

11512 LAUREN LN

00716242

1/9/2008

duponbj

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

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 #: 6132B Permit #: _____ Tax Parcel #: 007-162-42

Property Owner: ROYAL BUILDING INC.

Job Location Address: 11572 LAUREN LANE

City: HUNTERSVILLE State: NC Zip Code: 28078

Operation Permit Issuance Date: _____ Contractor Name: WILLY CHRISTENBURY

Permitted Design Flow: 480 GPD

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: 1500 gallons

Effluent Pump Model: _____

Drainfield Installation ☐ N/A

Trench Depth: 36 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 310 feet

# of Lines: 5 @ _____ feet (70, 60, 60, 60, 60)

Depth of Media: 16" inches (Type) PAVEC BLOCK

Depth of Cover: 12 inches

Distribution Device: LPP

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

Bed Depth: _____ inches

Bed Width: _____ feet

Total line length: _____ feet

# of Lines: _____ @ _____ feet

Depth of Media: _____ inches (Type) _____

Depth of Cover: _____ inches

Distribution Device: _____

Water Supply Source

☐ Municipal ☒ Private Well ☐ Community Well

☐ Other _____

System Installation Setbacks

Distance from Building Foundation: 15 feet

Distance from Property Line: 10 feet

Distance from Water Supply Source: 100 feet

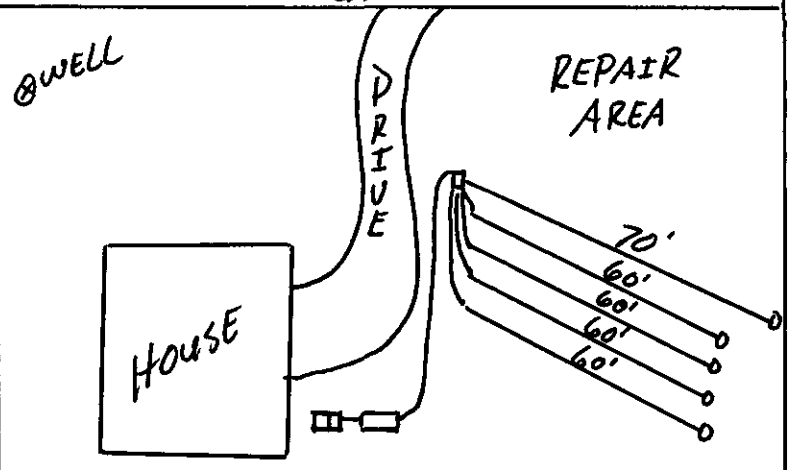
Inspection Dates

Tank(s) Inspected: 2/28/07 JR

Excavation Inspected: 2/28/07 JR

Pump & Controls Inspected: 2/28/07

SKETCH OF SYSTEM INSTALLATION
(As-Built Drawing)



The undersigned has inspected the Septic Tank System described above, and certifies it has been ☒ installed ☐ altered ☐ repaired ☒ as detailed in the plot above ☐ in accordance with the permit issued and meets the provisions of 15A NCAC 18A. 1900, "Laws and Rules for Sewage Treatment and Disposal Systems" in effect on the date of issuance of the permit. The issuance of this Operation Permit does not in any way guarantee that the system will operate properly or relieve any person now or hereafter owning, controlling, or using such system from any liability resulting from the failure of the system to operate properly. This document is issued subject to those restrictions and conditions shown on the permit(s) and the provisions of 15A NCAC 18A. 1900 in addition to those listed below under "Comments." This document shall be null and void if any information contained in the application is untrue or if any additions are made to the property which would increase the requirements for said system.

Notice: Disturbance of the designated repair area may result in the Suspension or Revocation of this permit.

Comments: System Classification & Type: IIIa LPP PAVEC BLOCK SYSTEM

DENR Authorized Agent: Jeremy Michelsen, R.S. Signature: Jeremy Michelsen, R.S.

Mecklenburg County Groundwater & Wastewater Services
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On-Site Wastewater Section

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

File #: 6132B Permit #: _____ Tax Parcel #: 007-162-47

Property Owner: ROYAL BUILDING INC

Job Location Address: 11512 LAUREN LANE

City: HUNTERSVILLE State: NC Zip Code: 28078

Operation Permit Issuance Date: _____ Contractor Name: WILLY CHRISTENBURY

Permitted Design Flow: 480 GPD

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: 1500 gallons

Effluent Pump Model: _____

Drainfield Installation ☐ N/A

Trench Depth: 36 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 310 feet

# of Lines: 5 @ _____ feet (70, 60, 60, 60, 60)

Depth of Media: 16" inches (Type) PANEL BLOCK

Depth of Cover: 12 inches

Distribution Device: LPP

Inspection Dates

Tank(s) Inspected: 2/28/07 RR

Excavation Inspected: 2/28/07

Pump & Controls Inspected: 2/28/07

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

Bed Depth: _____ inches

Bed Width: _____ feet

Total line length: _____ feet

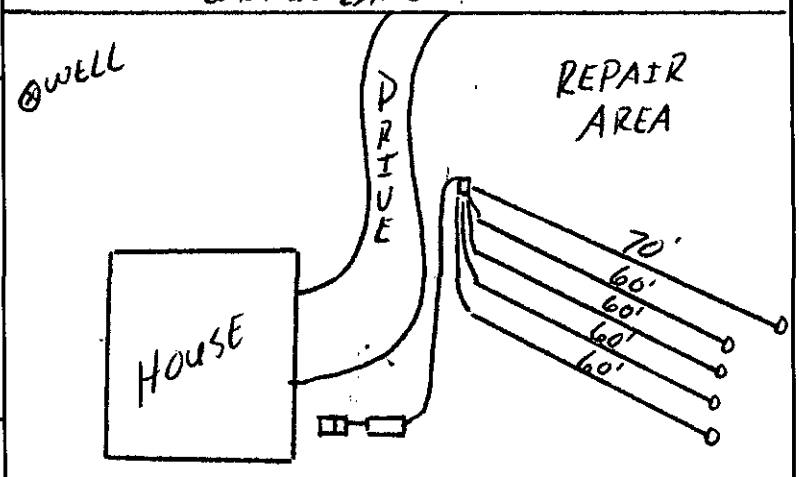
# of Lines: _____ @ _____ feet

Depth of Media: _____ inches (Type) _____

Depth of Cover: _____ inches

Distribution Device: _____

SKETCH OF SYSTEM INSTALLATION
(As-Built Drawing)



Water Supply Source

☐ Municipal ☒ Private Well ☐ Community Well

☐ Other _____

System Installation Setbacks

Distance from Building Foundation: 15 feet

Distance from Property Line: 10 feet

Distance from Water Supply Source: 100 feet

The undersigned has inspected the Septic Tank System described above, and certifies it has been ☒ installed ☐ altered ☐ repaired ☒ as detailed in the plot above ☐ in accordance with the permit issued and meets the provisions of 15A NCAC 18A. 1900, "Laws and Rules for Sewage Treatment and Disposal Systems" in effect on the date of issuance of the permit. The issuance of this Operation Permit does not in any way guarantee that the system will operate properly or relieve any person now or hereafter owning, controlling, or using such system from any liability resulting from the failure of the system to operate properly. This document is issued subject to those restrictions and conditions shown on the permit(s) and the provisions of 15A NCAC 18A. 1900 in addition to those listed below under "Comments." This document shall be null and void if any information contained in the application is untrue or if any additions are made to the property which would increase the requirements for said system.

Notice: Disturbance of the designated repair area may result in the Suspension or Revocation of this permit.

Comments: System Classification & Type: IIIa LPP PANEL BLOCK SYSTEM

DENR Authorized Agent: Jeremy Mickelson, P.S. Signature: Jeremy Mickelson, P.S.

EHS CB/Jeremy Michalove Reviewer

0132B County Permit Review Worksheet

Rule or Law	Permit Application	1	2	3	4	5	6	7	8	9	10
.1937(d)	Is the Application complete	✓									
.1937(d)	Is there a Site plan/Plat with application	✓									
.1937(d)	Is the Facilityshown?	✓									
.1937(d)	Are appurtenances shown										
	Site Evaluation Information										
.1939 (a)(1)	Topography and Landscape Position Recorded?	✓									
.1940 (a-g)	Slope % Recorded?	✓									
.1939 (a)(2)	Texture Class Recorded?	✓									
.1939 (a)(2)	Structure type Recorded?	✓									
.1939 (a)(2)	Consistence Recorded?	✓									
.1939 (a)(2)	Mineralogy Recorded?	✓									
.1939 (a)(3)	Soil Wetness Condition Recorded?	✓									
.1939 (a)(4)	Soil Depth to Rock or Parent Material Recorded When Encountered?	✓									
.1939 (a)(5)	Depth to Restrictive Horizons Recorded When Encountered?	✓									
.1939 (a)(6)	Sufficient Available Space Recorded?										
.1937(m)	Are the Profile Locations Shown?	✓									
.1939(a) & .1945(b)	Are the S/PS Profiles in system & in repair area?	✓									
	Number of auger borings made:	✓									
	Were sufficient auger borings made?	✓									
.1939(d), .1955, .1956, .1957	LTAR	.2	75								
	IP/CA										
G.S. 130A-336(a) & .1937(g)	Proposed System Type stated-Initial	.2									
.1945(b)	Proposed System Type stated-Repair	✓									
G.S. 130A-336(a)(3)	System location identifiable by setbacks - Initial	✓									
.1937(g) & .1945(b)	System components shown - Initial	✓									
.1945(b)	Repair area shown										
.1937 (f)(g)	Does System design match facility, flow & WW characteristics?	✓									
.1937 (f)(g)	Is System design consistent with soil/site conditions?	✓									
.1937 (f)(g)	Is the System located in the approved area?	✓									
G.S. 130A-336(a)	Is the Design flow (gpd) indicated?	✓									
G.S. 130A-336(a)	*Number of Bedrooms, employees, seats, etc. indicated?*	✓									
.1937(g)	Trench depth indicated?	✓									
.1937(g)	Trench width indicated?	✓									
.1937(g)	Trench length indicated?	✓									
G.S. 130A-336(a)(1)	Proposed/existing well shown?	✓									
G.S. 130A-336(a)(1)	Property line lengths shown?		✓								
G.S. 130A-336(a)	Facility/appurtenance setbacks shown from fixed points?										
	OP										
.1937(i)	System type as described in table V(a) of rule .1961	✓									
.1937(i)	Conditions for system performance, operation, maintenance, monitoring and reporting.	✓									

If system design is incorrect or inconsistent with site conditions, indicate why for each below

CINA DID FINAL BUT DID NOT SIGN OP

Royal Building Co. LLC

Royal Building Company, LLC
19525 Callaway Hills Lane
Davidson, NC 28036
704-201-5705
704-895-1325 fax

Fax

To:	Jeremy Michelone	**From:**	Jeff McGee
Fax:	704.336.6894	**Pages:**	4
Phone:		**Date:**	2/27/2007
Re:	Lot 4	**CC:**	

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

Jeremy, here is the maintenance contract for Lot4 Royal Oaks. It has been faxed around a number of times and is hard to read. If you cant read it we can just meet up around here and I will give you this hard copy.

Thanks, Jeff

STATE OF NORTH CAROLINA

INSPECTION AND MAINTENANCE AGREEMENT

THIS AGREEMENT is made and entered into this 8/17/2006, by and between ROYAL BUILDERS (hereinafter the "Owner") and Nolen Soil & Environmental (hereinafter the "Contractor").

