



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

April 6, 2021

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

Attn: Sabrina Chilcott, Assistant Town Manager
schilcott@townofpembrokemass.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 March 1, 2021 from Merrill Engineers and Land Surveyors (Merrill) for the above referenced project.

Enclosed herewith are the following:

- One (1) full size and (2) 11"x17" 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 April 5, 2021.
- Two (2) copies of the Drainage Calculations and Stormwater Management Plan, Comprehensive Permit Plan, River Marsh Village, Pembroke, MA, prepared by McKenzie Engineering Group, dated November 27, 2018, revised April 5, 2021.
- Two (2) copies of the response Letter, prepared by Baker, Braverman & Barbadoro, P.C., dated March 8, 2021.
- Two (2) copies of the subsurface sewage disposal system sizing calculations, prepared by McKenzie Engineering Group, dated April 5, 2021.

The following are responses to the comments that were highlighted in the Merrill review letter that warrant further clarification (MEG responses in bold italics).

COMPREHENSIVE PERMIT RULES AND REGULATIONS

3.1 The application for a Comprehensive Permit shall consist of:

The following is a listing of the items required by the Zoning Board of Appeals shown in *italic print* with our comments noted below.

- a) *Site Control: Evidence that the developer has control over the property in question; a copy of the deed, purchase and sale agreement or option agreement.*

This information has been submitted as part of the Application material referenced above. Since much of the information in the Application is dated 2018, we recommend that it be updated or documentation provided that the information in the Application is still valid.

Please refer to the letter prepared by Baker, Braverman & Barbadoro, P.C., dated March 8, 2021, enclosed.

- b) *Preliminary site development plans showing the locations and outlines of proposed buildings, the proposed locations, general dimensions and materials for streets, drives, parking areas, walks and paved areas; and proposed landscaping improvements and open areas within the site. An applicant proposing to construct or rehabilitate four (4) or fewer units may submit a sketch of the matters in 760 CMR 56.05(2)(a) and 31.02 (2)(c) which need not have an architect's signature. All projects of five or more units must have site development plans prepared by a registered architect or engineer.*

A Comprehensive Permit Plan prepared by a registered professional engineer has been submitted for this project as required. The plan set consists of eight (8) sheets: Existing Conditions Plan, Preliminary Site Layout Plan, Preliminary Grading & Drainage Plan, Preliminary Utilities Layout Plan and Construction Details Sheets 1-4. The dimensions and materials for the roadway are shown on the Detail Sheet. The plan shows that the existing dwelling is to be retained. If this is the case, this is extremely close to the proposed Building 2 and additional information should be provided.

Yes, the existing dwelling located at 274 Water Street is to be retained. Building #2 has been changed from a five-unit structure to a three-unit structure and the distance from the existing dwelling has been increased from 2 feet to 45.3 feet.

Grading is proposed immediately adjacent to abutting properties at a number of locations. We recommend that a vegetated buffer be provided for those areas of the project abutting residential dwellings. As shown on the plan, no sidewalks are proposed. In order to provide for pedestrian safety along the roadway system, we recommend that sidewalks be provided within the project area and possibly extend off-site. The deck for the northern most unit of Building 10 is extremely close to the roadway. Additional setback distance should be provided from the roadway.

Vegetated buffers and a 6-foot-high privacy fence are proposed along the side and back property lines of 248, 260 and 268 Water Street where the project abuts those areas, see Landscape Plan L-1.

Building #10 has been reconfigured and the distance from the roadway to the deck has been increased from 2 feet to 9.5 feet.

We recommend that the following additional information be shown on the plans:

