



Date October 8 2015
To Ashland Planning Board
From Thomas C. Houston
Project The Lanterns at Warren Woods, 466 Chestnut St., Ashland, MA
Subject Status of Responses to Comments

Professional Services Corporation, PC (PSC) submitted our Peer Review Report on August 21, 2015 and VHB responded in a Memorandum dated September 2, 2015. This memorandum is formatted to correlate with our report and the submitted responses, with PSC's August 21, 2015 comments in standard font, VHB's September 2, 2015 responses in italic font, and our evaluation of VHB's responses in bold font.

BASIS OF REVIEW

Our evaluation is based upon review of the following:

- A. Memorandum regarding "Responses to Peer Review Comments" prepared by VHB dated September 2, 2015.
- B. Site plan entitled "Site Plans Special Permit – The Lanterns at Warren Woods, 466 Chestnut Street Ashland, MA" prepared by VHB, Watertown, Massachusetts, dated July 1, 2015 and revised September 17, 2015, now including thirty-six (36) sheets.
- C. Revised Appendix E: Erosion and Sedimentation, Control Measures, Stormwater Management Report, prepared by VHB, Watertown, Massachusetts.
- D. Checklist for Stormwater Report, signed and sealed by the Engineer of Record.
- E. Landscape Plan, Color, prepared by DBA Landscape Architects, LLC dated July 1, 2015 and last revised September 17, 2015.

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- F. Lanterns Cluster Elevations, prepared by DBA Landscape Architects, LLC not dated.
- G. Special Permit Application – The Lanterns at Warren Woods, 466 Chestnut St. Supplemental Landscape & Architectural Information Package prepared by DBA Landscape Architects, LLC revised September 17, 2015.
- H. Special Permit Application – The Lanterns at Warren Woods, 466 Chestnut St., Planting Palette prepared by DBA Landscape Architects, LLC revised September 17, 2015.
- I. The Lanterns at Warren Woods Meeting House, Plan Sheet and Elevations, prepared by Stephen Kelleher Architects, Inc. dated September 9, 2015 consisting of 3 sheets.
- J. Photometrics Plan, prepared by Visual, dated September 17, 2015.

GENERAL

1. Please verify that the Senior Residential Community is a currently approved use both in the Residence A district, as well as the Office Commerce CO district. Chapter 282, Section 3.0 ‘Table of Principal Use Regulations’, §7.2.2, §7.2.5.).
VHB: Town Meeting voted to approve SRC as a permitted use in the CO district this past spring.
PSC: OK.
2. In the CO district, the minimum required building separation is 20 feet. (Section 4.1.2.8). Within the building clusters, the plans generally provide only 12 to 14 feet between each unit.
VHB: The SRC section of the bylaw governs the dimensional controls over the project.
PSC: To be determined at the discretion of the Planning Board. Also refer to the status of Comment 8.
3. A detail of the project entrance signage, shown schematically on Sheet L-1 should be provided. The signage design and sizing should comply with Section 5.3
VHB: Additional details of the proposed entrance sign, for the purpose of demonstrating compliance with applicable provisions of Section 5.3, will be added to the Site Plans.
PSC: The 3’-0” X 3’-0” entrance sign complies with §5.3.11 4. There are no provisions in the Bylaw for signs identifying clusters of homes. However, the Planning Board may determine that the signs identifying clusters of homes are “way finding” signs which, like traffic regulatory signs, are commonly not regulated.



4. The landscape plan, Sheet L-1 should include a schedule of specific species, caliper and heights, and should identify proposed locations of each. Section 5.4.5 should be referenced for general standards.

VHB: Additional detail will be added to the landscape plan to provide this information, as it pertains to the perimeter and entrance areas of the Project.

PSC: For buffer and entrance plantings only, the revised Landscape Plan Color now shows sizes and quantities of plantings. It provides lists of alternative planting but never actually selects specific species to be planted in specific locations. The species listed are considered to be appropriate; however, the drawings state “Please note that plant lists are not yet final, and may include other appropriate plants or exclude some plants below as the design progresses. These lists are provided for informational purposes regarding the general character and intent only.”