WITNESSETH

WHEREAS, the Owner owns or controls the property upon which a ground absorption sewage treatment system (Hereinafter "system") is installed, such system being designated a Type IV system under the rules for Sanitary Sewage collection, Treatment and Disposal found at 15A N.C. Admin. Code 18A.1900 et seq.; and

WHEREAS, 15A N.C. Admin. Code 18A.1961 requires a contract to be executed between the system owner and a management entity prior to the issuance of a Operation Permit and said system; and

WHEREAS, 15A N.C. Admin. Code 18A.1961 requires that a condition of the Operation Permit for said system be that a properly executed contract between the system owner and a management entity shall be in effect for as long as the system is in use; and

WHEREAS, the contractor is a management entity of a type authorized by 15A N.C. Admin. Code 18A.1961 to manage a Type IV system.

NOW THEREFORE, in consideration of the premises and of the mutual covenants and promises contained in this Agreement, it is hereby agreed by and between the Owner and the Contractor as stipulated below.

1. The Contractor's Obligation. The Contractor shall perform the following services on the Owner's system located at Lot 4 Royal Oaks

   A. The Contractor shall inspect the system at least the frequency required in Table V(b) of 15A N.C. Admin. Code 18A.1961(b) for a type IV system.
   B. The Contractor shall perform the maintenance procedures in accordance with the conditions of the Operation Permit.
   C. The Contractor shall report the results of its inspections to the local health department at the frequency specified in Table V (b) of 15A N.C. Admin. Code 18A.1961(b) for a Type IV system.
   D. If an inspection indicates the need for system repairs, the Contractor shall notify the local health department within 48 hours of the inspection.
   E. The Contractor shall notify the Owner of needed repairs that are outside of the scope of routine maintenance described in subparagraph (b) above. The Contractor shall perform necessary repairs to the system at the request of the Owner and shall be entitled to payment therefore at the Contractor's normal charge for services and materials.
   F. The Contractor shall employ or shall contract with a certified operator(s) if required by Table V (b) of 15A N.C. Admin. Code 18A.1961(b) for a Type IV system.
   G. The Contractor shall respond to a request for a nonscheduled service or maintenance call with 24 hours after receipt of such request.

2. The Owner's Obligations

   A. The Owner shall pay to the Contractor the sum of $ 300 per year for periodic inspections, routine maintenance procedures and periodic reports. The annual fee may be amended upon sixty (60) days advance notice to the Owner but may not be increased more than 20 percent per year. The owner shall pay to the Contractor his normal and customary fees for any work performed on the system as a result of nonscheduled service or

8. No Implied Waiver. The waiver by either Party of a default or breach by other Party of any provision of this Agreement shall not operate or be construed to operate as a waiver of any subsequent default or breach. The failure at any time of either Party to enforce any provision of this Agreement (a) shall not be construed to be a waiver of such provisions, or of any other provision; and (b) shall not in any way affect the validity of this Agreement, or any part of this Agreement, or the right of either Party thereafter to enforce each and every provision of this Agreement.

9. Notice. Every notice required under this Agreement shall be in writing and shall be deemed sufficiently given if delivered in person or sent by certified or registered mail, return receipt requested, postage prepaid to the Party to be notified an addressed as follows:

To the Owner:
ROYAL BUILDINGS

To the Contractor: 2080 SOUTH RIVER CHURCH RD. WOODLEAF NC 27054
Brady Freeman, ~~124 Park Vista Drive, Trousdale, N.C. 28166~~

To the Local Health Department:
Rockingham Co

The date of any Notice shall be the date of personal delivery or the date shown on the return receipt as the date of delivery or attempted delivery, as the case may be. Changes in the respective addresses to which notice may be directed may be made from time to time by either Party by notice to the other party.

10. Place of Agreement. This Agreement and any question concerning its validity, construction or performance shall be governed by the laws of the State of North Carolina, notwithstanding the place of execution, or the order in which the signatures of the Parties are affixed.

11. Entire Agreement and Amendment. This Agreement supersedes all prior negotiations, agreements and understandings between the Parties with respect to the subject matter hereof and constitutes the entire Agreement between the Parties with respect to the subject matter hereof. To be effective, and amendment or modification to this agreement must be in writing and must be signed by the Parties.

12. Severability. In the event that any provision of this Agreement shall, for any reason, be determined to be determined to be invalid, illegal or unenforceable in any respect, the Parties shall negotiate in good faith and agree to such amendments, modifications or supplements of or to this Agreement or such other appropriate actions as shall, to the maximum extent practicable in light of such determination, implement and give effect to the intentions of the Parties as reflected in this Agreement, and the other provisions of this Agreement shall, as so amended, modified, supplemented or otherwise affected by such action, remain in full force and effect..

IN TESTIMONY WHEREOF, the Parties hereto have executed this Agreement in duplicate originals, one of which is retained by each of the parties, the day and year first above written.

Maintenance operation contract with Brady Freeman (certified operator) must run for minimum 12 month period. After 12 months, contract may be terminated by 30 days written notice by either party.

(Owner)

(Attest)

(Contractor)

(Attest)

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 #: 6132B Permit #: 6132B Tax Parcel #: 007162120

Property Owner: Royal Building Co.

Job Location Address: 11512 Lauren Lane Lot #4

City: Huntersville State: NC Zip Code: 28078

Installation Approval Issuance Date: 6/26/06

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 _____, 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: .275 GPD/ft² (For new installations only.)

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: 1500 gallons

Drainfield Design ☐ N/A

Trench Depth: 36 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 310 feet

# of Lines: 5 @ _____ feet 1@70', 4@60'

Depth of Media: 22 inches (Type) T&J Panel

Distribution Device: Low Pressure to Central Valve 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: 15' feet

Distance from Property Line: 10' feet

Distance from Water Supply Source: 100 feet

SKETCH OF SYSTEM LAYOUT
(Proposed Layout)

Install septic System per design submitted by consultant.

Comments: System Classification & Type: Type IV a septic system designed for a 4 bedroom residence.

DENR Authorized Agent: Gina Buchanan, RS Signature: Gina Buchanan, RS

Royal Oaks Subdivision
Lot 4

Number of Bedrooms: **4/480gpd**
Proposed LTAR: **.275gpd/ft2 Initial, .25gpd/ft2 Repair**
Water Source: **Private Well to be placed by owner, must be 100' from septic system**
Building Envelope: **Refer to Survey**
Building Setbacks: **Refer to Survey**
Proposed System Type: **PPBPS**
Distribution: **Low Pressure to a Central Valve Box**
Pressure Head: **2'**
Flow per Orifice: **.41gpm**
Hole Size: **5/32" Sch 40 PVC**
Number of Panels: **71 (Not 72 due to T&J Specs, round down 71.54)**
System Flow: **29.11gpm**
Total Dosing Volume: **255.6gal (Total Capacity)**
Dosing Volume: 255.6 x .67 = **171.25gal/dose**
Pump Tank Drawdown: **8.81"@ Full capacity (1500gal tank)**
Pump Tank Drawdown: **5.5"@ 67% of capacity (1500 gal tank)**
Pump Run Time: **8.78 min @ Full capacity**
Pump Run Time: **5.88 min @ 67% capacity**
Elevation Head: **11.4'**
Friction Head: **1.54'**
Total Dynamic Head: **17.93' with 20% for fittings**
Septic/Pump Tank: **1500gal (Tanks may move up hill depending on finish floor level)**
Total Linear Footage: **310'**
Proposed Trench Bottom: **36"**

Line	Length	Elevation
B1	40'	720.5
W2	50'	720.2
O3	50'	719.8
W4	60'	718.4
B5	70'	717.2
W6	**70'**	**715.7**
B7	**60'**	**714.5**
W8	**60'**	**713.2**
O9	**60'**	**711.1**
B10	**60'**	**709.2**
O11	60'	706.8

Pump Tank Elevation: 701.3
Initial System: W6-B10
Repair System: B1-B5 & O11, Proposed grading of one foot of soil surface from lines B1-B5

Royal Oaks Subdivision
Lot 4

[redacted] Bedrooms: 4/480gpd
[redacted]LTAR: 275gpd/ft2 Initial, .25gpd/ft2 Repair
Water Source: Private Well to be placed by owner, must be 100' from septic system
[redacted] Envelope: Refer to Survey
[redacted] Setbacks: Refer to Survey
[redacted] System Type: PPBPS
Distribution: Low Pressure to a Central Valve Box
[redacted] Head: 2'
[redacted] Orifice: .41gpm
[redacted]: 5/32" Sch 40 PVC
Number of Panels: 71 (Not 72 due to T&J Specs, round down 71.54)
System Flow: 29.11gpm
Total Dosing Volume: 255.6gal (Total Capacity)
Dosing Volume: 255.6 x .67 = 171.25gal/dose
Pump Tank Drawdown: 8.81"@ Full capacity (1500gal tank)
Pump Tank Drawdown: 5.5"@ 67% of capacity (1500 gal tank)
[redacted] Time: 8.78 min @ Full capacity
[redacted] Time: 5.88 min @ 67% capacity
[redacted] Head: 11.4'
[redacted] Head: 1.54'
[redacted] Dynamic Head: 17.93' with 20% for fittings
[redacted] Pump Tank: 1500gal (Tanks may move up hill depending on finish floor level)
[redacted] Linear Footage: 310'
[redacted] Trench Bottom: 36"

[redacted]	Length	Elevation
[redacted]	40'	720.5
[redacted]	50'	720.2
[redacted]	50'	719.8
[redacted]	60'	718.1
[redacted]	70'	717.2
[redacted]	70'	715.7
[redacted]	60'	714.5
[redacted]	60'	713.2
[redacted]	60'	711.1
[redacted]	60'	709.2
[redacted]	60'	706.8

240
70
310

Pump Tank Elevation: 701.3
Initial System: W6-B10
Repair System: B1-B5 & O11, Proposed grading of one foot of soil surface from lines B1-B5

NDS PRO SERIES VALVE BOXES

COMMERCIAL GRADE

Pro Series Valve Boxes by NDS

- Engineered specifically for the professional contractor and heavy-duty use.
- Superior strength for commercial and utility applications.

DETAILS

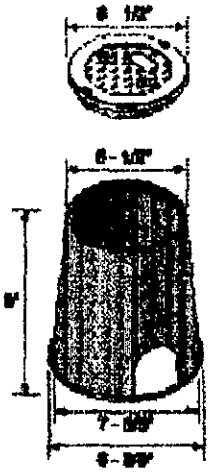
- Thicker wall dimensions for increased strength and durability.
- Reinforced covers for heavier loads.
- Reinforced ribs offer exceptional sidewall strength.

MATERIALS AND STANDARDS

- High-impact, high-density structural foam polyethylene construction.
- Overlapping covers prevent dirt and grass from settling in between body and cover.
- UV inhibitors prevent discoloration and cracking.

NDS Pro Series 6" Round Valve Boxes

Specifications: The NDS PRO SERIES 6" round valve boxes and covers are injection molded of structural foam polyethylene material with a melt index between 10-12. Coloring and UV stabilizers are added, along with processing lubricants when needed. The 6" round body shall be tapered and have a minimum wall thickness of .200". The body shall have a double wall at the top cover seat area with a minimum thickness of .130". The bottom of the body shall have a .250" flange. The 6" round cover shall have an average thickness of .187".



