Hugh Creed Associates, Inc. P.A.

Consulting Engineers & Land Surveyors

1306 W. WENDOVER AVENUE P.O. BOX 9623
GREENSBORO, N.C. 27408 GREENSBORO, N.C. 27429
TELE: (336) 275-9826 OR (336) 275-8084 FAX: (336) 275-3379
FIRM LICENSE #C-0551 E-MAIL: HCA@TRIADBIZ.RR.COM

June 21, 2013

Mecklenburg County Ground Water and Wastewater Services
700 N. Tryon Street, Suite 211
Charlotte, NC 28202
Attn: Mr. Brad Hallman,

Re: Final Certification of Installation for PPBPS Septic System
Lot 22 Belle Grove Manor Subdivision
13304 Belle Grove Manor Lane, Matthews, NC 28105

Dear Mr. Hallman,

This letter is to certify, based upon inspections by myself, and/or others under my supervision, the above referenced pressure dosed PPBPS septic system was completed in accordance with the approved design.

Sincerely,
Hugh Creed Associates, Inc., P.A.

Norris Z. Clayton, P.E., P.L.S.



June 21, 2013

Lot 22

Water Management

INSPECTION AND MAINTENANCE AGREEMENT

STATE OF NORTH CAROLINA

This agreement is made and entered into this 31 day of July, 2013, by and between Essex Homes South East Inc (hereinafter referred to as the "Owner") and **Water Management of North Carolina, LLC** (hereinafter referred to as 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(a) system under the Rules for Sanitary Sewage Collection, Treatment and Disposal found at 15A N.C. Administrative Code 18A.1900 et seq.; and

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

WHEREAS, 15A N.C. Administrative 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. Administrative Code 18A.1961 to manage the 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 Obligations. The Contractor shall perform the following services on the Owner's system located at:
Belle Grove Manor Subdivision, Lot 22, Mint Hill, Mecklenburg County, NC

a) The contractor shall inspect, document, and report the system at least at the frequency required in Table V(b) of 15A N.C. Admin. Code 18A.1961(b), to satisfy conditions of the Operation Permit and to comply with manufacturers' operation requirements.

b) If an inspection indicates the need for system repairs, the Contractor shall notify the local health department within 48 hours of the inspection.

c) The Contractor shall notify the Owner of needed repairs, which are outside of the

scope of routine maintenance described in this contract. The Contractor shall perform necessary repairs to the system at the request of the Owner and shall be entitled to payment therefor at the Contractor's normal charge for services and materials.

d) The Contractor shall respond to a request for a nonscheduled service or maintenance call within 48 hours after receipt of such request.

2. The Owner's Obligations.

a) The Owner shall pay to the Contractor:

- **For the first year of operation, no charge;**
- **For subsequent years, $300 per year, billed at $150.00 twice per year.**

The annual fee may be amended upon sixty (60) days advance notice to the Owner. 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 maintenance calls. All fees are due and payable within thirty (30) days of billing. Payments due to the Contractor and unpaid by the Owner after thirty (30) days shall accrue interest from the due date until paid at a rate of 1.5% per month.

b) Within 30 days of receipt of notice of needed repairs, the Owner shall request the Contractor to complete needed repairs or shall provide to the Contractor evidence that the needed repairs were satisfactorily completed by another entity.

c) The Owner shall provide the Contractor with such access to the system as is reasonably necessary for the Contractor to comply with the terms of this Agreement.

3. Term. This Agreement shall remain in effect until terminated.

a) Automatic Termination.
This agreement shall automatically terminate if the Operation Permit for the system is revoked and all appeals of the revocation are exhausted or the time for taking an appeal has passed.

b) Termination by Mutual Consent.
The Parties may mutually agree to terminate this Agreement by giving written notice of termination by mutual consent to the local health department thirty (30) days in advance of the date of termination.

c) Termination by the Owner.
The Owner may terminate this Agreement by giving notice to the Contractor and to the local health department thirty (30) days in advance of the date of

termination.

d) Termination by the Contractor.

1) The Contractor may terminate this Agreement for cause by giving written notice of intent to terminate this Agreement to the Owner and to the local health department thirty (30) days in advance of the date of termination. Cause shall be defined as:

a) failure to remit payment for any bill for services performed under and in accordance with this Agreement if said bill is not paid within thirty (30) days of receipt by the Owner of the bill. If said bill is paid after notice of termination of this Agreement, but prior to the date of termination of this Agreement, this Agreement shall continue in effect; or

b) failure of the Owner to provide to the Contractor authorization to complete needed repairs or satisfactory evidence that needed repairs to the system were completed by another entity. If said authorization to complete needed repairs or evidence of completion of said repairs is provided after notice of termination is given but prior to the date of termination of this Agreement, this Agreement shall continue in effect; or

c) failure of the Owner to allow the Contractor such access to the system as is reasonably necessary in order for the Contractor to comply with the terms of this Agreement.