- Distance between buildings
Please refer to the Preliminary Site Layout Plan, Sheet C-1 for the requested information.
- Distance along driveway from edge of pavement to garages
Please refer to the Preliminary Site Layout Plan, Sheet C-1 for the requested information.
- Distance from the stormwater basin to units and property line
Please refer to the Preliminary Site Layout Plan, Sheet C-1 for the requested information.
- Roof Drains
Roof drains will be submitted in conjunction with the development of final construction plans. All roof runoff has been accounted for in the post-development HydroCAD model and the proposed infiltration basin has been sized accordingly.
- Designated Open Areas
Please refer to the Preliminary Site Layout Plan, Sheet C-1 for the requested information.
- Landscaping, in particular for the areas in close proximity to abutting property and around the stormwater basin
A preliminary landscape plan is included in the plan set, refer to Sheet L-1. A robust landscape plan will be prepared by a Landscape Architect with the development of final construction plans.
- Estimated earthwork quantities
Please refer to the Preliminary Grading and Drainage Plan, Sheet C-2 for the preliminary earthwork quantities.
- Preliminary proposed roadway profiles should be presented to demonstrate that adequate sight distances are provided.
Preliminary roadway profiles for Road "A", "B" and "C" are included in the plan set, refer to Sheet C-4.
- The type of curbing and all curb radii specified
Please refer to the Preliminary Site Layout Plan, Sheet C-1 for the requested information.
- The perimeter of the subject property shown in darker/thicker line type.
The plans have been updated to show the perimeter of the subject property in a darker/thicker line type.
- Topographic and utility information on Water Street adjacent to the site
The plans have been updated to include the requested information.
- Additional topography between the site and Water Street.

The plans have been updated to include the requested information.

- Sight Distance triangles at both project driveways

Preliminary sight distance triangles based on the American Association of State Highways and Streets (AASHTO) 85th percentile travel speed for 30 mph is included in the plan set for both drives, refer to Sheet C-7. Once actual speed data is obtained, the sight distance triangles will be updated accordingly.

- Provisions for Accessible Parking Spaces including details.

Please refer to the Preliminary Site Layout Plan and details, Sheets C-1 and D-3 for the requested information.

- A Fire Truck Access Plan should be added to the plan set.

Fire Truck Access Plans using the Town of Pembroke Ladder Truck are included in the plan set, refer to Sheets C-5 and C-6.

A report on existing site conditions and a summary of conditions in the surrounding areas, showing the location and nature of existing buildings, existing street elevations, traffic patterns and character of open areas, if any, in the neighborhood. This submission may be combined with that required in 760 CMR 56.05(2)(a).

Information on the Existing Conditions has been provided. An Overall Map at a scale of 1 inch = 250 feet is presented on the Comprehensive Permit Plan and a USGS Locus Map is provided in the Drainage Calculations and Stormwater Management Plan showing the location and nature of existing buildings and existing streets. As required, a detailed Transportation Impact Assessment prepared by Vanasse & Associates Inc. discussing both existing and future conditions has been submitted for this project. A peer review of the Transportation Impact Assessment is being performed by Ron Muller & Associates and is being submitted as a separate document.

Soil Logs for soil testing performed in 1992 were included in the submittal. We recommend that the plan be revised to label all test pits and that additional updated soil testing be performed regarding the existing soil conditions and depth to estimated seasonal high groundwater (ESHW) since these conditions have a significant impact on the design of the proposed stormwater management system and proposed subsurface sewage disposal system. We recommend that the soil testing results be shown on the plan. The depth to groundwater as well as the infiltration capabilities of the soil will have a significant impact on the size and elevation of these systems. This may impact the building placement as well as the elevation of the roadway and consequently the total amount of fill which may be necessary for construction.

Additional soil testing was performed on March 16, 2021 at the specific location of the infiltration basin. Please refer to Appendix E of the Drainage Calculations and Stormwater Management Plan.

The design of the wastewater treatment plant (WWTP) will require a permit under the MassDEP Groundwater Discharge Permitting Program, 314 CMR 5.0. As such DEP is required to witness the soil testing within the limits of the proposed soil absorption system during the permitting process. Preliminary calculations for the soil absorption system are based on 157

bedrooms and a perc rate of 0 to 5 minutes per inch.

- c) *Preliminary, scaled, architectural drawings. For each building the drawings shall be prepared by a registered architect, and shall include typical floor plans, typical elevations, and sections, and shall identify construction type and exterior finishes.*

Preliminary, scaled, architectural drawings showing typical floor plans, typical elevations, and typical sections are contained in the Comprehensive Permit Application document. Due to the scale of the plans, 8-1/2" X 11", it is unclear whether the construction type and exterior finishes were provided. We recommend that full scale preliminary, scaled, architectural drawings be submitted.

- d) *A tabulation of proposed buildings by type, size (number of bedrooms, floor area) and ground coverage, and a summary showing the percentage of the tract to be occupied by buildings, by parking and other paved vehicular areas, and by open areas.*

A tabulation of proposed buildings is contained in Section 6. of the Comprehensive Permit Application document.

