Groundwater & Wastewater Services
Septic Project File & Data Review Worksheet

GWS File #: 6246B WASPS App #: 2892

Primary ES assigned to project: JM

Secondary ES assigned to project: CS

Project Type: New System ☐ Alteration ☐ Repair ☐ Modified Plot Plan ☐

I. File Review:

Rule or Law	Permit Application			
.1937(d)	Is the Application complete	Yes ☑	No ☐	N/A ☐
.1937(d)	Is there a Site plan/Plat with application	Yes ☑	No ☐	N/A ☐
.1937(d)	Is the Facility shown?	Yes ☑	No ☐	N/A ☐
.1937(d)	Are appurtenances shown	Yes ☑	No ☐	N/A ☐
	Site Evaluation Information			
.1939 (a)(1)	Topography and Landscape Position Recorded?	Yes ☑	No ☐	N/A ☐
.1940 (a-g)	Slope % Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Texture Class Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Structure type Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Consistence Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Mineralogy Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(3)	Soil Wetness Condition Recorded?	Yes ☐	No ☐	N/A ☑
.1939 (a)(4)	Soil Depth to Rock or Parent Material Recorded When Encountered	Yes ☐	No ☐	N/A ☑
.1939 (a)(5)	Depth to Restrictive Horizons Recorded When Encountered?	Yes ☐	No ☐	N/A ☑
.1939 (a)(6)	Sufficient Available Space Recorded?	Yes ☑	No ☐	N/A ☐
.1937(m)	Are the Profile Locations Shown?	✓		
.1939(a)	Are the S/PS Profiles in system & in repair area?	Yes ☑	No ☐	N/A ☐
& .1945(b)	Number of auger borings made: 5			
	Were sufficient auger borings made?	Yes ☐	No ☐	N/A ☐
.1939(d), .1955, .1956, .1957	LTAR 3	Yes ☐	No ☐	N/A ☐
	Improvement Permit/Construction Authorization			
.1937(g) 130A-336(a)	Proposed System Type stated-Initial	Yes ☑	No ☐	N/A ☐
.1945(b)	Proposed System Type stated-Repair	Yes ☑	No ☐	N/A ☐
130A-336 (a)(3)	System location identifiable by setbacks - Initial	Yes ☑	No ☐	N/A ☐
.1937(g) .1945(b)	System components shown – Initial	Yes ☑	No ☐	N/A ☐
.1945(b)	Repair area shown	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Does System design match facility, flow & WWcharacteristics?	Yes ☐	No ☑	N/A ☐
.1937 (f)(g)	Is System design consistent with soil/site conditions?	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Is the System located in the approved area?	Yes ☑	No ☐	N/A ☐
130A-336(a)	Is the Design flow (gpd) indicated?	Yes ☑	No ☐	N/A ☐

130A-336(a)	Number of Bedrooms, employees, seats, etc. indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench depth indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench width indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench length indicated?	Yes ☑	No ☐	N/A ☐
130A-336(a)(1)	Proposed/existing well shown?	Yes ☐	No ☐	N/A ☑
130A-336(a)(1)	Property line lengths shown?	Yes ☑	No ☐	N/A ☐
130A-336(a)	Facility/appurtenance setbacks shown from fixed points?	Yes ☑	No ☐	N/A ☐
	Operation Permit			
.1937(i)	System type as described in table V(a) of rule .1961	Yes ☐	No ☐	N/A ☐
.1937(i)	Conditions for system performance, operation, maintenance, monitoring and reporting.	Yes ☐	No ☐	N/A ☐

II. WASPS Review:

Construction authorization issued	Yes ☐	No ☐	N/A ☐
Installation approval issued	Yes ☐	No ☐	N/A ☐
Operation permit issued	Yes ☐	No ☐	N/A ☐
Other related documentation	Yes ☐	No ☐	N/A ☐

Items requiring correction/modification: _____

Comments:

_____

_____

_____

_____

_____

IA issued date: 4-24

OP issued date: 5-2008

Review performed by: IR

Date performed: 10-25-07



12035 JUMPER DR

19724129

1/9/2008

duponbj

Groundwater and Wastewater Services File Imaging Project
May 2007
Barcode Font = IDAutomationHC39M

APP # 2892

Court
X33575

GWS – RES. APP 12/04

SEPTIC FEE: 200.00
DATE: 12/1/05
CRT [ ] 8 C

PERMIT APPLICATION FOR A RESIDENTIAL SITE IMPROVEMENT PERMIT / CONSTRUCTION AUTHORIZATION FOR ON-SITE WASTEWATER SYSTEM NEW WELL INSTALLATION OR REPAIR OF EXISTING WELL MECKLENBURG COUNTY GROUNDWATER & WASTEWATER SERVICES

FILE # 62466

WELL FEE: _____
DATE: _____
CRT [ ]

SEPTIC / TYPE APPLICATION: ☐ NONE ☒ NEW SYSTEM EXISTING SYSTEM: ☐ EXPANSION/ALTERATION ☐ REPAIR

WELL / TYPE APPLICATION: ☐ NONE ☐ NEW WELL ☐ MAJOR REPAIR ☐ ABANDONMENT

JOB LOCATION INFORMATION:
TAX/PARCEL #: 19724129
STREET ADDRESS: 12035 Jumper Dr
CITY: Mint Hill
STATE: NC ZIP:
SUBDIVISION OR MOBILE HOME PARK NAME: The Meadows of Mint Hill
LOT #: 39
TOWNSHIP:
☐ 0-MECKLENBURG ☐ 4-PINEVILLE
☐ 1-CHARLOTTE ☐ 5-MATTHEWS
☐ 2-DAVIDSON ☐ 6-HUNTERSVILLE
☐ 3-CORNELIUS ☒ 7-MINT HILL

BUILDING INFORMATION:
TYPE OF BUILDING:
☐ SINGLE MOBILE HOME (S) ☐ MODULAR HOME (M)
☐ DOUBLE WIDE (D) ☐ MULTIPLE FAMILY (U)
☒ HOUSE (H) ☐ OTHER
HEATED SQUARE FOOTAGE: 3,500
NUMBER OF BEDROOMS: ~~5~~ 4 pg
NUMBER OF OCCUPANTS: 4

FOUNDATION FOR RESIDENCE:
☐ CONCRETE SLAB ☒ BASEMENT WITH PLUMBING
☐ CRAWLSPACE ☐ BASEMENT WITH NO PLUMBING

IF PLANNING TO EXPAND/ALTER THE EXISTING SYSTEM INDICATE THE FOLLOWING CHANGES:
NUMBER OF BEDROOMS TO BE ADDED: NUMBER OF ADDITIONAL OCCUPANTS IN THE RESIDENCE:
WILL THERE BE A HOME BUSINESS IN THE RESIDENCE? ☐ YES ☐ NO TYPE:

WATER SUPPLY:
☒ MUNICIPAL (M) ☐ PUBLIC (C) ☐ PRIVATE WELL (P) ☐ SHARED WELL (S) ☐ OTHER 'SPRINGS' (O)
PROPOSED USE OF WELL: ☒ N/A ☐ IRRIGATION ☐ POTABLE ☐ GEOTHERMAL ☐ OTHER

ARE ANY OF THE FOLLOWING LOCATED ON THE PROPERTY? IF SO, PLEASE SHOW LOCATION ON SITE PLAN/PLAT.

