	-	-	476	-
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	805	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	18.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1217	-	-	-	494
HCM Lane V/C Ratio	0.009	-	-	-	0.453
HCM Control Delay (s)	8	0	-	-	18.2
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	2.3

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	198	3	4	291	5	11
Future Vol, veh/h	198	3	4	291	5	11
Conflicting Peds, #/hr	0	2	2	0	7	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	87	87	75	75
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	220	3	5	334	7	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	225	0	575	225
Stage 1	-	-	-	-	224	-
Stage 2	-	-	-	-	351	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1356	-	483	819
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	717	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1355	-	477	817
Mov Cap-2 Maneuver	-	-	-	-	477	-
Stage 1	-	-	-	-	817	-
Stage 2	-	-	-	-	709	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	668	-	-	1355	-
HCM Lane V/C Ratio	0.032	-	-	0.003	-
HCM Control Delay (s)	10.6	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	226	0	0	273	4	3
Future Vol, veh/h	226	0	0	273	4	3
Conflicting Peds, #/hr	0	2	2	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	2	-
Peak Hour Factor	86	86	87	87	58	58
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	263	0	0	314	7	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	265	0	580	265
Stage 1	-	-	-	-	265	-
Stage 2	-	-	-	-	315	-
Critical Hdwy	-	-	4.1	-	6.8	6.4
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1311	-	450	767
Stage 1	-	-	-	-	761	-
Stage 2	-	-	-	-	719	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1311	-	449	765
Mov Cap-2 Maneuver	-	-	-	-	449	-
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	718	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	546	-	-	1311	-
HCM Lane V/C Ratio	0.022	-	-	-	-
HCM Control Delay (s)	11.7	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	230	5	4	261	6	8
Future Vol, veh/h	230	5	4	261	6	8
Conflicting Peds, #/hr	0	5	5	0	5	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	8	-
Peak Hour Factor	92	92	88	88	54	54
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	250	5	5	297	11	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	260	0	569	261
Stage 1	-	-	-	-	258	-
Stage 2	-	-	-	-	311	-
Critical Hdwy	-	-	4.1	-	8	7
Critical Hdwy Stg 1	-	-	-	-	7	-
Critical Hdwy Stg 2	-	-	-	-	7	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1316	-	378	738
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	651	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1312	-	372	732
Mov Cap-2 Maneuver	-	-	-	-	372	-
Stage 1	-	-	-	-	700	-
Stage 2	-	-	-	-	644	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	12.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	517	-	-	1312	-
HCM Lane V/C Ratio	0.05	-	-	0.003	-
HCM Control Delay (s)	12.3	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	218	242	10	13	19
Future Vol, veh/h	16	218	242	10	13	19
Conflicting Peds, #/hr	5	0	0	5	0	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	-5	-
Peak Hour Factor	83	83	79	25	66	66
Heavy Vehicles, %	0	2	2	0	8	0
Mvmt Flow	19	263	306	40	20	29

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	351	0	-	0	632	336
Stage 1	-	-	-	-	331	-
Stage 2	-	-	-	-	301	-
Critical Hdwy	4.1	-	-	-	5.48	5.7
Critical Hdwy Stg 1	-	-	-	-	4.48	-
Critical Hdwy Stg 2	-	-	-	-	4.48	-
Follow-up Hdwy	2.2	-	-	-	3.572	3.3
Pot Cap-1 Maneuver	1219	-	-	-	518	745
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	802	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1213	-	-	-	503	737
Mov Cap-2 Maneuver	-	-	-	-	503	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	784	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1213	-	-	-	620
HCM Lane V/C Ratio	0.016	-	-	-	0.078
HCM Control Delay (s)	8	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	232	0	0	243	3	6
Future Vol, veh/h	232	0	0	243	3	6
Conflicting Peds, #/hr	0	4	4	0	0	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	78	78	56	56
Heavy Vehicles, %	3	0	0	2	0	0
Mvmt Flow	261	0	0	312	5	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	265	0	577	270
Stage 1	-	-	-	-	265	-
Stage 2	-	-	-	-	312	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1311	-	482	774
Stage 1	-	-	-	-	784	-
Stage 2	-	-	-	-	747	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1305	-	481	768
Mov Cap-2 Maneuver	-	-	-	-	481	-
Stage 1	-	-	-	-	782	-
Stage 2	-	-	-	-	747	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	641	-	-	1305	-
HCM Lane V/C Ratio	0.025	-	-	-	-
HCM Control Delay (s)	10.8	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	233	235	1	4	8
Future Vol, veh/h	3	233	235	1	4	8
Conflicting Peds, #/hr	16	0	0	16	9	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	81	81	69	69
Heavy Vehicles, %	0	3	2	0	0	0
Mvmt Flow	3	256	290	1	6	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	307	0	-	0	579	307
Stage 1	-	-	-	-	307	-
Stage 2	-	-	-	-	272	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1265	-	-	-	481	738
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	778	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1265	-	-	-	463	725
Mov Cap-2 Maneuver	-	-	-	-	463	-
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	762	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1265	-	-	-	610
HCM Lane V/C Ratio	0.003	-	-	-	0.029
HCM Control Delay (s)	7.9	0	-	-	11.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	240	3	9	231	26	9	9	16	34	0	1
Future Vol, veh/h	2	240	3	9	231	26	9	9	16	34	0	1
Conflicting Peds, #/hr	10	0	20	20	0	10	4	0	2	2	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	6	-	-	1	-	-	-5	-
Peak Hour Factor	91	91	91	82	82	82	86	86	86	63	63	63
Heavy Vehicles, %	0	3	0	0	2	0	0	13	0	0	0	0
Mvmt Flow	2	264	3	11	282	32	10	10	19	54	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	323	0	0	287	0	0	614	635	287	616	621	312
Stage 1	-	-	-	-	-	-	290	290	-	330	330	-
Stage 2	-	-	-	-	-	-	324	345	-	286	291	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.83	6.3	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.83	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.83	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.117	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1248	-	-	1287	-	-	393	369	751	481	482	765
Stage 1	-	-	-	-	-	-	711	642	-	753	712	-
Stage 2	-	-	-	-	-	-	680	605	-	786	732	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1243	-	-	1284	-	-	380	353	735	448	462	753
Mov Cap-2 Maneuver	-	-	-	-	-	-	380	353	-	448	462	-
Stage 1	-	-	-	-	-	-	696	629	-	743	696	-
Stage 2	-	-	-	-	-	-	669	592	-	750	717	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	13.2	14.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	479	1243	-	-	1284	-	-	453
HCM Lane V/C Ratio	0.083	0.002	-	-	0.009	-	-	0.123
HCM Control Delay (s)	13.2	7.9	0	-	7.8	0	-	14.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	290	260	23	44	9
Future Vol, veh/h	4	290	260	23	44	9
Conflicting Peds, #/hr	12	0	0	12	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-6	6	-	-10	-
Peak Hour Factor	82	82	81	81	82	82
Heavy Vehicles, %	0	2	2	5	0	0
Mvmt Flow	5	354	321	28	54	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	361	0	-	0	713	347
Stage 1	-	-	-	-	347	-
Stage 2	-	-	-	-	366	-
Critical Hdwy	4.1	-	-	-	4.4	5.2
Critical Hdwy Stg 1	-	-	-	-	3.4	-
Critical Hdwy Stg 2	-	-	-	-	3.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1209	-	-	-	597	772
Stage 1	-	-	-	-	873	-
Stage 2	-	-	-	-	865	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1209	-	-	-	578	762
Mov Cap-2 Maneuver	-	-	-	-	578	-
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	849	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1209	-	-	-	603
HCM Lane V/C Ratio	0.004	-	-	-	0.107
HCM Control Delay (s)	8	0	-	-	11.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	0	22	2	0	18
Future Vol, veh/h	12	0	22	2	0	18
Conflicting Peds, #/hr	3	0	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	10	-	5	-	-	0
Peak Hour Factor	55	55	63	63	67	67
Heavy Vehicles, %	9	0	0	0	0	0
Mvmt Flow	22	0	35	3	0	27

