

July 24, 2023

Town of Pembroke Planning Board
Pembroke Town Hall
100 Center St.
Pembroke, MA 02359

RE: Response to Comments
33 Riverside Dr.
Pembroke, MA 02359

Copy to: KRR Pembroke LLC c/o Rader Properties, Inc.
Merrill Engineers (1 copy)

Dear Members of the Board:

On behalf of our client, KRR Pembroke LLC c/o Rader Properties, 80 Washington St. Bldg J-40, Norwell, MA 02061, we are pleased to submit the following documents:

1. One (1) full size, and eight (8) 11x17 copies of the "Site Development Plans", by Kelly Engineering Group, Inc., revised July 6, 2023
2. One (1) copy of Addendum to Stormwater Management Report by Kelly Engineering Group, Inc., dated July 6, 2023
3. One (1) copy Lighting fixture cut sheets.
4. Eight (8) 11x17 copies of the "Autoturn Exhibit WB55" by Kelly Engineering Group, Inc., dated July 06, 2023
5. Eight (8) copies of Drainage Easement Book 2882 pages 171 – 177.

The purpose of these documents is to provide responses to comments received from Town of Pembroke Town Engineer in email dated July 6, 2023, and peer review comments in letter by Merrill Engineers and Land Surveyors dated July 3, 2023. Each comment has been included in plain text followed by responses in italics.

Town Engineer Comments – July 6, 2023

The following are comments from the Pembroke Water Department.

- At the recommendation of the Towns Engineer the Pembroke Water Department requests that you tie the 8" water main into Water St. to loop the water mains and improve water quality in the area.

The plans have been revised to loop the 8-inch water mains from Riverside Drive to Water Street.

Merrill Engineers and Land Surveyors Comments – July 6, 2023

1. The warehouse/wholesale storage use are allowed by special permit, and it is stated that a special permit will be applied for with the Zoning Board of Appeals. No variances have been requested.

2. Signs: No project signage is shown on the site plans. Will there be any signage proposed? Should signage be proposed, information regarding the location, height, size, color, etc. should be submitted to the Planning Board for review.

Separate signage permits will be applied for when tenants are leased and prior to filing for building permits.

3. Procedure: The approved site plans shall be recorded with the Plymouth County Registry of Deeds within 30 days of the expiration of the appeal period. Proper recording information should be provided on the plans meeting recording requirements.

Site plans will be recorded with the Plymouth County Registry of Deeds. Recording information has been added to the revised plans.

4. Property boundary information for the parcel should be presented on the plans.

Boundary bearing and distances are shown on layout plan. Boundary bearing and distances have been added to the Existing Conditions, and Grading plans.

5. The Planning Board signature block and approval statements can be provided on the Cover Sheet only. Please add the registry recording information on all sheets.

Registry recording information has been added on all sheets.

6. Proposed landscaping including a plant list is provided on the Layout Plan, sheet 3.

Acknowledged

7. The proposed utility services are shown on the plans. The existing utilities are shown as approximate. The size and material of the existing water main to be connected to should be specified.

Size and material of the existing water main has been specified on the revised plans.

8. A Zoning Table is presented on the Layout Plan, sheet 3 of the plans as required.

Acknowledged

9. The elevation and façade treatment of the proposed building are provided on the Architectural plan. The material colors have not been submitted as required.

Acknowledged

10. The parking area provides a total of 270 parking spaces – 172 existing spaces and 98 proposed spaces. Four (4) accessible parking spaces on the easterly side of the proposed building are provided. Based on the total number of parking spaces (270) proposed, seven (7) accessible spaces are required and are provided. Parking space sizing, locations and loading areas are provided.

Acknowledged

11. A breakdown of the building lot coverage and percentage of paved (impervious) area used for parking, loading, access within the property and the percent of open space should be provided.

Building floor area (BPA) is provided on Sheet 3. Coverage (total impervious area) has been added to Sheet 3, Note 2.

12. A waiver has been requested for the site plan scale. The plans are at a 1:30 scale and are appropriate.

Acknowledged, requested waivers have been added to the coversheet.

13. A waiver has been requested for the submittal of a Development Impact Statement. The Planning Board should determine if it is acceptable.

Acknowledged, requested waivers have been added to the coversheet.

14. We recommend the Site Plan be reviewed with the Water and Fire Departments. Would it be possible to review looping the water main through to Water Street? It may be an additional 150 ft but would loop Winter Street and Riverside Drive water mains. Has the adequacy of the existing water main to support the development been reviewed?

The Town Engineer and Water Department has reviewed the site plans and requested the same. The water line will be looped from Riverside Drive to Water Street as shown on the revised plans.

