



Onslow County Health Department
 612 College Street
 Jacksonville, North Carolina 28540
 Phone: (910) 938-5851 Fax: (910) 989-2341

CONSTRUCTION AUTHORIZATION
 (GS 130A-336)

Permit No: ECA2012-00626

Category: New

(Required for Building Permit)

THIS AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION SHALL BE VALID FOR A PERIOD EQUAL TO THE PERIOD OF VALIDITY OF THE IMPROVEMENT PERMIT. NOT TO EXCEED 5 YEARS.

Owner: GARLAND SHORES DEVELOPERS INC

Address: MORSE DR HUBERT, NC 28539

SR #:

Subdivision: GARLAND SHORES

Lot: 10A-10D

Section:

Phase:

Block:

Part:

System:

Unit:

Division:

Tract:

Location: HWY 24 RIGHT ONTO QUEENS CREEK RD TURN LEFT ONTO HINSON RD TURN LEFT ONTO MORRIS RD ON LEFT

System Type/Description: III Off-site System

System Classification: b. Septic system with single effluent pump or siphon

Facility/Daily design flow: 4-3 BR/<1440 gpd

System Info: pumping off-site to 25% reduction system - 10(90') lines
 SEE ATTACHED ENGINEER PLANS

LTAR: 4 gpd/sq. ft.

Water Supply: Public

Septic Tank Size: >2185 gallons

Grease Trap Size: gallons

Pump Tank Size: >1457 gallons

Nitrification Area: 2700 sq. ft.

Nitrification Area: 900 lin. ft.

No of Lines: 10

Line Length: 90'

Line Width: 3'

Trench Bottom Depth: 12"-18"

(SEE ATTACHED PAGES 1, 3 of 3 + ENGINEER PLANS FOR ADDITIONAL PERMIT CONDITIONS)

Signed By: Chris Harper

Date:

10/17/2012

This Construction Authorization is subject to revocation if the site plan, plot, or the intended use changes. This Construction Authorization shall not be transferred when there is a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit. The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958 and .1959 are incorporated by reference into this permit and shall be met.

THE ISSUANCE OF THIS C.A. DOES NOT CONSTITUTE AN ONSLOW COUNTY WARRANTY OR GUARANTEE OF THE FUNCTIONALITY OF THE WASTEWATER SYSTEM



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IMPROVEMENT PERMIT
(GS 130A-336)

Permit No: **EIP2011-00296**
Category: Multiple Dwelling

Expiration: Valid for 5 years from date of issuance

Owner: GARLAND SHORES DEVELOPERS INC

Address: MORSE DR HUBERT, NC 28539

Subdivision: GARLAND SHORES,

Lot: 10A-10D

Section

Block:

Phase:

Location: HWY 24 RIGHT ONTO QUEENS CREEK RD TURN LEFT ONTO HINSON RD TURN LEFT ONTO MORRIS RD ON LEFT

SR #:

System Type/Description: III Off-site System

System Classification: b. Septic system with single effluent pump or siphon

System Info: pumping off-site to 25% reduction system - 10(90) lines

all parts of system to be designed by professional engineer and submitted to OCHD for review prior to issue of CA

Facility/Daily design flow: 4-3 BR/<1440 gpd

LTAR: .4 gpd/sq. ft.

Water Supply: Public

(SEE ATTACHED PAGES 1 - 3 of 3 FOR ADDITIONAL PERMIT CONDITIONS)

Signed By: Erin Moyer

Handwritten signature of Erin Moyer in black ink.