Additionally, the majority of plantings on-site in proximity to residences are shown only by category, i.e. “street tree,” “flowering tree,” “shrubs,” etc. If the applicant desires not to specify plant materials in proximity to residences to allow homeowner’s to select these plants, this issued should be reviewed with the Board. The Board can request more specific information if desired.

5. A Site Alteration Special Permit may be required from the Planning Board, pursuant to Section 5.8.2, and §5.8.3.1 for earthwork associated with the portion of the project in the CO District

VHB: The Site Alteration Special Permit pursuant to §5.8.2 and §5.8.3.1 does not apply to this residential SRC project.

PSC: OK.

6. The supplemental narrative indicates that the developer has agreed to transfer a significant portion of the open space to the town, by means of a conservation restriction. It is not clear whether this only includes the wetland resource areas, or the entirety of the open space parcels.

VHB: Open Space Parcels OS-A and OS-D as shown on the Site Plans (including the existing structure located on Parcel OS-A), shall if requested by the Board, be conveyed to the Town as a gift. A split of OS-A into two parcels (one around the Farmhouse and one for the rest) will be added to the Site Plans to allow for separate timing when gifting to the Town.

PSC: Intended property conveyancing is clarified – OK.

SPECIAL RESIDENTIAL REGULATIONS

7. Open space areas are required to maintain at least 20 feet of handicapped accessible frontage on each right-of-way and internal roadway. The grading and/or layout plan should specify the



accessible locations proposed along Chestnut Street, Road 'B' and Eliot Street. (Chapter 282, Section 7.2.6.4.c). A handicap space should be provided in the four parking spaces adjacent to Unit 42 (Sheet C-4.1)

VHB: The plan will be revised to include a handicap parking space in the group of four across from Home #43 providing access to the open space along Chestnut, Road B, Eliot and to Warren Woods. Additional access on Eliot Street will likely be provided at the farmhouse, located on open space parcel OS-A, to be conveyed to the Town.

PSC: A handicapped parking space no. 28 has been added to serve the largest contiguous open space tract. There is no handicapped parking space dedicated for the open space along the east side of the project.

8. Within a Senior Residential Community, individual dwellings need not be located "...within the separate lot framework associated with the definitions of the terms 'Lot,' 'Lot Area,' 'Lot Coverage,' 'Lot Frontage,' and 'Yard' ...listed in Section 10" of the Bylaw. However, Section of the Zoning Bylaw establishes layout requirements for the development that can best be evaluated "...as if the included dwellings/structures were to be provided on separate lots." A geometric "Proof Plan" should be provided, showing the roadways within right-of-ways, and the dwellings within lot lines. The proof plan should demonstrate the following:
 - a. Each dwelling unit lot area contains no slopes greater than 25 percent (§7.2.6.1).
 - b. Each dwelling unit is required to have one (1) exterior paved parking space. (§7.2.7.2)
The plan should show that the exterior space is sufficiently outside the adjacent street layout.
 - c. Single dwelling unit lot sizes shall be eight thousand (8,000) square feet minimum. (§7.2.7.2.a).
 - d. The positioning of buildings shall be staggered a minimum of ten (10) feet along each right-of-way, while maintaining setback requirements. (§7.2.7.5).
 - e. Front yards shall be twenty (20) feet minimum; rear yards shall be thirty (30) feet minimum and side yard separation of abutting dwellings/structures shall be twenty (20) feet minimum. (§7.2.10.1)
 - f. Dwelling Lot Coverage (density) – twenty five (25%) percent maximum. (§7.2.10.2)
 - g. Floor Area Ratio is 0.5 maximum (per proof lot). (§7.2.10.4)
 - h. An inventory of additional parking, equal to 20% of that which is provided for the dwelling units should be calculated. (§7.2.10.6)
 - i. Rights-of-way shall meet widths required for a lane (40 feet) and shall adhere to radius of curvature (100-foot centerline radius), grades, etc. required under Section 344-12 for a lane. (§7.2.10.10,)



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- j. The “Proof Plan” should also depict “Open space Parcels” totaling at least 30 percent of the overall development (excluding most wetlands and stormwater basins) (§7.4.6 4a) (§7.4.6 4b) (§7.2.8 2).

