



February 21, 2019

Via Email

Town of Norfolk Zoning Board of Appeals  
Town Hall  
One Liberty Lane  
Norfolk, MA 02056

Attention: Christopher Wider, Chairman

**RE:** The Enclave at Norfolk  
Response to Civil Peer Review  
Village Green  
Norfolk, Massachusetts

Dear Chairman Wider:

Please accept this letter in response to the comments received as part of the Civil Peer Review letter dated February 14, 2019 received from Tetra Tech. Provided the Board is comfortable with the following responses, the below information can be incorporated into the Final Plans for review and consideration. Please see the below comments followed by our responses to same.

**Project Plan Comments**

1. **Comment:** *We request the applicant clarify if Road A is proposed as a subdivision road intended to eventually be accepted by the Town as a public way. If so we recommend the pavement section be modified to include at least a 3-inch binder course.*

**Response:** Road A is proposed as a subdivision road intended to be accepted by the Town as a public way. Note that the Subdivision Rules & Regulations indicate that residential streets shall have a 1.5" finish course and a 2.5" binder course, and the Final Plans will be updated to reflect these minimum standards.

2. **Comment:** *We understand the intent of providing a 30-foot wide main entry road is to provide adequate space for emergency vehicles and larger trucks. Based on the roadway geometry and the turning plans provided it appears a consistent 24-foot wide travel way may be wide enough to accommodate the intended movements. We recommend the applicant consider reducing the roadway width to a standard 24-foot dimension if allowed by the Fire Chief. If the 30-foot width is maintained, we recommend extending the transition zone to 50 feet.*

**Response:** The Final Plans will be revised to show a 24ft wide travel way along the main entry road. Note that the 24ft width will not impact a Fire Truck's ability to access and maneuver within the site.

3. **Comment:** *We recommend relocating the proposed paver speed table to Sta. 2+90 to provide better visibility for entering traffic and providing detectable warning panels at the curb line.*

**Response:** The proposed speed table will be relocated on the Final Plans.

4. **Comment:** *The plans indicate several proposed walls with "design by others" and it is unclear how the wall proposed along the west side of the entry road can be constructed in the location shown without impacting the abutting parcel. We recommend wall designs be provided on the Final Plans.*



**Response:** The proposed wall along the west side of the entry road will be relocated away from the property line on the Final Plans. Additionally, construction details of the wall will be provided.

5. **Comment:** *A photometric plan has not been provided but the only street lighting proposed consists of single lamp posts at each building (20 total) which are not expected to be a significant source of light and as such we do not require additional information.*

**Response:** Comment acknowledged.

6. **Comment:** *Individual septic systems are proposed for each unit and will require a permit from the Norfolk Board of Health pursuant to requirements of 310 CMR 15.00 (Title 5). The conceptual locations shown on the plans appear to consider applicable design requirements and are suitable for the purposes of preliminary plan review under the comprehensive permit. The required Board of Health review under 310 CMR 15 will ensure systems are constructed per applicable requirements.*

**Response:** Comment acknowledged. Please note that witnessed soil testing was performed with the Norfolk Board of Health and the locations of these perc tests and testpits are shown on the Utility Plans.

7. **Comment:** *We recommend the hydrant located opposite Unit #1 be located at least five feet from the edge of travel way and that hydrant locations be approved by the Fire Chief.*

**Response:** The hydrant opposite Unit #1 will be relocated on the Final Plans.

8. **Comment:** *We recommend the applicant confirm that underground storage of propane is acceptable to the Fire Chief and consider options for surface markers noting location of tanks.*

**Response:** The applicant will confirm that the Fire Chief is ok with the underground propane tanks. Note that the Fire Chief appears to be ok with them based on his letter dated January 29, 2019 and only mentions that a license must be obtained for the storage of more than 10,000g.

9. **Comment:** *The Landscape Plans and details are very detailed and indicate appropriate levels of landscaping. However, we recommend the applicant propose plantings or other improvements acceptable to homeowners opposite the site entrance to reduce impact of headlight glare from exiting traffic and to show those improvements on the Final Plans.*

**Response:** Extensive plantings already exist within the area opposite the main entrance, however the applicant will supplement this area with some additional plantings on the Final Plans.

10. **Comment:** *We recommend the Planning Board endorsement block be removed from the plans.*

**Response:** This will be removed from the Final Plans.

#### **Stormwater Report/Drainage Design Comments**

11. **Comment:** *Final Plans should include defined drainage easements providing access for maintenance of all stormwater basins and associated drainage infrastructure.*

**Response:** Defined drainage easements will be included within the Final Plans.

12. **Comment:** *Temporary sedimentation basins used during construction should not be proposed in locations of future infiltration systems.*



**Response:** Locations of temporary sediment basins will be modified within the Final Plans.

13. **Comment:** *We request test pit data be provided in the Final Plans for Infiltration Basin 2. A test pit has been completed approximately 130 feet northeast of the basin, however a test pit is required within the basin location to confirm soil conditions per Massachusetts Stormwater Handbook, Volume 2, Chapter 2, page 88.*

**Response:** Testpit data will be provided in the Final Plans for Basin 2.

14. **Comment:** *Test pit data from Appendix 3B show DT-12 did not provide enough information to confirm ground water elevation or soil conditions at the proposed location of subsurface infiltration basin (UG1). The test pit reaches an approximate elevation of 188, and the bottom of stone is proposed at elevation 187. We request additional test pit data be provided on the Final Plans to confirm ground water separation and soil conditions.*

**Response:** Additional testpit data will be provided within the Final Plans to verify the separation to groundwater as well as the soil conditions.