BURIED CABLES, LANDFILLS, STUMPHOLES	☐ YES	☒ NO	WELLS, SPRINGS, OR WATER LINES	☐ YES	☒ NO
EXISTING WASTEWATER SYSTEMS	☐ YES	☒ NO	DESIGNATED WETLANDS	☐ YES	☒ NO
EASEMENTS OR RIGHT-OF-WAYS	☒ YES	☐ NO	GRADING/SOIL REMOVAL PERFORMED	☒ YES	☐ NO

PROPERTY OWNER:
NAME: NVR, INC.
ADDRESS: 10815 David Taylor Dr., Ste 100
CITY: Charlotte
STATE: NC ZIP: 28262
HOME PHONE: WORK PHONE: 704-548-3534
MOBILE PHONE: FAX:

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:
NAME: Kim Stanley
ADDRESS: PO Box 176
CITY: Stanfield
STATE: NC ZIP: 28163
HOME PHONE: 704-792-9639 WORK PHONE:
MOBILE PHONE: 704-791-6852 FAX: 704-785-8721

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? 10/5/05
WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY? Feb. 2006

*An Improvement Permit is subject to suspension or revocation if site plans or the intended use change or if information submitted in this application is falsified or changed. The undersigned, owner, or legal agent for the owner, of the property described above as the "Job Location" has read the foregoing application, acknowledges that the contents of same are true, and authorizes the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

Kim Stanley 11/28/05
Owner's/Agent's Signature Date

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT & NATURAL RESOURCES DIVISION
OF ENVIRONMENTAL HEALTH ON-SITE
WASTEWATER SECTION

*A Well Permit is subject to suspension or revocation if site plans or the intended use change or if information submitted in this application is falsified or changed. The undersigned, owner, or legal agent for the owner, of the property described above as the "Job Location" has read the foregoing application, acknowledges that the contents of same are true, and authorizes the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

Owner's/Agent's Signature Date

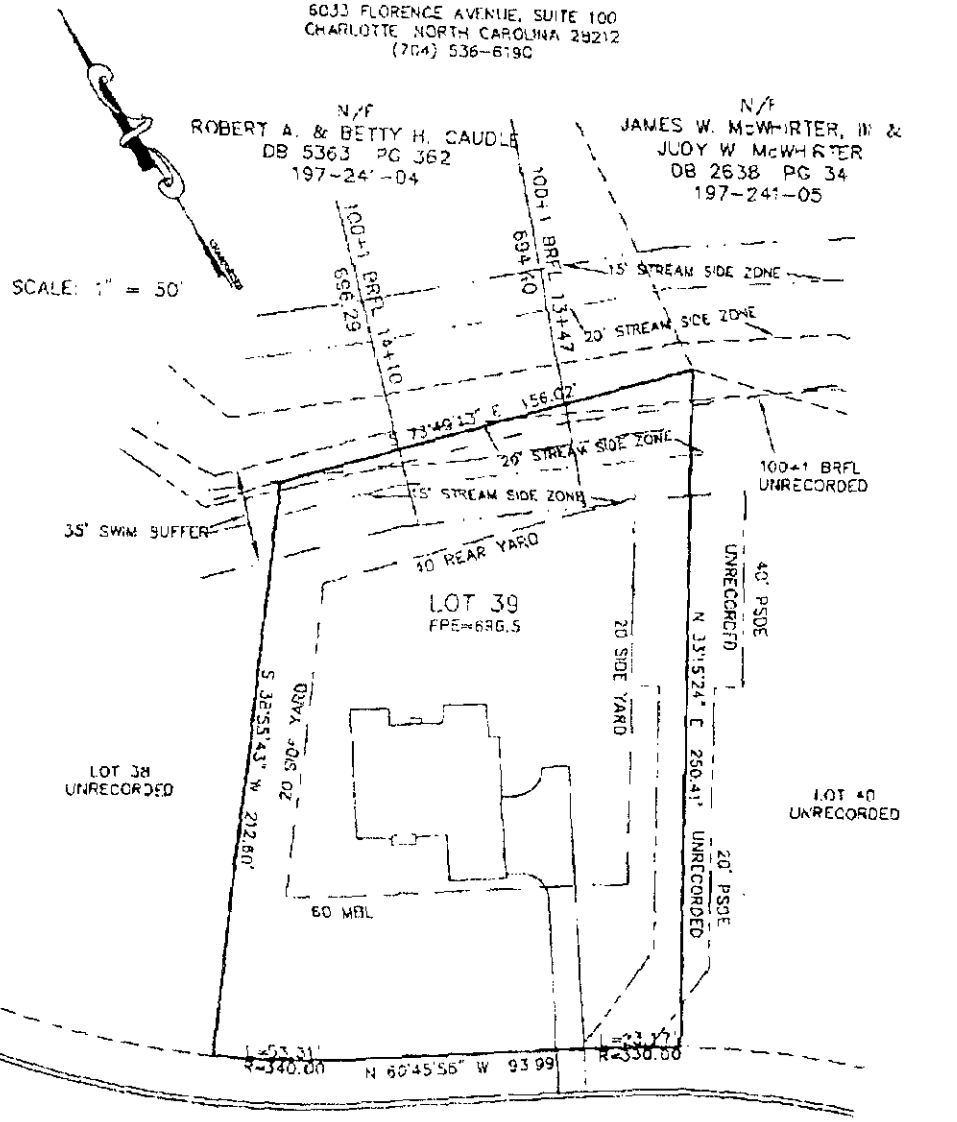
MECKLENBURG COUNTY HEALTH DEPARTMENT
GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST., SUITE 21[illegible]
CHARLOTTE, NC 28202
704-336-5103 / FAX: 704-336-6894

PROPOSED MODEL FIT

PREPARED BY:

