



500A Washington Street, Quincy, MA 02169

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April 14, 2026

City of Amesbury  
Conservation Commission  
39 South Hunt Road  
Amesbury, MA 01913

Re: Notice of Intent – Supplement #1  
Rocky Hill MBTA Community at Elm Street  
265, 277, 281, 287, and 287½ Elm Street, Amesbury, Massachusetts  
MassDEP File #002-1362

Members of the Amesbury Conservation Commission:

On behalf of Dale Development, LLC, and in association with Millenium Engineering, Inc., Lucas Environmental, LLC (LE) is pleased to submit this Supplement to the Notice of Intent (NOI) filed with the Amesbury Conservation Commission for the proposed Rocky Hill MBTA Community residential development located at 265, 277, 281, 287, and 287½ Elm Street in Amesbury, Massachusetts (Assessor's ID Map 68: Lots, 12, 13, 15, 20 & Map 80: Lots 3, 4).

The Applicant has revised the plans to address the peer review for the Site Plan Review process with the Planning Board. The submitted materials include the following:

1. Detailed responses to the VHB peer review. Responses have been provided directly within the peer review document for ease of reference.
2. Attachments to the peer review, including the Geotechnical Report, Cut & Fill Calculations (Figures 1.0 and 1.1), and Construction Phasing (Figure 2.0)
3. Revised Civil and Landscape Drawings (revision date: March 24, 2026)
4. Definitive Subdivision Plan of Land
5. Stormwater Report (Revised; March 24, 2026)
6. Construction and permanent Operation & Maintenance Manuals.

Additionally, the proposed trail has been revised to avoid the 25-Foot Buffer Zone to the extent feasible, as requested by the Conservation Commission. There is approximately 460 linear feet of trail currently proposed inside the 25-Foot Buffer Zone, at the limit of work at the bottom of the fill slope. The surface is natural ground or improved with a ground bark mulch surface and 2.5 feet wide. Mostly it is on the outer fringe of the 25-Foot Buffer Zone, between 20 and 25 feet from the Bordering Vegetated Wetland (BVW).

Finally, a portion of the proposed Riverfront Area Restoration is located within BVW. As such, the project will also provide approximately 4,570 square feet of wetland replication.



500A Washington Street, Quincy, MA 02169

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Enclosed please find two (2) copies of this NOI Supplemental Package. A link to an electronic copy of the pdf file of the NOI application and supporting documentation will be provided concurrently with this submittal via the OpenGov portal. LE understands that you will provide the electronic copy to the peer review consultants.

If you have any questions, please do not hesitate to contact me at 617.405.4140 or [cml@lucasenviro.com](mailto:cml@lucasenviro.com). Thank you for your consideration in this matter.

Sincerely,

**LUCAS ENVIRONMENTAL, LLC**

A handwritten signature in blue ink that reads 'Christopher M. Lucas'.

Christopher M. Lucas, PWS, CWS, RPSS  
Certified Wetland Scientist/Professional Soil Scientist

cc:     Applicant: Dale Development, LLC – Robert Dale (electronic copy)  
         Owners:   True Homestead Limited Partnership(s) (electronic copy)  
                     287 Elm Street Realty Trust (electronic copy)  
                     Stanley O. Bean Jr. Revocable Trust (electronic copy)  
         Millenium Engineering, Inc. (electronic copy)  
         MassDEP – NERO (electronic copy, hard copy available upon request)



***MILLENNIUM ENGINEERING, INC.***  
***Land Surveyors and Civil Engineers***

March 25, 2026  
Amesbury Planning Board  
62 Friend Street  
Amesbury, MA 01950

Re: Peer review response and revised plan submission  
Application: Site Plan Review  
Property: Rocky Hill MBTA Community: Elm Steet

Dear Chair, Rettig and Members of the Planning Board,

I write on behalf of Dale Development LLC to respectfully submit the enclosed revised plans and stormwater report for the Rocky Hill MBTA Communities project. All materials have been uploaded to the OpenGov permitting portal, and two hard copies have been provided to the Office of Economic and Community Development.

The submitted materials include the following:

1. Detailed responses to the VHB peer review. Responses have been provided directly within the peer review document for ease of reference.
2. Attachments to the peer review, including the Geotechnical Report, Cut & Fill Calculations (Figures 1.0 and 1.1), and Construction Phasing (Figure 2.0)
3. Revised Civil and Landscape Drawings (revision date: March 24, 2026).
4. Definitive Subdivision Plan of Land
5. Stormwater Report (Revised; March 24, 2026)
6. Construction and permanent Operation & Maintenance Manuals.

If you have any questions or comments, please feel free to contact our office at your convenience. We look forward to discussing the updated plans and responses to the peer review at the upcoming Planning Board meeting.

Sincerely,

Millennium Engineering, Inc.

*Stephen Sawyer*

Stephen Sawyer, P.E.  
Project Manager

To: Pascal Rettig

Date: February 25, 2026

Planning Board Chair  
City of Amesbury 62 Friend St.  
Amesbury, MA 02913

Project #: 201048.00

From: Nathan A. Poretta, PE  
Frank Dipietro, PE

Re: Proposed Rocky Hill MBTA Community Development  
Elm Street, Amesbury, Massachusetts  
**Site Plan and Civil Engineering Peer Review**

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## Overview

On behalf of the City of Amesbury, VHB conducted an independent peer review of the site civil engineering and stormwater management design prepared by Millennium Engineering, Inc. for the proposed Rocky Hill MBTA Community Development, located on and off Elm Street in Amesbury, Massachusetts. The project proposes a large-scale residential development within the MBTA Communities Multi-Family Overlay District, consisting of a mix of multi-family and single-family residential buildings, along with associated site improvements including internal roadways, parking areas, utilities, grading, landscaping, and stormwater management infrastructure.

The purpose of this peer review is to provide the Amesbury Planning Board with an objective technical evaluation of the proposed civil and stormwater design relative to applicable municipal regulations, the Massachusetts Stormwater Management Standards, and generally accepted engineering practices. The review focuses on the adequacy, consistency, and technical support for the proposed site and stormwater systems to ensure protection of public safety, downstream properties, and environmental resources during both construction and long-term operation of the development.

## Proposed Project

The project proposes the construction of the Rocky Hill MBTA Community Development, a large-scale residential development located on and off Elm Street in Amesbury, Massachusetts, within the MBTA Communities Multi-Family Overlay District. The development includes a mix of multi-family residential buildings and single-family residential units, along with associated community buildings, internal roadways, parking areas, utilities, grading, landscaping, open space, and stormwater management facilities, as shown on the submitted Site Plan Review plans.

Vehicular access to the site is proposed via a primary access driveway on Elm Street, with an additional secondary/emergency access connection to the north. Internal roadways are proposed to provide circulation throughout the site and to serve residential buildings, parking areas, and emergency vehicles. The project also includes pedestrian facilities, open space areas, and associated site infrastructure.

Stormwater runoff generated by the proposed development is anticipated to be managed through a system of surface and subsurface drainage infrastructure, including infiltration-based stormwater management practices and associated conveyance systems, intended to address both construction-phase and long-term post-development conditions.

The findings of our review are presented in the following sections. VHB's comments and recommendations are identified and numbered throughout the document.



## Scope of Review

The following documents and topics were reviewed by VHB on behalf of the Amesbury Planning Board, including but not limited to:

- › Stormwater Management Report prepared by Millennium Engineering, Inc., last dated January 12, 2026
- › Site Plan Review Plans (Civil and Landscape Plans) prepared by Millennium Engineering, Inc., most recently revised December 22, 2025
- › Project Narrative and Site Plan Review Application materials
- › City of Amesbury Stormwater Management Ordinance (Chapter 398) and related Stormwater Management & Erosion Control Regulations
- › Amesbury Zoning Ordinance and Zoning Map, (Adopted April 12, 1971 with Revisions Through April 30, 2025) including the MBTA Communities Multi-Family Overlay District
- › Applicable sections of Amesbury Subdivision Rules and Regulations (June 29, 2020, Revised January 7, 2025) per Section XI.Q.10.5.a.5(f) & (g)) of the Amesbury Zoning Ordinance
- › Massachusetts Stormwater Management Standards and Massachusetts Stormwater Handbook
- › Adequacy of proposed stormwater management systems, including sizing, pretreatment, infiltration, and outlet structures
- › Grading and drainage design, including pre- and post-development hydrology, stormwater routing, and peak-flow mitigation
- › Erosion and sedimentation controls for construction-phase compliance
- › Long-term operation and maintenance of stormwater infrastructure
- › Utility layout
- › Conformance with applicable municipal design standards for site layout, access, and infrastructure
- › General Engineering Practice
- › Waiver requests and supporting justification, as submitted
- › Responses to comments from the Planning Board, municipal staff, and other reviewing agencies, as applicable

## Missing Materials

VHB has reviewed the submitted documents and identified several items that are either missing or incomplete to a degree that prevents full technical review. Some of these items are not technical in nature but are included for the Planning Board's awareness as part of its overall project review. The list below reflects the materials identified to date, however, additional items may be required as further information is submitted or as the design is refined, including but not limited to the following:

- › Hydraulic Calculations for Storm Drain Pipes and Outlets
- › Retaining Wall Details, (See Conformance with the Zoning Ordinance section below)
- › Landscape Plan Calculations, (See Conformance with the Zoning Ordinance section below)
- › Confirmation of Lot Consolidation (ANR Plan)
- › Groundwater Mounding Analysis (See Stormwater Management and Wetlands Compliance section below)

- › Open Space Ownership & Maintenance Entity Formation Copies, See Conformance with the Zoning Ordinance section below)
- › Utility capacity confirmation (Planned Infrastructure & CIP), (See Conformance with the Zoning Ordinance section below)
- › A consolidated list of all waiver requests, including clear references to applicable bylaw sections and supporting justification
- › Zoning compliance tables summarizing proposed conditions relative to dimensional, parking, and all other applicable zoning requirements
- › Turning movement analysis demonstrating accommodation of emergency vehicles, service and delivery vehicles, moving trucks, and refuse collection vehicles within the proposed roadway network and site circulation
- › Environmental and Community Impact Analysis
- › Snow storage Plan
- › Photometric Plan
- › Operation & Maintenance Plan / Long Term Pollution Prevention Plan
- › Earth Removal including Cut/Fill Calculations

#### Applicant Response:

All of the items above have been provided in the updated submission materials. Note that the requested hydraulic calculations for storm drain pipes and outlets are included in the HydroCAD calculation printout, with pipe flow data provided for each pond node.

## Conformance with the Zoning Ordinance

This review was conducted on behalf of the Amesbury Planning Board to identify areas where the proposed project may not fully comply with the Amesbury Zoning Ordinance, including applicable provisions of the MBTA Communities Multi-Family Overlay District, as well as related site plan review and subdivision design standards.

While VHB has identified select areas where additional clarification, documentation, or justification may be required, this review is not intended to represent an exhaustive zoning analysis. The Planning Board, acting as the permit-granting authority, may consider these observations in developing its findings and may grant waivers, impose conditions, or require additional information as it deems appropriate.

### Section XI.V: MBTA Communities Multi-family Overlay District

#### 1. Section XI.V.6.0 Dimensional and Density Requirements.

**VHB Comment:** The submitted materials do not include a consolidated zoning compliance summary demonstrating conformance with the Dimensional and Density Requirements of the MBTA Communities Multi-Family Overlay District (Section 6.0). While the plans depict proposed building layouts, parking areas, and site improvements, the submission does not clearly document required versus proposed dimensional and density standards necessary to verify compliance.

In addition to building setbacks and height, Section 6.0 governs density, lot coverage, frontage, stories, and other site layout metrics. The submission does not provide:

- Gross and net site area calculations used for density determination

- Units per acre calculations (by neighborhood and overall)
- Building coverage and/or lot coverage calculations
- Open space percentage calculations (if applicable under Section 6.0)
- Frontage compliance calculations
- Maximum building height in both feet and stories
- Tabulated setbacks
- Any bonus density calculations or incentives relied upon (if applicable)

Without a consolidated zoning compliance summary and supporting calculations, the Planning Board cannot make a defensible finding that the project conforms to the Dimensional and Density Requirements of the MBTA Communities Multi-Family Overlay District, nor can it clearly identify whether discretionary relief, bonuses, or zoning deviations are implicated.

**VHB recommends that the Planning Board require the Applicant to submit a comprehensive zoning compliance table and supporting calculations summarizing all required versus proposed dimensional and density standards under Section 6.0. This information should be clearly presented within the plan set and/or narrative and include identification of any standards that do not fully comply and whether Planning Board discretion or other zoning relief is requested.**

#### Applicant Response 1:

The project, as submitted, complies with the zoning provisions set forth in the Amesbury Zoning Overlay District XI.V – MBTA Communities Multi-Family Overlay District (MFOD). The applicable requirements of this section have been incorporated into Cover Sheet C1.0, including a zoning compliance table for both the North and South Neighborhoods. This section also establishes the required open space standards for the project, which are likewise summarized in the zoning table provided on the Cover Sheet C2.0.

The project site information, as it applies to these requirements and as presented in the zoning tables on the Cover Sheet, is illustrated on Sheet C4.0 (Overall Key Site Plan). This plan identifies the locations and basis for the yard setbacks, lot coverage, and open space calculations as they relate to the project.

Please note that no zoning relief is required, as the project fully complies with the requirements of the MBTA Communities Multi-Family Overlay District (MFOD).

The parking is tabulated and provided for each neighborhood and shown on the Site Layout Plans, Sheets C5.0-C5.3 with a table documenting compliance with the MFOD shown on the Cover Sheet.

#### 2. Section XI.V.7.4 Project Phasing.

**VHB Comment:** The submitted plans depict the full buildout condition of the project; however, the materials do not clearly identify how the development will be constructed and implemented over time, or whether construction will occur in defined phases. While Section 7.4 of the MBTA Communities Multi-Family Overlay District permits phased development provided that full buildout is shown, it also requires sufficient information to evaluate how site infrastructure and services will function safely and compliantly during interim conditions.

The current submission does not identify:

- The proposed sequence of neighborhood construction (North vs. South or sub-phases within each);
- Which roadways will be constructed and opened during each phase;
- How temporary and permanent stormwater systems will function during partial buildout conditions;
- Whether interim drainage conditions rely on temporary measures;
- How utilities (water, sewer, electric, gas, telecommunications) will be extended and looped during each phase;
- Whether fire access, hydrant spacing, and turning radii will remain compliant at all times;
- How pedestrian routes, ADA access, and parking will function prior to full buildout;
- Whether erosion and sedimentation controls will differ by phase;
- How construction access and staging areas will be accommodated without conflicting with occupied residential areas;
- Whether open space, recreational areas, or trail connections will be available proportionally during each phase;
- How shared infrastructure between neighborhoods will be installed and operational before occupancy; and
- Whether any temporary dead-ends, partial roadway sections, or incomplete utility loops will exist during interim stages.

Without clarification of phasing and interim conditions, the Planning Board cannot determine whether essential services, including stormwater management, emergency access, utilities, snow removal, and internal circulation, will function safely and in compliance with applicable standards during construction and partial occupancy, as required under Section XI.V.7.4.

**VHB recommends that the Planning Board require the Applicant to submit a detailed Construction Phasing Plan clearly describing how the project will be implemented over time. The plan should define each proposed phase of construction and identify which roadway, utility, stormwater, and site infrastructure improvements will be installed and operational during each stage. The submission should demonstrate that stormwater systems, drainage patterns, utilities, and internal roadways will function properly under interim buildout conditions and that emergency vehicle access and hydrant coverage will remain compliant throughout construction.**

**The Applicant should also explain any temporary conditions that may occur during phased development, including temporary dead-ends, partial utility loops, interim drainage configurations, or construction access routes, and describe the measures that will be implemented to ensure public safety and regulatory compliance during those periods. In addition, the phasing plan should clarify how occupancy of buildings will be sequenced relative to completion of required infrastructure and shared systems.**

**This information is necessary to allow the Planning Board to evaluate both the ultimate buildout condition and the functionality of the site during interim stages of development, consistent with Section XI.V.7.4.**

#### Applicant Response 2:

Please refer to attached Figure 2.0 for the conceptual approach to project construction. A further detailed construction methodology cannot be finalized until a General Contractor is selected, as the contractor will ultimately determine the means and methods necessary to complete the project in an efficient and cost-effective manner. The provided phasing exhibit is based on discussions with a professional site contractor.

### 3. Section XI.V.7.5 Design Standards.

**VHB Comment:** Section XI.V.7.5 provides that projects within the MFOD are subject to the Site Plan Review Design Standards pursuant to Section XI.Q.10.e, except as otherwise provided in Section 9.0. Accordingly, the proposed development is generally subject to the applicable design standards set forth in Section 10.5.

However, Section 9.4.1 provides that projects within the RH-MFOD are not subject to certain provisions of Section XI.Q, including Section XI.Q.10.5.e and Section XI.Q.10.5.n, and instead must conform to the approved "RH-MFOD Residential Neighborhood Design" (Residential Pattern Book) and the applicable sign provisions of Section VII

VHB's comments below evaluate compliance with the applicable provisions of Section 10.5, as modified by Section 9.0 for the RH-MFOD.

#### Applicant Response 3:

As described in responses to comments below, the applicant's plans are designed to comply with the RH-MFOD.

### Section XI.Q.10.5 Development and Performance Standards

Pursuant to Section XI.V.7.5, projects within the MFOD are subject to the Site Plan Review Design Standards set forth in Section XI.Q.10.5, except as modified by Section 9.0. For projects within the RH-MFOD, Section 9.4.1 exempts certain subsections of Section XI.Q.10.5 (including 10.5.e and 10.5.n) and instead requires conformance with the approved RH-MFOD Residential Pattern Book and applicable sign provisions.

Accordingly, the proposed development is subject to the applicable provisions of Section XI.Q.10.5, as modified by Section 9.0 for the RH-MFOD, and the comments below evaluate compliance within that framework.

#### 1. XI.Q.10.5.a.3. Pedestrian and Bicycle Circulation.

**VHB Comment:** The submitted plans demonstrate an internal sidewalk and pedestrian path network; however, bicycle circulation and accommodation are not clearly defined or substantiated. While the project connects to Elm Street (which contains an existing bicycle lane), the internal neighborhood streets do not appear to include designated bicycle facilities, shared roadway treatments, traffic-calming details specific to bicycle safety, or clearly defined connections to nearby regional trail systems.