2) The Contractor may terminate this Agreement without cause, by notification to the Owner no less than ninety (90) days in advance of the termination date. The Contractor may also assign its rights and duties under this Agreement as provided in paragraph 4, below.

4. Assignment.

a) Assignment by the Owner.
The Owner shall notify the Contractor of the name and address of any purchaser of the property on which the system is located. The Owner shall also notify any purchaser of the property on which the system is located of the existence of this Agreement and shall assign all rights and duties under this Agreement to said purchaser.

b) Assignment by the Contractor.
The Contractor may assign its rights and duties under this Agreement to another management entity, which is qualified pursuant to 15A N.C. Admin. Code

18A.1961 to manage the system upon thirty (30) days written notice to the Owner and to the local health department.

5. Use of Subcontractors. The Contractor may subcontract with such manufacturers, suppliers and contractors as it deems desirable to perform any of the Contractor's duties under this Agreement. The Contractor shall at all times remain responsible for the performance of and payment for all work performed by all subcontractors.

6. Representations. The Parties represent to each other that each has the power, authority and legal right to enter into and perform its obligations as set forth in this Agreement.

7. Regulatory Amendments. References in this Agreement to sections of the Administrative Code shall include such rules as they may be amended in the future.

8. No Implied Waiver. The waiver by either Party, of the default or a breach by the 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 and addressed as follows:

To the Owner: Essex homes
13310 South Lake Drive Suite A
Charlotte NC 28273

To the Contractor: **Water Management**
4744 Celia Creek Road
Lenoir, NC 28645

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 deliver, 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 questions concerning its validity, the system 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, any 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 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 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 actions, remain in full force and effect.

Water
Management

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.

(Owner)

7/31/13
(Date)

Water Management of North Carolina, LLC
(Contractor)

Sidney L. Gaskins, Jr.
(Sidney L. Gaskins, Jr.)

7/31/2013
(Date)

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 #: 8617 B Permit #: 5895 Tax Parcel #: 195022-22

Property Owner: Essex Homes

Job Location Address: 13304 Belle Grove Manor Ln Lot 22

City: Mint Hill State: NC Zip Code: 28227

Operation Permit Issuance Date: 10/17/13 Contractor Name: Sid Gaskins

Permitted Design Flow: 600 GPD

Liquid Capacity of Septic Tank: 1500 gallons

Liquid Capacity of Dosing Tank: 1500 gallons

Effluent Pump Model: Goulds PT 31

Drainfield Installation ☐ N/A

Trench Depth: 30 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 333 feet

# of Lines: 6 @ varies feet length

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

Depth of Cover: 12" inches

Distribution Device: Pressure 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: 10+ feet

Distance from Property Line: 10 feet

Distance from Water Supply Source: 10 feet

Inspection Dates

Tank(s) Inspected: 5/31/13 PW

Excavation Inspected: 5/31/13 PW

Pump & Controls Inspected: 5/23/13 PW

SKETCH OF SYSTEM INSTALLATION
(As-Built Drawing)

See As Built Drawing Installed per Designed Plan

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: IVa/PPBPS/P/N/A/N/A

DENR Authorized Agent: Bradley W. Hallman Signature: _____

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 #: 8617 B Permit #: 5885 Tax Parcel #: 195-022-22

Property Owner: Essex Homes

Job Location Address: 13304 Belle Grove Manor Ln

City: Mint Hill State: NC Zip Code: 28227

OPERATION PERMIT CONDITIONS:

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

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

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

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

System Classification: IVa

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

Subsurface system operator required: Yes ☒ No ☐

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

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

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

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

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

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

V. Other:

DENR Authorized Agent: Bradley W. Hellman Date: 10/17/13

Signature:

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 #: 8617B Permit #: 5885 Tax Parcel #: 195022 22

Property Owner: Essex Homes SE

Job Location Address: 13304 Belle Grove Manor Ln, Lot 22

City: Mint Hill State: NC Zip Code: 28227

Installation Approval Issuance Date: 5/21/13

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 6/21/13, 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: 600 GPD