DELTA LAND SERVICES, INC.
6033 FLORENCE AVENUE, SUITE 100
CHARLOTTE, NORTH CAROLINA 28212
(704) 536-6190

6246B



NOTE: DELTA LAND SERVICES IS NOT RESPONSIBLE FOR ANY CHANGES DUE TO UNRECORDED COVENANTS AND RESTRICTIONS AND UNRECORDED PLAT

JUMPER DRIVE
UNRECORDED

ESTIMATED DRIVEWAY AREA = 1682.9 SQ.FT.±

STAKEOUT ☐

NOT FOR RECORDATION, CONVEYANCES OR SALES

Subdivision MEADOWS AT MINT HILL(UNRECORDED) County MECKLENBURG
Address _____ Owner RYAN HOMES
Lot 39 Block ___ Plan AVALON Elevation C Drive (Left) ___ (Right) X (Courtyard) ___ Deck
Patio ___ Fireplace REAR Garage (1 Car) ___ (2 Car) ___ (3 Car) X Brick FRONT Basement X Curtain Wall ___
Crawl ___ Slab ___ Other SUN & MORNING ROOM

REVISED: DWN: EHD CKD: MB DATE: 10 / 22 / 05

G:\MEADOWS\SITE DWG - EHD

Department of Environment, Health, and Natural Resources
Division of Environmental Health
On-site Wastewater Section

Sheet: 1 OF 2
Property ID: 197-241-28
Lot #: 39
File #: 6246B
Code: 3

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: NVR, INC
Address: 10815 DAVID TAYLOR DRIVE, CHARLOTTE, NC 28262
Proposed Facility: ~~SFR~~ 4 BR Design Flow (.1949): ~~600 GPD~~ 480 SFAM
Location of Site: 12035 JUMPER DRIVE, MINT HILL, NC 28227
Applicant: KIM STANLEY
Date Evaluated: 12/22/05
Property Size: 1
Property Recorded: YES

Water Supply: [X] Public [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [X] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [X] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	OTHER PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	LS, 12	0-7	GR/L	VFR/SS/SP/SEXP	>48"	>48"	NA	NA	PS, IV
		7-48	SBK/ABK/C	FI/S/P/SEXP					.3 GPD/FT^2
2	LS,15	0-14	GR/CL	FR/SS/SP/SEXP	"	"	"	"	"
		14-48	SBK/ABK/C	FI/S/P/SEXP					
3	LS,10	0-10	SBK/CL	FR/SS/SP/SEXP	"	42"	"	"	PS, IV
		10-42	SBK/ABK/C	FI/S/P/SEXP					.25 GPD/FT^2
		42-48	PL/C	FI/S/P/SEXP					
4	"	0-4	GR/CL	FR/SS/SP/SEXP	"	42"	"	"	"
		4-42	SBK/ABK/C	FI/S/P/SEXP					
		42-48	PL/C	FI/S/P/SEXP					
5		0-9	GR/SCL	FR/SS/SP		48"			PS IV
		9-27	SBK/C	FI/S/P/SEXP					.3 GPD/FT
		27-48	SBK/C	FI-FM/S/P/SEXP					
			few Sap						
			Inclusions						

Jeremy Medlin 10-24-07

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	III e	III e
Site LTAR	.3 GPD/FT^2	.25 GPD/FT^2

Other Factors (.1946): LTAR .3 ONLY IF INITIAL SYSTEM IN REAR OF LOT
Site Classification (.1948): ~~UNSUITABLE~~ PROV. SUITABLE
Evaluated By: CHRIS SHERRILL, RS, LSS
Others Present: NONE

12-29-05

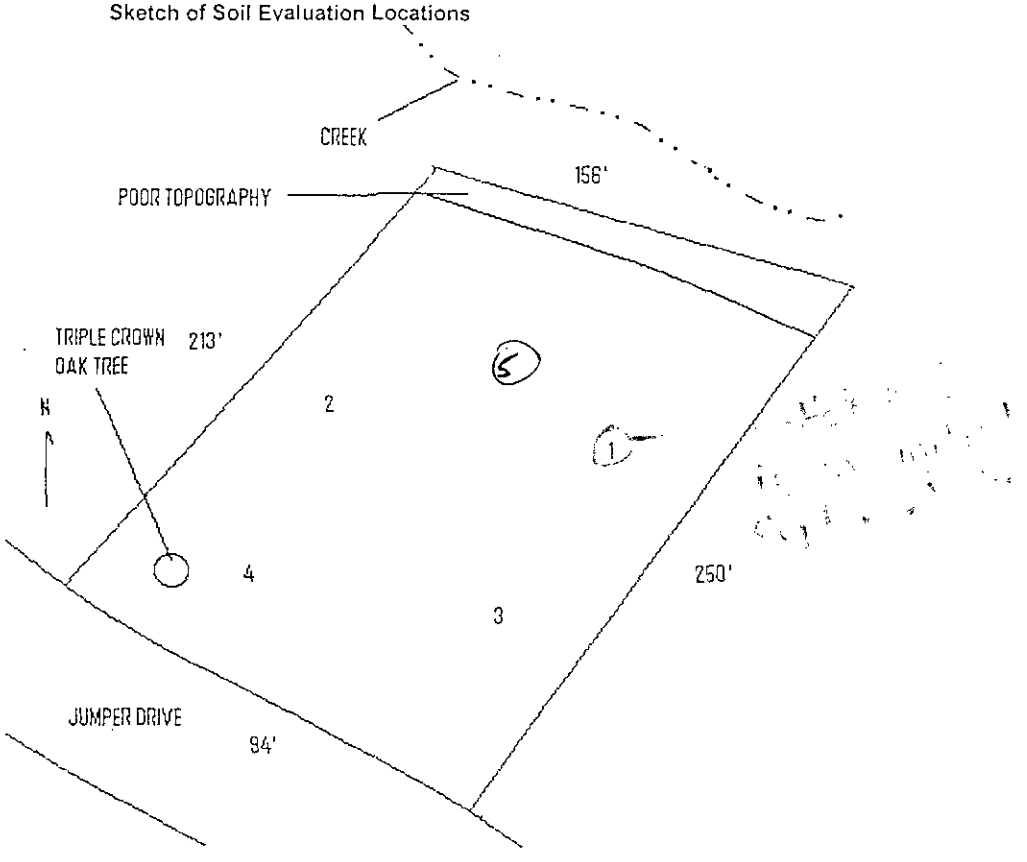
COMMENTS: 100% REPAIR AREA

Sheet: 2 OF 2
FILE #: 6246B

Landscape Position	Group	Texture	.1955 LTAR	Structure
R-Ridge	I	S-Sand	1.2 - 0.8	SG-Single Grain
SS-Shoulder Slope		LS-Loamy Sand		M-Massive
LS-Linear Slope				CR-Crumb
FS-Food Slope	II	SL-Sandy Loam	0.8 - 0.6	GR-Granular
NS-Nose Slope		L-Loam		SBK-Subangular Blocky
HS-Head Slope				ABK-Angular Blocky
CC-Concave Slope	III	SI-Silt	0.6 - 0.3	PL-Platy
CV-Convex Slope		SICL-Silty Clay Loam		PR-Prismatic
T-Terrace				
FP-Flood Plain		CL-Clay Loam		
		SCL-Sandy Clay Loam		
	IV	SC-Sandy Clay	0.4 - 0.1	
		SIC-Silty Clay		
		C-Clay		

