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December 28, 2017

Mr. David R. Consigli
Milford Zoning Board of Appeals
52 Main St
Milford, MA 01757

- Engineering
- Design
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RE: ROBSHAM VILLAGE, EAST MAIN ST, MILFORD, MA
REVIEW OF COMPREHENSIVE PERMIT APPLICATION (40B)

Dear Members of the Milford Zoning Board of Appeals:

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As requested by the Milford Zoning Board of Appeals (ZBA), Comprehensive Environmental Inc. (CEI) has provided a technical review of the Robsham Village Comprehensive Permit (MGL Ch. 40B) application. This letter provides a summary of our initial comments regarding documents furnished by the Town of Milford to CEI for our review.

Please note that CEI's review focuses on environmental (including drainage) and traffic aspects of the project. The traffic component of our review is being conducted under sub-contract to BSC Group. Milford Town staff, other consultants, and the Milford Water Company are conducting reviews of the other aspects of the project, such as water supply capacity and services, and land-use planning considerations.

CEI has based the review on the following information on file on the Town of Milford's webpage dedicated to the Robsham Village Project:

- Drainage & Flooding
- Energy & Sustainability
- Hazardous Waste
- Permitting & NEPA
- Stormwater & LID
- Transportation
- Water & Wastewater
- Watershed Restoration

1. A Comprehensive Permit Application entitled "Property located at 462 – 466 East Main Street, Milford, Massachusetts Assessor's Map 30. Parcel 0 – 34.", dated November 1, 2017.
2. Civil design drawings entitled "Robsham Village in Milford Massachusetts" dated October 23, 2017 and prepared by Beals and Thomas, Inc. The drawing set consists of 16 sheets.
3. Architectural design drawings entitled "Robsham Village" dated October 23, 2017 and prepared by Nicholaeff Architecture + Design and Bennet Sullivan Associates, Inc. The drawing set consists of 15 sheets.



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4. Robsham Village project feedback letters from Milford's Town departments and a letter from Tata & Howard sent to the ZBA in November and December 2017.

CEI and BSC staff also participated in a site visit to view existing conditions on the project site on December 12, 2017.

CEI offers the following comments from our review of the referenced materials:

A. Related Environmental Permitting Required for the Project

Please note that in addition to the Comprehensive Permit 40B, the project must comply with regulatory requirements under a number of state and federal environmental programs. The Applicant will be required to pursue the following state and federal permits:

1. Review under the Massachusetts Environmental Policy Act (MEPA) is required when one or more of the review thresholds have been exceeded, per 301 CMR 11.00. Based on the current design, the following review thresholds have been exceeded and will require filing of an Environmental Notification Form (ENF) and "other MEPA review if the Secretary so requires."
 - a. The design proposes the construction of more than 500 new parking spaces. The review threshold for the construction of new parking is 300 spaces in a single area.
 - b. The design of the wastewater system is sized for 55,000 gallons per day (gpd). The review threshold is 50,000 gpd of sewage discharged to groundwater.
 - c. The development proposes approximately 6.9 acres (300,000 sq. ft.) of impervious area. The review threshold is 5 acres (217,800 sq. ft.) of new impervious area.
2. The proposed project includes permanent impacts to Wetland Resource Areas and Buffer Zone as defined under the Massachusetts Wetlands Protection Act (WPA), and will therefore require WPA permitting under jurisdiction of the Milford Conservation Commission. This review will require submittal of more detailed information with regard to (1) the final design location and area of wetland impacts, (2) how these impacts have been avoided, minimized, and mitigated, and (3) design specifications for

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all proposed wetland mitigation areas (e.g., grading, soils, planting plan, connectivity to existing wetlands, etc.). As part of this documentation, the Applicant will need to show compliance with the Massachusetts Stormwater Management Standards.

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3. Under Section 404 of the federal Clean Water Act, a permit is required to discharge dredged or fill material to navigable waters. The Applicant proposes to construct crossings over wetlands and an intermittent stream that will include fill material. In general, new permanent stream crossings are eligible for Self-Verification if designed in compliance with the "Permanent Crossings in Non-Tidal Streams" section of "Stream Crossing Best Management Practices (BMPs)" prepared by the U.S. Army Corps of Engineers-New England District. The document can be located at the following address:
<http://www.nac.usace.army.mil/Portals/74/docs/regulatory/StateGeneralPermits/NEGP/BMPStreamCrossings21Jan2015.pdf>
4. The wastewater disposal system requires permitting under the Groundwater Discharge Permit Program. This permit is required for any system that will exceed 10,000 gpd. See the regulations at 310 CMR 15.006 (Title 5) and 314 CMR 5.00 (Ground Water Discharge Permit Program).
5. Pursuant to 720 CMR 13.00, the proposed project will require a State Highway access permit from MassDOT for the new driveway off of Rt.16.
6. A National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) is required from USEPA for construction activities that disturb over one acre of land.

