

October 31, 2022

Ms. Liz Burdick
Planning Director
Montville Planning Department
310 Norwich-New London Turnpike
Uncasville, CT 06382

SUBJECT: Montville Water Supply – Cook Hill Tank Replacement Project

Dear Ms. Burdick,

We have reviewed the comments provided by the Planning Director, Uncas Health District, Town Engineer, Building Department, and Fire Marshal. Review comments and responses are provided below.

Planning Director

The following comments were provided by the Planning Director in the October 10, 2022 Memorandum for the Record for the October 25, 2022 PZC Meeting. Responses to comments are provided in ***bolded italic*** text.

1. On 9/7/2022, the Montville Zoning Board of Appeals granted the following setback variances for proposed structures:
 1. Tank: A 22.6' variance of the required 40' R20 front yard setback; and a 27' variance of the required 40' R20 rear yard setback.
 2. Equipment boxes: A 25' variance of the required 40' front yard setback; a 7.8' variance of the required 10' west side yard setback; and a 19' variance of the required 40' rear yard setback.
 3. Standby Generator: A 3' variance of the required 10' side yard setback and 34' variance of the required 40' rear yard setback.

The variances shall be noted on the title sheet under zoning information. Typo "infomation" shall be revised.

Response: A list of the variances has been added to the zoning information on the title sheet.

2. Applicant name shall be changed to Ronald K. McDaniel, Mayor (v. "Ron McDaniel").

Response: The applicant's name has been updated.

3. Town Engineer & Fire Marshal (pending) comments shall be addressed.

Response: Town Engineer and Fire Marshall comments are addressed as part of this submittal.

4. Applicant shall comply with all the requirements of CT Department of Public Health's Drinking Section.

Response: This comment is acknowledged.

5. Survey plan shall be signed & sealed by licensed land surveyor.

Response: This has been added to the revised plan set.

Uncas Health District

The following comment was provided by the Uncas Health District on September 30, 2022. A response to the comment is provided in ***bolded italic*** text.

1. The construction of the water tank must be approved by the CT Department of Public Health's Drinking Water Section.

Response: This comment is acknowledged. Approval from the CT Department of Public Health's Drinking Water Section will be obtained prior to advertisement for bids and construction.

Town Engineer

The following comments were provided by CLA Engineers on behalf of the Town Engineer on September 30, 2022. Responses to comments are provided in ***bolded italic*** text.

1. The placement of the E&S Control measures must be shown on the plan including the sediment basin location.

Response: The Site Layout and Grading Plan shown on Sheet C-3 has been updated to show silt fencing to be installed along the perimeter of the property and a temporary sedimentation basin.

2. The proposed final surface cover of the area must be delineated on the plan.

Response: Except where it is indicated otherwise on the Site Layout and Grading Plan, the surface cover will be grass. An annotation has been added to Sheet C-3.

3. The level spreader detail must match that shown on the plan view.

Response: The level spreader detail shown on Sheet C-5 has been revised to match the plan view.

4. "Class II" riprap must be described in accordance with CT DOT Form 818.

Response: Sheet C-5 has been updated to specify Modified Riprap as defined by CT DOT Form 818.

5. The proposed lighting must address glare and spillage off the site.

Response: A narrow beam distribution fixture that will direct light downward and towards the subject property and gate will be specified.

6. A discussion of the tank overflow potential, anticipated flow(s) and effects downstream must be provided.

Response: The proposed tank will operate in the same manner as the existing tank. The tank is filled by the 1401 Booster Pump Station which pumps at a maximum flow rate of 2,000 gpm using a lead pump rated for 1,500 gpm and a jockey pump rated to 500 gpm, to supplement flow if needed. The flow rate to the tank is less than 2,000 gpm since some of the flow from the booster pump station goes towards meeting system demand. The operating level of the tank ranges from 63 feet to 83 feet to maintain pressure in the system, provide storage for fire flow, achieve efficient operation of the booster pump station, and maximize turnover in the tank. The 1401 Booster Pump Station is operated by a level sensor at the Cook Hill Tank and is activated when the water level drops below 68 feet and shuts off when the water level gets to 83 feet. The proposed tank overflow level will be approximately 95 feet. Therefore, the operating range will be 12 feet below the overflow level. Overflow of the proposed tank is not anticipated. However in the event of an overflow, a high-level alarm will automatically activate and shut down the 1401 Booster Pump Station pumps. In the event of a failure of the high-level alarm and automatic pump shutdown, overflow water will be directed by the riprap channel to the detention basin and level spreader which was designed to provide retention for a 25-year storm.

Based on discussions with the WPCA, the existing tank has overflowed once as a test during startup of the tank. At that time, the tank was operated by Norwich and fed from a pump station located north of the tank.

7. Access to the site is limited, is there an easement on the neighbor's property to allow equipment access (existing guy wires), parking, installation of the tank and other construction requirements?

Response: All easements are shown on the Boundary/Topographic Survey Existing Conditions Plan. Existing easements allow access to the site from Cook Road. Written permission will be requested from the owners of the WICH property for driveway access crosses outside the town easement.

Regarding construction of the tank, based on discussions with the tank manufacturer, a perimeter of approximately 10 feet around the new tank is required for construction and the tallest construction vehicle will likely be a concrete truck (approximately 14-feet tall). The guy wire vertical clearance along the access road ranges from 19.3 feet to 14.5 feet, allowing sufficient clearance for a concrete truck.

The contractor staging areas shown on Sheet C-3 provide adequate space for materials and parking.

Fire Marshall

No comments per email from Paul D. Barnes, Sr. dated October 12, 2022.

Building Department

The following comment was provided by the Building Department on November 1, 2022. A response to the comment is provided in ***bolded italic*** text.

1. Yes all structures require building permits and in some cases depending on height and area special inspections are required. There are of course exceptions to the smaller residential accessory structures.

Response: The Contractor will be required to obtain building permits.

Sincerely,
WRIGHT-PIERCE



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Lead Project Engineer
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