



NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**

ROY COOPER • Governor
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Division of Public Health

August 28, 2020

Andrew Currin, REHS
Harnett County Health Dept
307 Cornelius Harnett Blvd
Lillington, NC 27546

Subject: 171 Piney Field Road, Mason Pointe Subdivision Lot 39
LHD Request for Review – Session Laws 2013-413 and 2014-120
Project Number: 2020-36

Mr. Currin:

A submittal was received from you on August 20, 2020 requesting review of a proposed flow reduction for 171 Piney Field Road, Mason Pointe Subdivision Lot 39 in Fuquay-Varina, North Carolina. The Harnett County Department of Public Health Improvement Permit/ Construction Authorization application indicates the design daily flow adjustment requested is for a single-family residence with an initial Construction Authorization permit issue date of March 8, 2019 for a four-bedroom residence with a design daily flow (DDF) of 480 gallons per day (gpd) and a pump to 25% reduction system. The type of review requested indicated “Local Health Department Request for Project Review” form completed by you is a proposed flow reduction based on Session Laws 2013-413 and 2014-120. It is our understanding that:

1. Central Carolina Soil Consulting, PLLC employees in conjunction with Bateman Civil Survey Company reviewed fixture receipts for fixtures installed in the single-family residence constructed at the site. The request included information on the flow reducing fixtures installed in the residence.
2. The adjusted design daily flow proposal is for a 5-bedroom residence (DDF=600 gpd) to discharge to a subsurface wastewater system designed for a 4-bedroom residence (DDF=480 gpd).
3. In addition to this proposal, there have been four previous instances of similar flow reductions proposals by the same parties that were submitted months after Harnett County had issued an Operation Permit (December 23, 2019).
 - a. 88 Old Barn Way, Mason Pointe Subdivision Lot 42
 - b. 141 Old Barn Way, Mason Pointe Subdivision Lot 46
 - c. 99 Rawls Meadow Lane, Mason Pointe Subdivision Lot 62
 - d. 186 Rawls Meadow Lane, Mason Point Subdivision Lot 57
4. An undated, digitally signed copy of a “County of Harnett Residential Land Use Application” was submitted indicating a 5-bedroom, 3-bath single family dwelling with a finished bonus room having no closet.

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AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

Only information regarding the requested flow reduction submitted with the request was reviewed. A review was not conducted of the site information, project design/calculations and project specifications. Review has been completed of the submittal and the review comments are as follows:

1. Although the "Local Health Department Request for Project Review" form completed and submitted by Harnett County indicates the proposed flow reduction is based on Session Laws 2013-413 and 2014-120, the parties proposing the flow reduction did not cite the session laws in the proposal cover letter.
 - a. If it appears the PE is proposing the flow reductions under Session Laws 2014-120 and 2013-413, the session laws are to be cited in the proposal cover letter.
 - b. It is suggested that the LHD have the PE provide written verification that the owner is aware of the disclaimer: "Neither the State nor local health department shall be liable for any damages caused by an engineered system approved or permitted pursuant to Session Law 2014-120 Section 53."
2. The septic tank capacity of 1,000 gallons indicated in the submittal does not meet the 1,250-gallon minimum liquid capacity requirement. The pump tank minimum capacity shall meet the requirements of Rule .1952(c). The design and capacity of any pretreatment system components shall be based on unreduced flows in accordance with Rules .1949(c)(1) and (2) or otherwise designed to account for increased constituent concentrations (wastewater strength) expected due to use of low-flow fixtures.
3. Due to the potential for wastewater effluent strength to increase with the proposed additional bedroom, have the PE conduct an evaluation of the proposed flow reduction/residence expansion to determine whether the reduction/expansion exceeds limits (e.g., wastewater strength, volume, organic loading) necessary to ensure wastewater system integrity and protect public health, safety, and welfare based on site specific conditions and provide a written determination to the Harnett County Health Department.
4. I was unable to determine if the owner has been made aware of Session Law 2014-120 Section 53 which states, "*Neither the State nor any local health department shall be liable for any damages caused by a system approved or permitted pursuant to this section.*" We recommend that you receive verification, preferably in writing, that the owner has been made aware of this disclaimer.
5. Observations: Floor Plan Sheets and Fixtures Table
 - a. The scale of the floor plan sheets 1.1 and 1.2 included in the submittal was so small (1" \approx 12.9') that a magnifying glass was required during attempts to ascertain fixtures information on those pages. Floor plans including in future submittals are to be at a scale no smaller than 1" = 5'.
 - b. The fixtures table indicates a tub/shower fixture in the Optional Bath (Bath 5), but I was unable to visually identify a location of this fixture on plan sheet 1.1. Is there such a fixture in Bath 5?
 - c. Are there any water-using fixtures in the mud room?
6. Prior to issuing a revised IP/CA, it is strongly recommended that you have all the following information:
 - i. The additional information identified under the conditions above; and
 - ii. Written verification or concurrence from the PE in regard to any modifications to the original system design. For the permitted system and for any system modifications being proposed, (1) written verification is provided that the design is prepared, sealed, and signed by a PE and (2) written concurrence with a design prepared by an authorized designer or LHD is provided by a PE.

7. Prior to issuing a revised OP, it is strongly recommended that you have all the following information:
 - i. Manufacturer's cutsheet for the septic tank with a 1,250-gallon minimum capacity to be installed to meet the requirements of Rule .1952(b)
 - ii. Manufacturer's cutsheet for the pump tank with a minimum capacity to be installed to meet the requirements of Rule .1952(c)
 - iii. Written confirmation by the PE that they approve the system installation for the adjusted design daily flow; and
 - iv. A statement signed by the PE verifying construction is complete and in accordance with approved plans and specifications.

8. All Permits: All permits issued for adjusted design daily flow rates based on Session Laws 2013-413 and 2014-120 should include a disclaimer in keeping with Session Law 2014-120 Section 53 which states, *"Neither the State nor any local health department shall be liable for any damages caused by a system approved or permitted pursuant to this section."*

9. Operation Permits: Also include as a condition that the specified lower-flow fixtures, low-flow technologies, or replacements with equal or less flow rates are to remain in use for the life of the applicable system.

If you have any questions concerning these comments, you may contact me by phone at (919) 715-3270, by fax at (919) 715-3227, or by e-mail at Lorna.Withrow@dhhs.nc.gov.

Sincerely,

Lorna C. Withrow, PE
On-Site Wastewater Engineering

cc: Scott Greene, LSS – On-Site Water Protection