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March 17, 2015

Mr. Nathaniel Strosberg, Town Planner
101 Main Street
Town of Ashland
Ashland, MA 01721

RE: "Lot 2A – Butterfield Drive, Ashland, MA
Site Plan and Drainage Design Review

Dear Mr. Strosberg:

GCG Associates, Inc. has reviewed the following information for the proposed Site Plan for Lot 2A Butterfield Drive in Ashland, MA.

Plan References:	"Site Plan of Land – Lot 2A Butterfield Drive – Ashland, MA ", dated January 20, 2015, prepared by: GLM Engineering Consultants, Inc.
Documents:	"Stormwater Management Report for "Site Development Plan – Lot 2A Butterfield Drive – Ashland, MA ", dated January 20, 2015, prepared by: GLM Engineering Consultants, Inc

Based upon our review of the above information, we offer the following general comments and comments with respect to compliance with Town Bylaws: Chapter 282 - Zoning, Chapter 343 - Stormwater Management, Chapter 348 - Wetlands Protection Regulations, Chapter 326 – Sewers, and Chapter 334 - Water. The numerical section of the regulations is referenced at the beginning of each comment unless it is a general comment.

GENERAL PLAN COMMENTS

The following are general comments with respect to the plans.

Plan 4 of 8, Grading, Drainage and Utilities:

1. Grading extends on to abutting property on both the east and westerly sidelines. Easements or proof of approval to grade on to these properties should be provided.
2. The invert of the existing sewer in the street should be shown to verify that the slope on the plan will work. Also, a detail of how the connection to the existing sewer main should be provided.

3. The existing water main in Butterfield Drive should be shown with size and type.
4. The site plan shows four proposed utilities to cross the paved street. The plans should show what the plan is for repaving the existing street.
5. Inverts should be shown on the 6" roof drains which connect to the proposed drain manhole.
6. The size of the pipes connecting to the infiltration chamber should be shown.
7. Plan should show a location and size for the existing gas main in the right-of-way.

Plan 7 of 8 Details 1:

8. The cape cod berm detail should call out that the berm is tacked to the binder coarse of pavement.
9. On both basins, GCG would recommend that the grate and riser pipes be increased to a larger grate. Possibly a 12" grate and riser pipe. Our experience with the 4" grate is that it plugs up very easily with leaves and could prevent water from discharging through the pipe as designed.
10. The bedding around the copper water service should be sand instead of 2" minus material.
11. Construction details of the concrete bottomed forebay should be provided.

Plan 8 of 8 Details 2:

12. The infiltration chamber system appears to have less than 12" of cover from the top of the fabric to pavement grade. Provide actually elevations to verify that the minimum cover of 1 foot is maintained.
13. The type of fence to be used on top of the wall should be specified.
14. Two catch basin details are shown. I believe the intent is for one of them to be drain manhole. The title of the detail should be changed.

Existing and Proposed Sub-catchment Plans

15. T_c for area E1 should be added to the plan. Also show spot elevations at various locations on the flow paths.

CHAPTER 282 – ZONING

282-5.1.2 The parking table as shown on the plans indicates that the Building Inspector requires 7 spaces. The plan shows 10. Per the bylaw the Building Inspector makes this determination since no category for this used is identified in the table.

282-5.2: Intended areas for loading shall be marked on plans for compliance with section requirements.

282-5.3.13 Any proposed signs shall be in compliance with this section for industrial zones. No signs are shown on the plans.

282-5.4.1.2: Landscaping is required along the entire front lot line. Trees are proposed in front of the building. GCG recommends trees be provided on the westerly side of the entrance along the infiltration basin to provide a uniform look along the front of the property and the streetscape.

282-9.4.4(2) Existing utility information in Butterfield Drive should be shown on the existing conditions plan. Water, drainage, gas, etc.

282-9.4.4(4) A plan showing that emergency vehicles can access the back of site and maneuver around the building should be provided. Visually it appears that it may be difficult for a fire truck to make it to the back of the building and to the storage area.

282-9.4.4(5) A dumpster is not shown on the site plan.

282-9.4.4(6) The type of fencing proposed should be detailed on the plan.

282-9.4.4(7) No sign is shown on the plans.

282-9.4.4(8) The location of exterior lighting on the site should be shown on the plan.

282-9.4.8 Traffic data was not provided for the proposed use and how it may impact Butterfield Ave and Pond Street. Stopping sight distances should be provided and an analysis of turning movements should be provided to verify that vehicles can maneuver around the site.

282-9.410 See 282-5.4.1.2 comment above.

CHAPTER 343 – STORMWATER MANAGEMENT

343-7.6.10.1: Plans should show Wellhead Protection Zones or indicate that the site is not located within or near the same.

343-7.6.10.6 A notation should be added to the plan of the datum used. If NAVD 88 is used, a waiver should be requested.

343-7.6.11 See comments above regarding pipe sizes.

343-7.6.12 The drainage report provided shows that the overall net rate and volume form the development will be equal or less than currently flows off the site overall. The report does show that more stormwater will be discharged to the street than currently is discharged.

343-7.6.16: Stormwater Management Plan Contents: The back area is proposed as a gravel area. The potential for contamination of the wet basin due to erosion and disturbance is very high due to the gravel surfaced area. Sediment will flow into the wet basin. The wet basin does have a concrete bottom forebay which will prevent some siltation from entering the basin. Since this area would be an active site with heavy equipment, consideration should be given to using a different material in the gravel area.

7.6.16.b.13.e: Stockpile locations and methods of protection should be shown and earthwork information should be provided.

7.6.16.c.2 Provide spot elevation in the Post P2 subcatchment along the time of concentration route. The time of concentration route seems long based upon observation on the plans and detailed in the report. The route chosen flows to through the wetland and out of the wetland. This route needs to be reviewed.

7.6.16.c.4 The summary table does not match the printouts for actual rates and volumes. The summary table should be updated.

7.6.16.c.13 The quantity of each species of plants to be used in the wet basin should be shown on

CHAPTER 326 - SEWERS

General:

1. Sewer system construction should meet the requirements of Bylaw Chapter 326 – Sewers.

326-15 & 16 The sewer system details or notes should indicate fitting types as required in Sections 326-15 and 326-16.

326-15.F. Gravity sewer should be PVC SDR-35 for standard depths or shall be ductile iron where cover is less than three and five-tenths feet or greater than thirteen feet. Plans should specify as such. Connection at building shows invert < 3.5'.

326-15.G. Connections to an existing public sewer main shall be accomplished by the use of a cast-iron saddle with stainless steel strap and bolts.

326-17.B. Backwater valves to be installed for each sanitary building sewer installation. The backwater valve shall be six-inches in size and constructed of PVC with solvent-welded joints to six-inch SDR 35 PVC sewer pipe. Shall be shown on plan.

CHAPTER 334 - WATER

General:

1. Water main and service construction should meet the requirements of Bylaw Chapter 334 – Water.

334-56/57 The water notes should indicate valve, appurtenances and fitting types conforming to these sections.

If you have any questions regarding this matter, please contact our office.

Respectfully Submitted,
GCG Associates

Michael J. Carter

Michael J. Carter, P.E.
Project Manager