15. An old septic system is shown on the site plan. The existing septic system is proposed to be reconstructed for the existing building and a new septic system is proposed for the new building. Clarification on abandonment of the systems to be removed should be provided. It is indicated that the two proposed systems shall be submitted to the Board of Health for review and approval.

Plans have been revised to callout removal and abandonment of the existing leaching field.

16. The erosion control barrier and construction tracking pad are shown on the plans with details. Additional information on soil stockpiling and construction staging should also be provided. Although, no surface stormwater basins are proposed, we would recommend noting that the subsurface infiltration chamber systems are not to be utilized for temporary sediment traps and be protected from heavy construction traffic to avoid compromising the soil conditions.

The location of soil stockpiling and construction staging area has been added to the revised plans. Notes have been added to the Grading Plan to protect recharge systems.

17. No sign location is shown on the site plan. Should signage be proposed, information regarding the location, height, size, color, etc. should be submitted to the Planning Board for review.

Separate signage permits will be applied for when tenants are leased and prior to filing for building permits.

18. A photometric plan has been provided for the proposed building and surrounding parking areas. The existing building and parking area lighting has not been evaluated.

Acknowledged

19. A waiver has been requested for the submittal of a Traffic Impact Study. The Planning Board should determine if it is acceptable.

Acknowledged

20. Landscape plantings are provided on the Layout Plan and planting details are provided on the Detail Sheet 9 of the plan set. The Planning Board should determine if this landscape information is satisfactory. A natural buffer along Water Street is being maintained, with the minimum depth of 29 ft to the property line with 80 ft or more to the residential properties across Water Street.

Acknowledged.

21. The location of the proposed lighting is presented on the Layout Plan and a photometric plan has been provided for the new building only. The lighting fixtures are proposed to be shielded and pole mounted at 20 ft height and wall pack lighting mounted at 15 ft height. Additional information on the lighting fixtures should be provided to ensure proper shielding and dark sky compliance.

See attached light fixture cutsheets.

22. Stormwater Management Design Calculations indicate that the overall stormwater management system will attenuate the post development stormwater flows to a level not exceeding the existing conditions. We offer the following comments regarding the drainage design and analysis:

- We recommend that soil testing be performed within the subsurface chamber system locations to confirm the soil conditions used in the stormwater design.

Test Pits within the drainage system are currently being scheduled with the Board of Health. Once conducted test pit logs will be provided.

- Currently if the existing drainage system consisting of catch basins and leaching structures surcharges, the site can flow overland toward the undeveloped portion of the site to the west. In the proposed condition, this overflow condition is eliminated, how will the existing drainage system be provided emergency relief?

The existing leaching structures have solid manhole covers. Overflow would occur in the existing catch basins; these conditions will continue in the proposed conditions.

- In the drainage model, the overflow outlet is not provided for Pond No. 1 Sys 1 (1B). The overflow outlet elevation is proposed at 43.50 and the maximum surface elevation in the chambers is 43.61, just above the overflow outlet. Similarly, the overflow outlet is not provided for Pond No. 2 Sys 2 (2B) although the maximum surface elevation in the chambers is 43.39 and does not reach the overflow.

System #1B overflow outlet has been revised to elevation 43.7, above the elevation from the 100 year storm event. The overflow outlet for System #2 is at 43.5, above the 100 year storm event elevation of 43.39.

- In the drainage model, Pond No. 3 – Sys 3 (3A) should be adjusted to match the plans. The storage is from elevation 37.00 to 40.00 and the invert elevation is 38.8 and 39.0. On the plans, this system is one foot lower.

System 3 has been updated to match the elevations on the plans. See Addendum to Stormwater Management Report.

- The DMH label at the outlet of System #2 is incomplete.

The DMH label has been labeled “DMH #2”.

- We recommend more than one inspection port be provided per system. The inspection port locations should be labeled on the site plan.

Additional Inspection ports have been added and labeled.

- We recommend an Outlet Control Structure detail be provided.

Outlet control structure detail has been added.

- All the proposed catch basins are noted as water quality pretreatment structures. The catch basin detail should be replaced with the CDS 1515-3 unit detail.

Catch basin detail has been replaced with CDS 1515-3 unit detail.

- The pipe sizing calculations for the roof drains look to underestimate the roof area and the pipe size of 12 inches is not consistent with the proposed 8 inch PVC roof leader proposed on the plans.

The pipe sizing calculations have been revised for 11,250 SF. 8” PVC

23. It is general practice to design sites to comply with Massachusetts DEP Stormwater Management Regulations. The following section describes the 10 Standards for compliance with Stormwater Management Regulations and the status of the submittal relative to each standard.

Standard 1 – Untreated Stormwater

Rip rap pad sizing has been provided on the detail. Stone sizing should also be provided. This standard is partially met.