7 - 3/4 x 2 - 3/8"
Pipe Slot

Part Number	Description - Marking	Color (Box/Cover)	Pallet Qty	Weight Ea	List Price Ea	Product Class
	Box & Cover					
208BC	6" Round Box, Round Overlapping Cover ICV	Green/Green	250	1.50	8.63	20PR
208BCW	6" Round Box, Round Overlapping Cover Water	Green/Green	250	1.50	8.63	20PR
208BCS	6" Round Box, Round Overlapping Cover - Sewer	Green/Green	250	1.50	8.63	20PR
	Cover Only					
107C	6" Round Overlapping Cover - ICV	Green	800	0.40	3.49	20ND
107CW	6" Round Overlapping Cover - Water	Green	800	0.40	3.64	20NM
107CS	6" Round Overlapping Cover - Sewer	Green	800	0.40	3.64	20NM
	Box Only					
208B	6" Round Box	Green	250	1.10	5.13	20PR

Note: All dimensions are nominal. All weights are for shipping purposes only. Price (U.S. Dollars) and availability are subject to change.

NDS

INFORMATION FOR THE INSTALLER:

- The permit should be read very carefully prior to bidding. The following are details that must be considered along with all other considerations.
- Tanks shall be approved by DEHNR, and certification supplied by the manufacturer.
- Tanks shall be water tested prior to installation.
- The installer shall be responsible to the owner for placement of the tanks and to insure that final grades are returned to the original natural grade, with exception of added structural features.
- The supply trench shall be compacted to eliminate cavities left during initial fill placement.
- Installation of the system shall be during dry conditions in order to protect the soil structure.
- All fittings shall be pressure rated fittings.
- All joints shall be cleaned with PVC pipe cleaner and a heavy bodied glue applied to weld all joints.
- Where required by the county health department, post installation inspections by the designer must be scheduled 5 week days in advance.
- Trenches shall be carefully excavated so the bottom is within 2" from the highest to the lowest points of elevation within the trench. If the bottom elevation needs adjusting after it has been trenched, it will be done by removing high points rather than filling low points. It is extremely important to insure that trenches are not over excavated during initial trenching. All fine grading within the trench will be hand done with a shovel. No loose material will be left in the trench
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the riser.
- All tanks shall be properly back filled and compacted to prevent slump at a later date.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral.
- No heavy equipment shall be used on the field during or after installation. The use of a small loader (i.e. Bobcat) or a trencher (i.e. Ditch Witch 2300/2310) may be used for installation.
- Elevations at pinflag locations should be checked by the installer prior to beginning trenches.
- Pumptank riser should be 6" above grade, control panel should be 12" above grade.
- Septic tank riser shall be a minimum of 6" above finished grade.
- Rake trench walls, lime side-walls, install trenches 36" wide and have no more than 1/4" fall in 10 feet.

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date: 02/01/06
Receipt #: 40684
Check / Auth #: CHECK 1922
Received By: WALKEVA

Amount: 150.00
Tendered: 0.00
Returned: 0.00

Account Information

Account #: 200000
Contractor: ROYAL BUILDING CO., LLC
Attn:
Address: 19525 CALLAWAY HILLS LANE
Address:
City/State/Zip: DAVIDSON, NC 28036

Item	Description	Permit#	Quantity	Unit Price	Total Price
0734	Auth for Waste Wtr Sys Constr 11512 LAUREN LANE LOT #4		1	150.00	150.00

----------Outstanding Balances----------

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	02/01/06	**Amount:**	150.00
Receipt #:	40685	**Tendered:**	0.00
Check / Auth #:	CHECK	**Returned:**	0.00
Received By:	WALKEVA		

Account Information

Account #: 200000
Contractor: ROYAL BUILDING CO., LLC
Attn:
Address: 19525 CALLAWAY HILLS LANE
Address:
City/State/Zip: DAVIDSON, NC 28036

Item	Description	Permit#	Quantity	Unit Price	Total Price
0703	Installation/Final Approval 11512 LAUREN LANE LOT #4		1	150.00	150.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance

FEE: CK #1922 $300.00
DATE: 2/1/06 V.W.

AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION

AG

LD 155096

PERMIT NUMBER: 6132B
PARCEL NUMBER: 00716212PO

JOB LOCATION ADDRESS: 11512 Lauren Lane Lot #4
PROPERTY OWNER:
BUILDING CONTRACTOR: Royal Building Company
SUBDIVISION NAME: Royal Oaks
AUTHORIZATION ISSUED BY: Cina Buchanan DATE: 01/30/06

Cina Buchanan RS
DENR/DEH AUTHORIZED AGENT

AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NUMBER 6132B, AND THE ATTACHED SITE PLAN WITH SYSTEM DETAILS. CONSTRUCTION AND INSTALLATION MUST ALSO MEET ALL REQUIREMENTS SET FORTH IN THE RULES GOVERNING SANITARY SEWAGE COLLECTION, TREATMENT, AND DISPOSAL AND ANY OTHER APPLICABLE RULES AND LAWS.

2. AN *INSTALLATION, CONSTRUCTION, ALTERATION AND/OR REPAIR APPROVAL* MUST BE SECURED PRIOR TO INSTALLATION OF THE SEPTIC TANK SYSTEM. THE INSTALLER OF THE SYSTEM SHALL BE A REGISTERED SEPTIC TANK CONTRACTOR WITH THE MECKLENBURG COUNTY HEALTH DEPARTMENT.

3. ANY ALTERATION IN SITE OR SOIL CONDITIONS (INCLUDING LOCATION OF STRUCTURES AND APPURTENANCES) OR MODIFICATION IN USE, DESIGN WASTEWATER FLOW, OR WASTEWATER CHARACTERISTICS AS SPECIFIED IN THE ASSOCIATED IMPROVEMENT PERMIT AND APPLICATION, MAY SUBJECT THIS CONSTRUCTION AUTHORIZATION AND ASSOCIATED PERMIT(S) TO REVOCATION.

4. THIS CONSTRUCTION AUTHORIZATION AS PROVIDED IN G.S. 130A-335(f) AND G.S. 130A-336(b) SHALL BE VALID FOR A PERIOD EQUAL TO THE VALIDITY OF THE IMPROVEMENT PERMIT, NOT TO EXCEED 60 MONTHS.

5. OTHER CONDITIONS:
   All specific conditions apply as submitted by Mike Athanas.

CONDITIONS OF IMPROVEMENT PERMIT / CONSTRUCTION AUTHORIZATON

Permit Number: **6132B** Tax Number: **00716212PO**

- The 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.

Basement: ☒ Yes ☐ No ☐ Partial Basement

Primary Wastewater System

Type: ☐ I ☐ II ☐ III ☒ IV ☐ V ☐ VI

☐ Conventional
☒ Prefabricated, permeable block panel system
☐ Shallow Placed Conventional
☒ Low Pressure Pipe
☐ Large Diameter Pipe
☐ Fill
☐ Other
☐ Innovative or Experimental:

.275 Long-term acceptance rate (GPD/ft^2)	480 Max gallons/day wastewater flow	873 Absorption Area (ft^2)	9 Trench spacing (min. on centers) (ft)
Serviced by private well: ☒ Yes ☐ No	1500 Gallon septic tank	310 Total trench length (ft)	36 Maximum trench depth (in) (At least 12" of provisionally suitable soil must remain between trench bottom and unsuitable soil conditions.)
4 Bedrooms in residence	1500 Gallon pump tank	NA Depth of stone (in)	

Any surface water present: **No** Type: Minimum separation distance (ft):

Additional conditions: **Owner agreement forms for site reclassification shall be on file prior to issuance of Construction Authorization. See page 2 for additional requirements.**

Repair Area System

Type: ☐ I ☐ II ☐ III ☒ IV ☐ V ☐ VI

☐ Conventional
☒ Prefabricated, permeable block panel system
☐ Shallow Placed Conventional
☒ Low Pressure Pipe
☐ Large Diameter Pipe
☐ Fill
☐ Other
☐ Innovative or Experimental:

873 Absorption Area (ft^2) 310 Total trench length (ft)	NA Depth of stone (in)	3 Trench spacing (min. on centers) (ft)	36 Maximum trench depth (in)

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department has approved the Request for the Job Location contained in this document. The approval is granted in accordance with the provisions of Laws and Rules For Sewage Treatment, and Disposal Systems in effect at the time of issuance of the permit and is subject to the following provisions:

*** No work shall be conducted on the septic tank system until an Installation, Construction, Alteration and/or Repair Approval is granted by this Department.

*** This Improvement permit is transferable.

Cina Buchanan 2/1/06
DENR Authorized Agent Date

2/1/06
Owner/Agent Signature Date

MECKLENBURG COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
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

Additional requirements for Royal Oaks Lot #4
Permit # 6132B

- This type of septic system requires an inspection once every 3 years by our office. The system owner is responsible for any fees, as determined by the Mecklenburg County Board of Commissioners, associated with this inspection.
- This type of septic system requires a Certified Operator to maintain the system. A system maintenance contract with a Certified Operator must be on file prior to issuance of an Operation Permit.
- All drainage improvements (swales, interceptor drains, etc.) noted on the plot plan must be inspected and approved prior to issuance of an Operation Permit.
- 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 located at least 100 ft. from all private wells.

FOR REGISTRATION JUDITH A. GIBSON
REGISTER OF DEEDS
MECKLENBURG COUNTY, NC
2006 FEB 09 10:19 AM
BK:19999 PG:113-116 FEE:$20.00

INSTRUMENT # 2006025536

2006025536

STATE OF NORTH CAROLINA

COUNTY OF MECKLENBURG

WASTEWATER TREATMENT AND DISPOSAL SYSTEM DESIGN AGREEMENT: 15A NCAC 18A .1948 AND ANY OF THE FOLLOWING RULES: .1956; .1957(a); .1957(b); or .1957(c); OR .1969

FILE # 6132 B
PARCEL # 00716212 PO

The undersigned, Kenneth R. Stoddard Jr., owner of property located at 11512 Lauren Lane, (the "site") and described in an instrument recorded in Book _____ at Page _____, Mecklenburg Public Registry, hereby acknowledges that the undersigned applied to the Mecklenburg County Health Department (the "Department") for a permit to install a septic tank sewage disposal system on the site; that the Department evaluated the site for suitability for such a system in accordance with the regulations promulgated by the North Carolina Commission for Health Services as 15A NCAC 18A .1900 et seq.; that the Department originally classified the site as "unsuitable" pursuant to the standards set forth in the regulations; that the undersigned requested that the Department reclassify the site as "provisionally suitable" in light of the particular septic tank system proposed by the undersigned; that the Department considered various studies, data, and other information which indicate to the Department that the septic tank system proposed by the undersigned is allowed by the rules; and that the Department therefore reclassified the site as "provisionally suitable" and issued an appropriate permit for such proposed septic tank system.

The undersigned further acknowledges that the proper design, construction, operation and maintenance of such septic tank system is the responsibility of the designer, owner, developer, installer, or user of the system, as applicable, and that neither the Department nor its officials, employees, or agents warrant or guarantee that the said system installed pursuant to the permit issued by the Department will function in a satisfactory manner for any given period of time or that the Department, its officials, employees or agents assume any liability for any damages of any kind which are caused, or which may be caused, by a malfunction of such system.

