Paid $350.00 4-11-14
FASTTRACK
# 202835

# IREDELL COUNTY HEALTH DEPARTMENT
## *ENVIRONMENTAL HEALTH DIVISION*
**PAGE 1: *APPLICATION FORM***

**Application For:**
(✓) Septic Improvement Permit ( ) New Well Permit ( ) Authorization to Construct ( ) Well Repair Permit ( ) Existing System Inspection ( ) Well Abandonment ( ) Septic System Repair

*THE ABOVE PERMIT DOCUMENTS WILL BECOME INVALID IF INFORMATION PROVIDED ON THIS APPLICATION IS FALSIFIED OR CHANGED, OR IF THE SITE IS ALTERED. THE IMPROVEMENT PERMIT IS VALID FOR EITHER 60 MONTHS OR WITHOUT EXPIRATION DEPENDING UPON DOCUMENTATION SUBMITTED APPLICATION WITH SITE PLAN 60 MONTHS, APPLICATION WITH COMPLETE, SCALED PLAT WITHOUT EXPIRATION. SEE 15A NCAC 18A .1937(f) FOR DETAILS.*

**Page 2: *Site Plan Worksheet* form MUST accompany this application**

**The following optional attachments may also be submitted:**
*Place an (X) beside whichever is submitted if applicable*
( ) Survey Plat, scaled no more than 1 inch = 60 feet
( ) Custom Site Plan, scaled no more than 1 inch = 60 feet

**Applicant Information:**

**Applicant Name:** Gayle Lindly **Address:** 143 Buckingham Pl. Rd. **Phone:** 602-358-654

**Owner Name:** Scott and Gayle Lindly **Address:** _____ **Phone:** _____

**Property Information:**

**Street Address:** 205 Buckingham according to GIS/House # is 143

**Subdivision Name:** Davidson Downes **Section/Phase:** _____ **Lot Number:** 86

**Driving Directions:** _____

**Site Development Information:** *(check or complete ALL that apply)*

(✓) New Single Family Residence
( ) New Multi-Family Residence
( ) Accessory Building
( ) Bedroom(s) Addition

**Maximum Number of Bedrooms:** 4
**Maximum Number of Occupants:** _____
( ) Swimming Pool
( ) Other Addition/Structure: _____

(✓) Crawl Space Foundation
( ) Concrete Slab Foundation
( ) Basement with Plumbing
( ) Basement without Plumbing

**Non-Residential Site Development:**
need update for existing 4 bedroom
**Type of Business:** _____
**Square Footage of Building:** _____
**Maximum Number of Employee:** _____
**Maximum Number of Seats/Beds/Other:** _____

**Water Supply:**

( ) New Well ( ) Existing Well (✓) Community Well ( ) City Water ( ) Other Public Water

**Desired Septic System Type:** *(you may rank in order of preference)* **Year existing system installed:** _____

( ) No Preference ( ) Alternative ( ) Conventional ( ) Innovative ( ) Modified Conventional ( ) Other: _____

**Please answer the following to the best of your ability:**

( ) Yes ( ) No Does the site contain any jurisdictional wetlands?
( ) Yes ( ) No Is any non-domestic sewage (i.e. industrial) to be generated?
( ) Yes ( ) No Is the site subject to approval by any other public agency?

*I have read this application and certify that the information provided herein is true, complete, and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed.*

**Signature:** Gayle L Lindly
Property owner or owner's legal representative signature (SIGNATURE REQUIRED)

4/11/14
DATE

# IREDELL COUNTY HEALTH DEPARTMENT

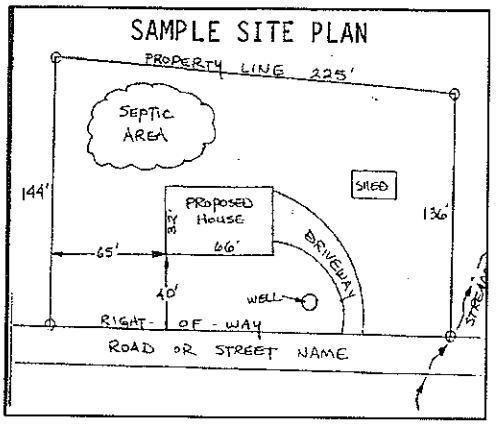
*ENVIRONMENTAL HEALTH DIVISION*

**PAGE 2:** ***SITE PLAN WORKSHEET***

**SEE THE "SAMPLE SITE PLAN" BELOW.** ***INCOMPLETE SITE PLANS WILL BE RETURNED TO YOU FOR COMPLETION AND MAY RESULT IN A DELAY IN THE ISSUANCE OF YOUR SEPTIC SYSTEM PERMIT!!!***

**Place an (X) beside each item as you complete the site plan:**

- ( ) Property Line measurements are clearly identified
- ( ) All proposed structures are indicated
- ( ) Front and side setbacks from property line
- ( ) Preferred driveway location and well location
- ( ) Area you prefer your septic system to be placed
- ( ) North arrow, or other sufficient indicator of direction