No comment required.

- e) *Where a subdivision of land is involved, a preliminary subdivision plan is required.*

Not Applicable.

No comment required.

- f) *A preliminary utilities plan showing the proposed location and types of sewage, drainage, and water facilities, including hydrants. Adequate supporting information, including pre- construction and post-construction drainage calculations and soil test results (which result shall have been witnessed by an appropriate and qualified Town Official or a qualified Town consultant) shall be provided to demonstrate that the proposed drainage system shall meet all Stormwater Management Guidelines promulgated by the Massachusetts Department of Environmental Protection, or best management practices, whichever is more stringent and shall result in no net increase in the rate or volume of stormwater runoff;*

A preliminary utilities plan showing the proposed location of the subsurface sewage disposal system as well as the stormwater management system and water facilities, including hydrants, is shown on the plans.

We recommend that additional design information be provided to demonstrate that the size of the subsurface sewage disposal system has been adequately designed to meet the state and local regulations. This additional information should include soil testing results and a mounding analysis.

Please refer to the letter prepared by Baker, Braverman & Barbadoro, P.C., dated March 8, 2021, enclosed.

The design of the wastewater treatment plant (WWTP) will require a permit under the MassDEP Groundwater Discharge Permitting Program, 314 CMR 5.0. As such DEP is required to witness the soil testing within the limits of

the proposed soil absorption system during the permitting process. Preliminary calculations for the soil absorption system are based on 157 bedrooms and a perc rate of 0 to 5 minutes per inch.

A stormwater management report entitled "Drainage Calculations and Stormwater Management Plan" has been submitted and indicates that the overall stormwater management system will attenuate the post development stormwater flows to a level not exceeding the existing conditions. The stormwater management report should provide the information to demonstrate that the project is capable of meeting the 10 Standards for Compliance with the Massachusetts DEP Stormwater Management Regulations.

The Drainage Calculations and Stormwater Management Plan has been updated to demonstrate that the project can meet all 10 Standards for Compliance with the MassDEP Stormwater Management Regulations.

Although the project is exempt from Standard 2 of the Massachusetts DEP Stormwater Management Regulations for land subject to coastal storm flowage as defined in 310 CMR 10.04, the project complies with Standard 2.

We offer the following comments regarding the stormwater management system design and analysis:

- We recommend that a MassDEP "Checklist for Stormwater Report" be submitted for this project.

Please refer to Appendix C of the Drainage Calculations and Stormwater Management Plan for the MassDEP "Checklist for Stormwater Report".

- As previously stated, we recommend that updated additional soil testing be performed within the limits of the proposed stormwater infiltration basin to confirm the soil conditions and depth to the Estimated Seasonal High Groundwater Elevation (ESHGW) used for the design and to demonstrate that the design meets the criteria specified in the Mass DEP Stormwater Management Handbook.

Additional soil testing was performed on March 16, 2021 at the specific location of the infiltration basin. Refer to Appendix E of the Drainage Calculations and Stormwater Management Plan.

- Watershed Plans for both the Existing and Post-Development Conditions have been included in the Drainage Calculations and Stormwater Management Plan. We recommend that the Post-Development Watershed Plan be revised to account for the offsite areas which will be flowing onto the proposed roadway and consequently into the proposed stormwater basin. Additional topographic contours should be shown between the site and Water Street.

Offsite areas flowing to the site have been developed using contour information download form MassGIS Lidar.

The Pre- and Post-Development Watershed Plan has been revised accordingly. Please refer to Appendix A and B of the Drainage Calculations and Stormwater Management Plan.

- The post development watershed plan indicates that all roof runoff will be directed into the proposed stormwater infiltration basin. We recommend that the roof drains be shown on the plan. The size and material of the roof drains should be specified.

Roof drains will be submitted in conjunction with the development of final

construction plans. All roof runoff has been accounted for in the post-development HydroCAD model and the proposed infiltration basin has been sized accordingly.

- We recommend capacity calculation for the roadway stormwater system be provided and that the Preliminary Grading & Drainage Plan be revised to show the pipe size, material, slope and flow arrows for all drain lines.

Capacity calculations for the roadway stormwater system will be submitted in conjunction with the development of final construction plans.