Consistence Moist	Consistence Wet	Mineralogy
VFR-Very Friable	NS-Non-Sticky	SEXP-Slightly Expansive
FR-Friable	SS-Slightly Sticky	EXP-Expansive
FI-Firm	S-Sticky	
VFI-Very Firm	VS-Very Sticky	
EFI-Extremely Firm	NP-Non-Plastic	
	SP-Slightly Plastic	
	P-Plastic	
	VP-Very Plastic	

Sketch of Soil Evaluation Locations



Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30002892** GWS File #: **6246B** Tax Parcel #: **197-241-29**

- This IMPROVEMENT PERMIT is subject to revocation if site plans or the intended use change. There is to be **NO** grading, filling, or disturbance of the soil in the area of the septic tank system or repair area.
- CONSTRUCTION AUTHORIZATION must be obtained prior to receiving a Building Permit. The Construction Authorization is **NOT** transferable. Do not clear, grade, fill or disturb soil prior to obtaining a Construction Authorization.
- Domestic-type wastewater only. No industrial process wastewater may be discharged into the system.

I. This Improvement Permit Shall: Expire in Five (5) Years **Expiration Date (If Applicable):** 10/25/2012

Type of Installation: Residential - New System Lot Number: 39

Structure Type: HOUSE Size (ft^2): 3500 # Bedrooms: 4 # Occupants: 4

Building Foundation: Basement With Plumbing Water Supply: Municipal

II. Initial System Type: PPBPS (gravity) **System Classification:** ~~III~~ I

Initial System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.3	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	N/A
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	801	Total Trench Length (ft):	267
Maximum Trench Depth (in):	36	Depth of Media (in):	N/A	Distribution Device:	Distribution Box		

III. Repair System Type: PPBPS (gravity) **System Classification:** ~~III~~ I

Repair System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.25	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	N/A
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	0	Total Trench Length (ft):	320
Maximum Trench Depth (in):	30	Depth of Media (in):	N/A	Distribution Device:	Distribution Box		

IV. Permit Conditions/Comments:

(Please See the Following Page for Permit Conditions.)

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment, and Disposal Systems* and is subject to the following provisions:

- No work shall be conducted on the septic system until an INSTALLATION APPROVAL is granted by the Department.
- The septic system installer shall be a registered septic contractor with Mecklenburg County Health Department.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Jeremy Michael Owner/Legal Agent: Patrice Garner
Print Name

Signature: Jeremy Michael Signature: Patrice Garner

Date Issued: 10/25/2007

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30002892** GWS File #: **6246B**

IV. Permit Conditions/Comments:

- The septic system shall be installed in accordance with the plans submitted by the wastewater system design consultant.
- All components of the septic system must be installed in accordance with the required setbacks listed on the corresponding plot plan.

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment and Disposal Systems* and is subject to the following provisions:

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- The septic system installer shall be a registered septic contractor with Mecklenburg County Health Department.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Jeremy Michael

Signature: Jeremy Michael

Date Issued: 10/25/2007

Owner/Legal Agent: Patrice Garner
Print Name

Signature: Patrice Garner

Residential Subsurface Wastewater Treatment and Disposal System Design

for

Lot 39 – The Meadows of Mint Hill
12035 Jumper Drive
Mint Hill, North Carolina

Tax Parcel # 197-241-29
Mecklenburg County File # 6246B
October 15, 2007

GWS Septic System Design Review

GWS File #: 6246B **Approved** ☒ **Disapproved** ☐

Design Review: TCT 10-23-07 ☐

Field Review: JAM 10-24-07 ☒

*Projects are not considered "APPROVED" until both sections above are completed and indicate an APPROVED status.

Prepared for:

NVR, Inc.
10815 David Taylor Drive, Ste. 100
Charlotte, NC 28262

LICENSED SOIL SCIENTIST
LARRY B. THOMPSON JR.
1287
STATE OF NORTH CAROLINA

Prepared by:

Larry Thompson, RS, PWS, LSS
Thompson Environmental Consulting, Inc.
114 Orchard Ridge Road
Locust, NC 28097-8748
Phone: 704-301-4881
Fax: 704-888-1496

NORTH CAROLINA
REGISTERED
SEAL
1208
SANITARIAN
LARRY B. THOMPSON, JR.

CC: Mr. Chris Sherrill, RS, LSS
Mecklenburg County Environmental Health

Hole #1 is in initial system Area - another hole was also.
(1) NEED SOIL EVAL / new system AREA.

(2) REDESIGN LINES ± 50' (IIIe system)

Details

In an application for an Improvement Permit filed with the Mecklenburg County Health Department (MCHD) by NVR, Inc., the subject property was proposed to be developed with a single family 5-bedroom residence served by a municipal water supply. Based upon this information, a soil and site evaluation was conducted by the MCHD where the subject lot was determined to be "Unsuitable" for the installation of a conventional subsurface wastewater treatment and disposal system in accordance with the *Laws and Rules for Sewage Treatment, and Disposal Systems* 15A NCAC 18A .1900 (North Carolina Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section).

NVR, Inc. has contracted with Thompson Environmental Consulting, Inc. (TEC) to prepare an acceptable septic proposal for Lot 39. Upon further investigation based upon a revised site plan, TEC has determined that a sufficient amount of "Suitable" Group IV soils are located on the property which would allow for the installation of a Type III(e) pre-fabricated porous block panel system (PPBPS) for a 4-bedroom residence.

It is the desire of the owner that the MCHD consider reclassifying this lot as "Suitable" allowing for the issuance of an Improvement Permit and Construction Authorization based upon the following proposal.

Location

The subject property is located in The Meadows of Mint Hill (Lot 39 – Jumper Drive) in the town of Mint Hill, North Carolina. From NC 51, travel south on SR 1004 (Bain School Road) approximately 0.8 mile, turn left onto Gait Drive and right onto Canter Lane, left onto Filly Road, and right onto Jumper Drive. Lot 39 is located on the right.

