



October 2, 2023

Mr. Richard S. Novak, Chair
Sherborn Zoning Board of Appeals
Town Hall
19 Washington Street
Sherborn, MA 01770

**Re: Greenwood Homes – Comprehensive Permit
Engineering Peer Review
Sherborn, Massachusetts**

Dear Mr. Novak:

Tetra Tech (TT) has reviewed specific submittal materials for the above-referenced Project to assist the Sherborn Zoning Board of Appeals (Board) in its Comprehensive Permit review of the proposed Greenwood Homes development. The following letter provides comments generated during our review of Applicant submittals and generally focus on substantive concerns that speak to issues whose eventual resolution may substantially impact Project design or could otherwise result in potentially unsafe conditions or unanticipated impacts.

The Project includes development of four single-family homes each on separate 0.92± acre lots subdivided from a larger 18.53-acre parcel. Lot dimensions generally conform to the Residence B zoning district Dimensional Requirements with the exception of lot size (2 acres required). Wetland resource areas are located to the west of the proposed lots with buffer zone extending into the development area. Several rain gardens and exfiltration trenches are proposed to assist in mitigation of stormwater as a result of the development. Each home will be served by private wells and septic systems and will each be connected to existing pole-mounted electric/cable/communications along Greenwood Street.

Our review is based on materials received from the Board comprising the following pertinent documents:

- A plan set (Plans) titled "Comprehensive Permit Plan of Greenwood Street Homes at Greenwood Street, Sherborn, MA", dated August 17, 2023, prepared by Creative Land & Water Engineering, LLC. (CLAWE)
- A Project Narrative (Narrative) titled "Project Description, Greenwood Homes, Greenwood Street, Sherborn MA" dated August 2023.
- A Zoning Analysis summary table.

The Plans and accompanying materials were reviewed for good engineering practice, overall site plan efficiency, stormwater, utilities, wetlands and public safety as it relates to each of the subject areas. In general, the plans and supporting materials were well prepared and we appreciate the clarity and completeness of documents provided. Our initial comments are provided below.

A. SITE DESIGN

The Site Plans provide a good introduction to the Project and its various components and shows the Project is placed in an appropriate location on the site in upland area. The following specific comments are offered to identify areas where additional information is required, or changes are requested to address questions or support further review.

- A.1 The Project notes the Bailey Trail Connector is adjacent to the Project. We recommend the Applicant coordinate with the Town to determine level of access to the trails such as a sidewalk along the frontage of the Project to the Trail access point.
- A.2 It appears the Project is a net fill site which may require earth fill to be imported to complete the proposed grading plan. We recommend the Applicant provide earthwork calculations for the Project

and source of the proposed fill as we anticipate excavate material produced from building foundation excavation may not be sufficient to complete the proposed grading scope.

- A.3 Greenwood Street is a small local road (approx. 18 feet wide) and we recommend the Applicant provide a construction management plan detailing truck travel routes, project phasing, etc. for review to ensure abutting properties, the right of way and adjacent roadways are properly protected during construction.
- A.4 The Applicant should provide the limits of the Greenwood Street roadway and show sight lines at each driveway opening. Greenwood Street is narrow, generally winding and is a scenic roadway and the Applicant should address sight line issues and potential mitigation.

B. STORMWATER

The Project scope includes four single-family dwellings each on separate lots (the Site) and stormwater generated from the Project does not discharge to a critical area which exempts the Project from the requirements of the Massachusetts Department of Environmental Protection (MA DEP) Stormwater Management Standards (Standards). Stormwater mitigation scope for the Project includes rain gardens and exfiltration trenches. The Project was reviewed for general stormwater design elements and good engineering practice. The following comments are offered specific to the Project Stormwater design.