- Capacity calculation should be provided for the proposed arch culvert at STA 10+42 Road B.

The pre- and post-development HydroCAD analysis has been updated to include the proposed open bottom box culvert. As shown in the analysis, the proposed 12'W X 6'H x 17.99'L open box culvert has sufficient capacity to handle all storm events including the 100-year storm.

- Calculations should be submitted to demonstrate that the sediment forebay for stormwater infiltration basin contains the required volume.

Please refer to Appendix D of the Drainage Calculations and Stormwater Management Plan for the sediment forebay sizing calculations.

- The Hydro CAD analysis for the stormwater infiltration basin (Pond 1P) lists an outlet "Special and User Defined". Additional information should be provided to clarify the specific type of outlet, it appears that it may be infiltration and if so, the backup calculations should be submitted.

Per the DEP stormwater management handbook, if less than 4 feet of separation to groundwater is provided, infiltration (special exfiltration in HydroCAD) is required to be shut-off for the 10-yr and higher 24-hour storm events.

Rawls Rate = 2.41 in/hr

Bottom Basin Area = 12,792 sq.ft. (Area does not include the sediment forebay).

$Q = 2.41 \text{ in/hr} * 1/12 \text{ in/ft} * 1/3600 \text{ sec/hr} * 12,792 \text{ sq.ft.} = 0.714 \text{ cfs}$

For infiltration basin 1P, a user defined infiltration rate of 0.714 cubic feet per second was provided up to the 10-year storm, for higher 24-hour storms, an infiltration rate of 0.00 cubic feet per second was provided. Please refer to Appendix B of the Drainage Calculations and Stormwater Management Plan.

- As specified in the Mass DEP Stormwater Management Handbook, stormwater infiltration basins shall be designed to exfiltrate in no less than 72 hours. Calculations should be provided to show that the basin meets this requirement.

Please refer to Appendix D of the Drainage Calculations and Stormwater Management Plan for the infiltration basin drawdown calculation.

- A cross-section of the stormwater infiltration basin is shown on sheet C-5 of the plans. We recommend that the elevation of the estimated seasonal high groundwater (ESHGW) be provided to demonstrate that the minimum separation to groundwater is provided. A mounding analysis is required when the separation from the bottom of an infiltration basin to ESHGW is less than four (4) feet and the basin is used to attenuate peak discharges from the 10 year or higher 24 hour storm.

The detail of the stormwater infiltration basin has been revised to provide the elevation of the estimated seasonal high groundwater (ESHGW), refer to Sheet

D-2.

- We recommend that all flared end sections (FES) be made of reinforced concrete and equipped with trash racks/safety grates and erosion control pads and that these erosion control pads be presented on the Grading and Utility Sheets.

The Preliminary Grading and Drainage Plan and the details have been revised accordingly, refer to Sheets C-2 and D-2.

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

This standard requires that no new untreated point source discharges are created and that point source or sheet flow discharges do not result in erosion into or scour of wetlands.

A new point source discharge is proposed from the stormwater basin, calculations and details should be provided for the design of the plunge pool and outlet at the basin. In addition as previously stated, we recommend that updated additional soil testing be performed within the limits of the proposed stormwater infiltration basin.

Additional soil testing was performed on March 16, 2021 at the specific location of the infiltration basin. Refer to Appendix E of the Drainage Calculations and Stormwater Management Plan.

Please refer to Appendix D of the Drainage and Stormwater Management Plan for scour protection calculations.

Standard 2 – Post Development Peak Discharge Rates

This standard requires that the peak rate of discharge does not exceed pre-development conditions and that the design would not result in off-site flooding during the 100-year storm.

A stormwater management report entitled "Drainage Calculations and Stormwater Management Plan" has been submitted and indicates that the overall stormwater management system will attenuate the post development stormwater flows to a level not exceeding the existing conditions. Additional information as noted above is necessary.

Additional soil testing was performed on March 16, 2021 at the specific location of the infiltration basin. Refer to Appendix E of the Drainage Calculations and Stormwater Management Plan.

Although the project is exempt from Standard 2 of the Massachusetts DEP Stormwater Management Regulations for land subject to coastal storm flowage as defined in 310 CMR 10.04, the project complies with Standard 2.

Standard 3 – Recharge to Groundwater

This standard requires that designs provide on-site recharge to mimic pre-development conditions.