VHB: Zoning compliance for the project is presented on Site Plan C-2, and has been utilized to produce the maximum density, i.e. yield analysis to determine the maximum number of SRC units allowed on the land comprising the Project

PSC: To be determined at the discretion of the Planning Board. Also refer to Comment 2.

9. Upon submission of a conformant Proof Plan, the open space calculation should be resubmitted. Section 7.2.7.1 specifies a maximum average of five (5) dwelling units per acre of such land dedicated to dwelling unit building lots. The calculation provided on Sheet C-2 based this maximum on the entirety of the locus, after subtraction of only the wetland areas. (39.00 acres – 3.03 acres, or 35.97 buildable acres). Within the SRC, the project is required to set aside 30% of the uplands as open space, so the open space should not be included as ‘land dedicated to dwelling unit building lots’ as referenced. It appears that the permissible number of units should be 126, rather than 179. The project currently proposes 93 units, which is compliant to §7.2.7.1.

VHB: The project proposes 93 units of housing - far below the maximum allowable density, according to the methodology utilized in the Peer Review analysis.

PSC: Compliance of the Proposed Project with the maximum permitted density has never been questioned (§7.27 1).

RULES AND REGULATIONS - The project is subject to the Subdivision Rules and Regulations (Chap 282, §7.2.5.1)

VHB: The project is subject to the Subdivision Rules and Regulations except as otherwise provided by the requirements of the SRC §7.2 To that extent, an overall waiver from the Subdivision Rules and Regulations is requested where such rules and regulations are inconsistent with the requirements and objectives of the SRC Bylaw. In all other instances, specific waivers shall be requested if, and as necessary.

PSC: Compliance with the Planning Board Subdivision Regulations is a condition of SRC Special Permit approval under §7.2. With respect to the §7.2 SRC Special Permit, the Planning Board is authorized to ensure compliance with the Subdivision Regulations but the Planning Board is not authorized to waive requirements of the Subdivision Regulations. With respect to Comments 11, 15, 16, 24, 25, and 29 we have acknowledged the request for waiver of strict compliance but we cannot identify a mechanism which authorizes the granting of waivers.

10. Reserve strips prohibiting access to streets are not permitted, except where deemed to be in the



public interest. The required 30-foot buffer around the SRC, which is indicated as Open Space parcel OS-C acts a de-facto reserve strip that would eliminate the potential access to the Mount View Drive and Prospect Heights roadways. (§344-12.A.(4) and §282-7.2.10.9).

VHB: The road network specifically conforms to the requirements of the SRC (§7.2.10.7), so as to not allow vehicular traffic from the SRC development to access neighboring parcels or streets.

PSC: OK.

11. The required pavement width for a Lane is twenty-six (26) feet, exclusive of curbing. The project provides twenty-two (22) feet for Roads A,B and C, and twenty (20) feet for each of the fourteen driveways. (344-20.H.(1)).

VHB: A waiver has been requested to reduce the private roadway widths.

PSC: Waiver request acknowledged.

12. The intersection to intersection offsets required under §344-12.A.(5) and (9) are one-hundred twenty- five (125) feet for opposite intersections and three hundred fifty (350) feet for parallel intersections. If the fourteen driveways within the project are considered to be intersections, then relief would be required from both offset requirements

VHB: Fourteen of the 17 ways within the development are considered driveways, to which the requirements of the cited sections do not apply. Notwithstanding that, Roads A, B, and C shall forever remain private ways, the offsets located within these roadways comply fully.