B. Environmental Resource Areas

The documentation on file with the Town provides only limited information regarding impacts to resource areas regulated under the Wetlands Protection Act. The project will require review by the Milford Conservation under the WPA Regulations, and will need to address impacts on all regulated resource areas. Based on the file information we have reviewed, we offer the following initial comments:



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1. Stream crossings must be designed to meet the Massachusetts River and Stream Crossing Standards. Width must be 1.2 times the bankfull width of the stream. This will apply to the intermittent stream crossing shown on the drawings.
2. Proposed stormwater basin 5 is shown emptying into a wetland replication area. Future review of a stormwater management report and supporting calculations (not yet available for review) for the site should ensure that the wetland replication area is not being used to meet any performance requirements of the Massachusetts Stormwater Management Standards.
3. Only sheets TP-2 and C3.1 show the top of bank. Other sheets do not show top of bank flag locations.
4. Sheets TP-1 and TP-3 do not show either the top of bank or the riverfront area.
5. The application does not discuss the disturbance impacts for the space required to install retaining walls. Sediment control barriers are not shown on the plans for construction of the retaining walls.

C. Stormwater Management Design

The file materials include only a limited description of the proposed stormwater management system for the project. The description has not been supported by the provision of a Stormwater Report, stormwater management calculations, supporting design documentation, erosion and sediment control plan narrative, long term pollution prevention plan, or operation and maintenance plan. CEI will need this information to complete a review of the stormwater management design as requested by the Town. Initial comments based on the limited information are provided below:

1. The proposed stormwater management basins are described as infiltration basins in the narrative:
 - a. The applicant should provide soils and groundwater information to support the feasibility of providing infiltration basins on the site.
 - b. Once details for the wastewater system are provided, the Applicant should verify that the proposed infiltration basins meet the setbacks



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from Soil Absorption Systems required under the Massachusetts Stormwater Handbook.

- c. Provisions for required pretreatment of runoff to the infiltration basins are not shown.
 - d. Emergency spillways are not shown at basins. In general, any emergency spillway should be constructed in existing ground (not in fill); if this is not feasible, design of an appropriate emergency outlet structure should be provided. The design should also address potential erosion impacts down-gradient of the spillway.
 - e. Depending on groundwater conditions, the design of the infiltration basins may require a mounding analysis under the Massachusetts Stormwater Handbook.
 - f. CEI understands from information discussed at the site visit that a hydrogeologic study is being conducted to support the design of the wastewater system. Given the sizeable areas dedicated to stormwater infiltration, in addition to the large on-site wastewater disposal system proposed for the site, the hydrogeologic study should also account for the impacts on groundwater resulting from the stormwater infiltration systems.
2. The Applicant has requested waivers of provisions of the Town of Milford's Stormwater Management By-law. We recommend that the ZBA deny the requested waivers, other than those providing for the ZBA to act as issuing authority for construction approvals required under the bylaw.
- a. The design requirements under this bylaw are consistent with the Massachusetts Stormwater Management Standards under the Wetlands Protection Act Regulations, with which the Applicant must comply, so the Bylaw does not impose a greater burden on the design than otherwise applies.
 - b. In addition, this Bylaw enables the Town of Milford to comply with its obligations to the US EPA under the NPDES Stormwater Program, General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). That permit



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requires Milford to regulate stormwater discharges, including enforcement of ongoing maintenance of systems extending beyond the initial development and construction of the project stormwater facilities. Waiver of this bylaw may hamper the Town's ability to manage stormwater discharges in compliance with its federal permit over the long term.

- c. A properly designed stormwater management system is critical to the protection of property and water resource areas for a project of this scale. Given this, CEI recommends the ZBA, as issuing authority relative to the local stormwater bylaw, require the Applicant to document compliance with the Massachusetts Stormwater Management Standards and Massachusetts Stormwater Handbook as a part of the Comprehensive Permit review.
3. The plans do not show how area drainage from the patio and courtyard areas will be intercepted and conveyed to the stormwater management system.
 4. More information will be required to review the design of the proposed riprap aprons to ensure erosion of the existing slopes will not occur down-gradient of the aprons, some of which terminate on sloping ground.
 5. There appears to be a lack of access to the stormwater management basins 1 and 3 to allow maintenance.
 6. The Applicant has not described how snow storage will be managed on the site to prevent impacts to the stormwater management facilities.