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	72	42	0	0	43	0
Stage 1	42	-	-	-	-	-
Stage 2	30	-	-	-	-	-
Critical Hdwy	8.49	7.2	-	-	4.1	-
Critical Hdwy Stg 1	7.49	-	-	-	-	-
Critical Hdwy Stg 2	7.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	879	1022	-	-	1579	-
Stage 1	941	-	-	-	-	-
Stage 2	959	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	873	1018	-	-	1579	-
Mov Cap-2 Maneuver	873	-	-	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	956	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	873	1579	-
HCM Lane V/C Ratio	-	-	0.025	-	-
HCM Control Delay (s)	-	-	9.2	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	7.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	0	12	0	1	26
Future Vol, veh/h	2	0	12	0	1	26
Conflicting Peds, #/hr	0	0	0	0	1	16
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-6	-
Peak Hour Factor	50	50	63	63	79	79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	0	19	0	1	33

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	4	0	43	20
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	39	-
Critical Hdwy	-	-	4.1	-	5.2	5.6
Critical Hdwy Stg 1	-	-	-	-	4.2	-
Critical Hdwy Stg 2	-	-	-	-	4.2	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1631	-	987	1067
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	1002	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1606	-	974	1051
Mov Cap-2 Maneuver	-	-	-	-	974	-
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	989	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.3	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1048	-	-	1606	-
HCM Lane V/C Ratio	0.033	-	-	0.012	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	12	5	9	3	1	3
Future Vol, veh/h	12	5	9	3	1	3
Conflicting Peds, #/hr	0	5	5	0	2	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	0	0	-
Peak Hour Factor	71	71	81	81	50	50
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	17	7	11	4	2	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	29	0	53	30
Stage 1	-	-	-	-	25	-
Stage 2	-	-	-	-	28	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1597	-	960	1050
Stage 1	-	-	-	-	1003	-
Stage 2	-	-	-	-	1000	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1591	-	949	1043
Mov Cap-2 Maneuver	-	-	-	-	949	-
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	992	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.5	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1018	-	-	1591	-
HCM Lane V/C Ratio	0.008	-	-	0.007	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	12	6	32	26	3
Future Vol, veh/h	3	12	6	32	26	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	5	-5	-
Peak Hour Factor	70	70	60	60	68	68
Heavy Vehicles, %	0	0	0	3	0	0
Mvmt Flow	4	17	10	53	38	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	113	40	43	0	-	0
Stage 1	40	-	-	-	-	-
Stage 2	73	-	-	-	-	-
Critical Hdwy	4.4	5.2	4.1	-	-	-
Critical Hdwy Stg 1	3.4	-	-	-	-	-
Critical Hdwy Stg 2	3.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	946	1049	1579	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	995	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	939	1049	1579	-	-	-
Mov Cap-2 Maneuver	939	-	-	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	988	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	1.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1579	-	1025	-	-
HCM Lane V/C Ratio	0.006	-	0.021	-	-
HCM Control Delay (s)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	3	2	5	10	1
Future Vol, veh/h	1	3	2	5	10	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-10	10	-	0	-
Peak Hour Factor	50	50	58	58	63	63
Heavy Vehicles, %	0	0	0	0	0	100
Mvmt Flow	2	6	3	9	16	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	12	0	-	0	18	8
Stage 1	-	-	-	-	8	-
Stage 2	-	-	-	-	10	-
Critical Hdwy	4.1	-	-	-	6.4	7.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	4.2
Pot Cap-1 Maneuver	1620	-	-	-	1005	847
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1018	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1620	-	-	-	1004	847
Mov Cap-2 Maneuver	-	-	-	-	1004	-
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1017	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1620	-	-	-	987
HCM Lane V/C Ratio	0.001	-	-	-	0.018
HCM Control Delay (s)	7.2	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	9	1	10	3	7
Future Vol, veh/h	21	9	1	10	3	7
Conflicting Peds, #/hr	5	0	0	5	1	4
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	11	-
Peak Hour Factor	78	78	50	50	75	75
Heavy Vehicles, %	0	0	0	0	33	0
Mvmt Flow	27	12	2	20	4	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	27	0	-	0	83	21
Stage 1	-	-	-	-	17	-
Stage 2	-	-	-	-	66	-
Critical Hdwy	4.1	-	-	-	8.93	7.3
Critical Hdwy Stg 1	-	-	-	-	7.93	-
Critical Hdwy Stg 2	-	-	-	-	7.93	-
Follow-up Hdwy	2.2	-	-	-	3.797	3.3
Pot Cap-1 Maneuver	1600	-	-	-	806	1056
Stage 1	-	-	-	-	921	-
Stage 2	-	-	-	-	849	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1594	-	-	-	785	1048
Mov Cap-2 Maneuver	-	-	-	-	785	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	831	-

Approach	EB	WB	SB
HCM Control Delay, s	5.1	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1594	-	-	-	952
HCM Lane V/C Ratio	0.017	-	-	-	0.014
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	197	266	11	29	32
Future Vol, veh/h	11	197	266	11	29	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	214	289	12	32	35

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	301	0	-	0	533	295
Stage 1	-	-	-	-	295	-
Stage 2	-	-	-	-	238	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1260	-	-	-	507	744
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	802	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1260	-	-	-	501	744
Mov Cap-2 Maneuver	-	-	-	-	501	-
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	793	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1260	-	-	-	605
HCM Lane V/C Ratio	0.009	-	-	-	0.11
HCM Control Delay (s)	7.9	0	-	-	11.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	11	0	1	21	17	0	30	1	9	10	2
Future Vol, veh/h	3	11	0	1	21	17	0	30	1	9	10	2
Peak Hour Factor	0.65	0.65	0.65	0.66	0.66	0.66	0.81	0.81	0.81	0.56	0.56	0.56
Heavy Vehicles, %	0	0	0	0	0	6	0	0	0	0	13	0
Mvmt Flow	5	17	0	2	32	26	0	37	1	16	18	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.1	7.3	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	21%	3%	43%
Vol Thru, %	97%	79%	54%	48%
Vol Right, %	3%	0%	44%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	14	39	21
LT Vol	0	3	1	9
Through Vol	30	11	21	10
RT Vol	1	0	17	2
Lane Flow Rate	38	22	59	37
Geometry Grp	1	1	1	1
Degree of Util (X)	0.043	0.025	0.062	0.043
Departure Headway (Hd)	4.05	4.119	3.79	4.098
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	881	865	940	871
Service Time	2.088	2.164	1.832	2.136
HCM Lane V/C Ratio	0.043	0.025	0.063	0.042
HCM Control Delay	7.3	7.3	7.1	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2	0.1

