

December 05, 2023

To: Sherborn Board of Health  
Attn. Mr. Mark Oram  
19 Washington Street  
Sherborn, MA 01770

RE: Lots 1,2,3, and 4 Greenwood Street Homes letter of deficiencies response letter.

Dear Mr. Oram:

Creative Land & Water Engineering, LLC (CLAWE) has received and reviewed your Letter titled "Lots 1, 2, 3 and 4 Greenwood Street "Home" Letter of Deficiencies for the well and septic plans" dated November 27, 2023.

This letter provides our responses. To facilitate the review, we will quote the Reviewer's comments first and follow-up with our response in blue.

1. *Owner's name and address are not noted on the septic plans.*  
Response: Owner's name is stated in the title box on all four plans as AB Realty Trust. Owner address is added to the general note item 1.
2. *The plans are not labeled as a septic system and well plan.*  
Response: Plan name in title box of each plan is stated "Septic and Well Plan".
3. *The wells are shown on the plot plans. The well permit and fee have not been submitted. NOTE: The proposed locations for the wells are not in compliance with the Sherborn Board of Health Regulation II, section 6.0. The proposed lots 1, 2 and 4 are not in compliance with the distance to the lot lines. The well on Lot 4 is not in compliance with the distance to the travelled way. Also, in accordance with the Sherborn Board of Health Regulation II, Section 6, there is to be a definitive statement on each plan noting that the proposed wells are located from all septic systems shown on the plot plans and for septic systems not shown on the plot plans per the requirements noted in Sherborn Board of Health regulation II, sections A,B and C.*  
Response: None of the above are requirements of Title V. The septic system is designed only under Title V. The locations of wells are for setback reference for septic design to meet the 100-ft setback Title V requirement. The well installation permit will be dealt with in a separate application. Additional note 1 has addressed other well related setback issues.
4. *If variances are being requested from the Sherborn Board of Health regulations, these waivers are to be noted on the proposed plot plans that show the well and septic systems.*  
Response: This application submitted is for Title V only. Any waivers from any local bylaws will be dealt in the ZBA Comprehensive Permit Process.
5. *The elevations and boundary lines are not in accordance with 310 CMR 15.220 (4) (a), Title 5. The elevations and boundaries are noted as estimated in General Notes 10 and 11 on the plot plans.*  
Response: Title V requires the plan "**include a depiction of: the legal boundaries of the facility to be served**"; The 2022 base plan by Samiotes was done by ground GPS with horizontal accuracy of 0.36 ft and vertical accuracy of 0.12 ft. These are common surveying practices. The plan accuracy is acceptable for a septic design and served as the basis of the CL&WE plan in compliance with Title V. Furthermore, the exact lot lines to a fraction of an inch will not be set until the ANR is approved by the ZBA in the Comprehensive Permit process. The design control elevation of soil testing and grounder water table are field surveyed with professional GPS as noted above, which is accurate for a septic system design and construction in compliance with Title V requirements.

6. *The septic tank volumes are not provided for each compartment.*  
 Response: The tank is a standard Shea concrete tank with a total volume of 1500 gallons. 2/3 of the volume (1000 Gal.) in the first compartment and 1/3 of the volume (500 Gal.) in the second compartment. Storage volumes have been added to the plan.
7. *The percolation test locations are not shown on the plot plans.*  
 Response: Percolation test locations have been added to the plan
8. *The elevations of each percolation test are not shown that include the starting end points of the percolation tests.*  
 Response: Percolation depth along with the time at each depth were shown on the "Soil Examinations" table on sheet 2 of 2 of the plans.
9. *The basis of the groundwater is to be shown on the plot plans.*  
 Response: The elevation of groundwater is based on mottles and shown in the soil profile. A note is added to the est. G.W. Elev. Line in compliance with 310 CMR15.103 (3) (a).
10. *There is to be a note indicating the septic tanks are watertight.*  
 Response: A note has been added to the tank system profile on sheet 2 indicating that the tanks shall be watertight.
11. *The is to be a note that the distribution boxes are to be provided watertight covers.*  
 Response: The plan sheet 2 showed a callout stating that the cover shall be brought to within 6" of finished grade and that it shall be watertight is shown above the D-Box.
12. *The septic notes #2 and #13 on each plot plan are to include the need to notify Board of Health representative.*  
 Response: A statement has been added to septic notes #2 and 13 as requested.
13. *The septic notes #5 on each plot plan are to include the need for a well permit and the submittal of the well application fees, see deficiency note #3.*  
 Response: This is not a Title V requirement. The applicant will file a separate permit for the well construction with applicable fees as we responded to deficiency note #3.
14. *The septic notes #11 on each plot plan is to note exact versus approximate for the existing utilities and existing liens.*  
 Response: To be more clear, the note is modified as "There are no other existing utilities or liens on the property except as shown on the plan, which shall be verified by Digsafe if they are underground."