Liquid Capacity of Septic Tank: 1500 gallons

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

Liquid Capacity of Dosing Tank: 1500 gallons

Drainfield Design ☐ N/A

Trench Depth: 30 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 333 feet

# of Lines: 6 @ various lengths feet

Depth of Media: NA inches (Type) PPBPS

Distribution Device: manifold

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: 10 feet

Distance from Property Line: 10 feet

Distance from Water Supply Source: 10 feet

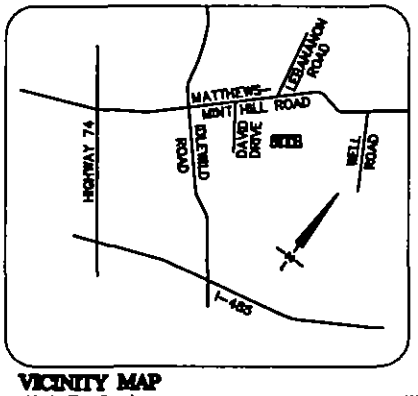
SKETCH OF SYSTEM LAYOUT
(Proposed Layout)

Install septic system in accordance with consultants plan issued during installation approval.

Comments: System Classification & Type: Type IVa

DENR Authorized Agent: Philo Walker Signature: Philo Walker REHS

FIGURE 1. SITE PLAN WITH SEPTIC LAYOUT



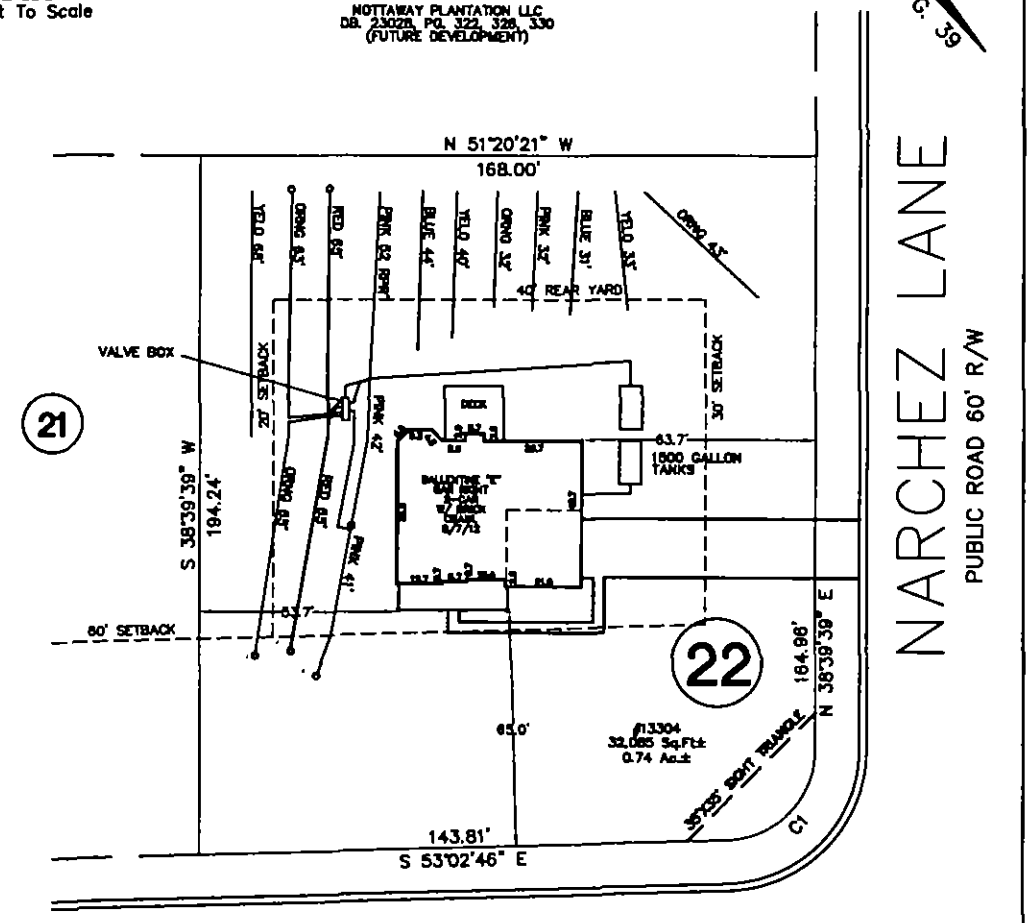
VICINITY MAP
Not To Scale

IMPERVIOUS SURFACE AREA	
DESCRIPTION	AREA
HOUSE w/ PORCH	2,304 S.F.
PATIO/HVAC/MISC	237 S.F.
DRIVEWAY & WALKS	1,208 S.F.
TOTAL (PROPOSED)=	3,749 S.F.
LOT AREA =	32,085 S.F.