Given the site's proximity to established bicycle infrastructure (including the Powow and Ghost Trail networks), the apparent absence of internal bicycle-supportive design elements represents a significant limitation in

meeting the stated intent of Section 10.5.a.3. The materials do not identify:

- Designated bicycle routes within the development
- Shared-use roadway design criteria or traffic-calming measures that support safe bicycle travel
- Direct, signed, or enhanced connections to nearby regional trail systems
- Bicycle parking or long-term storage facilities (resident or visitor)
- Bicycle storage within multifamily buildings
- Bicycle racks at community buildings, open space areas, or trail access points

Without this information, it is not possible to determine whether the project meaningfully encourages bicycle travel as required by Section 10.5.a.3.

**VHB recommends that the Planning Board require the Applicant to submit a comprehensive Bicycle Circulation and Accommodation Plan demonstrating how bicycle travel is supported within and beyond the site. At a minimum, the submission should include:**

- **Identification of internal bicycle routes (designated or shared-use)**
- **Design speeds and roadway widths demonstrating bicycle compatibility**
- **Wayfinding signage and trail connectivity details**
- **Quantified bicycle parking and long-term storage counts (resident and visitor)**
- **Bicycle rack details and locations at community buildings and public open spaces**
- **Direct and safe connections to nearby regional trail systems**

**If the Applicant does not intend to provide dedicated bicycle facilities, supporting analysis must be provided demonstrating how the project otherwise satisfies the bicycle circulation objectives of Section 10.5.a.3, particularly given its proximity to regional trail infrastructure.**

#### **Applicant Response 4:**

The project has direct and safe connections to both the Ghost Trail and Amesbury Riverwalk Trails via the designated bike lanes on Elm Street. This portion of Elm Street and these bike lanes have been identified by the City of Amesbury as the connection between these two trail systems. The City has partnered with the State to enhance this connection by extending the Riverwalk Trail to Elm Street through the Carriage Town shopping center and add a signalized crossing at the Carriage Town entrance on Elm Street. The City anticipates construction of these improvements in 2028. Similarly, proposed Rock-Hill off-site improvements include the addition of signalized crosswalk at the existing crosswalk just north of the proposed neighborhood entrance. This frontage on the Ghost Trail/Riverwalk connector will be featured in project marketing, leasing and home-owner material. Wayfinding signage will provide on-site direction.

All internal roadways will be shared-use with all posted speeds under 25mph. Project signage will caution vehicular use and prioritize pedestrian and bicycle safety. Roadways widths and streetscape design were calibrated within the Design Guidelines to limit vehicular speed and fit the particulars of this site. Significantly, the project will experience no true through-traffic or the challenges it can present. Passage through the south neighborhood to the north is the one area where the dynamics of through traffic could

present. For that reason, the boulevard configuration was selected and the rotary intersection incorporated.

Bicycle storage – Shown on the updated Landscape plans:

- Short-term parking is provided with outdoor racks at the north and south neighborhood clubhouses, the fieldhouse/pool complex, and at the trail parking area on the north side of the rotary and at the north neighborhood park opposite Bldg #19. Plans and details updated accordingly.
- Bicycle storage in the North Neighborhood is provided within the freestanding garages (G5, G12, & G17). Outfitted with storage racking systems, these garages will provide for a total of 90+ bicycles. Parking counts for the North Neighborhood have been updated to remove three garages. South neighborhood homes each have a 2-stall garage for interior storage. Plans and details have been updated accordingly.

## 2. XI.Q.10.5.a.5 Private Road Construction.

**VHB Comment:** The proposed development includes private on-site roadways, and the submitted plans provide roadway layouts, widths, and general construction details for these facilities. However, the materials do not clearly document full conformance with all applicable provisions, including confirmation of dedication status, easements for utilities and public improvements, and long-term responsibility for private roadway maintenance.

Without clear documentation of private roadway status, easements, and long-term ownership and maintenance responsibilities, the Planning Board cannot ensure that the proposed private roads will be legally established, properly maintained, and adequately support public safety and utility access over the life of the development.

**VHB recommends that the Planning Board require the Applicant to clarify and document conformance with Section 5 – Private Road Construction, including identification of private roadway status, applicable easements, and long-term ownership and maintenance responsibilities, in addition to the roadway design information already provided.**

### Applicant Response 5:

Please note that the project roadway and layout requirements have been established in accordance with the roadway design standards set forth in the Residential Pattern Book. Typical roadway sections for the boulevard, neighborhood streets, and parking lanes are included in that document and form the basis of the project design.

A Definite Subdivision Plan "Lotting Plan" consisting of two drawings is included with the updated plan set, illustrating one parcel for the North Neighborhood and two parcels for the South Neighborhood. The main boulevard is intended to be accepted as a public way from Elm Street to the end of the divided boulevard including the small parking lot with public access to the trail network. The roadways within the North Neighborhood will be privately owned and maintained by the respective property owner, while the neighborhood roads within the two parcels comprising the South Neighborhood will be privately owned and maintained by the South Neighborhood Homeowners' Association.



As the project advances, the applicant will coordinate with the Amesbury Office of Community Development to prepare the required legal documents

Please refer to the subdivision plan provided for the proposed land areas associated with the North and South Neighborhoods. The proposed lots are also depicted on Sheet C4.0 (Overall Key Site Plan).

3. XI.Q.10.5.a.5(f) & (g) Private Road Construction.

**VHB Comment:** Section XI.Q.10.5.a.5(f) and (g) provide that all on-site and off-site improvements, including utilities, public lighting, sewers, and other public improvements, shall be constructed in accordance with the standards of the Amesbury Subdivision Rules and Regulations, and that utilities proposed to be dedicated to the City shall be contained within suitable easements conforming to those standards.

Although the project is not currently submitted as a Definitive Subdivision, these provisions incorporate the applicable Subdivision Rules and Regulations by reference for purposes of Site Plan Review. Accordingly, the proposed private roadways, utilities, drainage systems, and related infrastructure are subject to the applicable Subdivision standards. VHB's technical comments related to the Subdivision Regulations are provided in the Subdivision section below.

**Applicant Response 6:**

As described in applicant's responses below, the plan has been designed to conform with the relevant Subdivision Rules and Regulations.

**Per Section XI.Q.10.5.a.5(f) & (g) Subdivision Rules and Regulations**

1. 2.02

The project site appears to have historically consisted of multiple lots, which are now shown as a single consolidated parcel on the current plans. The submission does not clearly indicate whether these lots have been formally merged for zoning and record purposes.

While the project is not currently before the Planning Board as a Definitive Subdivision, the legal configuration of the parcel is relevant to the Board's ability to make zoning findings under the MBTA Communities Multi-Family Overlay District, including frontage, setback, lot area, and density calculations. If multiple lots remain of record, clarification is necessary as to how dimensional requirements are being applied.

Without confirmation of the parcel's legal status, the Planning Board cannot verify that zoning dimensional standards are being calculated based on a legally recognized lot configuration.

**VHB recommends that the Planning Board request that the Applicant clarify the current legal status of the project parcels. If the lots have been consolidated, the Applicant should provide documentation (e.g., recording information or endorsed plan) confirming such consolidation. If the lots remain separate, the Applicant should explain how zoning compliance calculations are being applied and whether any further action is anticipated to formalize the lot configuration.**



#### Applicant Response 7:

The existing project parcel boundaries are shown on the Survey Boundary Plans (Sheets C0.0–C0.3). These plans have been prepared and certified by a Massachusetts Professional Land Surveyor and include all applicable deed references for the project parcels.

A proposed Definitive Subdivision Plan has been provided to establish the parcel configuration for the North and South Neighborhoods. This plan also identifies the proposed public right-of-way associated with the project.

The proposed lots are in conformance with the requirements of the MBTA Communities Multi-Family Overlay District (MFOD).

#### 2. 6.04 Environmental and Community Impact Analysis

**VHB Comment:** Section 6.04 of the Subdivision Rules and Regulations requires submission of an Environmental and Community Impact Analysis for residential subdivisions creating over 15 lots and authorizes the Planning Board to require portions of such analysis for smaller subdivisions where, in its opinion, the sensitivity of the land warrants further investigation.

Given the scale of the proposed development and the presence of regulated wetlands and riverfront areas, slopes, stormwater infrastructure, access trails, private roadways, and potential impacts to traffic, utilities, and municipal services, the submitted materials do not clearly indicate whether an Environmental and Community Impact Analysis or portions thereof has been prepared consistent with Section 6.04. While various components (e.g., traffic analysis, stormwater report, narrative) have been provided separately, the submission does not appear to consolidate these topics into a structured analysis addressing the categories identified in Section 6.04, including environmental impacts, public services, traffic impacts, and compatibility with surrounding land uses.

Without a consolidated Environmental and Community Impact Analysis consistent with Section 6.04, the Planning Board lacks a structured basis to evaluate the cumulative environmental, infrastructure, traffic, and community service impacts of the project in a manner contemplated by the Subdivision Rules and Regulations.

**VHB recommends that the Planning Board should require the Applicant to submit a consolidated Environmental and Community Impact Analysis addressing the applicable elements of Section 6.04 of the Subdivision Rules and Regulations for review and consideration prior to approval.**

#### Applicant Response 8:

As confirmed at the Planning Board Hearing 3/9/2026, the applicant's MEPA Final Environmental Impact Report will suffice for the requested Environmental and Community Impact Analysis.

During the 3/9/2026 Planning Board hearing, a Planning Board Member inquired about traffic impacts during construction of the project. The Applicant has discussed the subject with their General Contractor and confirmed that during the peak of construction, an estimated 45-75 contractor cars and trucks will visit the site daily, primarily arriving from 6:30am to 8:00am and exiting the site from 3:30pm to 5:00pm. This is substantially fewer vehicles than the traffic counts estimated during occupancy, and much of it will be earlier than peak morning and evening hours. *(continued on next page)*

(continued)

During the 3 to 4 months when fill is being delivered in the early months of construction, an estimated additional 30 to 50 trucks per day will be expected. This traffic will be disbursed throughout the day.

3. 7.09.D Street Location and Alignment.

**VHB Comment:** The proposed roadway grading does not appear to meet the minimum longitudinal grade requirements of Section 7.09.D. As shown on Sheet C-8.3, portions of the proposed street are designed with a grade of approximately 0.64 percent, which is less than the required minimum grade of 1.0 percent.

Roadway grades below the minimum 1.0 percent standard may impair surface drainage and long-term pavement performance, and without demonstrated compliance or justification, the Planning Board cannot confirm that the proposed street design meets the functional and safety intent of Section 7.09.D.

**VHB recommends that the Planning Board require the Applicant to revise the roadway profile to demonstrate compliance with the minimum grade requirement, or to provide supporting justification for Planning Board consideration if relief from this standard is being requested.**

**Applicant Response 9:**

The roadway profile has been modified to maintain a 1% minimum slope for the 150-foot section of roadway to comply with the minimum grade requirement. Please see the revised Sheet C8.3

4. 7.09.H Pedestrian and Bicycle Paths.

**VHB Comment:** The submitted plans depict raised crosswalks at select locations; however, the plans do not include a typical crosswalk detail identifying surface materials. Section 7.09.H allows the Planning Board to require crosswalks constructed of textured or stamped concrete/pavement or brick pavers with granite edging, and it is unclear whether the proposed raised crosswalks are intended to meet these material and edge treatment standards, as the detail currently shows pavement only.

In addition, the plans do not propose any public bicycle paths within the development. As noted in the prior comment regarding bicycle circulation, it is unclear how bicycle connectivity is being addressed within the site or to adjacent facilities, consistent with the intent of Section 7.09.H.

Without detailed crosswalk material specifications and clarification of bicycle path provisions, the Planning Board cannot determine whether the project satisfies the pedestrian safety, material quality, and bicycle connectivity objectives of Section 7.09.H.

**VHB recommends that the Planning Board require the Applicant to provide a typical crosswalk detail identifying proposed materials and edge treatments to demonstrate consistency with Section 7.09.H. In addition, the Applicant should clarify whether any bicycle paths are proposed within the development or provide supporting justification, by reference to the previously noted bicycle circulation comment under Section XI.Q.10.5.a.3, demonstrating how the project satisfies the pedestrian and bicycle connectivity objectives of Section 7.09.H.**

**Applicant Response 10:**

Note that raised crosswalks and colored imprinted surfaces are provided at locations for traffic calming and pedestrian safety. Details for these sidewalks are provided on Sheet 10.0.

Please note the project as design follows the parameters set in the Design Guidebook for the project. The guidebook was carefully crafted by the City Planning Staff and Planning Board considering the global vehicle, bicycle and pedestrian circulation.

5. 7.09. J. Retaining Walls.

**VHB Comment:** As noted in the retaining wall comment above, the submitted plans do not consistently identify retaining wall heights or finish materials. Section 7.09.J of the Subdivision Regulations limits retaining walls to a maximum height of five (5) feet, which is more restrictive than the six (6) foot limit permitted under the Zoning Ordinance.

Without clear identification of retaining wall heights and materials, the Planning Board cannot verify compliance with the more restrictive five (5) foot height limitation of Section 7.09.J or assess potential visual, grading, and structural impacts associated with the proposed walls.

**VHB recommends that the Planning Board require the Applicant to identify the height and finish material of all proposed retaining walls and to demonstrate compliance with the five (5) foot maximum height requirement of Section 7.09.J, consistent with the retaining wall comment noted above. See VHB comment under Zoning section 10.5.c.2 for further comment.**

**Applicant Response 11:**

As noted by VHB, there appears to be a conflict between the subdivision regulations and the zoning requirements. It is our interpretation that the 5-foot height limitation within the Subdivision Regulations applies to improvements associated with private or public roadways. No retaining walls are proposed within the public right-of-way.

The 6-foot height limitation under zoning is applicable to grading within private lots, consistent with typical zoning enforcement practices. All proposed retaining walls comply with the zoning maximum height of 6 feet. Note that the maximum height of walls on the project is only 4.5 feet.

The plans have been updated to depict both the top and bottom of wall elevations at intervals not exceeding 25 feet.

Please refer to the updated Grading Plans, Sheets 6.2 and 6.3 for this additional information.

6. 7.09. K. Common Access Driveways.

**VHB Comment:** The submitted typical details indicate a gravel base thickness of 8 inches and a paved width of 16 feet for common access driveways. Section 7.09.K of the Subdivision Regulations requires a minimum 12-inch gravel base and a minimum 18-foot paved width for common access driveways. The currently proposed section does not appear to meet these standards.

Driveway sections that do not meet the required width and base thickness may result in operational constraints, reduced durability, and long-term structural deficiencies. In addition, the plans do not clearly indicate whether the proposed common access driveways are intended to function as one-way or two-way facilities. A 16-foot paved width may be insufficient to safely accommodate two-way vehicle passage, including emergency vehicles, snow removal equipment, and service vehicles, particularly where parking, grading constraints, or vertical features are present.

Further, the submission does not clearly define the functional hierarchy of the proposed internal roadway network. It is not evident which roadways are intended to be classified as private streets, common access driveways, alleys, or other facility types under the Subdivision Regulations. Without clear classification of each roadway segment, the Planning Board cannot determine which dimensional and construction standards apply to each facility or evaluate compliance accordingly.

**VHB recommends that the Planning Board require the Applicant to:**

- **Clearly identify the functional classification of each proposed internal roadway and driveway on the plans;**
- **Revise the common access driveway details to demonstrate compliance with Section 7.09.K, including the 12-inch gravel base and 18-foot minimum paved width; or**
- **Provide supporting justification for any proposed deviations and seek Planning Board approval, as applicable.**

**Clarification of roadway hierarchy and applicable design standards is necessary to allow the Planning Board to evaluate conformance with the Subdivision Regulations and ensure safe, durable, and properly functioning access throughout the development.**

**Applicant Response 12:**

The Site Layout Plans, Sheets 5.0-5.3 have been updated designating the classification of the internal roadways. Please note that they conform to then Design Guidebook and as coordinated with City Staff during the Technical Review Committee process.

The common driveway widths have been modified providing 18-foot minimum width. There is 12-inch gravel base provided for the common driveway noted as "Parking Lane" on the roadway section details. The 8" gravel base is designated for driveway supporting a single unit.

No deviations will be sought for the roadway construction standards.

7. 7.10.B. *Design Basis.*

**VHB Comment:** See Stormwater Management Section Below.

8. 7.10.B.1 Use Low Impact Development (LID) site planning and design strategies unless infeasible;

**VHB Comment:** See Stormwater Management Section Below.

9. 7.10.B.3 Stormwater management systems

**VHB Comment:** See Stormwater Management Section Below.

10. 7.15 Earth Removal.

**VHB Comment:** The submitted grading plans depict substantial areas of cut and fill throughout the site; however, the materials do not include a quantitative earthwork summary (cut/fill calculations or balance analysis), nor do they clearly indicate whether material will be exported from or imported to the site. While the project is not before the Board as a Definitive Subdivision, Section XI.Q.10.5.a.5 incorporates applicable Subdivision standards for purposes of Site Plan Review, and earthwork magnitude is relevant to evaluating grading impacts, site stability, and community effects.

Without a quantified earthwork analysis, the Planning Board cannot determine the scale of material movement proposed, whether the project is balanced on-site, or what off-site trucking activity may be

required. This information is necessary to assess potential impacts to surrounding roadways, traffic operations, neighborhood disturbance, construction duration, and environmental conditions.

In addition, the grading plans do not include representative site cross sections or other graphics that would allow the Board to clearly understand the magnitude of vertical change across the site, particularly in areas of significant fill or cut adjacent to property boundaries or resource areas.

**VHB recommends that the Planning Board request that the Applicant provide:**

- **A detailed earthwork analysis summarizing total cut, total fill, and net import/export quantities;**
- **Identification of whether material will be removed from or brought onto the site;**
- **An estimate of anticipated truck trips associated with earthwork import/export (including approximate daily truck volumes and duration);**
- **Representative site cross sections or other grading graphics illustrating the extent of cut and fill in key locations; and**
- **Clarification of any potential off-site staging, stockpiling, or hauling routes associated with earth removal.**

**This information will allow the Planning Board to better understand the scale of grading operations, evaluate potential community and traffic impacts, and make informed findings under Site Plan Review.**

#### **Applicant Response 13:**

The project will require the import of soil due to existing site and groundwater conditions. Fortunately, Interstate 95 and Interstate 495 are located in proximity to the site, allowing the haul route to access the project directly from these major interstates via Route 110. This haul route avoids residential neighborhoods and school zones.

It is estimated that the site filling operations will be completed over a period of approximately four months with approximately 50 truck trips per day.