The undersigned further acknowledges that the following conditions will apply to the site:

This instrument was prepared by: Kenneth R. Stoddard Jr.
Mail after recording to: 19525 Calloway Hills Lane Davidson NC 28036

-- Any changes on the property may make the Improvement Permit null and void and may make the Improvement Permit subject to revocation.

-- Do not grade, cut, fill, pave, construct a building or deck, dig a well, install a swimming pool or otherwise cover or disturb the soil (except for planting and maintaining grass or other ground covers) in a manner which will adversely affect the repair area or area where the septic tank system is located.

-- When a private certified operator is required, no improvement permit for the designated repair shall be issued unless there is a private certified operator to carry out this management program in the service area where the proposed system is to be located. (Refer to Rule .1961, "Maintenance of Sewage Systems," for further information.)

-- Additional fees will be required according to the Mecklenburg County user fee schedule applicable at the time for the issuance of a repair permit for any subsequent repairs to the sewage treatment and disposal system or for installation of a replacement system.

-- At the time repairs to the sewage treatment and disposal system are to be made or a replacement system installed, the regulations in effect at that time will govern the repairs or installation of a replacement system.

The undersigned further agrees for himself, his heirs and assigns that he shall indemnify and hold harmless theDepartment, its employees, and officials, as well as Mecklenburg County and its employees and officials, for any damages or other claims of any person or persons whatsoever arising out of the installation, operation, or failure of said septic tank system.

Use of the singular masculine pronoun forms herein shall be deemed to also include the plural and feminine forms as the context may require.

This document shall be placed on the public records of the Register of Deeds of Mecklenburg County and indexed therein under the Grantor Index in the name or names of the undersigned, and the foregoing acknowledgements shall henceforth be binding on all persons claiming any right, title, or interest in the site.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officers and its seal to be hereunto affixed by authority of its Board of Directors, this 2 day of February, 2006.

_____ (SEAL)

_____
(Corporate Name)

_____ (SEAL)

By: _____ _____ (SEAL)

_____ President _____ (SEAL)

ATTEST:

_____

_____ Secretary

(Corporate Seal)

STATE OF NORTH CAROLINA
COUNTY OF ~~NORTH CAR~~ MECKLENBURG

I, IAN D ROBB, a Notary Public for said County and State, do hereby certify that KENNETH R STUDSTAD JR personally appeared before me this date and acknowledged the due execution of the foregoing instrument.

WITNESS my hand and notarial seal, this 2ND day of FEBRUARY, 2006.

IAN D ROBB NOTARY PUBLIC MECKLENBURG COUNTY, N.C.

_____
Notary Public

My Commission Expires:

SEP 4TH 2008

STATE OF NORTH CAROLINA
COUNTY OF _____

I, _____, a Notary Public for said County and State, do hereby certify that _____ personally came before me this day and acknowledged that he is _____ Secretary of _____, a North Carolina corporation, and that by authority duly given and as the act and deed of said corporation, the foregoing instrument was signed in its name by its _____ President, sealed with its corporate seal, and attested by _____ as its _____ Secretary.

WITNESS my hand and notarial seal, this _____ day of _____, 20____.

_____
Notary Public

My Commission Expires:

_____

REVISED 8-13-02

MECKLENBURG COUNTY
Health Department

December 16, 2005

Royal Building Company
19325 Callaway Hills Ln.
Davidson, NC 28036

Re: Application for improvement permit for
Property Site: 13615 Mayes Road – Lot 4
Health Department file number: **6132B**

Dear Property Owner or Owner's Agent:

The Mecklenburg County Health Department, Environmental Health Division on **September 15, 2005** evaluated the above-referenced property at the site designated on the plat that accompanied your improvement permit application. According to your application the site is to serve a 4 bedroom residence, with a design wastewater flow of 480 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)*

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 16, 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,

Cina Buchanan, RSI

Cina Buchanan, R.S.I.
Authorized Agent - DENR

Encl: (2)

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

Sheet: 1 of 2
Property ID: PO 007-162-12
Lot #: 4
File #: 6132B
Code: 2

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: Royal Building Co.
Applicant:
Address: 19525 Callaway Hills Lane, Davidson, N. C. 282036
Date Evaluated: 9/15/05
Proposed Facility: Residence
Design Flow (.1949): 480gpd
Property Size: 2.0a
Location of Site: Off Mayes Road
Property Recorded:
Water Supply: [ ] Public [x] Individual [x] 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, 8	0-6	GR/CL	FR/SEXP/SS/SP	>45" TO SOIL WETNESS	45	N/A	NONE	PS, IV .3GPD/FT^2
		6-16	SBK/C	FI/SEXP/S/P					
		16-45	SBK/CL	FR/SEXP/SS/SP					
2	LS, 15	0-9	GR/SL	VFR/SEXP/NS/NP	>9" TO SOIL WETNESS	9	"	"	US, II
		9+	MASSIVE	SAPROLITE					
3	LS, 10	0-19	GR/SL	VFR/SEXP/NS/NP	>19" TO SOIL WETNESS	19	"	"	"
		19+	MASSIVE	SAPROLITE					
4	"	0-7	GR/SL	VFR/SEXP/NS/NP	>12" TO SOIL WETNESS	12+	"	"	US
		7-12+	M/SC	VFI/EXP/VS/VP					

Description	Initial System	Repair System
Available Space (.1945)	US	US
System Type(s)		
Site LTAR		

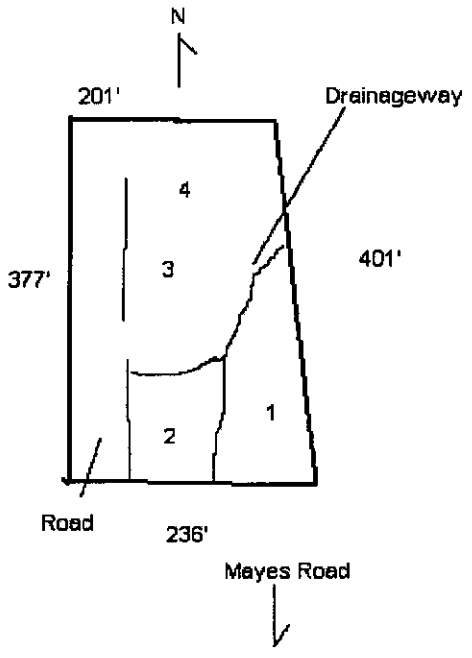
Other Factors (.1946):
Site Classification (.1948): UNSUITABLE
Evaluated By: W. R. Marlin, LSS, 9/15/2005, W. R. Marlin
Others Present: C. Sherrill, J. McGee

COMMENTS:
100% repair

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		CL-Clay Loam		
FP-Flood Plain		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



DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

Sheet 1 of 1
PROPERTY ID #:
COUNTY: Mck

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Ken Studdard / Royal Oaks S.D. APPLICANT: Same
ADDRESS: Calloway Hills Ln. APPLICATION DATE: — DATE EVALUATED: 8-20-12-14-8
PROPOSED FACILITY: 4 BR. PROPOSED DESIGN FLOW (.1949): 480 gpd PROPERTY SIZE: Appox 2 Ac.
LOCATION OF SITE: Lot 4 PROPERTY RECORDED:
WATER SUPPLY: ☐ Private ☐ Public ☑ Well ☐ Spring ☐ Other
EVALUATION METHOD: ☑ Auger Boring ☑ Pit ☐ Cut
TYPE OF WASTEWATER: ☐ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	LS 5-15% Pit #1	0-4	Br. SCL WSBK	Fri SS/SP SEXP	—	12"	PS. Few Clay Incl.	—	.3-.4
		4-12	Yell Red SC WSBK	Fri SS/SP SEXP					
		12-22	Ver. SL SAP Mass	Fri SS/SP SEXP					
		22-68	Vr. LS SAP Mass	Fri NS/NP NEXP					
2	S 5% A Boring	0-20	Br. SL WSBK	Fri SS/SP SEXP	—	20"		—	
		20-40	Ver. SL SAP Mass.	Fri NS/NP NEXP					
		040	AR						
3	LS 5% Pit #2	0-7	Br. SCL WSBK	Fri SS/SP SEXP		24"	Few Common SAP Mass		0-24 (V) 24-60 PS. .3
		7-24	Yell Red Clay Mix	Firm VS/VP EXP					
		24-60	Ver. SL SAP Mass	Fri SS/SP SEXP					
4	S Pit #3	0-8	Br. SCL WSBK	Fri SS/SP SEXP	—	8"	Few Clay Incl. Wavy Boundary	—	.3
		8-55	Ver. SL SAP. Mass	Fri SS/SP SEXP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	620 ft²	660 ft²
System Type(s)	PP BPS	PP BPS
Site LTAR	.275	.25

OTHER FACTORS (.1946): Proposed 1' grading From Lines B1-B5 if Repair Needed
SITE CLASSIFICATION (.1948): PS.
EVALUATED BY: [signature]
OTHER(S) PRESENT: Brady Freeman, Bill Marlin for Pit #3

COMMENTS: _____

LEGEND

use the following standard abbreviations

LANDSCAPE POSITION	GROUP	SOIL TEXTURE	CONVENTIONAL .1955 LTAR	LPP .1957 LTAR	MINERALOGY/ CONSISTENCE	STRUCTURE
CC (Concave Slope) CV (Convex Slope) D (Drainage Way) DS (Debris Slump) FP (Flood Plain) FS (Foot Slope) H (Head Slope) L (Linear Slope) N (Nose Slope) R (Ridge) S (Shoulder Slope) T (Terrace)	I	S (Sand) LS (Loamy Sand)	1.2 - 0.8	0.6 - 0.4	NEXP (Non-expansive) SEXP (Slightly Expansive) EXP (Expansive)	G (Single Grain) M (Massive) CR (Crumb) GR (Granular) SBK (Subangular Blocky ABK (Angular Blocky) PL (Platy) PR (Prismatic)
	II	SL (Sandy Loam) L (Loam)	0.8 - 0.6	0.4 - 0.3		
	III	SI (Silt) SICL (Silty Clay Loam) CL (Clay Loam) SCL (Sandy Clay Loam) SLC (Silt Loam Clay)	0.6 - 0.3	0.3 - 0.15		
					MOIST	**WET**
	IV	SC (Sandy Clay) SIC (Silty Clay)	0.4 - 0.1	0.2 - 0.05	VFR (Very Friable) FR (Friable) FI (Firm) VFI (Very Firm v. Very Sticky) EFI (Extremely Firm)	NS (Non-sticky) SS (Slightly Sticky) S (Sticky) VS (Very Sticky) NP (Non-plastic) SP (Slightly Plastic) P (Plastic) VP (Very Plastic)
		O (Organic)	None			