#### **Lot 1 Greenwood Street**

1. *The building pipe is not laid down in a straight line. Title 5 requirements for a straight line with no bends is required unless not possible. If not possible, there should be a note indicating the reason this is not possible.*  
 Response: It is our understanding of 310 CMR 15.222 (7) and (8) that the building sewer line shall be straight out and stay as much as possible straight to sewer manhole or Septic tank. If joint of two straight section needed, there shall be a clean out or a manhole to make the hydraulic flow the best. With that said, for this site we have modified the location of the proposed house and driveway so that the building pipe is now laid down in a straight line from building to septic tank.
2. *The location of the well on the abutting lot is not accurate. The previous plan submitted for this lot shows the well 25 feet of the property line. Please see above deficiency note #5 above in respect to accurate boundaries.*  
 Response: The location of the well on the abutting property (#34 Greenwood) is based on records provided to us by the board of health and is in line with our field surveying.
3. *The proposed well is 11 feet off the property line.*  
 Response: It is as noted on the plan and meets the 10 ft Massachusetts Private drinking water well setback

requirement to property line.

4. The mottle colors are not shown for deep hole 1-1 and deep hole 1-3.

Response: Mottle colors have been added to deep hole 1-1 & 1-3.

5. The effluent loading rate is not in accordance with a Class II soil as shown in the deep observation holes.

Response: Given that the tested percolation rate ranging from 3 mpi to 5 mpi and the dominant soil texture are loamy sand, it is our professional judgement that the onsite soil is a Class I soil and therefore, the Class I soil long term acceptance rate (LTAR) is applied to the design.

### **Lot 2, Greenwood Street**

1. *The building pipe is not laid down in a straight line. Title 5 requirements for a straight line with no bends is required unless not possible. If not possible, there should be a note indicating the reason this is not possible.* It is recommended that the building pipe laid under the driveway be double piped.

Response: See response to Lot 1 on the same issue.

2. *The dates for the soil testing are not shown.*

Response: Soil testing dates have been added to the soil examination summary table.

6. *The proposed well is 11 feet off the property line.*

Response: It is as noted on the plan and meets the 10 ft Massachusetts Private drinking water well setback requirement to property line.

3. *The green dotted lines are not labeled.*

Response: These are the buffer lines to the wetlands. They have now been labeled.

4. *The deep holes are not in accordance with the field notes.*

- Deep hole 1 shows a depth of 120 inches, the actual depth observed was 108 inches.

Response: our notes show depth of 120 inches and not 108 inches at deep hole 1. We have checked this against our field notes.

- Deep hole 2 shows depth of 90 inches, the actual depth observed in the field was 84 inches.

Response: deep hole 2 was abandoned in the field and not used for our design. We used deep holes 2-1, 2-3, and 2-4 for our design. Deep hole 2 is not shown.

- Deep hole 2 mottles shown as 54 inches, the mottles observed in the field were found at 36 to 40 inches.

Response: deep hole 2, where mottles were found at 36" to 40", was abandoned in the field and not used for our design. Therefore, Deep hole 2 is not shown.

- Deep hole 3 mottles shown at 72 inches, the mottles observed in the field were found at 64 inches.

Response: mottles were observed in the field at 54 inches for deep hole 3. Mottles shown at deep hole 4 are 72 inches as shown on the soil examination table. We have checked this against our field notes.