Please refer to Exhibits 1.0 and 1.1 for the detailed cut and fill analysis, including total quantities associated with the project. The exhibit also illustrates the proposed haul route.

Pursuant to Section XI.V.7.5, projects within the MFOD are subject to the Site Plan Review Design Standards set forth in Section XI.Q.10.5, except as modified by Section 9.0. For projects within the RH-MFOD, Section 9.4.1 exempts certain subsections of Section XI.Q.10.5 (including 10.5.e and 10.5.n) and instead requires conformance with the approved RH-MFOD Residential Pattern Book and applicable sign provisions.

Accordingly, the proposed development is subject to the applicable provisions of Section XI.Q.10.5, as modified by Section 9.0 for the RH-MFOD, and the comments below evaluate compliance within that framework.

1. XI.Q.10.5.b. Parking.

**VHB Comment:** The Applicant's narrative states that parking is proposed at approximately 2.87 spaces per dwelling unit in the South Neighborhood and 1.68 spaces per dwelling unit in the North Neighborhood, exclusive of parking dedicated to public trail access. Section 10.b.1 requires a minimum of 1.5 spaces per dwelling unit and establishes a maximum of 1.75 spaces per dwelling unit unless otherwise approved by the Permit Approval Authority (PAA). The submission does not clearly demonstrate how the proposed parking supply complies with these limits or whether approval for parking in excess of the maximum is being requested.

Without a clear parking compliance summary, the Planning Board cannot determine whether the proposed parking supply conforms to the minimum and maximum ratios established under Section XI.Q.10.5.b or whether discretionary approval for excess parking is required.

**VHB recommends that the Planning Board require the Applicant to provide a parking compliance summary documenting the required minimum and maximum parking pursuant to Section 10.b, the proposed parking by neighborhood and use, and to clearly identify and justify any parking proposed in excess of the maximum ratio for Planning Board review and approval, as applicable.**

**Applicant Response 14:**

Parking configurations and counts for both neighborhoods are a function of the Design Guidelines which prioritized streetscapes lined with trees and front porches, and rear-of-building parking. Driveway layouts and street widths were set to prohibit parking except in designated bump-out areas to ensure that, to the fullest extent possible, reported parking counts equal actual parking capacity. This matters because parking counts are typically blind to tandem and other unmarked spaces. For the North Neighborhood where unassigned surface parking predominates, parking distribution and ratios are within the zoning guidelines as noted. Spaces are distributed evenly across the site proximate to building entrances.

In the South Neighborhood primary homeowner parking is in attached single and two-car garages with an additional 79 guest parking spaces distributed around the neighborhood (including spaces at the community building and at trail access area north of the rotary). With one exception, to be noted below, these parking counts are the sum total within the south neighborhood. In many site plans, this number of guest spaces would be excessive because homes with garages typically have driveways with at least one tandem space per stall. However, in this case the garages of 72 of the 83 homes are accessed via shared driveways, not private driveways. These shared driveways do not accommodate tandem parking. The guest parking spaces have been located to serve these homes. The exceptions are the eleven free-standing homes that do have street-facing garages. These homes are grouped in three clusters, and, accordingly, common guest parking spaces have not been located nearest to these homes.

Therefore, whereas a conventional plan may have a functional parking capacity of two or more times quantified spaces, the proposed plan, by applying the Design Guidelines contains a modest allowance of less than one unassigned space per home. And without these spaces equitably distributed across the neighborhood, the daily life of residents and their guests would be severely compromised along with delivery and service functions.

The for-sale units in the South Neighborhood each contain three or four bedrooms. A minimum of two parking spaces per unit is more appropriate for this portion of the project. A detailed summary of the provided parking is now tabulated and provided on the Cover Sheet C1.0 and Site Layout Plans, Sheets C5.0-C5.3.

2. XI.Q.10.5.b.4.e. Location of Parking.

**VHB Comment:** Section 10.5.b.4.e of the Zoning Ordinance requires that off-street parking areas, access ways, and maneuvering areas be designed to provide adequate drainage, snow removal, and maneuverability, including accommodation of loading and service functions without conflict with site circulation. The submitted plans do not identify any designated loading spaces or loading areas, and the materials do not clearly indicate how routine deliveries or residential move-in/move-out operations will be accommodated for the proposed buildings.

Without designated loading provisions and operational details for deliveries, move-in/move-out activity, and snow management, the Planning Board cannot determine whether the parking and circulation layout will function safely and efficiently without conflicts to emergency access or internal traffic flow, as required under Section XI.Q.10.5.b.4.e.

**VHB recommends that the Planning Board require the Applicant to clarify how deliveries and move-in/move-out operations will be accommodated for each building and to demonstrate that the proposed site layout provides adequate maneuverability consistent with Section 10.5.b.4.e. If loading activities are intended to occur within shared circulation areas, the Applicant should provide supporting information demonstrating that such operations will not conflict with vehicular circulation or emergency access. The Applicant should also identify how snow removal and snow storage will be managed to ensure that required maneuvering areas, access routes, and emergency access are maintained during winter conditions.**

**Applicant Response 15:**

The North Neighborhood's community clubhouse includes a mailroom and a package room where all mail and package deliveries will be made for the rental community. The mail and package rooms will be managed by the onsite property management team. Adequate temporary parking is available immediately adjacent to the clubhouse for mail and package deliveries.

Move-ins for the North Neighborhood will be coordinated and managed by the onsite property management and maintenance teams. Given the limited size of the rental apartments, smaller moving vans are the norm for buildings of this kind. The onsite management team will impose time restrictions, manage moving company certificates of insurance, and coordinate the logistics of the move-in and move-out processes.

The South Neighborhood's clubhouse includes a mailroom. Parking is available immediately adjacent to the



clubhouse for mail delivery. Package deliveries for the South Neighborhood will be made door-to-door, as is typical of residential neighborhoods.

Each home in the South Neighborhood has its own driveway or a rear drive aisle off of the main circulatory streets, providing sufficient temporary parking for moving vehicles outside of the primary and emergency access routes. Loading is not intended to take place in shared circulation areas.

Snow storage areas have been added to the Site Layout Plans, Sheets 5.0-5.3. The 6-foot landscaped strip will provide snow storage for normal roadway plowing operations.

### 3. XI.Q.10.5.c.2 Retaining Walls.

**VHB Comment:** The submitted plans show several retaining walls throughout the site; however, retaining wall heights are not labeled and do not clearly demonstrate compliance with Section 10.c.2, which limits retaining walls to a maximum height of six (6) feet unless terraced and landscaped.

Of note is the retaining wall proposed along the project limit adjacent to the Route 495 side of the property. The plans do not clearly identify the height of this wall, the extent of grading behind it, or whether the proposed limit of work is sufficient to accommodate constructability, slope transitions, and long-term maintenance. Based on the grading shown, additional disturbance beyond the currently depicted limit of work may be necessary to construct the wall and achieve the proposed elevations.

In addition, it is unclear how the rear elevations of the garage structures in this area will be accessed and maintained over time, particularly where grade transitions occur immediately behind the buildings. Without cross-sectional information, the Planning Board cannot fully assess the visual impact, slope stability, drainage patterns, or long-term maintenance feasibility of this wall condition.

Without labeled retaining wall heights, terracing details (where applicable), and supporting grading information, the Planning Board cannot verify compliance with the six (6) foot limitation of Section

XI.Q.10.5.c.2 or evaluate the potential grading, visual, and maintenance impacts associated with the proposed wall systems.

**VHB recommends that the Planning Board require the Applicant to:**

- **Label the height (top and bottom elevations) of all proposed retaining walls on the plans;**
- **Identify any locations where walls exceed six (6) feet and demonstrate compliance through terracing and landscaping, consistent with Section 10.c.2;**
- **Provide a representative cross section through the retaining walls that exceed 6' regulation, boundary illustrating existing grade, proposed grade, wall height, garage relationship, drainage provisions, and limit of disturbance; and**
- **Clarify how the rear of garage structures and wall areas will be accessed and maintained over time.**



#### Applicant Response 16:

Top and bottom elevations have been added to the Grading Plans, Sheets C6.2 & C6.3 with corresponding construction details provided on Sheet C10.1. The maximum wall height for the project is 4.5 feet, which is a standard design condition for the specified wall system; therefore, a dedicated site section is not warranted.

Along the north property line, the wall height is limited to a maximum of 3 feet, with the majority of the wall being approximately 2 feet in height. The rear frost walls for the car barns will be extended as necessary to retain any required soil.

Given the relatively low wall heights, access for routine and minor maintenance of the car barns in this area will not be impeded.

#### 4. XI.Q.10.5.d. Open Space.

**VHB Comment:** The Applicant's narrative describes preservation of natural areas, interconnected open space, and permanent protection through deed restrictions. However, the submitted materials do not clearly delineate the specific limits of common open space proposed for permanent protection, nor do they identify which areas, if any, are proposed to be deeded to the public versus retained under private ownership. In addition, the submission does not clearly identify the entity responsible for long-term ownership, maintenance, and operation of these areas, as required under Section 10.5.d – Open Space.

The project includes numerous privately owned and maintained elements, including stormwater BMPs, internal roads, sidewalks, lighting, trails, and landscaped areas, many of which appear to be located within or adjacent to areas described as "open space." The plans do not clearly distinguish between passive natural open space, active recreational areas, stormwater management areas, and landscaped buffers, nor do they clarify which stormwater BMPs are located within designated open space areas. Without this distinction, it is unclear how the open space requirement is being calculated and how such areas will function over time.

In addition, while the plans depict an internal trail and path network, the materials do not explain the planning logic behind the layout, including how the proposed paths connect to civic, recreational, or natural areas within the development and whether they provide meaningful connectivity between neighborhoods or to adjacent resources.

Without clearly delineated open space limits, identification of areas proposed for public dedication (if any), clarification of stormwater BMP locations within open space, and defined long-term ownership and maintenance responsibilities, the Planning Board cannot ensure that required common open space will be permanently protected, function as intended, and be properly maintained in accordance with Section XI.Q.10.5.d.

**VHB recommends that the Planning Board require the Applicant to:**

- **Provide a separate Open Space Plan clearly delineating all common open space areas;**
- **Identify which areas, if any, are proposed for public dedication versus private ownership;**
- **Clearly distinguish passive open space, active recreational space, landscaped areas, and stormwater BMP areas, including identification of which BMPs are located within designated open space;**
- **Provide open space calculations demonstrating compliance with Section 10.5.d;**

- **Identify the proposed Resident's Association or equivalent entity responsible for long-term ownership, maintenance, and operation of common open space and shared infrastructure; and**
- **Provide a brief narrative explaining the logic of the proposed trail and path layout and how it connects civic, recreational, and natural resource areas within the development.**

#### **Applicant Response 17:**

The proposed project's open space requirements are established in accordance with the provisions of Zoning Section XI.V: MBTA Communities Multi-Family Overlay District.

All open space areas are now clearly delineated on the Overall Key Site Plan (Sheet C4.0), with total areas for both formal and informal open space identified. An Open Space Zoning Matrix has also been added to the Cover Sheet C1.0 to document compliance with Section XI.V:6.3.

All open space areas will be privately owned and maintained. The project's management company will be responsible for maintaining the park areas within the North Neighborhood, while a Homeowners Association (HOA) will be responsible for contracting and funding maintenance of the park areas within the South Neighborhood.

The trail network is intended to provide a natural, less formal pathway system for enjoyment of the surrounding open space areas. In addition, the trail system is designed to accommodate a future connection to potential development located south of the South Neighborhood. A portion of the trail will also provide an informal connection from the northeast corner of the North Neighborhood to the fieldhouse, pickleball courts, and pool area.

The open spaces areas are provided as follows:

#### **NORTH NEIGHBORHOOD LAND AREAS**

- LOT 3 TOTAL AREA = 1,621,928 SF
- LOT 3 DEVELOPABLE LAND AREA= 606,135 SF
- TOTAL COMMUNITY OPEN SPACE = 149,000 SF- **25%** (20% MIN. REQUIRED)
- FORMAL OPEN SPACE = 116,000 SF - **77.8%** (65% MIN. REQUIRED)
- INFORMAL OPEN SPACE=33,000SF - **22.2%** (35% MAX. ALLOWED)

#### **SOUTH NEIGHBORHOOD LAND AREA**

- LOT 1 TOTAL AREA = 905,881 SF
- LOT 2 TOTAL AREA = 206,411
- LOT 1&2 DEVELOPABLE LAND AREA= 569,531 SF
- TOTAL COMMUNITY OPEN SPACE = 127,050 SF - **22%** (20% MIN.REQUIRED)
- FORMAL OPEN SPACE = 86,450 SF - **68.0%** (30% MIN. REQUIRED)
- INFORMAL OPEN SPACE= 40,600 SF - **32.0%** (70% MAX. ALLOWED)

5. XI.Q.10.5.f.4. Stormwater Management, Wetlands and River40front Area.

**VHB Comment:** VHB understands that the Applicant intends to file, or has filed, the proposed work with the Amesbury Conservation Commission for review under the Massachusetts Wetlands Protection Act and the Amesbury Wetlands Ordinance. As certain elements of the project fall within the Conservation Commission's

jurisdiction, detailed review of those components is appropriately within that body's purview.

**VHB recommends that the Planning Board coordinate with the Conservation Commission regarding matters subject to its review and consider conditioning any approval on consistency with the final Order of Conditions. VHB will review any revisions resulting from Conservation Commission review, if requested by the Planning Board.**

**Applicant Response 18:**

Applicant is in approval process with Conservation Commission. No significant modifications are anticipated at this time in response to Conservation Commission review. Applicant will update the Planning Board as the process proceeds.

6. XI.Q.10.f.5. Stormwater Management, Wetlands and Riverfront Area.

**VHB Comment:** VHB understands that the Applicant intends to file, or has filed, the proposed work with the Amesbury Conservation Commission for review under the Massachusetts Wetlands Protection Act and the Amesbury Wetlands Ordinance. As certain elements of the project fall within the Conservation Commission's jurisdiction, detailed review of those components is appropriately within that body's purview.

**VHB recommends that the Planning Board coordinate with the Conservation Commission regarding matters subject to its review and consider conditioning any approval on consistency with the final Order of Conditions. VHB will review any revisions resulting from Conservation Commission review, if requested by the Planning Board.**

**Applicant Response 19:**

Applicant is in approval process with Conservation Commission. No significant modifications are anticipated at this time in response to Conservation Commission review. Applicant will update the Planning Board as the process proceeds.

XI.Q.10.5.g. Erosion Control.

**VHB Comment:** The Applicant has submitted an erosion and sedimentation control plan depicting final buildout conditions. However, if the project is to be constructed in phases, the submitted materials do not clearly demonstrate how erosion and sedimentation controls will be implemented and maintained during interim construction phases, as required under Section 10.5.g. In addition, the erosion control requirements outlined in Section 10.5.g are not consistently referenced on the plan sheets to ensure contractor awareness and implementation during construction.

Without phased erosion and sedimentation control details and clear plan references to Section XI.Q.10.5.g requirements, the Planning Board cannot ensure that wetland resource areas and downstream properties will be adequately protected during interim construction conditions.

**VHB recommends that the Planning Board require the Applicant to clarify whether the project will be constructed in phases and, if so, to submit a phased erosion and sedimentation control plan**

**demonstrating compliance with Section 10.5.g during each phase. In addition, the Applicant should include erosion and sedimentation control notes consistent with Section 10.5.g on the applicable plan sheets to ensure proper implementation during construction.**

**Applicant Response 20:**

While the project may ultimately be constructed in several phases, the initial phase will consist of clearing and grubbing of the entire site, followed by filling operations to bring the site to subgrade elevations.

Because the entire site will be disturbed at the outset of construction, erosion and sedimentation controls will be installed in accordance with the approved Erosion Control Plans provided with this submission and maintained until all disturbed areas are fully stabilized.

In addition, a detailed Stormwater Pollution Prevention Plan (SWPPP) will be prepared and implemented prior to the start of construction. Further details regarding construction phasing and staging areas will be developed in coordination with the site contractor, once the site contractor is selected and hired.

7. XI.Q.10.h. Water Quality.

**VHB Comment:** See Stormwater Management Section Below.

8. XI.Q.10.5.j. Lighting.

**VHB Comment:** The Applicant's narrative states that site lighting has been designed to meet the maximum height requirements for parking areas, driveways, and pedestrian walkways, and that preferred fixture designs are included in the architectural plans. However, the submitted civil plans do not clearly document fixture heights by location or demonstrate that lighting levels are designed to meet the minimum illumination standards recommended by the IESNA, as required under Section 10.5.j and Section XI.C.8.i.

Without a photometric plan and fixture height documentation, the Planning Board cannot verify that the proposed lighting will meet required illumination standards while preventing glare, light trespass, and noncompliance with Section XI.Q.10.5.j and Section XI.C.8.i.

**VHB recommends that the Planning Board require the Applicant to provide a photometric plan and supporting documentation identifying fixture types, cutoff characteristics, and mounting heights by location, along with a photometric analysis demonstrating compliance with Section 10.5.j and Section XI.C.8.i, including conformance with the most current IESNA Lighting Handbook recommendations.**

**Applicant Response 21:**

See Landscape plan LP1 provided with the updated submitted plans.

Submitted plans sets have been updated to include photometric plans and supporting documentation identifying fixture types, cutoff characteristics, and mounting heights by location, along with corresponding compliance for all site lighting. Note that required building-mounted lighting is called out on architectural plans and elevations. Building mounted fixtures at all building entrances will provide the light levels required in these locations. Photometric data for these fixtures is not depicted on the site plans as controls for these fixtures varies by location and photometric data for this class of figures is not consistently available. Generally, however, fixtures at common entries will be on common controls and fixtures at private entries will be resident controlled. The notable exception will be along shared driveways in the South

Neighborhood where garage-mounted fixtures will be controlled in common for site lighting and wayfinding in these areas.

9. XI.Q.10.5.m. Utilities.

**VHB Comment:** The submitted plans include typical sections indicating underground utility conduits and piping; however, the plan-level utility layout does not clearly identify the location of electric, telecommunications, and gas infrastructure, including associated transformers, switchgear, or utility vaults, as required under Section 10.5.m.1. While underground installation is indicated in section, the horizontal location and extent of these utilities are not shown on the utility plans.

In addition, Section 10.5.m.2 requires the Applicant to demonstrate that the proposed development will not overburden municipal water, sewer, or other public utility systems and that it is consistent with the City's Planned Infrastructure Report and Capital Improvement Plan. Documentation confirming such coordination has not been provided.