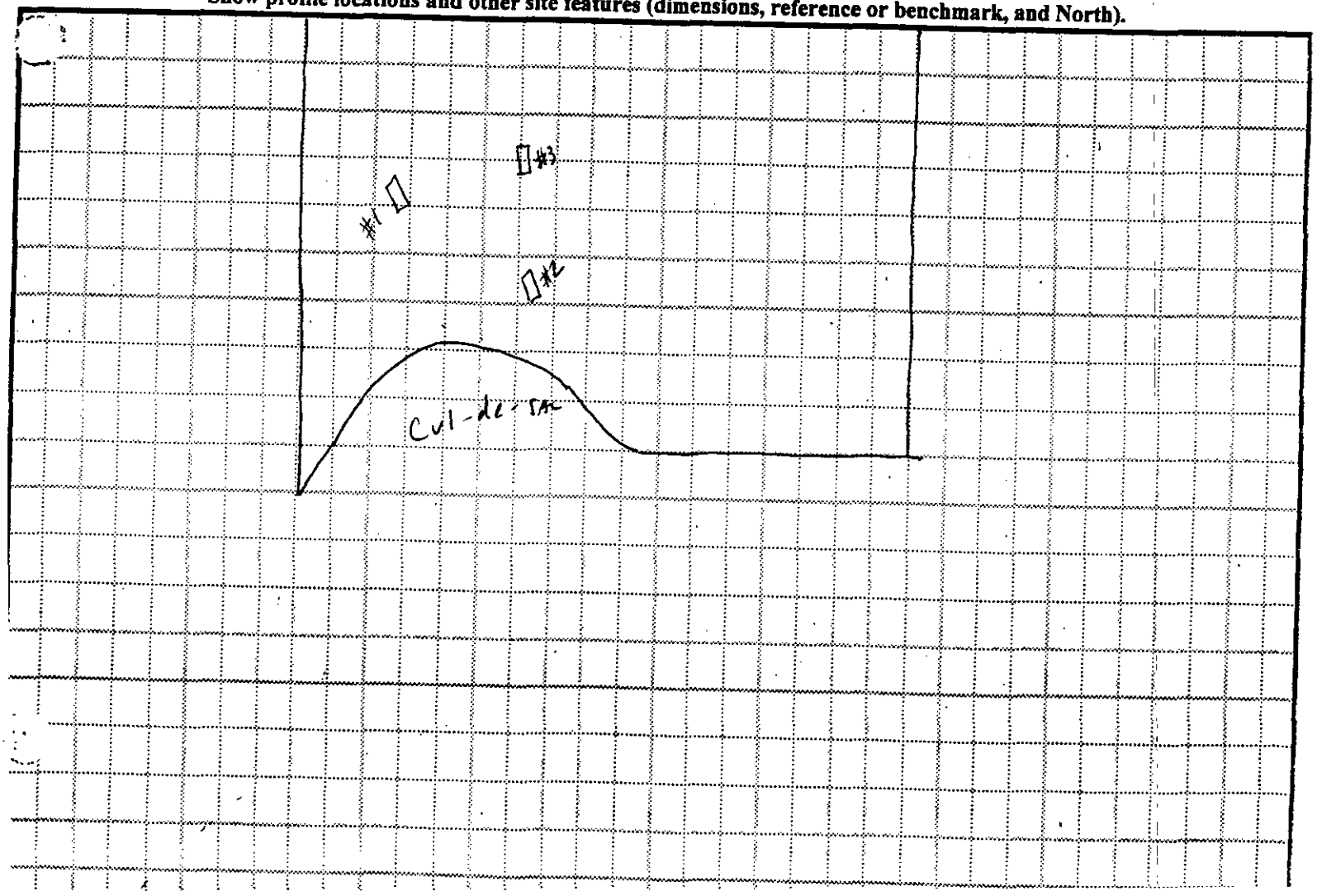
NOTES

HORIZON DEPTH	In inches below natural soil surface
DEPTH OF FILL	In inches from land surface
RESTRICTIVE HORIZON	Thickness and depth from land surface
SAPROLITE	S(suitable) or U(unsuitable)
SOIL WETNESS	Inches from land surface to free water or inches from land surface to soil colors with chroma 2 or less - record Munsell color chip designation
CLASSIFICATION	S (Suitable), PS (Provisionally Suitable), or U (Unsuitable)

Evaluation of saprolite shall be by pits.

Long-term Acceptance Rate (LTAR): gal/day/ft²

Show profile locations and other site features (dimensions, reference or benchmark, and North).



December 19, 2005

Royal Building Company, LLC
Attn: Ken Studdard
19525 Calloway Hills Lane
Davidson, NC 28036

Dear Mr. Studdard ,

On August 20th and December 14th , 2005 a preliminary soil investigation was conducted on 9.75 acres in Royal Oaks Subdivision located off of Mayes Road in Mecklenburg County, N.C. in conjunction with Mecklenburg County Health Department. The purpose of this evaluation was to determine suitable soil for on-site waste disposal. Site suitability for on-site waste disposal is based on but not limited to soil characteristics, soil wetness, restrictive horizons, soil depth, topography and available space. All sewage disposal ratings and determinations were made in accordance with "Laws and Rules for Sanitary Sewage Collection, Treatment and Disposal, 15A NCAC 18A .1900." This report represents my professional opinion as a Licensed Soil Scientist but doesn't guarantee or represent permit approval for any lot by the local Health Department. An improvement permit for all residences will need to be obtained from the local Health Department that specifies the proposed house size and location, wells and the design and location of the septic system to be installed. Please note that all field notes showing soil profiles and locations of soil auger borings and pits are included in this report.

This property as a whole poses some topographic and soil difficulties that may be overcome. In my professional opinion, lot two may need to be pumped off-site to the North East side of Lot 1. The soils in this area ranged from a sandy loam saprolite to a loamy sand saprolite (refer to field notes), although due to the texture and the color of the saprolite it is very difficult to observe any indications of soil wetness, therefore there may be a need for curtain or french drains around the system area. Also this system should be located at the top or side of the shoulder, not in the bottom where there would be higher probability of ground water infiltration.

Lot three appears to have adequate room for one on-site system and potentially one off-site system for lot four, if needed. This potential area is located along the Southern border of lot three. The soils in this area generally exhibited a clay loam texture subsoil that extended from 45 inches to 53 inches and therefore should be adequate to support long term application rates of .3 gals/day/sqft.

Lot four also posed topographic difficulties and may need to be pump off-site to lot three to the area referenced above. Although, there does appear to be useable soil on lot four located to the left of the proposed house or cut area (refer to soil/field notes). The soils in this area were comprised of a sandy loam saprolite to a loamy sand saprolite which should be suitable, although it still needs to be determined whether there is adequate space for the system.

Lot five had soil difficulties, although these problems may be overcome by installing the septic system at a lower depth, approximately 36 inches. The subsoils in this area possessed expansive soil characteristics in the upper horizons, although the saprolite below the subsoil

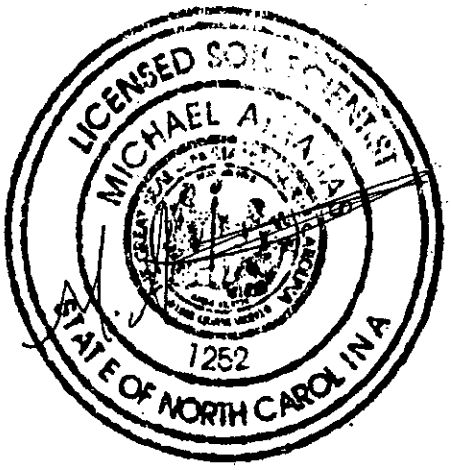
appeared to be useable. It is my recommendation that if a system is to be installed on lot five that the trench bottom be at least 36 inches, therefore avoiding the unsuitable or expansive soil.

In conclusion, this property will need 100 % repair for each lot and will need dedicated easements for any off-site systems. Also all wells will need a 50-100 foot setback from septic systems depending on soil type. I appreciate the opportunity to provide this service and if I can be of any further assistance please contact me at (704) 576-3887.

Sincerely,

Michael Athanas, LSS

c.c. Jeremy Michelone, Mecklenburg County Health Department



#1045 ACS $100 2nd site visit X36891

GWS – RES. APP 12/04

SEPTIC FEE: $200.00 180
DATE: 9-1-05
CRT [ ]

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 # 6132B

9/20/05

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 #: 00716212 PO
STREET ADDRESS: ~~13615~~ Noyes Rd.
CITY: Huntersville
STATE: NC ZIP: 28078
SUBDIVISION OR MOBILE HOME PARK NAME:
LOT #: 4
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:
NUMBER OF BEDROOMS: 4
NUMBER OF OCCUPANTS:

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: Royal Building Co.
ADDRESS: 19525 Calloway Hills Ln
CITY: Davidson
STATE: NC ZIP: 28036
HOME PHONE: WORK PHONE: 704-201-5705
MOBILE PHONE: FAX: 704-895-1385

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME:
ADDRESS:
CITY:
STATE: ZIP:
HOME PHONE: WORK PHONE:
MOBILE PHONE: FAX:

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED?
WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY? 9-1-05

*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.*

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

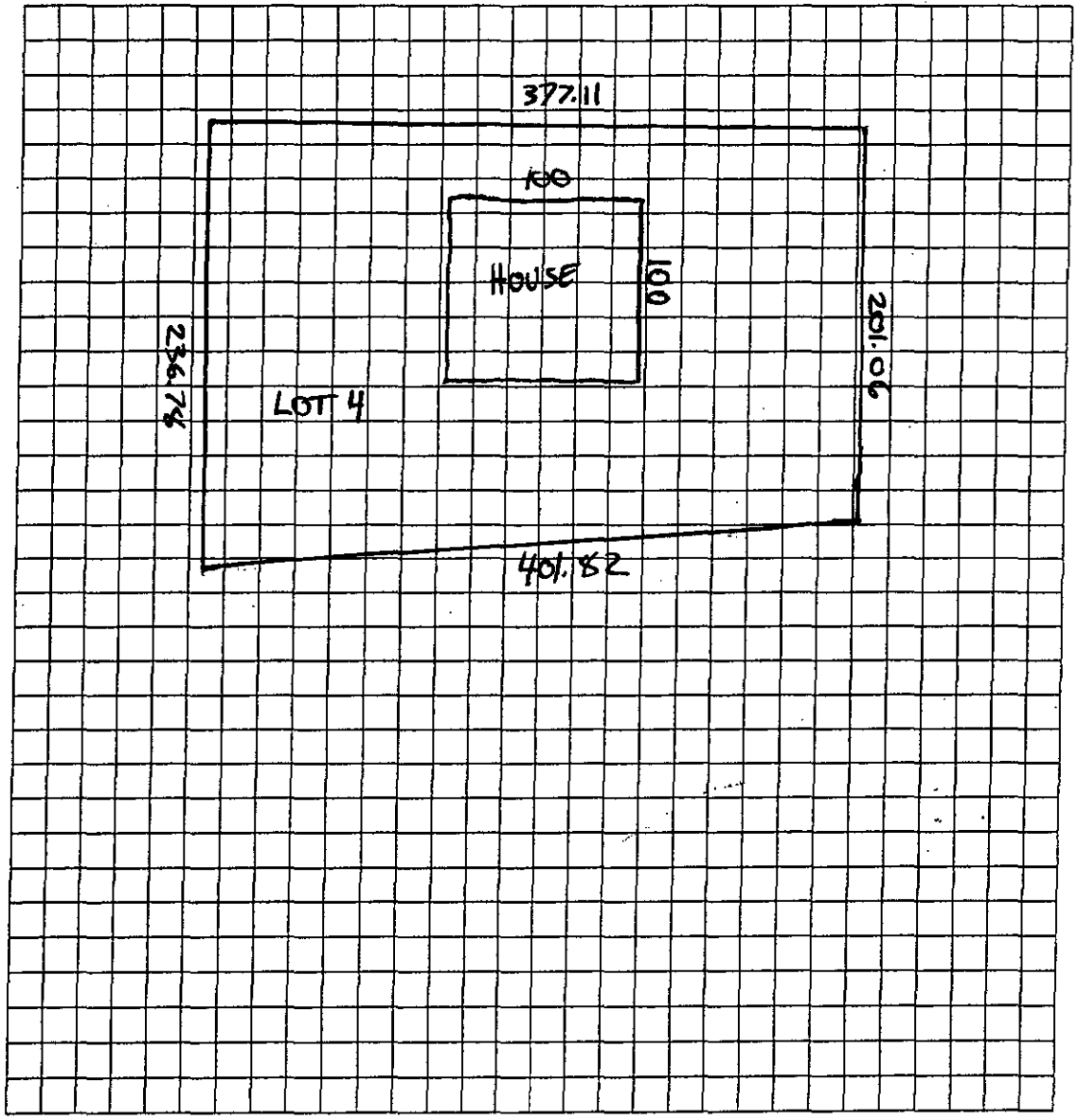
MECKLENBURG COUNTY HEALTH DEPARTMENT
GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST., SUITE 211
CHARLOTTE, NC 28202
704-336-5103 / FAX: 704-336-6894

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

File #_____
Date_____

PROPOSED PLOT PLAN

A map showing existing and proposed property lines and easements with dimensions, the location of the single family residence, non-single family residence, or other facility, and appurtenances, the site for the proposed well, and the location of existing or proposed sewer lines and/or sewage disposal systems, surface water bodies, aboveground or underground storage tanks. Name all roads adjoining the property. If this a repair indicate the type of repair.