PSC: There is no exemption in the Bylaw for “driveways, to which the requirements of the cited sections do not apply.” Requirements are be determined at the discretion of the Planning Board.

13. The Rules and Regulations (344-12.C and D) specify centerline grades of between 0.5% and 12% for Lanes, leveling areas at intersections (3% maximum for the first 75’), vertical curves at breaks in grade exceeding 2%, and 150-foot sight distances for Lanes. Typically this information would be provided on roadway profiles which were not included in the plan set. Roadway profiles should be provided for Roads A-C, and should include both the proposed centerline vertical geometry and utilities.

VHB: Roadway profiles of Roads A, B, and C will be added to the Site Plans.

PSC: Roads A, B, and C meet the minimum and maximum grade requirements and minimum sight distance requirements of the Rules & Regulations except that 150 ft. of sight distance is not provided for the sag vertical curve at Sta 11+15. It should be noted that a stop condition exists at Sta 10+00 which may be considered as minimizing this sight distance deficiency. Profile grade information is not provided



for driveways serving house clusters. Whether this information is required is to be determined at the discretion of the Planning Board.

14. The pavement cross-section depths are generally consistent with the Rules and Regulations. A note should be added to the detail requiring up to an inch of leveling course between the bituminous binder and top courses, to be installed if required. (344-20 E)

VHB: The Detail will be modified to include this note on the Site Plans.

PSC: OK.

15. The sidewalk construction depths should be detailed on Sheet C-9.1 as specified under 344-22.B and C.

VHB: The sidewalks, like all of the Project infrastructure shall remain private and be maintained by the condominium association. A standard construction detail of 2.5 inches of asphalt on 8 inches of gravel base was provided and will provide a sufficiently safe and durable sidewalk. A waiver will be requested.

PSC: The detail has not been added to the plans. The described pavement section complies with the Planning Board Rules & Regulations except that the hot mix asphalt pavement is required to be 3 inches thick.

16. Typically the town does not allow sideslopes to exceed 3:1 horizontal to vertical adjacent to roadway rights-of-way. There appears to be two locations in the project (Road A near Unit 1, and Road C near Unit 93) that exceed this requirement. (344-28.A.)

VHB: At both of these locations the slopes are graded 2:1 for very short lengths and the slopes pose no threats to safety nor generate erosion control issues. A waiver will be requested.

PSC: Waiver request acknowledged.

17. A guard rail should be provided on the outside of the curve between Road B and Unit 93.

VHB: The applicant agrees to construct a wood post and beam guardrail at this location and the Site Plans will be revised accordingly.

PSC: OK.

18. By virtue of the required Site Plan Review, soil disturbance of 10,000 square feet, and development of 5 or more acres, the project is subject to the provisions of the Ashland Stormwater Management Bylaw.

VHB: The project has been designed in accordance with the Ashland Stormwater Management Bylaw.



PSC: OK.

19. The DEP Checklist for the Stormwater Report should be signed and sealed by the engineer.

VHB: The DEP checklist will be signed and sealed by the engineer.

PSC: A signed and sealed DEP checklist was submitted – OK.

20. Roofwater is considered to be 'clean' runoff. The design currently provides free discharge of roofwater to the closed drain system. To more closely approximate existing stormwater conditions, where recharge occurs more uniformly throughout the site, roofwater should be separately collected and infiltrated near each unit. (343-8.1.5) The stormwater narrative indicates that roofwater will be collected in a network of perforated pipes and recharge trenches. If not fully designed, a representative detail should be provided

VHB: Additional detail will be added to the roof drain pipe shown on the typical home detail provided on site plan sheet C-9.5.

PSC: OK.

21. Earth Removal/Fill Calculations have been submitted for the project in Appendix F. The calculations indicate that the project earthwork nearly balances and will require the importation of 205 CY of fill above and beyond 12,000 cu.-yds. of gravel that will be required for building and infrastructure work. The calculations indicate that the project should not result in a net export of material. Chap 343, §7.6.13.