As Built

MB. 54 PG. 39

NOTTAWAY PLANTATION LLC
DB. 23027, PG. 322, 326, 330
(FUTURE DEVELOPMENT)



BELLE GROVE MANOR LANE

DEDICATED AS 60' PUBLIC R/W

NOTE:
1. BUILDER ASSUMES RESPONSIBILITY FOR GRADING LOT AND/OR DESIGNING STEPS, PORCHES, DECKS, ETC. AS NECESSARY TO PREVENT ENCROACHMENT INTO SETBACKS.
2. HOUSE DIMENSIONS AND OPTIONS SHOULD BE VERIFIED WITH CONTRACTOR PRIOR TO CONSTRUCTION.
3. SETBACKS/ EASEMENTS SHOULD BE VERIFIED WITH DEVELOPER AND LOCAL OFFICIALS PRIOR TO CONSTRUCTION.
4. THIS IS A CONCEPTUAL DRAWING AND CONTENTS SHOWN HEREON ARE SUBJECT TO CHANGE UPON FINAL CONSTRUCTION.
THIS PROPERTY MAY BE SUBJECT TO ANY AND ALL APPLICABLE DEED RESTRICTIONS, EASEMENTS, RIGHT-OF-WAY, UTILITIES AND RESTRICTIVE COVENANTS WHICH MAY BE OF RECORD OR IMPLIED

CURVE TABLE				
CURVE	BEARING	CHORD	LENGTH	RADIUS
C1	S82°48'27"W	34.63	38.62	25.00

PRELIMINARY PLAT
NOT FOR RECORDATION, CONVEYANCES, OR SALES

40 0 40
SCALE: 1" = 40'

EASTOVER
LAND SURVEYING COMPANY, P.A.
LAND SURVEYORS - PLANNERS - C-1833
600 TOWNE CENTRE BOULEVARD, SUITE #309
PINEVILLE, NORTH CAROLINA 28134
PHONE (704) 927-6080
FAX (704) 521-1078

HOUSE LOCATION PLOT PLAN

FOR

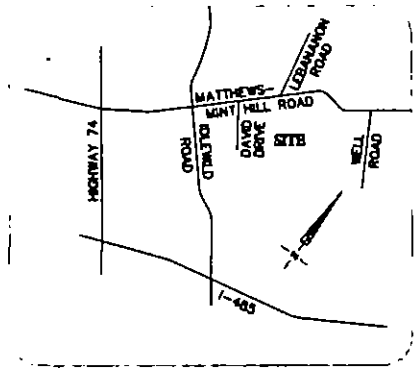
LOT 22, BELLE GROVE MANOR PHASE 1 MAP 3
Town of Mint Hill, Mecklenburg County, North Carolina