Owner/Agent Signature
Date

LBC 12/15/04

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	09/01/05	**Amount:**	200.00
Receipt #:	36735	**Tendered:**	200.00
Check / Auth #:	CHARGE	**Returned:**	0.00
Received By:	DAUGHVB		

Account Information

Account #: X36841
Contractor: ROYAL BUILDING COMPANY LLC
Attn:
Address: 19525 CALLAWAY HILLS LANE
Address:
City/State/Zip: DAVIDSON, NC 28036

Item	Description	Permit#	Quantity	Unit Price	Total Price
0701	Improvment Permit App-Residen MAYES RD/LOT 4/00716212PO		1	200.00	200.00

----------Outstanding Balances----------

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
800.00	400.00				

Groundwater & Wastewater Services
Well Project File & Data Review Worksheet

GWS File #: 613213 WASPS App #: 223

Primary ES assigned to project: Kim Garrett

Secondary ES assigned to project: N/A.

Project Type: New Well ☑ Well Abandonment ☐ Major Repair ☐

Septic System Status: Permit in progress ☑ System installation completed ☐ N/A-Sewer ☐

I. File Review:

Completed application	Yes ☑	No ☐		
ARGU review report	Yes ☐	No ☑	N/A ☑ ABC	
Signed permit	Yes ☑	No ☐		
Notification of disinfection	Yes ☐	No ☑	N/A ☐	
Sample Results	TC ☑	Nitrate/Nitrite ☑	Other ☐	N/A ☐
GW-1 Form / GW-30 Form	Yes ☑	No ☐		
Other related documentation	Yes ☑	No ☐	N/A ☐	

Items requiring correction/modification: _____

Comments: Was an Argue report done on this well if so was a report received (place in file if available)

1/9/07 Reviewed WIS - No contamination site w/in 2000'
ARGU Review was not Required. ABC 1/9/07

II. WASPS Review:

Completed application w/ valid address	Yes ☑	No ☐	
ARGU review completed	Yes ☑	No ☐	N/A ☑
Permit issued	Yes ☑	No ☐	
Activity checklist completed	Yes ☑	No ☐	
Appropriate comments included	Yes ☑	No ☐	
Site information record completed	Yes ☑	No ☐	
Well detail record completed	Yes ☑	No ☐	

Items requiring correction/modification: 1

Comments: This site according to permit was submitted for Argu Review on WASP the argu review was not checked.

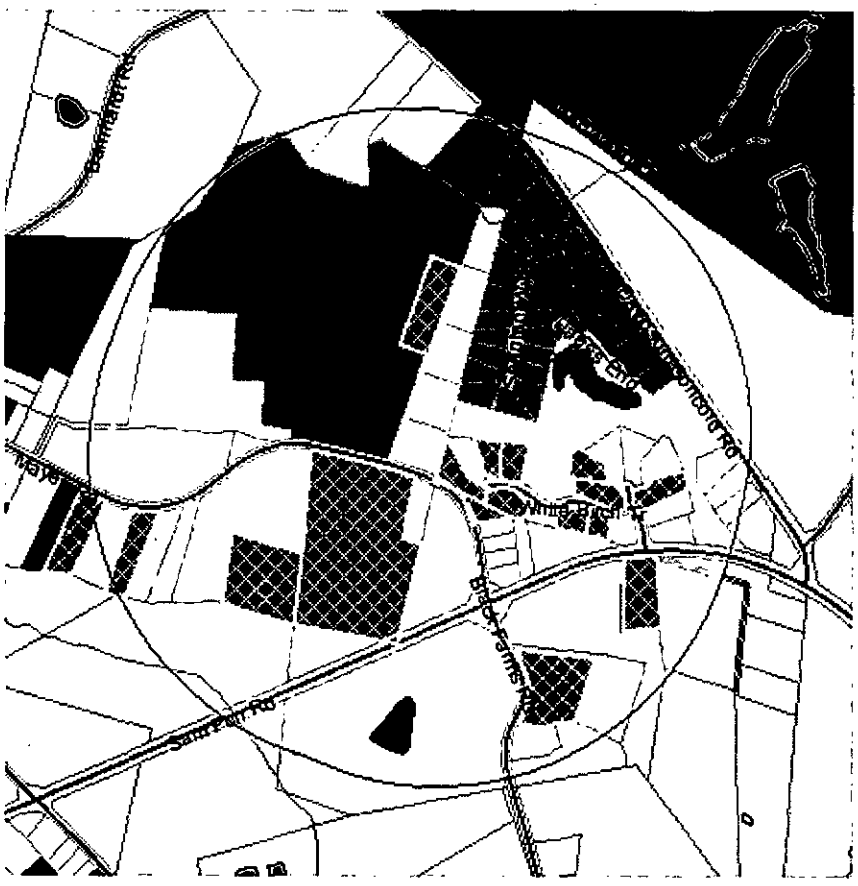
An ARGU Review should not have been Required per WIS. SEE MAP ABC 1/9/07

Application received date: 12-08-05 ES assigned date: CAB Permit issued date: 02-01-06

Well approval date: 12-29-06 Number of days to complete project: 376

Review performed by: Joshua K. Sellers P.S. Date performed: 01-05-07
Doug Abbott 1/9/07

MECKLENBURG COUNTY
Well Information System



LEGEND

Parcels - Well View

- Both Site and Well
- Landfill
- Public Well
- Contamination Site
- Private Well

Jurisdictions

- Charlotte
- Cornelius
- Davidson
- Huntersville
- Matthews
- Mecklenburg
- Mint Hill
- Pineville
- Stallings

The information provided by this program is compiled from recorded deeds, plats, tax maps, surveys, elections information, and other public records and data. Users of this map data are hereby notified that the aforementioned public primary information sources should be consulted for verification of the information. Mecklenburg County and its mapping contractors assume no legal responsibility for the information contained herein.

MECKLENBURG COUNTY

Land Use & Environmental Services Agency
Groundwater & Wastewater Services

December 29, 2006

Ken Studdard
Royal Building Company
19525 Callaway Hills Lane
Davidson, NC 28036

Re: Well Water Sampling Results
11512 Lauren Lane
Tax Parcel # 007-162-12

Dear Ken:

On September 13th and December 19th, staff with Mecklenburg County Groundwater & Wastewater Services sampled drinking water from the well located on the above referenced parcel. The samples were analyzed for the following parameters: Total Coliform, Nitrate and Nitrite.

Laboratory results for the analysis are attached and indicate that at the time of sampling, Total Coliform bacteria were absent , the Nitrate level was 3.54 mg/l (Nitrate-N levels are acceptable if $\leq$ 10 mg/l), and the Nitrite level was 0.48 mg/l (Nitrite levels are acceptable if <1.0 mg/l).

If you have any questions concerning these results, please contact me at (704) 432-4259. Thank you!

Sincerely,

Kim Garrett
Environmental Health Specialist
Mecklenburg County Groundwater & Wastewater Services
kimberly.garrett@mecklenburgcountync.gov
704-432-4259

Enclosure:
Laboratory Analysis

CHARLOTTE.
CHARLOTTE-MECKLENBURG UTILITIES

Laboratory Analysis Report
Report Date: 12/22/2006 01:27 PM

LABORATORY SERVICES DIVISION

LOCATION: GWS-11512
LOC ID: G-NEW
SAMPLE DATE-TIME: 12/19/2006 11:45 CHAIN OF CUSTODY #: 061219132736
SAMPLE DESCRIPTION: Grab

	Parameter	Result	Units	RL	Method	Start Date/	Time	Analyst
AB98132	**E. COLI-PA**	**Absent**	**P/A**		SM 9223B	12/19/2006	15:18	KEK
AB98132	**Total Coliform- P/A**	**Absent**	**P/A**		SM 9223B	12/19/2006	15:18	KEK

Comment:

Laboratory Supervisor: _____

Laboratory Certifications: McAlpine NC DENR No.148; Brookshire NC DENR No.162; Hal Marshall N.C. DENR No. 192, N.C. DHHS Laboratory No. 37527

CHARLOTTE-MECKLENBURG UTILITIES - LABORATORY SERVICES DIVISION

CHAIN OF CUSTODY RECORD

Hal Marshall Laboratory, 700 North Tryon St., Charlotte, NC 28202, 704/336-5460

PAGE 1 OF 1

CLIENT: MECKLENBURG COUNTY, LUESA - GROUNDWATER AND WASTEWATER SERVICES

FACILITY: GROUNDWATER (Potable Water)

LOCATION / ADDRESS: 11512 Lauren Lane

LAB CODE (circle one): REAL PRIV (NEW) TNC MPL PME OTHER

Send Report To: Kim Garrett, 700N Tryon St. Ste. 205, Charlotte, NC 28202

COC# 0612191327 36

Sampled By (Print Name): Kim Garrett

SAMPLE ID	Sample Collector's Initials	Sample Collection: Begin Date and Time	Sample Collection: End Date and Time	Chlorinated System	Sample Temperature: Collection Temp	Sample Temperature: Receipt Temp	Sample Type: Depth Composite	Sample Type: Auto Composite	Sample Type: Hand Comp	Sample Type: Grab	Sample Containers: Plastic	Sample Containers: Glass	Sample Containers: # Containers	Chemical Preservative: None	Chemical Preservative: HNO3	Chemical Preservative: H2SO4	Chemical Preservative: NaOH	Chemical Preservative: HCl	Chemical Preservative: Na2S2O3	Chemical Preservative: pH Correct	Analyses Requested: Total Coliform
GWS-11512 AB98132	ksg	12/19/06 11:45 AM		N	17.2	6.9				X	100 ml		2						X	(X)	X

NOTES: Complete yellow shaded sections; each "X" needs to be circled.