Date:

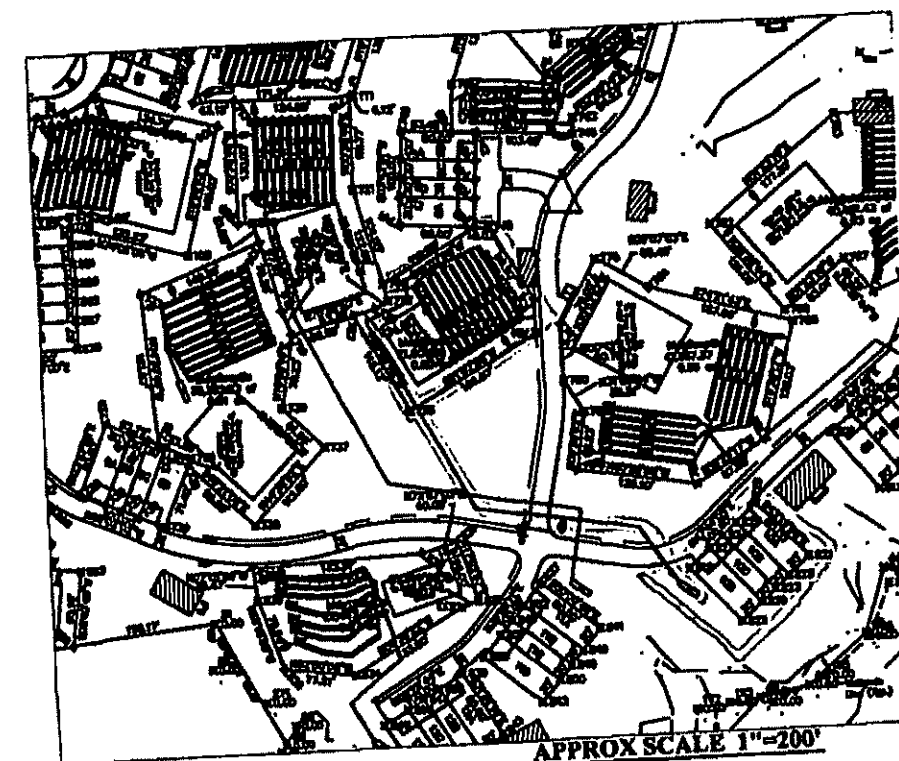
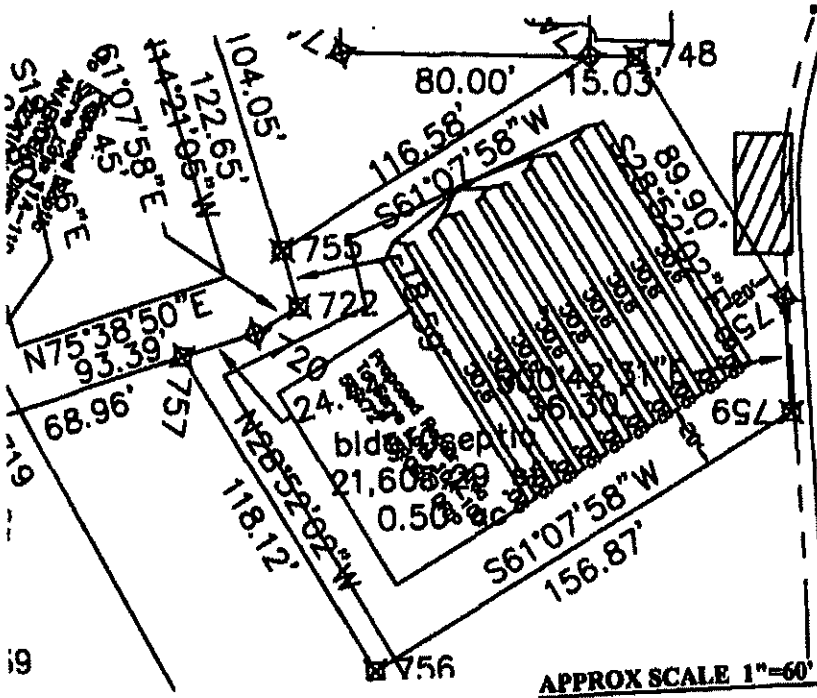
08/12/2011

NOTE: Permit is subject to revocation if site plans or intended use change.