Note: The purpose of the walls shown on the property line should be noted on the plot plan.

Response: We are not proposing the construction of any walls on the property lines. We verified our design and could not locate any walls on the property lines.

### **Lot 3 Greenwood Street**

1. The effluent loading rate is not in accordance with a Class II soil as shown in the deep observation holes.

Response: We have percolation rate of 2 mpi in DHTP 3-1 with dominant soil texture medium loamy sand, which is a

Class I soil according to 310 CMR15.243, which is consistent with other two test pit medium loamy sand.

2. The green dotted lines are not labeled.

*Response: These are the buffer lines to the wetlands. They have now been labeled.*

Note: Please indicate if this plot plan is a revision from the plan provided for peer review.

Response:

*Response: The Title V plan submitted is the plan of record for this Title V application. Thus far, a comprehensive permit plan was submitted to the ZBA in August and revised in October. The updated plan will be submitted to ZBA for review.*

#### **Lot 4 Greenwood Street**

1. The distribution pipe from the septic tank outlet to the distribution box is not shown.

*Response: The line was hidden by a callout arrow. The line has been made black for easier visualization.*

2. The proposed well is 11 feet off the property line.

*Response: It is as noted on the plan and meets the 10 ft Massachusetts Private drinking water well setback requirement to property line.*

3. The trench length shows 40 feet on the profile, not the actual length of 52 feet.

*Response: The 40 ft label is a typo and corrected to the right length of 52 feet on the profile view.*

#### **Notes:**

- A. The septic and well plans have not been reviewed and approved by the Conservation Commission.

*Response: The plan will be reviewed by the Conservation Commission after the completion of the ZBA Comprehensive Permit process is complete.*

- B. As noted previously in deficiency 3, the well applications and fees have not been received.

*Response: We only filed for a Title V septic system permit at this time. The well application will be filed separately and fee will be paid according to the applied regulations at a later time.*

- C. Garbage grinder deed recordings are to be completed prior to the septic and well plan being released for construction.

*Response: It would be reasonable to require the deed restriction recorded prior to issuance of the CO.*

- D. The notes for the deep holes are in light ink and should be darkened.

*Response: The detailed information can be seen in the soil log and so the lighter ink will not distract from the other design features.*

- E. The plot plans show grease trap not required. This may be eliminated from the facility to be served section of the plot plans.

*Response: This is part of our standard worksheet for septic design.*

- F. The Deed recording for the garbage grinder not being designed have not been submitted and are required prior to the septic plan approval and release for construction.

*Response: A deed recording will be devised for recording after Comprehensive Permit process and subdivision is complete. We do not see the need to hold the approval currently. It make sense that the deed recording shall be done prior to issuance of occupancy certificate.*

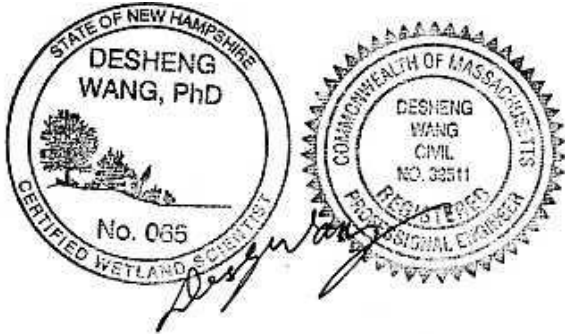
- G. It is suggested that the preliminary floor plans of the proposed houses be submitted for review by our Department to determine the room count for the proposed 4-bedroom houses.

*Response: Homes will be deed restricted to four bedrooms eliminating any room count concerns.*

Please feel free to contact us if you have any questions.

Sincerely,  
Creative Land & Water Engineering, LLC

By



Desheng Wang, Ph.D., P.E.  
Civil/Environmental Engineer  
Certified Wetland Scientist  
Certified Soil Evaluator

Handwritten signature of Francis Alves in blue ink.

Francis Alves, E.I.T.  
Civil/Environmental Engineer

CC: Bob Murchison, 177 Lake St, Sherborn, MA 01770