Without clearly defined utility layouts and confirmation of municipal capacity, the Planning Board cannot determine whether the project complies with Section XI.Q.10.5.m or ensure that required infrastructure can be safely accommodated without overburdening existing public systems.

**VHB recommends that the Planning Board require the Applicant to revise the utility plans to clearly identify the location of all underground electric, telecommunications, and gas utilities, including transformers, vaults, and related appurtenances. In addition, the Applicant should provide written confirmation or correspondence from DPW demonstrating that the project's water, sewer, and utility demands can be accommodated by existing municipal infrastructure and are consistent with the City's Planned Infrastructure Report and Capital Improvement Plan, as required under Section 10.5.m.**

**Applicant Response 22:**

The conceptual layout has been added to the Site Utility Plans 7.0-7.3. The final location will be determined by the utility provider and will not be finalized until a work order is submitted to the utility company.

During the planning process for the MBTA zoning, the sewer and water design were evaluated and accounted for in the projected capacity of the existing sewer and water treatment facilities. The applicant has requested that a letter be provided by the Amesbury DPW.

Section XI.V: MBTA Communities Multi-family Overlay District (Continued)

1. XI.V.9.1 Adoption of Design and Development Standards.

**VHB Comment:** Section XI.V.9.1 provides that any project undergoing Site Plan Review within the MFOD is subject to the Design and Development Standards set forth in this Section, unless a waiver is granted by the Planning Board. These standards are intended to be applied in a flexible manner to achieve the goals and objectives of the MFOD under Section 1.0.

Accordingly, the proposed development is subject to the applicable MFOD Design and Development Standards.

2. XI.V.9.3 Materials for Review.

**VHB Comment:** Section XI.V.9.3 provides that, for projects within the MFOD undergoing Site Plan Review, the provisions of Section XI.Q are incorporated by reference, with terminology adjusted to align with the Governing Laws (e.g., “Site Plan Review” in place of “Plan Approval” and “Planning Board” in place of “PAA”). Accordingly, the Applicant is required to submit materials for review consistent with Sections XI.Q.10.3 and XI.Q.10.4.

The proposed development is therefore subject to the applicable Site Plan Review submission requirements under Section XI.Q. VHB’s comments below identify specific items where clarification, additional documentation, or confirmation of compliance may be warranted.

3. XI.V.9.4 Development and Performance Standards.

**VHB Comment:** Section 9.4 provides that building design shall be reviewed in accordance with the development and performance standards under Section XI.Q.10.5, to the extent applicable, subject to modification by the specific provisions applicable to each subdistrict.

Pursuant to Section 9.4.1(b) and (c), projects within the RH-MFOD must conform to the approved “RH-MFOD Residential Neighborhood Design” (Residential Pattern Book) and the sign requirements of Section VII, and are not subject to Section XI.Q.10.5.e Building Design or Section XI.Q.10.5.n. Signs. Accordingly, the proposed development is subject to the applicable Section 10.5 standards as modified by Section 9.4.1 and the Residential Pattern Book.

VHB’s comments above and below evaluate compliance with the applicable development and performance standards, as modified for the RH-MFOD.

Section XI.Q.10.3 Materials for Review

Pursuant to Section XI.V.9.3, projects within the MFOD undergoing Site Plan Review incorporate the provisions of Section XI.Q by reference, with terminology adjusted to align with the Governing Laws. Accordingly, the submission requirements set forth in Section XI.Q.10.3 (Materials for Review) apply to this project. The proposed development is therefore subject to the applicable Site Plan Review submission standards under Section XI.Q.10.3, and the comments below identify areas where additional materials, clarification, or confirmation may be necessary to satisfy those requirements.

1. XI.Q.10.3.g. Lighting.

**VHB Comment:** The Applicant’s narrative states that site lighting has been designed to meet the maximum height requirements for parking areas, driveways, and pedestrian walkways, and that preferred fixture designs are included in the architectural plans. However, the submitted civil plans do not clearly document fixture heights by location or demonstrate that lighting levels are designed to meet the minimum illumination standards recommended by the IESNA.

Without a photometric plan and fixture height documentation, the Planning Board cannot verify that the proposed lighting complies with Section XI.Q.10.3.g or confirm that illumination levels, mounting heights, and fixture characteristics meet applicable safety and performance standards.

**VHB recommends that the Planning Board require the Applicant to provide a photometric plan and supporting documentation identifying fixture types, cutoff characteristics, and mounting heights by location, along with a photometric analysis demonstrating compliance with this section, including conformance with the most current IESNA Lighting Handbook recommendations.**

### Applicant Response 23:

See Landscape plan LP1 provided with the updated submitted plans.

Submitted plans sets have been updated to include photometric plans and supporting documentation identifying fixture types, cutoff characteristics, and mounting heights by location, along with corresponding compliance for all site lighting. Note that required building-mounted lighting is called out on architectural plans and elevations. Building mounted fixtures at all entrances will provide the light levels required in these locations. Photometric data for these fixtures is not depicted on the site plans as controls for these fixtures varies by location and photometric data for this class of figures is not consistently available. Generally, however, fixtures at common entries will be on common controls and fixtures at private entries will be resident controlled. The notable exception will be along shared driveways in the South Neighborhood where garage-mounted fixtures will be controlled in common for site lighting and wayfinding in these areas.

### Section XI.Q.10.4 Additional Materials for Review

Pursuant to Section XI.V.9.3, projects within the MFOD undergoing Site Plan Review incorporate the provisions of Section XI.Q by reference, with terminology adjusted to align with the Governing Laws. Accordingly, the submission requirements set forth in Section XI.Q.10.4 (Additional Materials for Review) apply to this project.

The proposed development is therefore subject to the applicable Site Plan Review submission standards under Section XI.Q.10.4, and the comments below identify areas where additional materials, clarification, or confirmation may be necessary to satisfy those requirements.

#### 1. XI.Q.10.4.b. Soils.

**VHB Comment:** Section XI.Q.10.4.b requires submission of a report addressing the potential dangers of erosion and sedimentation associated with the operation and maintenance of the proposed development, and authorizes high-intensity soil mapping, including test borings and analysis, where necessary.

While soil test pits and subsurface data have been provided in support of the stormwater infiltration design, the submitted materials do not clearly indicate whether a comprehensive geotechnical evaluation has been performed addressing broader geotechnical considerations associated with the proposed grading, sloped areas, retaining walls, building foundations, and long-term erosion susceptibility. The stormwater-related subsurface data does not necessarily demonstrate that slope stability, retaining wall design parameters, foundation bearing capacity, and construction-phase erosion risks have been evaluated from a geotechnical standpoint.

Given the scale of proposed grading and the number of retaining walls depicted on the plans, the absence of a geotechnical report introduces uncertainty regarding long-term site stability, structural performance, and erosion control.

Without a geotechnical evaluation addressing these conditions, the Planning Board cannot verify compliance with Section XI.Q.10.4.b or ensure that grading, retaining walls, and foundations are supported by appropriate subsurface analysis.

**VHB recommends that the Planning Board should require the Applicant to submit a geotechnical report prepared by a qualified professional addressing subsurface conditions, slope stability, retaining**



**wall design parameters, foundation recommendations, and erosion potential consistent with Section XI.Q.10.4.b prior to approval.**

**Applicant Response 24:**

Applicant engaged a geotechnical engineer, Kevin Martin, P.E., to review test pits and other available information to determine the suitability of the site for the proposed development. Mr. Martin's report is included as a Geotech Memorandum. Per the report, there is no evidence of unusual or unsuitable soil conditions for the proposed development. The report concludes, "(t)he subgrade conditions should be favorable for supporting the proposed buildings on a conventional spread footing foundation. There were no areas of expansive fill, soft clay or other poor to marginal subgrade." As the report further notes, full geotechnical analysis is typically performed in conjunction with preparation of building and retaining wall construction documents, as will be the case with Rocky Hill. No further testing should be required for site plan approval.

XI.Q.10.4.c. General environmental impact.

**VHB Comment:** Section XI.Q.10.4.c requires submission of a report addressing the relationship of the proposed development to the major botanical, zoological, geological, and hydrological resources on the site, as well as the compatibility of the proposed development with adjacent and surrounding land uses and neighborhoods.

While the Applicant has submitted various technical reports and narrative materials (including stormwater analyses, traffic studies, and site plans), the submission does not appear to include a consolidated report specifically addressing the broader environmental and neighborhood compatibility considerations outlined in Section XI.Q.10.4.c. In particular, the materials do not clearly synthesize how the proposed development relates to on-site natural resources (including wetlands, riverfront areas, slopes, and existing vegetation), nor how it is compatible with surrounding land uses and neighborhood context in a comprehensive manner.

Without a consolidated General Environmental Impact report, the Planning Board lacks a structured basis to evaluate the project's relationship to on-site natural resources and its compatibility with surrounding land uses, as contemplated under Section XI.Q.10.4.c.

**The Planning Board should require the Applicant to submit a General Environmental Impact report addressing the elements of Section XI.Q.10.4.c in a consolidated format for review and consideration prior to approval.**

**Applicant Response 25:**

As confirmed at the Planning Board Hearing 3/9/2026, the applicant's MEPA Final Environmental Impact Report will suffice for the requested Environmental and Community Impact Analysis.

## Section VIII: Off-Street Parking And Loading Regulations

Section VIII applies because the Rocky Hill project proposes new residential dwelling units and accessory community buildings that generate parking demand. As part of Site Plan Review under the RH-MFOD, the development must comply with the minimum parking ratios, dimensional standards, layout requirements, and any applicable loading provisions set forth in Section VIII, unless specifically modified by the overlay district provisions.



1. Section VIII.G.6 Parking and Loading Space Standards.

**VHB Comment:** The submitted curb schedule identifies a Main Boulevard Curb (Granite Type) and allows alternative curb types including Belgian block, Granite Type VB, or cast-in-place (C.I.P.) concrete. However, the plans do not clearly demonstrate conformance with Section G.6 of Section VIII: off-street parking and loading regulations, which requires vertical granite curbing at all entryway radii and sloped granite curbing along driveways, landscaped islands, and the perimeter of parking areas.

Without clearly identified curb types and confirmation of compliance with Section VIII.G.6, the Planning Board cannot determine whether required granite curbing standards are being met or whether proposed alternatives require discretionary approval.

**VHB recommends that the Planning Board require the Applicant to clearly identify all proposed curb types by location on the plans and demonstrate conformance with Section G.6. Where alternatives to the required granite curbing are proposed, including Belgian block, Granite Type VB, or cast-in-place concrete curbing, the Applicant should clearly identify these locations and seek Planning Board approval, as applicable, in accordance with Section G.6.**

**Applicant Response 26:**

The curb types are identified in the legend on the Site Layout Plans, Sheets 5.0-5.3. The required 6" x 18" granite curb is provided along the roadway proposed for acceptance by the City as a public road. The plans also allow for alternate curb types in the privately owned roadways, providing flexibility for construction bidding and cost considerations.

2. Section VIII.G.13 Parking and Loading Space Standards.

**VHB Comment:** The plans do not explicitly label parking space or aisle dimensions required to verify compliance with Section G.13 of the Amesbury Zoning Ordinance. Based on scaling, the proposed 90-degree parking spaces appear to be approximately 9 feet by 18 feet, consistent with Section G.13. However, parallel parking areas shown consistent with Figure C appear to scale closer to 8 feet by 22 feet, rather than the illustrated 9 feet by 20 feet configuration.

Without labeled parking space and aisle dimensions, the Planning Board cannot verify compliance with Section VIII.G.13 or determine whether any alternative parking configurations require specific review and approval.

**VHB recommends that the Planning Board require the Applicant to label all parking space and aisle dimensions on the plans and to clearly identify any alternative parking configurations proposed pursuant to Section G.13, for Planning Board review and approval, where applicable.**

**Applicant Response 27:**

Parking aisle and stall dimensions are noted as typical on the plans. The parallel parking spaces are designed to be 23 feet long by 8 feet wide, as coordinated during the Technical and Design Review Process. Amesbury regulations specify dimensions of 20 feet long by 9 feet wide; however, the proposed dimensions are more typical and appropriate for parallel parking.

The 90-degree parking stalls are designed to be 9 feet wide by 18 feet long, in accordance with the City's design standards.

3. Section VIII.G.15 (2011-030) Parking and Loading Space Standards.

**VHB Comment:** The submitted plans show several locations where parking spaces appear to be configured such that vehicles may overhang into adjacent pedestrian sidewalks and/or landscape buffer areas, contrary to Section G.15 (2011-030) of the Amesbury Zoning Ordinance. Section G.15 requires a minimum 5-foot-wide pedestrian sidewalk adjacent to buildings with public entrances and prohibits vehicle parking or overhang into pedestrian sidewalks or required landscape buffer strips.

If parking overhang encroaches into required sidewalks or landscape buffers, the Planning Board cannot confirm compliance with Section VIII.G.15 or ensure that pedestrian circulation areas remain fully accessible and unobstructed as required by the Zoning Ordinance.

**VHB recommends that the Planning Board require the Applicant to revise the plans to clearly demonstrate that all pedestrian sidewalks and required landscape buffer areas under Section G.15 remain free of vehicle overhang. Where necessary, the Applicant should adjust parking layouts or provide wheel stops or other measures, subject to Planning Board approval, and dimension these features to confirm compliance.**

**Applicant Response 28:**

Civil and Landscape plan sets revised to show wheel stops placed in all parking spaces where vehicle overhang may impede pedestrian ways or required landscape buffer areas.

4. Section VIII.G.16 Parking and Loading Space Standards.

**VHB Comment:** Section G.16 requires interior parking lot landscaping, including one shade tree per eight spaces, landscaped islands, and a minimum of five percent of the parking area maintained as interior landscaped area. The Applicant has submitted a landscape plan that appears to meet the intent of these standards; however, the required calculation demonstrating compliance with the five percent interior landscaping requirement has not been provided.

Without a documented interior landscaping calculation, the Planning Board cannot verify compliance with the minimum five percent landscaped area requirement of Section VIII.G.16 or make a defensible finding that the parking layout satisfies the Ordinance standards.

**VHB recommends that the Planning Board require the Applicant to submit the interior landscape percentage calculation to document and confirm compliance with Section G.16.**

**Applicant Response 29:**

The Applicant appreciates the Reviewer's observation that the plans appear to meet the intent of these standards. As has been noted elsewhere, the Rocky Hill Design Guidelines developed for the project quite consciously focused on the location, distribution, and character of parking areas. In the North Neighborhood where surface parking is concentrated, parking runs are broken up by landscape islands,

driveways, sidewalks and crosswalks, and free-standing garages. Landscape areas surround all parking areas. Tree counts within and surrounding parking exceed the required ratio as do the associated landscape areas taken in respect to the Design Guidelines' expectation that the parking be arranged as shown, demonstrating compliance with Section G.16.

5. Section VIII.G.17 Parking and Loading Space Standards.

**VHB Comment:** The submitted plans show several locations where parking spaces appear to be arranged such that vehicles may extend over adjacent pedestrian walkways, and where required minimum three (3) foot setbacks between parking curbs and pedestrian walkways are not clearly demonstrated, contrary to Section G.17 of the Amesbury Zoning Ordinance.

Without clearly demonstrated setbacks and overhang protection measures, the Planning Board cannot verify compliance with Section VIII.G.17 or ensure that pedestrian walkways will remain safe, unobstructed, and functionally separated from parking areas as required by the Ordinance.

**VHB recommends that the Planning Board require the Applicant to revise the plans to clearly demonstrate compliance with Section G.17, including identification of the minimum three (3) foot setback between parking curbs and pedestrian walkways and the measures proposed to prevent vehicle overhang into pedestrian facilities.**

**Applicant Response 30:**

Civil and Landscape plan sets revised to show wheel stops placed in all parking spaces where vehicle overhang may impede pedestrian ways or required landscape buffer areas, demonstrating compliance with Section G.17.

6. Section VIII.G.18 Parking and Loading Space Standards.

**VHB Comment:** The submitted plans do not clearly demonstrate how ADA-compliant accessible and van-accessible parking spaces are provided and allocated across the site. The project includes multiple parking facilities, including on-street visitor parking areas (Driveway Lane, Secondary Road, Main Boulevard), parking barns/garages, and parking serving common-use/amenity buildings. However, the materials do not provide a clear breakdown of required versus proposed accessible parking spaces for each parking facility or identify how these spaces serve the applicable buildings and uses.

Without a clear accounting and allocation of accessible and van-accessible parking spaces by facility and use, the Planning Board cannot verify compliance with Section VIII.G.18 and applicable ADA/521 CMR requirements or ensure that accessible parking is properly distributed to serve each building and amenity.

**VHB recommends that the Planning Board request the Applicant clarify the following:**

- **A summary identifying the required and proposed number of accessible and van-accessible parking spaces for each parking facility, including on-street visitor parking areas and parking barns/garages;**
- **Identification of accessible parking serving each common-use/amenities, including confirmation that required van-accessible spaces are provided**

**This information is required to confirm compliance with applicable accessibility requirements.**

**Applicant Response 31:**

Accessible (handicap) spaces have been distributed throughout the North Neighborhood. Due to the building layout, additional accessible spaces are provided, with a total of 37 spaces proposed where only 9 are required. Five van-accessible spaces are provided, where only 2 are required. The locations are shown on the Site Layout Plans, Sheet 5.0-5.3 along with a summary table on the Cover Sheet, C1.0.

One accessible space is provided at the community building in the South Neighborhood. The single-family and townhouse units in the South Neighborhood are not required to be ADA-accessible.

7. Section VIII.G.18 Parking and Loading Space Standards.

**VHB Comment:** The submitted plans do not identify any EV-ready or EV-capable parking spaces. Pursuant to the Massachusetts Residential Stretch Energy Code, a minimum percentage of parking spaces serving new residential development is required to be EV-ready. In addition, where EV-ready parking is required, applicable accessibility standards under 521 CMR and the 2010 ADA Standards for Accessible Design require that a portion of accessible parking spaces be capable of accommodating EV charging.

Without identification of EV-ready parking and associated accessible EV provisions, the Planning Board cannot verify compliance with the Massachusetts Residential Stretch Energy Code or applicable 521 CMR and ADA requirements governing accessible electric vehicle charging accommodations.

**VHB recommends that the Planning Board require the Applicant to clarify whether EV-ready parking is proposed or required under the Residential Stretch Energy Code. If EV-ready parking is required, the plans should be revised to identify the required and proposed number of EV-ready spaces and to demonstrate compliance with 521 CMR and ADA accessibility requirements, including the designation and location of accessible and van-accessible EV-ready spaces.**

**Applicant Response 32:**

All the garages in the South Neighborhood will be EV-ready satisfying this requirement.