Itemize requested Metals here:

COMMENTS: ****3-DAY TAT REQUESTED****

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
[signature]	[signature]	12/19/06	1325
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time

Form Revision 05; effective 03/15/2005

CODES: **REAL**=REAL ESTATE TRANSACTION **PRIV**=PRIVATE WELL SAMPLING BY REQUEST OR FOR REPAIR **NEW**=NEW WELL (PERMIT)

North Carolina State Laboratory of Public Health
Department of Health and Human Services
P. O. Box 28047 -- 306 N. Wilmington St. -- Raleigh, N. C. 27611-8047

INORGANIC CHEMICAL ANALYSIS - NITRATE ONLY

Name of System: Royal Building Co
Address: 11512 Lauren Ln #4
Charlotte, NC **Zip:**

County: MECKLENB

Report To: Mecklenburg Co. Env. Health
700 North Tryon Street
Charlotte, NC 28202
Courier: 05-16-21

ATTN: Kim Garrett
(704) 336-5101

Source of Water: Ground
Source of Sample:
Type of Sample: Raw
Type of Treatment: None
Type of Analysis: Nitrate
Category: Other

Collected By: KIM GARRETT **Date:** 9/13/2006 **Time:** 11:15:00 AM

Location of sampling point: well head

Remarks:

Parameters	Results	Units	Date Analyzed:
Nitrite as N	0.48	mg/l	9/14/2006
Nitrate as N	3.54	mg/l	9/14/2006

EXPLANATION OF RESULTS:

Foster/Therapeutic Homes: Nitrate-N level acceptable if less than or equal to 10 mg/l
Private Well Guidelines: Nitrite-N level should be ≤ 1.0 mg/l and Nitrate-N ≤ 10.0 mg/l

Sample Temperature on Receipt: 5.5 °C

Date Received: 9/14/2006 **Report Date:** 9/26/2006 **Reported By:** M. King

Today's Date: 9/26/2006 **Reference:** 12129 **Login Batch** 06090024 **Sample Number:** AB47097

Explanations

Coliform Analysis:
If coliform bacteria are Absent, the water is considered safe for drinking purposes. If coliform bacteria are Present, the water is considered unsafe for drinking purposes. Presence of E. coli (bacteria) generally indicates that the water has been contaminated with fecal material. It must be remembered that a water analysis refers only to the sample received and should not be regarded as a complete report on the water supply.

Inorganic Analysis:
Recommended limits for drinking water. Sample should not exceed levels listed below.

Alkalinity	No established limits	Iron	0.30 mg/l
Arsenic	0.01 mg/l	Lead	0.015 mg/l
Calcium	No established limits	Magnesium	No established limits
Chloride	250 mg/l	Manganese	0.05 mg/l
Copper	1.3 mg/l	Nitrate	10 mg/l (as N)
Fluoride	4 mg/l	Nitrite	1.0 mg/l (as N)
Hardness	No established limits	pH	Not less than 6.5 units
		Zinc	5.0 mg/l

North Carolina State Laboratory of Public Health
Department of Health and Human Services
306 N. Wilmington St. - P.O. Box 28047, Raleigh, NC 27611-8047

INORGANIC CHEMICAL ANALYSIS – NITRATE ONLY

Complete All Items - Please Write Legibly
(See Instructions on Reverse Side)

Name of System: Royal Building Co

Address: 1152 Lauren Ln #4

City: Charlotte ZIP

County: Mecklenburg

Report To: Kim Garrett

Address: 700 N Tryon St
Charlotte
NC ZIP 28202

Collected By: Kim Garrett

Date Collected: 9/13/06 Time: 11:15 (AM) PM

Location of Sampling Point: Well head

Source of Water
- [x] Ground
- [ ] Surface
- [ ] Both
- [ ] Purchased

Type of Sample
- [x] Raw
- [ ] Treated

Type of Treatment
- [x] None
- [ ] Chlorinated
- [ ] Fluoridated
- [ ] Filtered
- [ ] Alum
- [ ] Lime
- [ ] Soda Ash
- [ ] Polyphosphate
- [ ] Water Softener
- [ ] Other

Sample Category
- [ ] Foster/Therapeutic Home
- [ ] Intensive Livestock Operation
- [x] Other

Remarks

Laboratory Use Only

DHHS 4017
State Laboratory (Review 10/01)

North Carolina State Laboratory of Public Health
Department of Health and Human Services
P. O. Box 28407 - 306 N. Wilmington St. - Raleigh, N. C. 27611-8047

COLIFORM ANALYSIS - PRIVATE WATER SUPPLY

Name of Owner or Tenant: Royal Building Co. **County:** Mecklenburg

Address: 11512 Lauren Ln. #4 Charlotte, NC **ZIP:**

Source: Well **Type of Sampling Point:** Well head

Collected By: KG **Date:** 9/13/2006 **Time:** 11:15 AM

Signed By: Garrett, Kim **Analysis Type:** Private

Report To: Mecklenburg Co. Env. Health
700 North Tryon St., Suite 208
Charlotte, NC 28202 (704) 336-5101

BACTERIOLOGIC ANALYSIS

CONTAMINANTS	RESULT
Total Coliform (ColilertRoutine)	Present
Fecal/E. coli	Absent

Sample No: AA96928 **Date Received:** 9/14/2006 **Time Received:** 8:20:00 AM

Date Reported: 9/15/2006 **Today's Date:** 9/15/2006

S Bradley

Comments:

Mecklenburg Co. Env. Health
ATTN: Garrett, Kim
700 North Tryon St., Suite 208
Charlotte, NC 28202

Courier 05-16-21

Explanations

Coliform Analysis:
If coliform bacteria are Absent, the water is considered safe for drinking purposes. If coliform bacteria are Present, the water is considered unsafe for drinking purposes. Presence of E. coli (bacteria) generally indicates that the water has been contaminated with fecal material. It must be remembered that a water analysis refers only to the sample received and should not be regarded as a complete report on the water supply.

Inorganic Analysis:
Recommended limits for drinking water. Sample should not exceed levels listed below.

Alkalinity	No established limits	Iron	0.30 mg/l
Arsenic	0.01 mg/l	Lead	0.015 mg/l
Calcium	No established limits	Magnesium	No established limits
Chloride	250 mg/l	Manganese	0.05 mg/l
Copper	1.3 mg/l	Nitrate	10 mg/l (as N)
Fluoride	4 mg/l	Nitrite	1.0 mg/l (as N)
Hardness	No established limits	pH	Not less than 6.5 units
		Zinc	5.0 mg/l

State Laboratory of Public Health
N.C. Department of Health and Human Services
PO Box 28047- 306 N. Wilmington St.- Raleigh, NC 27611-8047

DO NOT WRITE IN THIS AREA

COLIFORM ANALYSIS - PRIVATE WATER SUPPLY

COMMENTS:

Name of Owner/Tenant: Royal Building Co County: Mecklenburg

Street: 1512 Lauren Ln #4 City/State: Charlotte NC Zip: 28206

Source: ☒ Well ☐ Spring ☐ Other _____ Type of Sampling Point: Wellhead

Collected by: Kim Garrett Date 9/13/06 Time 1115 ☒ AM ☐ PM KG

Signed by: Kim Garrett

Address: 700 N Tryon St Indicate MD or EHS

City: Charlotte State NC Zip 28207

DHHS 1294 (Revised 2/98)
Laboratory (Review 3/01)

PLEASE PRINT LEGIBLY
ALL INFORMATION REQUESTED MUST BE GIVEN.

Tighten Lid on Bottle Securely

CAB

RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 3265

1. WELL CONTRACTOR:
Ralph Bailey
Well Contractor (Individual) Name
B+K well Drilling INC.
Well Contractor Company Name
STREET ADDRESS 132 mt moore Ln
Mooresville NC. 28117
City or Town State Zip Code
704-892-4695
Area code - Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable)
STATE WELL PERMIT #(if applicable)
DWQ or OTHER PERMIT #(if applicable) 10000223
WELL USE (Check Applicable Box): Residential Water Supply ☒
DATE DRILLED 6-13-06
TIME COMPLETED 1:00 AM ☐ PM ☒

3. WELL LOCATION:
CITY: Cornelius COUNTY: Meck.
Mayes Rd. Lauren Log
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☒ Slope ☐ Valley ☐ Flat ☐ Ridge ☐ Other
(Check appropriate box)
LATITUDE 3
LONGITUDE
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. WELL OWNER
OWNER'S NAME Royal Builders
STREET ADDRESS 19525 Callaway Hollow Ln.
Davidson, NC 28036
City or Town State Zip Code
( )
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 305
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 50 FT.
(Use "+" if Above Top of Casing)
d. TOP OF CASING IS 1 FT. Above Land Surface*
*Top of casing terminated at or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): 15 METHOD OF TEST open flow

f. DISINFECTION: Type CHL. TAB Amount 1/2 LB

g. WATER ZONES (depth):
From 100 To 105 From ____ To ____
From 245 To 250 From ____ To ____
From ____ To ____ From ____ To ____

6. CASING:

	Depth	Diameter	Thickness/ Weight	Material
From 0	To 20 Ft.	6	SCH 40	PVC
From ____	To ____ Ft.			
From ____	To ____ Ft.			

7. GROUT:

	Depth	Material	Method
From 0	To 20 Ft.	SAND MIX	ROCK
From ____	To ____ Ft.		
From ____	To ____ Ft.		

8. SCREEN:

	Depth	Diameter	Slot Size:	Material
From ____	To ____ Ft.	in.	in.	
From ____	To ____ Ft.	in.	in.	
From ____	To ____ Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth	Size	Material
From ____	To ____ Ft.		
From ____	To ____ Ft.		
From ____	To ____ Ft.		

10. DRILLING LOG

From	To	Formation Description
0	20	RED CLAY
20	70	BROWN SAND
70	305	GREY GRANITE

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Ralph Bailey 6-5-06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

Ralph Bailey
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1B
Rev. 7/05

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

PERMIT TO CONSTRUCT A WATER SUPPLY WELL

Permit #: 10000223 **File #:** 6132B **Tax Parcel #:** 007-162-12
Property Owner: Royal Building Company
Job Location Address: 11512 LAUREN LN
City/ETJ: DAVIDSON **State:** NC **Zip Code:**
Permit Issuance Date: 2/1/2006
Use of Well: Potable
Type of Facility Served by Well: House
Sewage System Type: None

Area of Regulated Groundwater Usage Restrictions Apply: YES

Replacement for Existing Well: If Yes, see requirements in Other Conditions of This Permit.

General Conditions of This Permit:

- Water Supply Well construction must meet all requirements set forth in the *Mecklenburg County Groundwater Well Regulations* and any other applicable rules and laws.
- A North Carolina Certified Well Contractor must perform the well construction activities.
- The permitted Water Supply Well shall be located in accordance with the attached SITE PLAN.
- Any alteration of the site (including location of structures and appurtenances) or modification in use of the well, may subject this Permit to revocation.
- The Department will collect an initial sample of water from the Water Supply Well and analyze the sample for total coliform bacteria, nitrate, and nitrite. A review of the analysis by the Department must find the sample to meet the groundwater quality standards specified in Chapter 5 of the Mecklenburg County Groundwater Well Regulations before the Water Supply Well can be placed in service.
- This Permit shall be VALID for a period not to exceed 12 months from the date of issuance.