15. **Comment:** *It is imperative proposed driveways for Units 36-40 are constructed with a lip and berm to prevent flow from the roadway from entering the driveways and discharging to incorrect subcatchment areas.*

**Response:** A note will be added to the Final Plans indicating that a gutter line shall be maintained at these driveways and to grade the driveway aprons toward the road. Additionally, spot grades will be added in this area.

16. **Comment:** *HydroCAD analysis includes a 24-inch x 24-inch horizontal grate at elevation 194.03 for Underground Basin 1 (UG1) suggesting CBI is used as the proposed system overflow. This is a reasonable approach given the lack of available discharge options however we recommend the applicant confirm the location and condition of downstream drainage infrastructure that will be used in the case of an overflow of UG1.*

**Response:** Two existing catch basins are located within the limits of Village Green adjacent to the main entrance to the site. Notes will be added to the Final Plans indicating that the condition of these catch basins shall be inspected prior to construction, and if necessary, the basins shall be cleaned and/or repaired.

17. **Comment:** *We recommend the applicant provide one-foot of freeboard in the proposed UG1 infiltration basin.*

**Response:** One-foot of freeboard will be provided on the Final Plans.

18. **Comment:** *Applicant has used 8.27 inches/hour for exfiltration rates in the HydroCAD analysis for all three infiltration basins (PD1, PD2, and UG1). However, test pits DT-13 and DT-14 show sandy loam at the proposed bottom of Infiltration Basin 1 (PD1), and test pit DT-18 shows sandy loam at the proposed bottom of Infiltration Basin 2 (PD2). Exfiltration rates for PD1 and PD2 should be changed to 2.41 inches/hour in the HydroCAD analysis, and recharge volume calculations should be updated accordingly. Drawdown calculations will also need to be updated in the Drainage Analysis due to the changes in the recharge volume calculations.*

**Response:** Exfiltration rates will be modified on the Final Plans, as well as associated recharge volume calculations and drawdown volume calculations within the Drainage Analysis.



19. **Comment:** *Channel flow should be considered in time of concentration (Tc) calculations for Subcatchment P1A since runoff is entering a defined swale. Similarly, sheet flow is considered in the analysis after discharge from check dams for Subcatchment P1B, we would consider this flow to remain as shallow concentrated/channelized flow after overtopping the check dams in the proposed defined swale section.*

**Response:** This information will be updated and reflected in the Final Plans.

20. **Comment:** *Project is located within priority habitat as mapped in MassGIS. The applicant should confirm if they are actively working with Massachusetts Division of Fisheries and Wildlife regarding the proposed development.*

**Response:** The applicant is actively working with Natural Heritage and Endangered Species Program (NHESP) and has been assigned NHESP Tracking #06-20743 as part of their review.

21. **Comment:** *Drawdown calculations for Infiltration Basin 2 (PD2) are labeled as PD1 in Appendix 6A.*

**Response:** This information will be modified in the Final Plans.

22. **Comment:** *We recommend the Applicant include a MADEP Stormwater Report checklist in the Stormwater Report.*

**Response:** A Mass DEP Stormwater Report Checklist will be included in the Final Plans/Drainage Analysis.

23. **Comment:** *The Project will require coverage under the NPDES General Permit for Discharges from Construction Activities (CGP) which requires preparation of a site-specific Stormwater Pollution Prevention Plan (SWPPP). The Applicant should provide proof of coverage under the CGP prior to starting any land clearing activities.*

**Response:** Comment acknowledged. The applicant will provide proof of coverage under the CGP prior to construction.

24. **Comment:** *The checklist provided states the site is covered by National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP), however, we do not believe the NPDES MSGP applies, please confirm.*

**Response:** Correct. The Checklist will be updated within the Final Plans/Drainage Analysis.

25. **Comment:** *Temporary sedimentation basins used during construction should not be proposed in locations of future infiltration systems.*

**Response:** Refer to response to comment #12.

### **Septic System Comments**

26. **Comment:** *We request the Applicant provide available test pit data and assumptions used for system sizing as part of the Final Plan submittal.*

**Response:** Available testpit data and assumptions used for septic system sizing will be provided on the Final Plans.



**Water System Comments**

27. **Comment:** *Information documenting available pressure and capacity in the water system to serve the Project. The proposed density is similar to that evaluated earlier and no additional information is required unless otherwise requested by the Fire Chief.*

**Response:** Comment acknowledged.

28. **Comment:** *We recommend all curb stops be located outside the travel way and set at a consistent offset from the road.*

**Response:** Curb stop locations will be modified on the Final Plans.

29. **Comment:** *We recommend installation of a three-way gate valve assembly at new valve cut-in at Village Green Street.*

**Response:** A three-way gate valve assembly will be shown on the Final Plans at the connection to the Village Green water main.

**Roadway/Traffic Comments**

30. **Comment:** *We recommend the Applicant conduct a conditions summary of Cleveland Street and Village Green Street prior to commencement of construction activities and repair any damage or degradation of roadway surfaces resulting from access during construction.*

**Response:** The applicant will provide a conditions summary of Cleveland Street and Village Green prior to commencement of construction activities as well as repair and/or overlay of any damage that is caused due to construction traffic.

We look forward to discussing these items with the Board during the upcoming hearing on February 27<sup>th</sup>, 2019. Please do not hesitate to contact us at 508-480-9900 should you have any questions or require any additional information regarding our responses.

Very truly yours,

**BOHLER ENGINEERING**

Randy M. Miron

Cc: Tom DiPlacido, Norfolk Holdings, LLC (via email)  
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