20 percent of the North Neighborhood Spaces will EV-ready, as is required. The locations are now highlighted on the Site Layout Plans, Sheets C5.2 & C5.3.

## Stormwater Management Compliance

VHB has reviewed the proposed stormwater management system and its interaction with jurisdictional wetland resource areas for conformance with applicable state and local regulations. This review encompassed the Stormwater Manager Report prepared by Millennium Engineering, Inc., dated August 11, 2025, revised January 12, 2026, the Proposed Site Plan Review Plans dated August 11, 2025, revised December 22, 2025, the Development Narrative, and relevant sections of the Amesbury Zoning Ordinance, including stormwater and related provisions within the Multi-Family Overlay District.

Due to the extent and scale of the comments outlined below, the Stormwater and General Comments sections are limited to high-level technical and regulatory observations. Detailed, sheet-by-sheet and micro-level review has not been completed at this time, as substantive plan revisions and potential layout modifications are anticipated in

response to these comments.

VHB will provide additional detailed comments upon submission of revised plans reflecting any material changes.

VHB understands that the Applicant intends to file, or has filed, the proposed work with the Amesbury Conservation Commission for review under the Massachusetts Wetlands Protection Act and the Amesbury Wetlands Ordinance. As certain elements of the project fall within the Conservation Commission's jurisdiction, detailed review of those components is appropriately within that body's purview.

VHB recommends that the Planning Board coordinate with the Conservation Commission regarding matters subject to its review and consider conditioning any approval on consistency with the final Order of Conditions. VHB will review any revisions resulting from Conservation Commission review, if requested by the Planning Board.

#### **Per Section XI.Q.10.5.a.5(f) & (g) Subdivision Rules and Regulations**

##### *1. 7.10.B. Design Basis.*

**VHB Comment:** Section 7.10.B establishes design criteria for storm sewers, culverts, detention and retention systems, including conveyance of the 25-year storm for storm sewers, conveyance of the 100-year storm for culverts, and no increase in peak discharge to off-site areas for the 25- and 100-year storm events. However, the submitted materials do not include hydraulic capacity calculations for storm sewer pipes or culverts demonstrating compliance with the required design storms. In addition, the submission does not provide peak runoff rate summaries for the 25-year storm event for the proposed stormwater basins, nor does it include design calculations or details for stormwater outfalls and end structures, such as riprap aprons, level spreaders, or other energy dissipation and erosion protection measures at discharge locations.

Without storm sewer and culvert hydraulic capacity calculations, peak discharge summaries, and outfall design details, the Planning Board cannot verify that the stormwater system complies with the design storm requirements of Section 7.10.B or confirm that downstream properties and resource areas are adequately protected from increased runoff and erosion.

**VHB recommends that the Planning Board require the Applicant to submit complete stormwater conveyance and design documentation demonstrating compliance with Section 7.10.B, including storm sewer and culvert hydraulic capacity calculations, peak runoff rate summaries for the 25-year storm event, and outfall and end-structure design details and calculations for all stormwater discharge locations.**

#### **Applicant Response 33:**

Please note that the HydroCAD model confirms that the 25-year storm event is fully conveyed through the drainage network to the outfall. Pipe diameters, lengths, and slopes are all incorporated within the model.

Please refer to the relevant nodes within the hydrograph output. The model reports the 25-year peak flow rate through each pipe, as well as the maximum hydraulic grade line (HGL) elevation within associated catch basins or structures, confirming that the 25-year storm event is conveyed without flooding.

An example of this reporting is provided below for the pipe segment between DMH 30 and DMH 29. At this location, the peak water surface elevation exceeds the pipe crown but remains well below the rim elevation, indicating that the system operates under surcharge conditions without overtopping.

All information required under Section 7.10.B is included within the HydroCAD model.

Inflow Area = 0.986 ac, 66.09% Impervious, Inflow Depth > 3.48" for 25-Year event  
Inflow = 4.21 cfs @ 12.09 hrs, Volume= 0.286 af  
Outflow = 4.21 cfs @ 12.09 hrs, Volume= 0.286 af, Atten= 0%, Lag= 0.0 min  
Primary = 4.21 cfs @ 12.09 hrs, Volume= 0.286 af  
Routed to Pond 145P : DMH 29

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Peak Elev= 52.82' @ 12.09 hrs

| Device | Routing | Invert | Outlet Devices                                                                                                                                                                                                 |
|--------|---------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| #1     | Primary | 50.33' | <b>12.0" Round Culvert</b><br>L= 73.0' CPP, projecting, no headwall, Ke= 0.900<br>Inlet / Outlet Invert= 50.33' / 49.96' S= 0.0051' / Cc= 0.900<br>n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf |

**Primary OutFlow** Max=4.13 cfs @ 12.09 hrs HW=52.76' (Free Discharge)  
**1=Culvert** (Barrel Controls 4.13 cfs @ 5.25 fps)

## 2. 7.10.B.1 Design Basis.

**VHB Comment:** Subdivision Regulations §7.10(B)(1) requires that Low Impact Development (LID) site planning and design strategies be incorporated into a project unless demonstrated to be infeasible. The regulation establishes an affirmative obligation to evaluate and utilize LID practices to the maximum extent practicable.

The submitted stormwater design relies primarily on conventional stormwater management practices, including centralized subsurface infiltration systems and surface basins. The submission does not include a written evaluation of LID feasibility or an alternatives analysis demonstrating that distributed LID practices were incorporated to the maximum extent practicable or determined to be infeasible.

Specifically, the materials do not document whether opportunities for decentralized practices, such as rain gardens, bioretention areas, permeable pavement, porous pavers, vegetated filter strips receiving sheet flow, or impervious area reduction, were evaluated during site design. Without this analysis, compliance with §7.10(B)(1) cannot be verified.

**VHB recommends that the Planning Board should require the Applicant to submit a written Low Impact Development (LID) feasibility analysis demonstrating how LID strategies were incorporated to the maximum extent practicable or, where not utilized, providing a clear engineering justification for infeasibility consistent with §7.10(B)(1) prior to approval.**

### Applicant Response 34:

While the "new urbanist" design developed by the Applicant in coordination with the Design Review Committee does not lend itself to all LID strategies, the project design has incorporated many such measures. Among the LID measures are the following: permeable pavement surfaces for the emergency access, stone drip edge along the North Neighborhood building foundations, deep-sump, hooded catch basins, water quality units to remove total suspended solids (TSS), subsurface infiltration basins, constructed stormwater wetlands providing wet meadow habitat, and surface stormwater infiltration & detention basins with pollinator meadow plantings. The stormwater management system has been

designed to convey and provide post-development peak attenuation for stormwater runoff up to the current 100-year storm event (8.94 inches). In addition, removal of total suspended solids (TSS) is proposed for all developed areas of the site.

- 95 deep sump catch basins – 25% TSS removal;
- 13 Water Quality Treatment Units- 25% TSS removal
- 8 subsurface infiltration basins – 80% TSS removal;
- 5 open infiltration ponds – 80% TSS removal; and
- 4 constructed stormwater wetlands – 80% TSS removal

### 3. 7.10.B.3 Design Basis.

**VHB Comment:** Section 7.10.B.3 requires stormwater management systems to achieve 90% average annual Total Suspended Solids (TSS) removal and 60% average annual Total Phosphorus (TP) removal based on total post-construction impervious area, calculated on an average annual basis. Based on review of the submitted stormwater calculations, several stormwater management basins appear to provide approximately 85% TSS removal at the primary BMP level. While pretreatment practices and associated TSS removal efficiencies are identified, the submission does not clearly demonstrate cumulative TSS removal for complete treatment trains, including pretreatment and downstream BMPs.

In addition, the submission does not include a site-wide TP removal calculation demonstrating achievement of the required 60% average annual TP removal, accounting for the distribution of impervious area among the various stormwater treatment systems.

Without clear cumulative TSS removal calculations and a site-wide Total Phosphorus removal analysis, the Planning Board cannot verify compliance with the pollutant removal performance standards of Section 7.10.B.3 or confirm that the stormwater system meets required water quality treatment objectives.

**VHB recommends that the Planning Board require the Applicant to revise the stormwater calculations to clearly demonstrate cumulative average annual TSS removal for each treatment train and to provide a site-wide average annual Total Phosphorus (TP) removal calculation, weighted by post-construction impervious area, demonstrating compliance with the requirements of Section 7.10.B.3.**

#### Applicant Response 35:

TSS removal calculations were provided for each of the BMPs. Pretreatment TSS removal sheet were provided for each of the infiltration BMPs requiring the 44% TSS removal. The 44% pretreatment requirement is met by passing stormwater through deep sump catch basins and water quality units prior to discharging into the infiltration basins. With regards to the Total Phosphorus, all of the basins within the south neighborhood hold at a minimum the 2-yr storm event which based on the EPA tables provides 100% phosphorus removal. The infiltration basins in the north neighborhood hold at least the water quality volume which results in about 85% total phosphorus removal. The constructed wetlands remove approximately 50-60%. This demonstrates compliance with Section 7.10.B.3, as requested.

### 4. Amesbury Zoning Ordinance XI.Q.10.5.h. Water Quality.



**VHB Comment:** Section XI.Q.10.5.h requires that stormwater management systems be designed to protect groundwater quality and maximize groundwater recharge through the use of appropriate site planning and design techniques, including Low Impact Development (LID) practices where feasible.

The submitted stormwater design relies primarily on centralized infiltration basins and subsurface infiltration systems. The submission does not include documentation demonstrating that decentralized LID practices were evaluated and incorporated to maximize groundwater recharge and protect water quality consistent with this section.

Specifically, the materials do not document whether distributed water quality practices, such as bioretention areas, rain gardens, vegetated swales, impervious area reduction, or other source-control measures, were evaluated as part of the site design process. Without this analysis, the Planning Board cannot verify that groundwater recharge and water quality protection have been maximized as required under Section XI.Q.10.5.h.

**VHB recommends that the Planning Board should require the Applicant to submit documentation demonstrating how the stormwater design maximizes groundwater recharge and protects water quality consistent with Section XI.Q.10.5.h, including a written evaluation of Low Impact Development (LID) strategies incorporated into the project or a clear engineering justification where such practices are determined to be infeasible. This submission may cross-reference the required analysis under Subdivision Regulations §7.10(B)(1), as applicable.**

#### Applicant Response 36:

The stormwater systems have been designed to meet or exceed the requirements of the Stormwater Management Handbook. The total recharge proposed on site is 3.3 times the required recharge volume and the proposed WQV meets or exceeds the Handbook requirements. Detailed calculations are provided within the Stormwater report.

Given the site layout encouraged by the Design Guidelines of the MBTA zoning and the Design Review Committee, together with wetland location, soils, and bedrock, it is not feasible to implement all potential LID techniques for the project. Numerous LID measures have been incorporated per Response #34.

5. The Stormwater Report applies an infiltration rate of 8.27 inches per hour based on Rawls methodology for Sand, rather than the 2.41 inches per hour rate associated with Loamy Sand and supported by the submitted test pit data and soil evaluator classification. This higher infiltration rate is used throughout the South Neighborhood and directly affects the sizing and performance of the following stormwater BMPs:
  - Infiltration Basins: 1, 2, 3, and 4
  - Subsurface Infiltration Systems: 1A, 1B, 2, 3, and 8

Use of the higher Rawls-based infiltration rate materially reduces required storage volumes and is therefore central to the feasibility and regulatory compliance of the proposed stormwater design.

Without field-verified confirmation of the assumed infiltration rate at the infiltrating soil layer, the Planning Board cannot confirm compliance with the Massachusetts Stormwater Management Standards, including recharge, treatment, and peak flow attenuation requirements. As currently presented, the stormwater design for the South Neighborhood relies on an infiltration rate that is not supported by the subsurface data included in the submission.

The Applicant has indicated, via email correspondence on February 2, 2026, with VHB and City Planning staff, that they intend to perform in-situ infiltration testing to evaluate whether the higher infiltration rate is appropriate for the proposed BMP locations.

The assumed infiltration rate is a foundational design parameter that directly governs BMP sizing, groundwater recharge volumes, peak flow attenuation, and overall compliance with the Massachusetts Stormwater Management Standards. Without field-verified confirmation in accordance with MassDEP guidance, the Planning Board cannot make a defensible finding that the stormwater system complies with State standards. If the assumed rate is not substantiated through in-situ testing, significant redesign of multiple infiltration basins and subsurface systems, including potential increases in footprint, grading changes, and layout modifications, may be required, which could materially affect site design, density, and overall project feasibility.

**VHB recommends that the Planning Board require the Applicant to resolve this issue prior to approval by performing field infiltration testing in accordance with MassDEP Stormwater Handbook guidance, including the following:**

- **Conduct double-ring infiltrometer testing (or other DEP-accepted field method) at the actual infiltrating layer, located just above the seasonal high groundwater elevation for each proposed infiltration system;**
- **Perform at least one infiltration test for each infiltration basin and subsurface infiltration system listed above, or otherwise justify representative testing where multiple systems rely on identical soil strata;**
- **Apply the appropriate MassDEP-required reduction factor of 50% factor of safety to the measured in-situ saturated hydraulic conductivity to establish the design infiltration rate; to justify a design rate of 8.27 in/hr, field testing must demonstrate  $\geq 16.54$  in/hr at the actual infiltrating layer.**
- **Revise stormwater calculations, BMP sizing, and HydroCAD modeling as necessary based on the verified design infiltration rates. Until field testing confirms that a higher infiltration rate is appropriate, the Planning Board should assume BMP sizing must use the lower rate supported by existing soil data. If Dynamic Field testing is performed, the Applicant must use 50% of the lowest measured in-situ saturated hydraulic conductivity at the actual infiltrating layer as the design rate.**

#### **Applicant Response 37:**

Double-ring infiltrometer testing has been performed in the requested locations, and the results are included in the revised stormwater report. The infiltration rates have been revised to reflect at a minimum half of the rates obtained during the field testing. The infiltration rates exceeded the Rawls Table of infiltration rates. In all locations where double-ring infiltrometer testing was performed, the appropriate MassDEP-required reduction factor of 50% was taken into account. The Hydro-CAD model has been updated accordingly.

6. Several proposed infiltration BMPs appear to provide limited vertical separation to Estimated Seasonal High Groundwater (ESHWG) and are also designed to provide both groundwater recharge and peak-rate attenuation. Under the Massachusetts Stormwater Handbook, where infiltration systems provide less than four

(4) feet of separation to ESHGW (but at least two feet) and are used to attenuate runoff from the 10-year or greater 24-hour storm, a groundwater mounding analysis is required to demonstrate compliance with Stormwater Standard 3.

Based on review of the stormwater design, the following BMPs appear subject to this requirement:

- Subsurface Infiltration Systems: 1A, 2, 3, 7, and 8
- Surface Infiltration Basins: 1 and 4

However, no groundwater mounding analysis has been provided as part of the current submission.

Without a groundwater mounding analysis for infiltration systems with limited separation to ESHGW, the Planning Board cannot verify compliance with Stormwater Standard 3 or confirm that mounded groundwater conditions will not compromise system performance, groundwater quality, or adjacent resource areas.

**VHB recommends that the Planning Board require the Applicant to provide a groundwater mounding analysis, prepared in accordance with the Massachusetts Stormwater Handbook, for the infiltration BMPs identified above. The analysis should confirm that mounded groundwater conditions remain compliant with Stormwater Standard 3 and that system performance assumptions used in the stormwater design are valid. The Applicant should also update the MassDEP Stormwater Checklist accordingly to document compliance.**

#### Applicant Response 38:

Groundwater Mounding calculations have been provided and included in the revised stormwater report. In all cases the peak groundwater mounding remains below the bottom of the infiltration facilities. This demonstrates compliance with Stormwater Standard 3.

7. The surface basin details clearly identify the 100-year storm water surface elevation and the top of berm elevation for the proposed basins. Based on the elevations shown, several surface basins do not appear to provide the minimum one (1) foot of freeboard above the 100-year storm water surface elevation, as required under the Massachusetts Stormwater Handbook.

Without the required one (1) foot of freeboard above the 100-year storm elevation, the Planning Board cannot confirm compliance with the Massachusetts Stormwater Handbook or ensure adequate protection against overtopping, erosion, and downstream flooding during extreme storm events.

**VHB recommends that the Planning Board require the Applicant to revise the basin design to provide a minimum of one (1) foot of freeboard above the 100-year storm water surface elevation for each surface basin, or to provide technical justification demonstrating compliance with applicable MassDEP stormwater standards.**

#### Applicant Response 39:

The basins have been revised either with the updated infiltration rates or the berms have been revised to provide a 1' of freeboard. Refer to the elevation table provided on Sheet 10.3. The revised elevations comply with the applicable MassDEP stormwater standards.

8. The Massachusetts Stormwater Handbook (Volume 2, Chapter 2 – Infiltration Practices) recommends a minimum of one soil boring or test pit per 5,000 square feet of infiltration basin area, with a minimum of three test pits per infiltration basin, to adequately characterize subsurface soil conditions and seasonal high groundwater. Based on review of the submitted materials, fewer than three test pits are associated with Subsurface Infiltration Systems 3 and 5 and Surface Basins 2 and 3, which does not meet the Handbook's recommended minimum testing density.

While the available test pit data appears to show a degree of consistency in soil classification and groundwater observations across portions of the site, the limited number of test pits at these specific BMP locations introduces uncertainty regarding localized variability in soil conditions and groundwater elevations at the infiltrating layer.

Without the minimum recommended number of test pits at each infiltration BMP location, the Planning Board cannot confirm that subsurface conditions and seasonal high groundwater have been adequately characterized, introducing uncertainty into infiltration performance assumptions and compliance with the Massachusetts Stormwater Management Standards.

**VHB recommends that the Planning Board require the Applicant to complete additional confirmatory test pits for Subsurface Infiltration Systems 3 and 5 and Surface Basins 2 and 3 to better characterize subsurface conditions and groundwater elevations at the proposed infiltration locations. The Applicant should acknowledge that if additional testing identifies conditions inconsistent with the stormwater design assumptions, revisions to the stormwater system and re-review may be necessary to demonstrate compliance with the Massachusetts Stormwater Management Standards.**

**Applicant Response 40:**

Test pits have previously been conducted directly adjacent to the infiltration areas mentioned above. Due to the evolution of the project, the basin locations were slightly adjusted and some of the test pits now fall outside of the basin. It is Millenium Engineering's professional opinion that sufficient test pits have been performed to accurately design the basins.