PROPERTY OF: ESSEX HOMES

MAP BOOK 54 PAGE 39 DEED REFERENCE

DRAWN BY: ERG | DATE: JULY 19, 2012

5/31/13
Inspect drain field & Tanks
need Elec + Pump Test
PSW



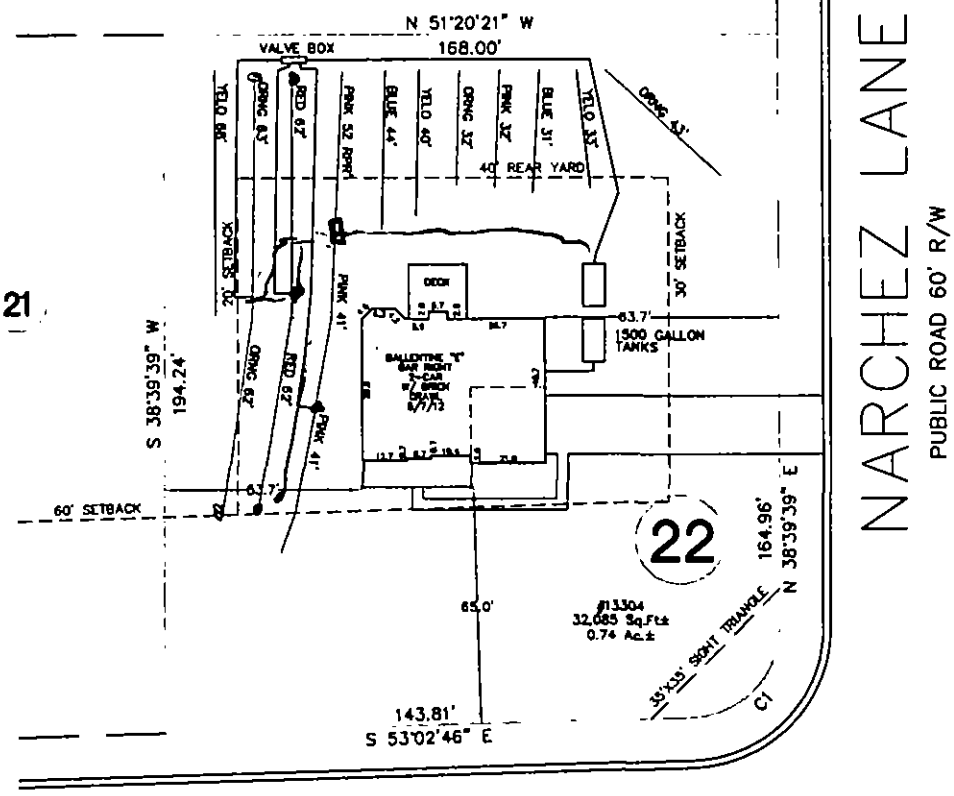
VICINITY MAP
Not To Scale

IMPERVIOUS SURFACE AREA	
DESCRIPTION	AREA
HOUSE w/ PORCH	2,304 S.F.
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DRIVEWAY & WALKS	1,208 S.F.
TOTAL (PROPOSED)=	3,749 S.F.
LOT AREA =	32,085 S.F.

See New Drawn

MB. 54 PG. 39

NOTTAWAY PLANTATION LLC
DB. 23028, PG. 322, 326, 330
(FUTURE DEVELOPMENT)



BELLE GROVE MANOR LANE

DEDICATED AS 60' PUBLIC R/W

NOTE:
1. BUILDER ASSUMES RESPONSIBILITY FOR GRADING LOT AND/OR DESIGNING STEPS, PORCHES, DECKS, ETC. AS NECESSARY TO PREVENT ENCROACHMENT INTO SETBACKS.
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PRELIMINARY PLAT
NOT FOR RECORDATION, CONVEYANCES, OR SALES.

40 0 40
SCALE: 1" = 40'

HOUSE LOCATION PLOT PLAN
FOR
LOT 22, BELLE GROVE MANOR PHASE 1 MAP 3
Town of Mint Hill, Mecklenburg County, North Carolina

PROPERTY OF: ESSEX HOMES
MAP BOOK 54 PAGE 39 DEED REFERENCE

EASTOVER
LAND SURVEYING COMPANY, P.A.
LAND SURVEYORS - PLANNERS - C-1833
600 TOWNE CENTRE BOULEVARD, SUITE #309
PINEVILLE, NORTH CAROLINA 28134
PHONE (704) 927-8080
FAX (704) 521-1078

DRAWN BY: ERG | DATE: JULY 19, 2012

5 3/4

2 3/4

Water
Management

ONSITE WASTEWATER SYSTEM STARTUP

Date: 7/25/13
Property: Belle Grove Manor, Lot 22

System type: ~~Goulds PE3] LPP~~ Block Panel

Pump model: Goulds PE3]
Control panel: Aquaworx SCB02 13-6072

Drawdown start:	65 3/4	inches
Drawdown finish:	68 1/2	inches
Drawdown time:	3	minutes
Gallons/inch:	29	
Gallons pumped:	80	
Gallons/minute:	27	
Design gallons/min:	30	
% design:	90%	
Design dose:	267	gallons
Dose drawdown:	9.2	inches

P.O. Box 2190 Lenoir, NC 28645
(828) 759-2721

8617B

MECKLENBURG COUNTY HEALTH DEPARTMENT App # 5885

APPLICATION FOR A RESIDENTIAL SITE IMPROVEMENT PERMIT/ CONSTRUCTION AUTHORIZATION FOR AN ON-SITE WASTEWATER SYSTEM, NEW WELL INSTALLATION, OR REPAIR OF EXISTING WELL