2025 Build Weekday Evening Peak

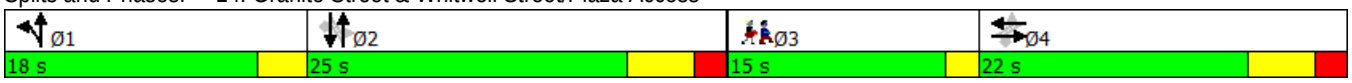
Signalized Locations

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	25	234	13	29	69	256	211	14	30	251	49
Future Volume (vph)	92	25	234	13	29	69	256	211	14	30	251	49
Satd. Flow (prot)	0	2134	1867	0	1961	0	1685	3391	0	0	3730	1623
Flt Permitted		0.754			0.953		0.574				0.894	
Satd. Flow (perm)	0	1672	1867	0	1880	0	1018	3391	0	0	3352	1623
Satd. Flow (RTOR)			247		81			12				109
Lane Group Flow (vph)	0	127	254	0	130	0	267	235	0	0	290	51
Turn Type	Perm	NA	Perm	Perm	NA		D.P+P	NA		Perm	NA	Perm
Protected Phases		4			4		1	1 2			2	
Permitted Phases	4		4	4			2			2		2
Total Split (s)	22.0	22.0	22.0	22.0	22.0		18.0			25.0	25.0	25.0
Total Lost Time (s)		6.0	6.0		6.0		3.0				6.0	6.0
Act Effct Green (s)		13.3	13.3		13.3		29.4	32.5			15.8	15.8
Actuated g/C Ratio		0.21	0.21		0.21		0.47	0.52			0.25	0.25
v/c Ratio		0.36	0.43		0.28		0.46	0.13			0.35	0.10
Control Delay		28.2	7.0		13.6		13.4	9.3			23.8	0.9
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Delay		28.2	7.0		13.6		13.4	9.3			23.8	0.9
LOS		C	A		B		B	A			C	A
Approach Delay		14.1			13.6			11.5			20.4	
Approach LOS		B			B			B			C	
Queue Length 50th (ft)		48	2		18		66	26			54	0
Queue Length 95th (ft)		101	59		57		126	48			100	4
Internal Link Dist (ft)		105			145			498			339	
Turn Bay Length (ft)			30				70					80
Base Capacity (vph)		441	674		556		675	1947			1051	583
Starvation Cap Reductn		0	0		0		0	0			0	0
Spillback Cap Reductn		0	0		0		0	0			0	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		0.29	0.38		0.23		0.40	0.12			0.28	0.09

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 63
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.46
Intersection Signal Delay: 14.6 — Intersection LOS: B
Intersection Capacity Utilization 53.2% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 14: Granite Street & Whitwell Street/Plaza Access



Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Total Split (s)	15.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	25	234	13	29	69	256	211	14	30	251	49
Future Volume (vph)	92	25	234	13	29	69	256	211	14	30	251	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	10	11	11	13	13	12
Grade (%)		-6%			0%			0%			-1%	
Total Lost time (s)		6.0	6.0		6.0		3.0	3.0			6.0	6.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95			0.95	1.00
Frt		1.00	0.85		0.92		1.00	0.99			1.00	0.85
Flt Protected		0.96	1.00		0.99		0.95	1.00			0.99	1.00
Satd. Flow (prot)		2134	1867		1961		1685	3393			3729	1623
Flt Permitted		0.75	1.00		0.95		0.57	1.00			0.89	1.00
Satd. Flow (perm)		1672	1867		1879		1018	3393			3352	1623
Peak-hour factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85	0.96	0.96	0.96	0.97	0.97	0.97
Adj. Flow (vph)	100	27	254	15	34	81	267	220	15	31	259	51
RTOR Reduction (vph)	0	0	195	0	64	0	0	6	0	0	0	38
Lane Group Flow (vph)	0	127	59	0	66	0	267	229	0	0	290	13
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	0%	2%	0%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		D.P+P	NA		Perm	NA	Perm
Protected Phases		4			4		1	1 2			2	
Permitted Phases	4		4	4			2			2		2
Actuated Green, G (s)		13.3	13.3		13.3		26.3	29.3			15.8	15.8
Effective Green, g (s)		13.3	13.3		13.3		26.3	29.3			15.8	15.8
Actuated g/C Ratio		0.21	0.21		0.21		0.41	0.46			0.25	0.25
Clearance Time (s)		6.0	6.0		6.0		3.0				6.0	6.0
Vehicle Extension (s)		2.0	2.0		2.0		2.0				2.0	2.0
Lane Grp Cap (vph)		350	391		394		532	1568			835	404
v/s Ratio Prot							c0.08	0.07				
v/s Ratio Perm		c0.08	0.03		0.04		c0.12				0.09	0.01
v/c Ratio		0.36	0.15		0.17		0.50	0.15			0.35	0.03
Uniform Delay, d1		21.4	20.4		20.5		12.9	9.8			19.6	18.0
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2		0.2	0.1		0.1		0.3	0.0			0.1	0.0
Delay (s)		21.7	20.5		20.6		13.2	9.8			19.7	18.0
Level of Service		C	C		C		B	A			B	B
Approach Delay (s)		20.9			20.6			11.6			19.4	
Approach LOS		C			C			B			B	

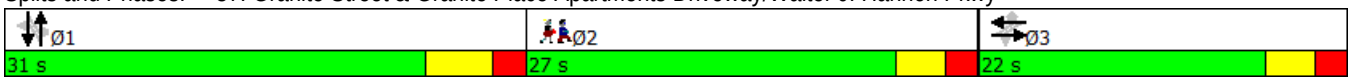
Intersection Summary			
HCM 2000 Control Delay	17.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	63.4	Sum of lost time (s)	17.0
Intersection Capacity Utilization	53.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	9	15	240	23	188	4	279	175	207	287	6
Future Volume (vph)	3	9	15	240	23	188	4	279	175	207	287	6
Satd. Flow (prot)	0	1984	0	0	1780	1688	0	3158	0	1685	1831	0
Flt Permitted		0.962			0.720			0.952		0.437		
Satd. Flow (perm)	0	1920	0	0	1341	1688	0	3006	0	775	1831	0
Satd. Flow (RTOR)		19				194		172			1	
Lane Group Flow (vph)	0	35	0	0	271	194	0	503	0	213	302	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		3			3			1			1	
Permitted Phases	3			3		3	1			1		
Total Split (s)	22.0	22.0		22.0	22.0	22.0	31.0	31.0		31.0	31.0	
Total Lost Time (s)		5.0			5.0	5.0		6.0		6.0	6.0	
Act Effct Green (s)		17.4			17.4	17.4		25.4		25.4	25.4	
Actuated g/C Ratio		0.26			0.26	0.26		0.38		0.38	0.38	
v/c Ratio		0.07			0.79	0.34		0.41		0.73	0.44	
Control Delay		16.4			47.3	6.4		13.3		41.8	21.8	
Queue Delay		0.0			0.0	0.0		0.0		0.0	0.0	
Total Delay		16.4			47.3	6.4		13.3		41.8	21.8	
LOS		B			D	A		B		D	C	
Approach Delay		16.4			30.2			13.3			30.1	
Approach LOS		B			C			B			C	
Queue Length 50th (ft)		6			132	0		65		98	120	
Queue Length 95th (ft)		24			#276	50		109		#225	196	
Internal Link Dist (ft)		48			429			362			498	
Turn Bay Length (ft)												
Base Capacity (vph)		519			352	587		1268		299	709	
Starvation Cap Reductn		0			0	0		0		0	0	
Spillback Cap Reductn		0			0	0		0		0	0	
Storage Cap Reductn		0			0	0		0		0	0	
Reduced v/c Ratio		0.07			0.77	0.33		0.40		0.71	0.43	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 67.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 24.3 Intersection LOS: C
Intersection Capacity Utilization 64.2% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 37: Granite Street & Granite Place Apartments Driveway/Walter J. Hannon Pkwy



Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Total Split (s)	27.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	9	15	240	23	188	4	279	175	207	287	6
Future Volume (vph)	3	9	15	240	23	188	4	279	175	207	287	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	12	12	14	10	10	10	10	11	11
Grade (%)		0%			4%			0%			0%	
Total Lost time (s)		5.0			5.0	5.0		6.0		6.0	6.0	
Lane Util. Factor		1.00			1.00	1.00		0.95		1.00	1.00	
Frt		0.93			1.00	0.85		0.94		1.00	1.00	
Flt Protected		0.99			0.96	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1984			1781	1688		3156		1685	1831	
Flt Permitted		0.96			0.72	1.00		0.95		0.44	1.00	
Satd. Flow (perm)		1919			1340	1688		3007		776	1831	
Peak-hour factor, PHF	0.78	0.78	0.78	0.97	0.97	0.97	0.91	0.91	0.91	0.97	0.97	0.97
Adj. Flow (vph)	4	12	19	247	24	194	4	307	192	213	296	6
RTOR Reduction (vph)	0	14	0	0	0	146	0	109	0	0	1	0
Lane Group Flow (vph)	0	21	0	0	271	49	0	394	0	213	301	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		3			3			1			1	
Permitted Phases	3			3		3	1			1		
Actuated Green, G (s)		17.4			17.4	17.4		25.4		25.4	25.4	
Effective Green, g (s)		17.4			17.4	17.4		25.4		25.4	25.4	
Actuated g/C Ratio		0.25			0.25	0.25		0.36		0.36	0.36	
Clearance Time (s)		5.0			5.0	5.0		6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)		479			335	422		1097		283	668	
v/s Ratio Prot											0.16	
v/s Ratio Perm		0.01			c0.20	0.03		0.13		c0.27		
v/c Ratio		0.04			0.81	0.11		0.36		0.75	0.45	
Uniform Delay, d1		19.8			24.5	20.2		16.2		19.3	16.8	
Progression Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.0			13.4	0.1		0.2		10.8	0.5	
Delay (s)		19.8			37.9	20.3		16.4		30.1	17.3	
Level of Service		B			D	C		B		C	B	
Approach Delay (s)		19.8			30.6			16.4			22.6	
Approach LOS		B			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	22.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	69.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	64.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	186	23	115	148	114	0	547	148	173	759	182
Future Volume (vph)	153	186	23	115	148	114	0	547	148	173	759	182
Satd. Flow (prot)	1796	3438	1821	1610	3362	1812	0	3438	1485	0	3476	1553
Flt Permitted	0.950			0.950	0.992						0.673	
Satd. Flow (perm)	1796	3438	1821	1610	3362	1812	0	3438	1485	0	2360	1553
Satd. Flow (RTOR)			127			127			153			69
Lane Group Flow (vph)	161	196	24	90	189	121	0	564	153	0	981	192
Turn Type	Split	NA	Perm	Split	NA	Perm		NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	8	8		4	4			2	2 4	1	6	6 8
Permitted Phases			8			4				6		
Total Split (s)	22.0	22.0	22.0	23.0	23.0	23.0		40.0		10.0	50.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0			5.0	
Act Effct Green (s)	14.1	14.1	14.1	12.6	12.6	12.6		46.3	64.0		46.3	61.8
Actuated g/C Ratio	0.13	0.13	0.13	0.12	0.12	0.12		0.43	0.60		0.43	0.58
v/c Ratio	0.68	0.43	0.07	0.48	0.48	0.37		0.38	0.16		0.96	0.21
Control Delay	62.0	47.9	0.4	55.8	50.2	10.8		24.6	2.4		53.8	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	62.0	47.9	0.4	55.8	50.2	10.8		24.6	2.4		53.8	5.2
LOS	E	D	A	E	D	B		C	A		D	A
Approach Delay		50.9			39.5			19.9			45.8	
Approach LOS		D			D			B			D	
Queue Length 50th (ft)	113	69	0	69	72	0		155	0		~414	22
Queue Length 95th (ft)	194	112	0	128	112	49		221	29		#588	42
Internal Link Dist (ft)		339			337			842			574	
Turn Bay Length (ft)			65	115		100			175			50
Base Capacity (vph)	293	561	403	278	581	418		1486	1023		1020	939
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.55	0.35	0.06	0.32	0.33	0.29		0.38	0.15		0.96	0.20

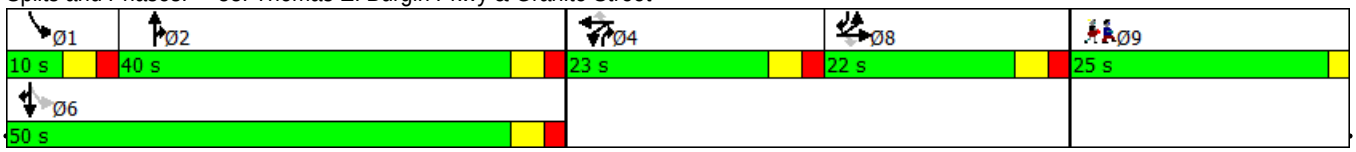
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 107.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 38.6 — Intersection LOS: D
Intersection Capacity Utilization 71.2% — ICU Level of Service C
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 38: Thomas E. Burgin Pkwy & Granite Street



Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	25.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	186	23	115	148	114	0	547	148	173	759	182
Future Volume (vph)	153	186	23	115	148	114	0	547	148	173	759	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	16	12	12	16	11	11	10	11	11	11
Grade (%)		1%			2%			1%			-1%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	0.91	0.91	1.00		0.95	1.00		0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	0.99	1.00		1.00	1.00		0.99	1.00
Satd. Flow (prot)	1796	3438	1821	1610	3361	1812		3438	1485		3475	1553
Flt Permitted	0.95	1.00	1.00	0.95	0.99	1.00		1.00	1.00		0.67	1.00
Satd. Flow (perm)	1796	3438	1821	1610	3361	1812		3438	1485		2362	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.94	0.94	0.94	0.97	0.97	0.97	0.95	0.95	0.95
Adj. Flow (vph)	161	196	24	122	157	121	0	564	153	182	799	192
RTOR Reduction (vph)	0	0	21	0	0	107	0	0	62	0	0	30
Lane Group Flow (vph)	161	196	3	90	189	14	0	564	91	0	981	162
Heavy Vehicles (%)	0%	1%	0%	1%	1%	0%	0%	1%	1%	0%	0%	1%
Turn Type	Split	NA	Perm	Split	NA	Perm		NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	8	8		4	4			2	2 4	1	6	6 8
Permitted Phases			8			4				6		
Actuated Green, G (s)	14.1	14.1	14.1	12.6	12.6	12.6		46.3	63.9		46.3	60.4
Effective Green, g (s)	14.1	14.1	14.1	12.6	12.6	12.6		46.3	63.9		46.3	60.4
Actuated g/C Ratio	0.13	0.13	0.13	0.12	0.12	0.12		0.43	0.60		0.43	0.56
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	236	452	239	189	395	212		1484	885		1020	875
v/s Ratio Prot	c0.09	0.06		0.06	c0.06			0.16	0.06			0.10
v/s Ratio Perm			0.00			0.01					c0.42	
v/c Ratio	0.68	0.43	0.01	0.48	0.48	0.07		0.38	0.10		0.96	0.19
Uniform Delay, d1	44.4	42.9	40.5	44.2	44.2	42.1		20.7	9.3		29.6	11.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	7.9	0.7	0.0	1.9	0.9	0.1		0.2	0.1		19.5	0.1
Delay (s)	52.3	43.5	40.5	46.1	45.1	42.2		20.9	9.4		49.1	11.5
Level of Service	D	D	D	D	D	D		C	A		D	B
Approach Delay (s)		47.1			44.5			18.4			42.9	
Approach LOS		D			D			B			D	