References

Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A, Section .1900, Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section, June 2006.

Onsite Wastewater Treatment and Disposal Systems; EPA 625/R-00/008 Design Manual, February 2002.

Design, Installation and Maintenance of the T & J Panel Wastewater Treatment System; Sixth Edition, published by T & J Panel.

Plans and Specifications

Septic Tank

- The septic tank shall be State approved (Section .1953 of 15A NCAC 18A), watertight, structurally sound, and 1500 gallons in capacity.

- The septic tank will be fitted with an approved effluent filter and riser for easy access and periodic maintenance.
- It is the responsibility of the septic contractor to thoroughly inspect the septic tank prior to accepting delivery to assure that the tank has had time to properly cure and is free of cracks or other structural deficiencies.

Distribution Method

- Wastewater from the septic tank will be directed to a distribution box.
- The distribution box shall be level, watertight, and the flow adjusted (equalized) at the time of the final inspection.
- The drain lines will be gravity fed. One drain line will receive flow directly from the distribution box while the remaining four drain lines will receive flow that has been split by two flow dividers (one flow divider per two lines).

Pipe and Fittings

- All discharge piping and supply lines should be made of Schedule 40 PVC.
- All joints must be properly "welded" utilizing the appropriate PVC cement for each application.

PPBS Details

- The drain field has been previously laid out on-site utilizing metal stemmed flags. Once these areas have been approved by the MCHD, the property owner/builder should mark these areas and isolate them much as possible from construction traffic. Prior to the installation of these systems, the septic contractor shall contact the MCHD for a preconstruction conference at which time the drain field area will be re-verified.
- Under no circumstances shall any construction take place within the drain field area while the soil is in a wet condition. If the installer has doubts as to whether or not the drain field area is dry enough to begin construction, the MCHD should be contacted for permission to proceed with the installation.
- The septic system drain field shall consist of a pre-fabricated permeable block panel system – specifically the 16 inch high panel system manufactured by T&J Panel Wastewater Treatment System, Patent No. 4013559; telephone: 1-800-222-2577. The installer must follow the manufacturer's guidelines for installing the T&J Panel System and should request an installation manual from the manufacturer prior to beginning construction.
- The drain field consists of four (5) lateral trenches to be constructed 3-feet wide by 54-feet in length. It is essential that the lateral trenches be constructed on contour with the land, with each trench being excavated level from beginning to end. The use of a tripod mounted engineer's level is essential to assure that each trench is constructed as level as possible.

50 FT. MAX LENGTH

- The maximum trench depth for this system shall be 36 inches and each trench shall be placed on 9 foot centers.

- Once trenches are dug, the side walls shall be raked and a light dusting of lime applied.
- Backfill the trench with 6-inches of sand and level to grade. Once leveled, place 1 x 4 or 6-inch boards on top of the sand the entire length of each trench. Once the grade boards have been set, the panels may be set into the trench. The panels should be placed 6-inches apart.
- Once the panels have been set, line the top chamber of each panel with 10 – 12 pounds of clean particle sand (medium sand blasting sand). Coverage depth should be approximately 1 inch thick. *Please note that this sand is not the same material specified for backfill.*
- Tar seal rope should be placed in the "U" outs of each end of the panel to form seals. Once the tar rope is in place, the PVC connections can be added and the seal completed by the addition of more tar rope on the top and sides of the pipe. Now that the connection and seals are complete, a block cap is placed on each end of the panel so that all openings are covered.

Final Landscaping

- The drain fields shall be shaped to shed rainwater and be free from low spots.
- The entire area of the drain fields should be planted with grass as soon as possible to prevent erosion. The soil should be properly tilled, limed (if necessary) and fertilized prior to planting. After applying grass seed, the area should be heavily mulched with straw or other suitable material.

Utility Conflicts

- The builder and property owner must take special care in planning for water, power, gas, telephone and cable lines. These utilities shall be kept clear of all parts of the septic system and its proposed repair area. Improper planning for underground utilities can negatively impact the installation and, in some cases, cause irreparable damage. If there are any questions regarding preferred routes, contact the MCHD as soon as possible. Lawn irrigation must be kept out of the septic drain field area.

Maintenance

In General

- The septic tank shall be pumped every 4 years or when the solids within the septic tank reach an elevation that is equivalent to 1/3 of the volume of the tank. In some situations, the tank may need to be pumped more frequently. If using a garbage disposal, it is recommended that the homeowner have the septic tank cleaned out annually.
- When it becomes necessary to clean the effluent filters, the filters should be removed and the accumulated debris washed back into the septic tank – not onto the lawn.
- The drain field areas should be maintained to prevent over growth of vegetation. Any damp areas, leakages or malfunctions should be addressed immediately.

- Divert gutter downspouts and surface water runoff away from the septic and pump tanks.

Suggestions to the Homeowner

- As previously mentioned, if you plan to use a garbage disposal in your home you should plan to have your septic and pump tanks cleaned out annually. The ground up garbage adds large amounts of solids into a septic tank that tend to degrade at a very slow rate.
- Grease, cooking oils, coffee grounds and non-degradable solids (disposable diapers, cigarettes and solid paper wastes) should never be put into a septic tank.
- Used motor oil or any oily liquids should not be disposed of in a septic tank.
- Be aware of the amount of water that you are using in your home. Water saving fixtures and devices can be installed on sinks, toilets and showers to reduce the volume of wastewater that you are sending to your drain field.
- Run dishwashers and washing machines only when you have a full load.
- Use liquid detergents. Powdered detergents have binding agents in them that may precipitate in the drain field and lead to a premature failure.
- Repair leaky faucets and toilets. Small drips equal large volumes of water over time and can over burden your drain field.
- Do not use chemical additives in your system. Studies have indicated that they do not increase the biological activity that naturally occurs in the septic system and, in some cases, certain additives have been found to be detrimental to the life of a system.
- Finally, taking good care of your septic system will help to assure that you experience years of trouble free service at a relatively low cost. On-site wastewater treatment and disposal is still the most environmentally friendly method of treating residential/commercial waste and you should keep your system in use for as long as it is properly functioning! If you have additional questions, please feel free to contact your system designer or the MCHD.