**Circle N/A on the following if appropriate:**

| | |
|---|---|
| Location of septic systems and wells within 100' of your property | N/A |
| Location of easements and rights of ways on your property | N/A |
| Location of any designated wetlands on the property | N/A |

## USE THIS SPACE TO DRAW YOUR SITE PLAN

*Show: proposed house or business footprint, wells, water lines, patios, pools and decks, and any other item that will occupy space on the site*

Please see attached

**Signature:** Gayle Schneider

Property owner or owner's legal representative signature (SIGNATURE REQUIRED)

4/11/14

DATE

# GRAVITY DISTRIBUTION
# FOR INNOVATIVE WASTEWATER SYSTEM

| | | |
|---|---|---|
| **Applicant:** | Scott Lindly | |
| **Address:** | 143 Buckingham Place<br>Mooresville, NC 28115 | |
| **Phone:** | 704.778.8474 | |
| **County:** | Iredell | |
| **Location:** | 143 Buckingham Place | |
| **Source of Wastewater Flow:** | 4 Bedroom Single Family Residence | |
| **Estimated Daily Wastewater Production:** | 480 gpd | |
| **System Flow:** | n/a | gpm |

## Design Specifications

| | | |
|---|---|---|
| **Drainfield Size:** | 378 (300 old; 78 new) | lf |
| **Loading Rate:** | 0.3 (new) | gpd/ft |
| **Depth of Gravel in Trench:** | N/A | |
| **Gravel Size:** | N/A | |
| **Trench Depth:** | 30 in | |
| **Trench Width:** | 24 in. | |
| **Septic Tank Size:** | 1000 | gal |
| **Pump Tank Size:** | N/A | gal |
| **Estimated Supply Line Length:** | 10 | ft |
| **Supply Line Diameter:** | 3 in. SCH 40 PVC | |
| **Supply Line Volume:** | 3.84 | gal |
| **Dosing Volume:** | n/a | gal |
| **Supply Manifold:** | n/a | |
| **Supply Manifold Length:** | n/a | |
| **Recommended Float Controls:** | n/a | |
| **Recommended Control Panel:** | n/a | |
| **Pressure Head:** | n/a | |
| **Friction Head:** | n/a | ft |
| **Elevation Head:** | n/a | ft |
| **Total Dynamic Head:** | n/a | ft |
| **Threaded Union:** | n/a | |
| **Gate Valves:** | n/a | |
| | n/a | |
| **Check Valves:** | n/a | |
| **Anti-Siphon Hole:** | n/a | |
| **Additional Comments:** | Soil suitability was performed by S&FS | |

## 143 Buckingham Place
## INNOVATIVE GRAVITY DISTRIBUTION DESIGN

| | | |
|---|---|---|
| **DESIGN FLOW:** | 480 | gpd |
| **SOIL APPLICATION RATE:** | 0.3 | gpd/ft |
| **TOTAL AREA TRENCH BOTTOM:** | 1056 | sqft |
| **TOTAL LATERAL LENGTH:** | 378 | ft |
| **NUMBER OF FIELDS:** | 1 | |
| **LATERAL LENGTH REQUIRED PER FIELD:** | 378 | ft |
| **SUPPLY LINE LENGTH:** | 10 | ft |
| **TOTAL DYNAMIC HEAD:** | 0.00 | ft |
| **MANIFOLD SIZE:** | N/A | |
| **DOSING VOLUME:** | N/A | |
| **PUMP TANK DRAW DOWN*:** | 0.0 | inches |
| **SEPTIC TANK SIZE:** | 1000 | gal |
| **PUMP TANK SIZE:** | N/A | gal |

**Pump tank draw down based on a volume basis of 21 gallons per inch. Draw down may vary among pump tank manufacturers.*

# 143 Buckingham Place

LAYOUT FOR 4 BEDROOM HOME

| LINE # | FLAG COLOR | BS | HI | FS | ELEVATION | FLAGGED LINE LENGTH | TRENCH TYPE |
|---|---|---|---|---|---|---|---|
| TBM | | 5.7 | | | 100.00 | | |
| INSTR. 1 S. TANK | | | 105.70 | | | | |
| | | | *SYSTEM* | | | | |
| *1* | *RED* | | | | | *20* | *PANEL* |
| *2* | *BLUE* | | | | | *18* | *PANEL* |
| *3* | *PINK* | | | | | *20* | *PANEL* |
| *4* | *ORNG* | | | | | *20* | *PANEL* |
| *5* | *EX TRENCH* | | | | | *75* | *GRAVEL* |
| *6* | *EX TRENCH* | | | | | *75* | *GRAVEL* |
| *7* | *EX TRENCH* | | | | | *75* | *GRAVEL* |
| *8* | *EX TRENCH* | | | | | *75* | *GRAVEL* |
| | | | REPAIR | | | | |
| 9 | Blue | | | 4.10 | 101.60 | 40 | panel |
| 10 | Pink | | | 5.10 | 100.60 | 39 | panel |
| 11 | Red | | | 5.80 | 99.90 | 42 | panel |
| 12 | Orange | | | 6.30 | 99.40 | 34 | panel |
| 13 | Yellow | | | 7.00 | 98.70 | 34 | panel |
| 14 | Blue | | | 7.60 | 98.10 | 42 | panel |
| 15 | Pink | | | 8.40 | 97.30 | 40 | panel |

| | LINE LENGTH | LTAR GPD/FT2 | SYSTEM TYPE | DISTRIBUTION |
|---|---|---|---|---|
| *SYSTEM* | *300* | *0.35* | *GRAVEL* | *GRAVITY* |
| | *78* | *0.30* | *& PANEL* | |
| Repair | 271 | 0.3 | MOD | LPP |