Calculations should be submitted to demonstrate compliance with this Standard.

Please refer to Appendix D of the Drainage and Stormwater Management Plan for recharge to groundwater calculations.

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

This standard requires runoff be treated to remove suspended solids (TSS) to at least

80% removal. In areas with a rapid infiltration, pretreatment of 44% is required prior to infiltration systems.

No Total Suspended Solids (TSS) calculations have been submitted. A TSS Removal Calculation Worksheet for each of the treatment trains should be submitted.

Please refer to Appendix D of the Drainage and Stormwater Management Plan for TSS calculations.

Standard 5 – Higher Potential Pollutant Loads

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

No response required.

Standard 6 – Protection of Critical Areas

The project is not located in a Critical Area based on DEP requirements. This standard is not applicable under DEP requirements;

No response required.

Standard 7 – Redevelopment Projects

This project is not considered a redevelopment project and consequently this Standard is not applicable.

No response required.

Standard 8 – Erosion/Sediment Control

This standard requires construction phase erosion controls.

No construction phase plan has been provided. The limits of erosion controls are indicated on the Grading and Drainage Plan. A filter sock erosion control device is provided at the limit of construction and a detail is presented on the plans. We recommend that a detailed construction sequencing be provided and that the location of the construction entrance, stockpile areas and temporary sedimentation basins be included. Calculations should be submitted for sizing of the basins and details of the sedimentation basins be provided including the proposed grading as well as the type of outlet control structures. An EPA Notice of Intent and Stormwater Pollution Prevention Plan (SWPPP) will be required since the project proposes more than 1 acre of disturbance. If this project is approved and if acceptable to the Board of Appeals the submittal of this additional information could be made a Condition of Approval.

An Erosion and Sedimentation Control Plan will be submitted in conjunction with the development of final construction plans and the SWPPP.

Standard 9 – Operation and Maintenance Plan

This standard requires long term maintenance of non-structural and structural BMP's and requires a specific inspection schedule, etc.

A Post-Construction Best Management Practices Operation and Maintenance Plan (O&M) has not been submitted. This information should be submitted and we recommend that the O&M be a standalone document with a plan that identifies BMP locations, snow storage areas, locations for landscape debris disposal if proposed, etc.

Please refer to Appendix F of the Drainage and Stormwater Management Plan for Operation and Maintenance Plan. The standalone Operation and Maintenance Plan will be submitted in conjunction with the development of final construction plans and the SWPPP.

Standard 10 – Illicit Discharges

In order to meet this standard, an "Illicit Discharge Compliance Statement" meeting the requirements specified in the Stormwater Management Regulations has been submitted.

This statement requires a signature. Additional Information required.

Please refer to Appendix C of the Drainage and Stormwater Management Plan for the "Illicit Discharge Compliance Statement."

- g) *A Project Eligibility Letter that satisfies all of the requirements of 760 CMR 56.*

A Project Eligibility Letter/Site Approval Letter from Mass Housing dated February 15, 2018 is included in Section 7 of the Comprehensive Permit Application. This Approval is valid for two (2) years unless extended by Mass Housing.

Please refer to the letter prepared by Baker, Braverman & Barbadoro, P.C., dated March 8, 2021, enclosed.

- h) *A list of requested exemptions to local requirements and regulations, including local codes, ordinances, bylaws or regulations.*

A List of Waivers and Other Exemptions dated August 29, 2018 is included in Section 8 of the Comprehensive Permit Application.

Please refer to the letter prepared by Baker, Braverman & Barbadoro, P.C., dated March 8, 2021, enclosed.

- i) *A complete copy of any and all materials and applications submitted by the applicant to any prospect subsidizing agency or source, including, but not limited to applications for site approval.*

It appears that copies of any and all materials and applications submitted by the applicant to any prospect subsidizing agency or source, including, but not limited to applications for site approval are included in the Comprehensive Permit Application. This should be confirmed by the Applicant.

No response required.

- j) *A list of each member of the development and marketing team, including all contractors and subcontractors, to the extent known at the time of application. The Applicant shall also be required to disclose its relationship to all such entities.*

A List of River Marsh Development Team is included in Section 10 of the Comprehensive Permit Application.

No response required.