1. **SEPTIC / TYPE APPLICATION:** ○ N/A ● NEW SYSTEM ○ ALTERATION ○ REPAIR ○ MODIFIED PLOT PLAN

2. **WELL / TYPE APPLICATION:** ● N/A ○ NEW WELL ○ MAJOR REPAIR ○ ABANDONMENT

3. **JOB LOCATION INFORMATION:**

TAX PARCEL NUMBER: 195 022 02

STREET ADDRESS: 13304 Belle Grove Manor Lane

CITY: Mint Hill

STATE: NC ZIP: 28227

SUBDIVISION NAME: Belle Grove Manor Lane

LOT #: 22 LOT SIZE (acres): 1.74

TOWNSHIP:

○ MECKLENBURG ○ CORNELIUS ○ HUNTERSVILLE
○ DAVIDSON ○ CHARLOTTE ○ PINEVILLE
○ MATTHEWS ● MINT HILL

4. **BUILDING INFORMATION:**

BUILDING TYPE:

○ SINGLE MOBILE HOME ○ MODULAR HOME
○ DOUBLE WIDE ○ MULTIPLE FAMILY
● HOUSE ○ OTHER _____

HEATED SQUARE FOOTAGE: 3552

NUMBER OF BEDROOMS: 5

NUMBER OF OCCUPANTS: 2

FOUNDATION TYPE:

○ CONCRETE SLAB ○ BASEMENT WITH PLUMBING
● CRAWL SPACE ○ BASEMENT WITH NO PLUMBING

5. **IF PLANNING TO EXPAND OR ALTER THE EXISTING SEPTIC SYSTEM PLEASE COMPLETE THE FOLLOWING SECTION:** ☐ N/A

NUMBER OF BEDROOMS TO BE ADDED: _____ NUMBER OF ADDITIONAL OCCUPANTS IN THE RESIDENCE: _____

6. **WATER SUPPLY:** ○ MUNICIPAL ○ PRIVATE WELL ○ PUBLIC WELL ○ SHARED WELL ○ OTHER _____

7. **PROPOSED USE OF WELL:** ○ N/A ○ IRRIGATION ○ POTABLE (DRINKING WATER) ○ OTHER _____

8. **PLEASE INDICATE AND RANK DESIRED SEPTIC SYSTEM TYPE(S) IN ORDER OF PREFERENCE** *(1-MOST DESIRED 5-LEAST DESIRED):*

☐ N/A ☑ ANY TYPE ☐ CONVENTIONAL ☐ ACCEPTED ☐ INNOVATIVE ☐ ALTERNATIVE ☐ OTHER _____

8A. **RANK:** ____ ____ ____ ____ ____

9. **DO ANY OF THE FOLLOWING APPLY TO THE PROPERTY IN QUESTION? IF "YES" PLEASE ATTACH SUPPORTING DOCUMENTATION.**

BURIED CABLES, LANDFILLS, STUMPHOLES	○ YES ● NO	GRADING/SOIL REMOVAL PERFORMED	○ YES ● NO
EXISTING WASTEWATER (SEPTIC) SYSTEMS	○ YES ● NO	JURISDICTIONAL WETLANDS	○ YES ● NO
WELLS, SPRINGS, OR WATER LINES	○ YES ● NO	APPROVAL REQUIRED BY ANY OTHER PUBLIC AGENCY	○ YES ● NO
EASEMENTS OR RIGHT-OF-WAYS	○ YES ● NO	WASTEWATER OTHER THAN DOMESTIC SEWAGE	○ YES ● NO
CHEMICAL/PETROLEUM STORAGE TANKS	○ YES ● NO	KNOWN UNDERGROUND CONTAMINATION	○ YES ● NO
WASTE STORAGE	○ YES ● NO	GROUNDWATER USE RESTRICTIONS/VARIANCES	○ YES ● NO

10. **WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED?** _____ ☑ UNKNOWN

11. **WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY?** _____ ☐ N/A

12. **PROPERTY OWNER:**

NAME: Essex Homes Southeast

ADDRESS: 13310 South Ridge Dr.

CITY: Charlotte

STATE: NC ZIP: 28273

WORK PHONE: 704-423-8988

MOBILE PHONE: _____

FAX: 980 225-8990

E-MAIL: slatt@essexhomes.net

13. **OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:**

NAME: Susan Latt

ADDRESS: _____

CITY: _____

STATE: _____ ZIP: _____

WORK PHONE: _____

MOBILE PHONE: _____

FAX: _____

E-MAIL: _____

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

Revised on: 12/15/10

14. SEPTIC SYSTEM PERMIT APPLICATION:

If the information in this application is falsified, changed, or the site is altered, then the Improvement Permit and Authorization to Construct shall become invalid. 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. The permit is valid for either sixty (60) months or is non-expiring depending upon the documentation submitted: complete site plan = 60 months, complete plat = non-expiring.