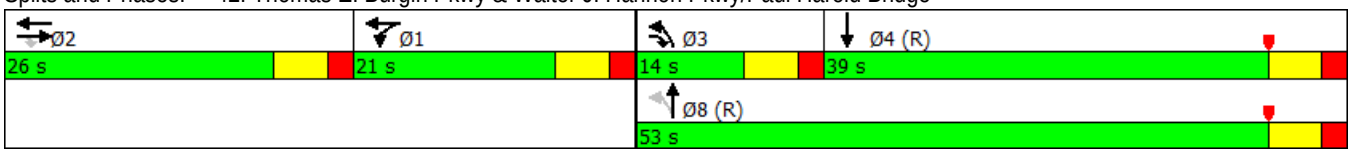
Intersection Summary			
HCM 2000 Control Delay	37.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	107.2	Sum of lost time (s)	22.0
Intersection Capacity Utilization	71.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	231	160	341	302	137	121	558	499	0	869	28
Future Volume (vph)	0	231	160	341	302	137	121	558	499	0	869	28
Satd. Flow (prot)	0	1890	1607	3335	1796	0	1805	3336	0	0	3472	0
Flt Permitted				0.950			0.123					
Satd. Flow (perm)	0	1890	1607	3335	1796	0	234	3336	0	0	3472	0
Satd. Flow (RTOR)			98		28			304			3	
Lane Group Flow (vph)	0	248	172	355	458	0	125	1089	0	0	925	0
Turn Type		NA	pm+ov	Prot	NA		pm+pt	NA			NA	
Protected Phases		2	3	1	1 2		3	8			4	
Permitted Phases			2				8					
Total Split (s)		26.0	14.0	21.0			14.0	53.0			39.0	
Total Lost Time (s)		6.0	6.0	6.0			6.0	6.0			6.0	
Act Effct Green (s)		19.4	27.1	14.5	39.9		48.1	48.1			34.4	
Actuated g/C Ratio		0.19	0.27	0.14	0.40		0.48	0.48			0.34	
v/c Ratio		0.68	0.34	0.73	0.63		0.53	0.62			0.77	
Control Delay		47.5	8.8	37.7	16.1		23.7	15.3			35.1	
Queue Delay		0.1	0.0	0.0	5.5		0.0	0.2			0.0	
Total Delay		47.5	8.8	37.7	21.6		23.7	15.5			35.1	
LOS		D	A	D	C		C	B			D	
Approach Delay		31.7			28.6			16.4			35.1	
Approach LOS		C			C			B			D	
Queue Length 50th (ft)		147	21	112	207		44	190			280	
Queue Length 95th (ft)		231	53	141	154		78	258			359	
Internal Link Dist (ft)		429			223			311			842	
Turn Bay Length (ft)							200					
Base Capacity (vph)		378	511	500	731		238	1763			1196	
Starvation Cap Reductn		0	0	0	210		0	0			0	
Spillback Cap Reductn		2	0	0	0		0	177			0	
Storage Cap Reductn		0	0	0	0		0	0			0	
Reduced v/c Ratio		0.66	0.34	0.71	0.88		0.53	0.69			0.77	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBTL, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 26.4 — Intersection LOS: C
Intersection Capacity Utilization 73.5% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 42: Thomas E. Burgin Pkwy & Walter J. Hannon Pkwy/Paul Harold Bridge



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	231	160	341	302	137	121	558	499	0	869	28
Future Volume (vph)	0	231	160	341	302	137	121	558	499	0	869	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	12	11	11	11
Grade (%)		1%			1%			0%			0%	
Total Lost time (s)		6.0	6.0	6.0	6.0		6.0	6.0			6.0	
Lane Util. Factor		1.00	1.00	0.97	1.00		1.00	0.95			0.95	
Frt		1.00	0.85	1.00	0.95		1.00	0.93			1.00	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)		1890	1607	3335	1796		1805	3337			3473	
Flt Permitted		1.00	1.00	0.95	1.00		0.12	1.00			1.00	
Satd. Flow (perm)		1890	1607	3335	1796		233	3337			3473	
Peak-hour factor, PHF	0.93	0.93	0.93	0.96	0.96	0.96	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	248	172	355	315	143	125	575	514	0	896	29
RTOR Reduction (vph)	0	0	71	0	17	0	0	158	0	0	2	0
Lane Group Flow (vph)	0	248	101	355	441	0	125	931	0	0	923	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	1%	0%	1%	0%	0%	0%	0%
Turn Type		NA	pm+ov	Prot	NA		pm+pt	NA			NA	
Protected Phases		2	3	1	1 2		3	8			4	
Permitted Phases			2				8					
Actuated Green, G (s)		19.4	27.1	14.5	39.9		48.1	48.1			34.4	
Effective Green, g (s)		19.4	27.1	14.5	39.9		48.1	48.1			34.4	
Actuated g/C Ratio		0.19	0.27	0.14	0.40		0.48	0.48			0.34	
Clearance Time (s)		6.0	6.0	6.0			6.0	6.0			6.0	
Vehicle Extension (s)		3.0	3.0	3.0			3.0	3.0			3.0	
Lane Grp Cap (vph)		366	435	483	716		233	1605			1194	
v/s Ratio Prot		0.13	0.02	c0.11	c0.25		0.04	c0.28			c0.27	
v/s Ratio Perm			0.04				0.22					
v/c Ratio		0.68	0.23	0.73	0.62		0.54	0.58			0.77	
Uniform Delay, d1		37.4	28.3	40.9	23.9		18.2	18.7			29.3	
Progression Factor		1.00	1.00	0.74	0.58		1.00	1.00			1.00	
Incremental Delay, d2		4.9	0.3	4.4	1.2		2.4	1.5			4.9	
Delay (s)		42.3	28.6	34.6	15.0		20.6	20.2			34.2	
Level of Service		D	C	C	B		C	C			C	
Approach Delay (s)		36.7			23.6			20.3			34.2	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	73.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Unsignalized Locations

Intersection	
Int Delay, s/veh	13.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	3	169	3	42	1	333	262	47	313	2
Future Vol, veh/h	0	1	3	169	3	42	1	333	262	47	313	2
Conflicting Peds, #/hr	0	0	0	0	0	0	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	Free	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	9	-	-	0	-	-	1	-	-	1	-
Peak Hour Factor	33	33	33	84	84	84	80	80	80	87	87	87
Heavy Vehicles, %	0	0	0	1	0	9	0	1	1	6	1	0
Mvmt Flow	0	3	9	201	4	50	1	416	328	54	360	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	893	891	364	894	892	416	365	0	-	416	0	0
Stage 1	472	472	-	419	419	-	-	-	-	-	-	-
Stage 2	421	419	-	475	473	-	-	-	-	-	-	-
Critical Hdwy	8.9	8.3	7.1	7.11	6.5	6.29	4.1	-	-	4.16	-	-
Critical Hdwy Stg 1	7.9	7.3	-	6.11	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.9	7.3	-	6.11	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.509	4	3.381	2.2	-	-	2.254	-	-
Pot Cap-1 Maneuver	169	182	626	263	283	622	1205	-	0	1122	-	-
Stage 1	455	444	-	614	593	-	-	-	0	-	-	-
Stage 2	498	481	-	572	562	-	-	-	0	-	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	146	170	624	244	265	622	1205	-	-	1122	-	-
Mov Cap-2 Maneuver	146	170	-	244	265	-	-	-	-	-	-	-
Stage 1	453	416	-	613	592	-	-	-	-	-	-	-
Stage 2	455	481	-	526	527	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.9	56.5	0	1.1
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1205	-	374	304	1122	-	-
HCM Lane V/C Ratio	0.001	-	0.032	0.838	0.048	-	-
HCM Control Delay (s)	8	0	14.9	56.5	8.4	0	-
HCM Lane LOS	A	A	B	F	A	A	-
HCM 95th %tile Q(veh)	0	-	0.1	7.2	0.2	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	310	2	1	213	0	0
Future Vol, veh/h	310	2	1	213	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	0	-1	-
Peak Hour Factor	90	90	82	82	92	92
Heavy Vehicles, %	2	0	0	3	0	0
Mvmt Flow	344	2	1	260	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	347	0	608	346
Stage 1	-	-	-	-	346	-
Stage 2	-	-	-	-	262	-
Critical Hdwy	-	-	4.1	-	6.2	6.1
Critical Hdwy Stg 1	-	-	-	-	5.2	-
Critical Hdwy Stg 2	-	-	-	-	5.2	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1223	-	478	708
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	798	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1223	-	478	708
Mov Cap-2 Maneuver	-	-	-	-	478	-
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	797	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1223	-
HCM Lane V/C Ratio	-	-	-	0.001	-
HCM Control Delay (s)	0	-	-	7.9	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	308	3	6	212	3	6
Future Vol, veh/h	308	3	6	212	3	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	80	80	56	56
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	362	4	8	265	5	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	366	0	644	364
Stage 1	-	-	-	-	364	-
Stage 2	-	-	-	-	280	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1204	-	440	685
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	772	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1204	-	436	685
Mov Cap-2 Maneuver	-	-	-	-	436	-
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	766	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	575	-	-	1204	-
HCM Lane V/C Ratio	0.028	-	-	0.006	-
HCM Control Delay (s)	11.4	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	29	283	199	32	21	19
Future Vol, veh/h	29	283	199	32	21	19
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	80	80	25	25
Heavy Vehicles, %	0	2	2	0	100	0
Mvmt Flow	33	325	249	40	84	76