- k) *A list of all prior development project completed by the Applicant, along with a brief description of each such project.*

A statement regarding the applicant's prior development projects is included in Section 11 of the Comprehensive Permit Application. The statement states that "The applicant is an entity created for the sole purpose of developing River Marsh, a multi-family housing development in accordance with M.G.L. 40B, S 20-23, and therefore it has not completed any projects.

The Development Team behind the Applicant has successfully constructed

commercial developments and residential developments that are similar in nature, such as Washington Woods that consist of seven residential buildings and associated site work on approximately 10 acres off of Washington Street (Route 53) in Norwell, Massachusetts.”

No response required.

We believe that we have sufficiently addressed the comments in the March 1, 2021 Merrill 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. Kwezell, Esq.
Brian Murphy
Kimberly Kroha, Esq.
Merrill Engineers and Land Surveyors

BB Baker, Braverman & Barbadoro, P.C.

ATTORNEYS AND COUNSELORS AT LAW
300 CROWN COLONY DRIVE
SUITE 500
QUINCY, MASSACHUSETTS 02169-0904

WARREN F. BAKER
PAUL N. BARBADORO
GENE J. GUIMOND
CHRISTOPHER J. SULLIVAN
LISA BOND
GARY M. HOGAN*

LAWRENCE A. DINARDO
SUSAN M. MOLINARI
THERESA BARBADORO KOPPANATI**

ELIZABETH A. CARUSO
KIMBERLY K. KROHA***
RICHARD C. ASH

*ALSO ADMITTED IN RI
**ALSO ADMITTED IN NY & CA
***ALSO ADMITTED IN FL

TELEPHONE
(781) 848-9610

TELECOPIER
(781) 848-9790

INTERNET ADDRESS
WWW.BBB-LAWFIRM.COM

JONATHAN BRAVERMAN (Retired)

OF COUNSEL
DUANE G. SULLIVAN
DOUGLAS C. PURDY (1943-2016)

March 8, 2021

*Via E-Mail: schilcott@townofpembroke.mass.org
And First Class Mail*

Frederick Casavant IV, Chairman
c/o Sabrina Chilcott
Pembroke Zoning Board of Appeals
100 Center Street
Pembroke, MA 02359

**Re: River Marsh – Comprehensive Permit Application
Water Street, Pembroke, MA**

Dear Ms. Chilcott, Chair Casavant, and members of the Board:

This letter is in response to comments pertaining to legal issues in the peer review letter from Peter Palmieri of Merrill Engineers and Land Surveyors dated March 1, 2021. McKenzie Engineering Group will provide a more comprehensive response to the questions and comments in Mr. Palmieri's letter at our hearing on March 9, 2021.

We have only included below the comments and questions by Mr. Palmieri to which this letter responds. We have included our response in **bold**.

3.01(a) *Site Control*. Mr. Palmieri recommends that site control documents be updated or documentation provided that the information in the Application is still valid.

Response. On January 25, 2021, the Applicant provided the Board with copies of the First Amendments to each Purchase & Sale Agreement, which extended the permit condition date to January 1, 2024.

3.01(c). *Existing Conditions.* Mr. Palmieri requests additional updated soil testing be performed besides the 1992 soil testing included in the Applicant's plans.

Response. It is unlikely that there has been any change to soils since testing was performed in 1992. Additional soil logs are appropriate before a building permit is issued, but not at the application stage. The Applicant's submission meets all preliminary design requirements applicable to this stage.

3.01(g). *Preliminary utilities plan.* Mr. Palmieri recommends that additional design information be provided to demonstrate that the size of the subsurface sewage disposal system has been adequately designed to meet the state and local regulations. This additional information should include soil testing results and a mounding analysis. Mr. Palmieri confirms that a stormwater management report entitled "Drainage Calculations and Stormwater Management Plan" has been submitted and indicates that the overall stormwater management system will attenuate the post development stormwater flows to a level not exceeding the existing conditions, but he recommends that the Applicant provide the MassDEP "Checklist for Stormwater Report." As to Standard 8, Mr. Palmieri also recommends that a detailed construction sequencing be provided and that the location of the construction entrance, stockpile areas and temporary sedimentation basins be included. Calculations should be submitted for sizing of the basins and details of the sedimentation basins be provided including the proposed grading as well as the type of outlet control structures. An EPA Notice of Intent and Stormwater Pollution Prevention Plan (SWPPP) will be required since the project proposes more than 1 acre of disturbance. If this project is approved and if acceptable to the Board of Appeals the submittal of this additional information could be made a Condition of Approval.