VHB: Correct.

PSC: OK.

22. The source and description of imported gravel should be provided. The number of expected truckloads and delivery route should be provided in narrative form (if not already addressed in the separately submitted traffic study).

VHB: As described in the Earthwork Summary in Appendix F of the Stormwater Management Report, gravel borrow imported on the site shall meet MassDOT material specification M1.03.0. Assuming 30 yard delivery trucks, approximately 400 truck trips will be required to deliver gravel to the site over the course of an estimated 4-year construction period. Since as of the date of this response, the commencement of construction is not imminent, the sources of the material are not identified at this time, and the applicant proposes that for each phase, the route will be specified, filed with and approved by the DPW prior to construction, with copies submitted to the Planning Board.



PSC: Typically 10 wheel dump trucks are used in site work as they provide the maneuverability required for common site work operations and site conditions. Large capacity dump trucks are commonly used where both the borrow source and the placement site have controlled dumping conditions such as a mining operation. The capacity of 10 wheel dump trucks is approximately 12 cu.-yds. Accordingly, it is more likely that approximately 1,000 truck trips will be required over a projected four year period to import fill.

23. Regular street sweeping of Chestnut Street should be included in the Erosion and Sedimentation Control Measures notes found in Appendix E of the Stormwater report.

VHB: Street sweeping of both Chestnut Street and Eliot Street will be added to the Erosion and Sedimentation Control Measures notes in Appendix E.

PSC: OK.

24. Pairs of catchbasins are required at intervals not to exceed 300 feet on continuous roadway grades. The system is compliant except for the two pairs of catchbasins on Road C which are approximately 320 feet apart. (344-14.C)

VHB: A Waiver shall be requested.

PSC: Waiver request acknowledged.

25. Catchbasins CB-A13 and CB-A14 are at a profile sag point on Road B and should be upgraded to double grate structures. Similarly, CB-C6 and CB-C7 in Drive 11 and CB C2 and CB C3 in Drive 13 should be upgraded to double grate structures. (344-14.C)

VHB: Based on the contributing areas and inlet capacity calculations, double grate structures are not required at these locations to collect the 25-year design storm without ponding on the pavement. Inlet capacity calculations are attached at the end of this document.

A waiver shall be requested.

PSC: Waiver request acknowledged.

26. Cascade grates should be specified for catchbasin structures located on steeper grades, such as CB-A9 and CB-A10 on Road A, near the project entrance.

VHB: The Site Plans will be revised to include cascade grates at these locations.

PSC: OK.

27. Note 2.C. on drawing sheet C-6.2 indicates that the stormwater management pipes will be constructed of either RCP or HDPE. Section 344-23.B.(4) requires RCP pipes. The plan should



specify RCP for the storm drain system.

VHB: Based on pre-filing consultation with the Ashland DPW, HDPE pipe is an acceptable drainage pipe product. Generally, HDPE will be used throughout except where cover over pipes subject to vehicular traffic is less than 3-feet. Class V RCP will be specified for pipes with shallow cover (less than 3 feet). The Site Plans will be revised to specifically note where HDPE and RCP will be used.

PSC: Waiver required but not requested.

28. The conveyance calculations provided for the 25-year event utilize an interior Manning's (pipe roughness) coefficient of $n=0.012$ for the pipe flows, which corresponds to HDPE pipe design. If concrete pipes are required by the town, then the three large discharge pipes extending to the basin behind Drive 2 will be undersized for the 25-year storm. The remainder of the drain system appears sufficient for either HDPE or concrete design.

VHB: The conveyance calculations are consistent with the pipe types proposed for the project – please refer to #27 response.

PSC: All pipe in the Storm Drainage Computations Sheets uses a coefficient of roughness (Manning's "n") of 0.12. These sheets should be updated to reflect installation of RCP pipe in locations described in Comment 27 and the response to Comment 28.