Specific Conditions of This Permit (Check all that apply):

☐ Grout must be placed the full extent of the casing. ☐ Casing to bedrock

☐ Initial water sample to taken and analyzed for (check all that apply):

☐ Volatile Organic Compounds (VOC's) ☐ Semi-volatile Compounds ☐ Metals (Specify in Other Conditions)

☐ Pesticides ☐ Herbicides ☐ Other (See Below)

The analysis must be submitted to the Department for review and approval prior to the Water Supply well being placed in service.

Other Conditions of This Permit:

Cina Buchanan, RS
Authorized Agent: Print Name

Cina Buchanan, RS
Signature:

2/1/06

Ken Stoddard
Owner/Legal Agent: Print Name

Signature: Ken Stoddard

Permit #2253

GWS – RES. APP 12/04

SEPTIC FEE: $~~200.00~~
DATE: 11/30/05
CRT.[ ]: Dog X3841

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 # 61328

WELL FEE: $400.00
DATE: 12/8/05
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 #: 007-162-12
STREET ADDRESS: 11512 Lauren Lane
CITY: Davidson
STATE: NC ZIP: 28036
SUBDIVISION OR MOBILE HOME PARK NAME: Royal Oaks
LOT #: 4
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: 4600
NUMBER OF BEDROOMS: 4
NUMBER OF OCCUPANTS: 3

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: Royal Building Co.
ADDRESS: 19525 Calloway Hills Lane
CITY: Davidson
STATE: NC ZIP: 28036
HOME PHONE: WORK PHONE: 704-201-5705
MOBILE PHONE: FAX: 704-895-1325

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME:
ADDRESS:
CITY:
STATE: ZIP:
HOME PHONE: WORK PHONE:
MOBILE PHONE: FAX:

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED?

WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY?

*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.

11/30/05
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.

11/30/05
Owner's/Agent's Signature Date

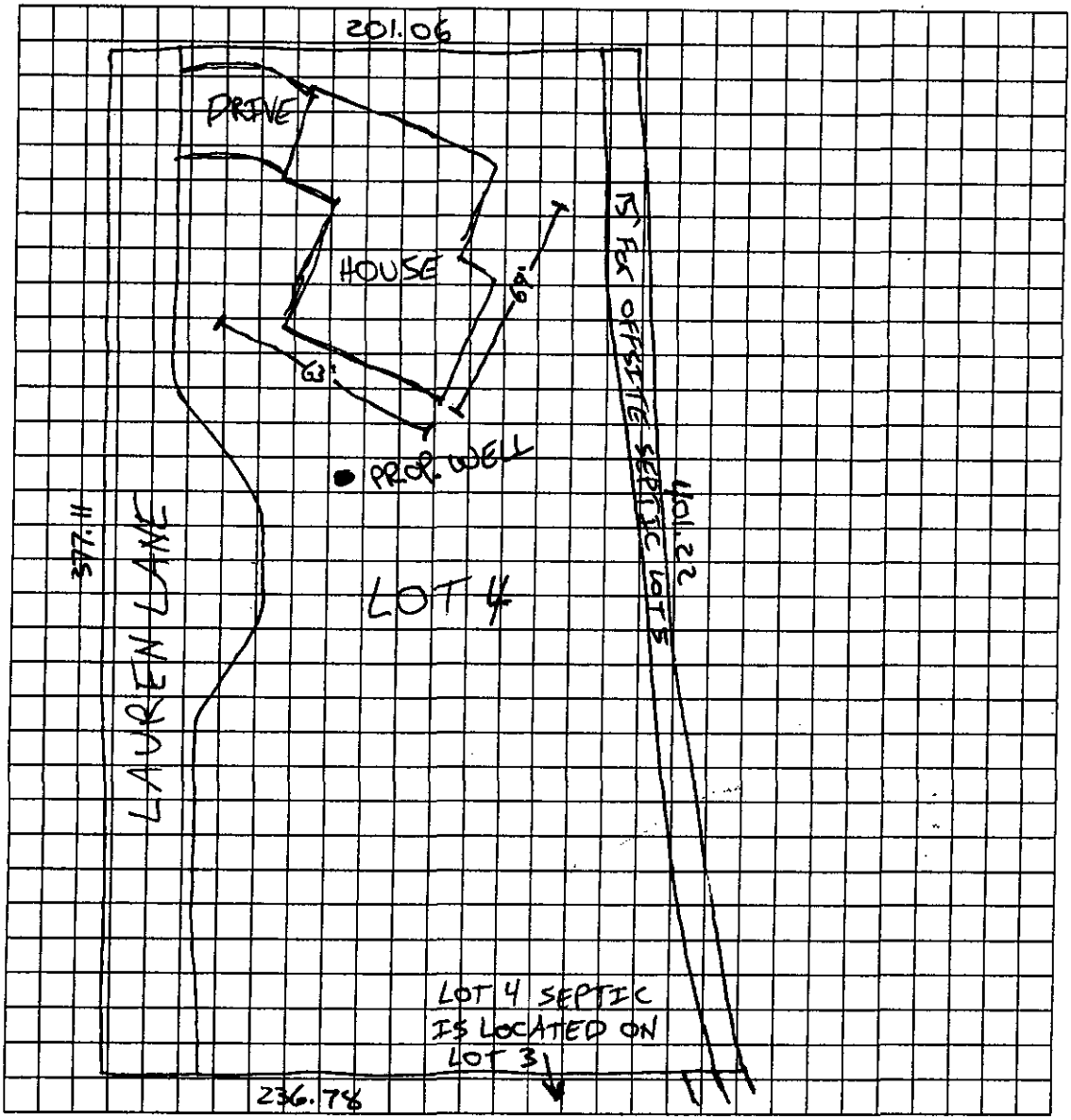
MECKLENBURG COUNTY HEALTH DEPARTMENT
GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST., SUITE 211
CHARLOTTE, NC 28202
704-336-5103 / FAX: 704-336-6894

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

File #_____
Date_____

PROPOSED PLOT PLAN

A map showing existing and proposed property lines and easements with dimensions, the location of the single family residence, non-single family residence, or other facility, and appurtenances, the site for the proposed well, and the location of existing or proposed sewer lines and/or sewage disposal systems, surface water bodies, aboveground or underground storage tanks. Name all roads adjoining the property. If this a repair indicate the type of repair.



Owner/Agent Signature	
Date	1/30/05

LBC 12/15/04

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	12/08/05	**Amount:**	200.00
Receipt #:	38623	**Tendered:**	200.00
Check / Auth #:	CHECK 1884	**Returned:**	0.00
Received By:	DAUGHVB		

Account Information

Account #: X36841
Contractor: ROYAL BUILDING COMPANY LLC
Attn:
Address: 19525 CALLAWAY HILLS LANE
Address:
City/State/Zip: DAVIDSON, NC 28036

Item	Description	Permit#	Quantity	Unit Price	Total Price
0753	Private Well, New 11512 LAUREN LN		1	200.00	200.00

ROYAL BUILDING CO. LLC
19525 CALLAWAY HILLS LANE
DAVIDSON, NC 28036

1884
66-21/530
BRANCH 56001

DATE 12-6-05

PAY TO THE ORDER OF Mecklenburg County $ 200.00

two hundred & 00/100 DOLLARS

WACHOVIA
Wachovia Bank, N.A.
wachovia.com

FOR

⑈001884⑈ ⑆053000219⑆ 2000010378092⑈

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
	22.88	2,123.76	164.00		

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

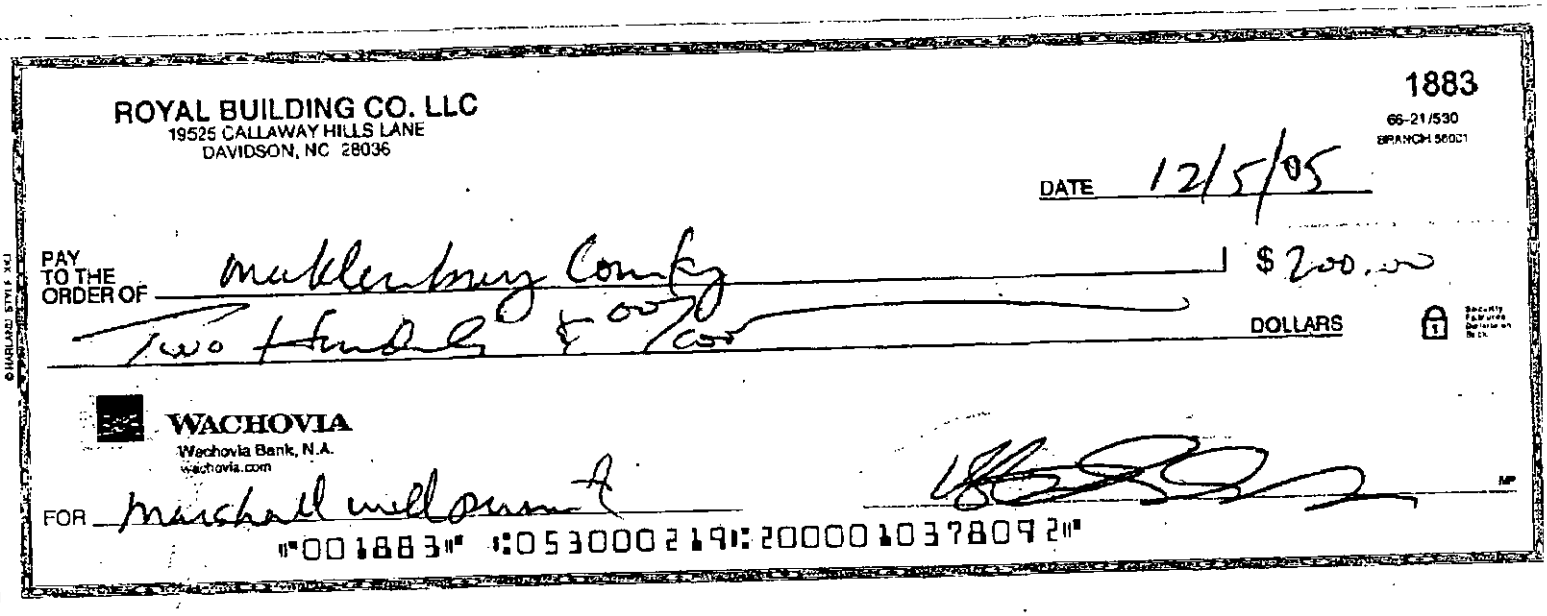
Receipt Information

Date:	12/08/05	**Amount:**	200.00
Receipt #:	38622	**Tendered:**	200.00
Check / Auth #:	CHECK 1883	**Returned:**	0.00
Received By:	DAUGHVB		

Account Information

Account #: X36841
Contractor: ROYAL BUILDING COMPANY LLC
Attn:
Address: 19525 CALLAWAY HILLS LANE
Address:
City/State/Zip: DAVIDSON, NC 28036

Item	Description	Permit#	Quantity	Unit Price	Total Price
0753	Private Well, New		1	200.00	200.00


ROYAL BUILDING CO. LLC
19525 CALLAWAY HILLS LANE
DAVIDSON, NC 28036

1883
66-21/530
BRANCH 56021

DATE 12/5/05

PAY TO THE ORDER OF Mecklenburg County $ 200.00

Two Hundred & 00/100 DOLLARS

WACHOVIA
Wachovia Bank, N.A.
wachovia.com

FOR Marshall Millsaps

⑈001883⑈ ⑆053000219⑆ 20000103780921⑈

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
	22.88	2,123.76	164.00		