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	292	0	-	0	664	272
Stage 1	-	-	-	-	272	-
Stage 2	-	-	-	-	392	-
Critical Hdwy	4.1	-	-	-	7.4	6.2
Critical Hdwy Stg 1	-	-	-	-	6.4	-
Critical Hdwy Stg 2	-	-	-	-	6.4	-
Follow-up Hdwy	2.2	-	-	-	4.4	3.3
Pot Cap-1 Maneuver	1281	-	-	-	305	772
Stage 1	-	-	-	-	593	-
Stage 2	-	-	-	-	513	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1281	-	-	-	294	770
Mov Cap-2 Maneuver	-	-	-	-	294	-
Stage 1	-	-	-	-	591	-
Stage 2	-	-	-	-	496	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	19
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1281	-	-	-	416
HCM Lane V/C Ratio	0.026	-	-	-	0.385
HCM Control Delay (s)	7.9	0	-	-	19
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.8

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	298	5	6	232	1	2
Future Vol, veh/h	298	5	6	232	1	2
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	84	84	38	38
Heavy Vehicles, %	3	0	0	2	0	0
Mvmt Flow	331	6	7	276	3	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	339	0	626	336
Stage 1	-	-	-	-	336	-
Stage 2	-	-	-	-	290	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1231	-	451	711
Stage 1	-	-	-	-	728	-
Stage 2	-	-	-	-	764	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1231	-	447	710
Mov Cap-2 Maneuver	-	-	-	-	447	-
Stage 1	-	-	-	-	727	-
Stage 2	-	-	-	-	759	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	594	-	-	1231	-
HCM Lane V/C Ratio	0.013	-	-	0.006	-
HCM Control Delay (s)	11.1	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	286	4	2	244	1	2
Future Vol, veh/h	286	4	2	244	1	2
Conflicting Peds, #/hr	0	4	4	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	2	-
Peak Hour Factor	89	89	81	81	38	38
Heavy Vehicles, %	3	0	0	2	0	0
Mvmt Flow	321	4	2	301	3	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	330	0	635	328
Stage 1	-	-	-	-	328	-
Stage 2	-	-	-	-	307	-
Critical Hdwy	-	-	4.1	-	6.8	6.4
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1241	-	415	705
Stage 1	-	-	-	-	708	-
Stage 2	-	-	-	-	725	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1241	-	412	702
Mov Cap-2 Maneuver	-	-	-	-	412	-
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	723	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	569	-	-	1241	-
HCM Lane V/C Ratio	0.014	-	-	0.002	-
HCM Control Delay (s)	11.4	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	278	9	6	237	9	4
Future Vol, veh/h	278	9	6	237	9	4
Conflicting Peds, #/hr	0	1	1	0	2	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	8	-
Peak Hour Factor	93	93	81	81	75	75
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	299	10	7	293	12	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	310	0	614	307
Stage 1	-	-	-	-	305	-
Stage 2	-	-	-	-	309	-
Critical Hdwy	-	-	4.1	-	8	7
Critical Hdwy Stg 1	-	-	-	-	7	-
Critical Hdwy Stg 2	-	-	-	-	7	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1262	-	349	689
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	653	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1259	-	345	687
Mov Cap-2 Maneuver	-	-	-	-	345	-
Stage 1	-	-	-	-	656	-
Stage 2	-	-	-	-	647	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	14.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	407	-	-	1259	-
HCM Lane V/C Ratio	0.043	-	-	0.006	-
HCM Control Delay (s)	14.2	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	257	224	8	4	17
Future Vol, veh/h	23	257	224	8	4	17
Conflicting Peds, #/hr	1	0	0	1	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	-5	-
Peak Hour Factor	92	92	82	82	85	85
Heavy Vehicles, %	2	5	3	0	0	0
Mvmt Flow	25	279	273	10	5	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	284	0	-	0	608	282
Stage 1	-	-	-	-	279	-
Stage 2	-	-	-	-	329	-
Critical Hdwy	4.12	-	-	-	5.4	5.7
Critical Hdwy Stg 1	-	-	-	-	4.4	-
Critical Hdwy Stg 2	-	-	-	-	4.4	-
Follow-up Hdwy	2.218	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1278	-	-	-	547	792
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	804	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1274	-	-	-	533	789
Mov Cap-2 Maneuver	-	-	-	-	533	-
Stage 1	-	-	-	-	834	-
Stage 2	-	-	-	-	785	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1274	-	-	-	723
HCM Lane V/C Ratio	0.02	-	-	-	0.034
HCM Control Delay (s)	7.9	0	-	-	10.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	256	3	10	235	1	5
Future Vol, veh/h	256	3	10	235	1	5
Conflicting Peds, #/hr	0	4	4	0	2	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	81	81	50	50
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	278	3	12	290	2	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	286	0	601	285
Stage 1	-	-	-	-	284	-
Stage 2	-	-	-	-	317	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1288	-	467	759
Stage 1	-	-	-	-	769	-
Stage 2	-	-	-	-	743	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1287	-	460	756
Mov Cap-2 Maneuver	-	-	-	-	460	-
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	733	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	683	-	-	1287	-
HCM Lane V/C Ratio	0.018	-	-	0.01	-
HCM Control Delay (s)	10.4	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	255	242	1	4	3
Future Vol, veh/h	8	255	242	1	4	3
Conflicting Peds, #/hr	4	0	0	4	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	84	84	44	44
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	8	268	288	1	9	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	293	0	-	0	578	294
Stage 1	-	-	-	-	293	-
Stage 2	-	-	-	-	285	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1280	-	-	-	481	750
Stage 1	-	-	-	-	762	-
Stage 2	-	-	-	-	768	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1279	-	-	-	473	746
Mov Cap-2 Maneuver	-	-	-	-	473	-
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	759	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1279	-	-	-	561
HCM Lane V/C Ratio	0.007	-	-	-	0.028
HCM Control Delay (s)	7.8	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	252	6	31	236	39	5	1	13	40	2	2
Future Vol, veh/h	2	252	6	31	236	39	5	1	13	40	2	2
Conflicting Peds, #/hr	3	0	0	0	0	3	4	0	0	0	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	6	-	-	1	-	-	-5	-
Peak Hour Factor	94	94	94	77	77	77	56	56	56	60	60	60
Heavy Vehicles, %	0	3	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	2	268	6	40	306	51	9	2	23	67	3	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	360	0	0	274	0	0	696	717	271	703	694	339
Stage 1	-	-	-	-	-	-	276	276	-	415	415	-
Stage 2	-	-	-	-	-	-	420	441	-	288	279	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.7	6.3	6.1	5.5	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	5.1	4.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	5.1	4.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1210	-	-	1301	-	-	345	344	767	431	447	742
Stage 1	-	-	-	-	-	-	723	675	-	694	669	-
Stage 2	-	-	-	-	-	-	601	566	-	784	739	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1205	-	-	1301	-	-	329	329	767	402	427	737
Mov Cap-2 Maneuver	-	-	-	-	-	-	329	329	-	402	427	-
Stage 1	-	-	-	-	-	-	722	674	-	690	641	-
Stage 2	-	-	-	-	-	-	570	542	-	757	738	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.8	12.1	15.6
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	540	1205	-	-	1301	-	-	412
HCM Lane V/C Ratio	0.063	0.002	-	-	0.031	-	-	0.178
HCM Control Delay (s)	12.1	8	0	-	7.9	0	-	15.6
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.6