Response. The comment expresses concerns over the suitability of the wastewater system and proposes soil testing, mounding analysis, and review of sewage disposal plans. These tests and reviews are appropriate before a building permit is issued, but not at the application stage. The Applicant's submission meets all preliminary design requirements applicable to this stage, which are enumerated in 760 CMR 56.05. Subsection (f) applies to utilities and requires only "a preliminary utilities plan showing the proposed location and types of sewage, drainage and water facilities, including hydrants."

The Applicant will provide details on the construction of the system with final construction plans to be submitted to the Board of Health under state law standards. The Applicant will provide details on its stormwater system in its post-permit filing to Conservation Commission, and the Applicant must comply with the DEP Stormwater Standards as a matter of state law and there is therefore no local

concern with respect to those state standards. The regulations require only preliminary plans, and a developer is not required to produce full design work before a Comprehensive Permit is issued so long as it demonstrates through a "minimum of evidence" that it project will meet any applicable requirements that have not been waived.

The foregoing notwithstanding, the Applicant has attempted in good faith to address concerns raised by Mr. Palmieri that are above and beyond the requirements of 760 C.M.R. 56.05, to the extent feasible.

3.01(h). *Project Eligibility Letter*. Mr. Palmieri references the Applicant's project eligibility letter dated February 15, 2018.

Response. To the extent there is a question relating to the viability of the Project Eligibility Letter, we point to the language of the letter itself, which states that "approval will be effective for a period of two (2) years from the date of this letter. Should the Applicant not apply for a Comprehensive Permit within this period or should MassHousing not extend the effective period of this letter in writing, this letter shall be considered to have expired and no longer be in effect." The Applicant acted timely by filing its Comprehensive Permit application on November 27, 2018. We also note that 760 CMR 56.04(6) states that issuance of project eligibility is "conclusive evidence that the Project and the Applicant have satisfied the project eligibility requirements of 760 CMR 56.04(1).

3.01(i). *Waivers*.

Response. Attorney Kwesell requested at the hearing on January 12, 2021 that the Applicant respond to the peer review report with an updated list of waivers. The Applicant intends to provide any updated waivers after incorporating several of Mr. Palmieri's comments into its plans.

We look forward to discussing these and other matters with the Board during the hearing scheduled for March 9, 2021.

Respectfully yours,

RIVER MARSH LLC
By its Attorney,

WARREN E. BAKER

WFB:amg



Assinippi Office Park
150 Longwater Drive, Suite 101
Norwell, MA 02061

JN: 215-181 RIVER MARSH

TABLE 1

4/5/2021

PROPOSED SOIL ABSORPTION SYSTEM SIZING

PROPOSED WASTEWATER FLOWS

UNIT TYPE	# BEDROOMS	# UNITS	TOTAL # BEDROOMS
2 BEDROOM	2	11	22
3 BEDROOM	3	45	135
TOTAL		56	157

TOTAL # BEDROOMS	FLOW GAL/DAY *	GAL/DAY
157	110	17,270.00
TOTAL		17,270.00

* Taken from 310 CMR Section 15.203 System Sewage Design Criteria

SAS SIZING

TOTAL GAL/DAY	PERC. RATE (min/inch)	EFFLUENT LOADING RATE (GPD/SF)*	LEACHING AREA REQUIRED SF
17,270.00	<5	2.5	6,908.00
			6,908.00

* Taken from 310 CMR Section 15.242 Effluent Loading Rates

USE 2' x 2' x 2' TRENCHES

LEACHING AREA REQUIRED	EFFECTIVE LEACHING AREA (SF/LF)	LENGTH OF TRENCH REQUIRED (LF)
6,908.00	6	1,151.33
TOTAL		1,151.33

JSE (12) 96' LONG 2' x 2' TRENCHES WITH CRUSHED STONE AND 4" PERFORATED SCHEDULE 40 PVC = 1,152 LF
RESERVE AREA BETWEEN 2' x 2' TRENCHES
MINIMUM DEPTH OF COVER 2.5 FEET

USE 2 SETS OF 6 TRENCHES IN 46'X96' FOOTPRINT PER 6 TRENCHES