OWNER: Garland Shores Townhouses
 ADDRESS: Lot 10 A-D
 LOCATION: off MacCris Landing Rd

PLOT PLAN

SCALE: 1 inch = 60 feet



ADDITIONAL PERMIT CONDITIONS:

1. Do not park or drive on any part of the septic system or repair area.
2. Nitrification trench aggregate shall be covered with straw, untreated paper or other approved materials prior to final cover / backfilling.
3. Do not install system under wet conditions.
4. Rock used in soil absorption systems shall be clean, washed gravel or crushed stone and graded or size in accordance with size numbers 3, 4, 5, 57, or 6 of ASTM D-448 (standard sizes of coarse aggregate) which is hereby adopted by reference in accordance with G.S. 150 B-14 (e). Documentation of aggregate size shall be available upon request.
5. Adhere to minimum setback requirements as stated in Rule .1950 and .1951 of NC Laws and Rules for Sewage Treatment and Disposal Systems (Article 11, G.S. Chapter 130A), unless otherwise indicated in this permit.
6. All pump tanks shall be tested for water tightness. In addition, septic tanks may be subject to a water tightness test.
7. The septic tank is designed to receive sewage or wastewater under gravity flow. However, if a system subject to the N.C. Plumbing Code is used to pump raw sewage to the septic tank, the sewage shall be reduced to gravity/non-turbulent flow by approved means at the inlet of the septic tank.
8. An accepted wastewater system may also be installed in accordance with the Accepted Wastewater System Approval (AWWS-05-01 or AWWS-05-02). Maximum LTAR of 1.0 gpd / ft².
9. Run lines parallel to contour. System components represent approximate contours only. The contractor must flag the system prior to beginning the installation to insure that proper grade is maintained.
10. A recorded plat or deed and corresponding map shall be submitted to the Environmental Health Section of the Onslow County Health Department **PRIOR** to the issuance of the Construction Authorization.
11. An **APPROVED** stormwater plan shall be submitted to the Environmental Health Section of the Onslow County Health Department **PRIOR** to issuance of a Construction Authorization.
12. **FOR DWELLING UNIT WASTEWATER SYSTEMS ONLY** - This wastewater system is designed only for the number of bedrooms shown as bedrooms or sleeping rooms on the building/floor plan approved by Onslow County Code Enforcement. No other room or space may be relabeled as a bedroom, used as a bedroom, or converted into a bedroom without prior approval from Onslow County Environmental Health.
13. All easements must be approved by the Environmental Health Section of the Onslow County Health Department and recorded with Register of Deeds **PRIOR** to Issuance of the Construction Authorization.
14. Prior to the issuance of a Construction Authorization for a wastewater system to serve a condominium or other multiple-ownership development where the system will be under common or joint control, a draft agreement (tri-party) among the local health department, developer, and a proposed non-profit, incorporated owners association shall be submitted to the local health department for approval. Prior to the issuance of an Operation Permit for a system requiring a tri-party agreement, the agreement shall be executed among the local health department, developer, and a non-profit, incorporated owners association and filed with the local register of deeds. The tri-party agreement shall address ownership transfer of ownership, maintenance, repairs, operation, and the necessary funds for the continued satisfactory performance of the wastewater system, including collection, treatment, disposal, and other appurtenances.
15. **PRIOR** to issuance of the Construction Authorization, detailed plans and specifications must be submitted for the proposed Septic Tank Effluent Pump (STEP) system to the Environmental Health Section of the Onslow County Health Department for approval.