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	309	304	30	42	4
Future Vol, veh/h	1	309	304	30	42	4
Conflicting Peds, #/hr	11	0	0	11	4	4
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-6	6	-	-10	-
Peak Hour Factor	97	97	79	79	67	67
Heavy Vehicles, %	0	2	1	0	0	0
Mvmt Flow	1	319	385	38	63	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	434	0	-	0	740	419
Stage 1	-	-	-	-	415	-
Stage 2	-	-	-	-	325	-
Critical Hdwy	4.1	-	-	-	4.4	5.2
Critical Hdwy Stg 1	-	-	-	-	3.4	-
Critical Hdwy Stg 2	-	-	-	-	3.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1136	-	-	-	584	717
Stage 1	-	-	-	-	845	-
Stage 2	-	-	-	-	883	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1131	-	-	-	569	705
Mov Cap-2 Maneuver	-	-	-	-	569	-
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	871	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1131	-	-	-	579
HCM Lane V/C Ratio	0.001	-	-	-	0.119
HCM Control Delay (s)	8.2	0	-	-	12.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	0	23	10	0	17
Future Vol, veh/h	4	0	23	10	0	17
Conflicting Peds, #/hr	1	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	10	-	5	-	-	0
Peak Hour Factor	50	50	78	78	65	65
Heavy Vehicles, %	0	0	5	0	0	0
Mvmt Flow	8	0	29	13	0	26

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	63	36	0	0	42	0
Stage 1	36	-	-	-	-	-
Stage 2	27	-	-	-	-	-
Critical Hdwy	8.4	7.2	-	-	4.1	-
Critical Hdwy Stg 1	7.4	-	-	-	-	-
Critical Hdwy Stg 2	7.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	915	1032	-	-	1580	-
Stage 1	972	-	-	-	-	-
Stage 2	986	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	914	1032	-	-	1580	-
Mov Cap-2 Maneuver	914	-	-	-	-	-
Stage 1	972	-	-	-	-	-
Stage 2	985	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	914	1580	-
HCM Lane V/C Ratio	-	-	0.009	-	-
HCM Control Delay (s)	-	-	9	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	1	18	2	4	16
Future Vol, veh/h	2	1	18	2	4	16
Conflicting Peds, #/hr	0	0	0	0	0	9
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-6	-
Peak Hour Factor	38	38	57	57	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	3	32	4	5	20

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	74	16
Stage 1	-	-	-	-	7	-
Stage 2	-	-	-	-	67	-
Critical Hdwy	-	-	4.1	-	5.2	5.6
Critical Hdwy Stg 1	-	-	-	-	4.2	-
Critical Hdwy Stg 2	-	-	-	-	4.2	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1625	-	958	1072
Stage 1	-	-	-	-	1024	-
Stage 2	-	-	-	-	983	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1611	-	939	1063
Mov Cap-2 Maneuver	-	-	-	-	939	-
Stage 1	-	-	-	-	1024	-
Stage 2	-	-	-	-	963	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.6	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1036	-	-	1611	-
HCM Lane V/C Ratio	0.024	-	-	0.02	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	4	3	6	15	2	5
Future Vol, veh/h	4	3	6	15	2	5
Conflicting Peds, #/hr	0	2	2	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	0	0	-
Peak Hour Factor	58	58	50	50	58	58
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	5	12	30	3	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	14	0	65	13
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	54	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1617	-	946	1073
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	974	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1615	-	937	1070
Mov Cap-2 Maneuver	-	-	-	-	937	-
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	966	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1028	-	-	1615	-
HCM Lane V/C Ratio	0.012	-	-	0.007	-
HCM Control Delay (s)	8.5	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	2	20	19	43	1
Future Vol, veh/h	8	2	20	19	43	1
Conflicting Peds, #/hr	8	12	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	5	-5	-
Peak Hour Factor	45	45	71	71	73	73
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	18	4	28	27	59	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	151	72	60	0	-	0
Stage 1	60	-	-	-	-	-
Stage 2	91	-	-	-	-	-
Critical Hdwy	4.4	5.2	4.1	-	-	-
Critical Hdwy Stg 1	3.4	-	-	-	-	-
Critical Hdwy Stg 2	3.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	920	1016	1556	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	986	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	903	1005	1540	-	-	-
Mov Cap-2 Maneuver	903	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	968	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	3.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1540	-	922	-	-
HCM Lane V/C Ratio	0.018	-	0.024	-	-
HCM Control Delay (s)	7.4	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	1	3	9	5	1
Future Vol, veh/h	2	1	3	9	5	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-10	10	-	0	-
Peak Hour Factor	75	75	69	69	50	50
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	1	4	13	10	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	17	0	-	0	18	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	7	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1613	-	-	-	1005	1076
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	1021	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1613	-	-	-	1003	1076
Mov Cap-2 Maneuver	-	-	-	-	1003	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	1019	-

Approach	EB	WB	SB
HCM Control Delay, s	4.8	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1613	-	-	-	1014
HCM Lane V/C Ratio	0.002	-	-	-	0.012
HCM Control Delay (s)	7.2	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	6	8	6	8	14
Future Vol, veh/h	13	6	8	6	8	14
Conflicting Peds, #/hr	0	0	0	0	1	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	11	-
Peak Hour Factor	54	54	65	65	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	24	11	12	9	11	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	22	0	-	0	77	20
Stage 1	-	-	-	-	17	-
Stage 2	-	-	-	-	60	-
Critical Hdwy	4.1	-	-	-	8.6	7.3
Critical Hdwy Stg 1	-	-	-	-	7.6	-
Critical Hdwy Stg 2	-	-	-	-	7.6	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1607	-	-	-	888	1057
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	933	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1603	-	-	-	875	1054
Mov Cap-2 Maneuver	-	-	-	-	875	-
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	919	-

Approach	EB	WB	SB
HCM Control Delay, s	5	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1603	-	-	-	981
HCM Lane V/C Ratio	0.015	-	-	-	0.032
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	34	269	213	32	21	23
Future Vol, veh/h	34	269	213	32	21	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	37	292	232	35	23	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	266	0	-	0	615	249
Stage 1	-	-	-	-	249	-
Stage 2	-	-	-	-	366	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1298	-	-	-	455	790
Stage 1	-	-	-	-	792	-
Stage 2	-	-	-	-	702	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1298	-	-	-	440	790
Mov Cap-2 Maneuver	-	-	-	-	440	-
Stage 1	-	-	-	-	792	-
Stage 2	-	-	-	-	678	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1298	-	-	-	573
HCM Lane V/C Ratio	0.028	-	-	-	0.083
HCM Control Delay (s)	7.9	0	-	-	11.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	34	3	1	15	6	1	18	0	13	18	2
Future Vol, veh/h	3	34	3	1	15	6	1	18	0	13	18	2
Peak Hour Factor	0.73	0.73	0.73	0.75	0.75	0.75	0.47	0.47	0.47	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	47	4	1	20	8	2	38	0	19	26	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.1	7.3	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	7%	5%	39%
Vol Thru, %	95%	85%	68%	55%
Vol Right, %	0%	7%	27%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	19	40	22	33
LT Vol	1	3	1	13
Through Vol	18	34	15	18
RT Vol	0	3	6	2
Lane Flow Rate	40	55	29	47
Geometry Grp	1	1	1	1
Degree of Util (X)	0.046	0.062	0.032	0.054
Departure Headway (Hd)	4.093	4.044	3.94	4.12
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	870	881	902	865
Service Time	2.141	2.092	1.994	2.166
HCM Lane V/C Ratio	0.046	0.062	0.032	0.054
HCM Control Delay	7.3	7.4	7.1	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1	0.2