29. The 12-inch diameter stormwater pipes between CB-B3, CB-B4 and DMH-B3 are very shallow (14" cover) and should be provided with at least 2 feet of cover as required by the town. Similarly, the 12-inch pipe between CB-C1 and DMH-C1, the 15-inch pipe between DMH-B3 and DMH-B2 and the 12-inch pipes between CB-A9, CB-A10 and DMH-A8 have shallow cover and should be redesigned. (344-23.B.(4).)

VHB: The drainage pipes where cover is less than 24" are very short sections of pipe. In these locations, we are proposing Class V RCP which does not require cover for structural support (heavy trucks can literally drive directly on the pipe without compromising the structural integrity of the pipe). All drainage facilities and pipes are to be privately owned and maintained. A waiver will be requested.

PSC: Installation of Class V RCP is suitable with respect to loading. Waiver request acknowledged.

30. The perforated subdrain in the stormwater management basin off Road B (near Units 69-71) is constructed below the measured high groundwater level found in Test Pit 13. The invert should be adjusted if necessary, so that this basin does not continuously wick groundwater into the outlet pipe.



VHB: Although the perforated subdrain has been designed to be located within the seasonal high groundwater, groundwater will not be continuously flowing through the outlet pipe. The outlet elevation in the outlet control structure in each basin is higher than the elevation of the groundwater and subdrain.

PSC: OK.

31. Similarly, the perforated subdrain elevation should be checked for the basin at the end of Drive 11. The subdrain is three feet below the Test Pit 17 and 18 groundwater elevations.

VHB: It is OK for the subdrain to be in ground water – this is typical. Please also see response to Comment #30.

PSC: OK.

32. The town requires that all concrete pipe with less than 3-feet of fill should be specified as RCP Class 5 pipe, which would include several additional pipes in the design.

VHB Pipes with shallow cover will be specified as Class V RCP

PSC: OK.

33. Section 344-14.E prohibits volumetric increases of runoff off the site. According to Table 6 on page 19 of the narrative, both the central and eastern wetland locations along the Eliot Street property line will experience volumetric increases under the design events. The Eliot Street property line will experience approximately 30% more volume under the four modeled design storms.

VHB: §344-14.E requires that the drainage system is designed to balance pre and post rates of runoff, volumes of infiltration and prevention of downstream flooding. Consistent with DEP stormwater regulations for flood control, Table 5 shows that the peak discharge rates at all design points for all storms will be equal to, or less than, existing rates of runoff. Therefore, the project will not cause or contribute to downstream flooding.

PSC: The Subdivision Regulations require that “There shall be no volumetric increase or increase in peak runoff off the site” (§344-14.E). There is a volumetric increase in the aggregate for all design points.

34. The area of alteration exceeds 1 acre, therefore an EPA NPDES Construction General Permit will be required. This would require the preparation and submission of a Stormwater Pollution Prevention Plan (SWPPP).

VHB: A SWPPP will be prepared and submitted by the site contractor.

PSC: OK.



TRAFFIC AND SITE PARKING

35. Please indicate whether the project will be served by a central mail facility. If not located in the Amenity Building, the mail facility should be identified on the plan and provided with a suitable pullout or parking area.

VHB: A central mail facility will be located inside the Clubhouse and depicted on sheets to be added to the Site Plans.

PSC: OK.

36. The project is to be built in four phases as indicated on Sheet C-3. The first and second phases will involve completion Road 'A' and a portion of Road 'B'. There is concern that after completion of phase 2, but prior to the construction of Phase 3, units 28 through 33 will be reliant upon an approximately 1,150 foot long dead end access off Chestnut Street. Although this is a temporary condition, permanent dead-end lengths of more than 800 feet are prohibited by the town.

VHB: The Applicant will construct a rough graded, roadway connection to the terminus of Road B as shown on the Site Plans to Eliot Street for use as construction access and emergency response vehicles as part of Phase 1 construction, as discussed with and approved by the Fire Department, written evidence of which shall be filed with the Board prior to the close of the hearing. The Phasing Plan portion of the Site Plans will be revised to indicate this.