Rip rap sizing has been provided in the Addendum to Stormwater Management Report and plans have been updated with length, width and stone sizes.

Standard 2 – Post Development Peak Discharge Rates

As shown in the Drainage Report submitted by the design engineer this Standard appears to be met. We have requested some minor adjustment in the calculations but anticipate that the changes will not alter the peak rates.

Acknowledged

Standard 3 – Recharge to Groundwater

As shown in the Drainage Report submitted, this standard is met.

Acknowledged

Standard 4 – 80% Total Suspended Solids (TSS) Removal

TSS calculations have been submitted demonstrating that a TSS removal rate of 80% is proposed. The DEP Stormwater Management Regulations requires a removal rate of 80% and this standard has been met.

Acknowledged

Standard 5 – Higher Potential Pollutant Loads

This project is not considered a source of higher pollutant loads. This standard is not applicable.

Acknowledged

Standard 6 – Protection of Critical Areas

Based on information presented on MassGIS and the Town of Pembroke GIS web page, the project site is not in a Critical Area.

Acknowledged

Standard 7 – Redevelopment Projects

This project is not considered a redevelopment project although it could be considered a mix of new and redevelopment. This standard is not applicable.

Acknowledged

Standard 8 – Erosion/Sediment Control

Soil Erosion & Sediment Control information including details has been provided. Additional information on soil stockpiling and construction staging should be provided. This standard is partially met.

Locations of soil stockpiling and construction staging has been added to the Grading Plan.

The project will require to file for a Construction General Permit (CGP) with the US EPA and implement a Stormwater Pollution Prevention Plan (SWPPP). We recommend a copy of the CGP and SWPPP be provided to the Town prior to the start of construction.

Prior to construction a Stormwater Pollution Prevention Plan will be prepared and filed with EPA for a NPDES construction permit. A copy of the Stormwater Pollution Prevention Plan will be provided to the Town of Pembroke.

Standard 9 – Operation and Maintenance Plan

An Operation and Maintenance Plan has been provided as required. This standard is partially met.

If parking lot sweeping is to be considered for TSS credit, sweeping is required 4 times per year at a minimum. The inspection frequency on the inspection checklist should be updated to 4 times per year.

Sweeping has been removed as a TSS credit. 80% TSS removal is still provided. See revised TSS worksheet.

The Contech CDS manufacturers' maintenance guidelines should be included in the O&M plan.

The Contech CDS maintenance guide has been added to the Operation and Maintenance Plan.

The Cultec chamber system manufacturers' maintenance guidelines should also be included in the O&M plan.

The Cultec chamber maintenance guide has been added to the Operation and Maintenance Plan.

Since the drainage system relies solely on subsurface infiltration systems, it is recommended that vehicle washing be discouraged on site.

Vehicle washing has been removed from the Operation and Maintenance plan and is discouraged.

Standard 10 – Illicit Discharges

An "Illicit Discharge Compliance Statement" meeting the requirements specified in the Stormwater Management Regulations has been submitted and signed. This standard is met.

Acknowledged

24. Please provide a retaining wall detail. The wall is proposed to be greater than 4 ft in height, with a maximum height of 9 ft. The retaining wall final design should be designed by a registered structural engineer prior to construction.

A retaining wall detail has been added to the revised plans. The final design will be stamped by a structural engineer prior to construction.

25. The outlets for chamber systems 3 and 4 show varying conditions. The outlets show a headwall condition while the note for System 3 states a flared end section and the note for System 4 states a 50 ft wide level spreader. The detail shows both a flared end section and headwall condition. Could both outlets be coordinated with the retaining wall? If the level spreader is needed at the System 3 outlet, then a detail should be provided for the level spreader. Will these outlets be maintained from Water Street or the site?

A level spreader is not needed at the System 3 outlet due to the low flow leaving the system. the outlet has been revised to a flared end section. These outlets will be maintained. See Operation and Maintenance plan.

26. The plans should be reviewed by the Pembroke Fire Department relative to access and fire protection.

Acknowledged.

27. The maximum vehicle anticipated on site should be evaluated for vehicle access and circulation.

See attached Autoturn Exhibit for a WB55 truck..

28. Please provide information on the existing drainage easement.

Information on the existing drainage easement is attached.

Please note the plans have also been revised from having concrete pads to heavy duty pavement at loading docks and the safety fence above the retaining wall revised to a 3.5' high chain link fence with privacy slats and the detail has been added to sheet 8.

If you have any questions or desire additional information, please feel free to call our office at 781-843-4333.

Sincerely,

KELLY ENGINEERING GROUP, INC.



Brandon G. Li, P.E.
Senior Engineer