9. The stormwater plans reference OCS-18; however, a corresponding detail for OCS-18 is not included in the plan set.

**VHB recommends that the Planning Board require the Applicant to provide the missing OCS-18 detail or revise the plans to remove the reference, as appropriate.**

**Applicant Response 41:**

The label of the detail has been revised to show OCS 18.

10. Subsurface Infiltration System 1B is referenced in the stormwater documentation; however, it is not shown on the plan view on Sheet C-6.0.

**VHB recommends that the Planning Board require the Applicant to show Subsurface Infiltration System 1B on the plan view on Sheet C-6.0.**

**Applicant Response 42:**

Subsurface Area 1B has been added.

11. The stormwater report does not include Test Pit 19-C, and Test Pit 19-A appears to be duplicated within the test pit documentation.

**VHB recommends that the Planning Board require the Applicant to correct the test pit documentation by including Test Pit 19-C and clarifying or correcting the duplicate 19-A reference.**

**Applicant Response 43:**

The test pits are labeled 19A019C. The 19C label has moved to clarify the label.

12. For Infiltration Basin 1, the cross-section detail identifies a bottom elevation of 47.00 feet, while the HydroCAD model lists the bottom elevation as 46.50 feet.

**VHB recommends that the Planning Board require the Applicant to reconcile the bottom elevation for Infiltration Basin 1 across the plans and HydroCAD model and update the documents accordingly.**

**Applicant Response 44:**

The plans have been revised so the model and plans match.

13. For Infiltration Basin 1, Outlet Control Structure #2 includes an orifice modeled in the HydroCAD analysis; however, this orifice is not shown on the corresponding detail.

**VHB recommends that the Planning Board require the Applicant to update the outlet control detail for Outlet Control Structure #2 to clearly show the modeled orifice, or revise the HydroCAD model for consistency.**

**Applicant Response 45:**

The outlet structure detail has been revised. Refer to Sheet 10.5 for the updated Outlet Control Structure now coordinated with the HydroCAD model.

14. The post-development analysis for Drainage Point DP-3A indicates a slight increase in peak discharge during the 2-year storm event, from 0.00 cfs under pre-development conditions to 0.02 cfs under post-development conditions. While the magnitude of the increase is small, it represents a measurable increase in runoff relative to existing conditions.

The Massachusetts Stormwater Management Standards require no increase in peak discharge to off-site areas for the applicable design storms.

**VHB recommends that the Planning Board should require the Applicant to revise the stormwater design to eliminate the increase in peak discharge at DP-3A, or provide technical justification demonstrating that the modeled increase is attributable to rounding or computational tolerance and remains consistent with the no-increase requirement of the Massachusetts Stormwater Management Standards.**

**Applicant Response 46:**

The design has been revised and now all the post-development storm events are less than or equal to the pre-development rates. The revised stormwater calculations show no increase for all storm events thus complying with Standard 2 of the Massachusetts Stormwater Management Standards.

15. The proposed constructed (pocket) wetlands appear to rely, in part, on groundwater interaction to maintain required marsh hydroperiods and vegetation viability. Review of the plans indicates that some constructed wetlands set the normal pool elevation at or near the Estimated Seasonal High Groundwater (ESHGW), while other constructed wetlands do not appear to intersect groundwater at all. In addition, the plans include notes delineating high marsh, low marsh, and micropool areas and reference placement of loam and seed mixes within these zones; however, the submitted materials do not demonstrate that the proposed planting zones are supported by sustained hydrologic conditions consistent with the Massachusetts Stormwater Handbook "pond-scaping" method.

Under the Massachusetts Stormwater Handbook (Volume 2, Chapter 2), constructed wetlands supported by groundwater must demonstrate, through a Thornthwaite-based water budget, that water inputs exceed losses and that marsh zones remain wetted throughout the growing season. Where the outlet crest defining the normal pool is set at the ESHGW elevation, seasonal groundwater recession may result in prolonged drawdown below the outlet crest during drier months. Similarly, constructed wetlands that do not intersect groundwater may experience insufficient hydroperiods unless alternative hydrologic support is provided. The current submission does not include a water budget or other analysis demonstrating that the proposed marsh zones will maintain appropriate hydroperiods over time.

In addition, the submitted materials do not clearly demonstrate that the constructed wetlands meet the minimum 2:1 length-to-width (flow path) ratio, in each constructed wetland aside from constructed wetland 3, recommended by the Massachusetts Stormwater Handbook to prevent hydraulic short-circuiting and ensure effective water quality treatment.

Without a demonstrated water budget and confirmation of required flow path geometry, the Planning Board cannot verify that the proposed constructed wetlands will maintain sustained hydroperiods, meet MassDEP pond-scaping criteria, or provide reliable long-term water quality treatment in accordance with the Massachusetts Stormwater Handbook.

**VHB recommends that the Planning Board require the Applicant to supplement the existing basin details by demonstrating that the proposed constructed wetlands will function as intended under the Massachusetts Stormwater Handbook. While the plans provide normal pool elevations, top of berm elevations, emergency spillway elevations, 100-year storm water surface elevations, and details**

**identifying high marsh, low marsh, and micropool zones, additional documentation is needed to confirm that these features are supported by sustained hydrologic conditions.**

**At a minimum, the Applicant should provide a Thornthwaite-based water budget accounting for seasonal groundwater fluctuations to demonstrate that required marsh hydroperiods will be maintained throughout the growing season, particularly where the normal pool is set at or near the ESHGW or where constructed wetlands do not intersect groundwater. The Applicant should also confirm that each constructed wetland meets the minimum 2:1 flow path length-to-width ratio recommended by the Massachusetts Stormwater Handbook and that the proposed planting design follows the MassDEP pond-scaping method, with vegetation zones matched to anticipated long-term hydroperiods.**

**Applicant Response 47:**

Water budget calculations utilizing the Thornthwaite method have been included with this submittal. The calculations provided demonstrate that the proposed constructed wetlands will function as intended under the Massachusetts Stormwater Handbook.

16. The MassDEP Stormwater Checklist indicates that an Operation and Maintenance (O&M) Plan and a Long-Term Pollution Prevention Plan are included as part of the stormwater submission; however, these documents were not provided within the Stormwater Report or as separate attachments.

Without the referenced Operation and Maintenance Plan and Long-Term Pollution Prevention Plan, the Planning Board cannot verify compliance with the Massachusetts Stormwater Management Standards or ensure that stormwater BMPs will be properly maintained and operated over the long term.

**VHB recommends that the Planning Board require the Applicant to submit the referenced Operation and Maintenance Plan and Long-Term Pollution Prevention Plan, or clearly identify where these documents are provided within the submission, to demonstrate compliance with the Massachusetts Stormwater Management Standards.**

**Applicant Response 48:**

The O&M manuals were provided under separate covers and will be re-submitted as part of this submittal. The O&M manuals provided demonstrate compliance with the Massachusetts Stormwater Management Standards.

17. The project will disturb more than one acre of land and will therefore require coverage under the EPA NPDES Construction General Permit (CGP), including preparation of a Stormwater Pollution Prevention Plan (SWPPP). These documents were not included in the submission, and no indication was provided regarding the Applicant's schedule for obtaining permit coverage prior to construction.

Without confirmation of NPDES Construction General Permit coverage and an approved SWPPP, the Planning Board cannot ensure that federally required erosion and sediment control measures will be in place to prevent sedimentation and downstream water quality impacts during construction.

**VHB recommends that the Planning Board require that the Applicant provide the Planning Board with a copy of the completed NPDES Notice of Intent (NOI) and the fully developed SWPPP.**



**Applicant Response 49:**

Given that we are still in permitting for this project, a NPDES eNOI and SWPPP have not yet been prepared. Many of the items required in both of these documents include contractors information and schedules, neither of which are knowable at this point. In other projects approved in the City, we have asked that a condition be added that prior to construction beginning, a copy of the SWPPP and NPDES permit be submitted to the city for review.

18. The Massachusetts Stormwater Handbook requires that infiltration systems fully dewater within 72 hours to prevent prolonged saturation, ensure pollutant removal performance, and avoid mosquito breeding conditions. While infiltration rates and basin performance are discussed elsewhere in the stormwater report, the submission does not clearly document or summarize drawdown time calculations demonstrating that all proposed infiltration BMPs meet the 72-hour drawdown requirement under the assumed design infiltration rates.

Without documented drawdown time calculations, the Planning Board cannot verify compliance with the 72-hour dewatering requirement of the Massachusetts Stormwater Handbook or confirm that the proposed infiltration BMPs will function properly without prolonged ponding or performance degradation.

**VHB recommends that the Planning Board require the Applicant to provide drawdown time calculations demonstrating that each proposed infiltration BMP fully dewater within 72 hours, consistent with the Massachusetts Stormwater Handbook, using the final approved design infiltration rates.**

**Applicant Response 50:**

Drawdown calculations were provided in the Stormwater Report within the Recharge Volume section. The drawdown calculations provided demonstrate that each proposed infiltration BMP fully dewater within 72 hours consistent with the Massachusetts Stormwater Handbook.

19. While pretreatment measures are shown, the submission does not clearly document pretreatment sizing, including confirmation that required sediment forebay volumes are provided and accounted for in the stormwater calculations, consistent with the Massachusetts Stormwater Handbook.

Without documented pretreatment sizing and confirmation of required sediment forebay volumes, the Planning Board cannot verify compliance with the Massachusetts Stormwater Handbook or ensure that downstream BMPs will be adequately protected from sediment loading and premature failure.

**VHB recommends that the Planning Board require the Applicant to demonstrate that pretreatment measures are properly sized in accordance with the Massachusetts Stormwater Handbook and that pretreatment volumes are clearly identified in the plans and calculations.**

**Applicant Response 51:**

Pretreatment for most of the development consists of deep sump, hooded catch basins and water quality units. The minimum TSS removal for this treatment train is typically considered to be 44% meeting the

pretreatment requirement for infiltration basins with rapid infiltration rates. This demonstrates that the pretreatment measures are properly sized in accordance with the Massachusetts Stormwater Handbook.

20. While pretreatment measures are shown, the submission does not clearly document pretreatment sizing, including confirmation that required sediment forebay volumes are provided and accounted for in the stormwater calculations, consistent with the Massachusetts Stormwater Handbook.

Without documented pretreatment sizing and confirmation of required sediment forebay volumes, the Planning Board cannot verify compliance with the Massachusetts Stormwater Handbook or ensure that downstream BMPs will be adequately protected from sediment loading and premature failure.

**VHB recommends that the Planning Board require the Applicant to demonstrate that pretreatment measures are properly sized in accordance with the Massachusetts Stormwater Handbook and that pretreatment volumes are clearly identified in the plans and calculations.**

#### Applicant Response 52:

Pretreatment for most of the development consists of deep sump, hooded catch basins and water quality units. The minimum TSS removal for this treatment train is typically considered to be 44% meeting the pretreatment requirement for infiltration basins with rapid infiltration rates. This demonstrates that the pretreatment measures are properly sized in accordance with the Massachusetts Stormwater Handbook.

## General Engineering & Plan Comments

This section includes comments on site-related design and plan completeness that are not specifically covered under zoning, stormwater, or wetlands compliance. VHB has reviewed the overall site layout, grading, access, and plan organization for general conformance with sound engineering practices and the City's expectations for site plan submittals. Comments in this section are intended to improve plan clarity, safety, and coordination between site elements.

Due to the extent and scale of the comments outlined below, the Stormwater and General Comments sections are limited to high-level technical and regulatory observations. Detailed, sheet-by-sheet and micro-level review has not been completed at this time, as substantive plan revisions and potential layout modifications are anticipated in response to these comments.

VHB will provide additional detailed comments upon submission of revised plans reflecting any material changes.

1. Under NFPA-1, The submitted plans depict internal roadways, building access points, and fire hydrant locations; however, the materials do not clearly indicate whether the proposed site layout, access geometry, turning areas, and hydrant spacing have been reviewed and approved by the Amesbury Fire Department.

Without documented Fire Department review and concurrence, the Planning Board cannot confirm that the proposed roadway geometry, turning radii, and hydrant spacing meet NFPA-1 requirements or ensure that adequate emergency access and fire protection will be provided.

**VHB recommends that the Planning Board require the Applicant to submit written confirmation from the Amesbury Fire Department indicating that the proposed plans have been reviewed and are acceptable from a fire access and protection standpoint. Any Fire Department comments or required**

**modifications related to roadway geometry, emergency access routes (including secondary access), hydrant locations, fire lanes, or fire protection infrastructure should be incorporated into the plan set prior to approval or issuance of building permits.**

**Applicant Response 53:**

The project layout was reviewed by the Amesbury Fire Department during the Technical Review Meeting process. The applicant is currently reviewing the final layout with the Amesbury Fire Department and expects a letter from the Amesbury Fire Department prior to completion of the Site Plan Review process.

2. The proposed development includes multiple neighborhoods and shared infrastructure systems, including utilities, private roadways, stormwater facilities, open space, and other common site features. However, the submitted materials do not clearly identify the location, extent, or purpose of proposed easements necessary to support shared utilities and infrastructure, particularly where systems serve more than one neighborhood or cross property boundaries.

Without clearly defined and documented easements for shared infrastructure, the Planning Board cannot ensure that utilities, drainage systems, accessways, and other common facilities will have the legal access and maintenance rights necessary for long-term operation and enforceability.

**VHB recommends that the Planning Board require the Applicant to identify all proposed easements on the plans, including utility, access, drainage, and maintenance easements associated with shared infrastructure between neighborhoods, and to clarify how such easements will be established and maintained as part of the project.**

**Applicant Response 54:**

The Rocky Hill development has been planned such that the South and North Neighborhoods can be built and operated with a minimal amount of shared infrastructure and need for cross-easements. The boulevard road is the principal shared improvement, in which all principal utility mains are located. Unless and until the boulevard road is dedicated to the City, the North Neighborhood landowner shall also own the proposed boulevard lot and will be chiefly responsible for its construction and maintenance. The South Neighborhood landowner and residents shall have full access and rights to the use and connection to the boulevard by easement agreement to be created.

A recorded easement agreement is in place with the Amesbury Animal Hospital for the emergency access road. The owner of 283 Elm Street has also agreed to grant an easement for the emergency access upon Applicant's acquisition of the development parcels.

3. The submitted plans include typical roadway cross sections for internal streets; however, cross sections depicting roadway segments with parallel parking are not provided. As a result, it is unclear how pavement width, curb placement, parking offsets, drainage, and pedestrian clearances are accommodated in areas where parallel parking is proposed.

Without roadway cross sections for segments with parallel parking, the Planning Board cannot verify that pavement widths, drainage, curb offsets, and pedestrian clearances function safely and comply with applicable

dimensional and design standards.

**VHB recommends that the Planning Board require the Applicant to provide typical roadway cross sections for all street conditions where parallel parking is proposed, including pavement widths, curb types, parking dimensions, drainage elements, and adjacent sidewalk or buffer widths.**

**Applicant Response 55:**

The typical roadway section is sloped to the curbline where parallel parking is located. That section has been added to the typical roadway sections.

4. The submitted plans do not clearly depict the 100-year floodplain.

**VHB recommends that the Planning Board require the Applicant to depict the 100-year floodplain limits on the plans, or to confirm that the project site and proposed improvements are located entirely outside of the mapped floodplain, as applicable.**

**Applicant Response 56:**

The 100-year floodplain line has been added to the Grading Plans. Please note there is no disturbance within the floodplain.

5. The submitted plans and project narrative reference proposed walking trails, including mention of use by residents and the general public, as well as associated public parking. However, the plans do not clearly identify a typical trail detail, applicable design standards, surface materials, width, grading, drainage, or edge

treatments. In addition, it is unclear whether the trails are intended to be publicly accessible or private amenities, how they will be maintained over time, and whether any portions are intended to meet accessibility standards. Coordination with the Conservation Commission, where trails are located near regulated resource areas, is also not clearly documented.

Without defined trail design standards, ownership, maintenance, and accessibility clarification, the Planning Board cannot determine whether the proposed trail system meets applicable regulatory requirements or ensure that it will function safely and be sustainably maintained over time.

**VHB recommends that the Planning Board require the Applicant to provide additional documentation regarding the proposed trail system, including a typical trail detail and applicable design standards; clarification of intended use (public vs. private); identification of long-term ownership and maintenance responsibilities; confirmation of consistency with Conservation Commission requirements, where applicable; and clarification of whether any portions of the trail system are intended to comply with ADA and 521 CMR accessibility standards.**

**Applicant Response 57:**

The modified trail location on the revised plans provided is a result of input from the first Conservation Commission meeting. The final layout is currently in the process of review and coordination with the

Amesbury Planning Staff and Conservation Commission. A trail detail has been added to the project drawings Sheet 10.1.

6. The plans depict a secondary emergency access route connecting to Elm Street through the adjacent Animal Shelter property, and reference existing Access Easements and Emergency Egress Easements across that parcel. However, the submitted materials do not clearly document the legal status, scope, and applicability of these easements as they relate to the proposed development. It is unclear whether the existing easements legally permit use by this project for emergency access purposes, whether any additional rights or amendments are required, and who will be responsible for maintenance of the emergency access route from Elm Street through the Animal Shelter site to the project property.

Without documentation confirming the legal authority and maintenance responsibility for the secondary emergency access route, the Planning Board cannot ensure that reliable and enforceable emergency access will be available for the life of the project, which is fundamental to public safety and site plan approval.

**VHB recommends that the Planning Board require the Applicant to provide documentation confirming the legal authority to utilize the referenced Access Easements and Emergency Egress Easements for this project, including copies of recorded easement documents and a description of their applicability. The Applicant should also clarify long-term maintenance responsibilities for the emergency access route and confirm coordination with the property owner and the Fire Department regarding design standards, surface treatment, and operational access.**

#### Applicant Response 58:

Per response #53, agreements are in place for the emergency access easement. Long-term responsibility for maintenance of the emergency access shall reside in the homeowner association for the South Neighborhood. Maintenance is expected to be de minimis as the access will be limited to use in emergencies.

7. The project is located in close proximity to Interstate 495, and several residential buildings appear to be sited near the highway corridor. The submitted materials do not indicate whether a noise impact assessment has been performed to evaluate potential roadway noise exposure to the proposed dwelling units, nor do the plans identify whether any sound attenuation measures (e.g., sound barrier walls, enhanced building envelope construction, berming, or landscaping buffers) are proposed.