PSC: OK.

37. Given the relative density of the project, snow storage may be an issue, particularly after larger events. Dedicated snow storage locations should be provided on the drawings that preclude the use of shared parking areas.

VHB: As noted in the Snow Management section (pg. 10) in the Stormwater Management Report, snow will be managed through a maintenance contract between the Developer and thereafter the condominium association and a local service provider. Plowed snow will typically be piled alongside the roadways and at the ends of common driveways. Plowing contractors will utilize small Bobcat loaders to move snow and manage piles. The Plan text shall be modified to articulate that the guest parking spaces will not be utilized for snow storage except as may be needed under extreme weather conditions.

PSC: The Plan text has not yet been revised to preclude snow storage in guest parking spaces. The qualifying condition that this will be allowed under "extreme weather conditions" will be difficult to enforce.

38. The plans do not provide details for traffic or directional signage. If required, a Not A Thru Street sign should be provided at the Road A entrance.



VHB: Proposed stop sign locations are shown on the Layout and Materials Plans. A “Not A Thru Street” sign for the continuation of Road B, as specified in §7.2.10.7, shall be placed at the intersection of Road C and Road B and indicated in Layout and Materials portion of the Site Plans.

PSC: OK.

UTILITIES

39. The project proposes to connect to the existing town water system. To offset costs borne by the Town, Section 249.12 specifies that water main extensions through private property and private ways are to be made on the basis of agreement to repay the town over a twenty (20) year period, if applicable

VHB: Connection to the public water supply shall be made in accordance with all applicable municipal requirements. Ability to connect to Town water and any payments are governed pursuant to the executed Development Agreement with the Town of Ashland and shall be monitored by the DPW.

PSC: OK.

40. The project proposes to connect to the existing town sewer system. The applicant is required to submit the design to the DPW that conforms to §326-11. The project will generate in excess of 20,460 GPD from the dwellings, plus flows from the amenity building, if sewer. The applicant should document the status of the connection permits to the existing sewer system (§326-10.B, §326-10.F.)

VHB: At this time the plans show proposed water and sewer infrastructure consistent with input received during initial consultations with DPW. The Applicant will file construction level detailed drawings and specifications with the DPW for water and sewer permits prior to construction, and if adjustments to the design is required in order to obtain those permits, the plans and/or specifications will be revised.

For the record, the project is anticipated to generate 13,950 GPD following wastewater generation flow criteria in 310 CMR 15.203 (Title V). DEP considers 55+ deed restricted housing as Housing for the Elderly so long as there are no more than two bedrooms in the home; therefore, the calculation is 150 GPD/home as opposed to 110 GPD/bedroom.

PSC: OK.

41. Determine whether the DPW Water and Sewer Division will require a master meter with backflow devices. The location of the meter pit should be indicated on the drawings and coordinated to minimize tree clearance.



VHB: Individual meters will be provided for each home.

PSC: OK.

42. The applicant should confer with the Fire Department and provide documentation from the Department indicating their concurrence that the building access, water pressure and volume, alarms, and other fire protection related matters are deemed safe and acceptable.

VHB: Fire requirements have been coordinated with the Fire Department. A Fire Truck Maneuvering and Hydrant Location Plan (C-10.1 – C-10.4) has been prepared to provide supporting information. Written evidence of Fire Department approval shall be provided by the Applicant before the close of the hearing.

PSC: Awaiting final Fire Department approval.

43. Because the sewer connection from the facility is new, the DPW should be consulted regarding their policy regarding inflow and infiltration elimination

VHB: The sewer design has been/will be coordinated with the DPW. Written evidence of DPW approval shall be provided by the Applicant before the close of the hearing.

PSC: Awaiting final DPW approval.

44. The age, condition and materials of the existing water main should be provided on the drawings. The proposed pipe material (DIP CL-52) and connection technique should be reviewed with the DPW Water and Sewer Division.