Design Specifics

Daily Design Flow:	480 GPD – 4 bedroom house
Septic Tank Size:	1500 gallons (2 compartments)
Effluent Loading Rate:	Design = 0.3 GPD per sq. ft.
Drain Line Required:	467 linear feet – use 470
Supply Length and Diameter:	30 Ft. of 4 In. SCH. 40 PVC
Number of Drain Lines:	(5) 3 feet wide x 54 feet long
Distribution Method:	Distribution Box and Flow Dividers

PPBPS Design Worksheet

File #: 6246B
Tax #: 197-241-29
Address: 12035 Jumper Drive
Charlotte, NC 28227
Consultant: Larry Thompson
Phone: 704-301-4881

Reviewed By: TCT
Date: 10-23-07

System Requirements

Design Flow	480	gpd
LTAR	0.300	gpd/ft.^2
Linear footage	533	ft. (conventional)
Linear footage	267	ft. (50% Reduction)

Design Layout

Laterals	Length (ft)	# Panels
Line # 1	54	12
Line # 2	54	12
Line # 3	54	12
Line # 4	54	12
Line # 5	54	12
Line # 6		
Totals	**270**	**60**

50' MAX

(REDESIGN DRAIN LINES)

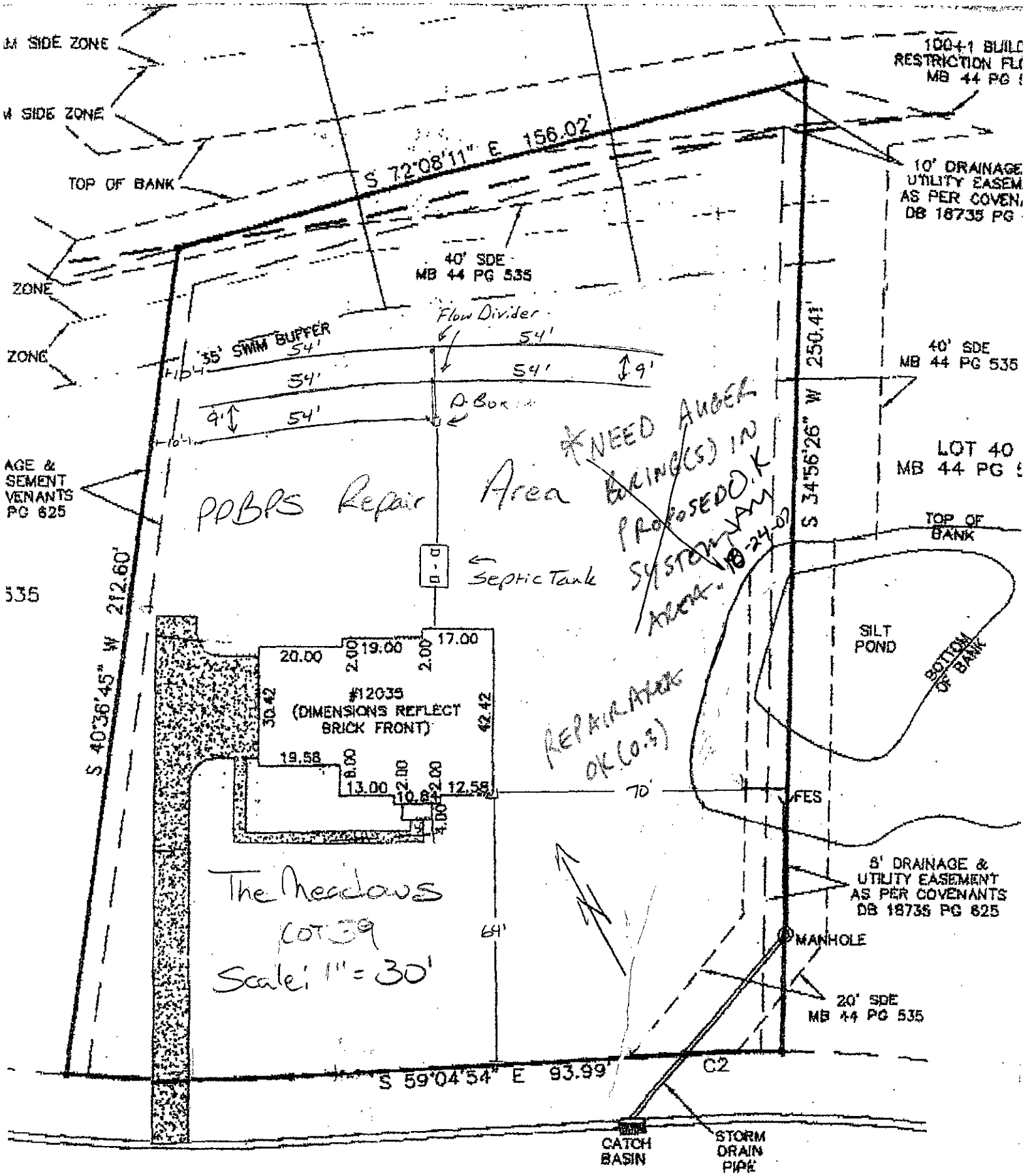
Absorption Area

Length (ft)	Width (ft)	Area (ft^2)
270	3	810

Comments:

1. Install system using 3 ft. wide trenches.
2. Install drainlines on 9 ft. centers, level, and on contour.
3. 100% repair area required for property.

T & J Panels	
Linear Feet	# Panels
50	11
60	14
70	16
80	18
90	21
100	23



JUMPER DRIVE

60' PUBLIC R/W

CURVE TABLE			
ADIUS	CHORD	BEARING	DELTA

ESTIMATED SIDEWALK
AREA = 202 SQ.FT.±

ESTIMATED DRIVEWAY
AREA = 1619.2 SQ.FT.

Division of Environmental Health
On-site Wastewater Section

Property ID: 19/-241-25
Lot #: 39
File #: 62468
Code: 3

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: NVR, INC
Applicant: KIM STANLEY
Address: 10815 DAVID TAYLOR DRIVE, CHARLOTTE, NC 28262
Date Evaluated: 12/22/05
Proposed Facility: 5 BR
Design Flow (.1949): 600 GPD
Property Size: 1
Location of Site: 12035 JUMPER DRIVE, MINT HILL, NC 28227
Property Recorded: YES
Water Supply: [X] Public [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [X] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [X] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941		OTHER PROFILE FACTORS				
			1941 Structure/ Texture	1941 Consistence Mineralogy	1942 Soil Wetness/ Color	1943 Soil Depth (IN.)	1956 Saprо Class	1944 Restr Horiz	Profile Class & LTAR
1	LS, 12	0-7	GR/L	VFR/SS/SP/SEXP	>48"	>48"	NA	NA	PS, IV
		7-48	SBK/ABK/C	FI/S/P/SEXP					.3 GPD/FT^2
2	LS,15	0-14	GR/CL	FR/SS/SP/SEXP	"	"	"	"	"
		14-48	SBK/ABK/C	FI/S/P/SEXP					
3	LS,10	0-10	SBK/CL	FR/SS/SP/SEXP	"	42"	"	"	PS, IV
		10-42	SBK/ABK/C	FI/S/P/SEXP					.25 GPD/FT^2
		42-48	PL/C	FI/S/P/SEXP					
4	"	0-4	GR/CL	FR/SS/SP/SEXP	"	42"	"	"	"
		4-42	SBK/ABK/C	FI/S/P/SEXP					
		42-48	PL/C	FI/S/P/SEXP					