SYSTEM DESIGN

BEDROOMS/OPD: 4-3BR/1440sqft
 SYSTEM TYPE: 25% reduction
 % REDUCTION: 25
 LTAR: 0.4
 SQ. FT.: 2700 LINEAR FEET 900
 # OF LINES: 10
 LENGTH EACH LINE: 90'
 TRENCH BOTTOM: 12"-18"
 TRENCH WIDTH: 3 FEET W/LINES
9 FEET ON CENTER
 REPAIR AREA: 35'x72' @ 4LTAR
3600 ft² aerobic
drift; 6" TB

6-12-11

Additional Off-Site Specifications:

1. All easements, for supply lines, off-site drainfields, access, etc..., shall be recorded and appropriate maps submitted to the Onslow County Health Department **PRIOR** to issuance of a Construction Authorization.
2. Supply lines shall have a dedicated easement at least 15 feet in width (general or shared utility easements are not approved).
3. Wastewater system plans, calculations, and drawings shall be submitted to and approved by the Onslow County Health Department **PRIOR** to issuance of the Construction Authorization. If supply line length is significant, varies in elevation or presents other difficult design challenges (such as multiple supply lines), calculations and/or design shall be supplied by a Professional Engineer.
4. Where all or parts of a septic system are under common or joint control, a draft Tri-Party agreement among the Onslow County Health Department, developer, and a proposed non-profit, incorporated owner's association shall be submitted to the Onslow County Health Department for approval **PRIOR** to issuance of a Construction Authorization. The Tri-Party agreement shall address ownership, transfer of ownership, maintenance, repairs, operation, and the necessary funds for the continued satisfactory performance of the wastewater system, including collection, treatment, disposal, and other appurtenances.
5. Prior to the issuance of an Operation Permit for a system requiring a tri-party agreement, the agreement shall be executed among the local health department, developer, and a non-profit, incorporated owners association and filed with the local register of deeds.
6. An ORC contract, if required, shall be submitted to and approved by the Onslow County Health Department **PRIOR** to the issuance of the Operation Permit.
7. System and Repair Area shall be staked in the field by a Licensed surveyor or the design Licensed Soil Scientist **PRIOR** to the issuance of a Construction Authorization.
8. If a collection system is utilized, it shall be designed by a Professional Engineer and plans submitted to the Onslow County Health Department for review. The plans shall be approved **PRIOR** to issuance of a Construction Authorization.
9. A preconstruction meeting shall be held with the owner, certified wastewater system installer, system designer and the Onslow County Health Department **PRIOR** to any part of the installation.
10. Clearly survey all off-site easement areas and supply line easements before installation.
11. All improvements to the easement area shall be completed at the development stage i.e.: ditching, clearing, storm drainage, placement of fill, etc. **PRIOR** to issuance of a Construction Authorization
12. When supply lines run along road Rights-of-Ways, Metal Warning Tape shall be installed over supply lines---
--to keep utilities from destroying/digging supply lines (Warning Sewer Pipe Below)

13. All supply lines shall be installed at a minimum depth of 30" at the development stage of the project—which run to each easement area. The supply lines shall be inspected and approved by the Onslow County Health Department **PRIOR** to backfilling (a Construction Authorization is **REQUIRED** prior to installation). A Tri-Party is required for multiple supply lines installed within a common easement.
14. Pressure test all supply lines at installation (100 psi for 2 hours)
15. Clearly color code/identify each supply line in a common or individual trench.
16. All supply lines NOT schedule 40 PVC shall be approved and sealed by a Professional Engineer. A copy of the report shall be submitted to the Onslow County Health Department Prior to approval.
17. Provide a suitable access road easement $\geq 20'$, large enough to handle trucks and equipment, to the off-site drainfields. The access shall be constructed at the installation of the wastewater system and remain accessible for the life of the system.
18. All supply lines shall be placed in steel encasement (per DOT standards) when crossing any area of vehicular traffic and $\geq 36"$ under the road.
19. Water under pressure shall be provided at the off-site drainfield and the final dosing tank for systems serving multiple dwelling units / lots, where routine maintenance is required.
20. Provide a permanent label / marker at each off-site drainfield which clearly identifies the lot the off-site area serves. For example, a sign posted with lot 24/24A.
21. If the off-site area is to serve as the repair area, the supply line shall be installed, including a service tap in a protective enclosure with gate and check valves.