



Professional Civil Engineering • Professional Land Surveying • Land Planning

150 Longwater Drive, Suite 101
Norwell, MA 02061
Tel: 781-792-3900
Fax: 781-792-0333
www.mckeng.com

August 31, 2021

Town of Pembroke Zoning Board of Appeals
Town Hall
100 Center Street
Pembroke, Massachusetts 02359

Attn: Sabrina Chilcott, Assistant Town Manager
schilcott@townofpembrokmass.org

**RE: Comprehensive Permit
Peer Review Comments River Marsh Village
Water Street Pembroke, Massachusetts**

Dear Ms. Chilcott and Members of the Board,

This letter is in response to questions and comments in a review letter dated June 29, 2021, from Ron Müller & Associates for the above referenced project.

Enclosed herewith are the following:

- Two (2) full size plans of River Marsh Village - Comprehensive Permit Plan, Water Street, Pembroke, Massachusetts, prepared by McKenzie Engineering Group, 8 sheets, dated September 22, 2016, revised August 31, 2021.
- Two (2) copies of the response Letter, prepared by Baker, Braverman & Barbadoro, P.C., dated August 3, 2021.
- Two (2) copies of the response Letter, prepared by Baker, Braverman & Barbadoro, P.C., dated August 5, 2021.
- Two (2) copies a memo, prepared by Vanasse Associates, Inc., dated July 27, 2021.

The following are responses to the comments that were highlighted in the Ron Müller & Associates review letter that pertain to Site Review only. Please refer to Vanasse Associates, Inc. memo dated July 27, 2021, for responses related to traffic. (MEG response in blue italics).

SITE PLAN REVIEW

Comment 17: Our prior comment regarding conflicts between the traffic study and the site plan with regard to the use of the southern site driveway has been resolved. **See our recommendations in Comment 8 regarding the proposed turn restriction at the southern site drive.**

Response: *Please refer to Vanasse Associates, Inc. letter dated July 27, 2021.*

Comment 18: We recommend that a sidewalk be provided along at least one side of each internal roadway to allow safe pedestrian movements within the site. In addition, given this roadway width, on-street parking should be prohibited along all internal roadways.

The revised plan now shows a sidewalk along the south side of the northern driveway (Road A), but only up to approximately Building 3. **The site plan also does not show any parking prohibition along the internal roadways. Therefore, our original comments still stands.**

Response: *The plans have been revised to include a five-foot wide bituminous concrete sidewalk with a precast concrete curb vertical curb with a six-inch reveal along one side of each internal roadway. The revised typical roadway section consists of two (2) 10-foot travel lanes with a five-foot wide sidewalk along one side. All wheelchair ramps are to be cement concrete with a warning panel.*

No parking signs have been added to the plan, refer to Sheet C-1

Comment 19: **All pedestrian accommodations should comply with the Americans with Disabilities Act (ADA).**

Response: *Comment noted, refer to Sheet C-1 and D-2.*

Comment 20: **All proposed signs and pavement markings should conform with the Manual on Uniform Traffic Control Devices (MUTCD).**

Response: *Comment noted. A note has been added to the plan, refer to Sheet C-1.*

Comment 21: We recommend that a minimum of 23 feet be provided between the garage doors of each unit and the edge of roadway to ensure that an outside parked vehicle does not interfere with the roadway travel. The revised site plan shows a minimum of 23 feet between garage doors and the edge of road. **No further comment.**

Response: *Comment noted.*

Comment 22: We requested that turning radii at the site driveway intersections with Water Street and at the internal site intersections be labeled and that a turning analysis be performed showing how delivery vehicles and Pembroke fire trucks can access and navigate the site.

The corner radii are now labeled on the updated site plan showing 30-foot corner radii at the northern driveway intersection, a 25-foot for the right-turns-in and a 15-foot radius for right-turns-out at the southern driveway, and 20-foot corner radii at the internal four-way intersection. A turning analysis was performed showing that Pembroke fire trucks can access and egress the site to/from the south via the northern driveway and can access

and egress the site to/from the north via the southern driveway.