Given the proximity to a major highway, it is unclear whether projected exterior and interior noise levels have been evaluated relative to applicable MassDEP noise guidance or industry-accepted residential standards. Without such analysis, the Planning Board cannot determine whether the proposed residential layout adequately addresses potential long-term noise impacts on future occupants.

**VHB recommends that the Planning Board require the Applicant to clarify whether a traffic noise study has been conducted for the site. If not, it is suggested the Board should consider to require the Applicant to evaluate projected roadway noise levels and identify whether sound mitigation measures, such as sound barriers, berms, or enhanced building construction assemblies, are necessary to ensure acceptable residential living conditions.**

#### Applicant Response 59:

Applicant has discussed sound attenuation of I-495 noise with an acoustical engineer. It is impractical to attenuate sound with walls or other structures, as the residential buildings along this edge are 3 and 4-story, and a sound barrier would need to be of similar height to provide meaningful noise reduction to occupants on upper floors.

The acoustical engineer has advised that the better alternative is to provide relief within the residential buildings. MA stretch code requires buildings to be well-insulated and airtight, which will provide sound attenuation. Importantly, there are no standards or regulations which apply to mitigation of ambient sound. The MassDEP noise guidance referred to by the peer reviewer are intended to govern generators of noise, such as industrial uses, not properties that are impacted by ambient noise such as the case with Rocky Hill.

8. The submitted plans indicate that waste management in the North Neighborhood is generally accommodated through grouped dumpster locations; however, the materials do not clearly identify how solid waste and recycling will be managed in the South Neighborhood or within the proposed civic/common-use areas. The plans do not clearly depict designated dumpster or trash enclosure locations for these areas, nor do they demonstrate how waste collection vehicles will access, maneuver within, and exit the site.

In addition, the submission does not include turning movement analysis for waste management vehicles to confirm that adequate access, backing distances, vertical clearances, and maneuvering radii are provided consistent with industry standards and municipal requirements.

Without this information, the Planning Board cannot determine whether waste collection can be safely and effectively accommodated without conflict with parked vehicles, pedestrian areas, emergency access routes, or internal circulation.

#### **VHB recommends that the Planning Board require the Applicant to:**

- **Clearly identify all proposed waste and recycling collection locations for each neighborhood and civic/common-use area;**
- **Clarify whether collection will occur via private hauler or municipal service;**
- **Provide turning movement analysis for the largest anticipated waste collection vehicle demonstrating safe access and maneuverability; and**
- **Revise the site layout as necessary to ensure that waste collection operations do not conflict with parking, pedestrian circulation, or emergency access.**

#### Applicant Response 60:

All trash and recycling enclosures in the North Neighborhood are shown on the Site Layout Plans, Sheets 5.2 & 5.3. A straight approach is provided to each enclosure, with no parking spaces restricting access. Turning movement exhibits have also been included on new plans, Sheets 11.0-11.3 for the Amesbury ladder fire apparatus, which is larger and has more restrictive turning requirements.

In the South Neighborhood, trash and recycling bins will be stored within individual garages, as is typical for this type of housing.

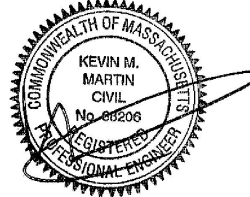
**KEVIN M. MARTIN, P.E.**  
**KMM GEOTECHNICAL CONSULTANTS, LLC**

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Hampstead, NH 03841  
603-489-5556 (p)/ 603-489-5558 (f)/781-718-4084(m)  
kevinmartinpe@aol.com

**MEMORANDUM**

**TO:** Dale Development, LLC  
360 Washington Street  
Rye, NH 01864

**FROM:** Kevin M. Martin, P.E.  
Geotechnical Engineer



**DATE:** March 12, 2026

**RE: PRELIMINARY GEOTECHNICAL SUMMARY  
PROPOSED RESIDENTIAL DEVELOPMENT  
ROCKY HILL COMMUNITY - 287 ELM STREET  
AMESBURY, MASSACHUSETTS**

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This memorandum serves as a Preliminary Geotechnical Summary Report for the referenced project. The contents of this memorandum are subject to the attached ***Limitations***.

**SITE & PROJECT DESCRIPTION**

The majority of the site includes undeveloped land. Some residential structures along Elm Street will be razed to accommodate the project. KMM has no knowledge of past use, construction and/or development on the property except what is visible or shown on the *Site Plan*. The *Site Plan* shows varying grades between elevation  $\approx 50$ -65 ft possessing gradual contour. Shallow wetlands are delineated throughout the site. The wetlands appear to drain south towards the PowWow River.

The project includes a residential development separated into a North & South Neighborhood. There will be a community center and a primary access drive. Most buildings appear to be 1-2-3-4 family structures. There are some 3-story apartment buildings to the rear.

The purpose of this study is to review the subgrade conditions and provide a preliminary geotechnical evaluation related to foundation design and construction as required by the *Massachusetts State Building Code*. This report does not include an environmental assessment relative to oil, gasoline, solid waste and/or other hazardous materials. The environmental conditions of the property should be addressed by others as necessary. This study also does not include review of site design or construction issues such as infiltration systems, dry wells, retaining walls, excavation support, steepened slopes, underground utilities, crane pads, detention ponds, septic systems, wetland crossings, protection of surrounding buildings or other site and/or temporary design unless specifically addressed herein.

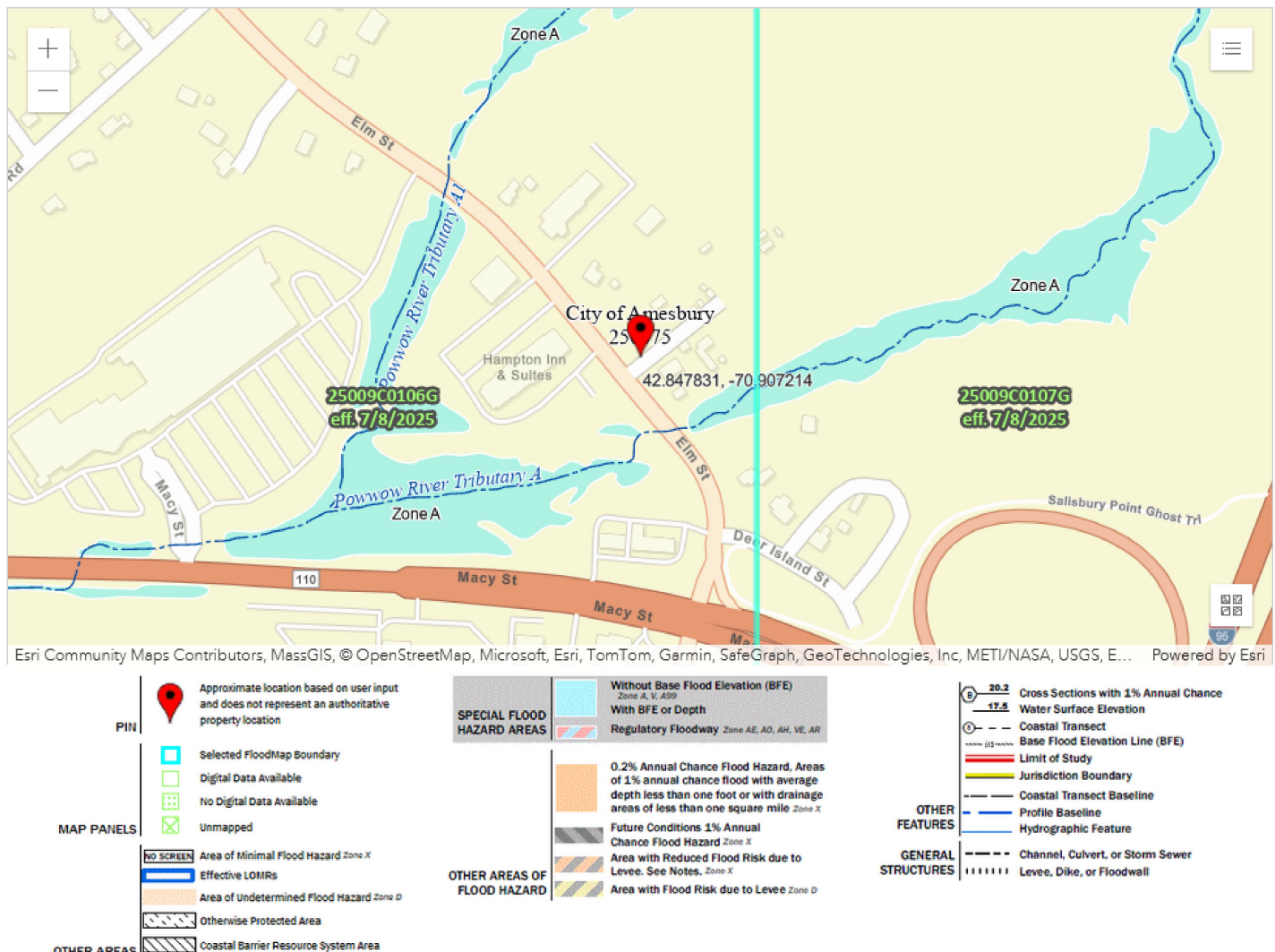






This study is consider preliminary and serves to address geotechnical concerns for the project. The study is based on *Test Pit Logs* (by Millennium Engineering) for site design purposes. There were no specific geotechnical explorations completed at this time. The intent is to complete a Geotechnical Report as the project progresses.

MEI completed about 85 *Test Pit Logs* throughout the site. These Logs were reviewed as they pertain to geotechnical evaluation.



The site borders tributary streams that flow towards the PowWow River. The wetlands are associated with this tributary flow.



## USGS QUAD

### SUBSURFACE CONDITIONS

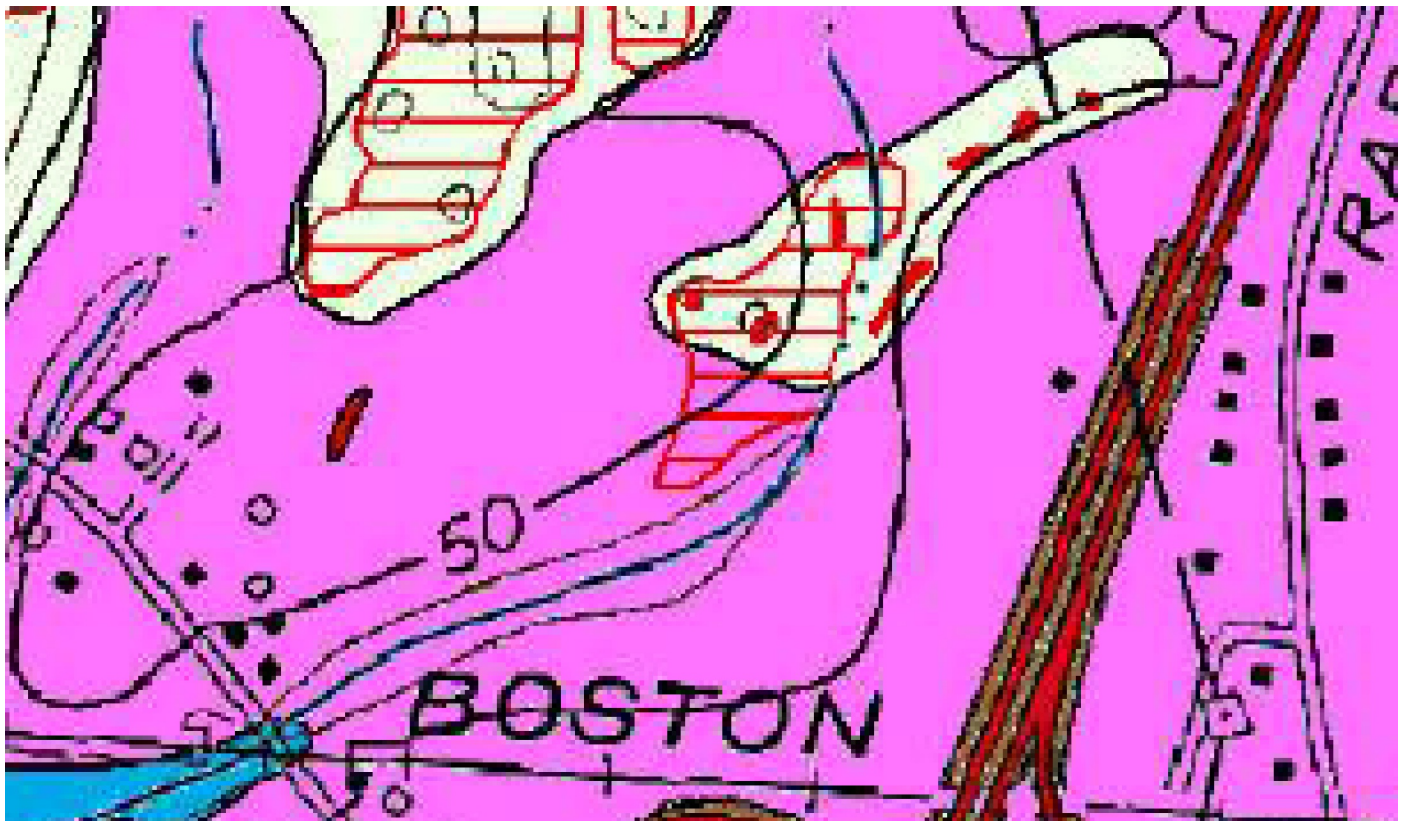
The subsurface conditions below (1) surface Organic laden soils include (2) Glacial soils (3) then Bedrock refusal.

There are surface Organic laden soils typical of an undeveloped site. These include a surface Topsoil or Forest Mat with underlying Subsoil. These are identified as the "A" & "B" Horizons on the *Test Pit Logs*. There appears about  $\approx 2$  ft of collective organic laden soils across the site. The Subsoil consists of a rust brown, silty Sand with trace gravel, roots and loam as leached from the surface.

The overburden includes stable Glacial soils. These are identified per USDA Classification as Loamy Sand or Fine Loamy Sand. These classifications translate into Sand and/or silty Sand with variable gravel. The Glacial soils are expected to be stable and compact.

Test bore refusal, presumably Bedrock, was encountered at depths of  $\approx 1-7$  ft (or deeper) being generally shallower to the rear. The consistent depth to refusal would suggest Bedrock. Bedrock in the area is characteristically hard and of sound quality.





### USGS SURFICIAL GEOLOGIC MAP - NEWBURYPORT WEST - 2018



**Marine regressive deposits**—Sand and minor gravel deposited along former, higher shorelines in northeastern Massachusetts by waves and currents, and by wind action on beaches and spits. These deposits are shown where they overlie glaciomarine fine deposits. Regressive beach and nearshore deposits are composed of moderately sorted, very coarse to fine sand, commonly laminated. Coarser layers may contain some fine gravel particles; finer layers may contain some very fine sand and silt. Regressive beach and nearshore deposits are rarely more than a few feet thick. Regressive spit deposits are 10 to 30 ft thick



**Bedrock outcrops and areas of abundant outcrop or shallow bedrock**—Solid color shows extent of individual bedrock outcrops; horizontal-line pattern indicates areas of shallow bedrock or areas where small outcrops are too numerous to map individually; in areas of shallow bedrock, surficial materials are less than 5 to 10 ft thick. These units were not mapped consistently among all quadrangles; see note at beginning of appendix 1 for information on bedrock outcrop mapping by quadrangle

The *USGS Surficial Geologic Map* indicates post Glacial Marine Regressive soils with shallow Bedrock to the rear. These conditions appear consistent with the study.

Relatively shallow groundwater was encountered through the site. This is to be expected given the shallow wetlands that intersect the site. The wetlands appear to drain south (to the front) towards the Pow Wow River. It should be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, temperature, utilities and other factors differing from the time of the measurements.

### **Loamy Fine Sand**

Loose; single grained/structureless; non-cohesive; mixed medium to mostly fine-grained clean sand content; dry matrix; non-sticky;

### **Loamy Sand**

Friable to firm; moderately compact matrix; massive to subangular platy structure of moderate grade; mixed fine-to-medium grained mineral content; crudely stratified; dry matrix; non-sticky; non-plastic; well graded; approximately 10-15% sub-angular to sub-rounded gravel and 05-10% sub-rounded to angular cobble content

## **PRELIMINARY GEOTECHNICAL EVALUATION**

Based on this review, we provide the following preliminary geotechnical evaluation.

- The subgrade conditions should be favorable for supporting the proposed buildings on a conventional spread footing foundation. There were no areas of expansive fill, soft clay or other poor to marginal subgrade. The Organic laden soils shall be stripped from building areas accordingly. Structural Fill shall conform to *Specification* (Table 1).
- Most of the site appears to be elevated a few feet. This will assist with groundwater concerns. The shallow elevation will be accommodated with perimeter slopes and small retaining walls. Earthen slopes shall be no steeper than 2H:1V for dry slope with negligible surcharge. Wet slopes shall be flattened to no less than 3H:1V. Erosion control shall be applied accordingly.
- There may be some bedrock impact with foundation and utilities. Localized bedrock is generally addressed with rock hammers. Explosive blasting is not expected to be necessary unless there are large quantities of bedrock.
- The subgrade should ultimately be stable, dewatered, compact and protected from frost throughout construction. Bearing subgrades that become weakened or disturbed due to wet conditions will be rendered unsuitable for structural support. The Contractor shall ultimately be responsible for the means and methods of temporary groundwater control, subgrade protection and site stability during construction. An Engineer from KMM should be scheduled to review the foundation subgrade conditions and preparation during construction.

## **CLOSURE**

This study was completed for Preliminary Geotechnical review. The foundation design shall be completed in accordance with the *Massachusetts State Building Code*.

We trust the contents of this memorandum are responsive to your needs at this time. Should you have any questions or require additional assistance, please do not hesitate to contact our office.

Amesbury287ElmStreet.wpd

## **LIMITATIONS**

### Explorations

1. The analyses, recommendations and designs submitted in this report are based in part upon the data obtained from preliminary subsurface explorations. The nature and extent of variations between these explorations may not become evident until construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations of this report.
2. The generalized soil profile described in the text is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed by interpretation of widely spaced explorations and samples; actual soil transitions are probably more gradual. For specific information, refer to the individual test pit and/or boring logs.
3. Water level readings have been made in the test pits and/or test borings under conditions stated on the logs. These data have been reviewed and interpretations have been made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, temperature, and other factors differing from the time the measurements were made.