Description	Initial System	Repair System
Available Space (.1945)	U	U
System Type(s)		
Site LTAR	.3 GPD/FT^2	.25 GPD/FT^2

Other Factors (.1946): LTAR .3 ONLY IF INITIAL SYSTEM IN REAR OF LOT
Site Classification (.1948): UNSUITABLE
Evaluated By: CHRIS SHERRILL, RS, LSS
Others Present: NONE

12-29-05

MECKLENBURG COUNTY
Health Department

December 29, 2005

NVR, Inc.
10815 David Taylor Drive, Suite 100
Charlotte, NC 28262

Re: Application for improvement permit for
Property Site: Lot 39, Meadows of Mint Hill
Health Department file number: **6246B**

Dear Property Owner or Owner's Agent:

The Mecklenburg County Health Department, Environmental Health Division on **December 27, 2005** evaluated the above-referenced property at the site designated on the site plan that accompanied your improvement permit application. According to your application the site is to serve a 5-bedroom residence, with a design wastewater flow of 600 gallons per day. The evaluation was done in accordance with the laws and rules governing wastewater systems in North Carolina General Statute 130A-333 and related statutes and Title 15A, Subchapter 18A, of the North Carolina Administrative Code, Rule .1900 and related rules.

Based on the criteria set out in Title 15A, Subchapter 18A, of the North Carolina Administrative Code, Rules .1940 through .1948, the evaluation indicated that the site is **UNSUITABLE for** a ground absorption sewage system. Therefore, your request for an improvement permit is **DENIED.** A copy of the site evaluation is enclosed. The site is unsuitable based on the following:

- ☒ Unsuitable soil topography and/or landscape position (Rule .1940)
- ☐ Unsuitable soil characteristics (structure or clay mineralogy) (Rule .1941)
- ☐ Unsuitable soil wetness condition (Rule .1942)
- ☐ Unsuitable soil depth (Rule .1943)
- ☐ Presence of restrictive horizon (Rule .1944)
- ☒ Insufficient space for septic system and repair area (Rule .1945)
- ☐ Unsuitable for meeting required setbacks (Rule .1950)
- ☐ Other (Rule .1946) FILL

These severe soil or site limitations could cause premature system failure, leading to the discharge of untreated sewage on the ground surface, into surface waters, directly to ground water or inside your structure.

The site evaluation included consideration of possible site modifications, and modified, innovative or alternative systems. However, the Health Department has determined that none of the above options will overcome the severe conditions on this site. A possible option might be a system designed to dispose of

sewage to another area of suitable soil or off-site to additional property.

For the reasons set out above, the property is currently classified **UNSUITABLE,** and an improvement permit shall not be issued for this site in accordance with Rule .1948 (c).

However, the site classified as **UNSUITABLE** may be classified as **PROVISIONALLY SUITABLE** if written documentation is provided that meets the requirements of Rule .1948(d). A copy of this rule is enclosed. You may hire a consultant to assist you if you wish to try to develop a plan under which your site could be reclassified as **PROVISIONALLY SUITABLE.**

You have a right to an informal review of this decision. You may request an informal review by the soil scientist or environmental health supervisor at the local health department. You may also request an informal review by the
N. C. Department of Environment and Natural Resources regional soil specialist. A request for informal review must be made in writing to the local health department.

You also have a right to a formal appeal of this decision. To pursue a formal appeal, you must file a petition for a contested case hearing with the Office of Administrative Hearings, 6714 Mail Center, Raleigh, NC 27699-6714. To get a copy of a petition form, you may write the Office of Administrative Hearings or call the office at (919) 733-0926 or from the OAH web site at www.oah.state.nc.us/form.htm. The petition for a contested case hearing must be filed in accordance with the provision of North Carolina General Statutes 130A-24 and 150B-23 and all other applicable provisions of Chapter 150B. N. C. General Statue 130A-335(g) provides that your hearing would be held in the county where your property is located.

Please note: If you wish to pursue a formal appeal, you must file the petition form with the Office of Administrative Hearings **WITHIN 30 DAYS OF THE DATE OF THIS LETTER.** The date of this letter is **December 29, 2005**. Meeting the 30-day deadline is critical to your right to a formal appeal. Beginning a formal appeal within 30 days will not interfere with any informal review that you might request. Do not wait for the outcome of any informal review if you wish to file a formal appeal.

If you file a petition for a contested case hearing with the Office of Administrative Hearings, you are required by law (N.C. General Statute 150B-23) to send a copy of your petition to the North Carolina Department of Environment and Natural Resources. Send the copy to: Office of General Counsel, N. C. Department of Environment and Natural Resources, 1601 Mail Service Center, Raleigh, NC. 27699-1601. Do **NOT** send the copy of the petition to your local health department. Sending a copy of your petition to the local health department will **NOT** satisfy the legal requirement in N.C. General Statute 150B-23 that you send a copy to the Office of General Counsel, NCDENR.

You may call or write the local health department if you need any additional information or assistance.

Sincerely,

Chris Sherrill, R.S, L.S.S.
Authorized Agent - DENR

Encl: (2)

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St., Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

INSTALLATION APPROVAL for an ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

File #: 6246B Permit #: 30002892 Tax Parcel #: 197-241-29

Property Owner: NVR, Inc.

Job Location Address: 12035 JUMPER DR.

City: CHARLOTTE State: NC Zip Code: 28227

Installation Approval Issuance Date: 04-24-2008

Permission is hereby given to ☒ install ☐ alter ☐ repair an on-site wastewater treatment & and disposal system, with subsurface soil absorption and effluent discharge, as specified herein at the described location. This approval is granted based upon the application information submitted to our office. All work shall be completed on or before 05-24-2008, after which date this approval shall be null and void. The system shall meet all of the construction requirements of 15A NCAC 18A. 1900 which are in effect on the date of granting this approval. An **Operation Permit** must be obtained from the Mecklenburg County Health Department before any system can be covered up or placed into service. The issuance of this permit does not in any way guarantee that the system anticipated to be constructed will operate properly, or relieve any person now of hereafter owning, controlling or using such system from any liability resulting from the failure of the system to operate properly.

***NOTICE: This system shall not be installed while soils are in a wet condition.**

Permitted Design Flow: 480 GPD

Site LTAR: 0.3 GPD/ft² (For new installations only.)

