Exhlof # 14.



DIETER & GARDNER, INC.

LAND SURVEYING • PLANNING • CIVIL ENGINEERING

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MAY 0 2 2024

LAND USE DEPARTMENT

Ledyard Planning & Zoning Re: 59 Kings Highway

May 2, 2024

As discussed today I am delivering:

- 4 sets of site plan
- Map of the site prepared in 1990 and not recorded in Clerk's Office
- 4 copies report by John Martucci, Professional Engineer
- 4 copies Ledge Light Health District approval.
- 4 copies of maintenance requirements for Storm Tech SC-740 I am also delivering a copy of "An ordinance regulating the management of stromwater runoff", I highlighted section 2. I feel the proposal for the the development of 59 Kings Highway as shown on plans I am delivering today, are not subject to the drainage ordinance.

Peter C. Gardner Dieter & Gardner, Inc. 11 Hally Lane, Colchester, CT 06415-2133 Phone: 860-416-9809 Email: <u>John@LBMEngineering.com</u>

CIVIL ENGINEERING - LAND DEVELOPMENT - SITE PLANS - STORMWATER MANAGEMENT

2 2024

LAND USE DEPARTMENT

April 29, 2024

Peter Gardner, L.S. Dieter & Gardner 1641 Route 12 Gales Ferry, Connecticut 06335

Re: 59 Kings Highway and Christy Hill Road, Ledyard, CT

Dear Mr. Gardner:

Reference is made to the following plan titled: "Plan Showing 8-30g Plan Property of Donco, LLC 59 Kings Highway and Christy Hill Road, Ledyard, Connecticut" March 2024, Revised April 24, 2024.

This letter is written to describe the impacts that the construction of the aforementioned 8-30g plan would have on the existing detention basin that is located in the southeast corner of the property.

Less than one-quarter acre of the proposed development drains toward the basin. (In the vicinity of Units 9 & 10) The remainder of the property drains toward Christy Hill Road.

The plan has been designed with Stormtech infiltration chambers that will infiltrate roof runoff from each of the proposed mobile home units. By infiltrating roof runoff, the proposed rate of runoff will be less than the existing condition.

The conclusion is: The proposed activity will not have any adverse impact upon the existing detention basin.

Please feel free to contact me if there is anything else needed concerning this project.

Certified substantially correct, LBM Engineering, LLC

John R. Martucci, P.E.

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MAY 0 2 2024

LAND USE DEPARTMENT

Promoting healthy communities

Date: 05/02/2024
To: Peter Gardner, L.S.,

Subject Property: 59 Kings Hwy, Ledyard CT

Plan Designed by: Peter Gardner L.S. Plan Date: 03/21/2024 Last Revision Date: 04/25/2024 Date Paid: 04/30/2024 The plan and associated information submitted to our office on 04/30/2024 for a proposed 10 x 2 bedroom mobile homes each served by public water and individual private septic systems at the above stated property, in the Town of Ledyard, is:

Approved w/conditions: Complies with the requirements of Section 19-13-B103 of the Connecticut Public Health Code; See conditions below.

Conditions of Approval:

- 1. Proposed sheds are 8'x6' (<200sq.ft.) If sheds are >200sq.ft. and/or are placed on a permanent foundation, they shall meet required separating distances and if installed after permit issuance, a B100a application shall be applied for.
- 2. There shall be no perimeter/footing drains installed on any proposed building.
- 3. The tank serving building #10 is demonstrated providing 0.28' or 3.36" of elevation difference from inlet to outlet of tank. 2"-4" is adequate, 3" is preferred.
- 4. All water line trench excavations within 25' of leaching systems shall be backfilled with non-free draining material.
- 5. All mobile home steps and landings shall be located a minimum of 5' from all septic components.
- 6. Water lines shall be left exposed during installation in order to verify required separating distances are met.
- 7. All buildings and systems shall be staked by LS prior to construction.
- 8. System #5 is located in an area where fill material was encountered in nearby test holes. All fill material encountered shall be replaced with select fill. (TP4 had 52" fill & TP2 had 35" fill). See note under "Sanitary Design Criteria"

Notes/Recommendations:

- 1. Design approved without a garbage grinder or large tub exceeding 100 gallons, if installed septic tank shall be sized accordingly.
- 2. All newly installed septic tanks shall have an approved non-bypass effluent filter that is rated for the design flow of the SSDS.
- 3. Stable benchmark adjacent to proposed building and sewage disposal system. Installer should not be required to transfer benchmarks when considerable differences (more than 10' to 15') exist between the benchmark and leaching area. If the benchmark is disturbed prior to construction, the engineer should set another one for construction purposes.
- 4. If a riser cover weighs less than 100 lbs, then the tank cover shall remain in place or a secondary safety lid or device shall be provided. It is recommended that secondary safety lids or devices be utilized for safety reasons even if the riser cover weighs 100 lbs or greater. Secondary safety lids or devices must be installed per manufacturer specifications and should be installed as shallow as possible to facilitate maintenance.