Appendix K

Sight Distance Calculations

Location: Whitwell Street Easterly Driveway

STOPPING SIGHT DISTANCE:

STOPPING SIGHT DISTANCE FROM WEST

Inputs

V=speed, mph	V=	36	**(85th percentile speed)**
G=percent of grade	G=	-0.6	**(%)**
t=brake reaction time	t=	2.5	
a=deceleration rate, ft/sec^2	a=	11.2	

Calculations

Brake Reaction Distance	1.47Vt	132	feet
Braking Distance	$V^2/30((a/32.2)+G)$	126.4	feet
Stopping Sight Distance =	$1.47Vt + V^2/30[(a/32.2)+G]$	**260**	**feet**

STOPPING SIGHT DISTANCE FROM EAST

Inputs

V=speed, mph	V=	40	**(85th percentile speed)**
G=percent of grade	G=	0	**(%)**
t=brake reaction time	t=	2.5	
a=deceleration rate, ft/sec^2	a=	11.2	

Calculations

Brake Reaction Distance	1.47Vt	147	feet
Braking Distance	$V^2/30((a/32.2)+G)$	153.3	feet
Stopping Sight Distance =	$1.47Vt + V^2/30[(a/32.2)+G]$	**305**	**feet**

Source: *A Policy on Geometric Design of Highways and Streets, 2011, Sixth Edition,* prepared by AASHTO, p. 3-4 to 3-5.

INTERSECTION SIGHT DISTANCE:

INTERSECTION SIGHT DISTANCE - LEFT FROM MINOR APPROACH - TO THE WEST

Inputs

V= design speed, mph	V=	36	**(85th percentile speed)**
t=time gap for minor road vehicle to enter the major road	t=	7.50	**(choose value based on Table 1)**

Calculations

Int. Sight Distance =	1.47Vt	**400**	**feet**

Table 1 - Time Gap Factors

Design Vehicle	Time Gap[1], t (sec) for Grades <=3%	Grade of Minor Approach	Number of Additional Lanes to Cross	Adjusted Time Gap, t (sec)
passenger car	7.5	0%	0	7.50
single-unit truck	9.5	0%	0	9.50
combination truck	11.5	0%	0	11.50

INTERSECTION SIGHT DISTANCE - LEFT FROM MINOR APPROACH - TO THE EAST

Inputs

V= design speed, mph	V=	40	**(85th percentile speed)**
t=time gap for minor road vehicle to enter the major road	t=	7.50	**(choose value based on Table 1)**

Calculations

Int. Sight Distance =	1.47Vt	**445**	**feet**

Design Vehicle	Time Gap[1], t (sec) for Grades <=3%	Grade of Minor Approach	Number of Additional Lanes to Cross	Adjusted Time Gap, t (sec)
passenger car	7.5	0%	0	7.50
single-unit truck	9.5	0%	0	9.50
combination truck	11.5	0%	0	11.50

Notes:

1.Time Gap values are applicable for major roads with grades 3 percent or less and no median and a minor street approach with a grade of 3 percent or less. Otherwise, the table values should be adju

*If the minor street has an upward grade of more than 3 percent then add 0.2 sec. to t for each percent grade (including the first 3 percent).

**Increase t by 0.5 seconds (for passenger cars) or 0.7 seconds (for trucks) for every additional lane from the left, in excess of one, to be crossed by the turning vehicle.

***If the major approach is a divided highway with a median not wide enough to store the design vehicle, then the median width should be converted to equivalent lanes.

Source: *A Policy on Geometric Design of Highways and Streets, 2011, Sixth Edition,* prepared by AASHTO, p. 9-37 to 9-41.

Location: Whitwell Street Center Driveway

STOPPING SIGHT DISTANCE:

STOPPING SIGHT DISTANCE FROM WEST

Inputs

V=speed, mph	V=	36	**(85th percentile speed)**
G=percent of grade	G=	-0.6	**(%)**
t=brake reaction time	t=	2.5	
a=deceleration rate, ft/sec^2	a=	11.2	

Calculations

Brake Reaction Distance	1.47Vt	132	feet
Braking Distance	$V^2/30((a/32.2)+G)$	126.4	feet
Stopping Sight Distance =	$1.47Vt + V^2/30[(a/32.2)+G]$	**260**	**feet**

STOPPING SIGHT DISTANCE FROM EAST

Inputs

V=speed, mph	V=	40	**(85th percentile speed)**
G=percent of grade	G=	0.6	**(%)**
t=brake reaction time	t=	2.5	
a=deceleration rate, ft/sec^2	a=	11.2	

Calculations

Brake Reaction Distance	1.47Vt	147	feet
Braking Distance	$V^2/30((a/32.2)+G)$	150.7	feet
Stopping Sight Distance =	$1.47Vt + V^2/30[(a/32.2)+G]$	**300**	**feet**

Source: *A Policy on Geometric Design of Highways and Streets, 2011, Sixth Edition,* prepared by AASHTO, p. 3-4 to 3-5.

INTERSECTION SIGHT DISTANCE:

INTERSECTION SIGHT DISTANCE - LEFT FROM MINOR APPROACH - TO THE WEST

Inputs

V= design speed, mph	V=	36	**(85th percentile speed)**
t=time gap for minor road vehicle to enter the major road	t=	7.50	**(choose value based on Table 1)**

Calculations

Int. Sight Distance =	1.47Vt	**400 feet**

Table 1 - Time Gap Factors

Design Vehicle	Time Gap[1], t (sec) for Grades <=3%	Grade of Minor Approach	Number of Additional Lanes to Cross	Adjusted Time Gap, t (sec)
passenger car	7.5	0%	0	7.50
single-unit truck	9.5	0%	0	9.50
combination truck	11.5	0%	0	11.50

INTERSECTION SIGHT DISTANCE - LEFT FROM MINOR APPROACH - TO THE EAST

Inputs

V= design speed, mph	V=	40	**(85th percentile speed)**
t=time gap for minor road vehicle to enter the major road	t=	7.50	**(choose value based on Table 1)**

Calculations

Int. Sight Distance =	1.47Vt	**445 feet**

Design Vehicle	Time Gap[1], t (sec) for Grades <=3%	Grade of Minor Approach	Number of Additional Lanes to Cross	Adjusted Time Gap, t (sec)
passenger car	7.5	0%	0	7.50
single-unit truck	9.5	0%	0	9.50
combination truck	11.5	0%	0	11.50

Notes:

1.Time Gap values are applicable for major roads with grades 3 percent or less and no median and a minor street approach with a grade of 3 percent or less. Otherwise, the table values should be adju

*If the minor street has an upward grade of more than 3 percent then add 0.2 sec. to t for each percent grade (including the first 3 percent).

**Increase t by 0.5 seconds (for passenger cars) or 0.7 seconds (for trucks) for every additional lane from the left, in excess of one, to be crossed by the turning vehicle.

***If the major approach is a divided highway with a median not wide enough to store the design vehicle, then the median width should be converted to equivalent lanes.

Source: *A Policy on Geometric Design of Highways and Streets, 2011, Sixth Edition,* prepared by AASHTO, p. 9-37 to 9-41.