### Review

4. It is recommended that this firm be given the opportunity to review final design drawings and specifications to evaluate the appropriate implementation of the recommendations provided herein.
5. In the event that any changes in the nature, design, or location of the proposed areas are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and conclusions of the report modified or verified in writing by KMM Geotechnical Consultants, LLC.

### Construction

6. It is recommended that this firm be retained to provide geotechnical engineering services during the earthwork phases of the work. This is to observe compliance with the design concepts, specifications, and recommendations and to allow design changes in the event that subsurface conditions differ from those anticipated prior to the start of construction.

### Use of Report

7. This report has been prepared for the exclusive use of Dale Development, LLC in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made.
8. This report has been prepared for this project by KMM Geotechnical Consultants, LLC. This report was completed for preliminary design purposes and may be limited in its scope to complete an accurate bid. Contractors wishing a copy of the report may secure it with the understanding that its scope is limited to preliminary geotechnical design considerations only.



## TABLE 1

287 Elm Street  
Amesbury, MA

### ***Recommended Soil Gradation & Compaction Specifications***

---

#### ***Gravel Base Fill***

(Select CRUSHED GRAVEL borrow)

| SIEVE SIZE | PERCENT PASSING<br>BY WEIGHT |
|------------|------------------------------|
| 3 inch     | 100                          |
| 3/4 inch   | 50-90                        |
| No. 4      | 30-70                        |
| No. 200    | 2-8                          |

NOTES:

For minimum 6 inches below concrete floor level slab (heated)

For 12 inch base below exterior concrete slabs exposed to frost

Shall have less than 12% fines (No. 200 sieve) based on the Sand fraction

#### ***Structural Fill***

(Gravelly SAND)

| SIEVE SIZE | PERCENT PASSING<br>BY WEIGHT |
|------------|------------------------------|
| 5 inch     | 100                          |
| 3/4 inch   | 50-100                       |
| No. 4      | 20-80                        |
| No. 200    | 0-10                         |

NOTES:

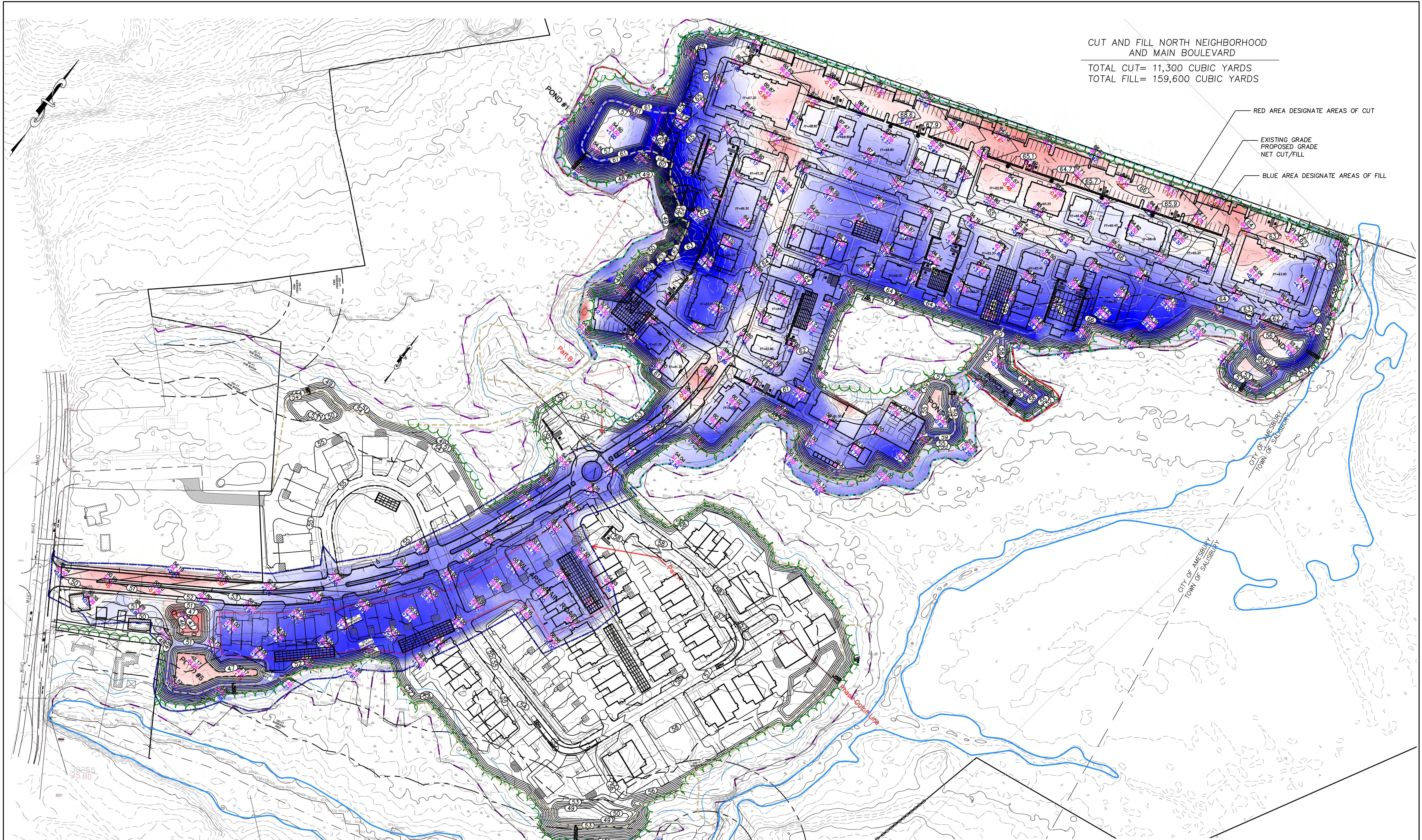
For use below building foundations for structural bearing support

For use behind unbalanced walls or retaining walls

A ¾-inch crushed stone may be used for Structural Fill in wet conditions

Structural Fill placed beneath the foundation should include the *Footing Zone of Influence* which is defined as that area extending laterally one foot from the edge of the footing then outward and downward at a 1H:1V splay. Structural Fill should be placed in loose lifts not exceeding 12 inches for heavy vibratory rollers and 8 inches for vibratory plate compactors. All the fill on the project should be compacted to at least 95 percent of maximum dry density as determined by the Modified Proctor Test (ASTM-D1557). The fill shall be compacted within  $\pm 2$  of the optimum moisture content. The adequacy of the compaction efforts should be verified by field density testing which is also a requirement of the *Massachusetts State Building Code*.

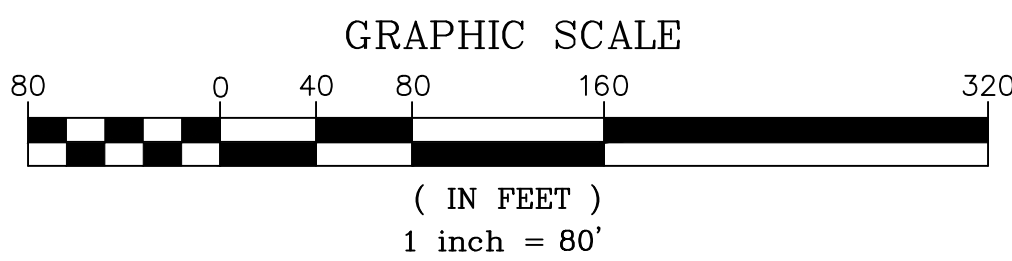




CUT AND FILL NORTH NEIGHBORHOOD  
AND MAIN BOULEVARD  
TOTAL CUT= 11,300 CUBIC YARDS  
TOTAL FILL= 159,600 CUBIC YARDS

RED AREA DESIGNATE AREAS OF CUT  
EXISTING GRADE  
PROPOSED GRADE  
NET CUT/FILL  
BLUE AREA DESIGNATE AREAS OF FILL

\*CUT/FILL CALCULATIONS PROVIDED  
BY FRANK DELUCIA & SONS



PREPARED FOR  
**DALE DEVELOPMENT, LLC**  
360 WASHINGTON STREET  
RYE, NH 03870

|     |          |                       |        |
|-----|----------|-----------------------|--------|
| 2   | 3/34/26  | PEER REVIEW UPDATE    | S.B.S. |
| 1   | 12/22/25 | PLANNING BOARD UPDATE | J.T.M. |
| NO. | DATE     | DESCRIPTION           | BY     |



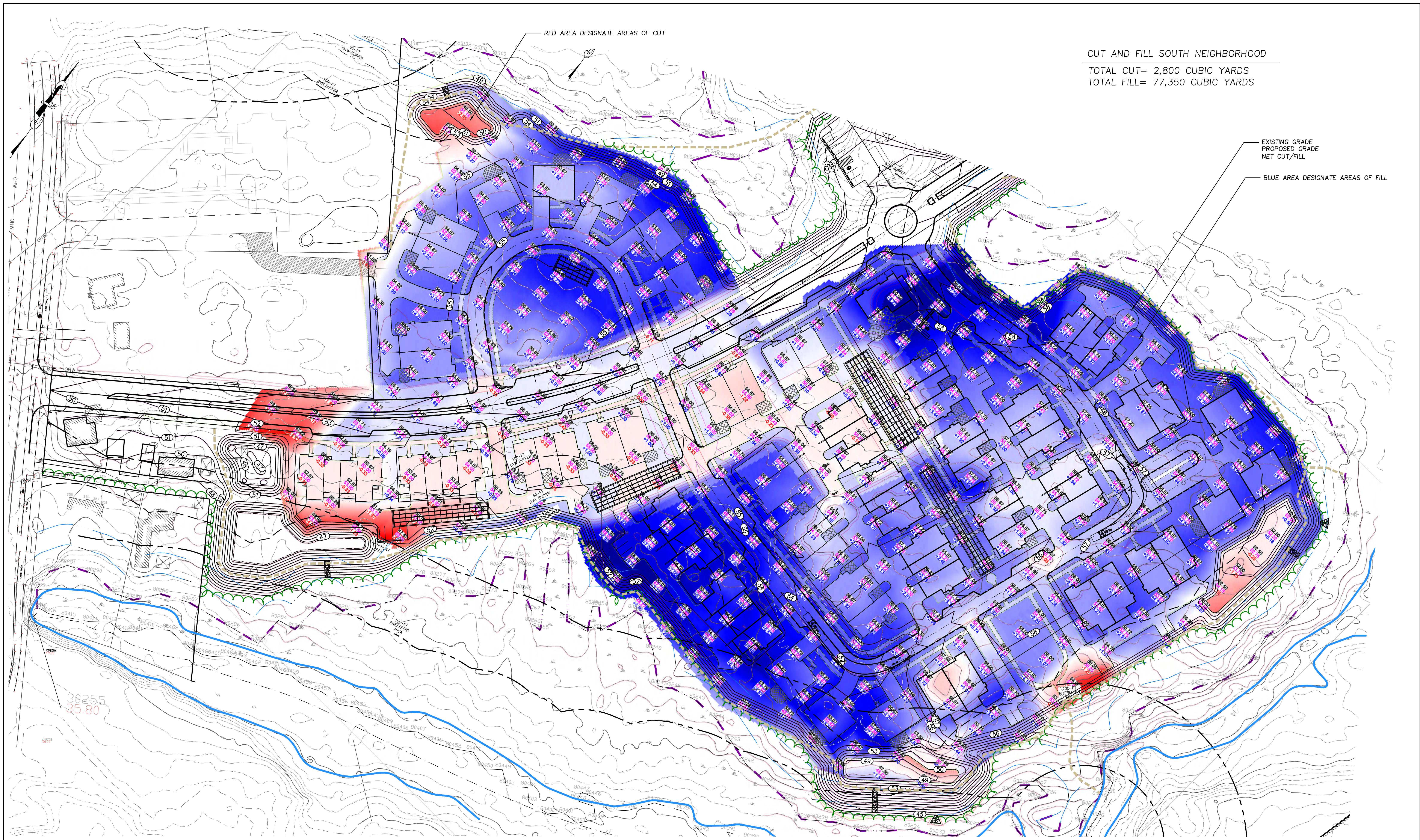
**MILLENNIUM ENGINEERING, INC.**  
ENGINEERING AND LAND SURVEYING  
62 ELM ST. SALISBURY, MA 01952 (978) 463-8980  
13 HAMPTON RD. EXETER, NH 03833 (603) 778-0528

DATE: AUG. 11, 2025  
CALC. BY: J.T.M.  
CHKD. BY: S.B.S.  
PROJECT: M244407

**ROCKY HILL MBTA COMMUNITY**  
IN  
**AMESBURY, MA**  
AT  
**ELM STREET**

**CUT & FILL  
MAIN ROAD  
&  
NORTH**  
FIGURE 1.1





\*CUT/FILL CALCULATIONS PROVIDED BY FRANK DELUCIA & SONS

GRAPHIC SCALE

50 0 50 100 200

( IN FEET )

1 inch = 50'

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**MEI** **MILLENNIUM ENGINEERING, INC.**

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**ROCKY HILL MBTA COMMUNITY**

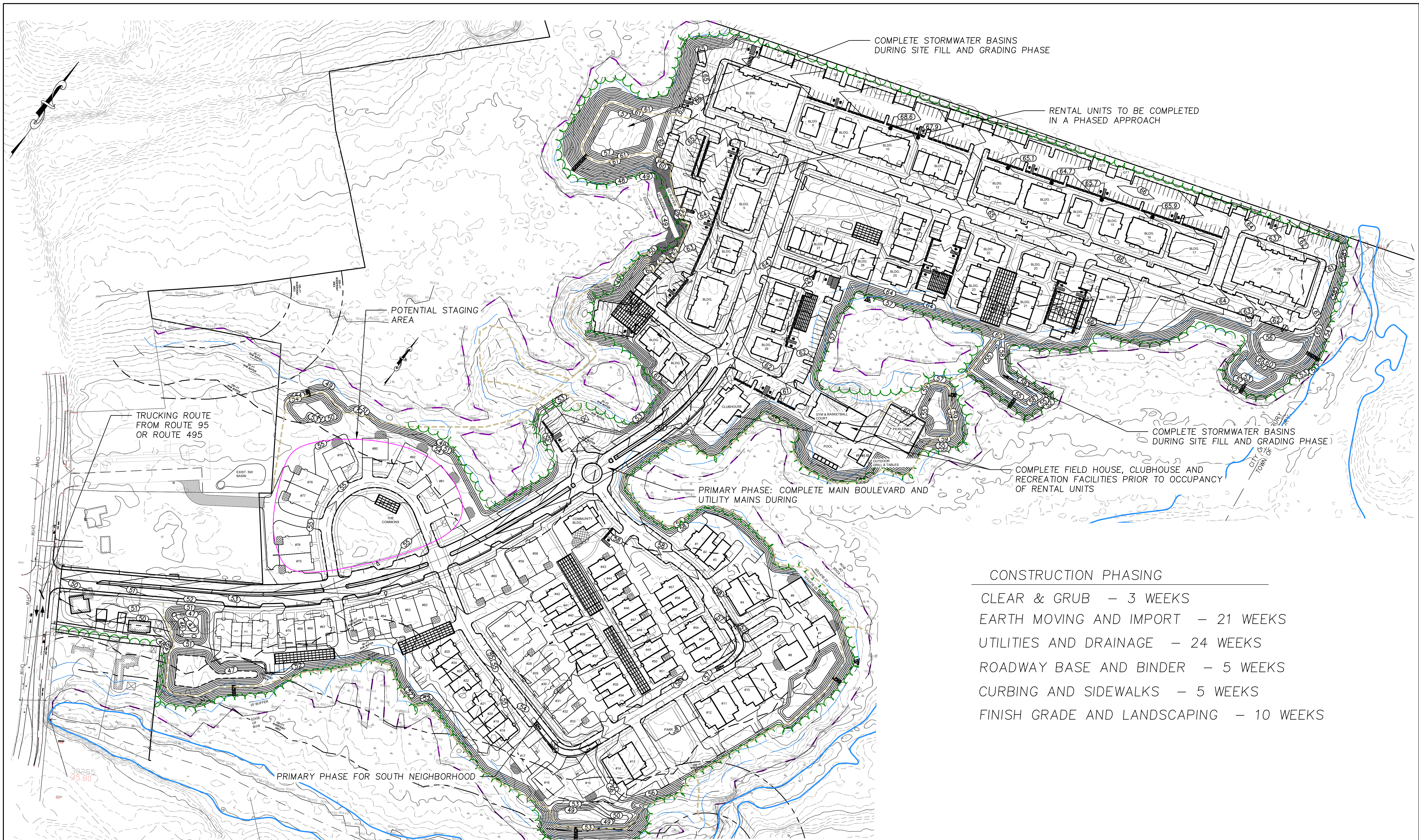
IN  
**AMESBURY, MA**

AT  
**ELM STREET**

CUT & FILL SOUTH

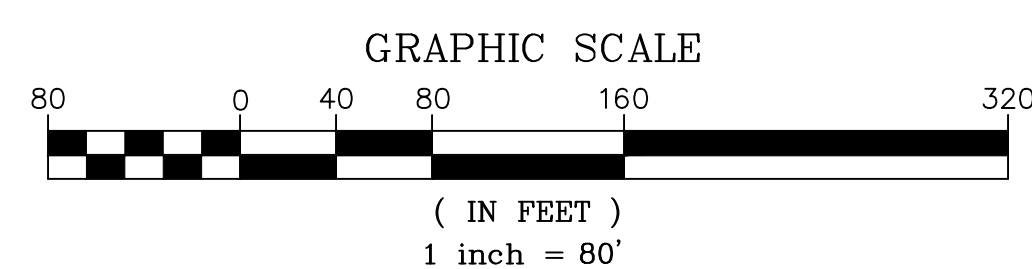
FIGURE 1.2





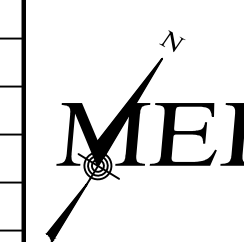
#### CONSTRUCTION PHASING

CLEAR & GRUB – 3 WEEKS  
EARTH MOVING AND IMPORT – 21 WEEKS  
UTILITIES AND DRAINAGE – 24 WEEKS  
ROADWAY BASE AND BINDER – 5 WEEKS  
CURBING AND SIDEWALKS – 5 WEEKS  
FINISH GRADE AND LANDSCAPING – 10 WEEKS



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**ROCKY HILL MBTA COMMUNITY**  
IN  
**AMESBURY, MA**

AT  
**ELM STREET**

**CONSTRUCTION  
PHASING**

FIGURE 2.0

|     |          |                       |        |
|-----|----------|-----------------------|--------|
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