The following are not currently required by CT Public Health Code and/or LLHD Plan Review Policies but are encouraged/recommended to protect the proposed structures, onsite septic system, water treatment discharge system and/or water supply/groundwater.

- 1. All proposed well arcs should be kept on the property they serve (to allow neighbors full use of their properties) and all well casings should be located at least 10' from driving surfaces and/or structures to prevent future damage and allow for future maintenance of the wells.
- 2. It is strongly encouraged to keep the original tank covers on all tanks requiring risers to prevent the escape of sewer gases and prevent individuals from falling into tanks.
- 3. The designer should take into consideration the location of potential future water treatment discharge systems, rain gardens and footing/gutter drain discharge locations.

Additional Requirements and Recommendations:

1. Installer to submit scaled and/or tied as-built to LLHD upon 30 days of completion with distances to flow line at house, inlet and outlet cover of tank, d-boxes, cleanouts and ends of leaching rows, well, footing/curtain drains and between tie points. In addition, provide the name of installer, date, house location and street/directional arrow.

*Please note that soils testing indicated on this plan are representative of actual soils conditions and additional deep test pits and percolation tests may be required by the Ledge Light Health District if the building or system location is altered and/or the suitable septic area is limited. Applicant should be aware that subdivision approval IS NOT sufficient for individual lot approval. Each lot must be reviewed by the Ledge Light Health District at the time of building permit application in order to obtain lot approval and issue a septic/well permit.

Please call me at 860-448-4882 ext 1316 with any questions regarding this matter.

Sincerely,

Joseph Blanchard, MPH, REHS/RS

Sanitarian II

Cc. Mark Coen, Owner/Builder

12.0 Inspection & Maintenance

MAY 0 2 2024

StormTech Isolator Row Plus - Step-by-Step Maintenance Procedures

Step 1: Inspect Isolator Row PLUS for sediment

- A) Inspection ports (if present)
 - i. Remove lid from floor box frame
 - ii. Remove cap from inspection riser
 - iii. Using a flashlight and stadia rod, measure depth of sediment
 - iv. If sediment is at, or above, 3" (76 mm) depth proceed to Step 2. If not proceed to Step 3.
- B) All Isolator Plus Rows
 - i. Remove cover from manhole at upstream end of Isolator Row PLUS
 - ii. Using a flashlight, inspect down Isolator Row PLUS through outlet pipe
 - 1. Follow OSHA regulations for confined space entry if entering manhole
 - 2. Mirrors on poles or cameras may be used to avoid a confined space entry
 - iii. If sediment is at or above the lower row of sidewall holes [approximately 3" (76 mm)]proceed to Step 2. If not proceed to Step 3.

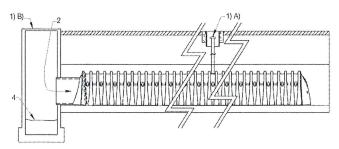
Step 2: Clean out Isolator Row PLUS using the JetVac process

- A) A fixed floor cleaning nozzle with rear facing nozzle spread of 45" (1125 mm) or more is preferable
- B) Apply multiple passes of JetVac until backflush water is clean
- C) Vacuum manhole sump as required during jetting

Step 3: Replace all caps, lids and covers

Step 4: Inspect and clean catch basins and manholes upstream of the StormTech system following local guidelines.

Figure 18 - StormTech Isolator Row Plus (not to scale)



12.3 Eccentric Pipe Header Inspection

Theses guidelines do not supercede a pipe MENT manufacturer's recommended I&M procedures. Consult with the manufacturer of the pipe header system for specific I&M procedures. Inspection of the header system should be carried out quarterly. On sites which generate higher levels of sediment more frequent inspections may be necessary. Headers may be accessed through risers, access ports or manholes. Measurement of sediment may be taken with a stadia rod or similar device. Cleanout of sediment should occur when the sediment volume has reduced the storage area by 25% or the depth of sediment has reached approximately 25% of the diameter of the structure.

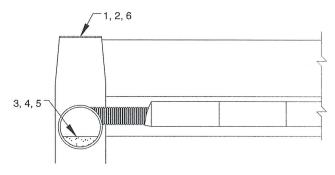
12.4 Eccentric Pipe Manifold Maintenance

Cleanout of accumulated material should be accomplished by vacuum pumping the material from the header. Cleanout should be accomplished during dry weather. Care should be taken to avoid flushing sediments out through the outlet pipes and into the chamber rows.

Eccentric Header Step-by-Step Maintenance Procedures

- Locate manholes connected to the manifold system
- 2. Remove grates or covers
- 3. Using a stadia rod, measure the depth of sediment
- 4. If sediment is at a depth of about 25% pipe volume or 25% pipe diameter proceed to step 5. If not proceed to step 6.
- 5. Vacuum pump the sediment. Do not flush sediment out inlet pipes.
- 6. Replace grates and covers
- 7. Record depth and date and schedule next inspection

Figure 19 - Eccentric Manifold Maintenance



Please contact StormTech's Technical Services Department at 888-892-2894 for a spreadsheet to estimate cleaning intervals.