VHB: At this time the plans show proposed water infrastructure consistent with input received during initial consultations with DPW. The Applicant will file construction level detailed drawings and specifications with the DPW prior to construction.

PSC: The Planning Board at its discretion may allow deferral of submission of detailed drawings.

45. Fire flow calculations should be provided for the project that demonstrate compliance with Insurance Services Office (ISO) fire flow guidelines while maintaining a residual pressure of 20 pounds per square inch (psi). Static pressure should be 60 psi desirable with a minimum 35 psi.

VHB: Hydrant flow tests witnessed by DPW were conducted for the project. The results indicate that the system can deliver more than 3,000 gpm with a 20 psi residual system pressure. Static pressures at the homes will vary depending upon the elevation of the homes, but generally will be in the 40-53 psi range. Applicant will file the impact study with DPW as required by §334-39 when applying for its water connection permit.



PSC: OK. Copies of the test data should be submitted to the Planning Office for their records.

46. The water service to the project is indicated at both Chestnut Street and Eliot Street with a tapping sleeve and single gate valve. For a project of this size, three full diameter gate valves are recommended at connections to the municipal water system

VHB: Please see response to #44. The water service connection will be coordinated with the DPW.

PSC: Please refer to Comment no. 44.

LANDSCAPING, LIGHTING AND SECURITY

47. The Landscape Design Narrative includes *Acer Saccharum* (Sugar Maples) in the inventory of proposed street trees. This species is susceptible to damage from road salt, and should be substituted with a more suitable alternative.

VHB: An alternate species will be substituted and the Landscape Design Narrative will be revised accordingly.

PSC: OK.

48. A watering and maintenance schedule for the site landscaping should be provided in the specifications on the landscape plan when submitted. A 2-year guarantee should be provided for all plants. (344-29.B.)

VHB: A note will be added to the Site Plans indicating that for the 2-year period following installation, the applicant and subsequently the condominium association will provide adequate watering and maintenance to ensure that the vegetation in the perimeter buffering areas and entrance remains viable and sustainable.

PSC: The note has been added as stated in the response. However, the requirements should apply to all planting and should not be limited to plantings in the perimeter buffering areas and entrance.

49. All dead trees or shrubs should be replaced within one growing season as a condition of approval.

VHB: The note in the response to 48 above will be expanded to include this.

PSC: The note addressing Comment 48 has been expanded as stated to provide for replacement of dead trees and shrubs. However, this requirements should not be limited to plantings in the perimeter buffering areas and entrance.

50. The plans do not provide any details for the project sign and possible illumination.



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VHB: Additional details will be provided and added to the Site Plans.

PSC: The dimensions and sign support have been shown on Sheet L-1. The method of illumination is not shown. The light fixture when selected should be consistent with preservation of “dark Skies” and avoid upward light projection.

51. The Landscape Design plan should identify any perimeter specimen plantings to be preserved if possible.

VHB: Site Plans indicate a limit of disturbance area line, and existing perimeter specimen trees are already protected within the 30’ perimeter no-disturb buffer and do not need to be individually identified. All existing Plantings within this area to be preserved except to the extent something presents a danger as determined by the landscape architect. A note will be added to the Site Plans.

PSC: The recommendation is to make minor adjustments in site work along the limit of work if practicable to preserve larger trees such as shifting a utility line, adjusting the location of a walkway, etc. This could be performed in the field with the Building Commissioner at the preconstruction conference.

52. A certification should be provided that the design is compliant with the provisions of the Massachusetts Architectural Access Board and Federal ADA requirements.

VHB: We believe this to be an exceedingly broad request and in general, inapplicable to this private project for a senior residential community. The requirements of the Americans with Disabilities Act (ADA) are constantly evolving and are subject to various, potentially contradictory interpretations and applications. The designers on this project will use their reasonable professional efforts and judgment to interpret applicable ADA requirements and other federal, state and local laws, rules, codes, ordinances and regulations as they apply to the project.

PSC: OK.