- B.1 The Project proposes rain gardens and exfiltration trenches to mitigate stormwater resulting from the proposed development. We recommend test pits be performed prior to Final Plan development to determine soil conditions and depth to groundwater at those infiltration locations. It is common practice to maintain a two-foot separation between the bottom of the infiltration best management practice (BMP) and the estimated seasonal high groundwater (ESHGW) elevation.
- B.2 Runoff from the developed site will enter the right of way. The Applicant should coordinate with Sherborn DPW to determine if the Project will require formal stormwater analysis as part of the Town's obligations under the United States Environmental Protection Agency (US EPA) National Pollutant Discharge Elimination System (NPDES) Municipal Separate Stormwater Sewer System (MS4) Permit.
- B.3 One of the proposed rain gardens straddles the property line between Lot 1 and Lot 2. We recommend stormwater mitigation be located on one lot or the other to limit future issues between the homeowners with potential maintenance obligations.

C. EROSION AND SEDIMENTATION CONTROL

The Applicant has included provisions for erosion and sediment control as part of the Project scope. The following comments are offered specific to the Project and potential for off-site erosion during construction.

- C.1 The Project appears to meet the requirements for coverage under the US EPA NPDES General Permit for Discharges from Construction Activities (CGP). We recommend a Condition requiring the Applicant provide proof of coverage under the NPDES CGP and provide a copy of the approved Stormwater Pollution Prevention Plan (SWPPP) prior to construction.
- C.2 The Applicant should provide additional detail on proposed Project phasing, equipment laydown areas, material stockpiles, construction entrances, etc. These will be items required on the NPDES CGP noted in Comment B.5.

D. WATER SUPPLY

The Plans indicate the Project will be served by private water supply wells on each of the proposed lots. The following comments are offered specific to Project water supply and related analysis or lack thereof.

- D.1 The Applicant should provide documentation that the proposed dwellings will have sufficient source of water from the proposed wells. This is essential to determine if the Project is viable as proposed. All wells shall be coordinated with Sherborn Board of Health.

- D.2 The proposed well on Lot 3 is located adjacent to the proposed driveway exfiltration trench immediately downgradient of the garage, driveway and main parking area. The proposed well location may be prone to contamination by the impervious surfaces and potential damage during snow clearing. We recommend additional areas be investigated on Lot 3 for the proposed well.
- D.3 The Applicant should confirm method of fire suppression for each dwelling as there are no available hydrants located adjacent to the Site.

E. SEPTIC SYSTEMS

The Plans indicate the Project will be served by septic systems on each of the proposed lots. The following comments are offered specific to Project septic design and related analysis or lack thereof.

- E.1 The Applicant has provided test pit logs and percolation testing results (witness by Sherborn BOH) for testing at each soil absorption system (SAS) location. Several of the SAS's are proposed in fill areas and adjacent to 3:1 slopes and groundwater is generally high in the area. However, we anticipate the Project could be permitted given the current development program with careful design and oversight of installation. All septic designs shall be coordinated with Sherborn Board of Health.

F. WETLANDS

Wetland resource area is located off-site to the north and west with buffer zone and areas jurisdictional to the Massachusetts Wetlands Protection Act (WPA) extending onto the Site. The following comments are offered specific to the Project's potential impact on wetland resources.

- F.1 The Project includes disturbance within area jurisdictional to the Massachusetts WPA and therefore we anticipate the Project will require permitting through the Sherborn Conservation Commission.
- F.2 Tree clearing and grading is proposed within the 100-foot buffer zone to the wetland resource areas located off-site to the north. The proposed grading scope on site appears to be primarily a net fill for the Project so we do not anticipate impact to groundwater as a result of that process.
- F.3 We anticipate foundation drains for each dwelling will be required due to potentially high groundwater in the Project area. The Applicant should provide discharge points on the Plans.

These comments are offered as guides for use during the Town's review and additional comments are likely to be generated during the course of review. The Applicant shall be advised that any absence of comment shall not relieve him/her of the responsibility to comply with all applicable local, state and federal regulations for the Project. If you have any questions or comments, please feel free to contact us at (508) 786-2200.

Very truly yours,



Steven M. Bouley, P.E.
Project Manager

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