SL (Initial here for septic system applications)

15. WELL PERMIT APPLICATION:

If the information in this application is falsified, changed, or the site is altered, then the Well Permit shall become invalid. 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. The permit is valid for a period of twelve (12) months from the date of Issuance.

N/A (Initial here for well applications)

16. APPLICATION SIGNATURE SECTION:

ONLY COMPLETE APPLICATIONS WILL BE PROCESSED. A proper signature is required in order to process your application. Please review the application carefully and sign in the space provided below. A PROPOSED PLOT PLAN is required to be submitted with each application.

Alison Latt — 10/26/2012

Property Owner's or Owner's Legal Representative Signature — Date

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OFFICE USE ONLY

O SURVEY PLAT TO SCALE SUBMITTED O SCALED SITE PLAN SUBMITTED O UN-SCALED SITE PLAN SUBMITTED

SEPTIC APPLICATION FEE RECEIVED: $ 250 DATE FEE RECEIVED: 10/30/12

WELL APPLICATION FEE RECEIVED: $ _____ DATE FEE RECEIVED: _____

APPLICATION PROCESSED BY: _____

GWS FILE NUMBER ASSIGNED: 8617 B

APPLICATION ID NUMBER ASSIGNED: 5885

COMMENTS:

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

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

Sheet: 1 of 2
Property ID: 19502202
Lot #: 22
File #: 8617B
AppID: 5885

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: Essex Homes Southeast
Applicant: Essex Homes Southeast
Address: 13310 South Ridge Dr, Suite A, Charlotte, NC 28273
Date Evaluated: 11/7/2012
Proposed Facility: 5BR Home
Design Flow (.1949): 600 GPD
Property Size: 0.74 ac
Location of Site: 13304 Belle Grove Manor Ln, Mint Hill, NC 28227
Property Recorded:

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

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
Boring #1	LS 5%	0 - 3	wfsbk L	SS SP FI SEXP	>52"	52	NA	PS	PS IV 0.3
		3 - 52	mmsbk/abk C	S P FI SEXP					
Boring #2	LS 5%	0 - 6	wfsbk L	SS SP FR SEXP	>52"	52	NA	PS	PS IV 0.3
		6 - 44	mmsbk/abk C	S P FI SEXP					
		44 - 52	wfsbk/abk CL	SS SP FR SEXP					
Boring #3	LS 3%	0 - 5	wfsbk L	SS SP FR SEXP	>52"	52	NA	PS	PS IV 0.3
		5 - 36	mmsbk C	S P FI SEXP					
		36 - 52	wfsbk CL	SS SP FR SEXP					
Boring #4	LS 3%	0 - 6	wfsbk L	SS SP FR SEXP	>52"	52	NA	PS	PS IV 0.3
		6 - 34	mmsbk C	S P FI SEXP					
		34 - 52	wfsbk CL	SS SP FR SEXP					

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	IVa	IVa
Site LTAR	0.3	0.3

Other Factors (.1946):
Soil Evaluation By: Jacob Presley LSS
Others Present:
Site Classification (.1948): PS
Site Evaluation By: Phil Walker REHS
Others Present:

COMMENTS:

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-Foot Slope	II	SL-Sandy Loam	0.8 - 0.6	GR-Granular
NS-Nose Slope		L-Loam		SBK-Subangular Blocky
HS-Head Slope				ABK-Angular Blocky
CC-Concave Slope	III	Si-Silt	0.6 - 0.3	PL-Platy
CV-Convex Slope		SiCL-Silty Clay Loam		PR-Prismatic
T-Terrace				
FP-Flood Plain		CL-Clay Loam		
D-Drainage Way		SCL-Sandy Clay Loam		
		SiL- (Silt 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	NEXP-(Non-expansive)
FR-Friable	SS-Slightly Sticky	SEXP-Slightly Expansive
FI-Firm	S-Sticky	EXP-Expansive
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



Hugh Creed Associates, Inc. P.A.