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: N/A gallons

Drainfield Design ☐ N/A

Approx 62 panels

Trench Depth: 36 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 270 feet

# of Lines: 5 @ 54 feet

Depth of Media: N/A inches (Type) PANELS

Distribution Device: D-Box

Bed Design *(For Repair Installations ONLY.)* ☒ N/A

Bed Depth: _____ inches

Bed Width: _____ feet

Total line length: _____ feet

# of Lines: _____ @ _____ feet

Depth of Media: _____ inches (Type) _____

Distribution Device: _____

Water Supply Source

☒ Municipal ☐ Private Well ☐ Community Well

☐ Other _____

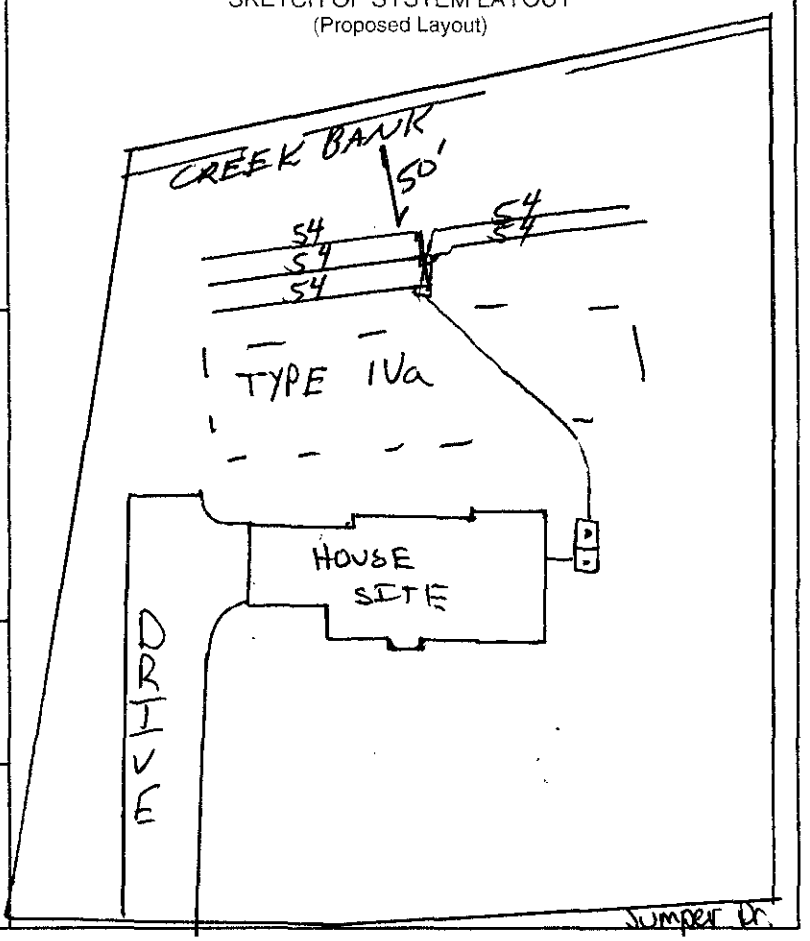
Minimum System Setbacks

Distance from Building Foundation: 5 feet

Distance from Property Line: 10 feet

Distance from Water Supply Source: 10 feet

SKETCH OF SYSTEM LAYOUT
(Proposed Layout)



Comments: System Classification & Type: IVE

DENR Authorized Agent: Jeremy Michael Signature: Jeremy Michael

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St., Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

OPERATION PERMIT for an
ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

File #: 6246B Permit #: _____ Tax Parcel #: 197-241-29

Property Owner: NVR INC

Job Location Address: 12035 Jumper Dr

City: Charlotte State: NC Zip Code: 28227

OPERATION PERMIT CONDITIONS:

I. Performance: System shall perform in accordance with 15A NCAC 18A .1961.

II. Monitoring: System shall be monitored as required by 15A NCAC 18A .1961.

III. Maintenance: Ground absorption sewage treatment and disposal systems shall be checked, and the contents of the septic tank removed, periodically from all compartments, to ensure proper operation of the system. The contents shall be pumped whenever the solids level is found to be more than 1/3 of the liquid depth in any compartment.

IV. Operation: System shall be operated in accordance with 15A NCAC 18A .1961.

System Classification: III E

*Operation Permits for Type V and VI systems expire five (5) years from the date of issuance (in accordance with Table V(a)). The system owner must contact GWS six (6) months prior to expiration for permit renewal.

Subsurface system operator required: Yes ☐ No ☒

☐ This type of system requires the system owner to maintain a contract with a certified operator to perform system inspection, maintenance, and reporting as required in 15A NCAC 18A .1961. and Table V(a). The system owner is responsible for all fees associated with these services.

☒ System does not require inspection by GWS on a routine frequency.

☐ System requires inspection by GWS once every five (5) years. The system owner is responsible for all fees associated with the inspection.

☐ System requires inspection by GWS once every three (3) years. The system owner is responsible for all fees associated with the inspection.

☐ System requires inspection by GWS once every twelve (12) months. The system owner is responsible for all fees associated with the inspection.

☐ System requires inspection by GWS once every six (6) months. The system owner is responsible for all fees associated with the inspection.

V. Other:

_____

_____

_____

_____

DENR Authorized Agent: Jeremy Michael Date: 05-07-08

Signature: Jeremy Michael

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	01/23/08	**Amount:**	150.00
Receipt #:	54679	**Tendered:**	0.00
Check / Auth #:	CHARGE	**Returned:**	0.00
Received By:	GLADNAG		

Account Information

Account #: X33575
Contractor: NVR INC (EAST)
Attn:
Address: 10815 DAVID TAYLOR DR 100
Address:
City/State/Zip: CHARLOTTE, NC 28262

Item	Description	Permit#	Quantity	Unit Price	Total Price
0734	Auth for Waste Wtr Sys Constr 12035 JUMPER DR		1	150.00	150.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
426.88	11,265.25	6,014.11			

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	01/23/08	**Amount:**	150.00
Receipt #:	54680	**Tendered:**	0.00
Check / Auth #:	CHARGE	**Returned:**	0.00
Received By:	GLADNAG		

Account Information

Account #: X33575
Contractor: NVR INC (EAST)
Attn:
Address: 10815 DAVID TAYLOR DR 100
Address:
City/State/Zip: CHARLOTTE, NC 28262

Item	Description	Permit#	Quantity	Unit Price	Total Price
0703	Installation/Final Approval 12035 JUMPER DR		1	150.00	150.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
576.88	11,265.25	6,014.11			