Since the reverse movements were not modeled, we assume that fire trucks for example, cannot access the site from the south via the southern driveway due to the right corner radii provided here. This could be problematic for the Pembroke Fire Department if they need to respond to an emergency at the buildings in the southern half of the site. We recommend that the Pembroke Fire Department be consulted to verify that the emergency access/egress plan is acceptable or modifications to the corner radii be made that all movements can be safely made.

Furthermore, site access, egress, and circulation through the side for delivery vehicles was not modeled. The 15-foot corner radius for right-turns out of the southern driveway will likely cause delivery vehicles to have to use up all of the Water Street width to make the turn. **We recommend that this movement be modeled and the corner radius adjusted that single-unit trucks and safely make this turn.**

Response: *The requested turning movements for the fire apparatus have been added and are shown on Sheets C-5 and C-6. Turning movements for a delivery truck have been added to the plan set and are shown on Sheets C-7 and C-8 demonstrating that a delivery truck can safely make the right-turn out of the southern drive without using all the Water Street width.*

Comment 23: The access to Building-8 is a dead-end street that would require fire trucks to back out to exit. The Pembroke Fire Department should be consulted to determine whether accommodations should be made to allow fire trucks to turn around in this dead-end street. The Pembroke Fire Department should also be consulted to ensure accessibility to all of the proposed buildings.

Response: *The plan has been revised to include a 20-foot-wide gravel access turn around at Building-8 for fire trucks. Refer to Sheet C-6 for the turning movement for the fire apparatus.*

Comment 24: The proposed southerly site driveway will traverse over a portion of the existing residential driveway to the property at 248 Water Street. The updated site plan now shows what we presume to be a relocation of this driveway to intersect with the south site drive. **The applicant should conform with the affected property owner that this driveway relocation is acceptable. The Town of Pembroke may want to consider requiring a written agreement between the two parties.**

Response: *Please refer to the letter prepared by Baker, Braverman & Barbadoro, P.C., dated August 3, 2021.*

Comment 25: The Pembroke School Department should be consulted to determine where school children will be picked up and dropped off. **If the school buses will not enter onto the property (which is typically the case), then the applicant should consider an on-site school bus waiting area, potentially at the north drive intersection with Water Street, including provisions of a parking area for parents that drive their children to the bus stop.**

Response: *Please refer to the letter prepared by Baker, Braverman & Barbadoro, P.C., dated August 5, 2021. Please note there has been no response to date by the School Department.*

The visitor parking area across from Building-3 is proposed to be the on-site school bus waiting area with access to Water Street by a 5-foot-wide sidewalk.

Comment 26: The prior site plan proposed an open/recreational use area and we recommended that signs be posted prohibiting vehicular travel along the access road. The updated site plan eliminated the open space/recreational use area. **No further comment.**

Response: The plan has been revised to include an open space/recreational use area behind Buildings 10 & 11. Authorized Vehicles Only signs have been proposed at the entrance to the access road to the Wastewater Treatment Plant and the fire truck turn around.

Comment 27: We recommended that the sight triangles be shown on the site plans and conditions be included requiring that these areas be maintained free of any vegetation and objects that would impede sight lines within these sight triangles

While the updated site plan now shows the sight triangles on the plan, **the sight triangles should be revised to reflect the minimum requirements as established by VAI and any trees or other obstructions within these sight triangles should be identified to be trimmed or removed to assure that the minimum required sight lines can be maintained without impacting adjacent properties. See also recommendations in Comment 8 regarding the proposed turn restriction at the southern site drive.**

Response: The sight triangles have been revised to reflect the minimum requirements established by VAI and a note that states "Areas for trees, obstructions and vegetation to be removed and/or regularly maintained" has been added to the plan.

We believe that we have sufficiently addressed the comments in the June 29, 2021, Ron Müller & Associates' letter. Please do not hesitate to contact us should you have any questions or require additional information.

Very truly yours,

MCKENZIE ENGINEERING GROUP, INC.



Susan Spratt, P.E.
Project Manager



Bradley C. McKenzie, P.E.
President

Cc: Matthew Heins, Pembroke Planning Board
Amy E. Kwesell, Esq.
Brian Murphy
Kimberly Kroha, Esq.
Merrill Engineers and Land Surveyors