Consulting Engineers & Land Surveyors

1306 W. WENDOVER AVENUE P.O. BOX 9623
GREENSBORO, N.C. 27408 GREENSBORO, N.C. 27429
TELE: (336) 275-9826 OR (336) 275-8084 FAX: (336) 275-3379
FIRM LICENSE #C-0551 E-MAIL: HCA@TRIADBIZ.RR.COM

September 14, 2012

Mecklenburg County Ground Water and Wastewater Services
700 N. Tryon Street, Suite 211
Charlotte, NC 28202

Attn: Mr. Jeremy Michael

Re: Design Review for Pressure Dosed PPBPS Septic System
Five Bedroom Single Family Home on Lot 22 Belle Grove Manor Subdivision
13304 Belle Grove Manor Lane, Matthews, NC 28105

Dear Mr. Michael,

Based on our review of the pumping system design submitted by S&EC for the above referenced project dated August 20, 2012, we find the design to be of sound engineering practices.

Having not visited the site of the work, our design review is based totally on the limited information provided in the submittal. Hugh Creed Associates, Inc., P.A. assumes no responsibility for incorrect site information provided.

If you have any question, please do not hesitate to call.

Sincerely,
Hugh Creed Associates, Inc., P.A.

Norris Z. Clayton, P.E., P.L.S.



September 14, 2012

FEE: 200.00

DATE: 11/27/2012

CONSTRUCTION AUTHORIZATION FOR AN ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

MECKLENBURG COUNTY

GROUNDWATER & WASTEWATER SERVICES

FILE NUMBER: 8617B

PERMIT NUMBER: 30005885

PARCEL NUMBER: 19502222

JOB LOCATION INFORMATION

ADDRESS: 13304 BELLE GROVE MANOR LN

CITY: MATTHEWS **STATE: NC** **ZIP:** 28105

ISSUED TO: Essex Homes Southeast Inc

CONSTRUCTION AUTHORIZATION ISSUANCE DATE: 11/9/2012

CONSTRUCTION AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NUMBER 30005885, 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 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.
   *CONSTRUCTION AUTHORIZATION EXPIRATION DATE: 11/8/2017

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-5894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

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

Permit #: 30005886 GWS File #: 8617B Tax Parcel #: 195-022-22

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

I. This Improvement Permit Shall: Expire in Five (5) Years Expiration Date (If Applicable): 11/8/2017
Type of Installation: Residential - New System Lot Number: 22
Structure Type: HOUSE Size (ft^2): 3552 # Bedrooms: 5 # Occupants: 2
Building Foundation: Crawl Space Water Supply: Municipal

II. Initial System Type: PPBPS (pressurized) System Classification: IVa

Initial System Specifications:

Design Flow (gpd):	600	LTAR (gpd/ft^2):	0.3	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1500
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	999	Total Trench Length (ft):	333
Maximum Trench Depth (in):	30	Depth of Media (in):	N/A	Distribution Device:	Manifold (LPP Distr		

III. Repair System Type: PPBPS (pressurized) System Classification: IVa

Repair System Specifications:

Design Flow (gpd):	600	LTAR (gpd/ft^2):	0.3	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1500
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	1000	Total Trench Length (ft):	333
Maximum Trench Depth (in):	30	Depth of Media (in):	N/A	Distribution Device:	Manifold (LPP Distr		

IV. Permit Conditions/Comments:

(Please See the Following Page for Permit Conditions.)

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

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

DENR Authorized Agent: Philo Walker
Signature: Philo Walker REHS
Date Issued: 11/8/2012

Owner/Legal Agent: Susan Latt
Print Name
Signature: Susan Latt

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-5894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

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

Permit #: 30005886 GWS File #: 8617B

IV. Permit Conditions/Comments:

- 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.
- The septic system shall be installed in accordance with the plans submitted by the wastewater system design consultant.
- All waterlines must be located a minimum of 10 ft. from any part of the septic system.
- Upon completion of the project the system designer shall provide Groundwater & Wastewater Services with a letter certifying that the system was installed in accordance with the approved design.
- Flow from all gutters and downspouts shall be directed not to discharge water onto or across any part of the septic system.
- Foundation drains shall be constructed not to discharge water onto or across any part of the septic system.
- The septic system shall be located at least 10 feet from any foundation drain.

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DENR Authorized Agent: Philo Walker

Signature: Philo Walker REHS

Date Issued: 11/8/2012

Owner/Legal Agent: Susan Catt
Print Name

Signature: Susan Catt

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

NC DENR
Division of Environmental Health
On-Site Wastewater Section

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

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DENR Authorized Agent: Philo Walker

Signature: Philo Walker REHS

Date Issued: 11/8/2012

Owner/Legal Agent: _____
Print Name

Signature: _____

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
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- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Philip Walker

Signature: Philip Walker REHS

Date Issued: 11/8/2012

Owner/Legal Agent: _____
Print Name

Signature: _____