D. Wastewater Management Design

The Town of Milford has not requested CEI to review the wastewater system design in detail, as this design will be reviewed under an application for a Groundwater Discharge Permit. However, we have reviewed the wastewater system in the context of its relationship to the use of the site and potential implications for providing stormwater management and protecting environmental resources. Based on this review, we offer the following comments:

1. The limited documentation provided for review indicates that the design flow for the wastewater system is based on the total number of bedrooms



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proposed for the project. The design flow should also account for ancillary uses. The architectural drawings show a concierge reception area, a leasing management center, business center, dining room, conference rooms, lounge with a sink and stove, gathering room, bathrooms in the lobby, and dog wash stations. Accounting for these flows may impact the configuration and size of the disposal system. The application submittal contains no information documenting the design flows corresponding to these uses.

2. The application narrative notes a flow of 25,000gpd, but does not provide an adequate citation to support this figure. The introductory paragraph of 310 CMR 15.203 explicitly requires the use of flows specified in the table provided in the regulation.
3. There are no details provided for the Soil Absorption Systems. Depending on the type of design, the project may require Reserve Areas for future system replacement. Such reserve areas could affect the overall "footprint" of the development, with consequent impacts on stormwater management and on the protection of resource areas, and should be included on the drawings, if applicable.
4. Data on subsurface soils and groundwater conditions has not been included in the materials provided for our review.
 - a. The drawings show numerous test pits. Test pit logs should be provided for the Town's review.
 - b. Some of the test pits are not numbered on the drawings and some have duplicate numbers. The drawings should be amended to provide missing and corrected numbers, to correspond with test pit logs.
 - c. A number of monitoring wells have been installed on the site to provide data for a hydrogeologic study to support the wastewater disposal system design. The locations of these wells should be shown on the drawings, and supporting data logs should be provided for the Town's review.



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- d. The underground garage will require floor drains to intercept snowmelt and runoff from vehicles stored in the facility. The design should describe how floor drainage within the basement will be collected and disposed. This drainage cannot be legally discharged to the stormwater management system. The Applicant should either document that the MassDEP will permit the discharge of this flow to the on-site wastewater disposal system, or document an alternative legal method for collection and disposal of this drainage.
- e. The building foundation may require the use of subsurface drains to control groundwater intrusion into the below-grade spaces. The drawings and supporting data do not describe depths to seasonal high groundwater elevations, and how these elevations relate to the proposed basement floor elevation. The drawings show this floor elevation as deep as 12 feet below existing grades. The design documentation should reference how this drainage will be handled on site.

E. Site Grading

There appears to be a number of locations where the grading information is incorrect or incomplete. In some of these instances, the drawings may not correctly indicate potential impacts of such grading to regulated resource areas.

1. Missing contours between elevations 320 and 314 southeast of Basin 1.
2. Incorrect proposed 318 contour north of western crossing.
3. Missing proposed 322 contour south of western crossing.
4. Incorrect grading to blend with existing 330 contour southwest of Basin 2.
5. Incorrect grading to blend with existing contours 334 – 338 east of SAS Area #2.
6. Incorrect grading to blend with existing contours south of SAS Area #2.
7. The grading to tie into western retaining wall does not properly relate to existing grades and proposed limits of disturbance.
8. The grading at western edge of SAS Area #1, proposed contours 322 and 324 not correctly related to existing grades.



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9. The grading at northern side of SAS Area #1, proposed contours 312 to 320 does not relate correctly to existing grades.
10. The site grading appears to direct drainage toward the north side of building near northeast corner, west side of building near northwest corner, and south side of building at southwest corner.

F. Construction-Related Issues

1. From observations during our site visit, the property appears to be very stony, with very large boulders and outcrops evident. Site construction will likely require rock removal operations, including potential blasting and crushing activities. We recommend the ZBA require the applicant to address how rock removal will be accomplished during construction, including documentation of how blasting, crushing, processing, and transport of the rock material will be accomplished. Issues such as blasting management and noise management should be addressed. If excess rock must be removed from the site, the applicant should describe how the material will be disposed, and what the construction traffic impacts will be and how they will be managed.
2. While construction of the building itself will require excavation below existing grade, much of the proposed developed area around the rest of the site will be filled to construct parking, access drive, wastewater disposal systems, and stormwater management facilities. The information provided for review does not document the cut/fill balance for the site. The applicant should document the quantity of fill material required to be imported from off-site and address the impacts associated with obtaining and conveying the necessary fill material to the site, including (but not necessarily limited to) traffic impacts during the construction period.



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G. Traffic & Pedestrian Safety

CEI's subcontractor, BSC Group, will provide a technical peer review of the Traffic Impact and Access Study, including pedestrian safety. BSC Group's review will be sent separately.

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If you have any questions or comments regarding this report, please contact either Matt Doyon or Bob Hartzel at 508-281-5160.

Sincerely,
COMPREHENSIVE ENVIRONMENTAL, INC.

Matthew P. Doyon, P.E.
Project Engineer

Robert Hartzel, CLM, CPESC
Project Manager

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cc: Sam Offei-Addo, BSC Group (via email)
Steven N. Zieff, Eden Management (via email)