Notes: TBM rear step of deck
**TBM assumed at 100'
**Nitrification lines are demonstrated on contour via colored pin flags
**BS, HI, and FS indicate rod readings

## CALCULATIONS

Location 143 Buckingham Place

Lot No: N/A

No. of Bedrooms 4

Design Flow 480 $^{gal}/_{day}$

LTAR 0.30 $^{gpd/ft^2}$

25% RED.? (YES OR NO) NO

Supply Line Length 10 ft.

Supply Line Volume 3.84 gal.

Required Feet of Line 367 ft.
Amount of Line from Layout 378 ft.

Gallons per Minute n/a $^{gal}/_{min}$

Required Septic Tank Capacity 1000 gal.
Minimum Standard Tank Size 1000 gal.

Lateral Line Volume 210 gal.

Dosing Volume n/a gal.

*Note: Dosing Volume based on70% of lateral line volume*

Tank Draw Down 0.0 inches *(Generic Draw Down of 21 gal.per in.)*

Pump Run Time 0.00 minutes

Elevation Head 0 ft.
Pressure Head 0 ft.
Friction Factor 0 ft./100 ft. *(From the interpolater.)*
Friction Head 0.00 ft.

Total Dynamic Head (+15%) 0.00 ft.

FRICTION FACTOR INTERPOLATER
2" SCH 40 PVC

| GPM | *f* |
|---|---|
| 20 | 0.84 |
| 21.33 | 0.95 |
| 25 | 1.27 |
| 28.44 | 1.62 |
| 30 | 1.78 |
| | -1.76 |
| 35 | 2.37 |
| | -2.25 |
| 40 | 3.03 |
| 43.07 | 3.48 |
| 45 | 3.77 |
| 48.14 | 4.28 |
| 50 | 4.58 |
| 57.11 | 5.89 |
| 60 | 6.42 |

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

Sheet 1 of 1
PROPERTY ID #: 4654879435
COUNTY: IREDELL

# SOIL/SITE EVALUATION
## *for* ON-SITE WASTEWATER SYSTEM

OWNER: SCOTT AND GAYLE LINDLY — APPLICATION DATE 4/11/14
ADDRESS: 143 BUCKINGHAM PLACE RD MOORESVILLE NC 28115 — DATE EVALUATED: 5/1/14
PROPOSED FACILITY: 4BR (EXPANSION) — PROPOSED DESIGN FLOW (.1949): 480 — PROPERTY SIZE: .79 AC
LOCATION OF SITE: 143 BUCKINGHAM PLACE RD MOORESVILLE — PROPERTY RECORDED: YES
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 | OTHER PROFILE FACTORS .1943 SOIL DEPTH | OTHER PROFILE FACTORS .1956 SAPRO CLASS | OTHER PROFILE FACTORS .1944 RESTR HORIZ | PROFILE CLASS & LTAR |
|---|---|---|---|---|---|---|---|---|---|
| 1 | L/7% | 0-15 | RB CL WMSBK | FR SS SP | N/A | 50+ | N/A | | S |
| | | 15-32 | RB C WMSBK | FR SS SP | | | | | |
| | | 32-50 | RB C WMABK | FR S P few SAP INCL | | | | | .3 |
| | | | 1/2 FULL OF WATER (LOTS OF RAIN DAY BEFORE) | | | | | | |
| 2 | L/10% | 0-6 | B CL WFSBK | FR SS SP | N/A | 42 | S | | PS |
| | | 6-15 | RB C WMSBK | F SS SP | | | | | |
| | | 15-24 | RY C WFSBK | FR SS SP | | | | | -3 |
| | | 24-42 | R CL WMSBK | FR SS SP | | | | | |
| | | 42-50 | VAR L MASS | FR SS SP | | | | | |
| 3 | L/10% | 0-3 | B SL GR | FR SS SP | N/A | 50+ | N/A | | S |
| | | 3-7 | RB CL WFSBK | FR SS SP | | | | | |
| | | 7-24 | R C WMSBK | FR SS SP | | | | | .3 |
| | | 24-50 | RY CL WMSBK | FR SS SP SAP INCL. | | | | | |
| 4 | | | | | | | | | |

| DESCRIPTION | INITIAL SYSTEM | REPAIR SYSTEM |
|---|---|---|
| Available Space (.1945) | PS | PS |
| System Type(s) | GRAVEL/PPBPS | PPBPS |
| Site LTAR | .3 | .3 |

OTHER FACTORS (.1946): PS
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: OVERBY
OTHER(S) PRESENT: ROLLANS

COMMENTS: