Contractor
Vecceslav Samocrani
13060

SUPERVISOR/ADMINISTRATIVE PROFESSIONAL CHECKLIST

NEW SEPTIC A2

11813 B

File Number: ~~12617B~~ **Accela Record #** SP26-062

Assigned Inspector: Patrick - Heather

☑ IP/CA COMBO $180: JM 9/1/26 Initial/Date

☑ IP/CA COMBO OP $200: JM 9/1/26 Initial/Date

☐ IP ONLY $250: _____ Initial/Date

☐ CA & OP $400: _____ Initial/Date

☐ A2 IP/CA Modified Plot Plan $40: _____ Initial/Date

☐ A2 Alteration $120: _____ Initial/Date

☐ IP/CA COMBO Commercial $260: _____ Initial/Date

☐ IP/CA COMBO Commercial OP $200: _____ Initial/Date

☐ Floor plans reviewed

☐ This site is served by septic and well. Verify each is complete before final hold is released

☐ This septic system requires a certified operation contract before final hold is released

☐ Certified operator contract is on file: _____

☑ Septic file complete: 10/1/26

☑ Release final hold in Accela: _____

Comments:

Raynard Washington, PhD, MPH
Health Director

MECKLENBURG COUNTY
Health Department

(704) 336-4700

Addendum to Application for
New Well or Septic System Installation
Abandonment or Repair of Existing Well or Septic System

Your signature below confirms the following:

1. The information on the application is true, complete and accurate.
2. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliances with applicable laws and rules.
3. I acknowledge that Nathan Estevez, Agri-Waste Technology Inc. is acting as my legal representative (agent) in the submittal of the application for a water supply well or septic permit located at

Parcel Number: 01313281.
Number Street Town
(Or Parcel Number)

Hugo Hernandez
Property Owner (print name)

Property Owner (signature)

08/28/2026
Date

Permit/File #: _____

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

ROY COOPER • Governor
KODY H. KINSLEY • Secretary
MARK BENTON • Chief Deputy Secretary for Health
SUSAN KANSAGRA • Assistant Secretary for Public Health
Division of Public Health

Submittal Includes: ☒ (a2) Improvement Permit ☒ (a2) Construction Authorization ☐ Fee $_____

IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)

County: Mecklenburg
PIN/Lot Identifier: 1313281
Issued To: HMA Builders c/o Hugo Hernandez
Property Location: 14606 NC-73, Huntersville, NC 28078
Subdivision (if applicable)_____ Lot #: _____ Block: _____ Section: _____
LSS Report Provided: Yes ☒ No ☐
If yes, name and license number of LSS: Jeff Vaughan, 1227
New ☒ Expansion ☐ System Relocation ☐ Change of Use ☐
Facility Type: Single Family Residence
Number of bedrooms: 5 Number of Occupants: 10 Other: _____
Design Wastewater Strength: ☒ Domestic ☐ High Strength ☐ Industrial Process Wastewater
Proposed Design Daily Flow: 600 GPD Proposed LTAR (Initial): 0.275 Proposed LTAR (Repair): 0.3
Proposed Wastewater System Type*: Type IIIb, pump to Horizontal PPBPS (50% reduction drain field product) (Initial) Pump Required: ☒ Yes ☐ No ☐ May be required
Proposed Wastewater System Type*: Type IIIb, pump to Chambers (25% reduction drain field product) (Repair) Pump Required: ☒ Yes ☐ No ☐ May be required
**Please include system classification for proposed wastewater system types in accordance with Rule .1301 Table XXXII*
Effluent Standard: ☒ DSE ☐ HSE ☐ NSF/ANSI 40 ☐ TS-I ☐ TS-II ☐ RCW
Saprolite System (Initial): ☐ Yes ☒ No Saprolite System (Repair): ☐ Yes ☒ No
Fill System (Initial): ☐ Yes ☒ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area provide a fill plan)
Fill System (Repair): ☐ Yes ☒ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area provide a fill plan)
Usable Depth to LC (Initial)[x]: 43" Usable Depth to LC (Repair)[x]: 36" ***[x] Limiting Condition***
Max. Trench Depth (Initial)[‡]: 31" Max. Trench Depth (Repair)[‡]: 24" ***[‡] Measured on the downhill side of the trench***
Artificial Drainage Required: ☐ Yes ☒ No If yes, please specify details: _____
Type of Water Supply: ☐ Private well ☐ Public well ☐ Shared well ☒ Municipal Supply ☐ Spring ☐ Other: _____
Drainfield location meets requirements of Rule .0508: Yes ☒ No ☐ Drainfield location meets requirements of Rule .0601: Yes ☒ No ☐
Permit valid for: ☒ Five years [site plan submitted pursuant to GS 130A-334(13a)] ☐ No expiration [plat submitted pursuant to GS 130A-334(7a)]

Permit conditions:

Licensed Soil Scientist Print Name: Jeff Vaughan
Licensed Soil Scientist Signature: _____ Date: 05/04/2026

The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).

See attached site sketch

File #: _____

PROPOSED PLOT PLAN

A drawing showing the locations of the following items is required: existing and proposed property lines with dimensions, easements or right-of-ways, proposed building pad(s) or existing building footprint(s), all appurtenances (garage, driveway, deck, pool, etc.), location of existing or proposed well(s), location of existing or proposed sewer lines and sewage disposal systems, surface water bodies, and any aboveground or underground storage tanks. Provide names for all roads that adjoin the property.

Street Address: 14600 NC-73, Huntersville, NC 28078 Tax Parcel #: 01313108

Subdivision Name: _____ Lot #: _____

See Design Section in Attachment 1

Property Owner's or Owner's Legal Representative Signature

3/16/26
Date

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST. SUITE 211 CHARLOTTE, NC 28202, OFFICE: 980-314-1680, FAX: 704-336-6894
Email: Wellreg@MecklenburgCountyNC.gov

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date *Initials*

G.S. 130A-335(a3) states the following:

When an applicant for an Improvement Permit submits to a local health department an Improvement Permit application, the permit fee charged by the local health department, the common form developed by the Department, and a soil evaluation pursuant to subsection (a2) of this section, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Improvement Permit includes all of the required components. If the local health department determines that the Improvement Permit is incomplete, the local health department shall notify the applicant of the components needed to complete the Improvement Permit. The applicant may submit additional information to the local health department to cure the deficiencies in the Improvement Permit. The local health department shall make a final determination as to whether the Improvement Permit is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The Department shall develop a common form for use as the Improvement Permit.

The review for completeness of this Improvement Permit was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the LSS and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date: _____

This Improvement Permit is issued pursuant to G.S. 130A-335 (a2) and (a3) using the signed and sealed LSS/LG evaluation(s) attached here. The issuance of this permit in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. *This permit is subject to revocation if the site plan, plat, or the intended use changes.* The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of 15A NCAC 18E and to the conditions of this permit.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to evaluations, submittals, or actions from a licensed soil scientist or licensed geologist pursuant to GS 130A-335(a2).

Improvement Permit Expiration Date: _____

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

Re-submittal of Improvement Permit

LHD USE ONLY: This IP resubmittal received: _____ *Date* by _____ *Initials*

The following items are being resubmitted pursuant to G.S. 130A-335(a3) for issuance of the Improvement Permit:

_____

_____

_____

_____

I, _____ *Licensed Soil Scientist (Print Name)* hereby attest that the information required to be included with this re-submittal is accurate and complete to the best of my knowledge and that the proposed Improvement Permit meets all applicable federal, State, and local laws, regulations, rules, and ordinances.

_____ *Signature of Licensed Soil Scientist*

_____ *Date*

The section below is for Local Health Department use after submittal of items noted as missing above.

LHD Follow-up Completeness Review of Improvement Permit

The review for completeness of this Improvement Permit re-submittal was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the LSS and the Applicant on _____ *Date*

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date: _____

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)

County: Mecklenburg **Pre-Construction Conference Required:** Yes ■ No ☐

PIN/Lot Identifier: 1313281

Issued To: HMA Builders c/o Hugo Hernandez

Property Location: 14606 NC-73, Huntersville, NC 28078

AOWE/PE Plans/Evaluations Provided: Yes ■ No ☐ If yes, name and license number of AOWE/PE: Jeff Vaughan, 10003E

Facility Type: Single Family Residence

Number of bedrooms: 5 Number of Occupants: 10 Other: _____

■ New ☐ Expansion ☐ Repair ☐ System Relocation ☐ Change of Use

Basement? ☐ Yes ■ No Basement Fixtures? ☐ Yes ■ No

Crawl Space? ■ Yes ☐ No Slab Foundation? ☐ Yes ■ No

Type of Wastewater System* Type IIIb, pump to Horizontal PPBPS (50% reduction drain field product) (Initial) Type IIIb, pump to Chambers (25% reduction drain field product) (Repair)

**Please include system classification for proposed wastewater system types in accordance with Rule .1301 Table XXXII*

Design Daily Flow: 600 GPD Wastewater Strength: ■ Domestic ☐ High Strength ☐ Industrial Process WW

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? ☐ Yes ■ No
(if yes, please provide engineering documentation)

Effluent Standard: ■ DSE ☐ HSE ☐ NSF/ANSI 40 ☐ TS-I ☐ TS-II ☐ RCW

Type of Water Supply: ☐ Private well ☐ Public well ☐ Shared well ■ Municipal Supply ☐ Spring ☐ Other: _____

Installation Requirements/Conditions

Septic Tank Size: 1,250 gallons Total Trench/Bed Length: 368 feet Trench/Bed Spacing: 8 feet on center

Trench/Bed Width: 36 inches LTAR: 0.275 gpd/ft² Usable Depth to LC (Initial)ˣ: 43" ˣ***Limiting condition***

Soil Cover: - inches Slope Corrected Maximum Trench/Bed Depth‡: 31" inches ‡ ***Measured on the downhill side of the trench***

Pump Tank Size (if applicable): 1,500 gallons Requires more than 1 pump? ☐ Yes ■ No

Pump Requirements: 34.94 ft. TDH vs. 48.96 GPM Grease Trap Size (if applicable): - gallons

Distribution Method: ☐ Serial ☐ D-Box or Parallel ■ Pressure Manifold(s) ☐ LPP ☐ Other: _____

Artificial Drainage Required: Yes ☐ No ■ If yes, please specify details: _____

Legal Agreements *(If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)*

Multi-party Agreement Required [.0204(g)]: ☐ Yes ■ No Declaration of Restrictive Covenants: ☐ Yes ■ No

Easement, Right-of-Way, or Encroachment Agreement Required [.0301(b)]: ☐ Yes ■ No

Management Entity Required: ☐ Yes ■ No Minimum O&M Requirements: _____

Permit conditions:

The requirements of 15A NCAC 18E are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached site sketch. *This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes.* The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of 15A NCAC 18E, or 15A NCAC 18A .1900, as applicable, and to the conditions of this permit.

AOWE/PE Print Name: Jeff Vaughan

AOWE/PE Signature: _____ Date: 05/04/2026

This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date *Initials*

G.S. 130A-335(a5) states the following:

When an applicant for a Construction Authorization, or an Improvement Permit and Construction Authorization together, submits a Construction Authorization, or an Improvement Permit and Construction Authorization application together, the permit fee charged by the local health department, the common form developed by the Department, and any necessary signed and sealed plans or evaluations conducted by a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Construction Authorization or Improvement Permit and Construction Authorization includes all of the required components. If the local health department determines that the Construction Authorization or Improvement Permit and Construction Authorization is incomplete, the local health department shall notify the applicant of the components needed to complete the Construction Authorization or Improvement Permit and Construction Authorization. The applicant may submit additional information to the local health department to cure the deficiencies in the Construction Authorization or Improvement Permit and Construction Authorization. The local health department shall make a final determination as to whether the Construction Authorization or Improvement Permit and Construction Authorization is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The applicant may apply for the building permit for the project upon the decision of completeness of the Construction Authorization or Improvement Permit and Construction Authorization by the local health department or if the local health department fails to act within five business days. The Authorized On-Site Wastewater Evaluator or licensed engineer submitting the evaluation pursuant to this subsection may request that the local health department revoke or suspend the Construction Authorization or Improvement Permit and Construction Authorization for cause. Upon written request of the Authorized On-Site Wastewater Evaluator or licensed engineer, the local health department shall suspend or revoke the Construction Authorization or Improvement Permit and Construction Authorization pursuant to G.S. 130A-23. The Department shall develop a common form for use as the Construction Authorization.

The review for completeness of this Construction Authorization was conducted in accordance with G.S. 130A-335(a5). This Construction Authorization is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing: _____

_____

Copies of this were sent to the AOWE/PE and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date of Issuance: _____

This Construction Authorization is issued pursuant to G.S. 130A-335(a2) and (a5) using the signed and sealed plans or evaluations attached here. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to plans, evaluations, preconstruction conference findings, submittals, or actions from a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator in GS 130A-335(a2), (a5), and (a7). The Department, the Department's authorized agents, and the local health departments shall be responsible and bear liability for their actions and evaluations and other obligations under State law or rule, including the issuance of the operations permit pursuant to GS 130A-337.

Construction Authorization Expiration Date: _____

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

Re-submittal of Construction Authorization

LHD USE ONLY: This CA resubmittal received: _____ by _____
Date *Initials*

The following items are being resubmitted pursuant to G.S. 130A-335(a5) for issuance of the Construction Authorization:

_____

_____

_____

_____

I, _____ hereby attest that the information required to be included with this re-submittal
Authorized Onsite Wastewater Evaluator (Print Name)
is accurate and complete to the best of my knowledge and that the proposed Construction Authorization meets all applicable federal, State, and local laws, regulations, rules, and ordinances.

_____ _____
Signature of Authorized On-Site Wastewater Evaluator *Date*

The section below is for Local Health Department use after submittal of items noted as missing above.

LHD Follow-up Completeness Review of Construction Authorization

The review for completeness of this Construction Authorization re-submittal was conducted in accordance with G.S. 130A-335(a5). This Construction Authorization is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the AOWE/PE and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date: _____

Permit/File #: _____

ADDENDUM TO G.S. 130A-335(a2) SUBMITTAL

County: _____

PIN/Lot Identifier: _____

Issued To: _____

Additional Improvement Permit Conditions:

Additional Construction Authorization Conditions:

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 1/20/2026

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Hartsfield & Nash Agency, Inc. 10405 Ligon Mill Rd., Ste H Wake Forest NC 27587 License#: 1000009111 AGRITEC-01	**CONTACT NAME:** Connie Garkalns **PHONE (A/C, No, Ext):** 984-235-4273 **FAX (A/C, No):** 919-556-8758 **E-MAIL ADDRESS:** connie@hn-ins.com
INSURED Agri-Waste Technology Inc 1225 Crescent Green, Suite 250 Cary NC 27518	**INSURER(S) AFFORDING COVERAGE** — **NAIC #** **INSURER A :** Accident Fund — 10166 **INSURER B :** Evanston Insurance Company — 35378 **INSURER C :** SELECTIVE INSURANCE COMPANY — 39926 **INSURER D :** **INSURER E :** **INSURER F :**

COVERAGES **CERTIFICATE NUMBER:** 1861440469 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
C	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY [X] PRO-JECT [ ] LOC OTHER:			S 2253659	1/18/2026	1/18/2027	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$ 2,000,000 $ 300,000 $ 10,000 $ 2,000,000 $ 4,000,000 $ 4,000,000 $
C	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY [ ] SCHEDULED AUTOS X HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY			S 2253659	1/18/2026	1/18/2027	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$ 1,000,000 $ $ $ $
C	X UMBRELLA LIAB [X] OCCUR EXCESS LIAB [ ] CLAIMS-MADE DED RETENTION $			S 2253659	1/18/2026	1/18/2027	EACH OCCURRENCE AGGREGATE $	$ 2,000,000 $ 2,000,000 $
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? [N] (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		AFWCP10000307205	1/18/2026	1/18/2027	X PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
B C	Prof & Pollution Liability Leased & Rented			MKLV7ENV106760 S 2253659	8/22/2025 1/18/2026	8/22/2026 1/18/2027	Each Claim Equipment	$ 5,000,000 $ 25,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

For Information Only
***Contact Agency
for Specific Holder
Wording***

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Connie Garkalns

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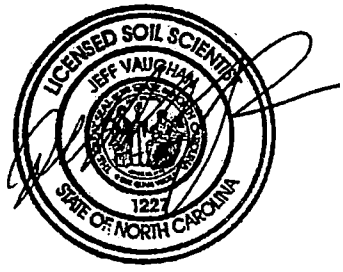
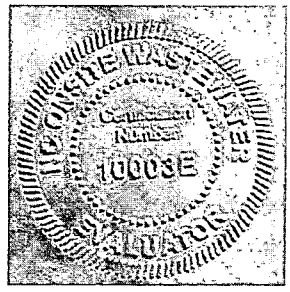
Engineers and Soil Scientists

Agri-Waste Technology, Inc.
1225 Crescent Green, Suite 250, Cary NC 27518
agriwaste.com | 919.859.0669





Soil Suitability for Domestic Sewage Treatment and Disposal Systems
14606 NC-73, Huntersville, NC 28078
(Mecklenburg Co Parcel ID 1313281)

PREPARED FOR: HMA Builders , LLC c/o Hugo Hernandez– Client

PREPARED BY: Jeff Vaughan, Senior Agronomist & Soil Scientist
Trevor Hackney, Licensed Soil Scientist

DATE: May 04, 2026

Soil suitability for domestic sewage treatment and disposal systems was evaluated on February 23, 2026, for the property located at 14600 NC-73, Huntersville, NC 28078. Agri-Waste Technology, Inc. (AWT) personnel conducted the soil evaluation. This evaluation was done to facilitate permitting for a septic system. This report and attached documents were prepared to meet the requirements for G.S. 130A-335(a2).

A drawing of the site plan, septic layout, and boring locations is included in Attachment 1. Profile descriptions for each boring are included in Attachment 2. Additional documentation about the property is included in Attachment 3.

The total property area is approximately 7.720 acres. The overall slope of the proposed septic system ranges from 3-8% slopes. The home is proposed on the front of the property, and the primary septic system area is proposed upslope in front of the structure. The proposed repair area is to be located behind the home near the back of the property. The proposed primary septic system is a type IIIb, pump system utilizing the Horizontal T&J Panel Block dispersal 50% reduction drain-field product. The proposed repair septic system area is a type IIIb, pump septic system utilizing the Chamber dispersal 25% reduction drain-field product.

Soil Suitability for Domestic Sewage Treatment and Disposal Systems
The drawing in Attachment 1 details the property boundaries (as proposed by others), soil boring locations, and layout of drain field trenches (Completed by AWT). Soil borings were examined to determine soil suitability for on-site sewage disposal systems in accordance with 15A NCAC 18E Rules for Wastewater Treatment and Disposal Systems. These borings were advanced with a hand auger. A septic layout was performed to demonstrate available space (.0508). The layout in Attachment 1 indicates there is available space for a five-bedroom home.

The proposed LTAR (Long Term Acceptance Rate) set by AWT is 0.275 GPD/ft^2 for the primary system area. The soils on this property are group IV soils within the distribution and treatment zone as used to define the LTAR. With an LTAR of 0.275 GPD/ft^2, 364 linear feet of trench are necessary to support a five-bedroom primary septic system. Since usable slope corrected soil depths meet or exceed 43", the maximum low side trench bottom should not exceed 31". AWT is recommending the use of the Horizontal T&J Panel Block drain field product for the primary system. The attached drawing proves that 368 linear feet of trench product can be installed for the primary septic system with the proposed home depicted on the drawing.

The proposed LTAR (Long Term Acceptance Rate) set by AWT is 0.3 GPD/ft^2 for the repair system area. The soils on this property are group IV soils within the distribution and treatment zone as used to define the LTAR. With an LTAR of 0.3 GPD/ft^2, 500 linear feet of trench are necessary to support a five-bedroom repair septic system. Since usable slope corrected soil depths meet or exceed 36", the maximum low side trench bottom should not exceed 24".
The attached drawing proves that 500 linear feet of trench product can be installed for the repair area with the use of the Chamber dispersal 25% reduction drain field product system with the home depicted on the drawing.

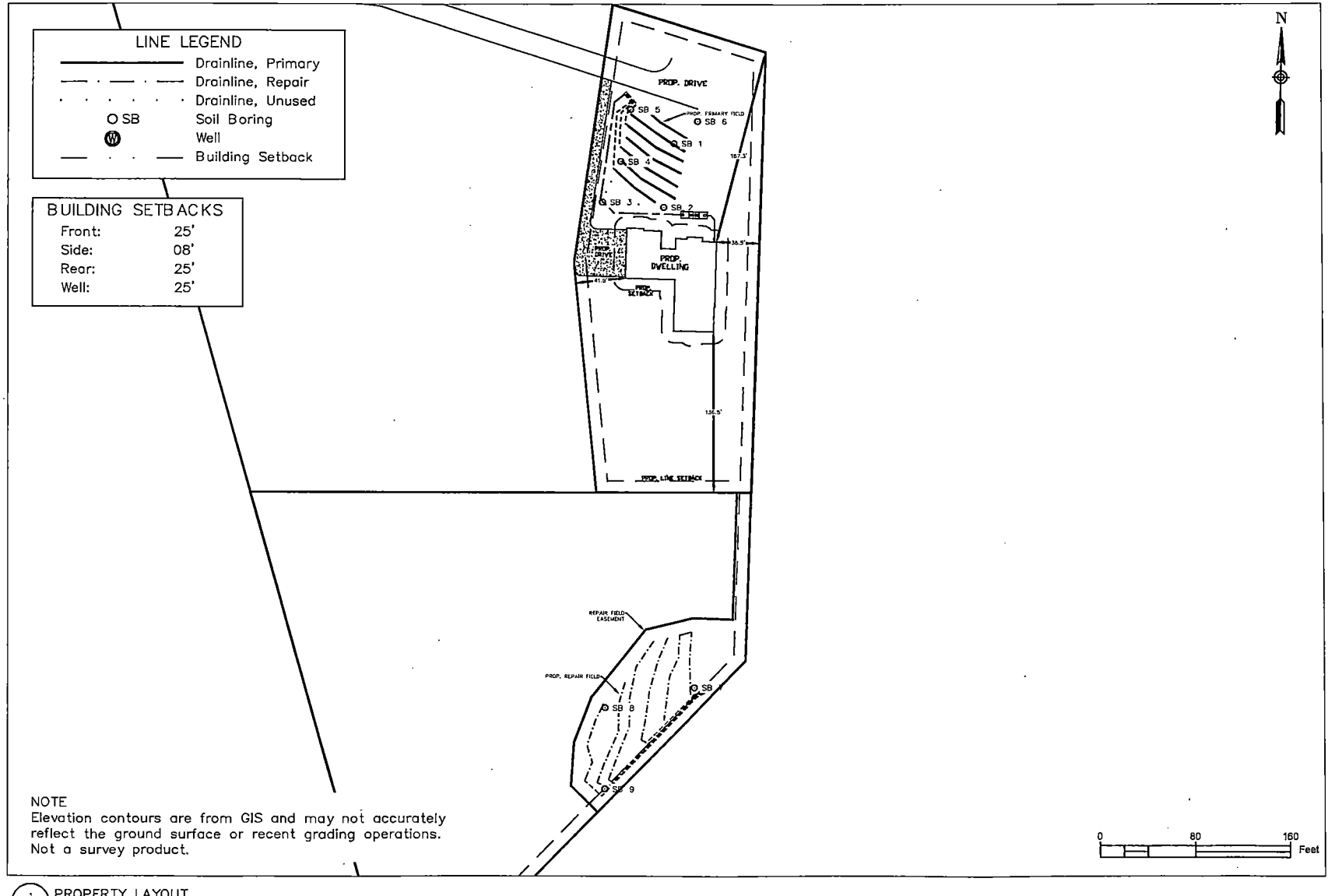
Any disturbances or grading done in the usable area or within the proposed setbacks will change the potential of using the area designated for a drain field.

We appreciate the opportunity to assist you in this matter. Please contact us with any questions, concerns, or comments.

Sincerely,

Jeff Vaughan, LSS/AOWE

Attachment 1: Drawings & Calculations



NOTE
Elevation contours are from GIS and may not accurately reflect the ground surface or recent grading operations. Not a survey product.

1 WW-2 PROPERTY LAYOUT
Source: AWT Inc.

AWT
Engineers and Soil Scientists

Agri-Waste Technology, Inc.
1225 Crescent Green, Suite 250, Cary, NC 27518
agriwaste.com | 704.237.0650

Hugo Hernandez
HMA–NC Hwy,73

PROJECT LOCATION:
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg COUNTY
PIN: 01313108

PROFESSIONAL ENGINEER SEAL

FOR REVIEW ONLY

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
PROPERTY LAYOUT

Drawn By:	Drawn On:
----	2026-02-27
Revised By:	Revised On:
----	----
Released By:	Released On:
----	----

Drawing Number:
WW-2

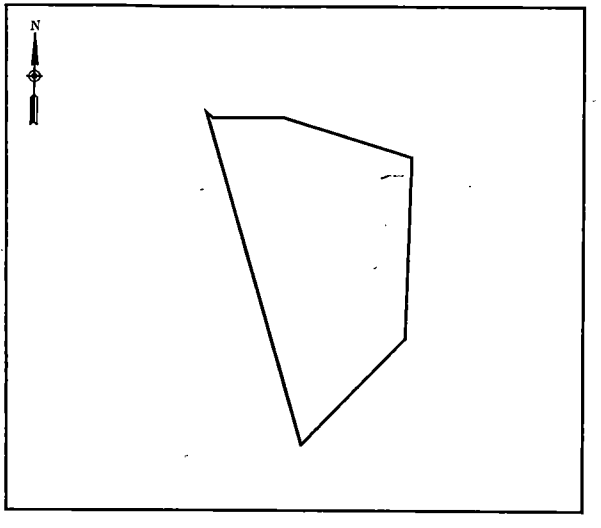
HMA–NC HWY 73

Project Location
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg County
PIN: 01313*281*
PID: 1313*281*

Project Owner
Hugo Hernandez
2284 Barrowcliffe Dr NW
Concord, NC 28027
305–970–8802
hugo@hmabuilder.com

Project Consultant
Jeff Vaughan, L.S.S
(919) 367–6313
Agri–Waste Technology, Inc.
1225 Crescent Green, Suite 250
Cary, NC 27518
(919) 859–0669
(919) 233–1970 Fax

System Overview
Single Family Residence
5 Bedroom, 600 gpd
PPBPS, Horizontal Dispersal Primary
Chambers Dispersal Repair
Pressure Manifold Distribution Primary
Pressure Manifold Distribution Repair



Sheet Index

Sheet 1	Cover Sheet
Sheet 2	Property Layout
Sheet 3	Component Layout
Sheet 4	Primary Drainfield
Sheet 5	Repair Drainfield
Sheet 6	Detail Sheet
Sheet 7	Detail Sheet
Sheet 8	Excavation Safety

NC 811 ORG

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
1225 Crescent Green, Suite 250, Cary, NC 27518
agriwaste.com | 704.237.0550

Hugo Hernandez
HMA–NC Hwy 73

PROJECT LOCATION:
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg COUNTY
PIN: 01313108

REV.	ISSUED	DATE	DESCRIPTION

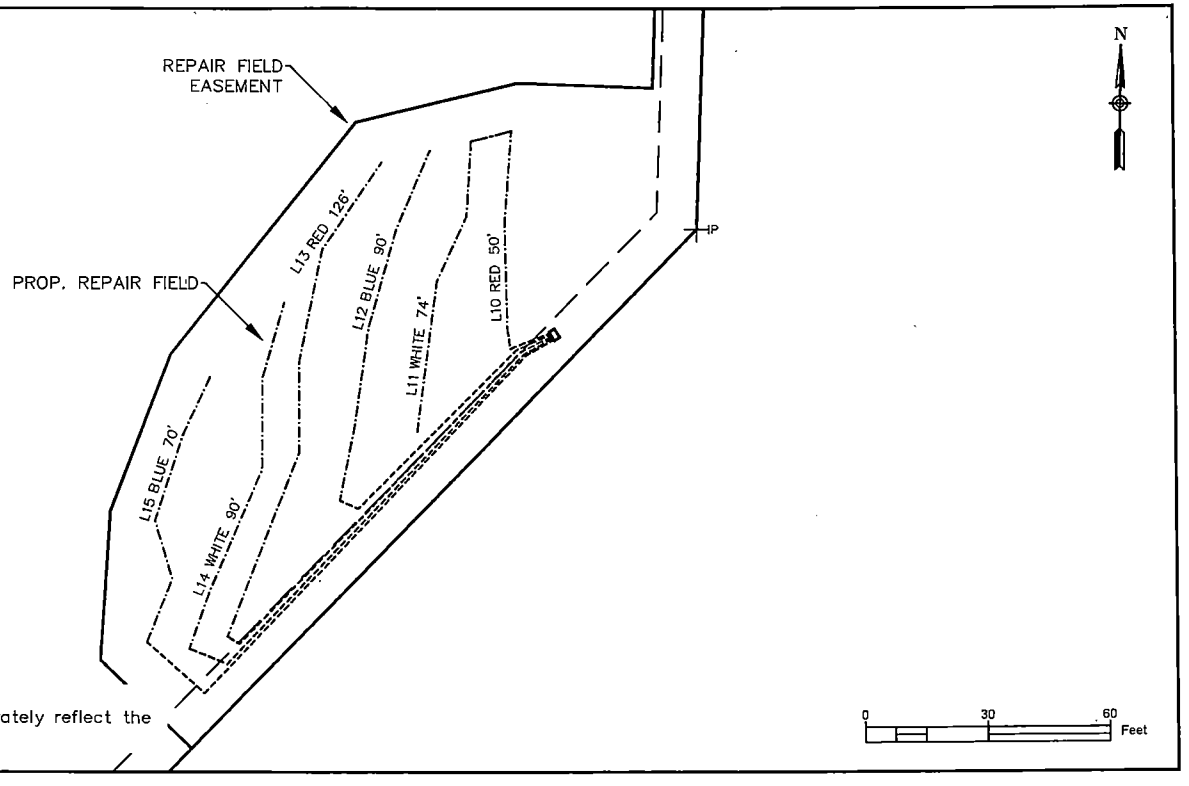
SHEET TITLE
COVER SHEET

Drawn By:	Drawn On:
-----	2026-02-27
Revised By:	Revised On:
-----	-----
Released By:	Released On:
-----	-----

Drawing Number:
WW–1

LEGEND	
— — — —	SYSTEM SETBACK

SYSTEM SETBACKS	
Downhill Structure:	15'
Uphill Structure:	10'
Well:	50'
Property Line:	10'
Driveway:	5'



NOTE
Elevation contours are from GIS and may not accurately reflect the ground surface or recent grading operations.

General Drainfield Notes:

1. Clear all trees less than 8" in diameter (measured at a height 3' from soil surface) from the drainfield.
2. Vegetation that will re–grow from a cut stump shall be stumped or pulled from the ground. Stumps shall not be pushed over.
3. Drainfield area shall be cleared of all leaves, pine straw, debris, etc. The accumulated material shall be removed from the drainfield.
4. In clayey soils, sides of trenches shall be raked and limed per manufacturer's instructions.
5. Supply lines shall be installed with a minimum of 18" cover.
6. The trenches shall be backfilled appropriately so that no low areas are present.
7. Apply lime over the drainfield area as needed. Seed fine fescue over the drainfield at the rate recommended by the seed manufacturer. Hand rake the seed into the soil surface. Straw the seeded area at the rate of 1.5–2 bales per 1000 sq. ft.

DRAINFIELD INFO. - **Repair**

Proposed Type of System/Distribution: ***Pump to Pressure Manifold using Chambers***

Line No.	Flag Color	Line Length (ft.)		Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
10 & 11	RED & WHITE	124	3/4in SCH 80	10.10	0.081	0.408
12	BLUE	90	1/2in SCH 40	7.11	0.079	0.396
13	RED	126	3/4in SCH 80	10.10	0.080	0.402
14	WHITE	90	1/2in SCH 40	7.11	0.079	0.396
15	BLUE	70	1/2in SCH 80	5.48	0.078	0.392
	Total	**500.00**	**Total**	**39.90**	**Avg.**	**0.40**

Note: Line lengths are calculated in 4' increments to reflect use of Chambers product. 2' added for endcaps.

1 / WW–5 REPAIR DRAINFIELD
Source: AWT Inc.

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Hugo Hernandez
HMA–NC Hwy 73

PROJECT LOCATION:
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg COUNTY
PIN: 01313108

PROFESSIONAL ENGINEER SEAL

FOR REVIEW ONLY

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
REPAIR DRAINFIELD

Drawn By:	Drawn On:
-----	2026–02–27
Revised By:	Revised On:
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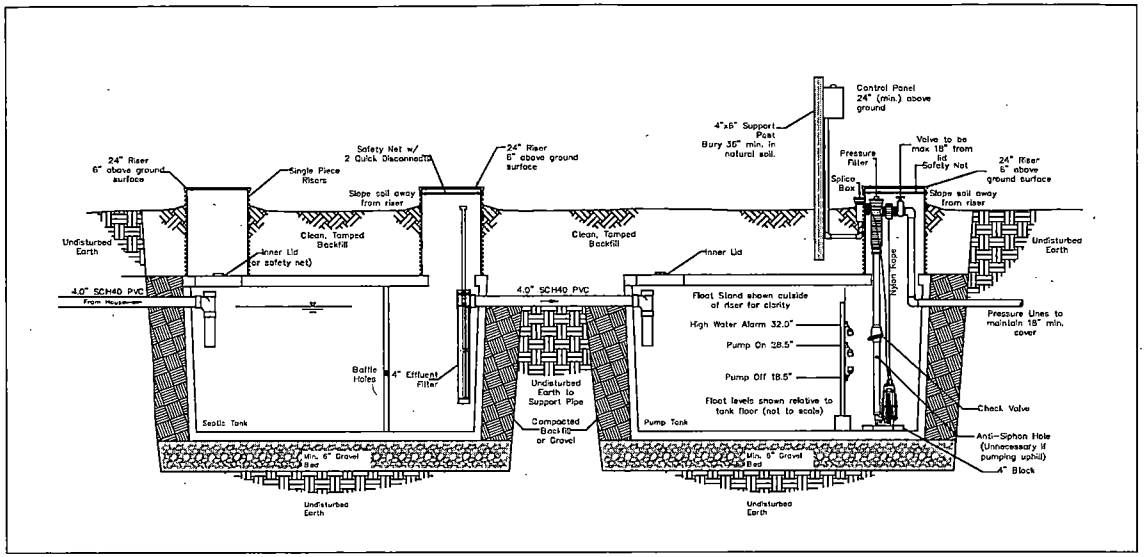
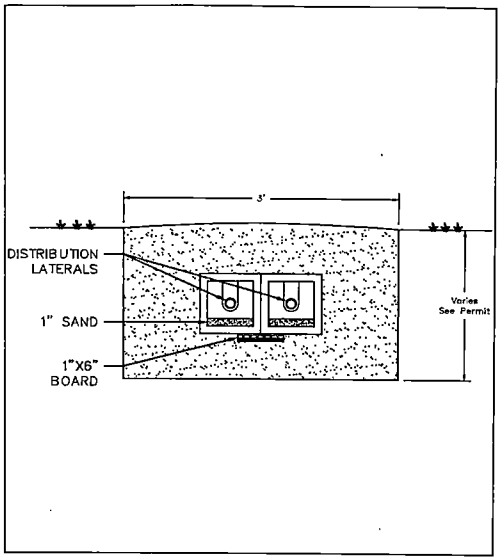
Released By:	Released On:
-----	-----

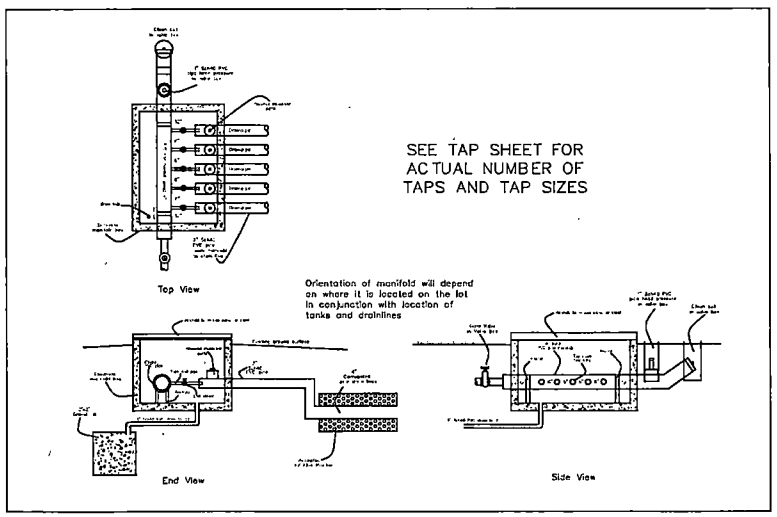
Drawing Number:
WW–5



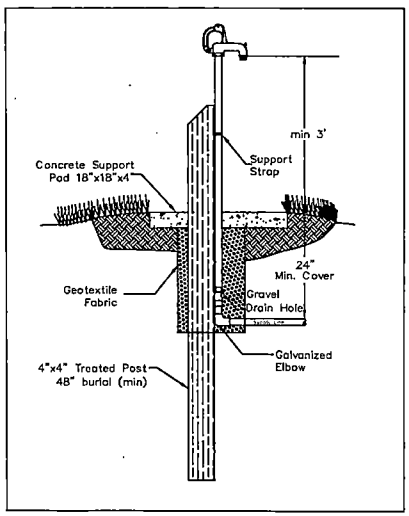
1 WW-6 SYSTEM PROFILE
NTS



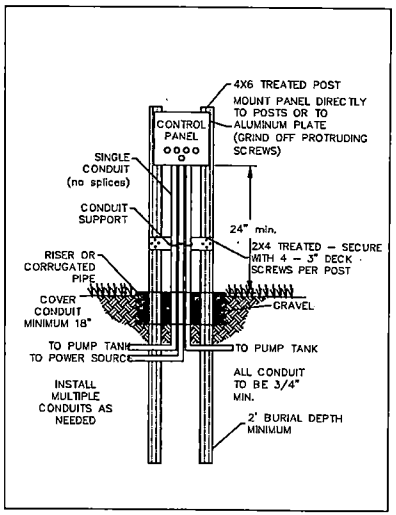
2 WW-6 TRENCH CROSS-SECTION (TYPICAL)
NTS



3 WW-6 PRESSURE MANIFOLD INSTALLATION
NTS



4 WW-6 YARD HYDRANT (IF REQUIRED)
NTS



5 WW-6 CONTROL PANEL SUPPORT
NTS

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FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
DETAIL SHEET

Drawn By: ####	Drawn On: ####
Revised By: ####	Revised On: ####
Released By: ####	Released On: ####

Drawing Number:
WW-6

Trenching and Excavation Safety

The employer must comply with the trenching and excavation requirements of 29 CFR 1926.651 and 1926.652 or comparable OSHA-approved state plan requirements.

Inspection of Excavations

OSHA standards require that a competent person inspect trenches daily and as conditions change before worker entry to ensure elimination of excavation hazards. A competent person is an individual who is capable of identifying existing and predictable hazards or working conditions that are hazardous, unsanitary, or dangerous to workers, soil types and protective systems required, and who is authorized to take prompt corrective measures to eliminate these hazards and conditions.

Access and Egress

OSHA standards require safe access and egress to all excavations, including ladders, steps, ramps, or
other safe means of exit for employees working in trench excavations 4 feet (1.22 meters) or deeper.
These devices must be located within 25 feet (7.6 meters) of all workers.

Recommendations

Heavy equipment and trucks should stay as far as possible from the edge of any trench.
Always use pads under stabilizers to minimize ground pressures that could lead to failures.

(b) Definitions

"Cemented soil" means a soil in which the particles are held together by a chemical agent, such as calcium carbonate, such that a hand-size sample cannot be crushed into powder or individual soil particles by finger pressure.
"Cohesive soil" means clay (fine grained soil), or soil with a high clay content, which has cohesive strength. Cohesive soil does not crumble, can be excavated with vertical sidesloped, and is plastic when moist. Cohesive soil is hard to break up when dry, and exhibits significant cohesion when submerged. Cohesive soils include clayey silt, sandy clay, silty clay, clay and organic clay.
"Dry soil" means soil that does not exhibit visible signs of moisture content.
"Fissured" means a soil material that has a tendency to break along definite planes of fracture with little resistance, or a material that exhibits open cracks, such as tension cracks, in an exposed surface.
"Granular soil" means gravel, sand, or silt (coarse grained soil) with little or no clay content. Granular soil has no cohesive strength. Some moist granular soils exhibit apparent cohesion. Granular soil cannot be molded when moist and crumbles easily when dry.
"Layered system" means two or more distinctly different soil or rock types arranged in layers. Micaceous seams or seamed planes in rock or shale are considered layered.
"Moist soil" means a condition in which a soil looks and feels damp. Moist cohesive soil can easily be shaped into a ball and rolled into small diameter threads before crumbling. Moist granular soil that contains some cohesive material will exhibit signs of cohesion between particles.
"Plastic" means a property of a soil which allows the soil to be deformed or molded without cracking, or appreciable volume change.
"Saturated soil" means a soil in which the voids are filled with water. Saturation does not require flow. Saturation, or near saturation, is necessary for the proper use of instruments such as a pocket penetrometer or sheer vane.

"Soil classification system" means, for the purpose of this subpart, a method of categorizing soil and rock deposits in a hierarchy of Stable Rock, Type A, Type B, and Type C, in decreasing order of stability. The categories are determined based on an analysis of the properties and performance characteristics of the deposits and the characteristics of the deposits and the environmental conditions of exposure.
"Stable rock" means natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.
"Submerged soil" means soil which is underwater or is free seeping.

"Type A" means cohesive soils with an unconfined, compressive strength of 1.5 ton per square foot (tsf) (144 kPa) or greater. Examples of cohesive soils are: clay, silty clay, sandy clay, clay loam and, in some cases, silty clay loam and sandy clay loam. Cemented soils such as caliche and hardpan are also considered Type A.
However, no soil is Type A if:
(i) The soil is fissured; or
(ii) The soil is subject to vibration from heavy traffic, pile driving, or similar effects; or
(iii) The soil has been previously disturbed; or
(iv) The soil is part of a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or greater; or
(v) The material is subject to other factors that would require it to be classified as a less stable material.

"Type B" means:
(i) Cohesive soil with an unconfined compressive strength greater than 0.5 tsf (48 kPa) but less than 1.5 tsf (144 kPa); or
(ii) Granular cohesionless soils including: angular gravel (similar to crushed rock), silt, silt loam, sandy loam and, in some cases, silty clay loam and sandy clay loam.
(iii) Previously disturbed soils except those which would otherwise be classed as Type C soil.
(iv) Soil that meets the unconfined compressive strength or cementation requirements for Type A, but is fissured or subject to vibration; or
(v) Dry rock that is not stable; or
(vi) Material that is part of a sloped, layered system where the layers dip into the excavation on a slope less steep than four horizontal to one vertical (4H:1V), but only if the material would otherwise be classified as Type B.

"Type C" means:
(i) Cohesive soil with an unconfined compressive strength of 0.5 tsf (48 kPa) or less; or
(ii) Granular soils including gravel, sand, and loamy sand; or
(iii) Submerged soil or soil from which water is freely seeping; or
(iv) Submerged rock that is not stable, or
(v) Material in a sloped, layered system where the layers dip into the excavation or a slope of four horizontal to one vertical (4H:1V) or steeper.

"Unconfined compressive strength" means the load per unit area at which a soil will fail in compression. It can be determined by laboratory testing, or estimated in the field using a pocket penetrometer, by thumb penetration tests, and other methods.
"Wet soil" means soil that contains significantly more moisture than moist soil, but in such a range of values that cohesive material will slump or begin to flow when vibrated. Granular material that would exhibit cohesive properties when moist will lose those cohesive properties when wet.

(c) Requirements

(1) Classification of soil and rock deposits. Each soil and rock deposit shall be classified by a competent person as Stable Rock, Type A, Type B, or Type C in accordance with the definitions set forth in paragraph (b) of this appendix.
(2) Basis of classification. The classification of the deposits shall be made based on the results of at least one visual and at least one manual analysis. Such analyses shall be conducted by a competent person using tests described in paragraph (d) below, or in other recognized methods of soil classification and testing such as those adopted by the American Society for Testing Materials, or the U.S. Department of Agriculture textural classification system.
(3) Visual and manual analyses. The visual and manual analyses, such as those noted as being acceptable in paragraph (d) of this appendix, shall be designed and conducted to provide sufficient quantitative and qualitative information as may be necessary to identify properly the properties, factors, and conditions affecting the classification of the deposits.
(4) Layered systems. In a layered system, the system shall be classified in accordance with its weakest layer. However, each layer may be classified individually where a more stable layer lies under a less stable layer.
(5) Reclassification. If, after classifying a deposit, the properties, factors, or conditions affecting its classification change in any way, the changes shall be evaluated by a competent person. The deposit shall be reclassified as necessary to reflect the changed circumstances.

(d) Acceptable visual and manual tests

(1) Visual tests. Visual analysis is conducted to determine qualitative information regarding the excavation site in general, the soil adjacent to the excavation, the soil forming the sides of the open excavation, and the soil taken as samples from excavated material.

(i) Observe samples of soil that are excavated and soil in the sides of the excavation. Estimate the range of particle sizes and the relative amounts of the particle sizes. Soil that is primarily composed of fine-grained material material is cohesive material. Soil composed primarily of coarse-grained sand or gravel is granular material.
(ii) Observe soil as it is excavated. Soil that remains in clumps when excavated is cohesive. Soil that breaks up easily and does not stay in clumps is granular.
(iii) Observe the side of the opened excavation and the surface area adjacent to the excavation. Crack-like openings such as tension cracks could indicate fissured material. If chunks of soil spall off a vertical side, the soil could be fissured. Small spalls are evidence of moving ground and are indications of potentially hazardous situations.
(iv) Observe the area adjacent to the excavation and the excavation itself for evidence of existing utility and other underground structures, and to identify previously disturbed soil.
(v) Observe the opened side of the excavation to identify layered systems. Examine layered systems to identify if the layers slope toward the excavation. Estimate the degree of slope of the layers.
(vi) Observe the area adjacent to the excavation and the sides of the opened excavation for evidence of surface water, water seeping from the sides of the excavation, or the location of the level of the water table.
(vii) Observe the area adjacent to the excavation and the area within the excavation for sources of vibration that may affect the stability of the excavation face.

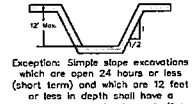
(2) Manual tests. Manual analysis of soil samples is conducted to determine quantitative as well as qualitative properties of soil and to provide more information in order to classify soil properly.

(i) Plasticity. Mold a moist or wet sample of soil into a ball and attempt to roll it into threads as thin as 1/8-inch in diameter. Cohesive material can be successfully rolled into threads without crumbling. For example, if at least a two inch (50 mm) length of 1/8-inch thread can be held on one end without tearing, the soil is cohesive.
(ii) Dry strength. If the soil is dry and crumbles on its own or with moderate pressure into individual grains or fine powder, it is granular (any combination of gravel, sand, or silt). If the soil is dry and falls into clumps which break up into smaller clumps, but the smaller clumps can only be broken up with difficulty, it may be clay in any combination with gravel, sand or silt. If the dry soil breaks into clumps which do not break up into small clumps and which can only be broken with difficulty, and there is no visual indication the soil is fissured, the soil may be considered unfissured.
(iii) Thumb penetration. The thumb penetration test can be used to estimate the unconfined compressive strength of cohesive soils. (This test is based on the thumb penetration test described in American Society for Testing and Materials (ASTM) Standard designation D2488 — "Standard Recommended Practice for Description of Soils (Visual — Manual Procedure).") Type A soils with an unconfined compressive strength of 1.5 tsf can be readily indented by the thumb; however, they can be penetrated by the thumb only with very great effort. Type C soils with an unconfined compressive strength of 0.5 tsf can be easily penetrated several inches by the thumb, and can be molded by light finger pressure. This test should be conducted on an undisturbed soil sample, such as a large clump of spoil, as soon as practicable after excavation to keep to a minimum the effects of exposure to drying influences. If the excavation is later exposed to wetting influences (rain, flooding), the classification of the soil must be changed accordingly.
(iv) Other strength tests. Estimates of unconfined compressive strength of soils can also be obtained by use of a pocket penetrometer or by using a hand-operated shearvane.
(v) Drying test. The basic purpose of the drying test is to differentiate between cohesive material with fissures, unfissured cohesive material, and granular material. The procedure for the drying test involves drying a sample of soil that is approximately one inch thick (2.54 cm) and six inches (15.24 cm) in diameter until it is thoroughly dry:
(A) If the sample develops cracks as it dries, significant fissures are indicated.
(B) Samples that dry without cracking are to be broken by hand. If considerable force is necessary to break a sample, the soil has significant cohesive material content. The soil can be classified as an unfissured cohesive material and the unconfined compressive strength should be determined.
(C) If a sample breaks easily by hand, it is either a fissured cohesive material or a granular material. To distinguish between the two, pulverize the dried clumps of the sample by hand or by stepping on them. If the clumps do not pulverize easily, the material is cohesive with fissures. If they pulverize easily into very small fragments, the material is granular.

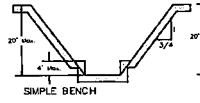
EXCAVATIONS IN TYPE A SOILS

All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of ¾:1.

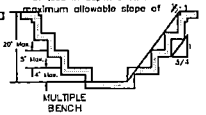




Exception: Simple slope excavations which are open 24 hours or less (short term) and which are 12 feet or less in depth shall have a maximum allowable slope of ½:1.

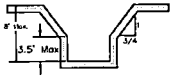


SIMPLE BENCH

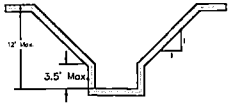


MULTIPLE BENCH

All benched excavations 20 feet or less in depth shall have a maximum allowable slope of ¾:1 and maxium bench dimensions as follows:

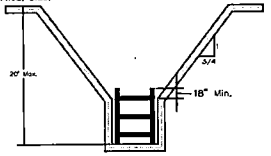


All excavations 8 feet or less in depth which have unsupported vertically sided lower portions shall have a maximum vertical side of 3½ feet.



All excavations more than 8 feet but not more than 12 feet in depth with unsupported vertically sided lower portions shall have a maximum allowable slope of 1:1 and a maximum vertical side of 3½ feet.

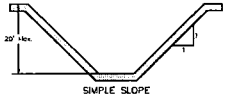
All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded shall have a maximum allowable slope of ½:1. The support or shield system must extend at least 18 inches above the top of the vertical side.



All other simple slope, compound slope, and vertically sided lower portion excavations shall be in accordance with the other options permitted under § 1926.652(b).

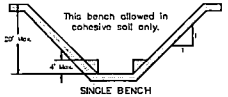
EXCAVATIONS IN TYPE B SOILS

All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1:1.

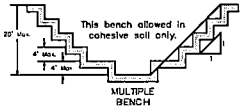


SIMPLE SLOPE

All benched excavations 20 feet or less in depth shall have a maximum allowable slope of 1:1 and maxium bench dimensions as follows:

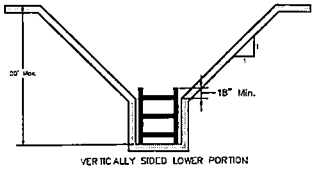


SINGLE BENCH



MULTIPLE BENCH

All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded shall have a maximum allowable slope of 1:1. The support or shield system must extend at least 18 inches above the top of the vertical side.

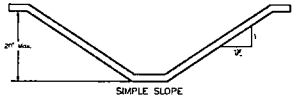


VERTICALLY SIDED LOWER PORTION

All other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).

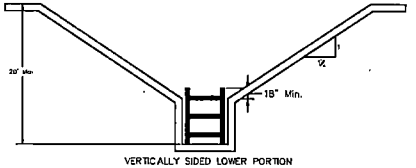
EXCAVATIONS IN TYPE C SOILS

All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1½:1.



SIMPLE SLOPE

All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded shall have a maximum allowable slope of 1½:1. The support or shield system must extend at least 18 inches above the top of the vertical side.

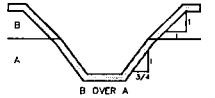


VERTICALLY SIDED LOWER PORTION

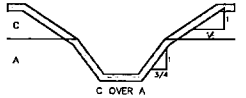
All other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).

EXCAVATIONS IN LAYERED SOILS

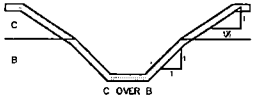
All excavations 20 feet or less in depth made in layered soils shall have a maximum allowable slope for each layer as set forth below.



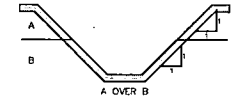
B OVER A



C OVER A



C OVER B



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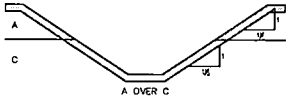
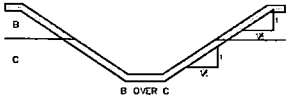


A OVER C



B OVER C

All other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).

AWT
Engineers and Soil Scientists
AgriWaste Technology, Inc.
1225 Crescent Green, Suite 250, Cary, NC 27518
agriwaste.com | 784.237.0060

Hugo Hernandez
HMA—NC Hwy 73

PROJECT LOCATION:
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg COUNTY
PIN: 01313108

PROFESSIONAL ENGINEER SEAL

FOR REVIEW ONLY

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
EXCAVATION SAFETY

Drawn By:	Drawn On:
-----	2026-02-27
Revised By:	Revised On:
-----	-----
Released By:	Released On:
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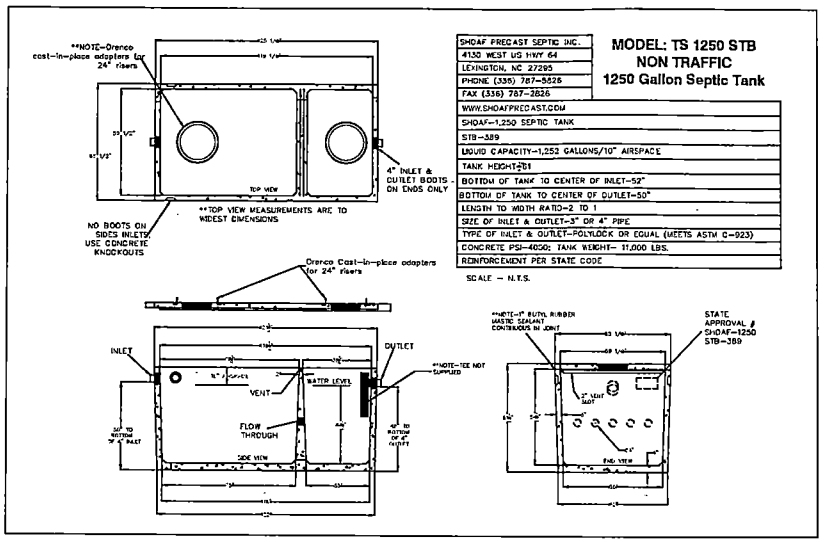
Drawing Number:
WW—8



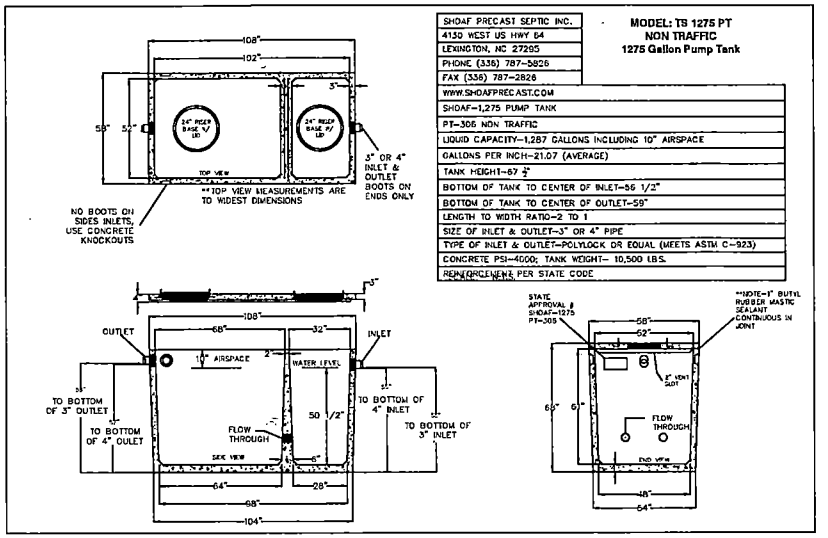
SHOAF PRECAST SEPTIC INC.
4130 WEST US HWY 64
LEXINGTON, NC 27295
PHONE (336) 787-5826
FAX (336) 787-2826
WWW.SHOAFPRECAST.COM

MODEL: TS 1250 STB
NON TRAFFIC
1250 Gallon Septic Tank

SHOAF-1,250 SEPTIC TANK
STB-389
LIQUID CAPACITY-1,252 GALLONS/10" AIRSPACE
TANK HEIGHT-67 1/2
BOTTOM OF TANK TO CENTER OF INLET-52"
BOTTOM OF TANK TO CENTER OF OUTLET-50"
LENGTH TO WIDTH RATIO-2 TO 1
SIZE OF INLET & OUTLET-3" OR 4" PIPE
TYPE OF INLET & OUTLET-POLYLOCK OR EQUAL (MEETS ASTM C-923)
CONCRETE PSI-4000; TANK WEIGHT- 11,000 LBS.
REINFORCEMENT PER STATE CODE

SCALE - N.T.S.

1 WW-7 NTS — SEPTIC TANK (OR EQUIVALENT)

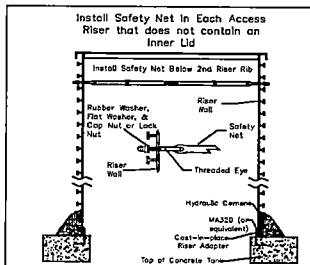


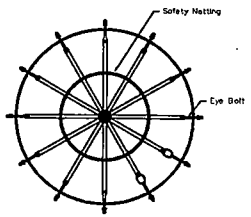
SHOAF PRECAST SEPTIC INC.
4130 WEST US HWY 64
LEXINGTON, NC 27295
PHONE (336) 787-5826
FAX (336) 787-2826
WWW.SHOAFPRECAST.COM

MODEL: TS 1275 PT
NON TRAFFIC
1275 Gallon Pump Tank

SHOAF-1,275 PUMP TANK
PT-305 NON TRAFFIC
LIQUID CAPACITY-1,287 GALLONS INCLUDING 10" AIRSPACE
GALLONS PER INCH-21.07 (AVERAGE)
TANK HEIGHT-67 1/2
BOTTOM OF TANK TO CENTER OF INLET-56 1/2"
BOTTOM OF TANK TO CENTER OF OUTLET-59"
LENGTH TO WIDTH RATIO-2 TO 1
SIZE OF INLET & OUTLET-3" OR 4" PIPE
TYPE OF INLET & OUTLET-POLYLOCK OR EQUAL (MEETS ASTM C-923)
CONCRETE PSI-4000; TANK WEIGHT- 10,500 LBS.
REINFORCEMENT PER STATE CODE

2 WW-7 NTS — PUMP TANK (OR EQUIVALENT WITH 1-DAY STORAGE)





NOTE: Install 4 Ring Clamps if 8" (or larger) Filter is Used

RISER INSTALLATION INSTRUCTIONS:

1. Prep Adapter Channel & Riser
   - 1.1. Roughen the bonding surfaces of the adapter and riser with sandpaper.
   - 1.2. Use a clean cloth and acetone or alcohol to clean the bonding surfaces of the adapter and riser. The bonding surfaces must be clean and dry for a good fit and watertight joint. Let the acetone or alcohol dry completely.
2. Apply Adhesive
   - 2.1. Apply a bead of methacrylate adhesive to the outside of the adapter. One 7-oz packet of MA320 adhesive is typical for one 24" riser.
3. Install Riser
   - 3.1. If the riser has penetrations, align the riser correctly.
   - 3.2. Firmly press the riser onto the adapter until the bottom of the riser is resting on the concrete (cast-in-adapters) or the adapter flange (bolted-down adapters). Twist the riser back and forth slightly to fully seat it on to create a good bond.
   - 3.3. Apply a bead of methacrylate adhesive to the inside of the access riser-adapter joint.
   - 3.4. Use a tongue depressor, putty knife, or clean cloth to make a continuous fillet on the inside of the access riser-adapter joint.
   - 3.5. Apply hydraulic cement to bond outer riser wall and top of tank.
4. Ensure safety net and inner lid are in place and secured.

FOR RISER WALL PENETRATIONS

Grommet Size, Inches (Nominal IPS Pipe Size)	Hole Saw Size, Inches
1/2	1
3/4	1 1/4
1	1 9/16
1 1/4	1 3/4
1 1/2	2 1/8
2	2 3/4
3	3 7/8
4	5

3 WW-7 NTS — RISER SAFETY NETS

Notes

1. Installation to follow all NC DHHS and Mecklenburg County applicable rules and regulations.
2. Mecklenburg County to perform construction inspections and final system certification.
3. Septic tank to have approved effluent filter.
4. Contractor to abide by all safety regulations during system installation.
5. Contractor shall backfill around all access areas such that storm water is shed away from potential entry points.
6. Invert elevations of all components to be verified in field by contractor to insure proper operation.
7. All system piping to be SCH40 PVC (except where noted).
8. All gravity elbows to be long radius or long sweeping type elbows.
9. Actual installation and placement of treatment system to be overseen by contractor.
10. Tanks to be set on 6" minimum gravel base. Use #5 or #57 stone for base.
11. Contractor to seed and/or mulch disturbed areas to coincide with existing landscape. Area shall not be left with uncovered soil.
12. Mount control panel a minimum of 24" above grade.
13. Power to panel to be installed by licensed electrician per code. One 15-amp circuit and one 20-amp circuit with individual neutrals to be run from house to control panel.
14. All risers to have cast-in-place tank adapters and be single-piece riser. Risers to extend 6" above soil surface and be designed to prevent surface water inflow.
15. Backfill around tank(s) shall be gravel or tank hole shall be over-excavated a minimum of 2' in all directions to allow for mechanical tamping of backfill.
16. All penetrations to be sealed.
17. Spigot to be located on outside of building within 50' of tanks.
18. All pressure lines to maintain 18" min. cover.
19. Contractor to adjust tank placement to meet site constraints.

AWT
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1225 Crescent Green, Suite 250, Cary, NC 27518
agriwaste.com | 784.237.8650

Hugo Hernandez
HMA-NC Hwy 73

PROJECT LOCATION:
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg COUNTY
PIN: 01313108

PROFESSIONAL ENGINEER SEAL

FOR REVIEW ONLY

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
DETAIL SHEET

Drawn By:	Drawn On:
-----	2026-02-27
Revised By:	Revised On:
-----	-----
Released By:	Released On:
-----	-----

Drawing Number:
WW-7

Attachment 2: Soil Boring Description Sheets

1225 Crescent Green, Suite 250
Cary, NC 27518

AWT
Engineers and Soil Scientists

919.859.0669
agriwaste.com

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

CLIENT: HMA Development, LLC c/o Hugo Hernandez
ADDRESS:
PROPERTY ID: Single Family Residence
COUNTY: Mecklenburg
PROPOSED FACILITY: SFR
PROPOSED DESIGN FLOW (.0400): 600 GPD
LOCATION OF SITE: 14606 NC-73, Huntersville NC
WATER SUPPLY: Public
EVALUATION METHOD: Auger Boring

APPLICATION DATE:
EVALUATION DATE: February 23, 2026
PROPERTY SIZE: ~ 1.3 Acres
PROPERTY RECORDED: Yes
WATER SUPPLY SETBACK: 10'
TYPE OF WASTEWATER: Domestic

PROFILE #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY .0503 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY .0503 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZ	.0509 PROFILE CLASS & LTAR*	.0502(d) SLOPE CORRECTION
SB 1, 2, 6	Linear Slope 4	0-8	w/SBK; SCL	SS; SP; FR		48"			0.275	47"
		8-30	mo/SBK; C	S; P; FI;						
		30-48	w/SBK; CL	SS; SP; FR;						
SB 3	Linear Slope 4	0-8	w/SBK; SCL	SS; SP; FR;		44"			0.275	43"
		8-26	mo/SBK; C	S; P; FI;						
		26-44	w/SBK; SCL	SS; SP; FR;		SAP	>50%	Yes		
		44-	M; SCL	SS; SP; FR;						
SB 4	Linear Slope 5	0-6	w/SBK; SCL	SS; SP; FR;		46"			0.275	44"
		6-25	mo/SBK; C	S; P; FI;						
		25-36	w/SBK; CL	SS; SP; FR;			<50%			
		36-46	w/SBK; SCL	SS; SP; FR;		SAP	>50%	Yes		
		46-	M; SCL	SS; SP; FR;						
SB 5	Linear Slope 5	0-8	w/SBK; SCL	SS; SP; FR;		45"			0.275	43"
		8-24	mo/SBK; C	S; P; FI;						
		24-45	w/SBK; SCL	SS; SP; FR;			<50%			
		45-	M; SCL	SS; SP; FR;		SAP	>50%	Yes		
SB 7	Head Slope 5	0-2	G; L	SS; SP; FR;		38"			0.3	36"
		2-25	mo/SBK; C	SS; SP; FI;						
		25-38	w/SBK; CL	SS; SP; FR;						
		38-	M; SCL	SS; SP; FR;		SAP	>50%	Yes		

SB 8 & 9	Linear Slope 6	0-16	w/SBK; SCL	SS; SP; FR;		48"			0.3	46"
		16-48	mo/SBK; C	SS; SP; FI;						

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.0508)	Suitable	Suitable
System Type(s)	Type IIIb, Pump to Horizontal PPBPS	Type IIIb, Pump to Chambers
Site LTAR	0.275 gpd/ft2	0.3 gpd/ft2
Maximum Trench Depth	31"	24"

SITE CLASSIFICATION (.0509): _____
EVALUATED BY: _____Trevor Hackney_____
OTHER(S) PRESENT: _____ _____

Comments:

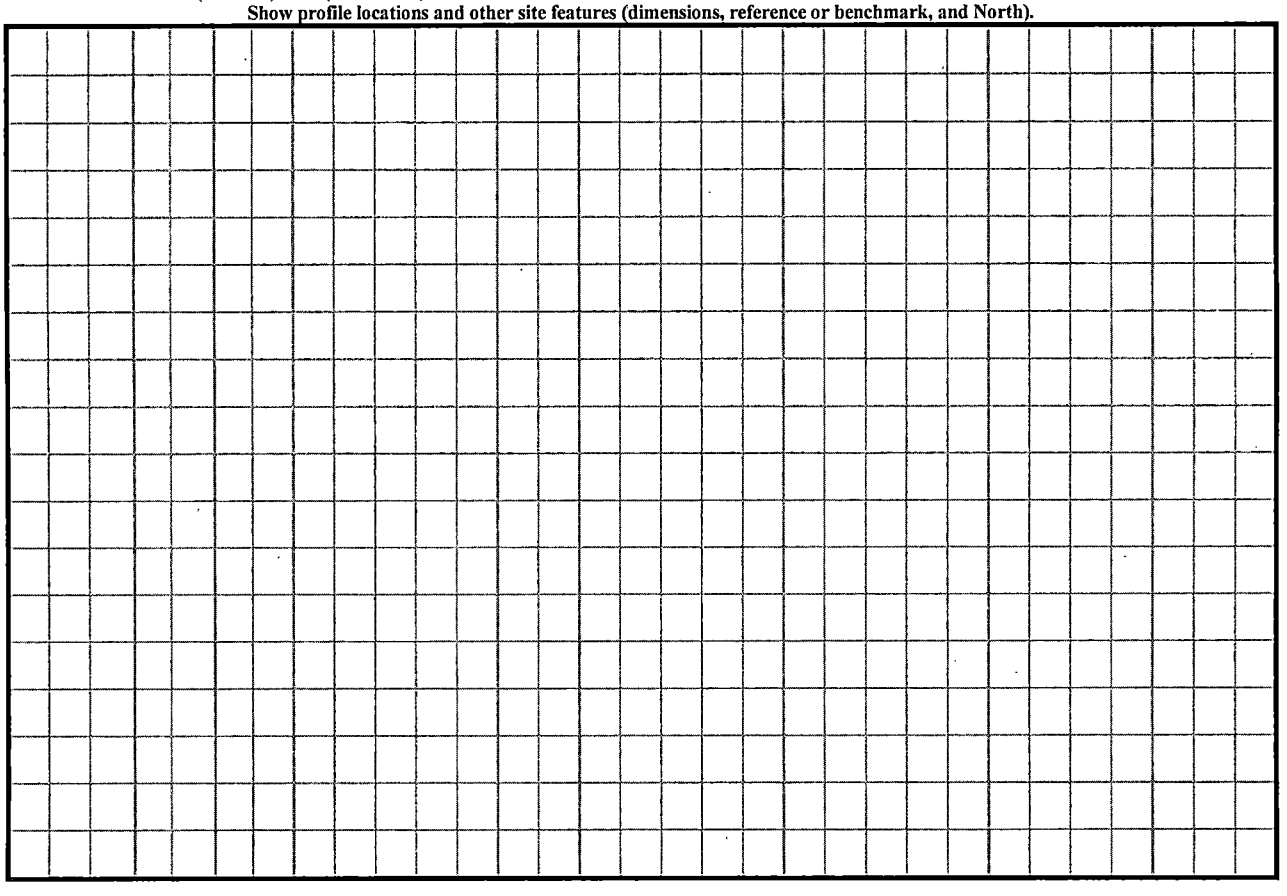
LEGEND

LANDSCAPE POSITION	SOIL GROUP	SOIL TEXTURE	CONVENTIONAL LTAR (gpd/ft²)	SAPROLITE LTAR (gpd/ft²)	LPP LTAR (gpd/ft²)	MINERALOGY/ CONSISTENCE		STRUCTURE
CC (Concave slope)	I	S (Sand)	0.8 - 1.2	0.6 - 0.8	0.4 -0.6	MOIST	WET	SG (Single grain)
CV (Convex Slope)		LS (Loamy sand)		0.5 -0.7		Lo (Loose)	NS (Non-sticky)	M (Massive)
D (Drainage way)	II	SL (Sandy loam)	0.6 - 0.8	0.4 -0.6	0.3 - 0.4	VFR (Very friable)	SS (Slightly sticky)	GR (Granular)
FP (Flood plain)		L (Loam)		0.2 - 0.4		FR (Friable)	S (Sticky)	SBK (Subangular blocky)
FS (Foot slope)	III	SiL (Silt loam)	0.3 - 0.6	0.1 - 0.3	0.15 - 0.3	FI (Firm)	VS (Very sticky)	ABK (Angular blocky)
H (Head slope)		SCL (Sandy clay loam)		0.05 - 0.15**		VFI (Very firm)	NP (Non-plastic)	PR (Prismatic)
L (Linear Slope)		CL (Clay loam)		None		EFI (Extremely firm)	SP (Slightly plastic)	PL (Platy)
N (Nose slope)		SiCL (Silty clay loam)					P (Plastic)	
R (Ridge/summit)		Si (Silt)					VP (Very plastic)	
S (Shoulder slope)	IV	SC (Sandy clay)	0.1 - 0.4		0.05 - 0.2	SEXP (Slightly expansive)		
T (Terrace)		SiC (Silty clay)				EXP (Expansive)		
TS (Toe Slope)		C (Clay)						
		O (Organic)	None					

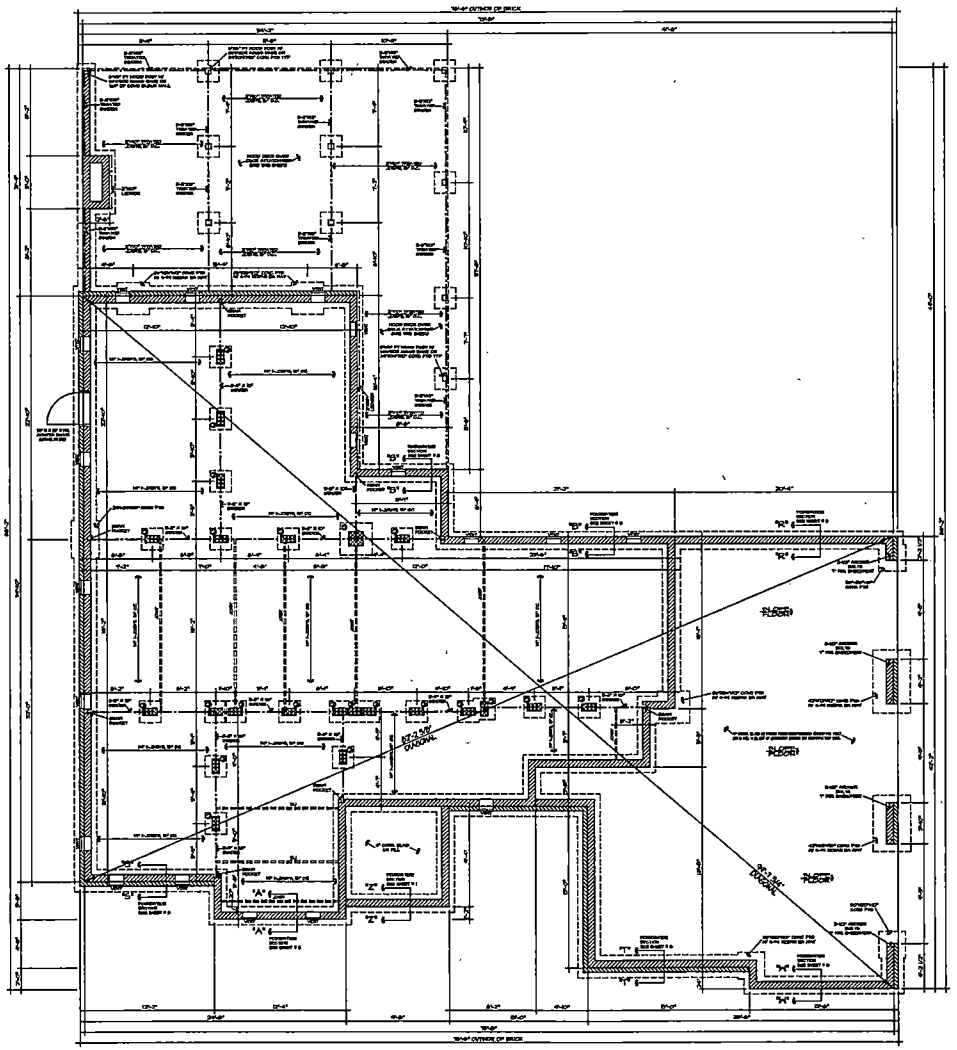
* Adjust LTAR due to depth, consistence, structure, soil wetness, landscape, position, wastewater flow and quality.
**Sandy clay loam saprolite can only be used with advanced pretreatment in accordance with 15A NCAC 18E .1200.

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); Evaluation of saprolite shall be by pits.
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) or U (Unsuitable)

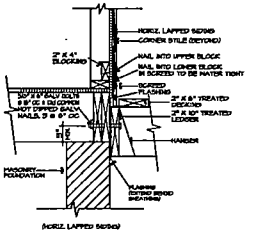
Show profile locations and other site features (dimensions, reference or benchmark, and North).



Attachment 3: Additional Documentation



FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



DECK SECTION
SCALE: 1 1/2"=1'-0"

DHM DESIGNS LLC
4935 HORSESHOE BEND DR
CHARLOTTE, NC 28226
C: 704-506-5585
EMAIL: dhmdesigns@aol.com
DESIGNER: DANIEL R. HEDRICK

08/19/2025

Hanes Engineering PLLC has performed a structural review of the roof plans. The structural components were found adequate to support the roof loads as noted on these plans. The engineer has not reviewed building code.

REVISIONS OF ANY STRUCTURAL REQUIREMENT OF THESE PLANS WITHOUT APPROVAL OF THE ENGINEER OF RECORD IS PROHIBITED.

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NEW RESIDENTIAL HOME
HUGO & ALICIA HERNANDEZ
PARCEL ID: 0353109 - 14606 NC HWY 3, HANTERSVILLE, NC 28078

SHEET NO. -
ISSUED: - 04/25
REVISIONS: -

FOUNDATION PLAN

SHEET

FOUNDATION VENTILATION CALCULATIONS:

CALCULATIONS: TOTAL AREA OF 2" X 10" VENT = 288 SQ. IN. / 144 SQ. IN. PER VENT = 2 VENTS REQUIRED PER WALL. ADDED 1 VENT PER WALL = 4 VENTS. TOTAL NO. OF VENTS PER BLDG = (2) VENTS PER WALL X 4 WALLS = 8 VENTS. 8 VENTS X 144 SQ. IN. PER VENT = 1,152 SQ. IN. FOUNDATION VENTILATION.

EXCEPTION: FULL POLY VAPOR BARRIER IS REQUIRED IN ALL CRAWL SPACES. (MINIMUM 10 MIL) 6'0 (INCH) X 100 YDS OF 12 (UNIT 84" PER ROLL) ROLLS.

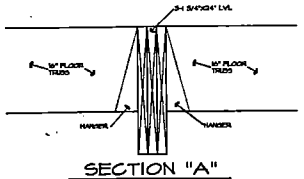
PIER SCHEDULE (2 STORY)

MK	SIZE	FOOTING	AREA
①	8"X8"	1'-4" X 2'-4" X 8"	0-50
②	8"X8"	2'-0" X 3'-0" X 10"	50-100
③	8"X8"	2'-6" X 3'-6" X 10"	100-150
④	8"X8"	3'-0" X 3'-0" X 10"	150-200
⑤	8"X8"	3'-0" X 3'-0" X 1'-0"	200-250
⑥	8"X8"	3'-0" X 3'-0" X 1'-0"	250-300

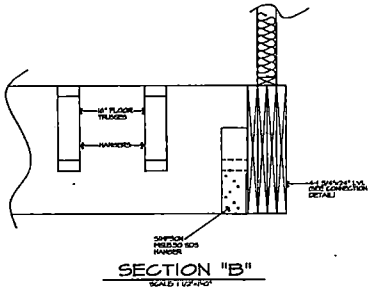
NOTES:
1. ALL PIERS ARE CENTERED ON FOOTING UNLESS NOTED OTHERWISE.
2. ALL PIERS SHALL BE TIED TO FOOTING WITH (4) #4 VERTICAL BARS.
3. MINIMUM PIER SIZE SHALL BE 8"X8" UNLESS NOTED OTHERWISE.
4. REFER TO PIER SCHEDULE FOR SIZE AND REINFORCEMENT.
5. ALL PIERS SHALL BE CONSTRUCTED PRIOR TO THE PLACEMENT OF THE FOOTING AND CONCRETE SHALL CURE TO THE SPECIFIED STRENGTH BEFORE ANY LOADS ARE APPLIED. CONSTRUCTION JOINTS SHALL NOT BE ALLOWED WITHIN THE PIER. PIERS SHALL BE POURED IN MONOLITHIC FASHION.
6. ALL PIERS SHALL BE DIFFERENT TO MASONRY WALL. (Except Crawl Columns)

GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS. SITE VERIFICATION RESPONSIBILITY OF THE CONTRACTOR, DESIGNER AND ENGINEER NOT RESPONSIBLE FOR SITE VERIFICATION.
2. DO NOT SCALE DIMENSIONS FROM PRINTS. PLANS AND DETAILS ARE NOT TO SCALE. USE DIMENSIONS ONLY. USE DIMENSIONS GIVEN OR CONSULT DESIGNER FOR ANY NEEDED CLARIFICATION.
3. ALL JOIST AND BEAM SPANS DETERMINED FOR THE USE OF NO. 2 SOUTHERN YELLOW PINE. ANY OTHER SPECIES MUST BE VERIFIED.
4. DOUBLE JOIST IS FIRST FLOOR UNDER ALL PARALLEL PARTITIONS.
5. PROVIDE SOLID BLOCKING BETWEEN JOISTS AT BEARING POINTS.
6. PROVIDE SOLID BLOCKING AT MID SPAN FOR ANY SPAN GREATER THAN 8'-0".
7. CONCRETE STRENGTH SHALL BE 3000 psi. MINIMUM STRENGTH AT 28 DAYS.
8. FIRST FLOOR JOIST SPANS DETERMINED BY 10 PSF LIVE LOAD + 10 PSF DEAD LOAD.
9. ALL EXTERIOR & INTERIOR BEARING WALLS AT CONC. SLAB AREAS ARE TO BE ANCHORED W/ 1/2" DIAMETER BOLTS PLACED 6'-0" O.C. & NOT MORE THAN 12" FROM CORNERS. BOLTS SHALL EMBED A MIN. OF 8" INTO MASONRY OR 7" INTO CONCRETE. EQUIVALENT



SECTION "A"
SCALE: 1/2"=1'-0"



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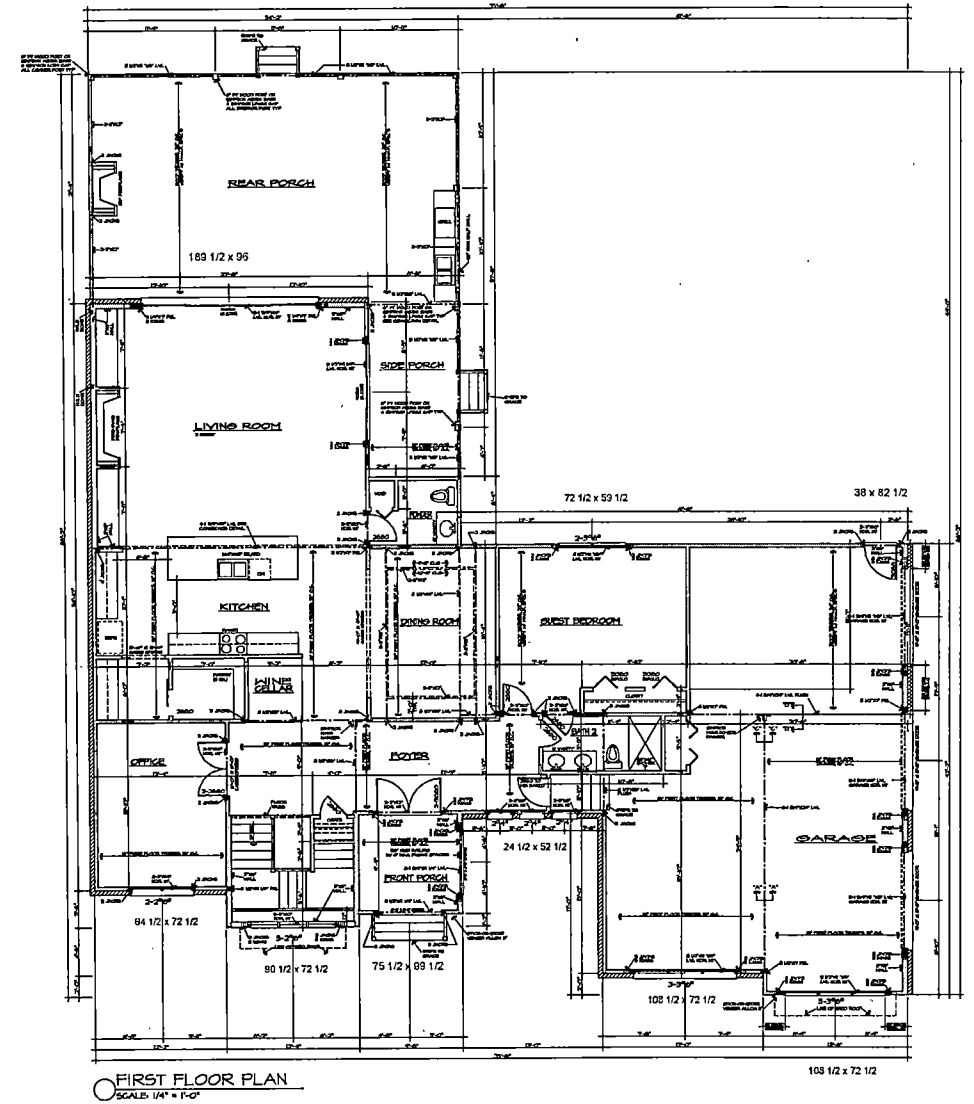
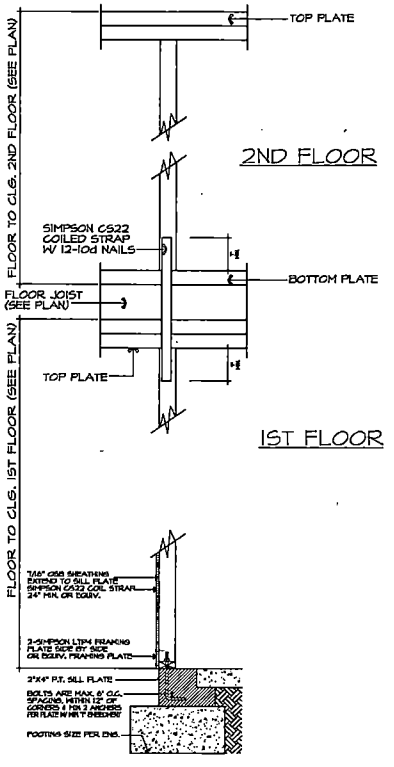
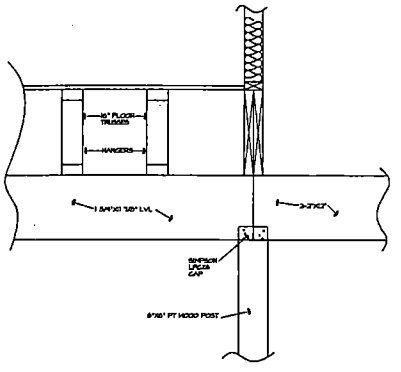
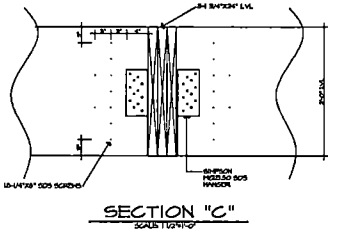


FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"





CONNECTION @ PORCH POST
SCALE: 1 1/2"=1'-0"



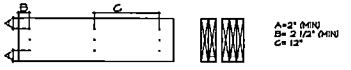
SECTION "C"
SCALE: 1 1/2"=1'-0"

MULTIPLE PLY LVL MEMBER CONNECTIONS:

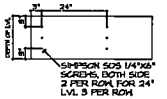
TOP LOADED BEAMS:
WHEN ATTACHING TWO OR THREE 1 3/4" WIDE LVL MEMBERS TOGETHER USE 16d NAILS, THREE PER ROW, AT 12" OC SPACING ON EACH SIDE UNLESS NOTED OTHERWISE ON THE PLAN. SLIGHTLY OFFSET TO REDUCE CRACKING.

SIDE LOADED BEAMS:
WHEN ATTACHING TWO OR THREE 1 3/4" WIDE LVL MEMBERS TOGETHER TO SUPPORT A SIDE LOADED CONDITION USE 16d NAILS, THREE PER ROW AT 12" OC SPACING ON EACH SIDE UNLESS NOTED OTHERWISE ON THE PLAN.

NOTES:
1. CONNECTION OF A FOUR PLY LVL MEMBER SHALL BE SHOWN ON THE PLAN
2. ALL CONNECTIONS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS FOR THE LVL MEMBERS PROVIDED



4-PLY LVL CONNECTION DETAIL



BEARING WALLS SYMBOL =

WALL HEIGHT (h)	STUD SIZE / SPACING
h ≤ 10'-0"	2" X 6" @ 24" O.C.
10'-0" < h ≤ 12'-0"	2" X 6" @ 16" O.C.
h > 12'-0"	CONSULT ENGINEER

HEADER NOTES - FIRST FLOOR:
1. ALL EXTERIOR HEADERS OR PARTY WALLS SHALL BE 3-2" X 10" NO. 2 SOUTHERN YELLOW PINE OR DETTON UNLESS OTHERWISE NOTED.
2. ALL INTERIOR LOAD-BEARING HEADERS ON FIRST FLOOR SHALL BE 3-2" X 10" NO. 2 SOUTHERN YELLOW PINE OR DETTON UNLESS OTHERWISE NOTED.
3. ALL INTERIOR NON LOAD-BEARING HEADERS ON FIRST FLOOR SHALL BE 2-2" X 10" NO. 2 SOUTHERN YELLOW PINE OR DETTON UNLESS OTHERWISE NOTED.
4. ALL MULTIPLY LVL (3 OR MORE) SHALL BE BOLTED WITH 1/2" ANCHOR BOLT @ 24" O.C. 2 BOLTS STAGGERED.
5. (3) PROVIDED WITH HEADER 3-1 3/4 x 11 7/8" psl , Fb=2900 psi

BRACED WALL NOTES:
1. THE BRACED WALL SHEATHING LENGTH WAS DETERMINED BY METHOD WSP.
2. ALL PERIMETER WALLS ARE TO BE FULLY SHEATHED WITH A MINIMUM 7/16" O.S.B. AND ATTACHED TO THE WALL FRAMING WITH 8d NAILS @ 6" O.C. EDGE & 12" @ 12" O.C. FIELD.
3. ALL INTERIOR WALLS ARE TO BE FULLY SHEATHED WITH 1/2" GYP. BOARD.
4. REFER TO ALL GABLE END WALLS WITH 1/16" O.S.B.
5. SEE HOLD DOWN DETAIL 1 ON SHEET 1

GENERAL NOTES:
1. CONTRACTOR TO VERIFY ALL DIMENSIONS, SITE VERIFICATION RESPONSIBILITY OF THE CONTRACTOR, DESIGNER AND ENGINEER ASSUME NO RESPONSIBILITY FOR SAME.
2. DO NOT SCALE DRAWINGS, PRINTS, PLANS AND DETAILS ARE NOT ALWAYS DRAWN TO SCALE, USE DIMENSIONS GIVEN OR CONSULT DESIGNER FOR FURTHER CLARIFICATION.
3. BUILDER MAY SUBSTITUTE MATERIALS OR PRODUCTS SPECIFIED FOR THOSE OF EQUAL QUALITY AND HAND FINISH PLAN DIMENSIONS THAT DO NOT CONFORM TO ACTUAL FIELD CONDITIONS. ALL SUBSTITUTIONS MUST BE APPROVED BY OWNER.
4. ALL DIMENSIONS, LOCATION OF WALLS AND OPENINGS ON LOT MAY BE ALTERED DUE TO TOPOGRAPHICAL AND OTHER CONSIDERATIONS.
5. ALL JOIST AND BEAM SPANS DETERMINED FOR THE USE OF #2 SOUTHERN YELLOW PINE, ANY OTHER SPECIES MUST BE VERIFIED.
6. DOUBLE JOIST IN BEARING FLOOR UNDER ALL PARALLEL PARTITIONS.
7. FLOOR TO CEILING HEIGHT FIRST FLOOR = 9'-0"
8. FLOOR TO CEILING HEIGHT SECOND FLOOR = 9'-0"
9. FLOOR TO WINDOW HEAD HEIGHT FIRST FLOOR = 8'-0" U.O.N.
10. FLOOR TO WINDOW HEAD HEIGHT SECOND FLOOR = 8'-0" U.O.N.
11. SECOND FLOOR JOIST SPANS DETERMINED BY DENNIS LOADS OF 40 psf LIVE, 10 psf DEAD LOADS.
12. PURLINS MAY FLOOR JOISTS SHALL BE INSTALLED PERPENDICULAR TO JOISTS AT MIDSPAN OR AT 8'-0" O.C. MAX.
13. DIAGONAL BRIDGING OR SOLID BLOCKING IS ACCEPTABLE.
14. ENGINEERED FLOOR SYSTEMS SHOULD BE BRACED AND INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
15. NO CONCENTRATED POINT LOADS CAN BE APPLIED TO THESE SYSTEMS UNLESS SPECIFICALLY NOTED.
16. ALL EXTERIOR WALLS TO BE 2" X 6" @ 16" O.C. UNLESS NOTED
17. ALL NON LOAD BEARING WALLS TO BE 2" X 4" @ 16" O.C. UNLESS OTHERWISE NOTED

AREAS:

1ST. FLOOR HEATED	2183
2ND. FLOOR HEATED	1994
TOTAL HEATED	4177
GARAGE & STORAGE	1027
FRONT PORCH	210
REAR PORCH	865
TOTAL UNDER ROOF	6163

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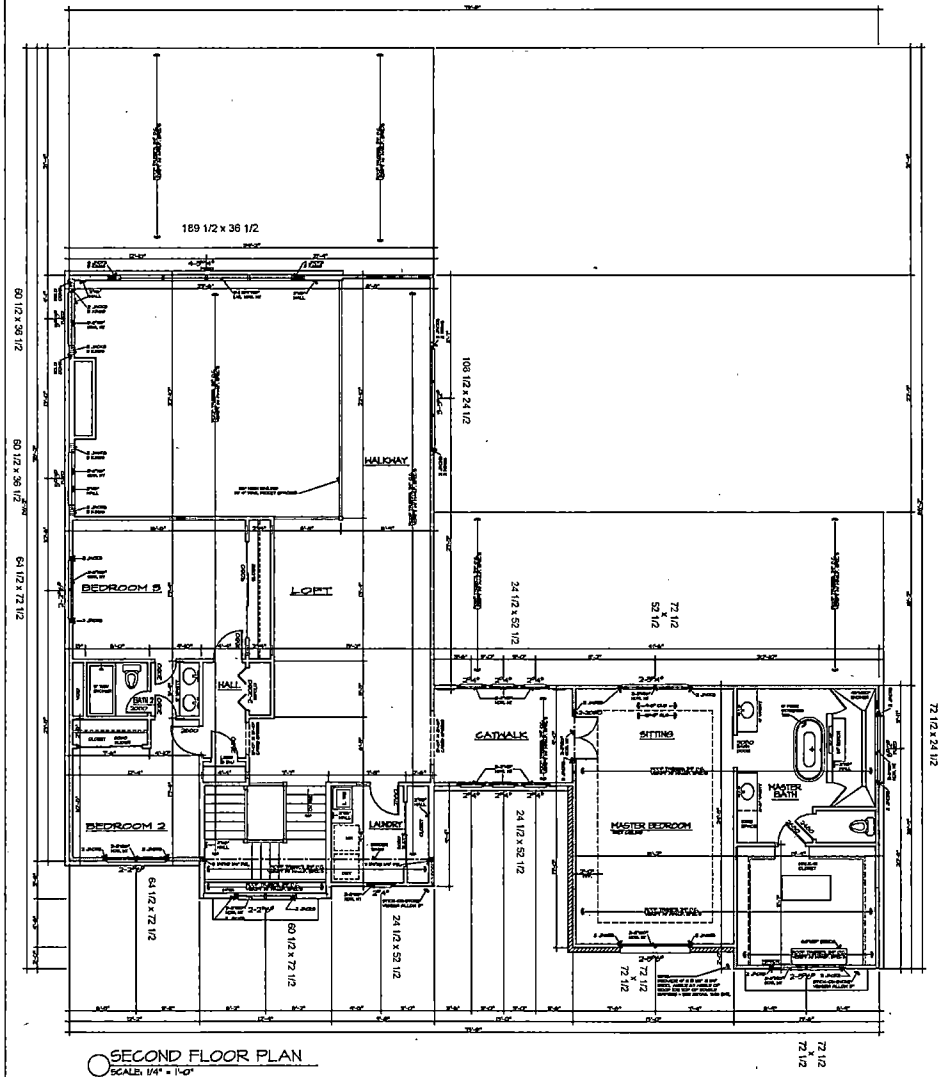
NEW RESIDENTIAL HOME
HUGO & ALICIA HERNANDEZ
PARCEL ID: 0373606 - HUGH IC HAYES, HATTERSVILLE, NC 28078

PROJ. NO. -
ISSUED - 04/26
REVISION -

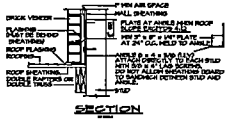
FIRST FLOOR PLAN

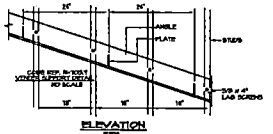
2

GP 6



SECOND FLOOR PLAN
SCALE: 1/4" = 1'-0"





DETAIL OF ANGLE TO CARRY BRICK OVER GABLE

BEARING WALLS SYMBOL =

HEADER NOTES - SECOND FLOOR:

1. ALL INTERIOR LOAD-BEARING STUDDED SHALL BE 2-2" X 6" NO. 2 SOUTHERN YELLOW PINE OR BETTER UNLESS OTHERWISE NOTED.
2. ALL EXTERIOR NON LOAD-BEARING HEADERS SHALL BE 2-2" X 8" NO. 2 SOUTHERN YELLOW PINE OR BETTER UNLESS OTHERWISE NOTED.
3. ALL INTERIOR NON LOAD-BEARING HEADERS SHALL BE 2-2" X 6" NO. 2 SOUTHERN YELLOW PINE OR BETTER UNLESS OTHERWISE NOTED.
4. ALL MULTIPLY LVL'S OR WOOD SHALL BE BOLTED WITH 1/2" ANCHOR BOLT @ 16" O.C. 2 ROW STAGGERED.
5. LVL PROVIDED WITH HEADERS E=2.0 X 10 psi , Fb=2600 psi

BRACED WALL NOTES:

1. THE BRACED WALL SHEATHING SHOWN WAS PROVIDED BY NOVAK CONSULTING PLLC AND AS AS EXPRESSED OTHER
2. ALL TOP STORY WALLS ARE TO BE FULLY BRACED WITH A MIN. OF 7/16" OSB SHEATHING AT 16" O.C. WALL SHEATHING SHALL BE CONTINUOUS FROM TOP PLATE TO SILL PLATE PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS
3. BACK IN ALL GABLE END WALLS WITH 1/2" OSB.
4. SEE DETAIL # FOR HOLD DOWN ON SHEET 1

GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS. SITE VERIFICATION RESPONSIBILITY OF THE CONTRACTOR, LICENSEES AND ENGINEER NOT RESPONSIBLE FOR SITE VERIFICATION.
2. DO NOT SCALE DRAWINGS. PROPORTIONS, PLANS AND DETAILS ARE NOT ALWAYS DRAWN TO SCALE. USE DIMENSIONS GIVEN OR CONSULT ARCHITECT FOR CLARIFICATION.
3. BUILDING MAY SUBSTITUTE MATERIALS AND METHODS AS APPROVED FOR THOSE OF EQUAL QUALITY AND PRICE FROM PLAN DRAWINGS THAT DO NOT DECREASE VALUE OR STRUCTURAL SOUNDNESS OR HISTORICALLY ALTER APPEARANCE. LOCATION OF HOUSE AND IMPROVEMENTS ON LOT MAY BE ALTERED DUE TO TOPOGRAPHICAL AND OTHER CONSIDERATIONS.
4. ALL VENT AND DRAIN PIPING DETERMINED FROM THE USE OF 10 FIXTURE UNITS PER 1/2" PIPE AND 24 FIXTURE UNITS PER 3/4" PIPE.
5. DOUBLE JOIST BY BEDDING FLOOR JOISTS UNDER ALL WALLS, PARTITIONS, FLOOR TO CEILING HEIGHT FIRST FLOOR = 9'-0"
FLOOR TO CEILING HEIGHT SECOND FLOOR = 9'-0"
FLOOR TO FINISH ROAD HEIGHT FIRST FLOOR = 9'-0" SOLE
FLOOR TO FINISH ROAD HEIGHT SECOND FLOOR = 9'-0" SOLE
6. SIZING OF LIVE LOAD DETERMINED BY DESIGN LOADS OF 40 psf LIVE, 10 psf DEAD LOAD.
7. SIZING OF DEAD DETERMINED BY DESIGN LOADS OF 30 psf LIVE, 10 psf DEAD LOAD.
8. BRIDGING FOR FLOOR JOISTS SHOULD BE INSTALLED PERPENDICULAR TO JOISTS AT SPANS AS UP TO 8'-0" ON LONG.
9. CONCRETE FOUNDATIONS OR MASONRY BLOCK 2,500 lb ACCEPTABLE
10. CONCRETE FLOOR SLABS SHALL BE REINFORCED AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
11. NO CONCENTRATED WHEEL LOADS CAN BE APPLIED TO THESE SYSTEMS UNLESS SPECIFICALLY NOTED.
12. ALL EXTERIOR WALLS TO BE 2" X 4" UNLESS OTHERWISE NOTED

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DESIGNER: DANIEL H. MENA

06/19/2025

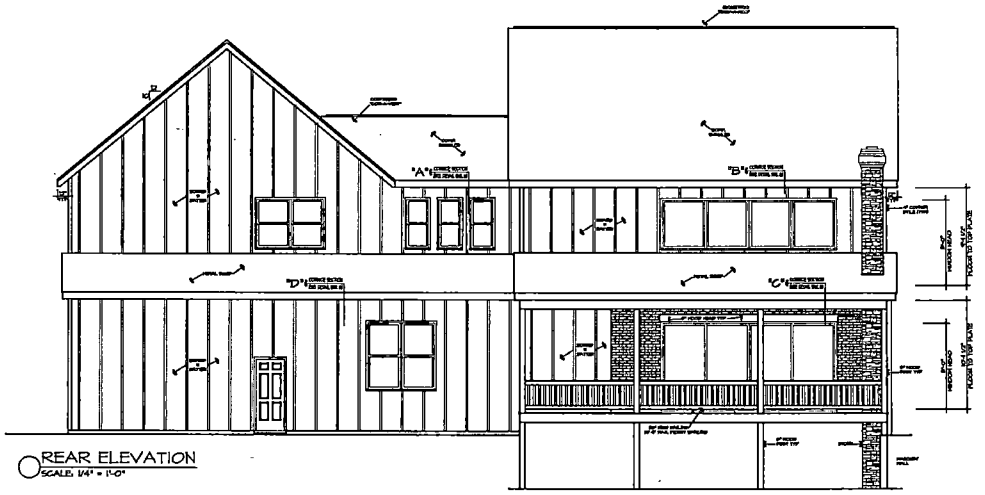
NEW RESIDENTIAL HOME
HUGO & ALICIA HERNANDEZ
PARCEL ID: 4835206 - 14408 NC HWY 3, HUNTERSVILLE, NC 28078

SCALE: 1/4" = 1'-0"
DRAWN BY: DHM
DATE: 06/19/2025 - 04/26
REVISIONS: -

SECOND FLOOR PLAN

3

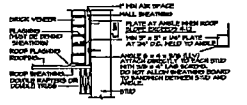
OF 5



REAR ELEVATION
SCALE: 1/4" = 1'-0"



FRONT ELEVATION
SCALE: 1/4" = 1'-0"



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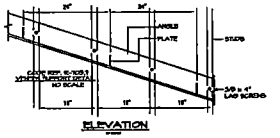

ELEVATION

DETAIL OF ANGLE TO CARRY BRICK OVER GABLE

GENERAL NOTES:
1. CONTRACTOR TO VERIFY ALL DIMENSIONS, SITE VERIFICATION RESPONSIBILITY OF THE CONTRACTOR, DESIGNER AND ENGINEER NOT RESPONSIBLE FOR SITE VERIFICATION.
2. DO NOT SCALE DRAWINGS FROM PRINTS, PLANS AND DETAILS ARE NOT ALWAYS DRAWN TO SCALE, USE DIMENSIONS GIVEN OR CONSULT DESIGNER FOR FURTHER CLARIFICATION.
3. SOLIDS ELEVATIONS MAY VARY DUE TO TYPE OF FOUNDATION AND OTHER ON SITE CONSIDERATIONS.
4. DOWNSPOUT SIZE AND LOCATION TO BE DETERMINED ON SITE BY GUTTER CONTRACTOR.
5. ALL FLASHING SHALL BE NON CORROSIVE.

DHM DESIGNS LLC
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E-MAIL: dhmdesigns@dhmdesigns.com
DESIGNER: DANIEL H. MEDINA

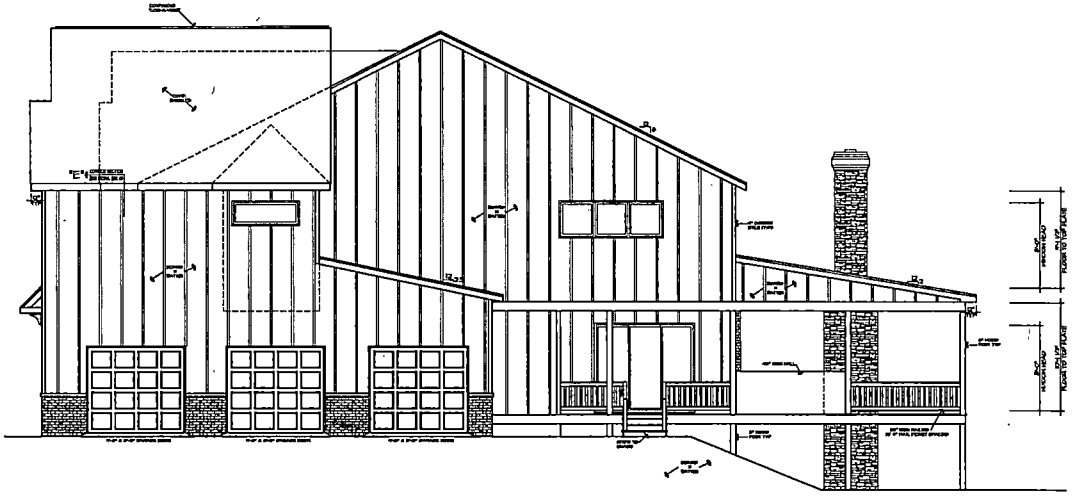
NEW RESIDENTIAL HOME
HUGO & ALICIA HERNANDEZ
PARCEL ID: 0E5505 - 14606 NC HWY 23, HUNTERSVILLE, NC 28078

PROJ. NO. -
DATE: 04/25
REVISIONS -

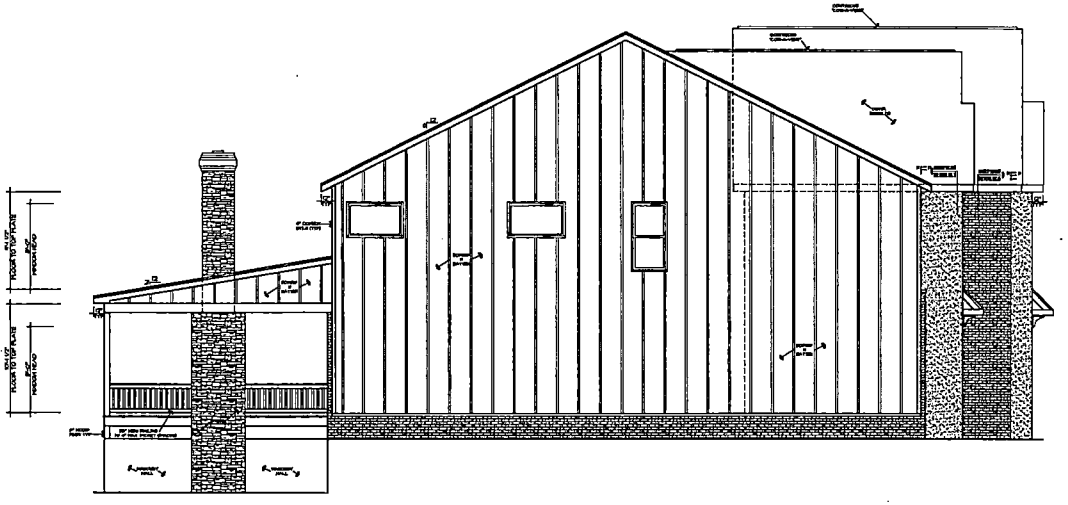
FRONT & REAR ELEVATIONS

4

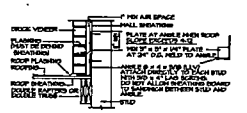
OF 5



RIGHT ELEVATION
SCALE: 1/4" = 1'-0"



LEFT ELEVATION
SCALE: 1/4" = 1'-0"



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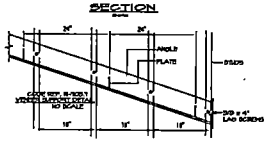

ELEVATION

DETAIL OF ANGLE TO CARRY BRICK OVER GABLE

1. CONTRACTOR TO VERIFY ALL DIMENSIONS, SITE VERIFICATION RESPONSIBILITY OF THE CONTRACTOR, DESIGNER AND ENGINEER NOT RESPONSIBLE FOR SITE VERIFICATION.
2. DO NOT SCALE DIMENSIONS FROM PLANS, PLANS AND DETAILS ARE NOT ALWAYS DRAWN TO SCALE, USE DIMENSIONS GIVEN OR CONSULT DESIGNER FOR FURTHER CLARIFICATION.
3. GRADE ELEVATIONS MAY VARY DUE TO TYPE OF FOUNDATION AND OTHER ON SITE CONSIDERATIONS.
4. DOWNSPOUT SIZE AND LOCATION TO BE DETERMINED ON SITE BY GUTTER CONTRACTOR.
5. ALL FLASHING SHALL BE NON CORROSIVE

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DESIGNER: DANIEL H. MEDINA

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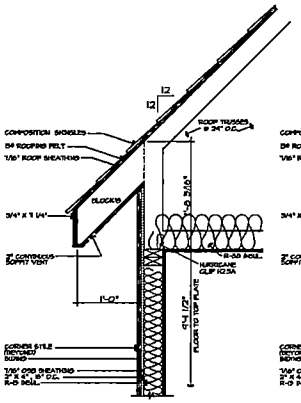
REVISIONS

NEW RESIDENTIAL HOME
HUGO & ALICIA HERNANDEZ
PARCEL ID: 0835305 - 14606 NC HWY 73, HUNTERSVILLE, NC 28078

PROJ. NO. -
ISSUED - 04/26
DRAWING -
LEFT & RIGHT ELEVATIONS

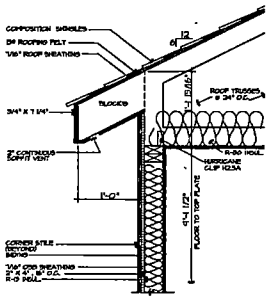
5

OF 8



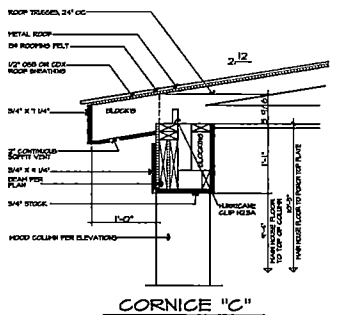
CORNICE "A"

SCALE: 1 1/2"=1'-0"



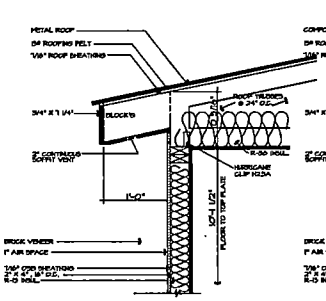
CORNICE "B"

SCALE: 1 1/2"=1'-0"



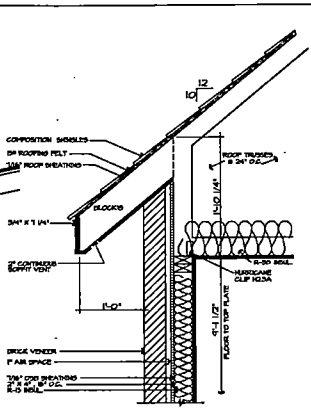
CORNICE "C"

SCALE: 1 1/2"=1'-0"



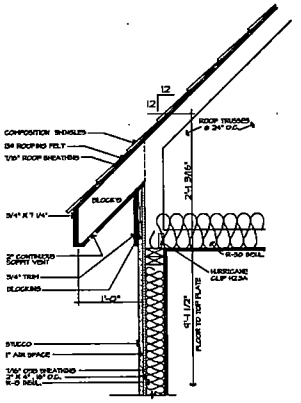
CORNICE "D"

SCALE: 1 1/2"=1'-0"



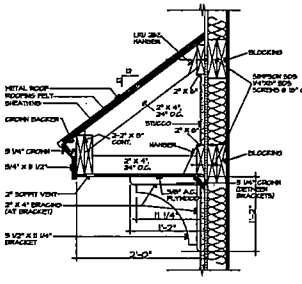
CORNICE "E"

SCALE: 1 1/2"=1'-0"



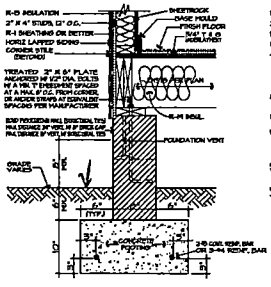
CORNICE "F"

SCALE: 1 1/2"=1'-0"



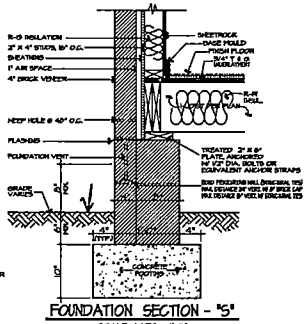
SHED ROOF DETAIL

SCALE: 1/2"=1'-0"



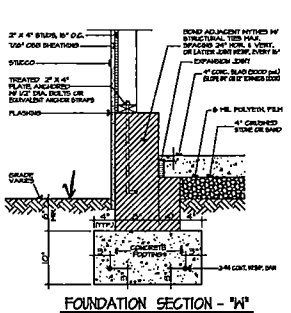
FOUNDATION SECTION - "B"

SCALE: 1 1/2" = 1'-0"



FOUNDATION SECTION - "S"

SCALE: 1 1/2" = 1'-0"



FOUNDATION SECTION - "W"

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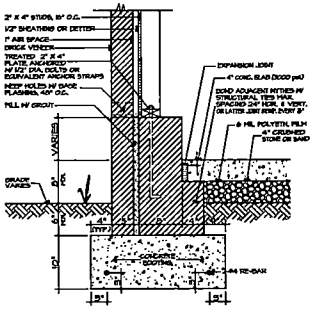
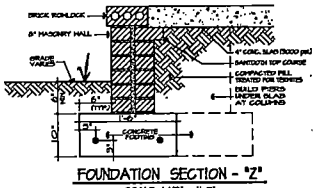


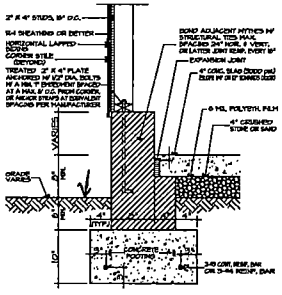
FOUNDATION SECTION - "T"

SCALE: 1 1/2" = 1'-0"



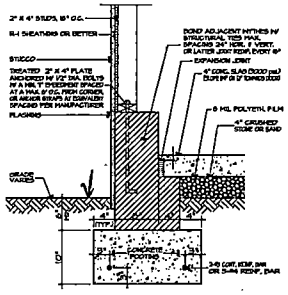
FOUNDATION SECTION - "Z"

SCALE: 1 1/2" = 1'-0"



FOUNDATION SECTION - "R"

SCALE: 1 1/2" = 1'-0"



FOUNDATION SECTION - "A"

SCALE: 1 1/2" = 1'-0"



06/18/2026

Hawks Engineering, PLLC has performed a structural review of these plans. The structural components comply with the applicable current local residential building code.

USE WITHOUT OUR STRUCTURAL REQUIREMENT OF THESE PLANS WITHOUT APPROVAL OF THE ENGINEER OF RECORD IS PROHIBITED.

GENERAL NOTES:
1. CONTRACTOR TO VERIFY ALL DIMENSIONS, SITE VISIT/ACCEPT RESPONSIBILITY OF THE CONTRACTOR, OWNER AND ENGINEER NOT RESPONSIBLE FOR SITE VERIFICATION.
2. DO NOT SCALE DIMENSIONS FROM PRINTS. PLANS AND DETAILS ARE NOT ALWAYS DRAWN TO SCALE. USE DIMENSIONS GIVEN OR CONSULT DESIGNER FOR FURTHER CLARIFICATION.

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DESIGNER: DANIEL H. MOYA

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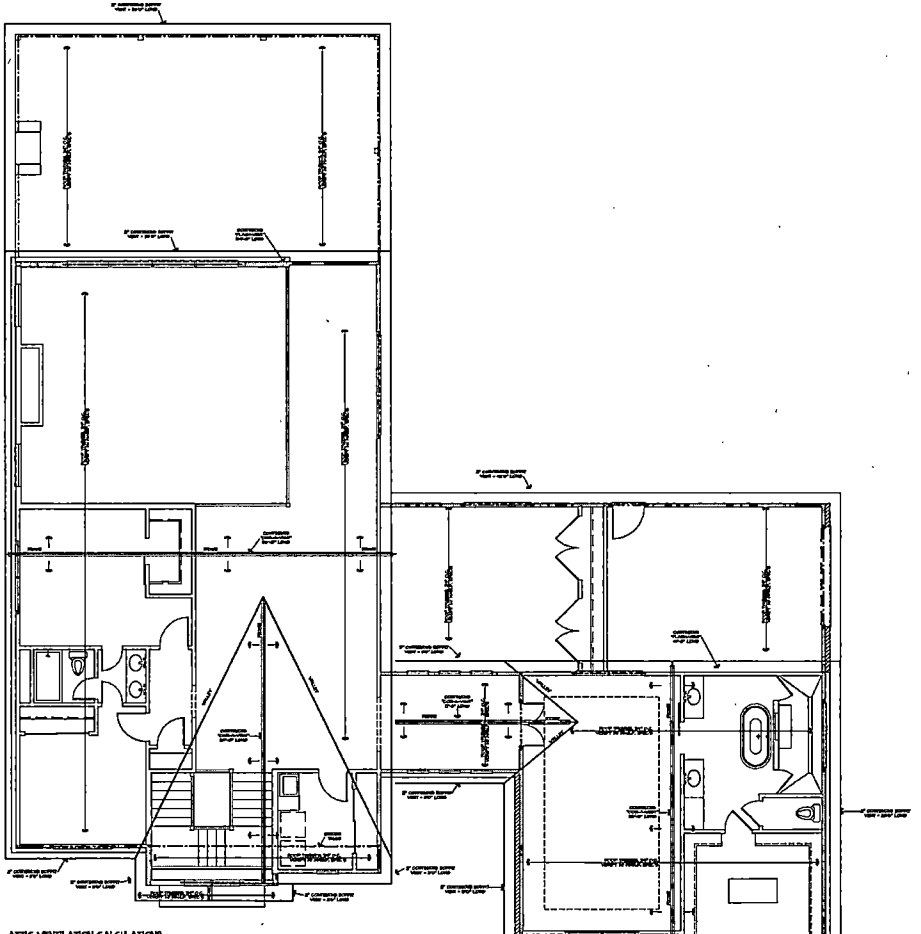
NEW RESIDENTIAL HOME
HUGO & ALICIA HERNANDEZ
PARCEL ID: 0838029 - 14608 NC HWY 3, HUNTERSVILLE, NC 28078

SHEET NO. -
SCHEDULED - 04/25
REVISIONS -

CORNICE & FOUNDATION DETAIL SHEET

6

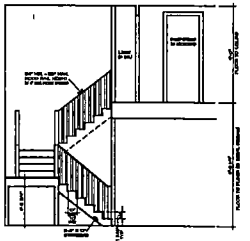
OF 6



ATTIC VENTILATION CALCULATIONS:

LOW ROOF @ FRONT VENTILATION REQUIRED.	0.48 SQ. TIMES 144 TIMES 1/300 = 409 SQ.
LOW ROOF @ FRONT INLET VENTILATION SHOWN.	1.00 SQ. CONTINUOUS SOFFIT VENT
LOW ROOF @ FRONT OUTLET VENTILATION SHOWN.	1.00 SQ. CONTINUOUS "CORNAVENT"
LOW ROOF @ REAR VENTILATION REQUIRED.	0.64 SQ. TIMES 144 TIMES 1/300 = 184 SQ.
LOW ROOF @ REAR INLET VENTILATION SHOWN.	1.00 SQ. CONTINUOUS SOFFIT VENT
LOW ROOF @ REAR OUTLET VENTILATION SHOWN.	1.00 SQ. CONTINUOUS "FLASHAVENT"
MAIN HOUSE VENTILATION REQUIRED.	2.00 SQ. TIMES 144 TIMES 1/300 = 1.00 SQ.
MAIN HOUSE INLET VENTILATION SHOWN.	0.48 SQ. CONTINUOUS SOFFIT VENT
MAIN HOUSE OUTLET VENTILATION SHOWN.	1.00 SQ. GABLE / CONTINUOUS "CORNAVENT"
REAR PORCH VENTILATION REQUIRED.	1.24 SQ. TIMES 144 TIMES 1/300 = 2.00 SQ.
REAR PORCH INLET VENTILATION SHOWN.	0.64 SQ. CONTINUOUS SOFFIT VENT
REAR PORCH OUTLET VENTILATION SHOWN.	0.42 SQ. GABLE / CONTINUOUS "FLASHAVENT"

ROOF PLAN
SCALE: 1/4" = 1'-0"



STAIR SECTION DETAIL
SCALE: 1/4" = 1'-0"

Hasan Engineering PLLC has performed a structural review of these plans. The structural components comply with the most current local residential building code.

DEVIATION OF ANY STRUCTURAL REQUIREMENT OF THESE PLANS WITHOUT APPROVAL OF THE ENGINEER OF RECORD IS PROHIBITED.



06/19/2026

GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS, SITE VERIFICATION AND DIMENSIONS BY ALL TRADES, PRIOR TO CONSTRUCTION AND ENGINEER NOT RESPONSIBLE FOR SITE VIOLATION.
2. DO NOT SCALE DIMENSIONS FROM PRINTS, PLANS AND DETAILS. ARE NOT ALWAYS DRAWN TO SCALE, USE DIMENSIONS GIVEN OR CONSULT DESIGNER FOR WRITTEN CLARIFICATION.
3. PLANNED DESIGNED FOR TRUSSED ROOF OR LIFTED ROOF TRUSS DETAILS ON FLOOR OR ROOF PLAN LAYOUT.
4. CONTRACTOR TO VERIFY ROOF TRUSS LAYOUT TO MATCH ROOF PLAN. NOTIFY DESIGNER OF RECORD FOR ROOF TRUSS PLANS IF MANUFACTURER LAYOUT DIFFERENCE FROM STRUCTURAL SHOWS.
5. INSTALL AND BRACE TRUSSES FOR MANUFACTURER'S RECOMMENDATIONS.

DHM DESIGNS LLC

1033 HORSESHOE BEND DR
CHARLOTTE, NC 28228
C: 704-806-5585
E-MAIL: dhm@dhmdesigns.com
DESIGNER: DANIEL H. MEDINA

NEW RESIDENTIAL HOME

HUGO & ALICIA HERNANDEZ

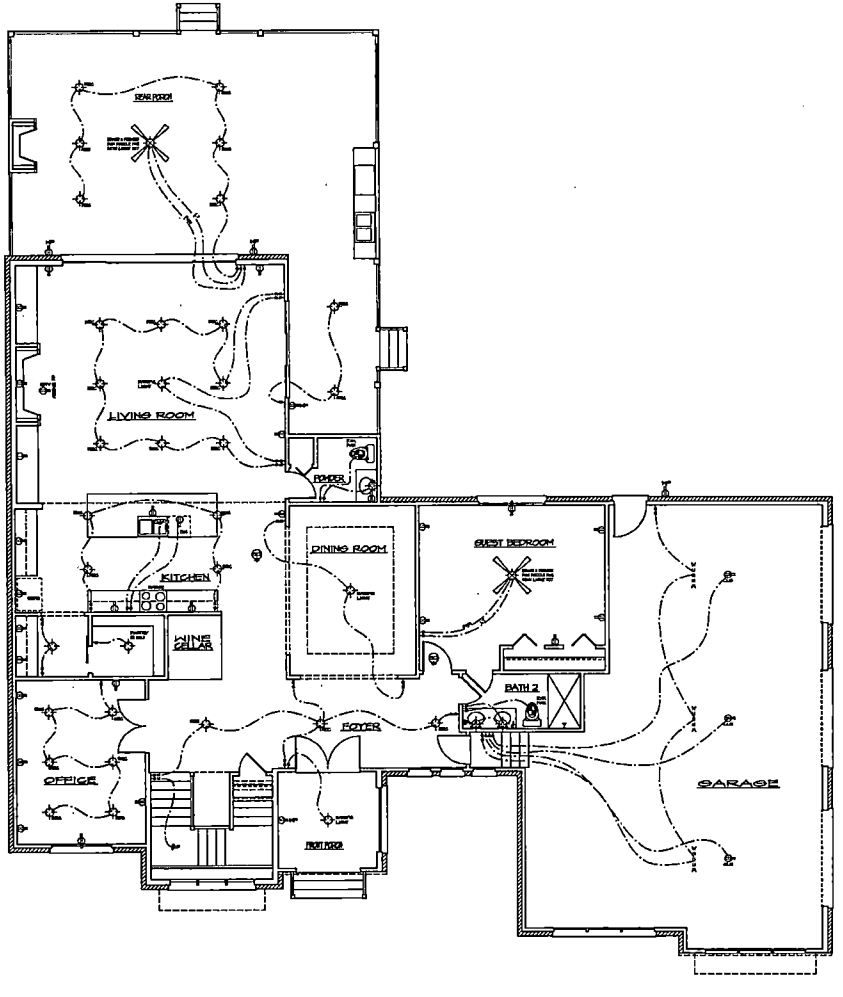
PARCEL ID: 0353028 - 14606 NC HWY 73, HUNTERSVILLE, NC 28078

PROJ. NO. -
ISSUED - 04/25
REVISIONS -

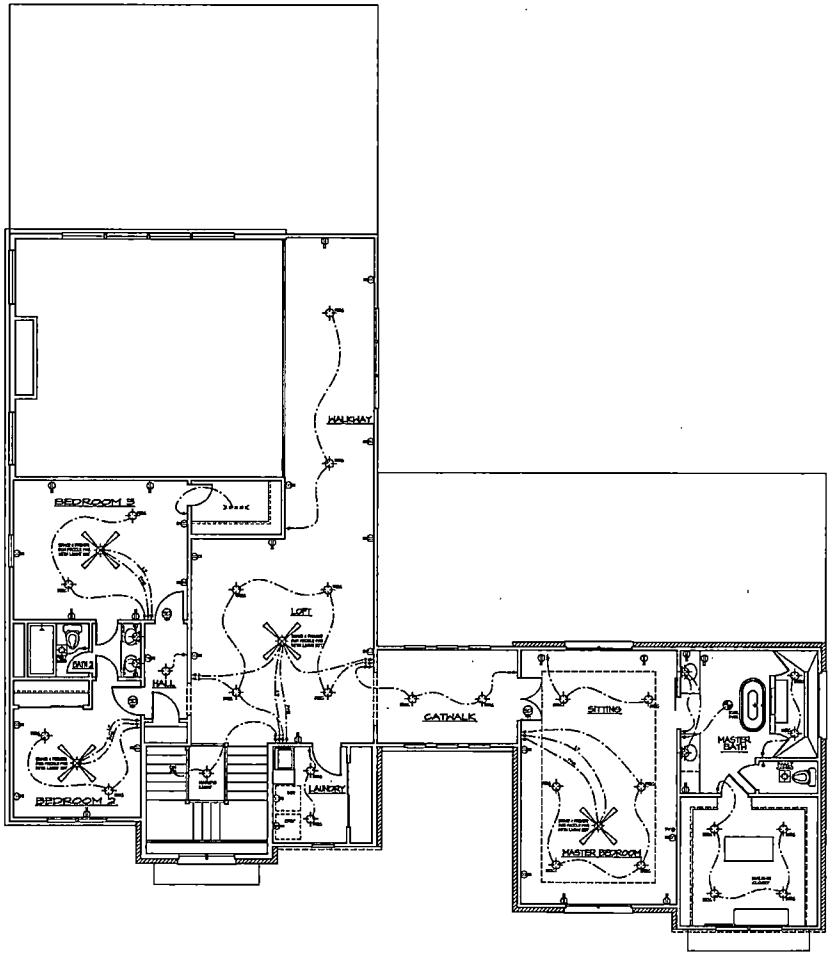
ROOF PLAN & STAIR SECTION

7

OF 8



FIRST FLOOR ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"



SECOND FLOOR ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"

GENERAL NOTES:
1. CONTRACTOR TO VERIFY ALL DIMENSIONS AND MATERIALS PERTINENT TO THE CONSTRUCTION, DESIGN AND DESIGNER NOT PERMITTED PRIOR TO THE CONSTRUCTION.
2. DO NOT SCALE DIMENSIONS FROM PRINTS, PLANS AND DETAILS ARE NOT ALWAYS DRAWN TO SCALE. UNF DIMENSIONS GIVEN OR CONSULT DESIGNER FOR FURTHER CLARIFICATION.

DHM
DESIGNS LLC
4333 HORSESHOE BEND DR
CHARLOTTE, NC 28225
C: 704-806-5385
E-MAIL: dhm@dhmdesigns.com
DESIGNER: DANIEL H. HEDOKA

NEW RESIDENTIAL HOME
HUGO & ALICIA HERNANDEZ
PARCEL ID: 0E8808, HUNTERSVILLE, NC 28078

PROJECT NO. -
DRAWING - 04/26
REVISIONS -
FIRST FLOOR & SECOND FLOOR ELECTRICAL PLAN

8

OF 8

For Registration
Fredrick Smith
Register of Deeds
Mecklenburg County, NC
Electronically Recorded
2026 Aug 28 01:26 PM RE Excise Tax: $ 0.00
Book: 40681 Page: 983 - 992 Fee: $ 26.00
Instrument Number: 2026093434

Fredrick Smith

Prepared by and Return to: Bright Law, PLLC, 16740 Birkdale Commons Pkwy, 202 Huntersville, NC 28078

STATE OF NORTH CAROLINA

COUNTY OF MECKLENBURG

PRIVATE UTILITY EASEMENT AGREEMENT

THIS UTILITY EASEMENT AGREEMENT (the *"Agreement"*) is made and entered into as of this 28 day of August, 2026, by and between **Hugo Hernandez and wife Alicia Pelegrin *(Hereinafter referred to as "Grantor")* and Hugo Hernandez and wife Alicia Pelegrin *(Hereinafter referred to as "Grantee")***. The Grantor and Grantee are hereinafter sometimes individually referred to as a ***"Party"*** and collectively as the ***"Parties"***. **To the extent applicable, it is the intent of the undersigned that this agreement be enacted in accordance with NCGS 39-6.4 which allows for the creation of easements in property owned by the same part(ies).**

WITNESSETH:

WHEREAS, Grantor is the owner of that certain real property more commonly known as Mecklenburg County Parcel ID 01313285 (this identifier being as of 8/27/2026 according to the Mecklenburg County GIS), said real property being a portion of the real property acquired by Grantor recorded in deed at Book 39726 Page 790 of the Mecklenburg County Registry and being more particularly described as that certain Lot #5 Natural Open Space being 2.843 acres more or less as depicted in Map Book 77 Page 659 of the Mecklenburg County Registry, to which said map reference is hereby made and incorporated herein for a more particular description of the property, (hereinafter the ***"Lot 5 Parcel"***); and

WHEREAS, Grantee is the owner of that certain real property more commonly known as Mecklenburg County Parcel ID 01313281 (this identifier being as of 8/27/2026 according to the Mecklenburg County GIS), said real property being a portion of the real property acquired by Grantor recorded in deed at Book 39726 Page 790 of the Mecklenburg County Registry and being more particularly described as that certain Lot #4 being 1.317 acres more or less as depicted in Map Book 77 Page 659 of the Mecklenburg County Registry, to which said map reference is hereby made and incorporated herein for a more particular description of the property, (hereinafter the ***"Lot 4 Parcel"***); and

WHEREAS, any reference in this Agreement to the ***"Property"*** herein shall refer to the Lot 5 Parcel and/or the Lot 4 Parcel, as context permits;

Submitted electronically by "Bright Law PLLC"
in compliance with North Carolina statutes governing recordable documents
and the terms of the submitter agreement with the Mecklenburg County Register of Deeds.

WHEREAS, the Parties have agreed that the Grantor shall grant Grantee the following described easement over the Lot 5 Parcel for the development, construction, installation, maintenance, repair, use and operation of private utility facilities thereon to provide private utility service to the Lot 4 Parcel pursuant to the terms and conditions hereinafter set forth.

NOW THEREFORE, FOR AND IN CONSIDERATION of TEN DOLLARS ($10.00) and for other good and valuable consideration, including the mutual promises and obligations set forth herein, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. Recitals. The foregoing recitals are true and correct and incorporated herein by this reference.

2. Grant of Private Utility Easement

   a. The Grantor hereby conveys, establishes and creates for the benefit of and as an appurtenance to the Lot 5 Parcel, a perpetual non-exclusive private right, privilege and easement over, across and through the area indicated as "SEPTIC EASEMENT" on survey attached hereto as **Exhibit A** and as the same is described by metes and bounds on **Exhibit B** attached hereto, reference is hereby made to Exhibit A and Exhibit B and both are incorporated herein by this reference for a more particular description (the ***"Private Utility Easement Area"***) for the purpose of developing, constructing, installing, maintaining, repairing, replacing, operating and using the private utility facilities and improvements serving the Lot 4 Parcel located within the Private Utility Easement Area (collectively, the ***"Private Utility Facilities")*** for the purpose of providing septic and/or water and sewer tap and/or other similar utility services to the Lot 4 Parcel.

   b. The Parties agree and acknowledge that the primary purpose of this Agreement is to allow septic and/or water/sewer utility lines/needs from the Lot 5 Parcel and/or the Lot 4 Parcel as the case may be (and vice versa), to flow into and utilize the Private Utility Facilities in order to facilitate the uninterrupted flow of water, septic, sanitary or other similar utility lines/needs from the Lot 5 Parcel to the Lot 4 Parcel and vice versa to allow water, septic, sanitary or other similar utility lines/needs from the Lot 5 Parcel and/or Lot 4 Parcel as the case may be (and vice versa), to flow into and utilize the Private Utility Facilities in order to facilitate the uninterrupted flow of septic, sewer, water, sanitary or other similar utility lines/needs from the Lot 5 Parcel to the Lot 4 Parcel and vice versa as the case may be.

3. Maintenance. The Parties shall comply with and observe the following requirements, terms and conditions:

a. All work and activities shall be performed in a good and workmanlike manner and in compliance with all applicable laws and regulations.

b. Except as otherwise provided in subparagraph 3(d) below, the Grantee (or its successors and assigns/transferees) shall be responsible, at the Grantee's expense (or its successor and assigns/transferees expense), for the installation, maintenance, repair and replacement of the Private Utility Facilities benefitting the Lot 4 Parcel and shall maintain the Private Utility Facilities benefiting the Lot 4 Parcel in a state of good condition and repair. For the avoidance of doubt, it is hereby agreed and understood that installation, maintenance, repair and replacement of the Private Utility Facilities shall include proper grading, seeding, and/or vegetation replacement including as required by any homeowners association or governmental authority overseeing the Property.

c. Rights under this Agreement shall be exercised in a manner so as to not unreasonably interfere with, diminish or disrupt use, enjoyment, construction, development and/or operation of or any activities occurring on either the Lot 5 Parcel or the Lot 4 Parcel, and to the extent available, the Parties (and the Parties' respective contractors, agents and personnel) shall use established means of approach to access the Private Utility Easement Area and the Private Utility Facilities.

d. The Parties shall, at their sole and individual expense, promptly repair any damage (other than normal and customary wear and tear) to the Property and any improvements located thereon, to the extent arising out of the exercise of its rights granted to the individual Parties under this Agreement, and shall promptly restore the same to substantially the same condition as existed before the damage occurred (other than normal and customary wear and tear). The Parties shall, at their sole and individual expense, promptly repair any damage to the Private Utility Easement Facilities arising out of the negligence or willful misconduct of the respective Party or the breach of this Agreement by the respective Party or its agent, such that the Private Utility Easement Facilities are restored to substantially the same condition as existed before the damage occurred.

e. The Parties shall not permit or cause any construction, mechanics' laborers', materialmen's or similar liens to attach to the Property in connection with exercise of the rights granted to the respective Parties under this Agreement. If, despite the foregoing, such a lien attaches to the Property, the breaching Party shall, at their sole and individual expense, cause such lien(s) to be discharged or bonded over within thirty (30) days following written notice thereof.

4. Indemnification. Each Party hereby agrees to protect, defend, indemnify, and hold the opposite Party to this Agreement harmless from and against any and all claims, damages, demands, penalties, costs, liabilities, losses, and expenses (including, reasonable attorney's fees, court costs and expenses actually incurred) arising out of (i) any injury to or death of any persons, or damage to property, to the extent arising out of or related to the exercise of

the rights granted to the opposite Party under this Agreement, or (ii) provided, however, this indemnity and hold harmless shall not be applicable to any claims, damages, demands, penalties, costs, liabilities, losses, and expenses to the extent arising out of or related to the negligence or willful misconduct of the liable Party (or the liable Party's agents, invitees, contractors or employees).

5. Running with the Land; Binding Effect. The easements, rights and obligations of this Agreement shall run with the land and shall benefit and burden the Property as set forth herein, and their respective owners from time to time. This Agreement shall be binding upon and inure to the benefit of the Parties hereto, their successors and assigns, as set forth herein. Accordingly, references to each Party herein shall mean such Party and/or such Party's heirs, successors and assigns in title.

6. Governing Law. This Agreement is to be governed, construed and enforced in accordance with the laws of the State of North Carolina.

7. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

8. Enforcement. The agreements and undertakings under this Agreement shall be enforceable by any action in law or equity. In any litigation arising hereunder, the prevailing party shall be entitled to recover reasonable attorneys' fees in addition to all other reasonable costs and expenses thereof, including costs on appeal. "Prevailing party", as used herein, means a party recovering all or substantially all of the relief sought by such party, whether as plaintiff or defendant.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be duly executed the day and year first above written.

Grantor and Grantee:

By: _____ (SEAL)
Name: **Alicia Pelegrin, both in her capacity as Grantor and as Grantee**

By: _____ (SEAL)
Name: **Hugo Hernandez, both in his capacity as Grantor and as Grantee**

STATE OF Florida

COUNTY OF Miami-Dade

I, Melanie Torres, a Notary Public for said County and State, do hereby certify that **Alicia Pelegrin** personally appeared before me this day and acknowledged the due execution of the foregoing instrument for the purposes therein described with due authority of GRANTOR and/or GRANTEE as that term is defined in the instrument above.

WITNESS my hand and official seal, this the 28th day of August, 2026

☑ appeared by physical presence
☑ produced NC Drivers license

Notary Public Melanie Torres

My commission expires:

7-10-2029

(NOTARIAL SEAL)

MELANIE TORRES
Notary Public - State of Florida
Commission # HH 696361
My Comm. Expires Jul 10, 2029
Bonded through National Notary Assn.

STATE OF _____

COUNTY OF _____

I, _____

a Notary Public for said County and State, do hereby certify that

Hugo Hernandez personally appeared before me this day and acknowledged the due execution of the foregoing instrument for the purposes therein described with due authority of GRANTEE and/or GRANTEE as that term is defined in the instrument above.

WITNESS my hand and official seal, this the _____ day of _____, 20___.

_____
Notary Public

My commission expires:

_____

(NOTARIAL SEAL)

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be duly executed the day and year first above written.

Grantor and Grantee:

By: _____(SEAL)
Name: **Alicia Pelegrin, both in her capacity as Grantor and as Grantee**

By: _____ (SEAL)
Name: **Hugo Hernandez, both in his capacity as Grantor and as Grantee**

STATE OF _____

COUNTY OF _____

I, _____, a Notary Public for said County and State, do hereby certify that **Alicia Pelegrin** personally appeared before me this day and acknowledged the due execution of the foregoing instrument for the purposes therein described with due authority of GRANTOR and/or GRANTEE as that term is defined in the instrument above.

WITNESS my hand and official seal, this the _____ day of _____, 20___.

_____
Notary Public

My commission expires:

_____

(NOTARIAL SEAL)

STATE OF NC

COUNTY OF Mecklenburg

I, Leslie S. Bright III

a Notary Public for said County and State, do hereby certify that **Hugo Hernandez** personally appeared before me this day and acknowledged the due execution of the foregoing instrument for the purposes therein described with due authority of GRANTEE and/or GRANTEE as that term is defined in the instrument above.

WITNESS my hand and official seal, this the 28 day of Aug., 2026

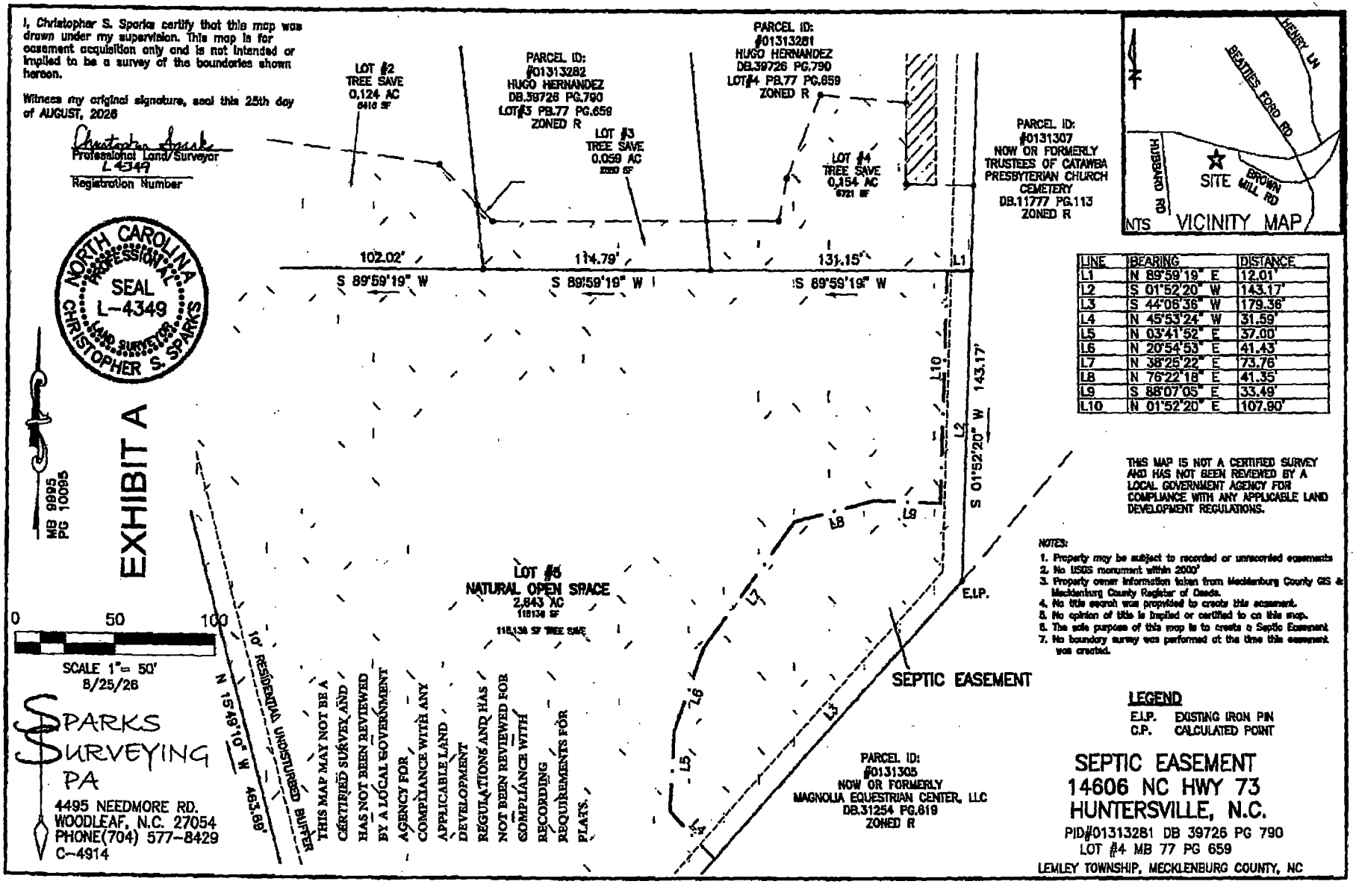
Notary Public

My commission expires:

9/23/26

(NOTARIAL SEAL)

LESLIE S. BRIGHT III
Notary Public
Mecklenburg
County
My Comm. Exp.
09-23-2026
NORTH CAROLINA


I, Christopher S. Sparks certify that this map was drawn under my supervision. This map is for easement acquisition only and is not intended or implied to be a survey of the boundaries shown hereon.
Witness my original signature, seal this 25th day of AUGUST, 2026
Professional Land Surveyor
L-4349
Registration Number
NORTH CAROLINA PROFESSIONAL SEAL L-4349 LAND SURVEYOR CHRISTOPHER S. SPARKS
EXHIBIT A
MB 9995 PG 10095
LOT #2 TREE SAVE 0.124 AC 5416 SF
PARCEL ID: #01313282 HUGO HERNANDEZ DB.39726 PG.790 LOT#3 PB.77 PG.659 ZONED R
LOT #3 TREE SAVE 0.059 AC 2550 SF
PARCEL ID: #01313281 HUGO HERNANDEZ DB.39726 PG.790 LOT#4 PB.77 PG.659 ZONED R
LOT #4 TREE SAVE 0.154 AC 6721 SF
PARCEL ID: #01313307 NOW OR FORMERLY TRUSTEES OF CATAWBA PRESBYTERIAN CHURCH CEMETERY DB.11777 PG.113 ZONED R
102.02'
114.79'
131.15'
S 89°59'19" W
S 89°59'19" W
S 89°59'19" W
L1
L2
L3
L4
L5
L6
L7
L8
L9
L10
S 01°52'20" W 143.17'
LOT #5 NATURAL OPEN SPACE 2.643 AC 115138 SF
115,138 SF TREE SAVE
10' RESIDENTIAL UNDISTURBED BUFFER
N 15°49'10" W 495.88'
E.I.P.
SEPTIC EASEMENT
PARCEL ID: #01313305 NOW OR FORMERLY MAGNOLIA EQUESTRIAN CENTER, LLC DB.31254 PG.619 ZONED R
THIS MAP MAY NOT BE A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS AND HAS NOT BEEN REVIEWED FOR COMPLIANCE WITH RECORDING REQUIREMENTS FOR PLATS.
0 50 100
SCALE 1"= 50'
8/25/26
SPARKS SURVEYING PA
4495 NEEDMORE RD.
WOODLEAF, N.C. 27054
PHONE(704) 577-8429
C-4914
HENRY LN
BEATTIES FORD RD
HUNSUCKER RD
BROWN MILL RD
SITE
NTS VICINITY MAP
LINE | BEARING | DISTANCE
L1 | N 89°59'19" E | 12.01'
L2 | S 01°52'20" W | 143.17'
L3 | S 44°06'36" W | 179.36'
L4 | N 45°53'24" W | 31.59'
L5 | N 03°41'52" E | 37.00'
L6 | N 20°54'53" E | 41.43'
L7 | N 38°25'22" E | 73.76'
L8 | N 76°22'18" E | 41.35'
L9 | S 88°07'05" E | 33.49'
L10 | N 01°52'20" E | 107.90'
THIS MAP IS NOT A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS.
NOTES:
1. Property may be subject to recorded or unrecorded easements
2. No USGS monument within 2000'
3. Property owner information taken from Mecklenburg County GIS & Mecklenburg County Register of Deeds.
4. No title search was provided to create this easement.
5. No opinion of title is implied or certified to on this map.
6. The sole purpose of this map is to create a Septic Easement.
7. No boundary survey was performed at the time this easement was created.
LEGEND
E.I.P. EXISTING IRON PIN
C.P. CALCULATED POINT
SEPTIC EASEMENT
14606 NC HWY 73
HUNTERSVILLE, N.C.
PID#01313281 DB 39726 PG 790
LOT #4 MB 77 PG 659
LEMLEY TOWNSHIP, MECKLENBURG COUNTY, NC

Septic Easement to Serve
14606 NC Hwy 73
Huntersville, N.C.

EXHIBIT B

Beginning at an existing iron pin , being the southeasterly most corner of Lot#4 Pb.77 Pg.659; thence S 01°52'20" W a distance of 143.17' to a computed point; thence S 44°06'36" W a distance of 179.36' to a computed point; thence N45°53'24"W a distance of 31.59' to a computed point; thence N 03°41'52" E a distance of 37.00' to a computed point; thence N 20°54'53" E a distance of 41.43' to a computed point; thence N 38°25'22" E a distance of 73.76' to a computed point; thence N 76°22'18" E a distance of 41.35' to a computed point; thence S 88°07'05" E a distance of 33.49' to a computed; thence N 01°52'08" E a distance of 107.90' to a computed point; thence N 89°59'19" E a distance of 12.01' to n existing iron pin; which is the point of beginning, having an area of 13808.3 square feet, 0.317 acres per a survey by Sparks Surveying PA dated:8/25/26

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	09/01/26	**Amount:**	200.00
Receipt #:	163181	**Tendered:**	200.00
Check / Auth #:	VISA 03454G	**Returned:**	0.00
Received By:	MOORES		

Account Information

Account #: 200000
Contractor: JENNIFER MORAN
Attn:
Address:
Address:
City/State/Zip: ,

Item	Description	Quantity	Unit Price	Total Price
0703	Septic Operational Permit 14606 NC 73	1	200.00	200.00

Permit#

----------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:	09/01/26	**Amount:**	180.00
Receipt #:	163180	**Tendered:**	180.00
Check / Auth #:	VISA 03454G	**Returned:**	0.00
Received By:	MOORES		

Account Information

Account #: 200000
Contractor: JENNIFER MORAN
Attn:
Address:
Address:
City/State/Zip: ,

Item	Description	Quantity	Unit Price	Total Price
0789	A2 Session Law IP/CA Combo 14606 NC 73	1	180.00	180.00

Permit#

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

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

Mecklenburg County Groundwater & Wastewater Services
3205 Freedom Dr. Suite 8000, Charlotte, NC 28208
Phone: (980) 314-1680 Fax: (704) 336-6894

NC DHHS
Division of Environmental Health
On-Site Wastewater Section

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

File #: 11813 B Permit #: SP26-062 Tax Parcel #: 13132821

Property Owner: Jeff Vaughan

Job Location Address: 14606 HWY 73

City: Huntersville State: NC Zip Code: 28078

Operation Permit Issuance Date: 09/18/2026 Contractor Name: Veaceslay Samocrani 13060

Permitted Design Flow: 600 GPD Liquid Capacity of Dosing Tank: 1500 gallons

Liquid Capacity of Septic Tank: 1500 gallons Tank Manufacture infiltrator Effluent Pump Model: 1.5 HP Liberty

Drainfield Installation ☐ N/A

Trench Depth: 31 inches

Trench Width: 3 feet

Line Spacing: 8 feet (O.C.)

Total line length: 368 feet

# of Lines: 7 @ vary feet see A2 Design

Depth of Media: 14 inches (Type) HPPBPs

Depth of Cover: 6+ inches

Distribution Device: Pressure Manifold

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: 10+ feet

Inspection Dates

Tank(s) Inspected: 9/18/26

Excavation Inspected: 9/18/26

Pump & Controls Inspected: 9/18/26

SKETCH OF SYSTEM INSTALLATION
(As-Built Drawing)

Installed as designed in A2 permit

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: IIIb/PPBPs Horizontal /P/Na/NA

DENR Authorized Agent: Heather Woods Signature: Heather Woods

Mecklenburg County Groundwater & Wastewater Services
3205 Freedom Dr. Suite 8000, Charlotte, NC 28208
Phone: (980) 314-1680 Fax: (704) 336-6894

NC DHHS
Division of Environmental Health
On-Site Wastewater Section

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

File #: 11813 B Permit #: SP26-062 Tax Parcel #: 13132821

Property Owner: Jeff Vaughan

Job Location Address: 14606 HWY 73

City: Huntersville State: NC Zip Code: 28078

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: IIIB

*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.

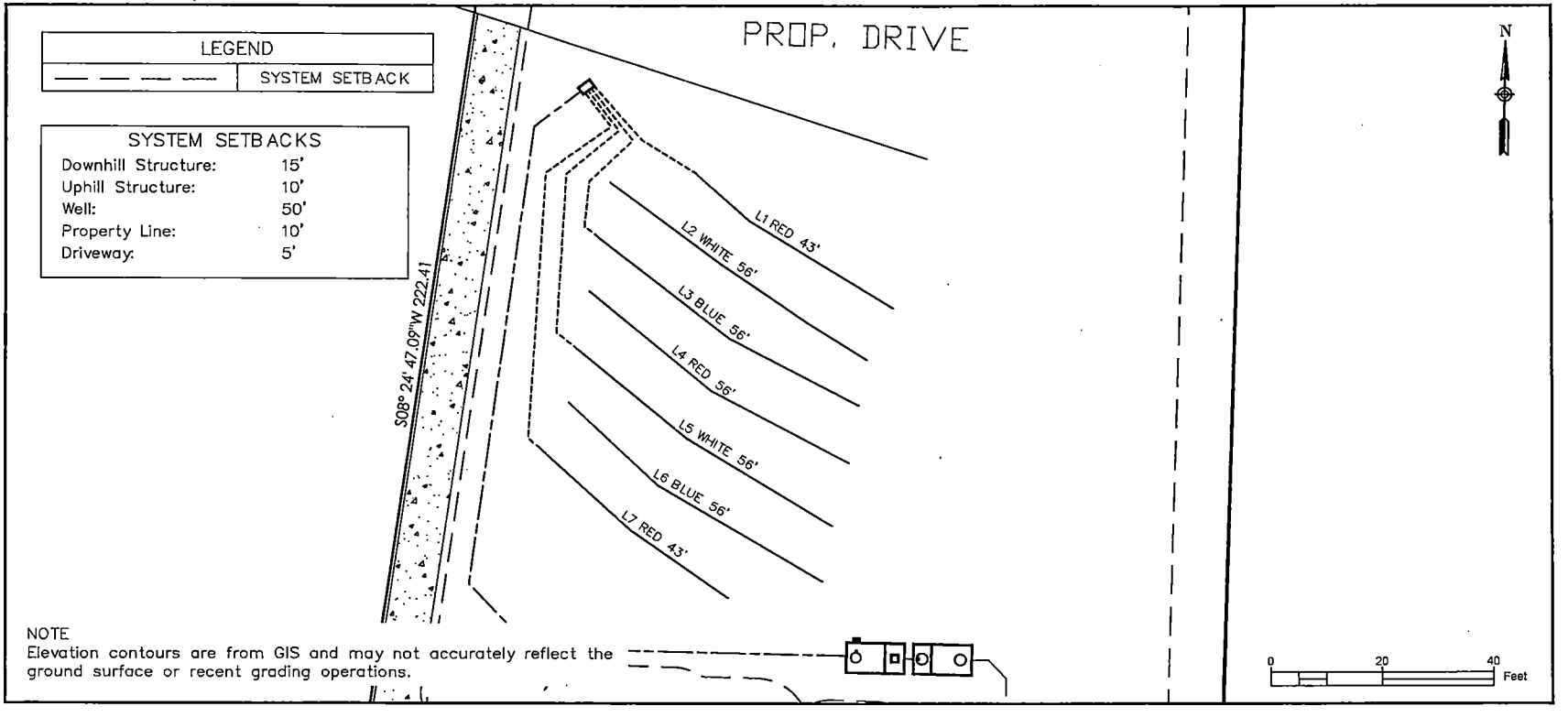
☐ System requires inspection by GWS once every twelve (12) months. The system owner is responsible for all fees associated with the inspection.

☐ 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: Heather Woods Date: 9/18/26

Signature: Heather Woods



General Drainfield Notes:

1. Clear all trees less than 8" in diameter (measured at a height 3' from soil surface) from the drainfield.
2. Vegetation that will re-grow from a cut stump shall be stumped or pulled from the ground. Stumps shall not be pushed over.
3. Drainfield area shall be cleared of all leaves, pine straw, debris, etc. The accumulated material shall be removed from the drainfield.
4. In clayey soils, sides of trenches shall be raked and limed per manufacturer's instructions.
5. Supply lines shall be installed with a minimum of 18" cover.
6. The trenches shall be backfilled appropriately so that no low areas are present.
7. Apply lime over the drainfield area as needed. Seed fine fescue over the drainfield at the rate recommended by the seed manufacturer. Hand rake the seed into the soil surface. Straw the seeded area at the rate of 1.5-2 bales per 1000 sq. ft.

DRAINFIELD INFO. - Primary

Proposed Type of System/Distribution: *Pump to Pressure Manifold using PPBPS, Horizontal*

Line No.	Flag Color	Line Length (ft)	Tap	Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
1	RED	43.3	1/2in SCH 80	5.48	0.127	0.544
2	WHITE	56.3	1/2in SCH 40	7.11	0.126	0.543
3	BLUE	56.3	1/2in SCH 40	7.11	0.126	0.543
4	RED	56.3	1/2in SCH 40	7.11	0.126	0.543
5	WHITE	56.3	1/2in SCH 40	7.11	0.126	0.543
6	BLUE	56.3	1/2in SCH 40	7.11	0.126	0.543
7	RED	43.3	1/2in SCH 80	5.48	0.127	0.544
	Total	368.10	Total	46.51	Avg.	0.54

Note: Line lengths are calculated in 4'4" increments to reflect use of PPBPS product.

1 / WW-4 PRIMARY DRAINFIELD
Source: AWT Inc.

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
1225 Crescent Green, Suite 250, Cary, NC 27518
agriwaste.com | 784.237.0660

Hugo Hernandez
HMA-NC Hwy 73

PROJECT LOCATION:
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg COUNTY
PIN: 01313108

PROFESSIONAL ENGINEER SEAL

FOR REVIEW ONLY

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
PRIMARY DRAINFIELD

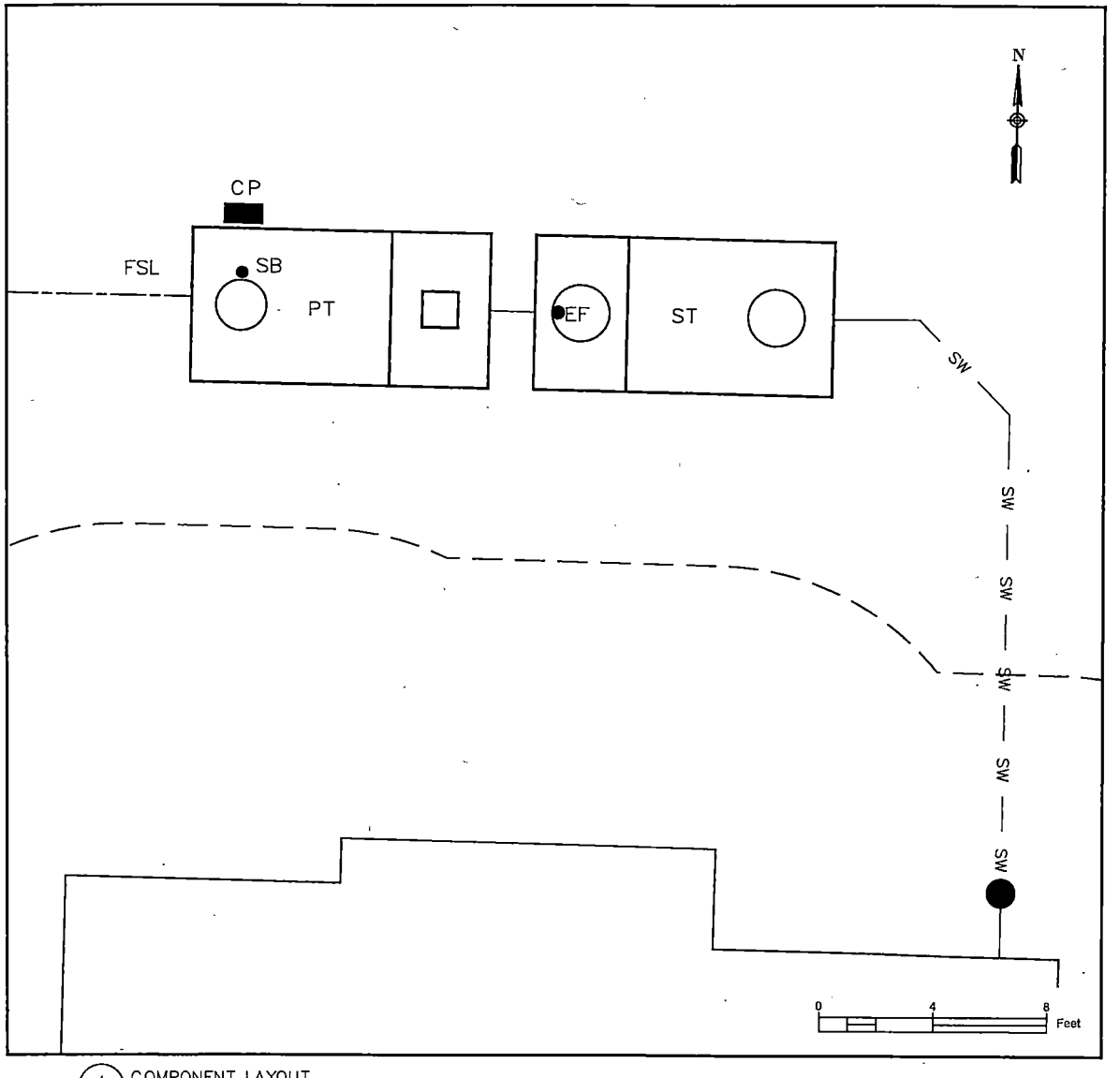
Drawn By:	Drawn On:
-----	2026-02-27
Revised By:	Revised On:
-----	-----
Released By:	Released On:
-----	-----

Drawing Number:
WW-4

LEGEND	
●	CLEANOUT
SW	4" SCH 40 PVC
ST	1250 GAL SEPTIC TANK
EF	EFFLUENT FILTER
— — — —	SYSTEM SETBACK
PT	1275 GAL PUMP TANK
PM	PRESSURE MANIFOLD
SB	SPLICE BOX
■	CONTROL PANEL
FSL	2" SCH 40 PVC

SYSTEM SETBACKS	
Downhill Structure:	15'
Uphill Structure:	10'
Well:	50'
Property Line:	10'
Driveway:	5'

NOTE
Elevation contours are from GIS and may not accurately reflect the ground surface or recent grading operations.
Contractor to adjust tank placements as necessary to maintain:
1. 15' downslope, 10' sideslope, and 10' upslope setback from foundation drain
2. Minimum 12" cover over septic tank (not to exceed 36").
3. Minimum 18" cover over pipes.
4. Minimum 2% slope on gravity drain line (DL) from house to septic tank.
5. Minimum 1% slope on effluent drain line (EDL).



1 / WW-3 COMPONENT LAYOUT
Source: AWT Inc.

AWT
Engineers and Soil Scientists
AgriWaste Technology, Inc.
1225 Crescent Green, Suite 250, Cary, NC 27518
agriwaste.com | 704.237.0660

Hugo Hernandez
HMA–NC Hwy 73

PROJECT LOCATION:
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg COUNTY
PIN: 01313108

PROFESSIONAL ENGINEER SEAL

FOR REVIEW ONLY

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
COMPONENT LAYOUT

Drawn By:	Drawn On:
------	2026-02-27
Revised By:	Revised On:
-----	----
Released By:	Released On:
----	----

Drawing Number:
WW-3

MECKLENBURG COUNTY
North Carolina
Public Health

Mecklenburg County Public Health

Raynard Washington, PhD, MPH
Health Director

VOLUNTARY RELINQUISHMENT OF ADMINISTRTIVE APPEAL RIGHTS

Date prepared: 08/28/2026

Owner(s): HMA Builders LLC

Mailing Address: 2284 Barrowcliffe Dr NW
Concord, NC. 28027

Property location/site legal description:
~~14600~~ 14606 NC-73 Huntersville, NC. 28078

Original Improvement Permit (IP) # 16336 IP Date issued: 5-18-26

Original Authorization to Construct (AC) # 16336CA Date issued: 5-18-26

I, Hugo Hernandez (print full name), voluntarily relinquish my rights to pursue a formal appeal through the North Carolina Office of Administrative Hearings pursuant to NC General Statute 130A-24 and 150B-23 and all other applicable provisions of Chapter 150B for the above referenced permit(s) (which includes the IPs and ACs) in order for the authorized agent/local health department to issue the applicable permit (new IP and/or CA) for the site. I understand by completing this form that the permit(s) for a

5 bedroom single family residence
(System description)

will be revoked immediately by the authorized agent/local health department.

I understand that the local health department's revocation of a permit can be appealed to the North Carolina Office of Administrative Hearings within 30 days of the revocation pursuant to the North Carolina Administrative Procedure Act. I understand that in order for the local health department to issue another IP and AC that the current IP and AC must be revoked. I understand that the local health department's revocation of an IP or CA is not effective until 30 days from the revocation or, if the revocation is appealed, at the time that the Office of Administrative Hearings issues a final decision. I understand that by signing this form and relinquishing my right to appeal the permit revocation at the Office of Administrative Hearings that the local health department's permit revocation will become effective immediately. I understand and agree that the revocation of a permit that takes effect immediately is in my best interest. I understand that by signing this form that I agree that I do not want to appeal the permit revocation.

I understand that I am not required to relinquish my appeal rights but that this is an option available to me so I do not have to wait 30 days for the revocation of the permit to take effect.

Signature of Property Owner: [signature]

Date signed: 8/28/26

SUPERVISOR/ADMINISTRATIVE PROFESSIONAL CHECKLIST

☐ NEW SEPTIC ☐ REPAIR ☐ USE EXISTING ☑ MODIFIED PLOT PLAN ☐ ALTERATION

File Number: 118130

Assigned Inspector: Heather.

☐ IP $250.00: _____ Initial/Date

☐ IP Commercial $450.00: _____ Initial/Date

☐ CA & OP $400.00: _____ Initial/Date

☐ Alteration Fees $300: _____ Initial/Date

☑ Modified Plot Plan Fees $100.00: 5/7/26 Initial/Date

☐ Use Existing Fees $100.00: _____ Initial/Date

☐ Use Existing Approved ☐ Use Existing Denied

☒ ~~Send IP permit for signature:~~ CA _____ ☐ Signature received: _____

~~☐ Floor plans reviewed~~

~~☐ Generate CA~~ ☒ Approve as Noted in Winchester no holds found 5/19/26

☐ This site is served by septic and well. Verify each is complete before final hold is released

☐ This septic system requires a certified operation contract before final hold is released

☐ Certified operator contract is on file: _____

☐ Septic file complete: _____

☐ Release final hold in Winchester/ Accela: _____

Comments: Please let applicant/AOWE know permit is approved. ✓ (mn) 5/19/26 Approved 5/29/26 CO hold placed - LP

126173

MECKLENBURG COUNTY
HEALTH DEPARTMENT

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: 1313108
STREET ADDRESS: ~~14600 NC-73~~ 14606 NC HWY 76
CITY: Huntersville
STATE: NC **ZIP:** 28078
SUBDIVISION NAME: _____
LOT #: _____ **LOT SIZE (acres):** 7.72
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: _____
NUMBER OF BEDROOMS: 5
NUMBER OF OCCUPANTS: 10
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: 0 NUMBER OF ADDITIONAL OCCUPANTS IN THE RESIDENCE: 0

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 Type III, Pump to Horizontal FPSPS (50% reduction drain field product)

8A. **RANK:** ____ ____ ____ ____ 1

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: HMA Builders LLC c/o Hugo Hernandez
ADDRESS: 2284 Barrowcliffe Dr NW
CITY: Concord
STATE: NC ZIP: 28027
WORK PHONE: (305) 970-8802
MOBILE PHONE: (305) 970-8802
FAX: _____
E-MAIL: hugo@hmadevelop.com

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

NAME: Nathan Estevez
ADDRESS: 1225 Crescent Green Dr. Suite 250
CITY: Cary
STATE: NC ZIP: 27518
WORK PHONE: (704) 285-5944
MOBILE PHONE: (704) 285-5944
FAX: _____
E-MAIL: nestevez@agriwaste.com

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST. SUITE 211 CHARLOTTE, NC 28202, OFFICE: 980-314-1680, FAX: 704-336-6894
Email: Wellreg@MecklenburgCountyNC.gov

Revised on: 4/20/17

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.

HH (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.

_____ (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.

_____ 3/16/26

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

---

OFFICE USE ONLY

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

SEPTIC APPLICATION FEE RECEIVED: $ _____ DATE FEE RECEIVED: _____

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

APPLICATION PROCESSED BY: _____

GWS FILE NUMBER ASSIGNED: _____

APPLICATION ID NUMBER ASSIGNED: _____

COMMENTS:

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST. SUITE 211 CHARLOTTE, NC 28202, OFFICE: 980-314-1680, FAX: 704-336-6894
Email: Wellreg@MecklenburgCountyNC.gov

118138 / 160386

MECKLENBURG COUNTY
HEALTH DEPARTMENT

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: 1313108
STREET ADDRESS: 14600 NC-73
CITY: Huntersville
STATE: NC **ZIP:** 28078
SUBDIVISION NAME:
LOT #: **LOT SIZE (acres):** 7.720
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:
NUMBER OF BEDROOMS: 5
NUMBER OF OCCUPANTS: 10
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 Type IIIb, Pump to Horizontal PPBPS (50%

8A. RANK: ____ ____ ____ ____ 1

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: HMA Builders LLC c/o Hugo Hernandez
ADDRESS: 2284 Barrowcliffe Dr NW
CITY: Concord
STATE: NC ZIP: 28027
WORK PHONE: 305-970-8802
MOBILE PHONE: 305-970-8802
FAX:
E-MAIL: hugo@hmadevelop.com

13. OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:

NAME: Nathan Estevez
ADDRESS: 1225 Crescent Green Dr. Suite 250
CITY: Cary
STATE: NC ZIP: 27518
WORK PHONE: 704-285-5944
MOBILE PHONE: 704-285-5944
FAX:
E-MAIL: nestevez@agriwaste.com

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST. SUITE 211 CHARLOTTE, NC 28202, OFFICE: 980-314-1680, FAX: 704-336-6894
Email: Wellreg@MecklenburgCountyNC.gov

Revised on: 4/20/17

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.

HH (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.

_____ (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.

_____ _____

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

---

OFFICE USE ONLY

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

SEPTIC APPLICATION FEE RECEIVED: $ _____ DATE FEE RECEIVED: _____

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

APPLICATION PROCESSED BY: _____

GWS FILE NUMBER ASSIGNED: _____

APPLICATION ID NUMBER ASSIGNED: _____

COMMENTS:

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST. SUITE 211 CHARLOTTE, NC 28202, OFFICE: 980-314-1680, FAX: 704-336-6894
Email: Wellreg@MecklenburgCountyNC.gov

Revised on: 4/20/17

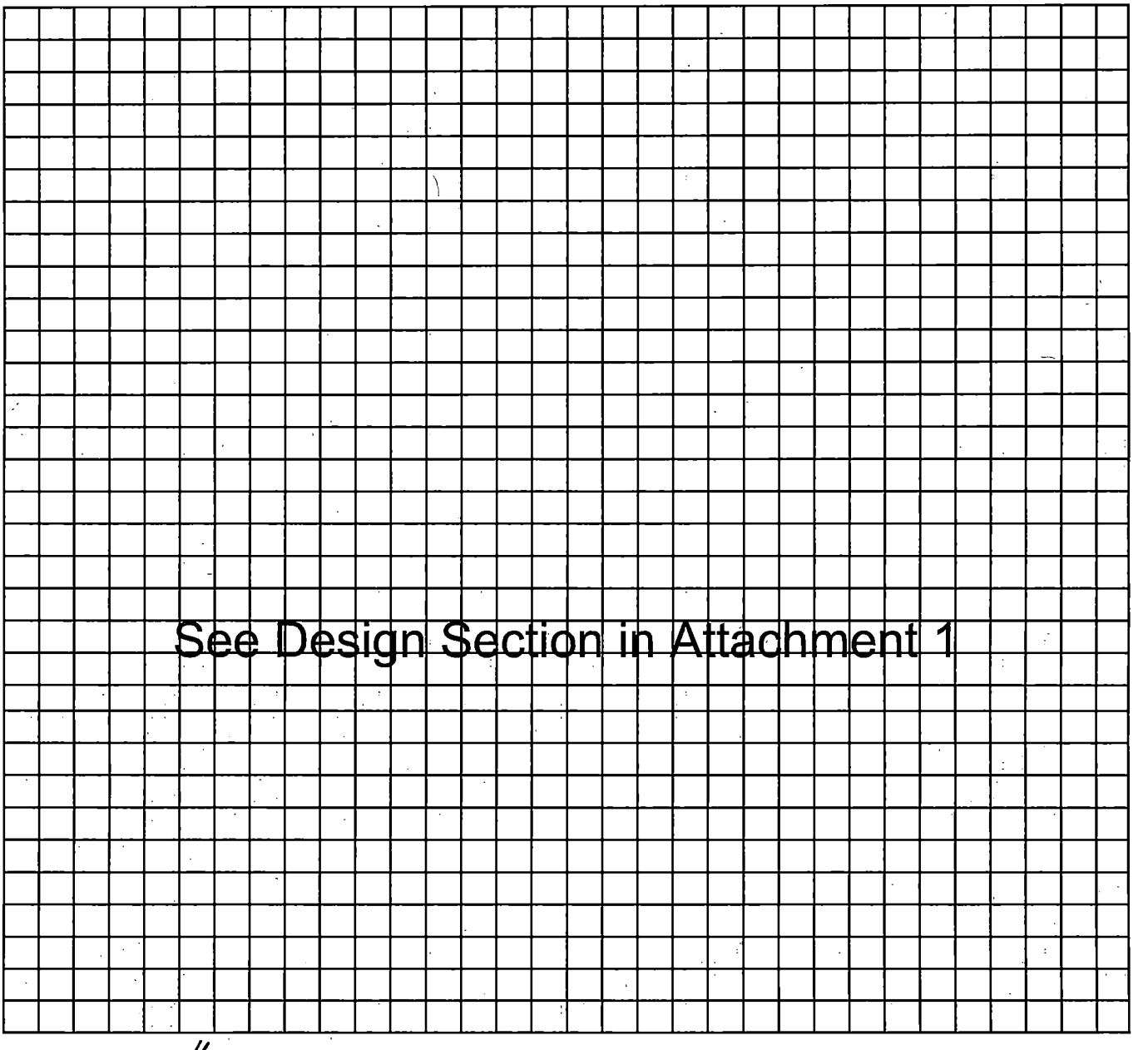
File #: _____

PROPOSED PLOT PLAN

A drawing showing the locations of the following items is required: existing and proposed property lines with dimensions, easements or right-of-ways, proposed building pad(s) or existing building footprint(s), all appurtenances (garage, driveway, deck, pool, etc.), location of existing or proposed well(s), location of existing or proposed sewer lines and sewage disposal systems, surface water bodies, and any aboveground or underground storage tanks. Provide names for all roads that adjoin the property.

Street Address: 14600 NC-73, Huntersville, NC 28078 Tax Parcel #: 01313108

Subdivision Name: _____ Lot #: _____



Property Owner's or Owner's Legal Representative Signature

3/16/26
Date

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST. SUITE 211 CHARLOTTE, NC 28202, OFFICE: 980-314-1680, FAX: 704-336-6894
Email: Wellreg@MecklenburgCountyNC.gov

Revised on: 4/20/17

14000 NC-75

MECKLENBURG COUNTY
Health Department

Raynard Washington, PhD, MPH
Health Director

(704) 336-4700

Addendum to Application for
New Well or Septic System Installation
Abandonment or Repair of Existing Well or Septic System

Your signature below confirms the following:

1. The information on the application is true, complete and accurate.
2. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliances with applicable laws and rules.
3. I acknowledge that Nathan Estevez, Agri-Waste Technology Inc. is acting as my legal representative (agent) in the submittal of the application for a water supply well or septic permit located at

Parcel Number: 1313108.
Number Street Town
(Or Parcel Number)

Hugo Hernandez
Property Owner (print name)

Property Owner (Signature)

05/04/2026
Date

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

ROY COOPER • Governor
KODY H. KINSLEY • Secretary
MARK BENTON • Chief Deputy Secretary for Health
SUSAN KANSAGRA • Assistant Secretary for Public Health
Division of Public Health

Application for Services

This application, in conjunction with the common form established in G.S. 130A-335(a3) and (a5), is optional for local health departments to be used for applications submitted in accordance with G.S. 130A-335(a2), (a3), and (a5).
[hereinafter, G.S. 130A-335(a3) and (a5) permits referred to as (a2) Improvement Permit and (a2) Construction Authorization]

Applying for:
☑ (a2) Improvement Permit ☑ (a2) Construction Authorization ☐ (a2) Repair/Construction Authorization

If applying for a Construction Authorization, please indicate desired system type(s):
☐ Accepted ☐ Conventional ☐ Innovative ☑ Other Type IIIb, Pump to Horizontal PPBPS (50% reduction drain field product) ☐ Any

☑ New Construction ☐ Expansion ☐ System Relocation ☐ Change of Use ☐ Repair
☑ 5-Year Expiration Requested (site plan provided) ☐ Non-Expiring Permit Requested (plat provided, defined in G.S.130A-334(7a)
Requesting DHHS review? (systems >3000 GPD or IPWW) ☐ Yes ☑ No

Applicant: Nathan Estevez
Mailing Address: 1225 Crescent Green Dr. Suite 250
City: Cary
State: NC Zip: 27518
Phone #: (704)285-5944
Email: nestevez@agriwaste.com

Owner: HMA Builders, LLC c/o Hugo Hernandez
Mailing Address: 2284 Barrowcliffe Dr NW
City: Concord
State: NC Zip: 28027
Phone #: 305-970-8802
Email: hugo@hmadevelop.com

If the answer to any of the following questions is "yes", applicant must attach supporting documentation.

☐ Yes	☒ No	Does the site contain any jurisdictional wetlands?
☐ Yes	☒ No	Is any wastewater going to be generated on the site other than domestic sewage?
☐ Yes	☒ No	Is the site subject to approval by any other public agency?
☐ Yes	☒ No	Are there any easements or right of ways on this property?

I understand that the documentation and fees, as required in G.S. 130A-335(a2), (a3), (a5), and (a6), attached to this application are to be used to issue an Improvement Permit and/or Construction Authorization pursuant to G.S. 130A-335(a2),(a3), and (a5). I understand that authorized county and state officials are granted right of entry to the property indicated on this application to conduct necessary inspections to determine compliance with applicable laws and rules. ***I understand that if the information in the application for an Improvements Permit and/or Construction Authorization is falsified, changed, or the site is altered, then the Improvement Permit and Construction Authorization shall become invalid.***

Applicant Signature: Nathan Estevez Date: 05/04/2026

Owner's Signature: Date: 05/04/2026

Permit/File #: 118136

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

ROY COOPER • Governor
KODY H. KINSLEY • Secretary
MARK BENTON • Chief Deputy Secretary for Health
SUSAN KANSAGRA • Assistant Secretary for Public Health
Division of Public Health

Submittal Includes: ☒ (a2) Improvement Permit ☒ (a2) Construction Authorization ☐ Fee $_____

IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)

County: Mecklenburg

PIN/Lot Identifier: 1313108

Issued To: HMA Builders c/o Hugo Hernandez

Property Location: 14600 NC-73, Huntersville, NC 28078

Subdivision (if applicable)_____ Lot #: _____ Block: _____ Section: _____

LSS Report Provided: Yes ☒ No ☐

If yes, name and license number of LSS: Jeff Vaughan, 1227

New ☒ Expansion ☐ System Relocation ☐ Change of Use ☐

Facility Type: Single Family Residence

Number of bedrooms: 5 Number of Occupants: 10 Other: _____

Design Wastewater Strength: ☒ Domestic ☐ High Strength ☐ Industrial Process Wastewater

Proposed Design Daily Flow: 600 GPD Proposed LTAR (Initial): 0.275 Proposed LTAR (Repair): 0.3

Proposed Wastewater System Type*: Type IIIb, pump to Horizontal PPBPS (50% reduction drain field product) (Initial) Pump Required: ☒ Yes ☐ No ☐ May be required

Proposed Wastewater System Type*: Type IIIb, pump to Chambers (25% reduction drain field product) (Repair) Pump Required: ☒ Yes ☐ No ☐ May be required

**Please include system classification for proposed wastewater system types in accordance with Rule .1301 Table XXXII*

Effluent Standard: ☒ DSE ☐ HSE ☐ NSF/ANSI 40 ☐ TS-I ☐ TS-II ☐ RCW

Saprolite System (Initial): ☐ Yes ☒ No Saprolite System (Repair): ☐ Yes ☒ No

Fill System (Initial): ☐ Yes ☒ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area provide a fill plan)

Fill System (Repair): ☐ Yes ☒ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area provide a fill plan)

Usable Depth to LC (Initial)[x]: 43" Usable Depth to LC (Repair)[x]: 36" ***[x] Limiting Condition***

Max. Trench Depth (Initial)[‡]: 31" Max. Trench Depth (Repair)[‡]: 24" ***[‡] Measured on the downhill side of the trench***

Artificial Drainage Required: ☐ Yes ☒ No If yes, please specify details: _____

Type of Water Supply: ☐ Private well ☐ Public well ☐ Shared well ☒ Municipal Supply ☐ Spring ☐ Other: _____

Drainfield location meets requirements of Rule .0508: Yes ☒ No ☐ Drainfield location meets requirements of Rule .0601: Yes ☒ No ☐

Permit valid for: ☒ Five years [site plan submitted pursuant to GS 130A-334(13a)] ☐ No expiration [plat submitted pursuant to GS 130A-334(7a)]

Permit conditions:

Licensed Soil Scientist Print Name: Jeff Vaughan

Licensed Soil Scientist Signature: _____ Date: 05/04/2026

The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)

County: Mecklenburg **Pre-Construction Conference Required:** Yes ☒ No ☐

PIN/Lot Identifier: 1313108

Issued To: HMA Builders c/o Hugo Hernandez

Property Location: 14600 NC-73, Huntersville, NC 28078

AOWE/PE Plans/Evaluations Provided: Yes ☒ No ☐ If yes, name and license number of AOWE/PE: Jeff Vaughan, 10003E

Facility Type: Single Family Residence

Number of bedrooms: 5 Number of Occupants: 10 Other: _____

☒ New ☐ Expansion ☐ Repair ☐ System Relocation ☐ Change of Use

Basement? ☐ Yes ☒ No Basement Fixtures? ☐ Yes ☒ No

Crawl Space? ☒ Yes ☐ No Slab Foundation? ☐ Yes ☒ No

Type of Wastewater System* Type IIIb, pump to Horizontal PPBPS (50% reduction drain field product) (Initial) Type IIIb, pump to Chambers (25% reduction drain field product) (Repair)

**Please include system classification for proposed wastewater system types in accordance with Rule .1301 Table XXXII*

Design Daily Flow: 600 GPD Wastewater Strength: ☒ Domestic ☐ High Strength ☐ Industrial Process WW

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? ☐ Yes ☒ No
(if yes, please provide engineering documentation)

Effluent Standard: ☒ DSE ☐ HSE ☐ NSF/ANSI 40 ☐ TS-I ☐ TS-II ☐ RCW

Type of Water Supply: ☐ Private well ☐ Public well ☐ Shared well ☒ Municipal Supply ☐ Spring ☐ Other: _____

Installation Requirements/Conditions

Septic Tank Size: 1,250 gallons Total Trench/Bed Length: 368 feet Trench/Bed Spacing: 8 feet on center

Trench/Bed Width: 36 inches LTAR: 0.275 gpd/ft² Usable Depth to LC (Initial)ˣ: 43" ˣ***Limiting condition***

Soil Cover: - inches Slope Corrected Maximum Trench/Bed Depth‡: 31" inches ‡ ***Measured on the downhill side of the trench***

Pump Tank Size (if applicable): 1,500 gallons Requires more than 1 pump? ☐ Yes ☒ No

Pump Requirements: 34.94 ft. TDH vs. 48.96 GPM Grease Trap Size (if applicable): - gallons

Distribution Method: ☐ Serial ☐ D-Box or Parallel ☒ Pressure Manifold(s) ☐ LPP ☐ Other: _____

Artificial Drainage Required: Yes ☐ No ☒ If yes, please specify details: _____

Legal Agreements *(If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)*

Multi-party Agreement Required [.0204(g)]: ☐ Yes ☒ No Declaration of Restrictive Covenants: ☐ Yes ☒ No

Easement, Right-of-Way, or Encroachment Agreement Required [.0301(b)]: ☐ Yes ☒ No

Management Entity Required: ☐ Yes ☒ No Minimum O&M Requirements: _____

Permit conditions:

_____

_____

_____

_____

_____

The requirements of 15A NCAC 18E are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached site sketch. *This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes.* The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of 15A NCAC 18E, or 15A NCAC 18A .1900, as applicable, and to the conditions of this permit.

AOWE/PE Print Name: Jeff Vaughan

AOWE/PE Signature: _____ Date: 05/04/2026

This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date *Initials*

G.S. 130A-335(a3) states the following:

When an applicant for an Improvement Permit submits to a local health department an Improvement Permit application, the permit fee charged by the local health department, the common form developed by the Department, and a soil evaluation pursuant to subsection (a2) of this section, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Improvement Permit includes all of the required components. If the local health department determines that the Improvement Permit is incomplete, the local health department shall notify the applicant of the components needed to complete the Improvement Permit. The applicant may submit additional information to the local health department to cure the deficiencies in the Improvement Permit. The local health department shall make a final determination as to whether the Improvement Permit is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The Department shall develop a common form for use as the Improvement Permit.

The review for completeness of this Improvement Permit was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the LSS and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☑ Complete approved after 5 days

State Authorized Agent: Heidi Woot Date: 5-18-26

This Improvement Permit is issued pursuant to G.S. 130A-335 (a2) and (a3) using the signed and sealed LSS/LG evaluation(s) attached here. The issuance of this permit in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. *This permit is subject to revocation if the site plan, plat, or the intended use changes.* The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of 15A NCAC 18E and to the conditions of this permit.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to evaluations, submittals, or actions from a licensed soil scientist or licensed geologist pursuant to GS 130A-335(a2).

Improvement Permit Expiration Date: 5-18-31

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

Re-submittal of Improvement Permit

LHD USE ONLY: This IP resubmittal received: _____ by _____
Date *Initials*

The following items are being resubmitted pursuant to G.S. 130A-335(a3) for issuance of the Improvement Permit:

_____

_____

_____

_____

I, _____ hereby attest that the information required to be included with this re-submittal
Licensed Soil Scientist (Print Name)
is accurate and complete to the best of my knowledge and that the proposed Improvement Permit meets all applicable federal, State, and local laws, regulations, rules, and ordinances.

_____ _____
Signature of Licensed Soil Scientist *Date*

The section below is for Local Health Department use after submittal of items noted as missing above.

LHD Follow-up Completeness Review of Improvement Permit

The review for completeness of this Improvement Permit re-submittal was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the LSS and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date: _____

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date *Initials*

G.S. 130A-335(a5) states the following:

When an applicant for a Construction Authorization, or an Improvement Permit and Construction Authorization together, submits a Construction Authorization, or an Improvement Permit and Construction Authorization application together, the permit fee charged by the local health department, the common form developed by the Department, and any necessary signed and sealed plans or evaluations conducted by a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Construction Authorization or Improvement Permit and Construction Authorization includes all of the required components. If the local health department determines that the Construction Authorization or Improvement Permit and Construction Authorization is incomplete, the local health department shall notify the applicant of the components needed to complete the Construction Authorization or Improvement Permit and Construction Authorization. The applicant may submit additional information to the local health department to cure the deficiencies in the Construction Authorization or Improvement Permit and Construction Authorization. The local health department shall make a final determination as to whether the Construction Authorization or Improvement Permit and Construction Authorization is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The applicant may apply for the building permit for the project upon the decision of completeness of the Construction Authorization or Improvement Permit and Construction Authorization by the local health department or if the local health department fails to act within five business days. The Authorized On-Site Wastewater Evaluator or licensed engineer submitting the evaluation pursuant to this subsection may request that the local health department revoke or suspend the Construction Authorization or Improvement Permit and Construction Authorization for cause. Upon written request of the Authorized On-Site Wastewater Evaluator or licensed engineer, the local health department shall suspend or revoke the Construction Authorization or Improvement Permit and Construction Authorization pursuant to G.S. 130A-23. The Department shall develop a common form for use as the Construction Authorization.

The review for completeness of this Construction Authorization was conducted in accordance with G.S. 130A-335(a5). This Construction Authorization is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing: _____

_____

Copies of this were sent to the AOWE/PE and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☑ Complete approved after 5 days

State Authorized Agent: Heath Wood Date of Issuance: 5-18-26

This Construction Authorization is issued pursuant to G.S. 130A-335(a2) and (a5) using the signed and sealed plans or evaluations attached here. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to plans, evaluations, preconstruction conference findings, submittals, or actions from a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator in GS 130A-335(a2), (a5), and (a7). The Department, the Department's authorized agents, and the local health departments shall be responsible and bear liability for their actions and evaluations and other obligations under State law or rule, including the issuance of the operations permit pursuant to GS 130A-337.

Construction Authorization Expiration Date: 5-18-31

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

Re-submittal of Construction Authorization

LHD USE ONLY: This CA resubmittal received: _____ (Date) by _____ (Initials)

The following items are being resubmitted pursuant to G.S. 130A-335(a5) for issuance of the Construction Authorization:

_____

_____

_____

_____

I, _____ (Authorized Onsite Wastewater Evaluator (Print Name)) hereby attest that the information required to be included with this re-submittal is accurate and complete to the best of my knowledge and that the proposed Construction Authorization meets all applicable federal, State, and local laws, regulations, rules, and ordinances.

_____ (Signature of Authorized On-Site Wastewater Evaluator) _____ (Date)

The section below is for Local Health Department use after submittal of items noted as missing above.

LHD Follow-up Completeness Review of Construction Authorization

The review for completeness of this Construction Authorization re-submittal was conducted in accordance with G.S. 130A-335(a5). This Construction Authorization is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the AOWE/PE and the Applicant on _____ (Date)

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date: _____

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

ADDENDUM TO G.S. 130A-335(a2) SUBMITTAL

County: _____

PIN/Lot Identifier: _____

Issued To: _____

Additional Improvement Permit Conditions:

Additional Construction Authorization Conditions:

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 1/20/2026

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Hartsfield & Nash Agency, Inc. 10405 Ligon Mill Rd., Ste H Wake Forest NC 27587 License#: 1000009111	**CONTACT NAME:** Connie Garkalns **PHONE (A/C, No, Ext):** 984-235-4273 **FAX (A/C, No):** 919-556-8758 **E-MAIL ADDRESS:** connie@hn-ins.com
INSURED Agri-Waste Technology Inc 1225 Crescent Green, Suite 250 Cary NC 27518 AGRITEC-01	**INSURER(S) AFFORDING COVERAGE** — **NAIC #** **INSURER A :** Accident Fund — 10166 **INSURER B :** Evanston Insurance Company — 35378 **INSURER C :** SELECTIVE INSURANCE COMPANY — 39926 **INSURER D :** **INSURER E :** **INSURER F :**

COVERAGES **CERTIFICATE NUMBER:** 1861440469 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
C	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY [X] PRO-JECT LOC OTHER:			S 2253659	1/18/2026	1/18/2027	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$ 2,000,000 $ 300,000 $ 10,000 $ 2,000,000 $ 4,000,000 $ 4,000,000 $
C	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY / SCHEDULED AUTOS X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY			S 2253659	1/18/2026	1/18/2027	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$ 1,000,000 $ $ $ $
C	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $			S 2253659	1/18/2026	1/18/2027	EACH OCCURRENCE AGGREGATE $	$ 2,000,000 $ 2,000,000 $
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N [N] N/A (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below			AFWCP10000307205	1/18/2026	1/18/2027	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
B C	Prof & Pollution Liability Leased & Rented			MKLV7ENV106760 S 2253659	8/22/2025 1/18/2026	8/22/2026 1/18/2027	Each Claim Equipment	$ 5,000,000 $ 25,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

For Information Only
Contact Agency for Specific Holder Wording

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Connie Garkalns

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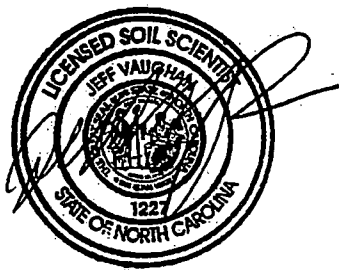
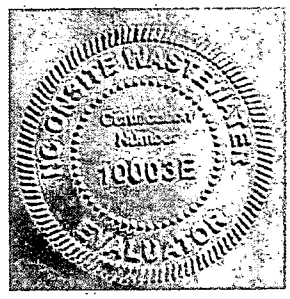
Engineers and Soil Scientists

Agri-Waste Technology, Inc.
1225 Crescent Green, Suite 250, Cary NC 27518
agriwaste.com | 919.859.0669





Soil Suitability for Domestic Sewage Treatment and Disposal Systems
14600 NC-73, Huntersville, NC 28078
(Mecklenburg Co Parcel ID 1313108)

PREPARED FOR: HMA Builders , LLC c/o Hugo Hernandez– Client

PREPARED BY: Jeff Vaughan, Senior Agronomist & Soil Scientist
Trevor Hackney, Licensed Soil Scientist

DATE: May 04, 2026

Soil suitability for domestic sewage treatment and disposal systems was evaluated on February 23, 2026, for the property located at 14600 NC-73, Huntersville, NC 28078. Agri-Waste Technology, Inc. (AWT) personnel conducted the soil evaluation. This evaluation was done to facilitate permitting for a septic system. This report and attached documents were prepared to meet the requirements for G.S. 130A-335(a2).

A drawing of the site plan, septic layout, and boring locations is included in Attachment 1. Profile descriptions for each boring are included in Attachment 2. Additional documentation about the property is included in Attachment 3.

The total property area is approximately 7.720 acres. The overall slope of the proposed septic system ranges from 3-8% slopes. The home is proposed on the front of the property, and the primary septic system area is proposed upslope in front of the structure. The proposed repair area is to be located behind the home near the back of the property. The proposed primary septic system is a type IIIb, pump system utilizing the Horizontal T&J Panel Block dispersal 50% reduction drain-field product. The proposed repair septic system area is a type IIIb, pump septic system utilizing the Chamber dispersal 25% reduction drain-field product.

Soil Suitability for Domestic Sewage Treatment and Disposal Systems
The drawing in Attachment 1 details the property boundaries (as proposed by others), soil boring locations, and layout of drain field trenches (Completed by AWT). Soil borings were examined to determine soil suitability for on-site sewage disposal systems in accordance with 15A NCAC 18E Rules for Wastewater Treatment and Disposal Systems. These borings were advanced with a hand auger. A septic layout was performed to demonstrate available space (.0508). The layout in Attachment 1 indicates there is available space for a five-bedroom home.

The proposed LTAR (Long Term Acceptance Rate) set by AWT is 0.275 GPD/ft^2 for the primary system area. The soils on this property are group IV soils within the distribution and treatment zone as used to define the LTAR. With an LTAR of 0.275 GPD/ft^2, 364 linear feet of trench are necessary to support a five-bedroom primary septic system. Since usable slope corrected soil depths meet or exceed 43", the maximum low side trench bottom should not exceed 31". AWT is recommending the use of the Horizontal T&J Panel Block drain field product for the primary system. The attached drawing proves that 368 linear feet of trench product can be installed for the primary septic system with the proposed home depicted on the drawing.

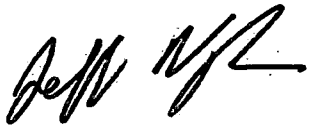
The proposed LTAR (Long Term Acceptance Rate) set by AWT is 0.3 GPD/ft^2 for the repair system area. The soils on this property are group IV soils within the distribution and treatment zone as used to define the LTAR. With an LTAR of 0.3 GPD/ft^2, 500 linear feet of trench are necessary to support a five-bedroom repair septic system. Since usable slope corrected soil depths meet or exceed 36", the maximum low side trench bottom should not exceed 24".
The attached drawing proves that 500 linear feet of trench product can be installed for the repair area with the use of the Chamber dispersal 25% reduction drain field product system with the home depicted on the drawing.

Any disturbances or grading done in the usable area or within the proposed setbacks will change the potential of using the area designated for a drain field.

We appreciate the opportunity to assist you in this matter. Please contact us with any questions, concerns, or comments.

Sincerely,

Jeff Vaughan, LSS/AOWE



Attachment 1: Drawings & Calculations

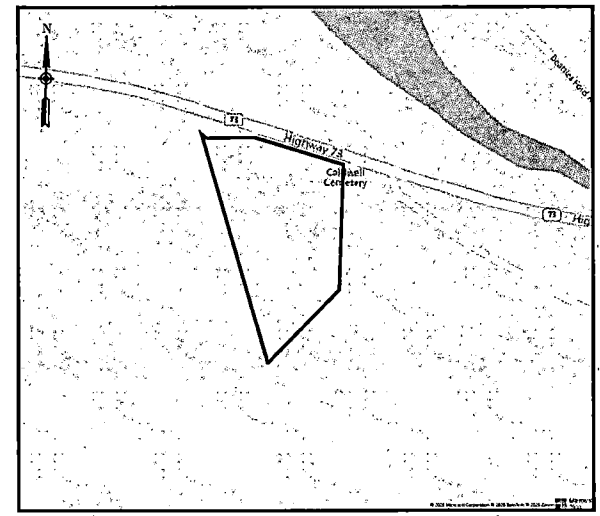
HMA–NC HWY 73

Project Location
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg County
PIN: ----
PID: 1313108

Project Owner
Hugo Hernandez
2284 Barrowcliffe Dr NW
Concord, NC 28027
305–970–8802
hugo@hmabuilder.com

Project Consultant
Jeff Vaughan, L.S.S
(919) 367–6313
Agri–Waste Technology, Inc.
1225 Crescent Green, Suite 250
Cary, NC 27518
(919) 859–0669
(919) 233–1970 Fax

System Overview
Single Family Residence
5 Bedroom, 600 gpd
PPBPS, Horizontal Dispersal Primary
Chambers Dispersal Repair
Pressure Manifold Distribution Primary
Pressure Manifold Distribution Repair



Sheet Index

Sheet 1	Cover Sheet
Sheet 2	Property Layout
Sheet 3	Component Layout
Sheet 4	Primary Drainfield
Sheet 5	Repair Drainfield
Sheet 6	Detail Sheet
Sheet 7	Detail Sheet
Sheet 8	Excavation Safety

NC 811 ORG

AWT Engineers and Soil Scientists
Agri-Waste Technology, Inc.
1225 Crescent Green, Suite 250, Cary, NC 27518
agriwaste.com | 704.237.0650

Hugo Hernandez
HMA–NC Hwy 73

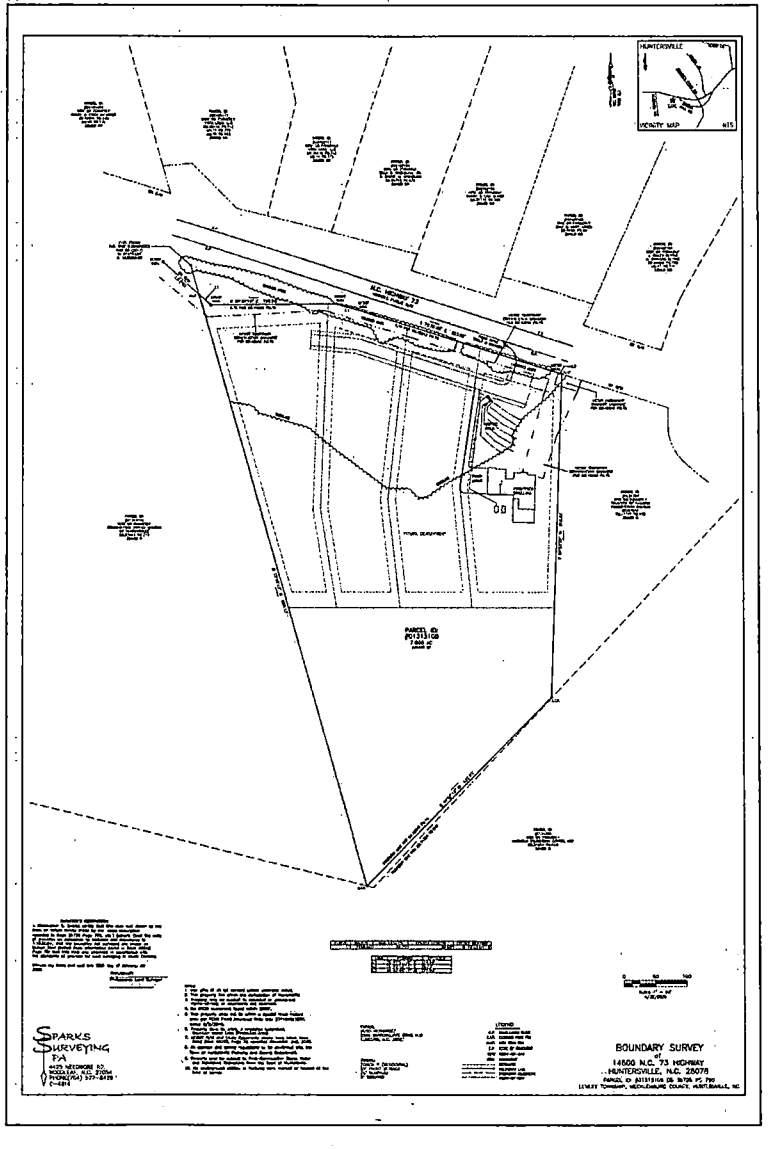
PROJECT LOCATION:
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg COUNTY
PIN: ----

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
COVER SHEET

Drawn By:	Drawn On:
----	2026–02–27
Revised By:	Revised On:
----	----
Released By:	Released On:
----	----

Drawing Number:
WW–1



*** Property subdivision indicates future plans. At present Parcel ID 01313108 is yet to be subdivided.

1 / V-1 PROPERTY LAYOUT
Source: AWT Inc.

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
1225 Crescent Green, Suite 250, Cary, NC 27518
agriwaste.com | 734.237.0660

Hugo Hernandez
HMA–NC Hwy 73

PROJECT LOCATION:
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg COUNTY
PIN: ----

PROFESSIONAL ENGINEER SEAL

FOR REVIEW ONLY

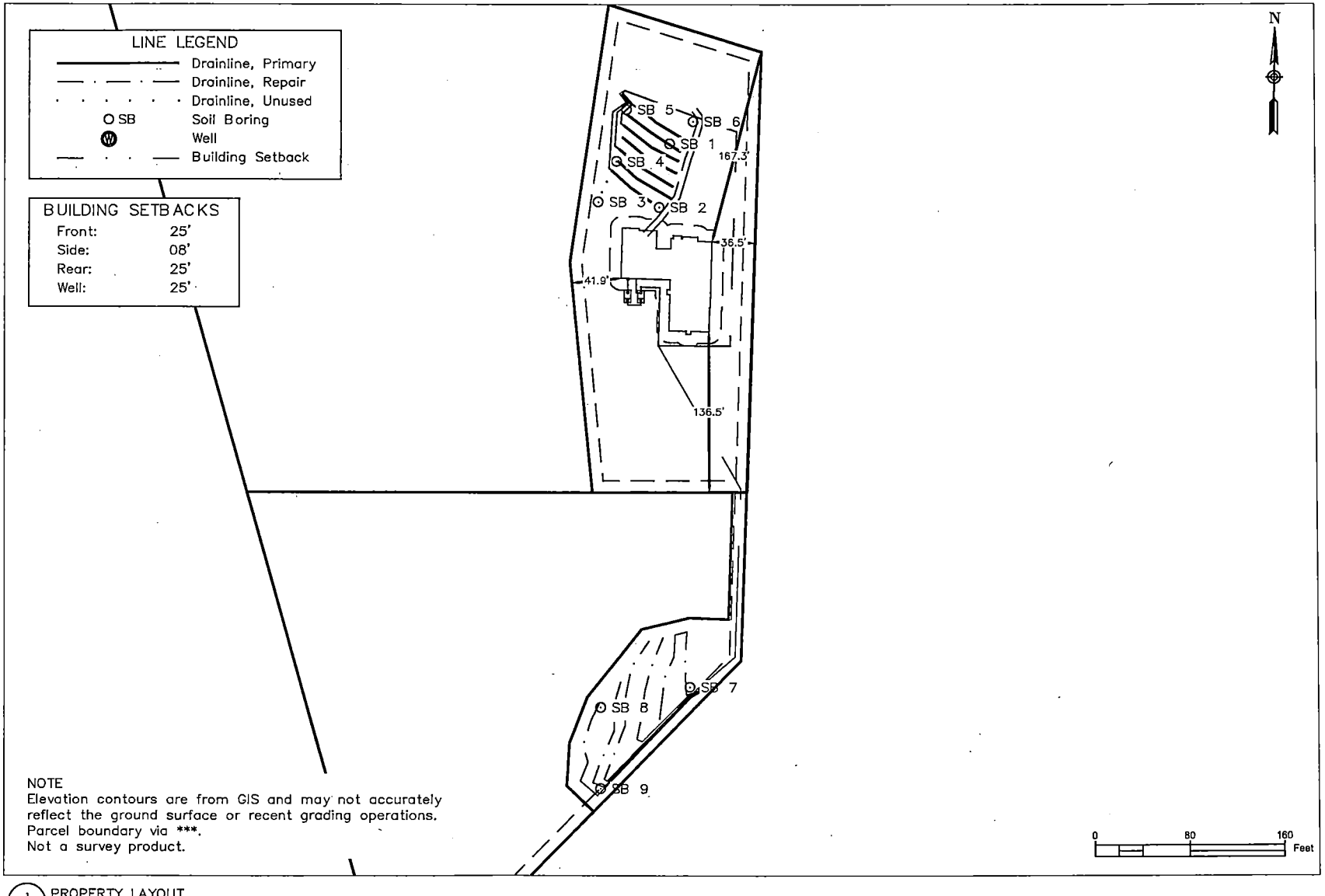
FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
PROVIDED SURVEY

Drawn By:	Drawn On:
----	2026-02-27
Revised By:	Revised On:
----	----
Released By:	Released On:
----	----

Drawing Number:
V–1



1 WW-2 PROPERTY LAYOUT
Source: AWT Inc.

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
1225 Crescent Green, Suite 250, Cary, NC 27518
agriwaste.com | 784.237.0660

Hugo Hernandez
HMA-NC Hwy 73

PROJECT LOCATION:
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg COUNTY
PIN: -----

PROFESSIONAL ENGINEER SEAL

FOR REVIEW ONLY

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
PROPERTY LAYOUT

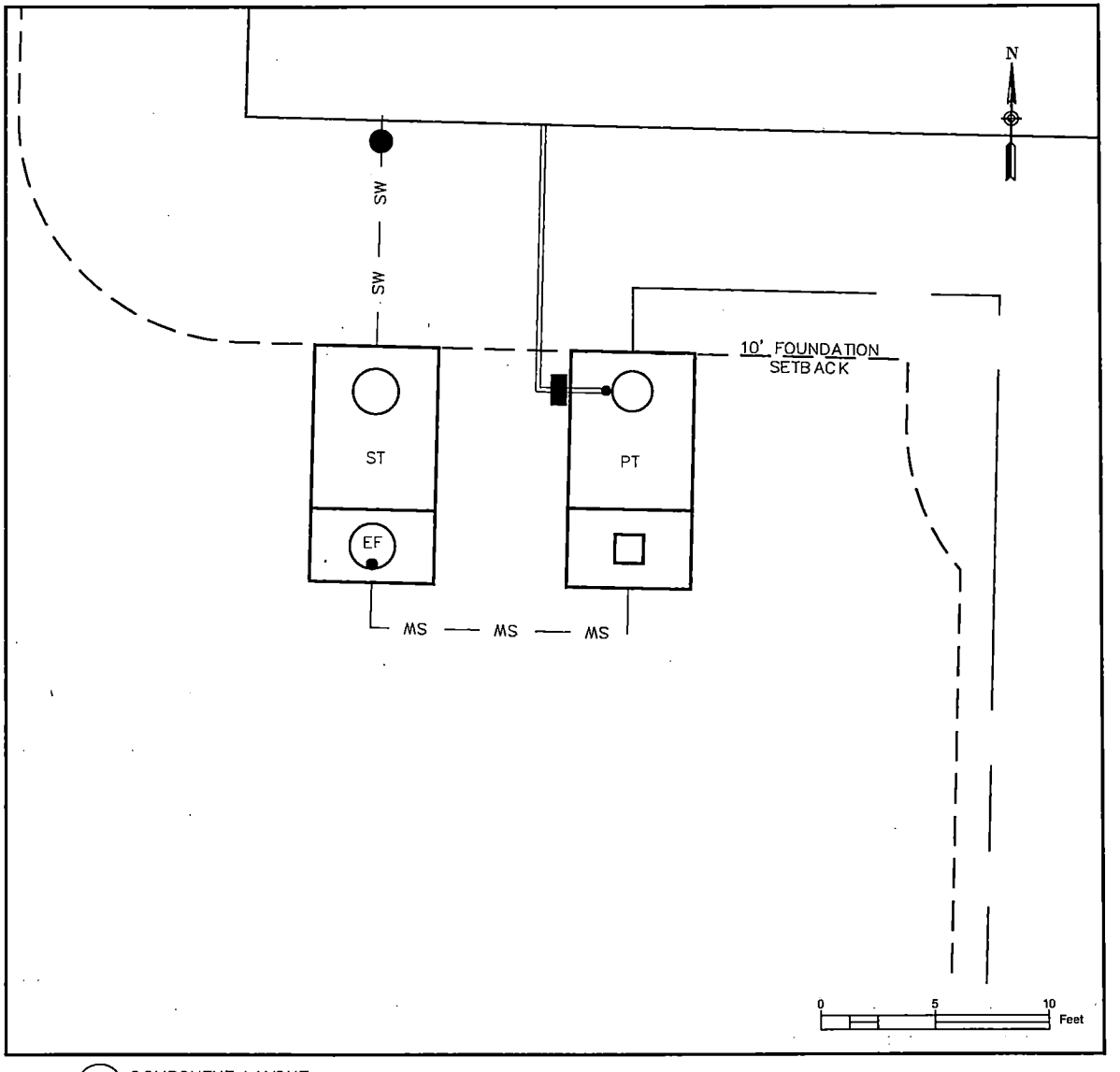
Drawn By:	Drawn On:
-----	2026-02-27
Revised By:	Revised On:
-----	-----
Released By:	Released On:
-----	-----

Drawing Number:
WW-2

LEGEND	
●	CLEANOUT
SW	4" SCH 40 PVC
ST	1250 GAL SEPTIC TANK
EF	EFFLUENT FILTER
— — — —	SYSTEM SETBACK
PT	1500 GAL PUMP TANK
PM	PRESSURE MANIFOLD
SB	SPLICE BOX
■	CONTROL PANEL
FSL	2" SCH 40 PVC

SYSTEM SETBACKS	
Downhill Structure:	15'
Uphill Structure:	10'
Well:	50'
Property Line:	10'
Driveway:	5'

NOTE
Elevation contours are from GIS and may not accurately reflect the ground surface or recent grading operations.
Contractor to adjust tank placements as necessary to maintain:
1. 15' downslope, 10' sideslope, and 10' upslope setback from foundation drain
2. Minimum 12" cover over septic tank (not to exceed 36").
3. Minimum 18" cover over pipes.
4. Minimum 2% slope on gravity drain line (DL) from house to septic tank.
5. Minimum 1% slope on effluent drain line (EDL).



1 WW-3 COMPONENT LAYOUT
Source: AWT Inc.

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
1225 Crescent Green, Suite 250, Cary, NC 27518
agriwaste.com | 704.237.0650

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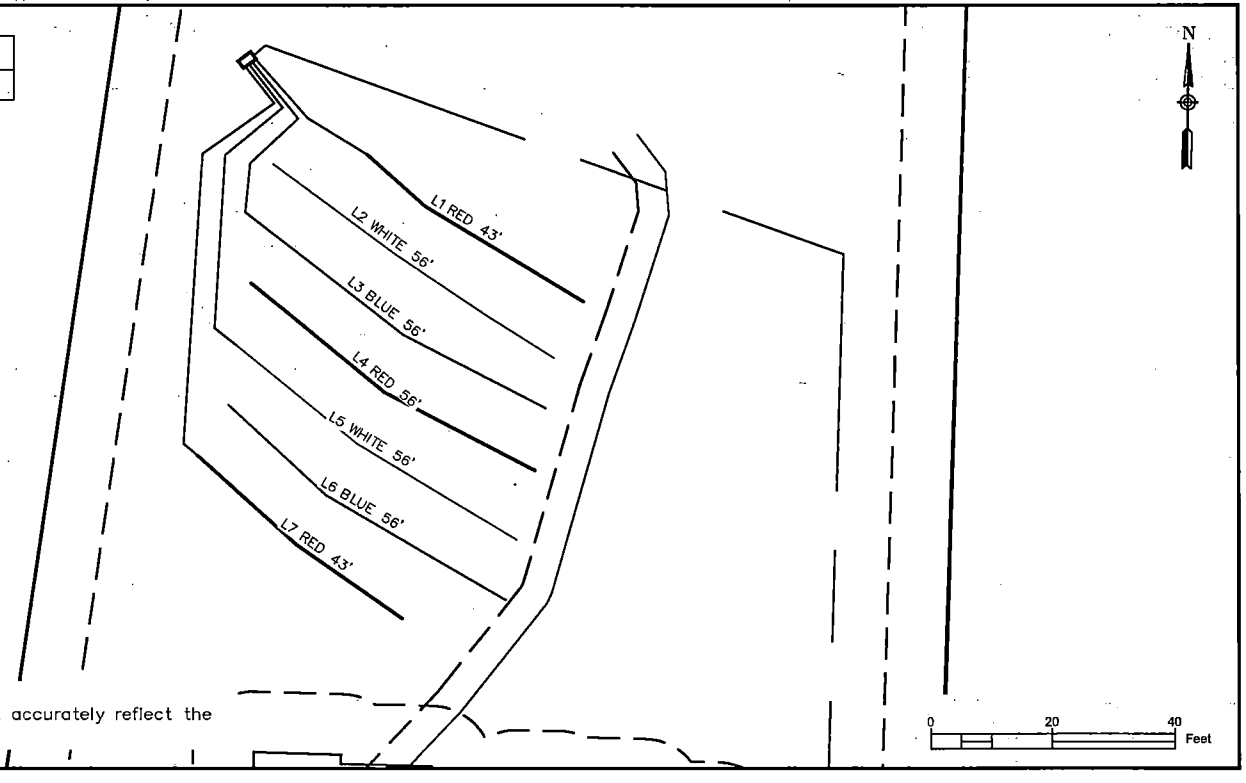
SHEET TITLE
COMPONENT LAYOUT

Drawn By:	Drawn On:
----	2026-02-27
Revised By:	Revised On:
----	----
Released By:	Released On:
----	----

Drawing Number:
WW–3

LEGEND	
— — — —	SYSTEM SETBACK

SYSTEM SETBACKS	
Downhill Structure:	15'
Uphill Structure:	10'
Well:	50'
Property Line:	10'
Driveway:	5'



NOTE
Elevation contours are from GIS and may not accurately reflect the ground surface or recent grading operations.

General Drainfield Notes:

1. Clear all trees less than 8" in diameter (measured at a height 3' from soil surface) from the drainfield.
2. Vegetation that will re-grow from a cut stump shall be stumped or pulled from the ground. Stumps shall not be pushed over.
3. Drainfield area shall be cleared of all leaves, pine straw, debris, etc. The accumulated material shall be removed from the drainfield.
4. In clayey soils, sides of trenches shall be raked and limed per manufacturer's instructions.
5. Supply lines shall be installed with a minimum of 18" cover.
6. The trenches shall be backfilled appropriately so that no low areas are present.
7. Apply lime over the drainfield area as needed. Seed fine fescue over the drainfield at the rate recommended by the seed manufacturer. Hand rake the seed into the soil surface. Straw the seeded area at the rate of 1.5-2 bales per 1000 sq. ft.

DRAINFIELD INFO. - **Primary**

Proposed Type of System/Distribution: ***Pump to Pressure Manifold using PPBPS, Horizontal***

Line No.	Flag Color	Line Length (ft)	Tap	Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
1	RED	43.3	1/2in SCH 80	5.48	0.127	0.544
2	WHITE	56.3	1/2in SCH 40	7.11	0.126	0.543
3	BLUE	56.3	1/2in SCH 40	7.11	0.126	0.543
4	RED	56.3	1/2in SCH 40	7.11	0.126	0.543
5	WHITE	56.3	1/2in SCH 40	7.11	0.126	0.543
6	BLUE	56.3	1/2in SCH 40	7.11	0.126	0.543
7	RED	43.3	1/2in SCH 80	5.48	0.127	0.544
	Total:	368.10	Total:	46.51	Avg.	0.54

Note: Line lengths are calculated in 4'4" increments to reflect use of PPBPS product.

1 / WW-4 PRIMARY DRAINFIELD
Source: AWT Inc.

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
1225 Crescent Green, Suite 250, Cary, NC 27518
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Hugo Hernandez
HMA-NC Hwy 73

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Huntersville, NC 28078
Mecklenburg COUNTY
PIN: ----

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REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
PRIMARY DRAINFIELD

Drawn By:	Drawn On:
-----	2026-02-27
Revised By:	Revised On:
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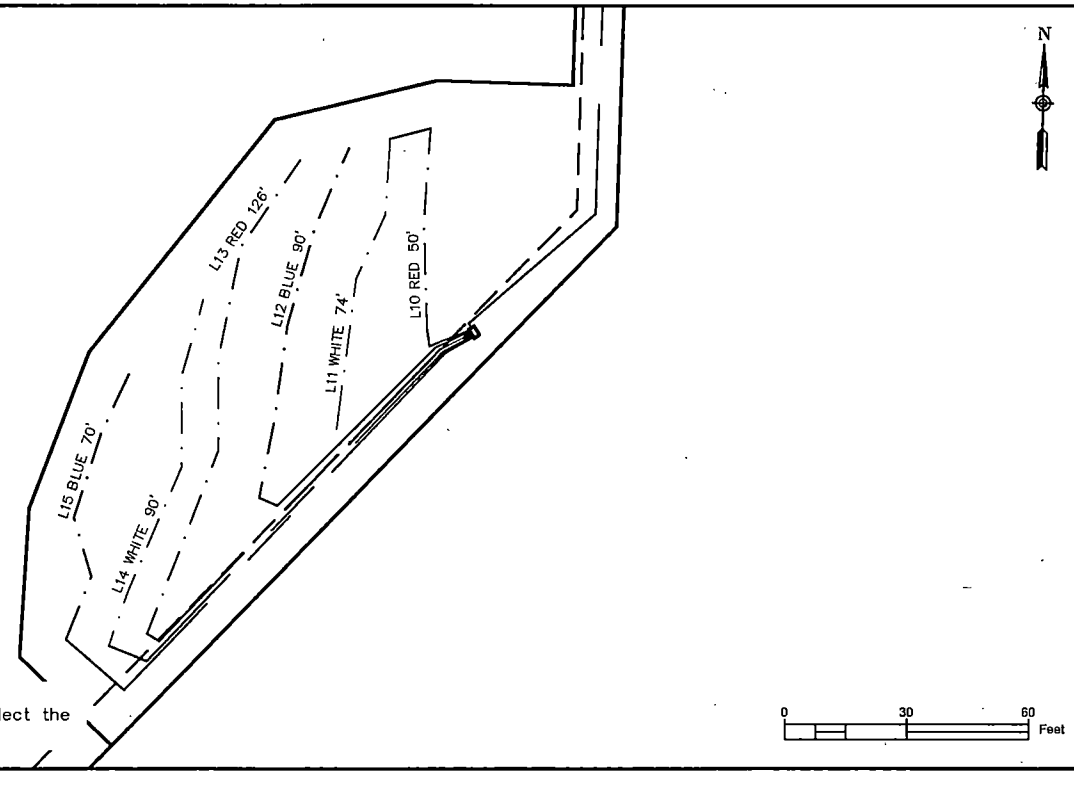
Released By:	Released On:
-----	----

Drawing Number:
WW-4

LEGEND	
— — — —	SYSTEM SETBACK

SYSTEM SETBACKS	
Downhill Structure:	15'
Uphill Structure:	10'
Well:	50'
Property Line:	10'
Driveway:	5'



NOTE
Elevation contours are from GIS and may not accurately reflect the ground surface or recent grading operations.

General Drainfield Notes:

1. Clear all trees less than 8" in diameter (measured at a height 3' from soil surface) from the drainfield.
2. Vegetation that will re–grow from a cut stump shall be stumped or pulled from the ground. Stumps shall not be pushed over.
3. Drainfield area shall be cleared of all leaves, pine straw, debris, etc. The accumulated material shall be removed from the drainfield.
4. In clayey soils, sides of trenches shall be raked and limed per manufacturer's instructions.
5. Supply lines shall be installed with a minimum of 18" cover.
6. The trenches shall be backfilled appropriately so that no low areas are present.
7. Apply lime over the drainfield area as needed. Seed fine fescue over the drainfield at the rate recommended by the seed manufacturer. Hand rake the seed into the soil surface. Straw the seeded area at the rate of 1.5–2 bales per 1000 sq. ft.

DRAINFIELD INFO. - **Repair**

Proposed Type of System/Distribution: ***Pump to Pressure Manifold using Chambers***

Line No.	Flag Color	Line Length (ft.)		Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
10 & 11	RED & WHITE	124	3/4in SCH 80	10.10	0.081	0.408
12	BLUE	90	1/2in SCH 40	7.11	0.079	0.396
13	RED	126	3/4in SCH 80	10.10	0.080	0.402
14	WHITE	90	1/2in SCH 40	7.11	0.079	0.396
15	BLUE	70	1/2in SCH 80	5.48	0.078	0.392
	Total	**500.00**	**Total**	**39.90**	**Avg.**	**0.40**

Note: Line lengths are calculated in 4' increments to reflect use of Chambers product. 2' added for endcaps.

1 / WW–5 REPAIR DRAINFIELD
Source: AWT Inc.

AWT
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Hugo Hernandez
HMA–NC Hwy 73

PROJECT LOCATION:
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Huntersville, NC 28078
Mecklenburg COUNTY
PIN: ----

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SHEET TITLE
REPAIR DRAINFIELD

Drawn By:	Drawn On:
----	2025–02–27
Revised By:	Revised On:
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Released By:	Released On:
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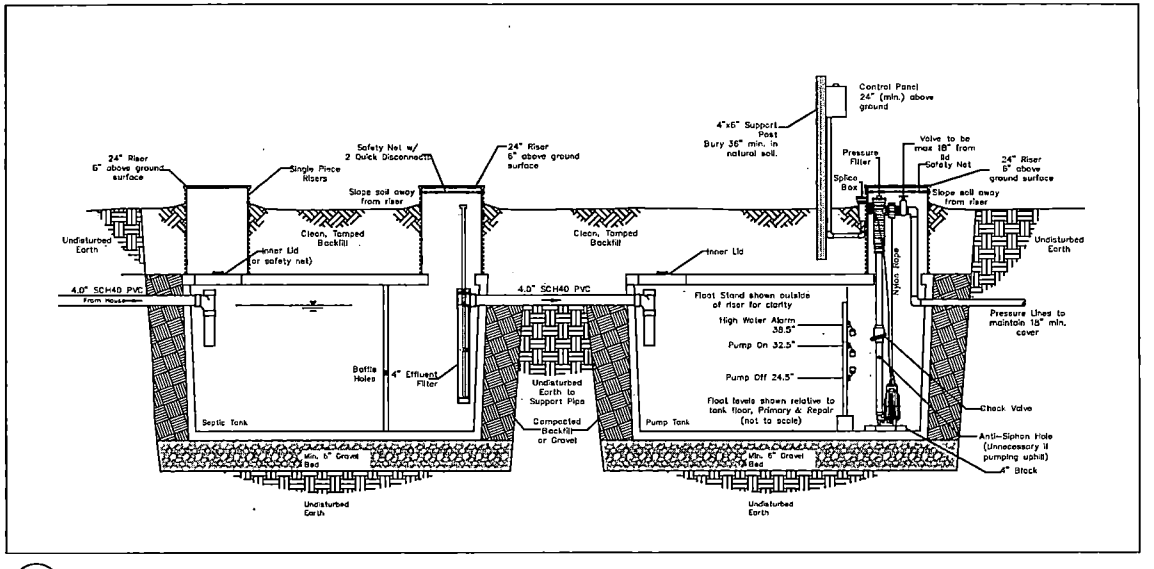
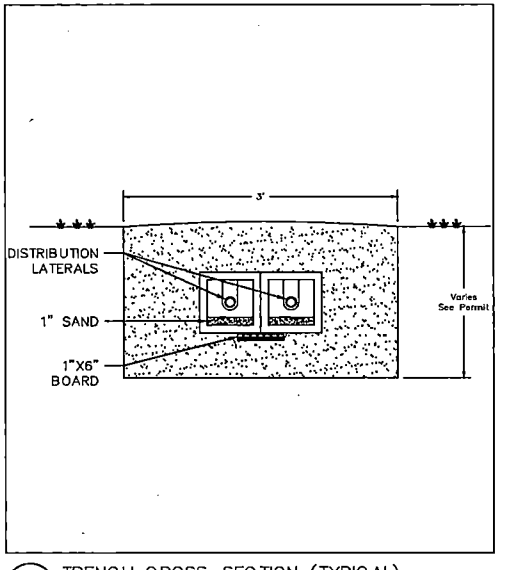
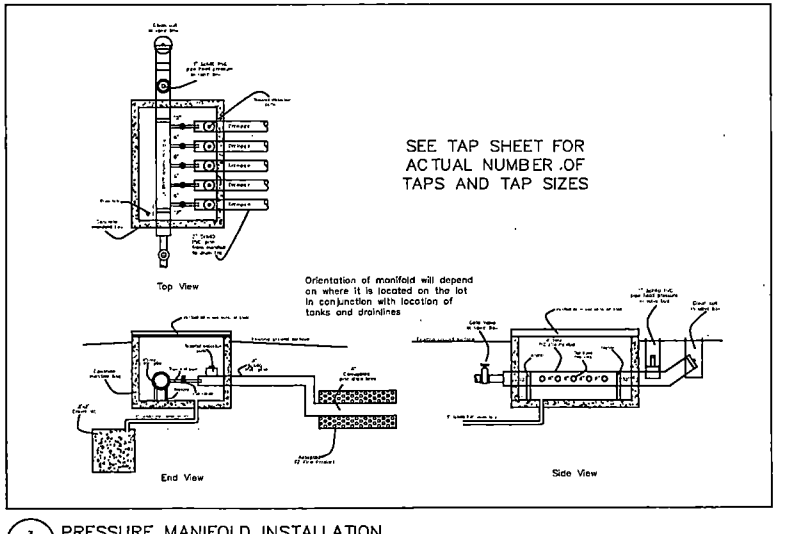
Drawing Number:
WW–5



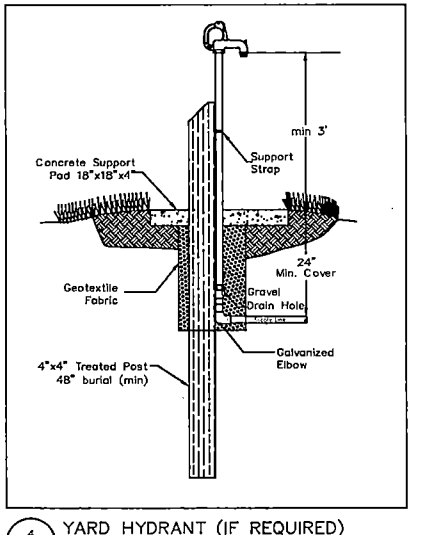
1 WW-6 SYSTEM PROFILE
NTS



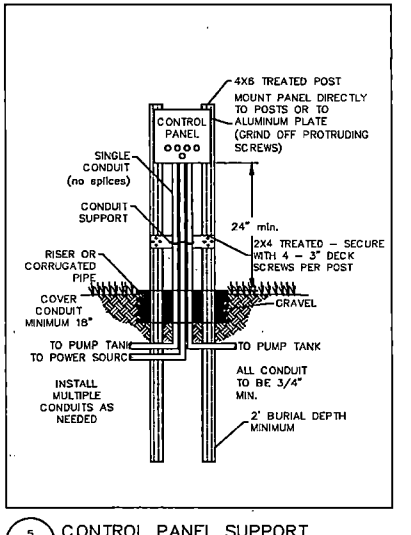
2 WW-6 TRENCH CROSS-SECTION (TYPICAL)
NTS



3 WW-6 PRESSURE MANIFOLD INSTALLATION
NTS



4 WW-6 YARD HYDRANT (IF REQUIRED)
NTS



5 WW-6 CONTROL PANEL SUPPORT
NTS

AWT
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agrwaste.com | 704.237.0660

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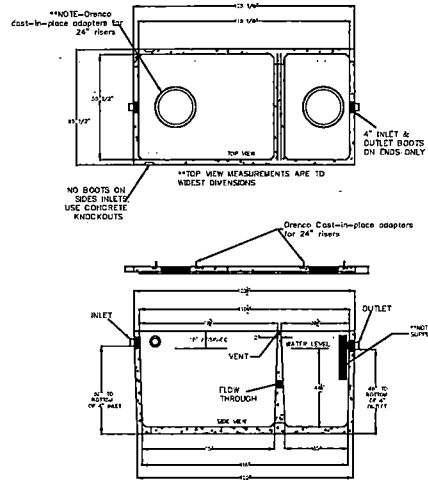
Released By: ####	Released On: ####

Drawing Number:
WW-6



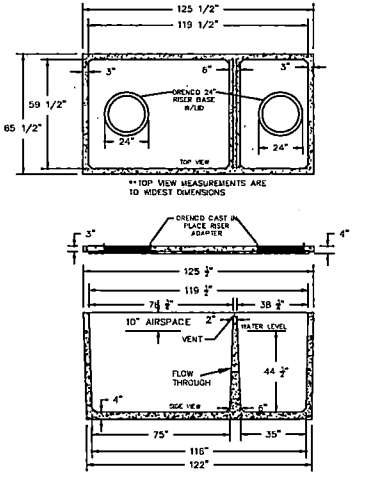
SHOAF PRECAST SEPTIC INC.
4130 WEST US HWY 64
LEXINGTON, NC 27295
PHONE (336) 787-5828
FAX (336) 787-2826

MODEL: TS 1250 STB
NON TRAFFIC
1250 Gallon Septic Tank

WWW.SHOAFPRECAST.COM
SHOAF-1,250 SEPTIC TANK
STB-389
LIQUID CAPACITY-1,252 GALLONS/10" AIRSPACE
TANK HEIGHT-61"
BOTTOM OF TANK TO CENTER OF INLET-52"
BOTTOM OF TANK TO CENTER OF OUTLET-50"
LENGTH TO WIDTH RATIO-2 TO 1
SIZE OF INLET & OUTLET-3" OR 4" PIPE
TYPE OF INLET & OUTLET-POLYLOCK OR EQUAL (MEETS ASTM C-923)
CONCRETE PSI-4000; TANK WEIGHT- 11,000 LBS.
REINFORCEMENT PER STATE CODE

SCALE - N.T.S.

1 WW-7 SEPTIC TANK (OR EQUIVALENT)
NTS



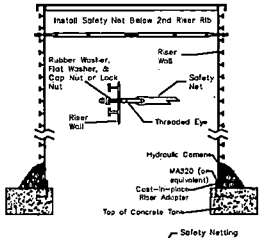
SHOAF PRECAST SEPTIC INC.
4130 WEST US HWY 64
LEXINGTON, NC 27295
PHONE (336) 787-5828
FAX (336) 787-2826

MODEL: TS 1500 PT
NON TRAFFIC
1500 Gallon Pump Tank

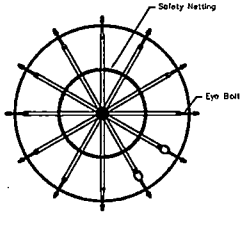
WWW.SHOAFPRECAST.COM
SHOAF-1,500 PUMP TANK
PT-353
LIQUID CAPACITY-1,518 GALLONS INCLUDING 10" AIRSPACE
GALLONS PER INCH-27.85 (AVERAGE)
TANK HEIGHT-61 3/4"
LENGTH TO WIDTH RATIO-2 TO 1
CONCRETE PSI-4000; TANK WEIGHT- 11,000 LBS.
REINFORCEMENT PER STATE CODE

SCALE - N.T.S.

2 WW-7 PUMP TANK (OR EQUIVALENT WITH 1-DAY STORAGE)
NTS



Install Safety Net in Each Access Riser that does not contain an Inner Lid



NOTE: Install 4 Ring Clamps if 8" (or larger) Filter is Used

RISER INSTALLATION INSTRUCTIONS:

1. Prep Adapter Channel & Riser
   - 1.1. Roughen the bonding surfaces of the adapter and riser with sandpaper.
   - 1.2. Use a clean cloth and acetone or alcohol to clean the bonding surfaces of the adapter and riser. The bonding surfaces must be clean and dry for a good fit and watertight joint. Let the acetone or alcohol dry completely.
2. Apply Adhesive
   - 2.1. Apply a bead of methacrylate adhesive to the outside of the adapter. One 7-oz packet of MA320 adhesive is typical for one 24" riser.
3. Install Riser
   - 3.1. If the riser has penetrations, align the riser correctly.
   - 3.2. Firmly press the riser onto the adapter until the bottom of the riser is resting on the concrete (cast-in-adapters) or the adapter flange (bolted-down adapters). Twist the riser back and forth slightly to fully seat it on to create a good bond.
   - 3.3. Apply a bead of methacrylate adhesive to the inside of the access riser-adapter joint.
   - 3.4. Use a tongue depressor, putty knife, or clean cloth to make a continuous fillet on the inside of the access riser-adapter joint.
   - 3.5. Apply hydraulic cement to bond outer riser wall and top of tank.
4. Ensure safety net and inner lid are in place and secured.

FOR RISER WALL PENETRATIONS

Grommet Size, Inches (Nominal IPS Pipe Size)	Hole Saw Size, Inches
1/2	1
3/4	1 1/4
1	1 9/16
1 1/4	1 3/4
1 1/2	2 1/8
2	2 3/4
3	3 7/8
4	5

3 WW-7 RISER SAFETY NETS
NTS

Notes

1. Installation to follow all NC DHHS and Mecklenburg County applicable rules and regulations.
2. Mecklenburg County to perform construction inspections and final system certification.
3. Septic tank to have approved effluent filter.
4. Contractor to abide by all safety regulations during system installation.
5. Contractor shall backfill around all access areas such that storm water is shed away from potential entry points.
6. Invert elevations of all components to be verified in field by contractor to insure proper operation.
7. All system piping to be SCH40 PVC (except where noted).
8. All gravity elbows to be long radius or long sweeping type elbows.
9. Actual installation and placement of treatment system to be overseen by contractor.
10. Tanks to be set on 6" minimum gravel base. Use #5 or #57 stone for base.
11. Contractor to seed and/or mulch disturbed areas to coincide with existing landscape. Area shall not be left with uncovered soil.
12. Mount control panel a minimum of 24" above grade.
13. Power to panel to be installed by licensed electrician per code. One 15-amp circuit and one 20-amp circuit with individual neutrals to be run from house to control panel.
14. All risers to have cast-in-place tank adapters and be single-piece riser. Risers to extend 6" above soil surface and be designed to prevent surface water inflow.
15. Backfill around tank(s) shall be gravel or tank hole shall be over-excavated a minimum of 2' in all directions to allow for mechanical tamping of backfill.
16. All penetrations to be sealed.
17. Spigot to be located on outside of building within 50' of tanks.
18. All pressure lines to maintain 18" min. cover.
19. Contractor to adjust tank placement to meet site constraints.

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Revised By:	Revised On:
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Released By:	Released On:
----	----

Drawing Number:
WW-7

Trenching and Excavation Safety

The employer must comply with the trenching and excavation requirements of 29 CFR 1926.651 and 1926.652 or comparable OSHA-approved state plan requirements.

Inspection of Excavations
OSHA standards require that a competent person inspect trenches daily and as conditions change before worker entry to ensure elimination of excavation hazards. A competent person is an individual who is capable of identifying existing and predictable hazards or working conditions that are hazardous, unsanitary, or dangerous to workers, soil types and protective systems required, and who is authorized to take prompt corrective measures to eliminate these hazards and conditions.

Access and Egress
OSHA standards require safe access and egress to all excavations, including ladders, steps, ramps, or
other safe means of exit for employees working in trench excavations 4 feet (1.22 meters) or deeper.
These devices must be located within 25 feet (7.6 meters) of all workers.

Recommendations
Heavy equipment and trucks should stay as far as possible from the edge of any trench.
Always use pads under stabilizers to minimize ground pressures that could lead to failures.

(b) Definitions

"Cemented soil" means a soil in which the particles are held together by a chemical agent, such as calcium carbonate, such that a hand-size sample cannot be crushed into powder or individual soil particles by finger pressure.
"Cohesive soil" means clay (fine grained soil), or soil with a high clay content, which has cohesive strength. Cohesive soil does not crumble, can be excavated with vertical sideslopes, and is plastic when moist. Cohesive soil is hard to break up when dry, and exhibits significant cohesion when submerged. Cohesive soils include clayey silt, sandy clay, silty clay, clay and organic clay.
"Dry soil" means soil that does not exhibit visible signs of moisture content.
"Fissured" means a soil material that has a tendency to break along definite planes of fracture with little resistance, or a material that exhibits open cracks, such as tension cracks, in an exposed surface.
"Granular soil" means gravel, sand, or silt (coarse grained soil) with little or no clay content. Granular soil has no cohesive strength. Some moist granular soils exhibit apparent cohesion. Granular soil cannot be molded when moist and crumbles easily when dry.
"Layered system" means two or more distinctly different soil or rock types arranged in layers. Micaceous seams or weakened planes in rock or shale are considered layered.
"Moist soil" means a condition in which a soil looks and feels damp. Moist cohesive soil can easily be shaped into a ball and rolled into small diameter threads before crumbling. Moist granular soil that contains some cohesive material will exhibit signs of cohesion between particles.
"Plastic" means a property of a soil which allows the soil to be deformed or molded without cracking, or appreciable volume change.
"Saturated soil" means a soil in which the voids are filled with water. Saturation does not require flow. Saturation, or near saturation, is necessary for the proper use of instruments such as a pocket penetrometer or shear vane.

"Soil classification system" means, for the purpose of this subpart, a method of categorizing soil and rock deposits in a hierarchy of Stable Rock, Type A, Type B, and Type C, in decreasing order of stability. The categories are determined based on an analysis of the properties and performance characteristics of the deposits and the characteristics of the deposits and the environmental conditions of exposure.
"Stable rock" means natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.
"Submerged soil" means soil which is underwater or is free seeping.

"Type A" means cohesive soils with an unconfined, compressive strength of 1.5 ton per square foot (tsf) (144 kPa) or greater. Examples of cohesive soils are: clay, silty clay, sandy clay, clay loam and, in some cases, silty clay loam and sandy clay loam. Cemented soils such as caliche and hardpan are also considered Type A.
However, no soil is Type A if:
(i) The soil is fissured; or
(ii) The soil is subject to vibration from heavy traffic, pile driving, or similar effects; or
(iii) The soil has been previously disturbed; or
(iv) The soil is part of a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or greater; or
(v) The material is subject to other factors that would require it to be classified as a less stable material.

"Type B" means:
(i) Cohesive soil with an unconfined compressive strength greater than 0.5 tsf (48 kPa) but less than 1.5 tsf (144 kPa); or
(ii) Granular cohesionless soils including: angular gravel (similar to crushed rock), silt, silt loam, sandy loam and, in some cases, silty clay loam and sandy clay loam.
(iii) Previously disturbed soils except those which would otherwise be classed as Type C soil.
(iv) Soil that meets the unconfined compressive strength or cementation requirements for Type A, but is fissured or subject to vibration; or
(v) Dry rock that is not stable; or
(vi) Material that is part of a sloped, layered system where the layers dip into the excavation on a slope less steep than four horizontal to one vertical (4H:1V), but only if the material would otherwise be classified as Type B.

"Type C" means:
(i) Cohesive soil with an unconfined compressive strength of 0.5 tsf (48 kPa) or less; or
(ii) Granular soils including gravel, sand, and loamy sand; or
(iii) Submerged soil or soil from which water is freely seeping; or
(iv) Submerged rock that is not stable, or
(v) Material in a sloped, layered system where the layers dip into the excavation or a slope of four horizontal to one vertical (4H:1V) or steeper.

"Unconfined compressive strength" means the load per unit area at which a soil will fail in compression. It can be determined by laboratory testing, or estimated in the field using a pocket penetrometer, by thumb penetration tests, and other methods.
"Wet soil" means soil that contains significantly more moisture than moist soil, but in such a range of values that cohesive material will slump or begin to flow when vibrated. Granular material that would exhibit cohesive properties when moist will lose those cohesive properties when wet.

(c) Requirements

(1) Classification of soil and rock deposits. Each soil and rock deposit shall be classified by a competent person as Stable Rock, Type A, Type B, or Type C in accordance with the definitions set forth in paragraph (b) of this appendix.
(2) Basis of classification. The classification of the deposits shall be made based on the results of at least one visual and at least one manual analysis. Such analyses shall be conducted by a competent person using tests described in paragraph (d) below, or in other recognized methods of soil classification and testing such as those adopted by the American Society for Testing Materials, or the U.S. Department of Agriculture textural classification system.
(3) Visual and manual analyses. The visual and manual analyses, such as those noted as being acceptable in paragraph (d) of this appendix, shall be designed and conducted to provide sufficient quantitative and qualitative information as may be necessary to identify properly the properties, factors, and conditions affecting the classification of the deposits.
(4) Layered systems. In a layered system, the system shall be classified in accordance with its weakest layer. However, each layer may be classified individually where a more stable layer lies under a less stable layer.
(5) Reclassification. If, after classifying a deposit, the properties, factors, or conditions affecting its classification change in any way, the changes shall be evaluated by a competent person. The deposit shall be reclassified as necessary to reflect the changed circumstances.

(d) Acceptable visual and manual tests

(1) Visual tests. Visual analysis is conducted to determine qualitative information regarding the excavation site in general, the soil adjacent to the excavation, the soil forming the sides of the open excavation, and the soil taken as samples from excavated material.

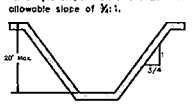
(i) Observe samples of soil that are excavated and soil in the sides of the excavation. Estimate the range of particle sizes and the relative amounts of the particle sizes. Soil that is primarily composed of fine-grained material material is cohesive material. Soil composed primarily of coarse-grained sand or gravel is granular material.
(ii) Observe soil as it is excavated. Soil that remains in clumps when excavated is cohesive. Soil that breaks up easily and does not stay in clumps is granular.
(iii) Observe the side of the opened excavation and the surface area adjacent to the excavation. Crack-like openings such as tension cracks could indicate fissured material. If chunks of soil spall off a vertical side, the soil could be fissured. Small spalls are evidence of moving ground and are indications of potentially hazardous situations.
(iv) Observe the area adjacent to the excavation and the excavation itself for evidence of existing utility and other underground structures, and to identify previously disturbed soil.
(v) Observe the opened side of the excavation to identify layered systems. Examine layered systems to identify if the layers slope toward the excavation. Estimate the degree of slope of the layers.
(vi) Observe the area adjacent to the excavation and the sides of the opened excavation for evidence of surface water, water seeping from the sides of the excavation, or the location of the level of the water table.
(vii) Observe the area adjacent to the excavation and the area within the excavation for sources of vibration that may affect the stability of the excavation face.

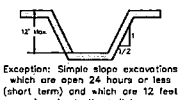
(2) Manual tests. Manual analysis of soil samples is conducted to determine quantitative as well as qualitative properties of soil and to provide more information in order to classify soil properly.

(i) Plasticity. Mold a moist or wet sample of soil into a ball and attempt to roll it into threads as thin as 1/8-inch in diameter. Cohesive material can be successfully rolled into threads without crumbling. For example, if at least a two inch (50 mm) length of 1/8-inch thread can be held on one end without tearing, the soil is cohesive.
(ii) Dry strength. If the soil is dry and crumbles on its own or with moderate pressure into individual grains or fine powder, it is granular (any combination of gravel, sand, or silt). If the soil is dry and fails into clumps which break up into smaller clumps, but the smaller clumps can only be broken up with difficulty, it may be clay in any combination with gravel, sand or silt. If the dry soil breaks into clumps which do not break up into small clumps and which can only be broken with difficulty, and there is no visual indication the soil is fissured, the soil may be considered unfissured.
(iii) Thumb penetration. The thumb penetration test can be used to estimate the unconfined compressive strength of cohesive soils. (This test is based on the thumb penetration test described in American Society for Testing and Materials (ASTM) Standard designation D2488 – "Standard Recommended Practice for Description of Soils (Visual – Manual Procedure)".) Type A soils with an unconfined compressive strength of 1.5 tsf can be readily indented by the thumb; however, they can be penetrated by the thumb only with very great effort. Type C soils with an unconfined compressive strength of 0.5 tsf can be easily penetrated several inches by the thumb, and can be molded by light finger pressure. This test should be conducted on an undisturbed soil sample, such as a large clump of spoil, as soon as practicable after excavation to keep to a minimum the effects of exposure to drying influences.If the excavation is later exposed to wetting influences (rain, flooding), the classification of the soil must be changed accordingly.
(iv) Other strength tests. Estimates of unconfined compressive strength of soils can also be obtained by use of a pocket penetrometer or by using a hand-operated shearvane.
(v) Drying test. The basic purpose of the drying test is to differentiate between cohesive material with fissures, unfissured cohesive material, and granular material. The procedure for the drying test involves drying a sample of soil that is approximately one inch thick (2.54 cm) and six inches (15.24 cm) in diameter until it is thoroughly dry:
(A) If the sample develops cracks as it dries, significant fissures are indicated.
(B) Samples that dry without cracking are to be broken by hand. If considerable force is necessary to break a sample, the soil has significant cohesive material content. The soil can be classified as an unfissured cohesive material and the unconfined compressive strength should be determined.
(C) If a sample breaks easily by hand, it is either a fissured cohesive material or a granular material. To distinguish between the two, pulverize the dried clumps of the sample by hand or by stepping on them. If the clumps do not pulverize easily, the material is cohesive with fissures.If they pulverize easily into very small fragments, the material is granular.

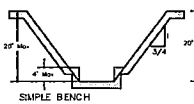
EXCAVATIONS IN TYPE A SOILS

All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of ¾:1.

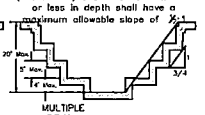




Exception: Simple slope excavations which are open 24 hours or less (short term) and which are 12 feet or less in depth shall have a maximum allowable slope of ½:1.

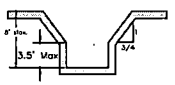


SIMPLE BENCH

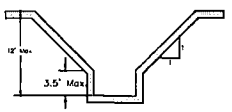


MULTIPLE BENCH

All benched excavations 20 feet or less in depth shall have a maximum allowable slope of ¾:1 and maxium bench dimensions as follows:

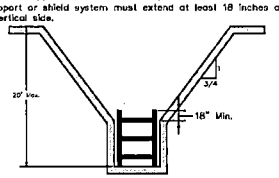


All excavations 8 feet or less in depth which have unsupported vertically sided lower portions shall have a maximum vertical side of 3½ feet.



All excavations more than 8 feet but not more than 12 feet in depth with unsupported vertically sided lower portions shall have a maximum allowable slope of 1:1 and a maximum vertical side of 3½ feet.

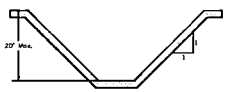
All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded shall have a maximum allowable slope of ½:1. The support or shield system must extend at least 18 inches above the top of the vertical side.



All other simple slope, compound slope, and vertically sided lower portion excavations shall be in accordance with the other options permitted under § 1926.652(b).

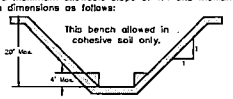
EXCAVATIONS IN TYPE B SOILS

All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1:1.

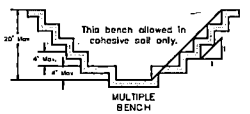


SIMPLE SLOPE

All benched excavations 20 feet or less in depth shall have a maximum allowable slope of 1:1 and maxium bench dimensions as follows:

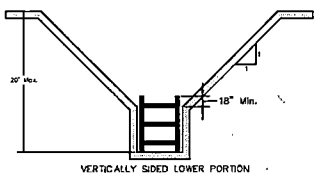


SINGLE BENCH



MULTIPLE BENCH

All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded shall have a maximum allowable slope of 1:1. The support or shield system must extend at least 18 inches above the top of the vertical side.

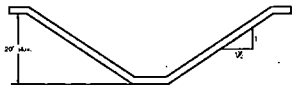


VERTICALLY SIDED LOWER PORTION

All other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).

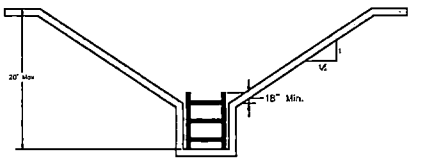
EXCAVATIONS IN TYPE C SOILS

All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of ½:1.



SIMPLE SLOPE

All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded shall have a maximum allowable slope of ½:1. The support or shield system must extend at least 18 inches above the top of the vertical side.

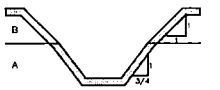


VERTICALLY SIDED LOWER PORTION

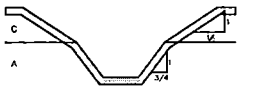
All other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).

EXCAVATIONS IN LAYERED SOILS

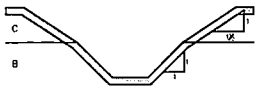
All excavations 20 feet or less in depth made in layered soils shall have a maximum allowable slope for each layer as set forth below.



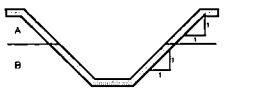
B OVER A



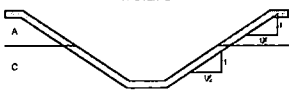
C OVER A



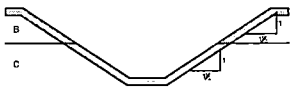
C OVER B



A OVER B



A OVER C



B OVER C

All other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
1225 Crescent Green, Suite 250, Cary, NC 27518
agrwaste.com | 704.237.0650

Hugo Hernandez
HMA–NC Hwy 73

PROJECT LOCATION:
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg COUNTY
PIN: -----

PROFESSIONAL ENGINEER SEAL

FOR REVIEW ONLY

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
EXCAVATION SAFETY

Drawn By:	Drawn On:
-----	2026-02-27
Revised By:	Revised On:
----	----
Released By:	Released On:
----	-----

Drawing Number:
WW–8

Septic System Design - Summary Page

Engineers and Soil Scientists

Agri-Waste Technology, Inc.
1225 Crescent Green, Suite 250, Cary NC 27518
agriwaste.com | 919.859.0669

Project Manager:
Jeff Vaughan, PhD, LSS
jvaughan@agriwaste.com
919-859-0669

Project: HMA-NC Hwy 73
Property: NC Hwy 73 Hwy
Huntersville, NC 28078
Subdiv.:
Lot #:

Date: 2/27/2026
County: 0
Permit #:

Owner: Hugo Hernandez
Address: 2284 Barrowcliffe Dr NW
Concord, NC 28027
Phone: 305-970-8802
Email: hugo@hmabuilder.com

Type of System: III b
PIN: 0

EHS:

Soil Parameters

Soil Evaluation By:
Jeff Vaughan, PhD, LSS

Special Conditions/Notes:

LTAR: 0.28 gpd/ft^2

Design Parameters

Type of Establishment: Residence, 5 or fewer bedrooms
Unit: Bedroom
# of Units: 5

Septic Tank Specifications

Min. Tank Capacity: 1,250 gal
Actual Tank Volume: 1,250 gal
Tank Manufacturer: Shoaf
Tank Model: TS 1250 STB

	Exterior	Interior	
Length:	125.5	119.5	in.
Width:	65.5	59.5	in.
Depth:	61.5	54.5	in.

Primary Drainfield Specifications

Type of Distribution: Parallel Pressure Manifold
Trench Media: PPBPS, Horizontal
Trench Width: 3 ft
Trench Depth: in.
(or as specified on permit)

Trench Bottom Area: 2182 ft^2
Minimum Drain Line: 364 ft
Actual Drain Line: 368 ft
Number of Lines: 7
Minimum Line Spacing: 8 ft O.C.

Wastewater Treatment System Design Calculations

Project: HMA-NC Hwy 73
Location: NC Hwy 73 Hwy
Huntersville, NC 28078
County: 0

Septic Tank Sizing

Daily Flow Estimate:

Unit	# of Units	Flow/Unit	Flow/Day
Bedroom	5	120	600
		#N/A	
		#N/A	
		Q=	600 gpd

Septic Tank Minimum Capacity: Per 15A NCAC 18E .0801

For individual residences with 5 bedrooms,

Minimum Liquid Capacity (V)= 1,250 gal

Septic Tank Specs:

Manufacturer:	Shoaf	
Model:	TS 1250 STB	
Volume:	1,250	gal
Weight:	11,000	lbs

	Exterior	Interior	
Length:	125.5	119.5	in.
Width:	65.5	59.5	in.
Depth:	61.5	54.5	in.

Shape of Risers: Circular
Diameter: 2.00 ft

Pump Tank Storage & Float Settings

Project: HMA-NC Hwy 73
Location: NC Hwy 73 Hwy
Huntersville, NC 28078
County: 0

Tank Manufacturer	Shoaf
Tank Model	TS 1500 PT

Interior Height (in.)	**54.5** in.	
Avg. Storage	**27.85** gal/in.	

Primary System

Elevations, measured from bottom towards top (0 = Interior Bottom of Tank):

Top of pump (including 4" block)	22.6 in.	(Pump height = 18 9/16")
Pump Off	24.5 in.	
Pump On	32.5 in.	(set for dose volume)
Alarm On	38.5 in.	(6 in. above On Float)
Emergency Storage Available		
Pump Tank	446 gal	
Days of Storage	0.74 days	

(determined from "interior top of tank" - "High Water Alarm")

Repair System

Elevations, measured from bottom towards top (0 = Interior Bottom of Tank):

Top of pump (including 4" block)	22.6 in.	(Pump height = 18 9/16")
Pump Off	24.5 in.	
Pump On	32.5 in.	(set for dose volume)
Alarm On	38.5 in.	(6 in. above On Float)
Emergency Storage Available		
Pump Tank	446 gal	
Days of Storage	0.74 days	

(determined from "interior top of tank" - "High Water Alarm")

ELEVATIONS

Project:	HMA-NC Hwy 73	
Location:	NC Hwy 73 Hwy	
	Huntersville, NC 28078	
County:	0	
Benchmark	0	
BM Elev	0 ft	
Septic Tank	1,250 gal	
Ground Surface		767.20 ft
Depth of Soil Cover	12 in.	1.00 ft
Overall Ht of Tank	61.5 in.	5.13 ft
Elev, Base of Tank		761.08 ft
Ht to 4" Inlet Invert	50 in.	4.17 ft
Elev, 4" Inlet Invert		765.24 ft
Ht to 4" Outlet Invert	48 in.	4.00 ft
Elev, 4" Outlet Invert		765.08 ft
Gravel Base	6 in.	0.50 ft
Elev, Bot of Excavation		760.58 ft
Pump Tank	1518 gal	
Ground Surface		767.40 ft
Depth of Soil Cover	24 in.	2.00 ft
Overall Ht of Tank	61.5 in.	5.13 ft
Elev, Base of Tank		760.28 ft
Ht to 4" Inlet Invert	50 in.	4.17 ft
Elev, 4" Inlet Invert		764.44 ft
Ht to 2" Outlet Invert	58 in.	4.83 ft
Elev, 2" Outlet Invert		765.11 ft
Gravel Base	6 in.	0.50 ft
Elev, Bot of Excavation		759.78 ft
ST Inlet Pipe		
Grade @ Stub-out		768.8 ft
Depth of Stub-out, top		1.5 ft
Elev, Stub-out Invert		766.95 ft
Elev @ ST Inlet Invert		765.24 ft
Length		10 ft
Slope		17.0 %
Pipe, ST to PT		
ID	4 in.	0.33 ft
OD	4.5 in.	0.38 ft
Elev, ST Outlet Invert		765.08 ft
Elev, PT Inlet Invert		764.44 ft
Length		15 ft
Slope		4.2 %
Cover over inlet pipe		1.60 ft
Pump Reqmt.		
Floor Thickness	4 in.	0.33 ft
Elev, Pump Tank Floor		760.61 ft
Pump Block Ht.	4 in.	0.33 ft
Elev, Pump Intake		760.94 ft
Grade @ Primary Manifold		775.40 ft
Grade @ Repair Manifold		773.00 ft
Min. Cover	18 in.	1.50 ft
Max Elev, Primary		773.90 ft
Max Elev, Repair		771.50 ft
Elev Diff, Primary		12.96 ft
Elev Diff, Repair		10.56 ft

Drainfield Design

Project HMA-NC Hwy 73
Location NC Hwy 73 Hwy
Huntersville, NC 28078
County 0

Drainfield Sizing

Primary

LTAR	0.275 gpd/ft^2		
Daily Design Flow	600 gpd	**Type of Drainfield Media**	PPBPS, Horizontal
Req. Drainfield Area	2,182 ft^2	**Required Drainline**	
Trench Width	3 ft	**After 50% Reduction**	364 ft
Effective Trench Width	6 ft	**Minimum Line Spacing**	8 ft (O.C.)

Repair

LTAR	0.3 gpd/ft^2		
Daily Design Flow	600 gpd	**Type of Drainfield Media**	Chambers
Req. Drainfield Area	2,000 ft^2	**Required Drainline**	
Trench Width	3 ft	**After 25% Reduction**	500 ft
Effective Trench Width	4 ft	**Minimum Line Spacing**	9 ft (O.C.)

Drainfield Layout

Line	Use	Color	Elevation	Field Length	Primary	Repair
1	Layout Line	RED	774.6	47	43.3	
2	Layout Line	WHITE	774.0	62	56.3	
3	Layout Line	BLUE	773.4	61	56.3	
4	Layout Line	RED	772.9	60	56.3	
5	Layout Line	WHITE	772.2	59	56.3	
6	Layout Line	BLUE	771.8	57	56.3	
7	Layout Line	RED	771.6	55	43.3	
8	Layout Line	WHITE	771.4	31		
9	Layout Line	BLUE	771.2	15		
10	Layout Line	RED	770.8	58		50.0
11	Layout Line	WHITE	769.5	82		74.0
12	Layout Line	BLUE	768.3	102		90.0
13	Layout Line	RED	767.5	134		126.0
14	Layout Line	WHITE	767.1	96		90.0
15	Layout Line	BLUE	766.1	77		70.0

	Primary	Repair
Total:	368	500
Count:	7	6

Line lengths shown in drawings include 2' for endcaps.

For Chambers or Low-profile Chambers:
Effective trench lengths are shown. Add 1' for total installation length.

PRESSURE MANIFOLD DESIGN (Primary)

Site Information

Project: HMA-NC Hwy 73
Location: NC Hwy 73 Hwy
Huntersville, NC 28078
County: 0

Design Information

Estimated Daily Flow	600	gal/day
L.T.A.R. (from Co.)	0.275	gal/day/ft^2
L.T.A.R. + 5%	0.289	gal/day/ft^2
Trench Width	3	ft.
Line Length Required	727	ft.
Length after 50% Reduction	364	ft
L.T.A.R. Reduced	0.550	gal/day/ft^2
L.T.A.R. Reduced + 5%	0.577	gal/day/ft^2

DRAINFIELD INFO. - **Primary**

Proposed Type of System/Distribution: ***Pump to Pressure Manifold using PPBPS, Horizontal***

Line No.	Flag Color	Line Length (ft)	Tap	Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
1	RED	43.3	1/2in SCH 80	5.48	0.127	0.544
2	WHITE	56.3	1/2in SCH 40	7.11	0.126	0.543
3	BLUE	56.3	1/2in SCH 40	7.11	0.126	0.543
4	RED	56.3	1/2in SCH 40	7.11	0.126	0.543
5	WHITE	56.3	1/2in SCH 40	7.11	0.126	0.543
6	BLUE	56.3	1/2in SCH 40	7.11	0.126	0.543
7	RED	43.3	1/2in SCH 80	5.48	0.127	0.544
	Total	**368.10**	**Total**	**46.51**	**Avg.**	**0.54**

Note: Line lengths are calculated in 4'4" increments to reflect use of PPBPS product.

Total Run Time	12.90	min.	
Drainfield Capacity	306.0	gal	
% of Drainfield Cap	72.8%		(Max. 101.1% to not exceed 7.2 gal/panel)
Dose Volume	222.8	gal/dose	
Run Time/Dose	**4.8**	**minutes**	
Volume/depth	27.85	gal/in.	(Per tank manufacturer's specifications)
Estimated Drawdown	8.00	in.	

Manifold Box

Number of Taps	7	with	0	Split(s)
Manifold Length	5.0	ft.	(approximate)	

PRESSURE MANIFOLD SYSTEM DESIGN (Repair)

Site Information

Project: HMA-NC Hwy 73
Location: NC Hwy 73 Hwy
Huntersville, NC 28078
County: 0

Design Information

Estimated Daily Flow	600	gal/day
L.T.A.R. (from Co.)	0.3	gal/day/ft^2
L.T.A.R. + 5%	0.315	gal/day/ft^2
Trench Width	3	ft.
Line Length Required	667	ft.
Length after 25% Reduction	500	ft
L.T.A.R. Reduced	0.400	gal/day/ft^2
L.T.A.R. Reduced + 5%	0.420	gal/day/ft^2

DRAINFIELD INFO. - **Repair**

Proposed Type of System/Distribution: ***Pump to Pressure Manifold using Chambers***

Line No.	Flag Color	Line Length (ft.)		Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
10 & 11	RED & WHITE	124	3/4in SCH 80	10.10	0.081	0.408
12	BLUE	90	1/2in SCH 40	7.11	0.079	0.396
13	RED	126	3/4in SCH 80	10.10	0.080	0.402
14	WHITE	90	1/2in SCH 40	7.11	0.079	0.396
15	BLUE	70	1/2in SCH 80	5.48	0.078	0.392
	Total	**500.00**	**Total**	**39.90**	**Avg.**	**0.40**

Note: Line lengths are calculated in 4' increments to reflect use of Chambers product. 2' added for endcaps.

Total Run Time	15.04	min.	
Drainfield Capacity	326.5	gal	
% of Drainfield Cap	68.2%		(Req. Range 66-75%)
Dose Volume	222.8	gal/dose	
Run Time/Dose	**5.6**	**minutes**	Range 5-7 minutes unless uphill, checked
Volume/depth	27.85	gal/in.	(Per tank manufacturer's specifications)
Estimated Drawdown	8.00	in.	

Manifold Box

Number of Taps	4	with	0	Split(s)
Manifold Length	3.5	ft.	(approximate)	

PUMP DESIGN

System (initial/repair): **Primary**

Project: HMA-NC Hwy 73
Location: NC Hwy 73 Hwy
Huntersville, NC 28078
County: 0

Friction Losses

Suction Head	0 ft		*(submersible 0)*
Elev. Difference (highest point from pump)	12.96 ft		
Design Pressure At Outlet	2 ft		

Supply Line - 2" Schedule 40 PVC

Pipe Diameter, Nominal	2 in.		
Pipe Diameter (ID)	2.047 in.	Flow	46.51 gpm
Pipe Length	415 ft	Velocity	4.53 ft/sec
Pipe Length for Fittings	41.5 ft		Meets requirement that 2 ft/s < v < 5 ft/s.
Equivalent Length	456.5 ft		
Estimated Friction Loss in Supply Line	16.78 ft		

Pressure Filter Friction Loss	1.48 ft	*(from manufacturer)*
Friction Loss - Taps/Special Fittings	3.5 ft	
TOTAL	**36.72 ft.**	

Flow for Anti-Siphon Hole

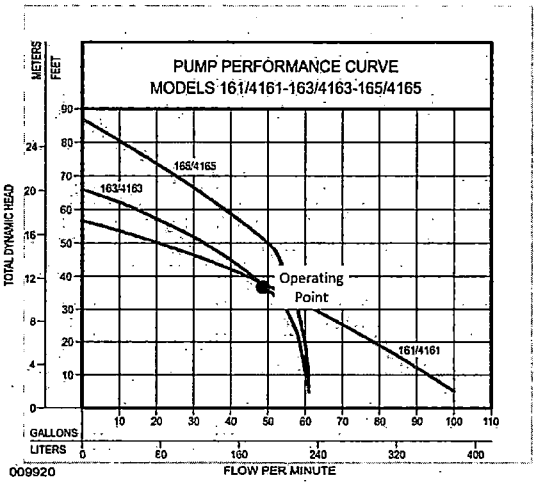
Hole Diameter	3/16 in.
Hole Flowrate	2.51 gpm

Pump Efficiency	0.7	*(assumed, typical)*
Motor Efficiency	0.9	*(assumed for electric pumps)*
Flow	**49.02 gpm**	

Required Horsepower 0.72 hp
TDH **36.72 ft**

Pump Selection

Manufacturer:	Zoeller
Model:	E165
Horsepower:	1



PUMP DESIGN

System (initial/repair): **Repair**

Project: HMA-NC Hwy 73
Location: NC Hwy 73 Hwy
Huntersville, NC 28078
County: 0

Friction Losses

Suction Head	0 ft		*(submersible 0)*
Elev. Difference (highest point from pump)	10.56 ft		
Design Pressure At Outlet	2 ft		

Supply Line - 2" Schedule 40 PVC

Pipe Diameter, Nominal	2 in.		
Pipe Diameter (ID)	2.047 in.	Flow	39.9 gpm
Pipe Length	396 ft	Velocity	3.89 ft/s
Pipe Length for Fittings	39.6 ft		Meets requirement that 2 ft/s < v < 5 ft/s.
Equivalent Length	435.6 ft		
Estimated Friction Loss in Supply Line	12.06 ft		

Pressure Filter Friction Loss	0.23 ft	*(from manufacturer)*
Friction Loss - Taps/Special Fittings	3.5 ft	
TOTAL	**28.35 ft.**	

Flow for Anti-Siphon Hole

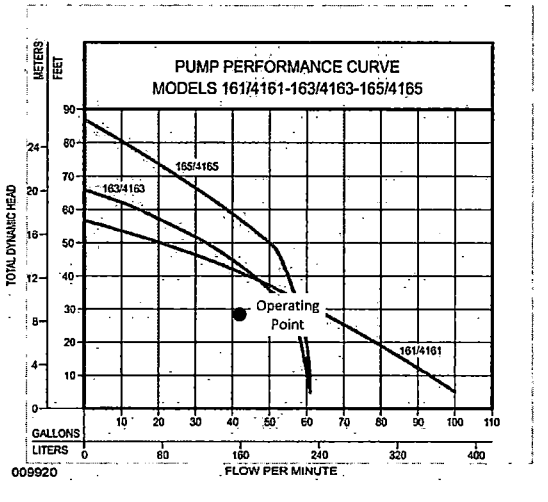
Hole Diameter	3/16 in.
Hole Flowrate	2.21 gpm

Pump Efficiency	0.7	*(assumed, typical)*
Motor Efficiency	0.9	*(assumed for electric pumps)*
Flow	**42.11 gpm**	

Required Horsepower 0.48 hp
TDH **28.35 ft.**

Pump Selection

Manufacturer:	Zoeller
Model:	E165
Horsepower:	1



Attachment 2: Soil Boring Description Sheets

1225 Crescent Green, Suite 250
Cary, NC 27518

Engineers and Soil Scientists

919.859.0669
agriwaste.com

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

CLIENT: HMA Development, LLC c/o Hugo Hernandez
ADDRESS:
APPLICATION DATE:
EVALUATION DATE: February 23, 2026
PROPERTY ID: Single Family Residence
COUNTY: Mecklenburg
PROPOSED FACILITY: SFR
PROPOSED DESIGN FLOW (.0400): 600 GPD
PROPERTY SIZE: ~7.720 Acres
LOCATION OF SITE: 14600 NC-73, Huntersville NC
PROPERTY RECORDED: Yes
WATER SUPPLY: Public
WATER SUPPLY SETBACK: 10'
EVALUATION METHOD: Auger Boring
TYPE OF WASTEWATER: Domestic

PROFILE #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY .0503 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY .0503 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZ	.0509 PROFILE CLASS & LTAR*	.0502(d) SLOPE CORRECTION
SB 1, 2, 6	Linear Slope 4	0-8	w/SBK; SCL	SS; SP; FR		48"			0.275	47"
		8-30	mo/SBK; C	S; P; FI;						
		30-48	w/SBK; CL	SS; SP; FR;						
SB 3	Linear Slope 4	0-8	w/SBK; SCL	SS; SP; FR;		44"			0.275	43"
		8-26	mo/SBK; C	S; P; FI;						
		26-44	w/SBK; SCL	SS; SP; FR;		SAP	>50%	Yes		
		44-	M; SCL	SS; SP; FR;						
SB 4	Linear Slope 5	0-6	w/SBK; SCL	SS; SP; FR;		46"			0.275	44"
		6-25	mo/SBK; C	S; P; FI;						
		25-36	w/SBK; CL	SS; SP; FR;			<50%			
		36-46	w/SBK; SCL	SS; SP; FR;						
		46-	M; SCL	SS; SP; FR;		SAP	>50%	Yes		
SB 5	Linear Slope 5	0-8	w/SBK; SCL	SS; SP; FR;		45"			0.275	43"
		8-24	mo/SBK; C	S; P; FI;						
		24-45	w/SBK; SCL	SS; SP; FR;			<50%			
		45-	M; SCL	SS; SP; FR;		SAP	>50%	Yes		
SB 7	Head Slope 5	0-2	G; L	SS; SP; FR;		38"			0.3	36"
		2-25	mo/SBK; C	SS; SP; FI;						
		25-38	w/SBK; CL	SS; SP; FR;						
		38-	M; SCL	SS; SP; FR;		SAP	>50%	Yes		

SB 8 & 9	Linear Slope 6	0-16	w/SBK; SCL	SS; SP; FR;		48"			0.3	46"
		16-48	mo/SBK; C	SS; SP; FI;						

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.0508)	Suitable	Suitable
System Type(s)	Type IIIb, Pump to Horizontal PPBPS	Type IIIb, Pump to Chambers
Site LTAR	0.275 gpd/ft2	0.3 gpd/ft2
Maximum Trench Depth	31"	24"

SITE CLASSIFICATION (.0509): _____
EVALUATED BY: _____Trevor Hackney_____
OTHER(S) PRESENT: _____ _____

Comments:

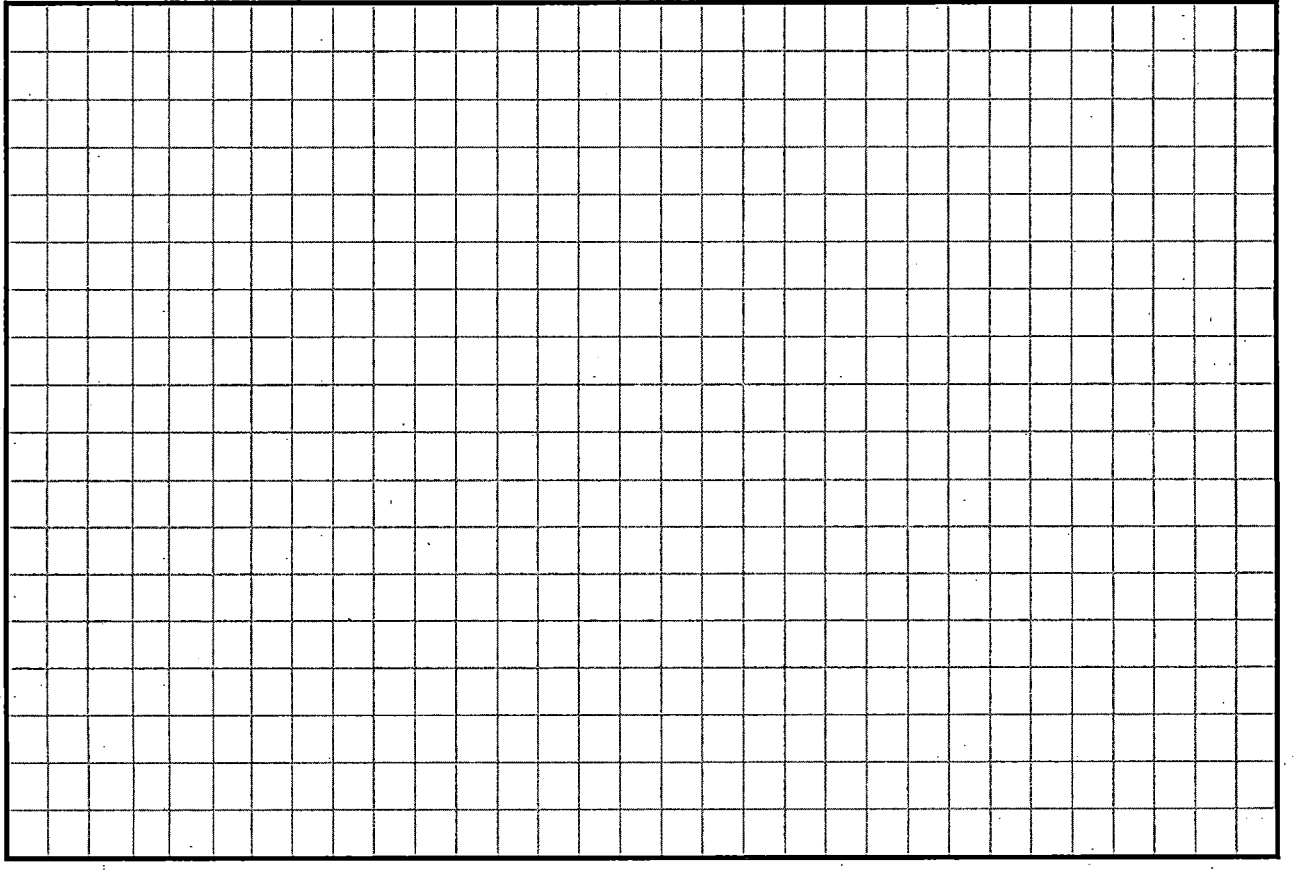
LEGEND

LANDSCAPE POSITION	SOIL GROUP	SOIL TEXTURE	CONVENTIONAL LTAR (gpd/ft²)	SAPROLITE LTAR (gpd/ft²)	LPP LTAR (gpd/ft²)	MINERALOGY/ CONSISTENCE		STRUCTURE
CC (Concave slope)	I	S (Sand)	0.8 - 1.2	0.6 - 0.8	0.4 -0.6	MOIST	WET	SG (Single grain)
CV (Convex Slope)		LS (Loamy sand)		0.5 -0.7		Lo (Loose)	NS (Non-sticky)	M (Massive)
D (Drainage way)	II	SL (Sandy loam)	0.6 - 0.8	0.4 -0.6	0.3 - 0.4	VFR (Very friable)	SS (Slightly sticky)	GR (Granular)
FP (Flood plain)		L (Loam)		0.2 - 0.4		FR (Friable)	S (Sticky)	SBK (Subangular blocky)
FS (Foot slope)	III	SiL (Silt loam)	0.3 - 0.6	0.1 - 0.3	0.15 - 0.3	FI (Firm)	VS (Very sticky)	ABK (Angular blocky)
H (Head slope)		SCL (Sandy clay loam)		0.05 - 0.15**		VFI (Very firm)	NP (Non-plastic)	PR (Prismatic)
L (Linear Slope)		CL (Clay loam)		None		EFI (Extremely firm)	SP (Slightly plastic)	PL (Platy)
N (Nose slope)		SiCL (Silty clay loam)					P (Plastic)	
R (Ridge/summit)		Si (Silt)					VP (Very plastic)	
S (Shoulder slope)	IV	SC (Sandy clay)	0.1 - 0.4		0.05 - 0.2	SEXP (Slightly expansive)		
T (Terrace)		SiC (Silty clay)				EXP (Expansive)		
TS (Toe Slope)		C (Clay)						
		O (Organic)	None					

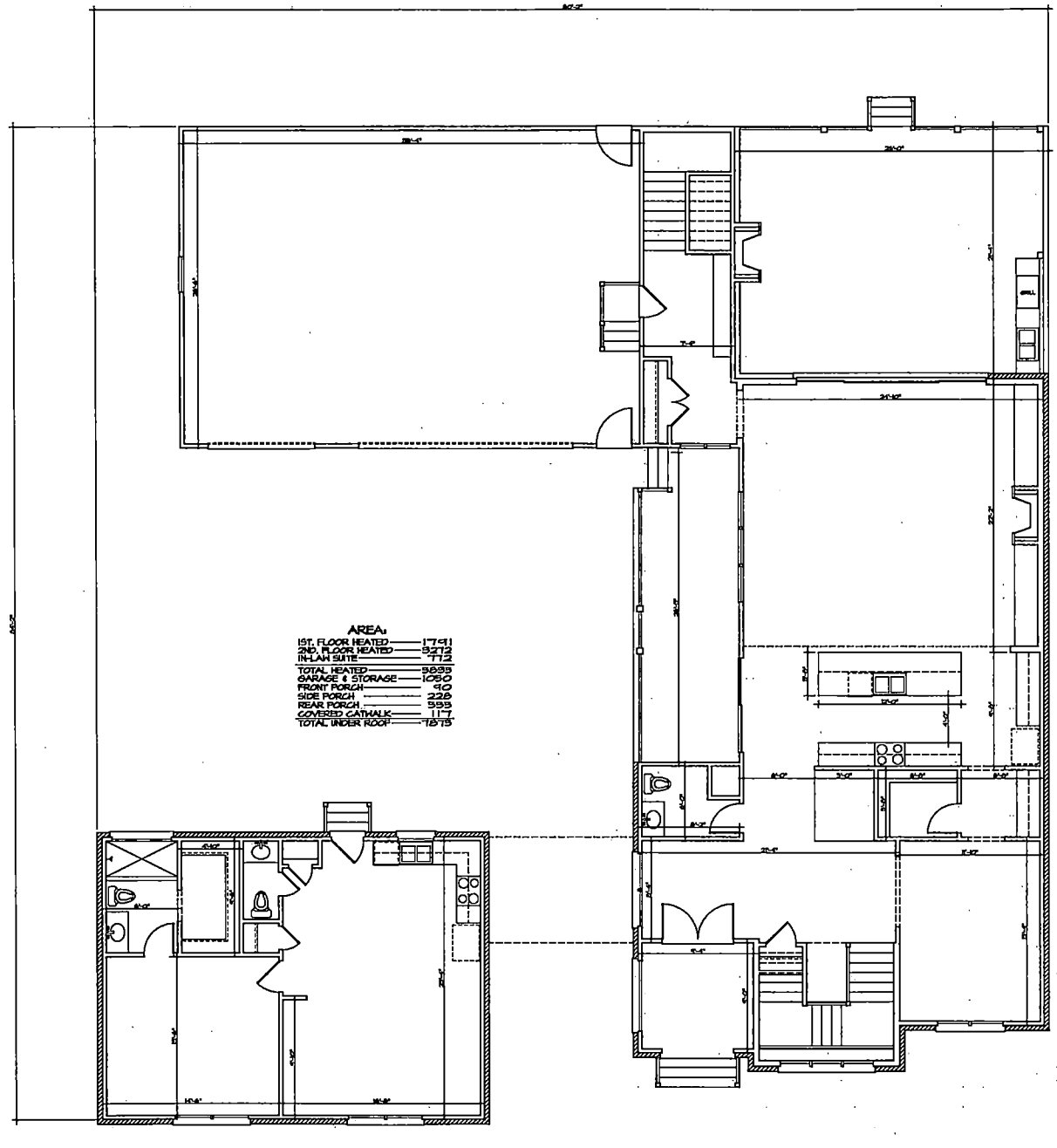
* Adjust LTAR due to depth, consistence, structure, soil wetness, landscape, position, wastewater flow and quality.
**Sandy clay loam saprolite can only be used with advanced pretreatment in accordance with 15A NCAC 18E .1200.

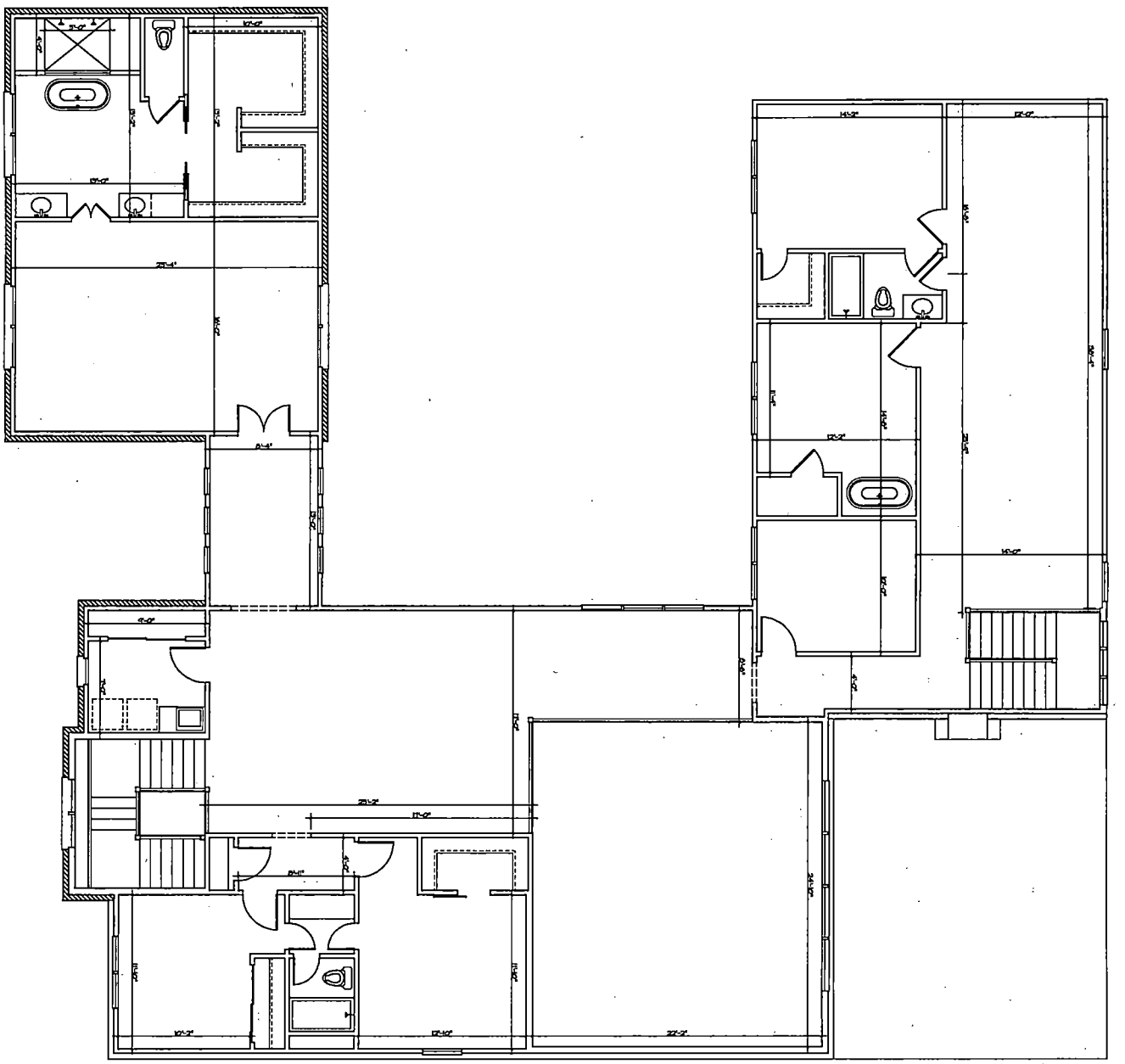
HORIZON DEPTH In inches below natural soil surface
DEPTH OF FILL In inches from land surface
RESTRICTIVE HORIZON Thickness and depth from land surface
SAPROLITE S(suitable) or U(unsuitable); Evaluation of saprolite shall be by pits.
SOIL WETNESS Inches from land surface to free water or inches from land surface to soil colors with chroma 2 or less - record Munsell color chip designation
CLASSIFICATION S (Suitable) or U (Unsuitable)

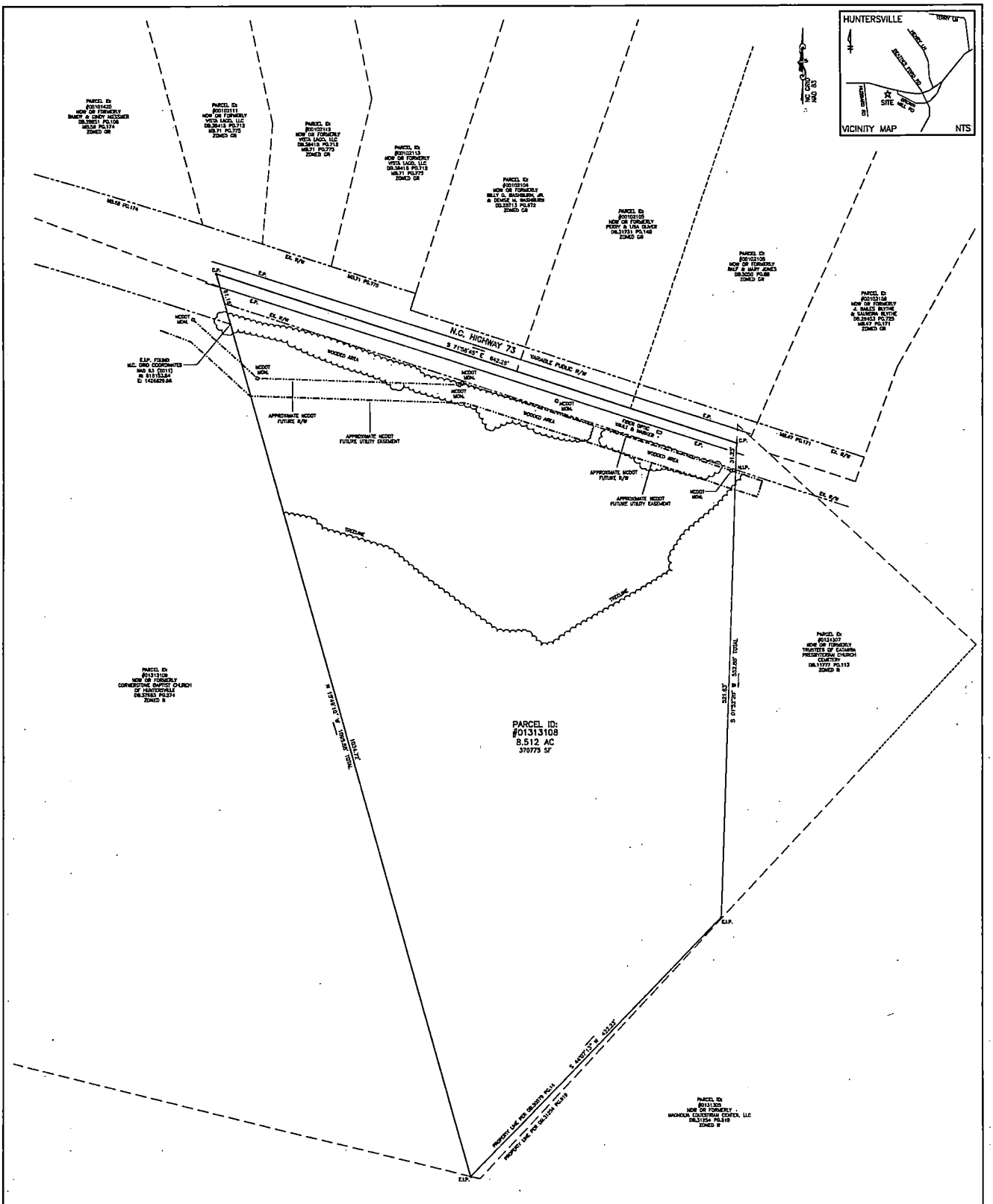
Show profile locations and other site features (dimensions, reference or benchmark, and North).



Attachment 3: Additional Documentation


AREA:
1ST. FLOOR HEATED 1791
2ND. FLOOR HEATED 3272
IN-LAW SUITE 772
TOTAL HEATED 5835
GARAGE & STORAGE 1050
FRONT PORCH 90
SIDE PORCH 228
REAR PORCH 333
COVERED CATWALK 117
TOTAL UNDER ROOF 7875





SURVEYOR'S CERTIFICATION

I, Christopher S. Sparks certify that this map was drawn by me from an actual survey made by me (deed description recorded in Book 30579 Page 14, etc.) (other); that the ratio of precision as calculated by latitudes and departures is 1:10,000+, that the boundaries not surveyed are shown as broken lines plotted from information found in Book 71 Page 775; that this map was prepared in accordance with the standards of practice for land surveying in North Carolina

Witness my hand and seal this 1st day of June, AD 2025.

Christopher S. Sparks
Professional Land Surveyor
L-4349

NORTH CAROLINA REGISTERED SEAL L-4349 LAND SURVEYOR CHRISTOPHER S. SPARKS

SPARKS SURVEYING PA
4495 NEEDMORE RD.
WOODLEAF, N.C. 27054
PHONE(704) 577-8429
C-4914

Notes:

1. Iron pins at all lot corners unless otherwise noted.
2. This property lies within the Jurisdiction of Huntersville
3. Property may be subject to recorded or unrecorded rights-of-way or easements not observed.
4. No USGS monument found within 2000'.
5. This property does not lie within a special flood hazard area per FEMA Flood Insurance Rate Map #3710452100K, dated 9/2/2015.
6. Property does lie within a regulated watershed. Mountain Island Lake (Protected Area)
7. Approximate NCDOT Future R/W and Utility Easements shown were taken from Preliminary Plans and Monumentation found during a field survey. They are both subject to change and should be verified with NCDOT and the Town of Huntersville. No deeds or conveyance records for additional R/W have been found.
8. All setback and zoning regulations to be confirmed with the Town of Huntersville Planning and Zoning Department.
9. Property may be subject to Post-Construction Storm Water and Watershed Ordinances from the Town of Huntersville.
10. No underground utilities or features were marked or located at the time of survey.

OWNER:
SANDRA BLYTHE EDENS
7450 OLD MARTIN ROAD
RED SPRINGS, N.C. 28377

ZONING:
ZONED: R (RESIDENTIAL)
25' FRONT SETBACK
25' REARYARD
8' SIDEYARD

LEGEND

C.P.	CALCULATED POINT
E.I.P.	EXISTING IRON PIN
N.I.P.	NEW IRON PIN
E.P.	EDGE OF PAVEMENT
R/W	RIGHT-OF-WAY
MON.	MONUMENT
	SETBACK
	PROPERTY LINE
	PROPERTY ADJOINERS
	RIGHT-OF-WAY

0 50 100
SCALE 1" = 50'
6/1/2025

BOUNDARY SURVEY
of the
SANDRA BLYTHE EDENS PROPERTY
LOCATED ON N.C. HIGHWAY 73
HUNTERSVILLE, N.C. 28078
PARCEL ID: #01313108 DB 30579 PG 14
LEWLEY TOWNSHIP, MECKLENBURG COUNTY, HUNTERSVILLE, NC

MECKLENBURG COUNTY
North Carolina
Public Health

Mecklenburg County Public Health

Raynard Washington, PhD, MPH
Health Director

VOLUNTARY RELINQUISHMENT OF ADMINISTRTIVE APPEAL RIGHTS

Date prepared: 5/18/26

Owner(s): HMA Builders LLC/ Hugo Hernandez

Mailing Address: 2284 Barrowcliffe Dr NW
Concord NC 28027

Property location/site legal description:
14600 NC - HWy 73/ 01313108

Original Improvement Permit (IP) # 16222 Date issued: 3/23/26

Original Authorization to Construct (AC) # 16222 Date issued: 3/23/26

I, Hugo Hernandez (print full name), voluntarily relinquish my rights to pursue a formal appeal through the North Carolina Office of Administrative Hearings pursuant to NC General Statute 130A-24 and 150B-23 and all other applicable provisions of Chapter 150B for the above referenced permit(s) (which includes the IPs and ACs) in order for the authorized agent/local health department to issue the applicable permit (new IP and/or CA) for the site. I understand by completing this form that the permit(s) for a

5 bedroom single family residence
(System description)

will be revoked immediately by the authorized agent/local health department.

I understand that the local health department's revocation of a permit can be appealed to the North Carolina Office of Administrative Hearings within 30 days of the revocation pursuant to the North Carolina Administrative Procedure Act. I understand that in order for the local health department to issue another IP and AC that the current IP and AC must be revoked. I understand that the local health department's revocation of an IP or CA is not effective until 30 days from the revocation or, if the revocation is appealed, at the time that the Office of Administrative Hearings issues a final decision. I understand that by signing this form and relinquishing my right to appeal the permit revocation at the Office of Administrative Hearings that the local health department's permit revocation will become effective immediately. I understand and agree that the revocation of a permit that takes effect immediately is in my best interest. I understand that by signing this form that I agree that I do not want to appeal the permit revocation.

I understand that I am not required to relinquish my appeal rights but that this is an option available to me so I do not have to wait 30 days for the revocation of the permit to take effect.

Signature of Property Owner: [signature]

Date signed: 5/18/2026

MECKLENBURG COUNTY
North Carolina
Public Health

Mecklenburg County Public Health

Kimberly Scott, DrPH, MPH
Interim Health Director

NOTICE OF INTENT TO REVOKE IMPROVEMENT PERMIT/CONSTRUCTION AUTHORIZATION

May 18, 2026

Owner: HMA Builders LLC/ Hugo Hernandez
Street Address: 14600 NC - HWY73
City/Zip Code: Huntersville NC 28078

Subject: Notice of Intent to Revoke IP/ 16222/ 14600 NC - HWY 73/ 01313108

To Whom Is May Concern

The Mecklenburg County health department reviewed the plans for the on-site wastewater system located at 14600 NC - HWy 73 for compliance with General Statues 130A-334 to 345, 15A NCAC 18E, and Improvement Permit/Construction Authorization IP/ permit # 16222 conditions.

As a result of this review, the Department has determined the following violations:

Violation(s)	**Law or Rule Citation(s)**
15A NCAC 18E .0203(f) 4	a new IP is issued for the same design unit on the same property

This is to notify you that, based on these violations, the Department intends to revoke your Improvement Permit 30 days from the date of this notice.

If the Health Department determines that all the violations have been corrected before 30 days expire, the revocation will not go into effect. If the corrections are not made before 30 days and the permit is revoked, you must apply for a new Improvement Permit and meet the requirements of the current laws and rules necessary to obtain a new Improvement Permit.

You have the right to an informal review of this decision. You may request an informal review by the environmental health supervisor at the local health department. You may also request an informal review by the Department of Health and Human Services' Regional Soil Scientist. 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, 1711 New Hope Church Rd, Raleigh, NC 27609. You may write to the Office of Administrative Hearings, call the office at 984-236-1850, or get a copy of the petition form from the OAH web site at http://www.oah.nc.gov. The petition for a contested case hearing must be filed in accordance with the provision of General Statutes 130A-24 and 150B-23 and all other applicable provisions of Chapter 150B. General Statute 130A-335(g) provides that your hearing will be held in the county where your property is located.

MECKLENBURG COUNTY
North Carolina
Public Health

Mecklenburg County Public Health

Kimberly Scott, DrPH, MPH
Interim Health Director

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 May 18, 2026. Meeting the 30-day deadline is critical to your formal appeal.

If you file a petition for a contested case hearing with the Office of Administrative Hearings, **you are required** by General Statute 150B-23 to serve a copy of your petition on the Registered Agent for the Department of Health and Human Services: Julie Cronin, Office of General Counsel, Department of Health and Human Services, 2001 Mail Service Center, Raleigh, N.C. 27699-2001.

Do not serve the petition on your local health department. Sending a copy of your petition to the local health department will not satisfy the legal requirement in General Statute 150B-23 that you send a copy to the Office of General Counsel, 2001 Mail Service Center, Department of Health and Human Services.

You may contact our office at 704-280-1485 or Heather.woods@mecklenburgcountync.gov

Sincerely,

Heather Woods , R.E.H.S.
Sr Environmental Health Specialist

MECKLENBURG COUNTY
North Carolina
Public Health

Mecklenburg County Public Health

Raynard Washington, PhD, MPH
Health Director

VOLUNTARY RELINQUISHMENT OF ADMINISTRTIVE APPEAL RIGHTS

Date prepared: 5/18/26

Owner(s): HMA Builders LLC/ Hugo Hernandez

Mailing Address: 2284 Barrowcliffe Dr NW
Concord NC 28027

Property location/site legal description:
14600 NC - HWy 73/ 01313108

Original Improvement Permit (IP) # 16222 Date issued: 3/23/26

Original Authorization to Construct (AC) # 16222 Date issued: 3/23/26

I, _____, voluntarily relinquish my rights to pursue a formal appeal through the North
(print full name)

Carolina Office of Administrative Hearings pursuant to NC General Statute 130A-24 and 150B-23 and all other applicable provisions of Chapter 150B for the above referenced permit(s) (which includes the IPs and ACs) in order for the authorized agent/local health department to issue the applicable permit (new IP and/or CA) for the site. I understand by completing this form that the permit(s) for a

5 bedroom single family residence
(System description)

will be revoked immediately by the authorized agent/local health department.

I understand that the local health department's revocation of a permit can be appealed to the North Carolina Office of Administrative Hearings within 30 days of the revocation pursuant to the North Carolina Administrative Procedure Act. I understand that in order for the local health department to issue another IP and AC that the current IP and AC must be revoked. I understand that the local health department's revocation of an IP or CA is not effective until 30 days from the revocation or, if the revocation is appealed, at the time that the Office of Administrative Hearings issues a final decision. I understand that by signing this form and relinquishing my right to appeal the permit revocation at the Office of Administrative Hearings that the local health department's permit revocation will become effective immediately. I understand and agree that the revocation of a permit that takes effect immediately is in my best interest. I understand that by signing this form that I agree that I do not want to appeal the permit revocation.

I understand that I am not required to relinquish my appeal rights but that this is an option available to me so I do not have to wait 30 days for the revocation of the permit to take effect.

Signature of Property Owner: _____

Date signed: _____

SUPERVISOR/ADMINISTRATIVE PROFESSIONAL CHECKLIST

NEW SEPTIC A2

IP & CA

File Number: 118130

Assigned Inspector: Patrick - Heather.

☑ IP & CA $180.00: 3/18/26 Initial/Date

☑ OP $200.00: 3/18/26 Initial/Date

~~☐ Send IP permit for signature:~~ _____ ~~☐ Signature received:~~ _____

~~☐ Floor plans reviewed~~

~~☐ Generate CA~~ ☒ Approve as Noted in Winchester

☐ This site is served by septic and well. Verify each is complete before final hold is released

☐ This septic system requires a certified operation contract before final hold is released

☐ Certified operator contract is on file: _____

☐ Septic file complete: _____

☐ Release final hold in Winchester: _____

Comments:

Please let applicant know permit approved.
Sent Permit 3/25/26 SM
Not on Accela as of 3/25/26

MECKLENBURG COUNTY
Health Department

Raynard Washington, PhD, MPH
Health Director

(704) 336-4700

Addendum to Application for
New Well or Septic System Installation
Abandonment or Repair of Existing Well or Septic System

Your signature below confirms the following:

1. The information on the application is true, complete and accurate.
2. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliances with applicable laws and rules.
3. I acknowledge that Nathan Estevez, Agri-Waste Technology Inc. is acting as my legal representative (agent) in the submittal of the application for a water supply well or septic permit located at

Parcel Number: 1313108

Number Street Town
(Or Parcel Number)

Hugo Hernandez
Property Owner (print name)

Property Owner (signature)

3/16/2026
Date

11813B / 16022

MECKLENBURG COUNTY
HEALTH DEPARTMENT

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: 01313108
STREET ADDRESS: 14600 NC-73
CITY: Huntersville
STATE: NC ZIP: 28078
SUBDIVISION NAME:
LOT #: LOT SIZE (acres): 7.720

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:
NUMBER OF BEDROOMS: 5
NUMBER OF OCCUPANTS: 10

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 Type IIIb, Pump to Horizontal PPBPS (50%

8A. RANK: ____ ____ ____ ____ 1

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: HMA Builders LLC c/o Hugo Hernandez
ADDRESS: 2284 Barrowcliffe Dr NW
CITY: Concord
STATE: NC ZIP: 28027
WORK PHONE: 305-970-8802
MOBILE PHONE: 305-970-8802
FAX:
E-MAIL: hugo@hmadevelop.com

13. OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:

NAME: Nathan Estevez
ADDRESS: 1225 Crescent Green Dr. Suite 250
CITY: Cary
STATE: NC ZIP: 27518
WORK PHONE: 704-285-5944
MOBILE PHONE: 704-285-5944
FAX:
E-MAIL: nestevez@agriwaste.com

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST. SUITE 211 CHARLOTTE, NC 28202, OFFICE: 980-314-1680, FAX: 704-336-6894
Email: Wellreg@MecklenburgCountyNC.gov

Revised on: 4/20/17

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.

HH (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.

_____ (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.

_____ 3/16/26

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

---

OFFICE USE ONLY

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

SEPTIC APPLICATION FEE RECEIVED: $ _____ DATE FEE RECEIVED: _____

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

APPLICATION PROCESSED BY: _____

GWS FILE NUMBER ASSIGNED: _____

APPLICATION ID NUMBER ASSIGNED: _____

COMMENTS:

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST. SUITE 211 CHARLOTTE, NC 28202, OFFICE: 980-314-1680, FAX: 704-336-6894
Email: Wellreg@MecklenburgCountyNC.gov

Revised on: 4/20/17

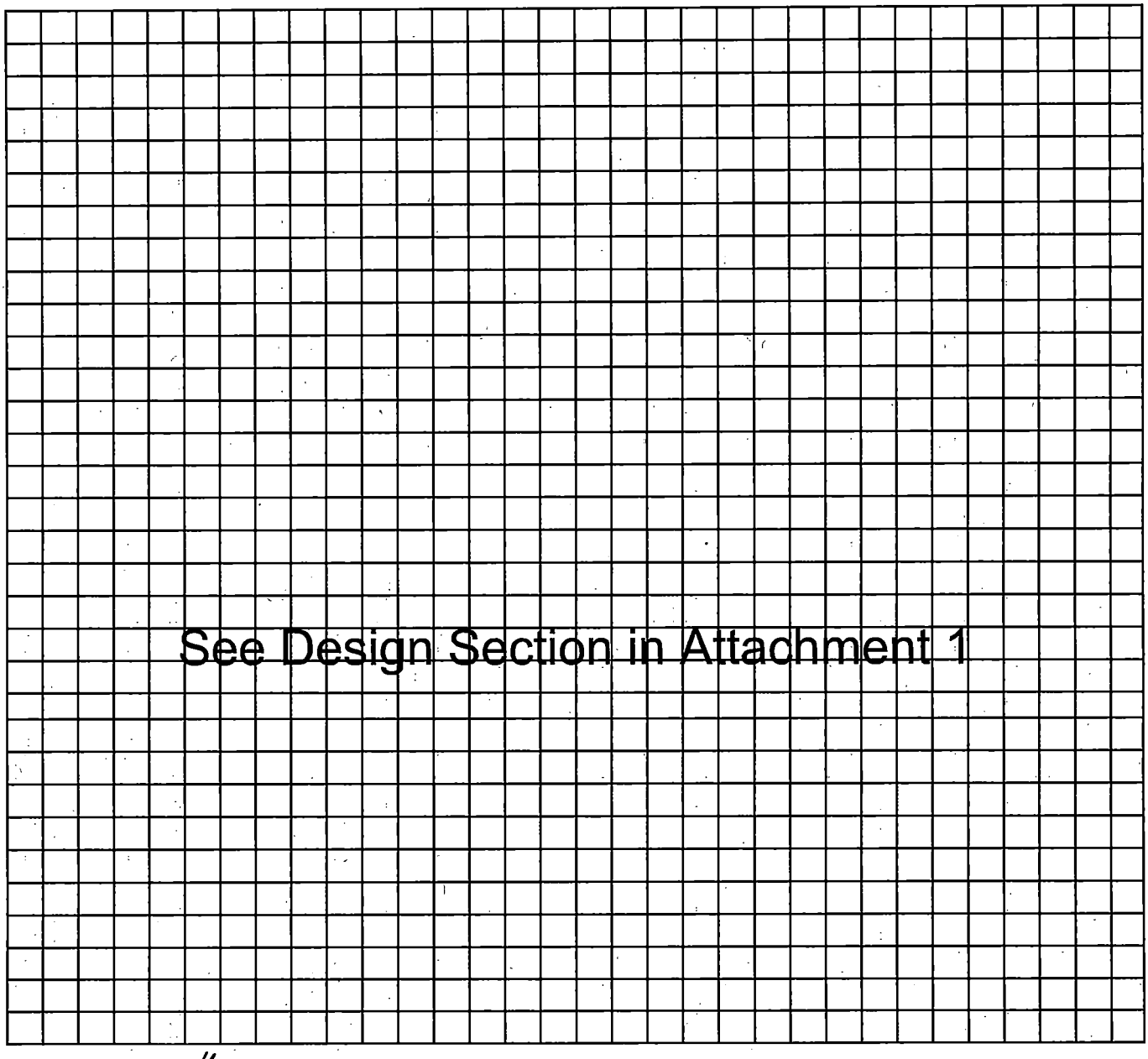
File #: _____

PROPOSED PLOT PLAN

A drawing showing the locations of the following items is required: existing and proposed property lines with dimensions, easements or right-of-ways, proposed building pad(s) or existing building footprint(s), all appurtenances (garage, driveway, deck, pool, etc.), location of existing or proposed well(s), location of existing or proposed sewer lines and sewage disposal systems, surface water bodies, and any aboveground or underground storage tanks. Provide names for all roads that adjoin the property.

Street Address: 14600 NC-73, Huntersville, NC 28078 Tax Parcel #: 01313108

Subdivision Name: _____ Lot #: _____



Property Owner's or Owner's Legal Representative Signature

3/16/26
Date

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST. SUITE 211 CHARLOTTE, NC 28202, OFFICE: 980-314-1680, FAX: 704-336-6894
Email: Wellreg@MecklenburgCountyNC.gov

Revised on: 4/20/17

NC DEPARTMENT OF
HEALTH AND HUMAN SERVICES

ROY COOPER • Governor
KODY H. KINSLEY • Secretary
MARK BENTON • Chief Deputy Secretary for Health
SUSAN KANSAGRA • Assistant Secretary for Public Health
Division of Public Health

Application for Services

This application, in conjunction with the common form established in G.S. 130A-335(a3) and (a5), is optional for local health departments to be used for applications submitted in accordance with G.S. 130A-335(a2), (a3), and (a5).
[hereinafter, G.S. 130A-335(a3) and (a5) permits referred to as (a2) Improvement Permit and (a2) Construction Authorization]

Applying for:
☑ (a2) Improvement Permit ☑ (a2) Construction Authorization ☐ (a2) Repair/Construction Authorization

If applying for a Construction Authorization, please indicate desired system type(s):
☐ Accepted ☐ Conventional ☐ Innovative ☑ Other Type IIIb, Pump to Horizontal PPBPS (50% reduction drain field product) ☐ Any

☑ New Construction ☐ Expansion ☐ System Relocation ☐ Change of Use ☐ Repair
☑ 5-Year Expiration Requested (site plan provided) ☐ Non-Expiring Permit Requested (plat provided, defined in G.S.130A-334(7a)
Requesting DHHS review? (systems >3000 GPD or IPWW) ☐ Yes ☑ No

Applicant: Nathan Estevez
Mailing Address: 1225 Crescent Green Dr. Suite 250
City: Cary
State: NC Zip: 27518
Phone #: (704)285-5944
Email: nestevez@agriwaste.com

Owner: HMA Builders, LLC c/o Hugo Hernandez
Mailing Address: 2284 Barrowcliffe Dr NW
City: Concord
State: NC Zip: 28027
Phone #: 305-970-8802
Email: hugo@hmadevelop.com

If the answer to any of the following questions is "yes", applicant must attach supporting documentation.

☐ Yes	☒ No	Does the site contain any jurisdictional wetlands?
☐ Yes	☒ No	Is any wastewater going to be generated on the site other than domestic sewage?
☐ Yes	☒ No	Is the site subject to approval by any other public agency?
☐ Yes	☒ No	Are there any easements or right of ways on this property?

I understand that the documentation and fees, as required in G.S. 130A-335(a2), (a3), (a5), and (a6), attached to this application are to be used to issue an Improvement Permit and/or Construction Authorization pursuant to G.S. 130A-335(a2),(a3), and (a5). I understand that authorized county and state officials are granted right of entry to the property indicated on this application to conduct necessary inspections to determine compliance with applicable laws and rules. ***I understand that if the information in the application for an Improvements Permit and/or Construction Authorization is falsified, changed, or the site is altered, then the Improvement Permit and Construction Authorization shall become invalid.***

Applicant Signature: Nathan Estevez Date: 3/16/2026

Owner's Signature: Date: 3/16/2026

Permit/File #: _____

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

ROY COOPER • Governor
KODY H. KINSLEY • Secretary
MARK BENTON • Chief Deputy Secretary for Health
SUSAN KANSAGRA • Assistant Secretary for Public Health
Division of Public Health

Submittal Includes: ☒ **(a2) Improvement Permit** ☒ **(a2) Construction Authorization** ☐ **Fee $**_____

IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)

County: Mecklenburg

PIN/Lot Identifier: 1313108

Issued To: HMA Builders c/o Hugo Hernandez

Property Location: 14600 NC-73, Huntersville, NC 28078

Subdivision (if applicable)_____ Lot #: _____ Block: _____ Section: _____

LSS Report Provided: Yes ☒ No ☐

If yes, name and license number of LSS: Jeff Vaughan, 1227

New ☒ Expansion ☐ System Relocation ☐ Change of Use ☐

Facility Type: Single Family Residence

Number of bedrooms: 5 Number of Occupants: 10 Other: _____

Design Wastewater Strength: ☒ Domestic ☐ High Strength ☐ Industrial Process Wastewater

Proposed Design Daily Flow: 600 GPD Proposed LTAR (Initial): 0.275 Proposed LTAR (Repair): 0.3

Proposed Wastewater System Type*: Type IIIb, pump to Horizontal PPBPS (50% reduction drain field product) (Initial) Pump Required: ☒ Yes ☐ No ☐ May be required

Proposed Wastewater System Type*: Type IIIb, pump to Chambers (25% reduction drain field product) (Repair) Pump Required: ☒ Yes ☐ No ☐ May be required

**Please include system classification for proposed wastewater system types in accordance with Rule .1301 Table XXXII*

Effluent Standard: ☒ DSE ☐ HSE ☐ NSF/ANSI 40 ☐ TS-I ☐ TS-II ☐ RCW

Saprolite System (Initial): ☐ Yes ☒ No Saprolite System (Repair): ☐ Yes ☒ No

Fill System (Initial): ☐ Yes ☒ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area provide a fill plan)

Fill System (Repair): ☐ Yes ☒ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area provide a fill plan)

Usable Depth to LC (Initial)[x]: 43" Usable Depth to LC (Repair)[x]: 36" ***[x] Limiting Condition***

Max. Trench Depth (Initial)[‡]: 31" Max. Trench Depth (Repair)[‡]: 24" ***[‡] Measured on the downhill side of the trench***

Artificial Drainage Required: ☐ Yes ☒ No If yes, please specify details: _____

Type of Water Supply: ☐ Private well ☐ Public well ☐ Shared well ☒ Municipal Supply ☐ Spring ☐ Other: _____

Drainfield location meets requirements of Rule .0508: Yes ☒ No ☐ Drainfield location meets requirements of Rule .0601: Yes ☒ No ☐

Permit valid for: ☒ Five years [site plan submitted pursuant to GS 130A-334(13a)] ☐ No expiration [plat submitted pursuant to GS 130A-334(7a)]

Permit conditions:

Licensed Soil Scientist Print Name: Jeff Vaughan

Licensed Soil Scientist Signature: _____ Date: 03/16/2026

The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date *Initials*

G.S. 130A-335(a3) states the following:

When an applicant for an Improvement Permit submits to a local health department an Improvement Permit application, the permit fee charged by the local health department, the common form developed by the Department, and a soil evaluation pursuant to subsection (a2) of this section, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Improvement Permit includes all of the required components. If the local health department determines that the Improvement Permit is incomplete, the local health department shall notify the applicant of the components needed to complete the Improvement Permit. The applicant may submit additional information to the local health department to cure the deficiencies in the Improvement Permit. The local health department shall make a final determination as to whether the Improvement Permit is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The Department shall develop a common form for use as the Improvement Permit.

The review for completeness of this Improvement Permit was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the LSS and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☑ Complete

State Authorized Agent: _____ Date: 3-23-26

Approved after 5day

This Improvement Permit is issued pursuant to G.S. 130A-335 (a2) and (a3) using the signed and sealed LSS/LG evaluation(s) attached here. The issuance of this permit in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. *This permit is subject to revocation if the site plan, plat, or the intended use changes.* The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of 15A NCAC 18E and to the conditions of this permit.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to evaluations, submittals, or actions from a licensed soil scientist or licensed geologist pursuant to GS 130A-335(a2).

Improvement Permit Expiration Date: _____

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

Re-submittal of Improvement Permit

LHD USE ONLY: This IP resubmittal received: _____ by _____
Date *Initials*

The following items are being resubmitted pursuant to G.S. 130A-335(a3) for issuance of the Improvement Permit:

_____

_____

_____

_____

I, _____ hereby attest that the information required to be included with this re-submittal
Licensed Soil Scientist (Print Name)
is accurate and complete to the best of my knowledge and that the proposed Improvement Permit meets all applicable federal, State, and local laws, regulations, rules, and ordinances.

_____ _____
Signature of Licensed Soil Scientist *Date*

The section below is for Local Health Department use after submittal of items noted as missing above.

LHD Follow-up Completeness Review of Improvement Permit

The review for completeness of this Improvement Permit re-submittal was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the LSS and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date: _____

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)

County: Mecklenburg **Pre-Construction Conference Required:** Yes ☒ No ☐

PIN/Lot Identifier: 1313108

Issued To: HMA Builders c/o Hugo Hernandez

Property Location: 14600 NC-73, Huntersville, NC 28078

AOWE/PE Plans/Evaluations Provided: Yes ☒ No ☐ If yes, name and license number of AOWE/PE: Jeff Vaughan, 10003E

Facility Type: Single Family Residence

Number of bedrooms: 5 Number of Occupants: 10 Other: _____

☒ New ☐ Expansion ☐ Repair ☐ System Relocation ☐ Change of Use

Basement? ☐ Yes ☒ No Basement Fixtures? ☐ Yes ☒ No

Crawl Space? ☐ Yes ☒ No Slab Foundation? ☒ Yes ☐ No

Type of Wastewater System* Type IIIb, pump to Horizontal PPBPS (50% reduction drain field product) (Initial) Type IIIb, pump to Chambers (25% reduction drain field product) (Repair)

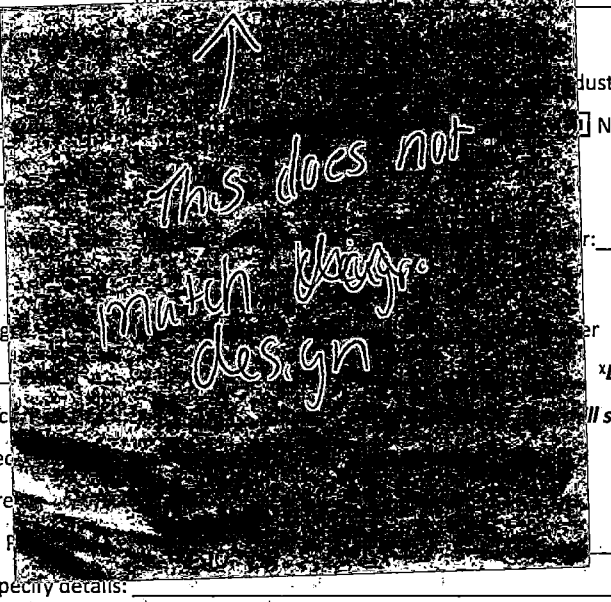
**Please include system classification for proposed wastewate*

Design Daily Flow: 600 GPD Wastewa ...dustrial Process WW

Session Law 2014-120 Section 53, Engineering Design Utilizing ... ☐ No
(if yes, please provide engineering documentation)

Effluent Standard: ☒ DSE ☐ HSE ☐ NSF/ANSI 40 ☐ ...

Type of Water Supply: ☐ Private well ☐ Public well ☐ ... r: _____



Installation Requirements/Conditions

Septic Tank Size: 1,250 gallons Total Trench/Bed Leng... er

Trench/Bed Width: 36 inches LTAR: 0.275 ...*Limiting condition*

Soil Cover: _____ inches Slope Corrected Maximum Trenc... *ll side of the trench*

Pump Tank Size (if applicable): 1,500 gallons Rec...

Pump Requirements: 34.94 ft. TDH vs. 48.96 GPM Gre...

Distribution Method: ☐ Serial ☐ D-Box or Parallel ☒ P...

Artificial Drainage Required: Yes ☐ No ☒ If yes, please specify details: _____

Legal Agreements *(If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)*

Multi-party Agreement Required [.0204(g)]: ☐ Yes ☒ No Declaration of Restrictive Covenants: ☐ Yes ☒ No

Easement, Right-of-Way, or Encroachment Agreement Required [.0301(b)]: ☐ Yes ☒ No

Management Entity Required: ☐ Yes ☒ No Minimum O&M Requirements: _____

Permit conditions:

_____

_____

_____

_____

_____

The requirements of 15A NCAC 18E are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached site sketch. *This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes.* The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of 15A NCAC 18E, or 15A NCAC 18A .1900, as applicable, and to the conditions of this permit.

AOWE/PE Print Name: Jeff Vaughan

AOWE/PE Signature: _____ Date: 03/05/2026

This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date *Initials*

G.S. 130A-335(a5) states the following:

When an applicant for a Construction Authorization, or an Improvement Permit and Construction Authorization together, submits a Construction Authorization, or an Improvement Permit and Construction Authorization application together, the permit fee charged by the local health department, the common form developed by the Department, and any necessary signed and sealed plans or evaluations conducted by a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Construction Authorization or Improvement Permit and Construction Authorization includes all of the required components. If the local health department determines that the Construction Authorization or Improvement Permit and Construction Authorization is incomplete, the local health department shall notify the applicant of the components needed to complete the Construction Authorization or Improvement Permit and Construction Authorization. The applicant may submit additional information to the local health department to cure the deficiencies in the Construction Authorization or Improvement Permit and Construction Authorization. The local health department shall make a final determination as to whether the Construction Authorization or Improvement Permit and Construction Authorization is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The applicant may apply for the building permit for the project upon the decision of completeness of the Construction Authorization or Improvement Permit and Construction Authorization by the local health department or if the local health department fails to act within five business days. The Authorized On-Site Wastewater Evaluator or licensed engineer submitting the evaluation pursuant to this subsection may request that the local health department revoke or suspend the Construction Authorization or Improvement Permit and Construction Authorization for cause. Upon written request of the Authorized On-Site Wastewater Evaluator or licensed engineer, the local health department shall suspend or revoke the Construction Authorization or Improvement Permit and Construction Authorization pursuant to G.S. 130A-23. The Department shall develop a common form for use as the Construction Authorization.

The review for completeness of this Construction Authorization was conducted in accordance with G.S. 130A-335(a5). This Construction Authorization is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing: _____

_____

Copies of this were sent to the AOWE/PE and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☒ Complete approved with 5 day

State Authorized Agent: _____ Date of Issuance: 3-23-26

This Construction Authorization is issued pursuant to G.S. 130A-335(a2) and (a5) using the signed and sealed plans or evaluations attached here. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to plans, evaluations, preconstruction conference findings, submittals, or actions from a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator in GS 130A-335(a2), (a5), and (a7). The Department, the Department's authorized agents, and the local health departments shall be responsible and bear liability for their actions and evaluations and other obligations under State law or rule, including the issuance of the operations permit pursuant to GS 130A-337.

Construction Authorization Expiration Date: _____

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

Re-submittal of Construction Authorization

LHD USE ONLY: This CA resubmittal received: _____ *Date* by _____ *Initials*

The following items are being resubmitted pursuant to G.S. 130A-335(a5) for issuance of the Construction Authorization:

_____

_____

_____

_____

I, _____ *Authorized Onsite Wastewater Evaluator (Print Name)* hereby attest that the information required to be included with this re-submittal is accurate and complete to the best of my knowledge and that the proposed Construction Authorization meets all applicable federal, State, and local laws, regulations, rules, and ordinances.

_____ *Signature of Authorized On-Site Wastewater Evaluator*

_____ *Date*

The section below is for Local Health Department use after submittal of items noted as missing above.

LHD Follow-up Completeness Review of Construction Authorization

The review for completeness of this Construction Authorization re-submittal was conducted in accordance with G.S. 130A-335(a5). This Construction Authorization is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the AOWE/PE and the Applicant on _____ *Date*

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date: _____

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

ADDENDUM TO G.S. 130A-335(a2) SUBMITTAL

County: _____

PIN/Lot Identifier: _____

Issued To: _____

Additional Improvement Permit Conditions:

Additional Construction Authorization Conditions:

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 1/20/2026

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Hartsfield & Nash Agency, Inc. 10405 Ligon Mill Rd., Ste H Wake Forest NC 27587 License#: 1000009111 AGRITEC-01	**CONTACT NAME:** Connie Garkalns **PHONE (A/C, No, Ext):** 984-235-4273 **FAX (A/C, No):** 919-556-8758 **E-MAIL ADDRESS:** connie@hn-ins.com
INSURED Agri-Waste Technology Inc 1225 Crescent Green, Suite 250 Cary NC 27518	**INSURER(S) AFFORDING COVERAGE** / **NAIC #** INSURER A : Accident Fund — 10166 INSURER B : Evanston Insurance Company — 35378 INSURER C : SELECTIVE INSURANCE COMPANY — 39926 INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 1861440469 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
C	[X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC [ ] OTHER:			S 2253659	1/18/2026	1/18/2027	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$ 2,000,000 $ 300,000 $ 10,000 $ 2,000,000 $ 4,000,000 $ 4,000,000 $
C	AUTOMOBILE LIABILITY [X] ANY AUTO [ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS [X] HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY			S 2253659	1/18/2026	1/18/2027	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$ 1,000,000 $ $ $ $
C	[X] UMBRELLA LIAB [X] OCCUR [ ] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $			S 2253659	1/18/2026	1/18/2027	EACH OCCURRENCE AGGREGATE $	$ 2,000,000 $ 2,000,000 $
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N [N] ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N/A (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below			AFWCP10000307205	1/18/2026	1/18/2027	[X] PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
B C	Prof & Pollution Liability Leased & Rented			MKLV7ENV106760 S 2253659	8/22/2025 1/18/2026	8/22/2026 1/18/2027	Each Claim Equipment	$ 5,000,000 $ 25,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

For Information Only
***Contact Agency
for Specific Holder
Wording***

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Connie Garkalns

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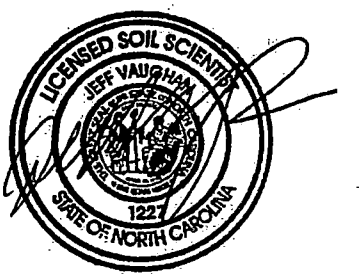
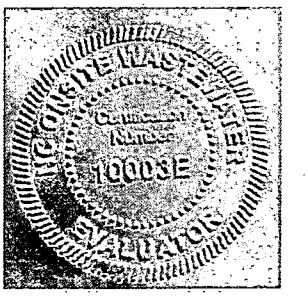
Engineers and Soil Scientists

Agri-Waste Technology, Inc.
1225 Crescent Green, Suite 250, Cary NC 27518
agriwaste.com | 919.859.0669





Soil Suitability for Domestic Sewage Treatment and Disposal Systems
14600 NC-73, Huntersville, NC 28078
(Mecklenburg Co Parcel ID 1313108)

PREPARED FOR: HMA Builders , LLC c/o Hugo Hernandez– Client

PREPARED BY: Jeff Vaughan, Senior Agronomist & Soil Scientist
Trevor Hackney, Licensed Soil Scientist

DATE: March 05, 2026

Soil suitability for domestic sewage treatment and disposal systems was evaluated on February 23, 2026, for the property located at 14600 NC-73, Huntersville, NC 28078. Agri-Waste Technology, Inc. (AWT) personnel conducted the soil evaluation. This evaluation was done to facilitate permitting for a septic system. This report and attached documents were prepared to meet the requirements for G.S. 130A-335(a2).

A drawing of the site plan, septic layout, and boring locations is included in Attachment 1. Profile descriptions for each boring are included in Attachment 2. Additional documentation about the property is included in Attachment 3.

The total property area is approximately 7.720 acres. The overall slope of the proposed septic system ranges from 3-8% slopes. The home is proposed on the front of the property, and the primary septic system area is proposed upslope in front of the structure. The proposed repair area is to be located behind the home near the back of the property. The proposed primary septic system is a type IIIb, pump system utilizing the Horizontal T&J Panel Block dispersal 50% reduction drain-field product. The proposed repair septic system area is a type IIIb, pump septic system utilizing the Chamber dispersal 25% reduction drain-field product.

Soil Suitability for Domestic Sewage Treatment and Disposal Systems
The drawing in Attachment 1 details the property boundaries (as proposed by others), soil boring locations, and layout of drain field trenches (Completed by AWT). Soil borings were examined to determine soil suitability for on-site sewage disposal systems in accordance with 15A NCAC 18E Rules for Wastewater Treatment and Disposal Systems. These borings were advanced with a hand auger. A septic layout was performed to demonstrate available space (.0508). The layout in Attachment 1 indicates there is available space for a five-bedroom home.

The proposed LTAR (Long Term Acceptance Rate) set by AWT is 0.275 GPD/ft^2 for the primary system area. The soils on this property are group IV soils within the distribution and treatment zone as used to define the LTAR. With an LTAR of 0.275 GPD/ft^2, 364 linear feet of trench are necessary to support a five-bedroom primary septic system. Since usable slope corrected soil depths meet or exceed 43", the maximum low side trench bottom should not exceed 31". AWT is recommending the use of the Horizontal T&J Panel Block drain field product for the primary system. The attached drawing proves that 368 linear feet of trench product can be installed for the primary septic system with the proposed home depicted on the drawing.

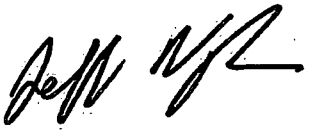
The proposed LTAR (Long Term Acceptance Rate) set by AWT is 0.3 GPD/ft^2 for the repair system area. The soils on this property are group IV soils within the distribution and treatment zone as used to define the LTAR. With an LTAR of 0.3 GPD/ft^2, 500 linear feet of trench are necessary to support a five-bedroom repair septic system. Since usable slope corrected soil depths meet or exceed 36", the maximum low side trench bottom should not exceed 24".
The attached drawing proves that 500 linear feet of trench product can be installed for the repair area with the use of the Chamber dispersal 25% reduction drain field product system with the home depicted on the drawing.

Any disturbances or grading done in the usable area or within the proposed setbacks will change the potential of using the area designated for a drain field.

We appreciate the opportunity to assist you in this matter. Please contact us with any questions, concerns, or comments.

Sincerely,

Jeff Vaughan, LSS/AOWE



Attachment 1: Drawings & Calculations

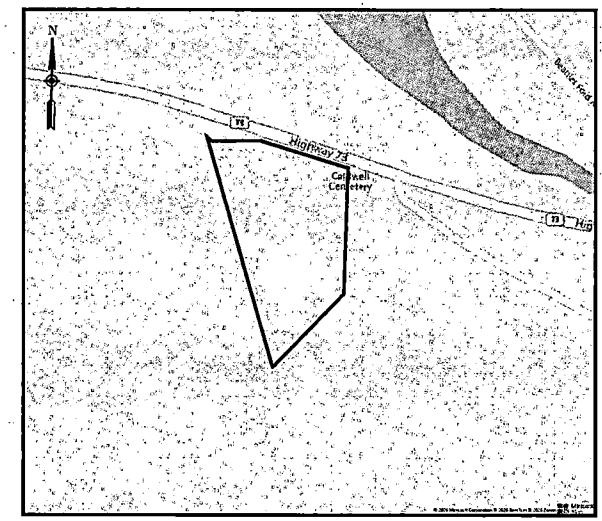
HMA–NC HWY 73

Project Location
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg County
PIN: ----
PID: 1313108

Project Owner
HMA *Builders*
2284 Barrowcliffe Dr NW
Concord, NC 28027
305–970–8802
hugo@hmadevelop.com

Project Consultant
Jeff Vaughan, L.S.S
(919) 367–6313
Agri–Waste Technology, Inc.
1225 Crescent Green, Suite 250
Cary, NC 27518
(919) 859–0669
(919) 233–1970 Fax

System Overview
Single Family Residence
5 Bedroom, 600 gpd
PPBPS, Horizontal Dispersal Primary
Chambers Dispersal Repair
Pressure Manifold Distribution Primary
Pressure Manifold Distribution Repair



Sheet Index

Sheet 1	Cover Sheet
Sheet 2	Provided Survey
Sheet 3	Property Layout
Sheet 4	Component Layout
Sheet 5	Primary Drainfield
Sheet 6	Repair Drainfield
Sheet 7	Detail Sheet
Sheet 8	Detail Sheet
Sheet 9	Excavation Safety

NC 811 ORG

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Engineers and Soil Scientists
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HMA Developers
HMA–NC Hwy 73

PROJECT LOCATION:
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg COUNTY
PIN: ----

REV.	ISSUED	DATE	DESCRIPTION

SHEET TITLE
COVER SHEET

Drawn By:	Drawn On:
----	2026–02–27
Revised By:	Revised On:
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Released By:	Released On:
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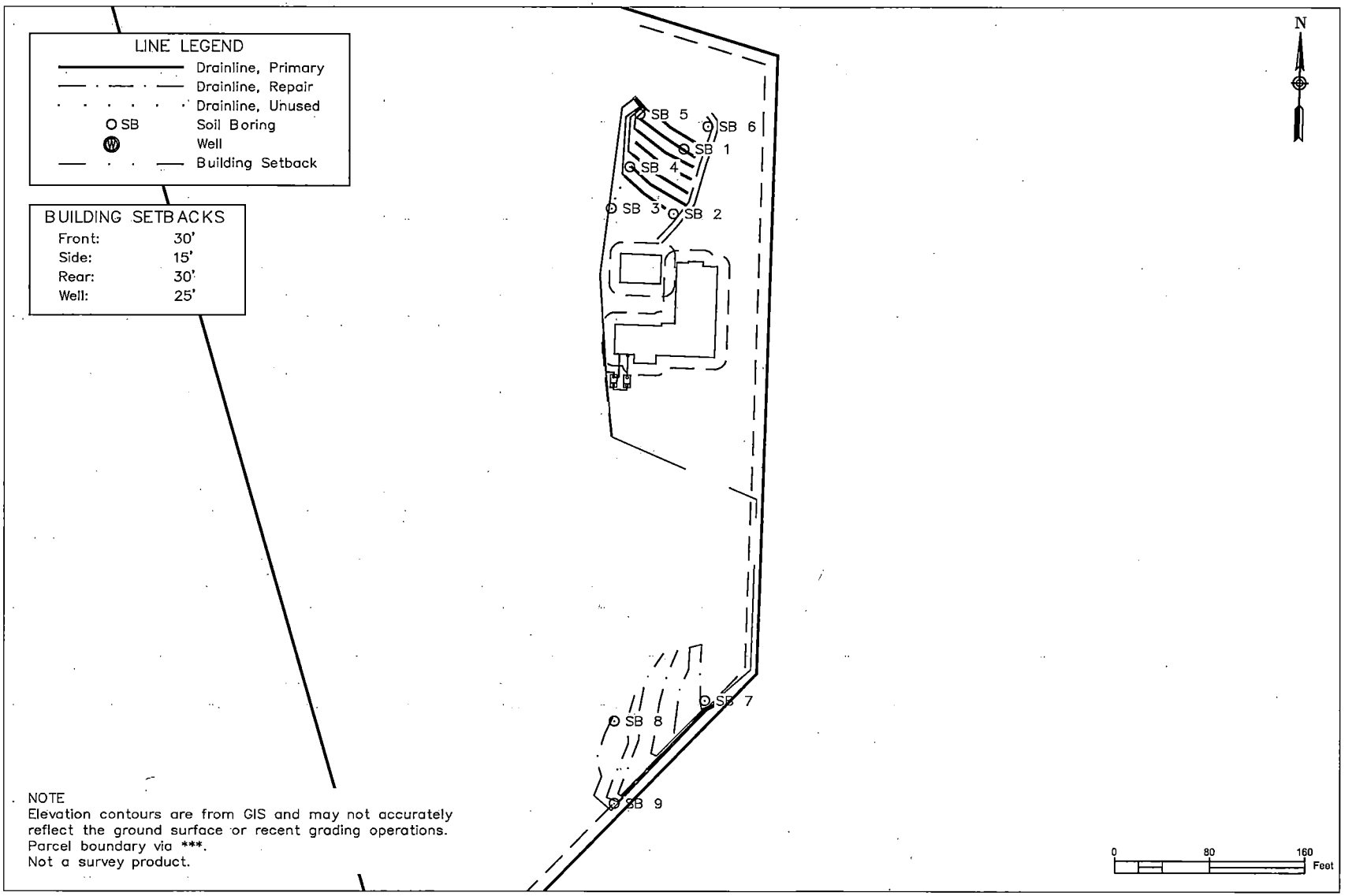
Drawing Number:
WW–1



1 WW-2 PROPERTY LAYOUT
Source: AWT Inc.

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HMA Developers
HMA-NC Hwy 73

PROJECT LOCATION:
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Huntersville, NC 28078
Mecklenburg COUNTY
PIN: -----

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PROPERTY LAYOUT

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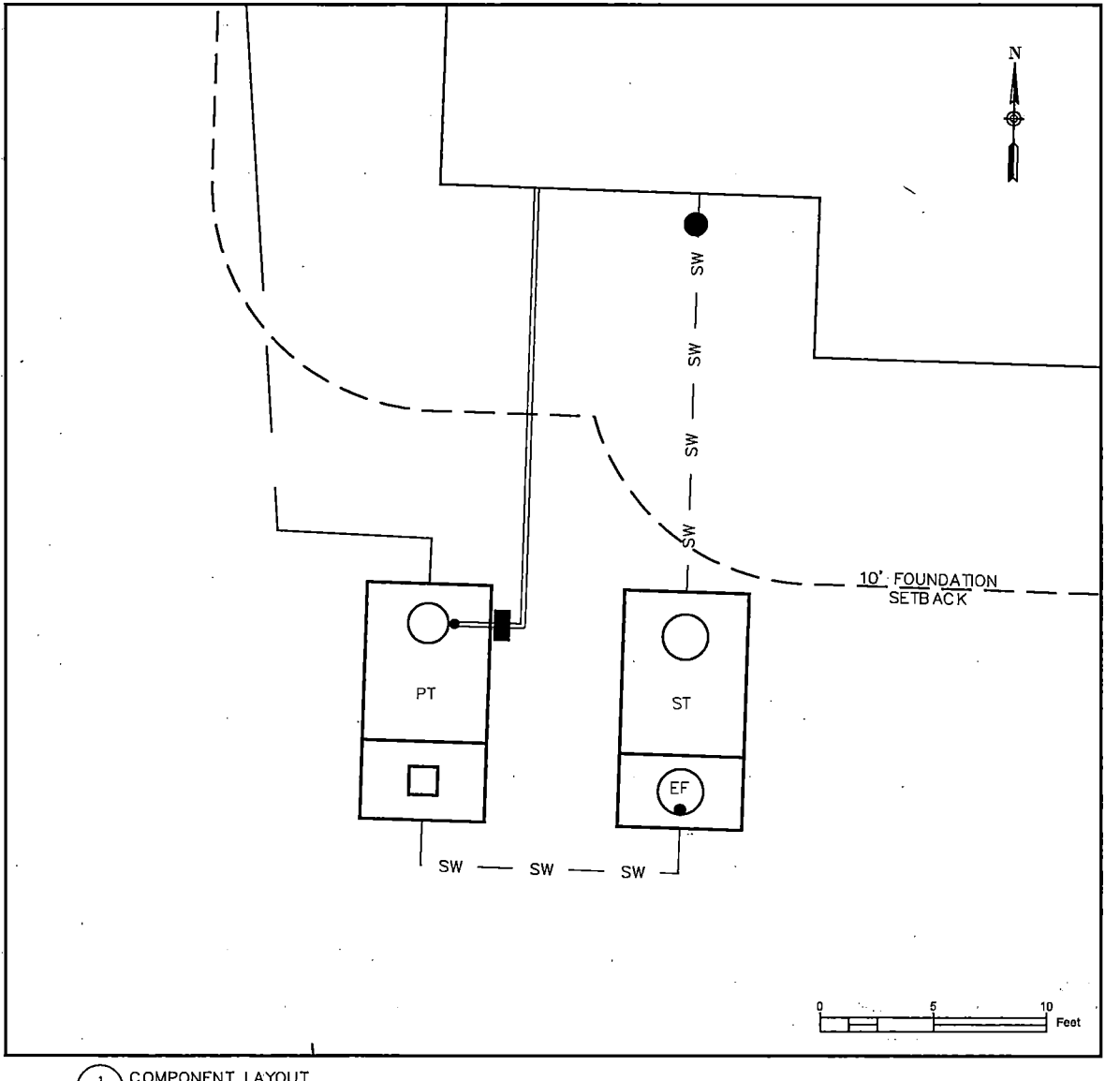
Released By:	Released On:
-----	-----

Drawing Number:
WW-2

LEGEND	
●	CLEANOUT
SW	4" SCH 40 PVC
ST	1250 GAL SEPTIC TANK
EF	EFFLUENT FILTER
— — — —	SYSTEM SETBACK
PT	1500 GAL PUMP TANK
PM	PRESSURE MANIFOLD
SB	SPLICE BOX
■	CONTROL PANEL
FSL	2" SCH 40 PVC

SYSTEM SETBACKS	
Downhill Structure:	15'
Uphill Structure:	10'
Well:	50'
Property Line:	10'
Driveway:	5'

NOTE
Elevation contours are from GIS and may not accurately reflect the ground surface or recent grading operations.
Contractor to adjust tank placements as necessary to maintain:
1. 15' downslope, 10' sideslope, and 10' upslope setback from foundation drain
2. Minimum 12" cover over septic tank (not to exceed 36").
3. Minimum 18" cover over pipes.
4. Minimum 2% slope on gravity drain line (DL) from house to septic tank.
5. Minimum 1% slope on effluent drain line (EDL).



1 WW-3 COMPONENT LAYOUT
Source: AWT Inc.

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Engineers and Soil Scientists
Agri-Waste Technology, Inc.
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COMPONENT LAYOUT

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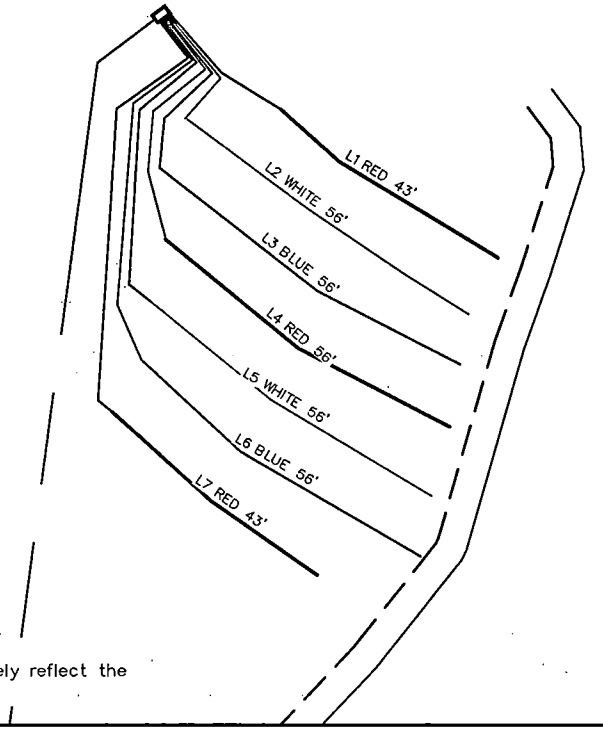
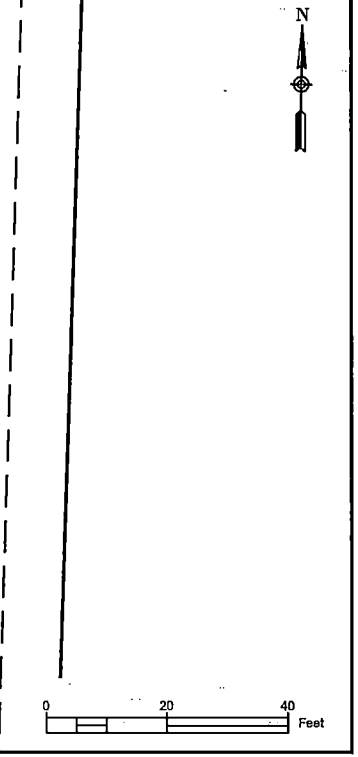
Released By:	Released On:
-----	-----

Drawing Number:
WW-3

LEGEND	
— — — —	SYSTEM SETBACK

SYSTEM SETBACKS	
Downhill Structure:	15'
Uphill Structure:	10'
Well:	50'
Property Line:	10'
Driveway:	5'





NOTE
Elevation contours are from GIS and may not accurately reflect the ground surface or recent grading operations.

General Drainfield Notes:

1. Clear all trees less than 8" in diameter (measured at a height 3' from soil surface) from the drainfield.
2. Vegetation that will re-grow from a cut stump shall be stumped or pulled from the ground. Stumps shall not be pushed over.
3. Drainfield area shall be cleared of all leaves, pine straw, debris, etc. The accumulated material shall be removed from the drainfield.
4. In clayey soils, sides of trenches shall be raked and limed per manufacturer's instructions.
5. Supply lines shall be installed with a minimum of 18" cover.
6. The trenches shall be backfilled appropriately so that no low areas are present.
7. Apply lime over the drainfield area as needed. Seed fine fescue over the drainfield at the rate recommended by the seed manufacturer. Hand rake the seed into the soil surface. Straw the seeded area at the rate of 1.5–2 bales per 1000 sq. ft.

DRAINFIELD INFO. - Primary

Proposed Type of System/Distribution: *Pump to Pressure Manifold using PPBPS, Horizontal*

Line No.	Flag Color	Line Length (ft)	Tap	Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
1	RED	43.3	1/2in SCH 80	5.48	0.127	0.544
2	WHITE	56.3	1/2in SCH 40	7.11	0.126	0.543
3	BLUE	56.3	1/2in SCH 40	7.11	0.126	0.543
4	RED	56.3	1/2in SCH 40	7.11	0.126	0.543
5	WHITE	56.3	1/2in SCH 40	7.11	0.126	0.543
6	BLUE	56.3	1/2in SCH 40	7.11	0.126	0.543
7	RED	43.3	1/2in SCH 80	5.48	0.127	0.544
	Total:	368.10	Total:	46.51	Avg.:	0.54

Note: Line lengths are calculated in 4'4" increments to reflect use of PPBPS product.

1 / WW–4 PRIMARY DRAINFIELD
Source: AWT Inc.

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AgriWaste Technology, Inc.
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agriwaste.com | 704.237.0650

HMA Developers
HMA–NC Hwy 73

PROJECT LOCATION:
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg COUNTY
PIN: ----

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PRIMARY DRAINFIELD

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Revised By:	Revised On:
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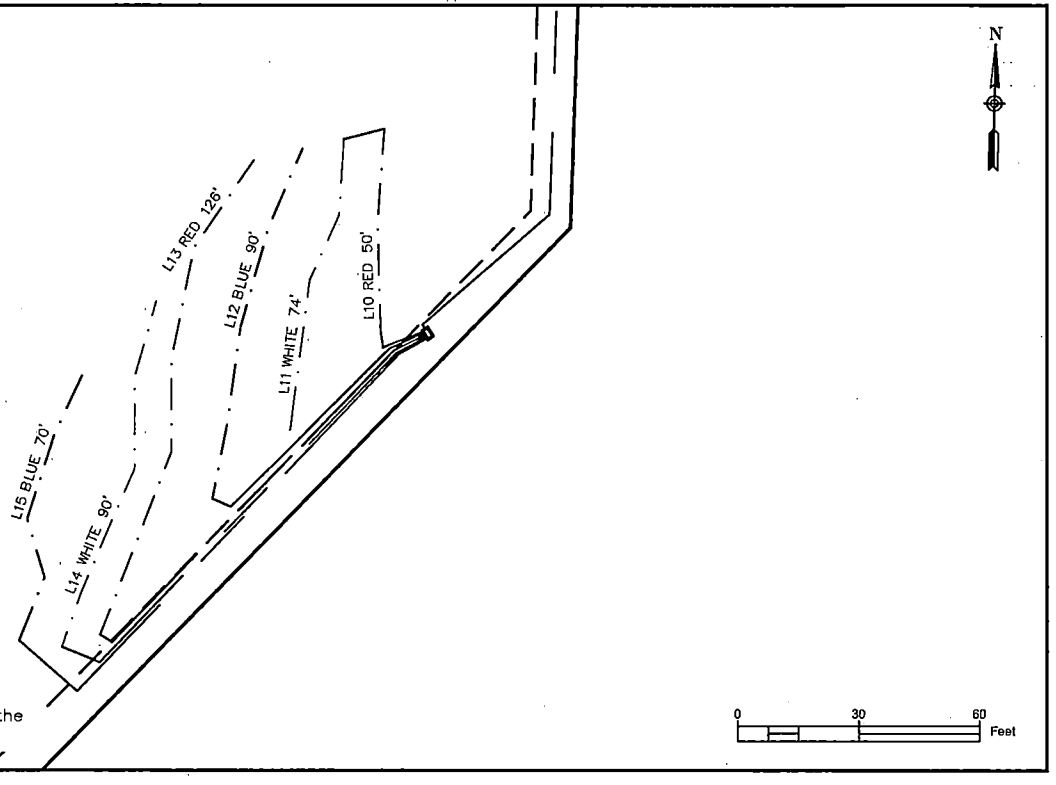
Released By:	Released On:
----	-----

Drawing Number:
WW–4

LEGEND	
— — — —	SYSTEM SETBACK

SYSTEM SETBACKS	
Downhill Structure:	15'
Uphill Structure:	10'
Well:	50'
Property Line:	10'
Driveway:	5'



NOTE
Elevation contours are from GIS and may not accurately reflect the ground surface or recent grading operations.

General Drainfield Notes:

1. Clear all trees less than 8" in diameter (measured at a height 3' from soil surface) from the drainfield.
2. Vegetation that will re–grow from a cut stump shall be stumped or pulled from the ground. Stumps shall not be pushed over.
3. Drainfield area shall be cleared of all leaves, pine straw, debris, etc. The accumulated material shall be removed from the drainfield.
4. In clayey soils, sides of trenches shall be raked and limed per manufacturer's instructions.
5. Supply lines shall be installed with a minimum of 18" cover.
6. The trenches shall be backfilled appropriately so that no low areas are present.
7. Apply lime over the drainfield area as needed. Seed fine fescue over the drainfield at the rate recommended by the seed manufacturer. Hand rake the seed into the soil surface. Straw the seeded area at the rate of 1.5–2 bales per 1000 sq. ft.

DRAINFIELD INFO. - **Repair**

Proposed Type of System/Distribution: ***Pump to Pressure Manifold using Chambers***

Line No.	Flag Color	Line Length (ft.)		Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
10 & 11	RED & WHITE	124	3/4in SCH 80	10.10	0.081	0.408
12	BLUE	90	1/2in SCH 40	7.11	0.079	0.396
13	RED	126	3/4in SCH 80	10.10	0.080	0.402
14	WHITE	90	1/2in SCH 40	7.11	0.079	0.396
15	BLUE	70	1/2in SCH 80	5.48	0.078	0.392
	Total	**600.00**	**Total**	**39.90**	**Avg.**	**0.40**

Note: Line lengths are calculated in 4' increments to reflect use of Chambers product. 2' added for endcaps.

1 / WW–5 REPAIR DRAINFIELD
Source: AWT Inc.

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Engineers and Soil Scientists
Agri-Waste Technology, Inc.
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HMA Developers
HMA–NC Hwy 73

PROJECT LOCATION:
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg COUNTY
PIN: ----

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REPAIR DRAINFIELD

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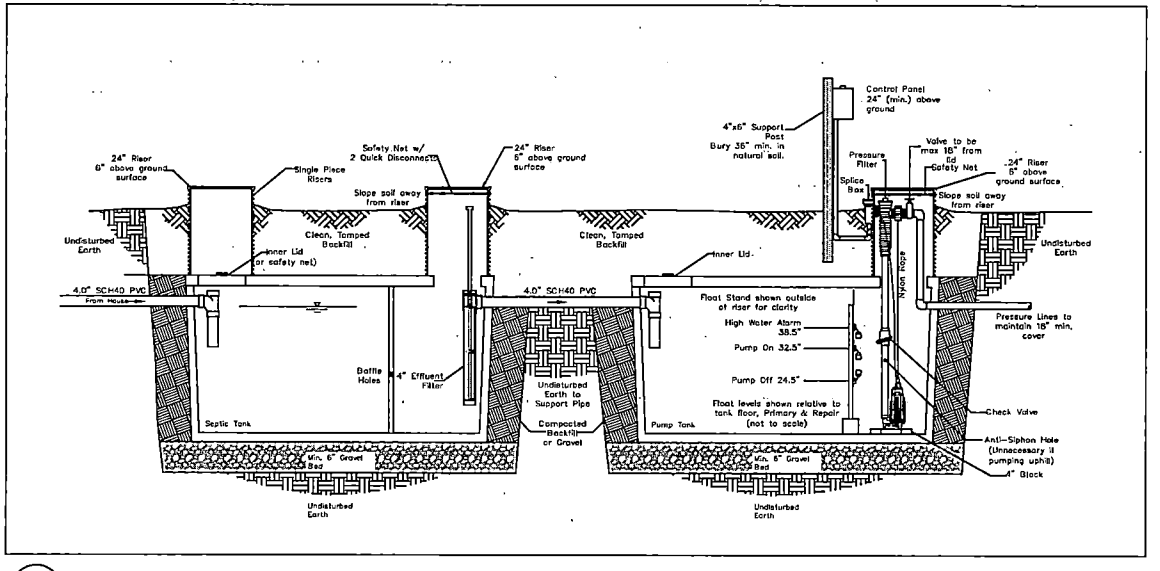
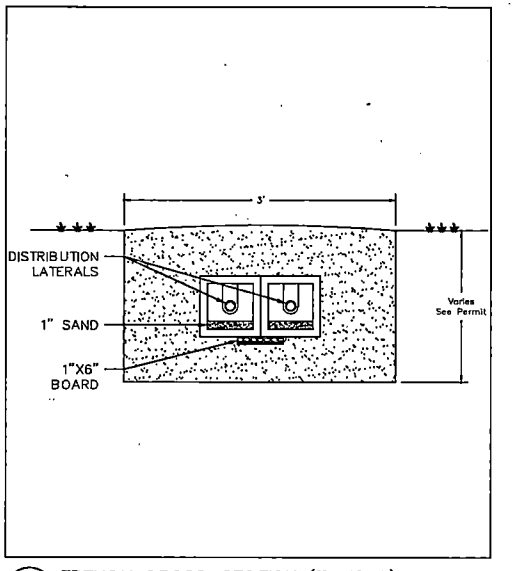
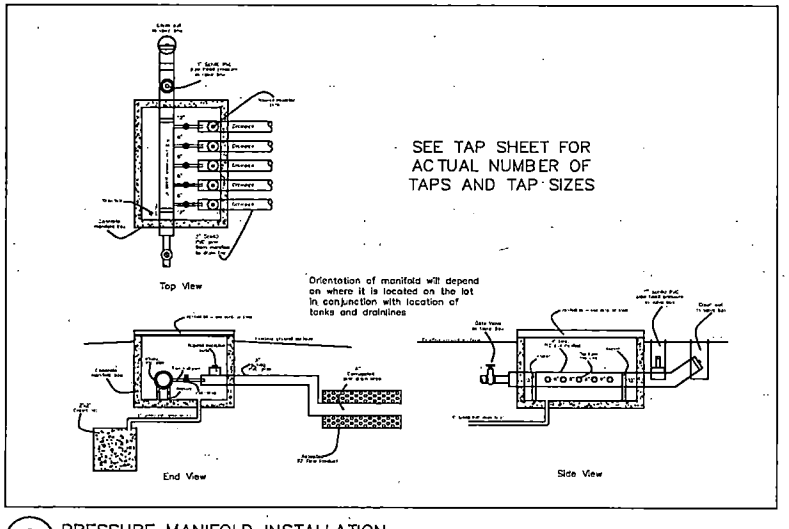
Drawing Number:
WW–5



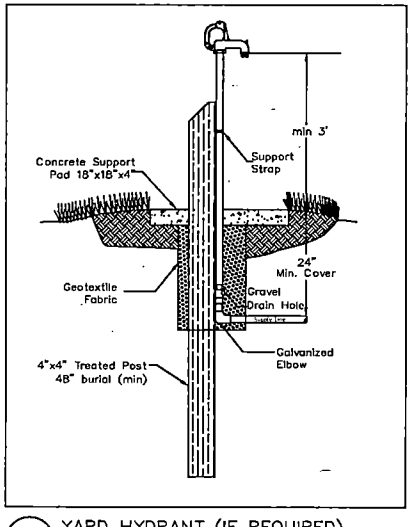
1 WW-6 SYSTEM PROFILE NTS



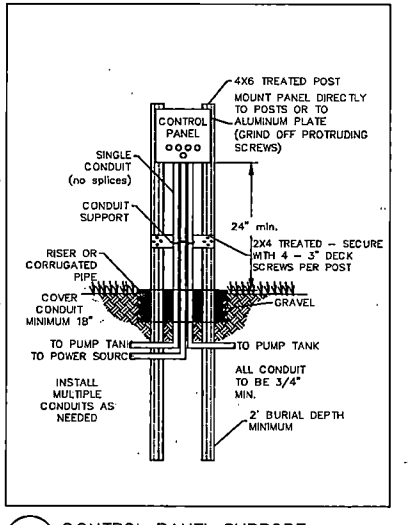
2 WW-6 TRENCH CROSS-SECTION (TYPICAL) NTS



3 WW-6 PRESSURE MANIFOLD INSTALLATION NTS



4 WW-6 YARD HYDRANT (IF REQUIRED) NTS



5 WW-6 CONTROL PANEL SUPPORT NTS

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Agri-Waste Technology, Inc.
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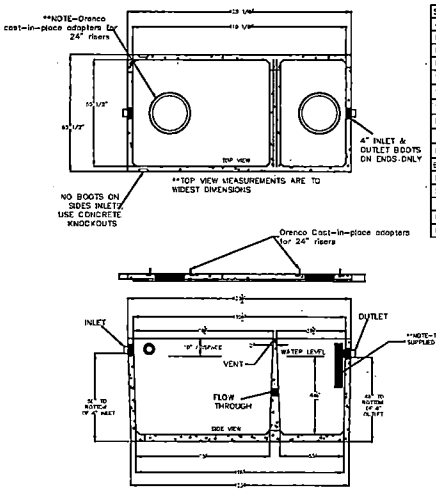
Revised By:	Revised On:
####	####
Released By:	Released On:
####	####

Drawing Number:

WW-6

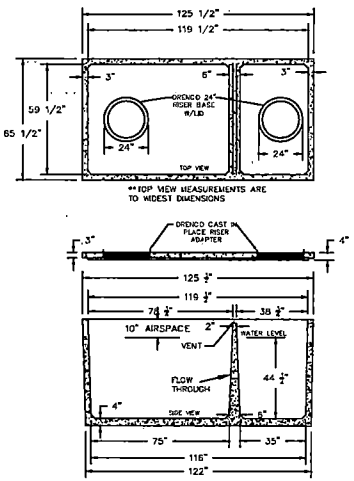


SHOAF PRECAST SEPTIC INC.
4130 WEST US HWY 64
LEXINGTON, NC 27295
PHONE (336) 787–5826
FAX (336) 787–2826
WWW.SHOAFPRECAST.COM
SHOAF–1,250 SEPTIC TANK
STB–389
LIQUID CAPACITY–1,252 GALLONS/10" AIRSPACE
TANK HEIGHT–51
BOTTOM OF TANK TO CENTER OF INLET–52"
BOTTOM OF TANK TO CENTER OF OUTLET–50"
LENGTH TO WIDTH RATIO–2 TO 1
SIZE OF INLET & OUTLET–3" OR 4" PIPE
TYPE OF INLET & OUTLET–PCYLOCK OR EQUAL (MEETS ASTM C–923)
CONCRETE PSI–4000; TANK WEIGHT– 11,000 LBS.
REINFORCEMENT PER STATE CODE

MODEL: TS 1250 STB
NON TRAFFIC
1250 Gallon Septic Tank

SCALE – N.T.S.

1 WW–7 SEPTIC TANK (OR EQUIVALENT)
NTS

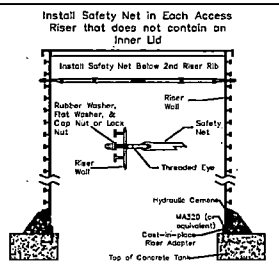


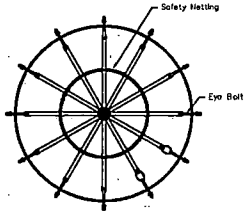
SHOAF PRECAST SEPTIC INC.
4130 WEST US HWY 64
LEXINGTON, NC 27295
PHONE (336) 787–5826
FAX (336) 787–2826
WWW.SHOAFPRECAST.COM
SHOAF–1,500 PUMP TANK
PT–353
LIQUID CAPACITY–1,518 GALLONS INCLUDING 10" AIRSPACE
GALLONS PER INCH–27.85 (AVERAGE)
TANK HEIGHT–61 1/2"
LENGTH TO WIDTH RATIO–2 TO 1
CONCRETE PSI–4000; TANK WEIGHT– 11,000 LBS.
REINFORCEMENT PER STATE CODE

MODEL: TS 1500 PT
NON TRAFFIC
1500 Gallon Pump Tank

SCALE – N.T.S.

2 WW–7 PUMP TANK (OR EQUIVALENT WITH 1–DAY STORAGE)
NTS





NOTE: Install 4 Ring Clamps if 8" (or larger) Filter is Used

RISER INSTALLATION INSTRUCTIONS:

1. Prep Adapter Channel & Riser
   - 1.1. Roughen the bonding surfaces of the adapter and riser with sandpaper.
   - 1.2. Use a clean cloth and acetone or alcohol to clean the bonding surfaces of the adapter and riser. The bonding surfaces must be clean and dry for a good fit and watertight joint. Let the acetone or alcohol dry completely.
2. Apply Adhesive
   - 2.1. Apply a bead of methacrylate adhesive to the outside of the adapter. One 7–oz packet of MA320 adhesive is typical for one 24" riser.
3. Install Riser
   - 3.1. If the riser has penetrations, align the riser correctly.
   - 3.2. Firmly press the riser onto the adapter until the bottom of the riser is resting on the concrete (cast–in–adapters) or the adapter flange (bolted–down adapters). Twist the riser back and forth slightly to fully seat it on to create a good bond.
   - 3.3. Apply a bead of methacrylate adhesive to the inside of the access riser–adapter joint.
   - 3.4. Use a tongue depressor, putty knife, or clean cloth to make a continuous fillet on the inside of the access riser–adapter joint.
   - 3.5. Apply hydraulic cement to bond outer riser wall and top of tank.
4. Ensure safety net and inner lid are in place and secured.

FOR RISER WALL PENETRATIONS

Grommet Size, Inches (Nominal IPS Pipe Size)	Hole Saw Size, Inches
1/2	1
3/4	1 1/4
1	1 9/16
1 1/4	1 3/4
1 1/2	2 1/8
2	2 3/4
3	3 7/8
4	5

3 WW–7 RISER SAFETY NETS
NTS

Notes

1. Installation to follow all NC DHHS and Mecklenburg County applicable rules and regulations.
2. Mecklenburg County to perform construction inspections and final system certification.
3. Septic tank to have approved effluent filter.
4. Contractor to abide by all safety regulations during system installation.
5. Contractor shall backfill around all access areas such that storm water is shed away from potential entry points.
6. Invert elevations of all components to be verified in field by contractor to insure proper operation.
7. All system piping to be SCH40 PVC (except where noted).
8. All gravity elbows to be long radius or long sweeping type elbows.
9. Actual installation and placement of treatment system to be overseen by contractor.
10. Tanks to be set on 6" minimum gravel base. Use #5 or #57 stone for base.
11. Contractor to seed and/or mulch disturbed areas to coincide with existing landscape. Area shall not be left with uncovered soil.
12. Mount control panel a minimum of 24" above grade.
13. Power to panel to be installed by licensed electrician per code. One 15–amp circuit and one 20–amp circuit with individual neutrals to be run from house to control panel.
14. All risers to have cast–in–place tank adapters and be single–piece riser. Risers to extend 6" above soil surface and be designed to prevent surface water inflow.
15. Backfill around tank(s) shall be gravel or tank hole shall be over–excavated a minimum of 2' in all directions to allow for mechanical tamping of backfill.
16. All penetrations to be sealed.
17. Spigot to be located on outside of building within 50' of tanks.
18. All pressure lines to maintain 18" min. cover.
19. Contractor to adjust tank placement to meet site constraints.

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HMA–NC Hwy 73

PROJECT LOCATION:
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PIN: ----

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FOR REVIEW ONLY

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
DETAIL SHEET

Drawn By:	Drawn On:
----	2026–02–27
Revised By:	Revised On:
----	----
Released By:	Released On:
----	----

Drawing Number:
WW–7

Trenching and Excavation Safety

The employer must comply with the trenching and excavation requirements of 29 CFR 1926.651 and 1926.652 or comparable OSHA-approved state plan requirements.

Inspection of Excavations

OSHA standards require that a competent person inspect trenches daily and as conditions change before worker entry to ensure elimination of excavation hazards. A competent person is an individual who is capable of identifying existing and predictable hazards or working conditions that are hazardous, unsanitary, or dangerous to workers, and types and protective systems required, and who is authorized to take prompt corrective measures to eliminate these hazards and conditions.

Access and Egress

OSHA standards require safe access and egress to all excavations, including ladders, steps, ramps, or other safe means of exit for employees working in trench excavations 4 feet (1.22 meters) or deeper.

These devices must be located within 25 feet (7.6 meters) of all workers.

Recommendations

Heavy equipment and trucks should stay as far as possible from the edge of any trench.

Always use pads under stabilizers to minimize ground pressures that could lead to failures.

(b) Definitions

"Cemented soil" means a soil in which the particles are held together by a chemical agent, such as calcium carbonate, such that a hand-size sample cannot be crushed into powder or individual soil particles by finger pressure.

"Cohesive soil" means clay (fine grained soil), or soil with a high clay content, which has cohesive strength. Cohesive soil does not crumble, can be excavated with vertical sidesteps, and is plastic when moist. Cohesive soil is hard to break up when dry, and exhibits significant cohesion when submerged. Cohesive soils include clayey silt, sandy clay, silty clay, clay and organic clay.

"Dry soil" means soil that does not exhibit visible signs of moisture content.

"Fissured" means a soil material that has a tendency to break along definite planes of fracture with little resistance, or a material that exhibits open cracks, such as tension cracks, in an exposed surface.

"Granular soil" means gravel, sand, or silt (coarse grained soil) with little or no clay content. Granular soil has no cohesive strength. Some moist granular soils exhibit apparent cohesion. Granular soil cannot be molded when moist and crumbles easily when dry.

"Layered system" means two or more distinctly different soil or rock types arranged in layers. Micaceous seams or weakened planes in rock or shale are considered layered.

"Moist soil" means a condition in which a soil looks and feels damp. Moist cohesive soil can easily be shaped into a ball and rolled into small diameter threads before crumbling. Moist granular soil that contains some cohesive material will exhibit signs of cohesion between particles.

"Plastic" means a property of a soil which allows the soil to be deformed or molded without cracking, or appreciable volume change.

"Saturated soil" means a soil in which the voids are filled with water. Saturation does not require flow. Saturation, or near saturation, is necessary for the proper use of instruments such as a pocket penetrometer or sheer vane.

"Soil classification system" means, for the purpose of this subpart, a method of categorizing soil and rock deposits in a hierarchy of Stable Rock, Type A, Type B, and Type C, in decreasing order of stability. The categories are determined based on an analysis of the properties and performance characteristics of the deposits and the characteristics of the deposits and the environmental conditions of exposure.

"Stable rock" means natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.

"Submerged soil" means soil which is underwater or is free seeping.

"Type A" means cohesive soils with an unconfined, compressive strength of 1.5 ton per square foot (tsf) (144 kPa) or greater. Examples of cohesive soils are: clay, silty clay, sandy clay, clay loam and, in some cases, silty clay loam and sandy clay loam. Cemented soils such as caliche and hardpan are also considered Type A.

However, no soil is Type A if:

(i) The soil is fissured; or

(ii) The soil is subject to vibration from heavy traffic, pile driving, or similar effects; or

(iii) The soil has been previously disturbed; or

(iv) The soil is part of a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or greater; or

(v) The material is subject to other factors that would require it to be classified as a less stable material.

"Type B" means:

(i) Cohesive soil with an unconfined compressive strength greater than 0.5 tsf (48 kPa) but less than 1.5 tsf (144 kPa); or

(ii) Granular cohesionless soils including: angular gravel (similar to crushed rock), silt, silt loam, sandy loam and, in some cases, silty clay loam and sandy clay loam.

(iii) Previously disturbed soils except those which would otherwise be classed as Type C soil.

(iv) Soil that meets the unconfined compressive strength or cementation requirements for Type A, but is fissured or subject to vibration; or

(v) Dry rock that is not stable; or

(vi) Material that is part of a sloped, layered system where the layers dip into the excavation on a slope less steep than four horizontal to one vertical (4H:1V), but only if the material would otherwise be classified as Type B.

"Type C" means:

(i) Cohesive soil with an unconfined compressive strength of 0.5 tsf (48 kPa) or less; or

(ii) Granular soils including gravel, sand, and loamy sand; or

(iii) Submerged soil or soil from which water is freely seeping; or

(iv) Submerged rock that is not stable, or

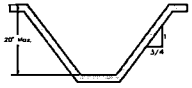
(v) Material in a sloped, layered system where the layers dip into the excavation or a slope of four horizontal to one vertical (4H:1V) or steeper.

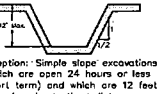
"Unconfined compressive strength" means the load per unit area at which a soil will fail in compression. It can be determined by laboratory testing, or estimated in the field using a pocket penetrometer, by thumb penetration tests, and other methods.

"Wet soil" means soil that contains significantly more moisture than moist soil, but in such a range of values that cohesive material will slump or begin to flow when vibrated. Granular material that would exhibit cohesive properties when moist will lose these cohesive properties when wet.

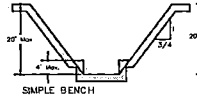
EXCAVATIONS IN TYPE A SOILS

All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of ½:1.

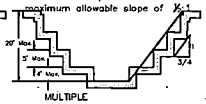




Exception: Simple slope excavations which are open 24 hours or less (short term) and which are 12 feet or less in depth shall have a maximum allowable slope of ½:1.

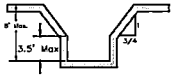


SIMPLE BENCH

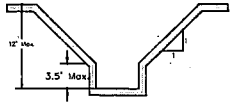


MULTIPLE BENCH

All benched excavations 20 feet or less in depth shall have a maximum allowable slope of ½:1 and maxium bench dimensions as follows:

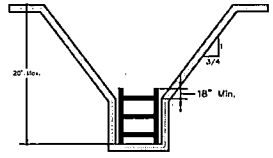


All excavations 8 feet or less in depth which have unsupported vertically sided lower portions shall have a maximum vertical side of 3½ feet.



All excavations more than 8 feet but not more than 12 feet in depth with unsupported vertically sided lower portions shall have a maximum allowable slope of 1:1 and a maximum vertical side of 3½ feet.

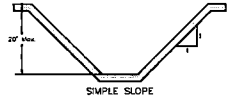
All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded shall have a maximum allowable slope of ½:1. The support or shield system must extend at least 18 inches above the top of the vertical side.



All other simple slope, compound slope, and vertically sided lower portion excavations shall be in accordance with the other options permitted under § 1926.652(b).

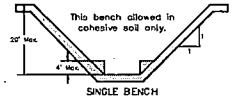
EXCAVATIONS IN TYPE B SOILS

All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1:1.

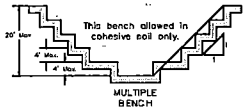


SIMPLE SLOPE

All benched excavations 20 feet or less in depth shall have a maximum allowable slope of 1:1 and maxium bench dimensions as follows:

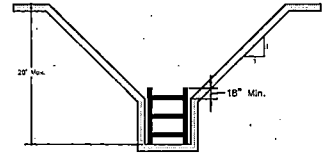


SINGLE BENCH



MULTIPLE BENCH

All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded shall have a maximum allowable slope of 1:1. The support or shield system must extend at least 18 inches above the top of the vertical side.



VERTICALLY SIDED LOWER PORTION

All other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).

(c) Requirements

(1) Classification of soil and rock deposits. Each soil and rock deposit shall be classified by a competent person as Stable Rock, Type A, Type B, or Type C in accordance with the definitions set forth in paragraph (b) of this appendix.

(2) Basis of classification. The classification of the deposits shall be made based on the results of at least one visual and at least one manual analysis. Such analyses shall be conducted by a competent person using tests described in paragraph (d) below, or in other recognized methods of soil classification and testing such as those adopted by the American Society for Testing Materials, or the U.S. Department of Agriculture textural classification system.

(3) Visual and manual analyses. The visual and manual analyses, such as those noted as being acceptable in paragraph (d) of this appendix, shall be designed and conducted to provide sufficient quantitative and qualitative information as may be necessary to identify properly the properties, factors, and conditions affecting the classification of the deposits.

(4) Layered systems. In a layered system, the system shall be classified in accordance with its weakest layer. However, each layer may be classified individually where a more stable layer lies under a less stable layer.

(5) Reclassification. If, after classifying a deposit, the properties, factors, or conditions affecting its classification change in any way, the changes shall be evaluated by a competent person. The deposit shall be reclassified as necessary to reflect the changed circumstances.

(d) Acceptable visual and manual tests

(1) Visual tests. Visual analysis is conducted to determine qualitative information regarding the excavation site in general, the soil adjacent to the excavation, the soil forming the sides of the open excavation, and the soil taken as samples from excavated material.

(i) Observe samples of soil that are excavated and soil in the sides of the excavation. Estimate the range of particle sizes and the relative amounts of the particle sizes. Soil that is primarily composed of fine-grained material is cohesive material. Soil composed primarily of coarse-grained sand or gravel is granular material.

(ii) Observe soil as it is excavated. Soil that remains in clumps when excavated is cohesive. Soil that breaks up easily and does not stay in clumps is granular.

(iii) Observe the side of the opened excavation and the surface area adjacent to the excavation. Crack-like openings such as tension cracks could indicate fissured material. If chunks of soil spall off a vertical side, the soil could be fissured. Small spalls are evidence of moving ground and are indications of potentially hazardous situations.

(iv) Observe the area adjacent to the excavation and the excavation itself for evidence of existing utility and other underground structures, and to identify previously disturbed soil.

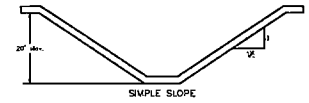
(v) Observe the opened side of the excavation to identify layered systems. Examine layered systems to identify if the layers slope toward the excavation. Estimate the degree of slope of the layers.

(vi) Observe the area adjacent to the excavation and the sides of the opened excavation for evidence of surface water, water seeping from the sides of the excavation, or the location of the level of the water table.

(vii) Observe the area adjacent to the excavation and the area within the excavation for sources of vibration that may affect the stability of the excavation face.

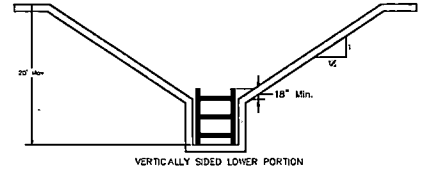
EXCAVATIONS IN TYPE C SOILS

All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1½:1.



SIMPLE SLOPE

All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded shall have a maximum allowable slope of 1½:1. The support or shield system must extend at least 18 inches above the top of the vertical side.



VERTICALLY SIDED LOWER PORTION

All other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).

(2) Manual tests. Manual analysis of soil samples is conducted to determine quantitative as well as qualitative properties of soil and to provide more information in order to classify soil properly.

(i) Plasticity. Mold a moist or wet sample of soil into a ball and attempt to roll it into threads as thin as 1/8-inch in diameter. Cohesive material can be successfully rolled into threads without crumbling. For example, if at least a two inch (50 mm) length of 1/8-inch thread can be held on one end without tearing, the soil is cohesive.

(ii) Dry strength. If the soil is dry and crumbles on its own or with moderate pressure into individual grains or fine powder, it is granular (any combination of gravel, sand, or silt). If the soil is dry and falls into clumps which break up into smaller clumps, but the smaller clumps can only be broken up with difficulty, it may be clay in any combination with gravel, sand or silt. If the dry soil breaks into clumps which do not break up into small clumps and which can only be broken with difficulty, and there is no visual indication the soil is fissured, the soil may be considered unfissured.

(iii) Thumb penetration. The thumb penetration test can be used to estimate the unconfined compressive strength of cohesive soils. (This test is based on the thumb penetration test described in American Society for Testing and Materials (ASTM) Standard designation D2488 — "Standard Recommended Practice for Description of Soils (Visual — Manual Procedure)".) Type A soils with an unconfined compressive strength of 1.5 tsf can be readily indented by the thumb; however, they can be penetrated by the thumb only with very great effort. Type C soils with an unconfined compressive strength of 0.5 tsf can be easily penetrated several inches by the thumb, and can be molded by light finger pressure. This test should be conducted on an undisturbed soil sample, such as a large clump of spoil, as soon as practicable after excavation to keep to a minimum the effects of exposure to drying influences. If the excavation is later exposed to wetting influences (rain, flooding), the classification of the soil must be changed accordingly.

(iv) Other strength tests. Estimates of unconfined compressive strength of soils can also be obtained by use of a pocket penetrometer or by using a hand-operated shearvane.

(v) Drying test. The basic purpose of the drying test is to differentiate between cohesive material with fissures, unfissured cohesive material, and granular material. The procedure for the drying test involves drying a sample of soil that is approximately one inch thick (2.54 cm) and six inches (15.24 cm) in diameter until it is thoroughly dry:

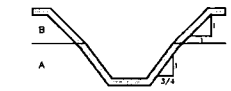
(A) If the sample develops cracks as it dries, significant fissures are indicated.

(B) Samples that dry without cracking are to be broken by hand. If considerable force is necessary to break a sample, the soil has significant cohesive material content. The soil can be classified as an unfissured cohesive material and the unconfined compressive strength should be determined.

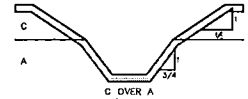
(C) If a sample breaks easily by hand, it is either a fissured cohesive material or a granular material. To distinguish between the two, pulverize the dried clumps of the sample by hand or by stepping on them. If the clumps do not pulverize easily, the material is cohesive with fissures. If they pulverize easily into very small fragments, the material is granular.

EXCAVATIONS IN LAYERED SOILS

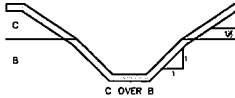
All excavations 20 feet or less in depth made in layered soils shall have a maximum allowable slope for each layer as set forth below.



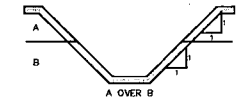
B OVER A



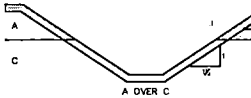
C OVER A



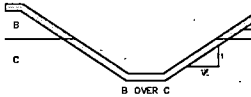
C OVER B



A OVER B



A OVER C



B OVER C

All other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).

AWT
Engineers and Soil Scientists

AgriWaste Technology, Inc.
1225 Crescent Green, Suite 250, Cary, NC 27518
agriwaste.com | 704.237.0050

HMA Developers
HMA—NC Hwy 73

PROJECT LOCATION:
NC Hwy 73 Hwy
Huntersville, NC 28078
Mecklenburg COUNTY
PIN: ----

PROFESSIONAL ENGINEER SEAL

FOR REVIEW ONLY

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
EXCAVATION SAFETY

Drawn By:	Drawn On:
----	2026-02-27
Revised By:	Revised On:
----	----
Released By:	Released On:
----	----

Drawing Number:
WW—8

Septic System Design - Summary Page

Engineers and Soil Scientists

Agri-Waste Technology, Inc.
1225 Crescent Green, Suite 250, Cary NC 27518
agriwaste.com | 919.859.0669

Project Manager:
Jeff Vaughan, PhD, LSS
jvaughan@agriwaste.com
919-859-0669

Project: HMA-NC Hwy 73
Property: NC Hwy 73 Hwy
Huntersville, NC 28078
Subdiv.:
Lot #:

Owner: HMA Developers
Address: 2284 Barrowcliffe Dr NW
Concord, NC 28027
Phone: 305-970-8802
Email: hugo@hmadevelop.com

EHS:

Date: 2/27/2026
County: 0
Permit #:
Type of System: III b
PIN: 0

Soil Parameters

Soil Evaluation By:
Jeff Vaughan, PhD, LSS

Special Conditions/Notes:

LTAR: 0.275 gpd/ft^2

Design Parameters

Type of Establishment: Residence, 5 or fewer bedrooms
Unit: Bedroom
# of Units: 5

Septic Tank Specifications

Min. Tank Capacity: 1,250 gal
Actual Tank Volume: 1,250 gal
Tank Manufacturer: Shoaf
Tank Model: TS 1250 STB

	Exterior	Interior	
Length:	125.5	119.5	in.
Width:	65.5	59.5	in.
Depth:	61.5	54.5	in.

Primary Drainfield Specifications

Type of Distribution: Parallel Pressure Manifold
Trench Media: PPBPS, Horizontal
Trench Width: 3 ft
Trench Depth: in.
(or as specified on permit)

Trench Bottom Area: 2182 ft^2
Minimum Drain Line: 364 ft
Actual Drain Line: 368 ft
Number of Lines: 7
Minimum Line Spacing: 8 ft O.C.

Wastewater Treatment System Design Calculations

Project: HMA-NC Hwy 73
Location: NC Hwy 73 Hwy
Huntersville, NC 28078
County: 0

Septic Tank Sizing

Daily Flow Estimate:

Unit	# of Units	Flow/Unit	Flow/Day
Bedroom	5	120	600
		#N/A	
		#N/A	
		Q=	600 gpd

Septic Tank Minimum Capacity: Per 15A NCAC 18E .0801

For individual residences with 5 bedrooms,

Minimum Liquid Capacity (V)= 1,250 gal

Septic Tank Specs:

Manufacturer:	Shoaf	
Model:	TS 1250 STB	
Volume:	1,250	gal
Weight:	11,000	lbs

	Exterior	Interior	
Length:	125.5	119.5	in.
Width:	65.5	59.5	in.
Depth:	61.5	54.5	in.

Shape of Risers: Circular
Diameter: 2.00 ft

Pump Tank Storage & Float Settings

Project: HMA-NC Hwy 73
Location: NC Hwy 73 Hwy
Huntersville, NC 28078
County: 0

Tank Manufacturer	Shoaf
Tank Model	TS 1500 PT

Interior Height (in.)	**54.5** in.	
Avg. Storage	**27.85** gal/in.	

Primary System

Elevations, measured from bottom towards top (0 = Interior Bottom of Tank):

Top of pump (including 4" block)	22.6 in.	(Pump height = 18 9/16")
Pump Off	24.5 in.	
Pump On	32.5 in.	(set for dose volume)
Alarm On	38.5 in.	(6 in. above On Float)
Emergency Storage Available		
Pump Tank	446 gal	
Days of Storage	0.74 days	

(determined from "interior top of tank" - "High Water Alarm")

Repair System

Elevations, measured from bottom towards top (0 = Interior Bottom of Tank):

Top of pump (including 4" block)	22.6 in.	(Pump height = 18 9/16")
Pump Off	24.5 in.	
Pump On	32.5 in.	(set for dose volume)
Alarm On	38.5 in.	(6 in. above On Float)
Emergency Storage Available		
Pump Tank	446 gal	
Days of Storage	0.74 days	

(determined from "interior top of tank" - "High Water Alarm")

ELEVATIONS

Project: HMA-NC Hwy 73
Location: NC Hwy 73 Hwy
Huntersville, NC 28078
County: 0

Benchmark 0
BM Elev 0 ft

Septic Tank	1,250 gal		
Ground Surface		762.00	ft
Depth of Soil Cover	12 in.	1.00	ft
Overall Ht of Tank	61.5 in.	5.13	ft
Elev, Base of Tank		755.88	ft
Ht to 4" Inlet Invert	50 in.	4.17	ft
Elev, 4" Inlet Invert		760.04	ft
Ht to 4" Outlet Invert	48 in.	4.00	ft
Elev, 4" Outlet Invert		759.88	ft
Gravel Base	6 in.	0.50	ft
Elev, Bot of Excavation		755.38	ft
Pump Tank	1518 gal		
Ground Surface		762.00	ft
Depth of Soil Cover	18 in.	1.50	ft
Overall Ht of Tank	61.5 in.	5.13	ft
Elev, Base of Tank		755.38	ft
Ht to 4" Inlet Invert	50 in.	4.17	ft
Elev, 4" Inlet Invert		759.54	ft
Ht to 2" Outlet Invert	58 in.	4.83	ft
Elev, 2" Outlet Invert		760.21	ft
Gravel Base	6 in.	0.50	ft
Elev, Bot of Excavation		754.88	ft
ST Inlet Pipe			
Grade @ Stub-out		764.2	ft
Depth of Stub-out, top		1.5	ft
Elev, Stub-out Invert		762.35	ft
Elev @ ST Inlet Invert		760.04	ft
Length		10	ft
Slope		23.0	%
Pipe, ST to PT			
ID	4 in.	0.33	ft
OD	4.5 in.	0.38	ft
Elev, ST Outlet Invert		759.88	ft
Elev, PT Inlet Invert		759.54	ft
Length		15	ft
Slope		2.2	%
Cover over inlet pipe		1.60	ft
Pump Reqmt.			
Floor Thickness	4 in.	0.33	ft
Elev, Pump Tank Floor		755.71	ft
Pump Block Ht.	4 in.	0.33	ft
Elev, Pump Intake		756.04	ft
Grade @ Primary Manifold		775.40	ft
Grade @ Repair Manifold		773.00	ft
Min. Cover	18 in.	1.50	ft
Max Elev, Primary		773.90	ft
Max Elev, Repair		771.50	ft
Elev Diff, Primary		17.86	ft
Elev Diff, Repair		15.46	ft

Drainfield Design

Project	HMA-NC Hwy 73
Location	NC Hwy 73 Hwy Huntersville, NC 28078
County	0

Drainfield Sizing

Primary

LTAR	0.275 gpd/ft^2		
Daily Design Flow	600 gpd	**Type of Drainfield Media**	PPBPS, Horizontal
Req. Drainfield Area	2,182 ft^2	**Required Drainline**	
Trench Width	3 ft	**After 50% Reduction**	364 ft
Effective Trench Width	6 ft	**Minimum Line Spacing**	8 ft (O.C.)

Repair

LTAR	0.3 gpd/ft^2		
Daily Design Flow	600 gpd	**Type of Drainfield Media**	Chambers
Req. Drainfield Area	2,000 ft^2	**Required Drainline**	
Trench Width	3 ft	**After 25% Reduction**	500 ft
Effective Trench Width	4 ft	**Minimum Line Spacing**	9 ft (O.C.)

Drainfield Layout

Line	Use	Color	Elevation	Field Length	Primary	Repair
1	Layout Line	RED	774.6	47	43.3	
2	Layout Line	WHITE	774.0	62	56.3	
3	Layout Line	BLUE	773.4	61	56.3	
4	Layout Line	RED	772.9	60	56.3	
5	Layout Line	WHITE	772.2	59	56.3	
6	Layout Line	BLUE	771.8	57	56.3	
7	Layout Line	RED	771.6	55	43.3	
8	Layout Line	WHITE	771.4	31		
9	Layout Line	BLUE	771.2	15		
10	Layout Line	RED	770.8	58		50.0
11	Layout Line	WHITE	769.5	82		74.0
12	Layout Line	BLUE	768.3	102		90.0
13	Layout Line	RED	767.5	134		126.0
14	Layout Line	WHITE	767.1	96		90.0
15	Layout Line	BLUE	766.1	77		70.0

Total:	368	500
Count:	7	6

Line lengths shown in drawings include 2' for endcaps.

For Chambers or Low-profile Chambers:
Effective trench lengths are shown. Add 1' for total installation length.

PRESSURE MANIFOLD DESIGN (Primary)

Site Information

Project: HMA-NC Hwy 73
Location: NC Hwy 73 Hwy
Huntersville, NC 28078
County: 0

Design Information

Estimated Daily Flow	600	gal/day
L.T.A.R. (from Co.)	0.275	gal/day/ft^2
L.T.A.R. + 5%	0.289	gal/day/ft^2
Trench Width	3	ft.
Line Length Required	727	ft.
Length after 50% Reduction	364	ft
L.T.A.R. Reduced	0.550	gal/day/ft^2
L.T.A.R. Reduced + 5%	0.577	gal/day/ft^2

DRAINFIELD INFO. - **Primary**

Proposed Type of System/Distribution: ***Pump to Pressure Manifold using PPBPS, Horizontal***

Line No.	Flag Color	Line Length (ft)	Tap	Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
1	RED	43.3	1/2in SCH 80	5.48	0.127	0.544
2	WHITE	56.3	1/2in SCH 40	7.11	0.126	0.543
3	BLUE	56.3	1/2in SCH 40	7.11	0.126	0.543
4	RED	56.3	1/2in SCH 40	7.11	0.126	0.543
5	WHITE	56.3	1/2in SCH 40	7.11	0.126	0.543
6	BLUE	56.3	1/2in SCH 40	7.11	0.126	0.543
7	RED	43.3	1/2in SCH 80	5.48	0.127	0.544
	Total	**368.10**	**Total**	**46.51**	**Avg.**	**0.54**

Note: Line lengths are calculated in 4'4" increments to reflect use of PPBPS product.

Total Run Time	12.90	min.	
Drainfield Capacity	306.0	gal	
% of Drainfield Cap	72.8%		(Max. 101.1% to not exceed 7.2 gal/panel)
Dose Volume	222.8	gal/dose	
Run Time/Dose	**4.8**	**minutes**	
Volume/depth	27.85	gal/in.	(Per tank manufacturer's specifications)
Estimated Drawdown	8.00	in.	

Manifold Box

Number of Taps	7	with	0	Split(s)
Manifold Length	5.0	ft.	(approximate)	

PRESSURE MANIFOLD SYSTEM DESIGN (Repair)

Site Information

Project: HMA-NC Hwy 73
Location: NC Hwy 73 Hwy
Huntersville, NC 28078
County: 0

Design Information

Estimated Daily Flow	600	gal/day
L.T.A.R. (from Co.)	0.3	gal/day/ft^2
L.T.A.R. + 5%	0.315	gal/day/ft^2
Trench Width	3	ft.
Line Length Required	667	ft.
Length after 25% Reduction	500	ft
L.T.A.R. Reduced	0.400	gal/day/ft^2
L.T.A.R. Reduced + 5%	0.420	gal/day/ft^2

DRAINFIELD INFO. - **Repair**

Proposed Type of System/Distribution: ***Pump to Pressure Manifold using Chambers***

Line No.	Flag Color	Line Length (ft.)		Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
10 & 11	RED & WHITE	124	3/4in SCH 80	10.10	0.081	0.408
12	BLUE	90	1/2in SCH 40	7.11	0.079	0.396
13	RED	126	3/4in SCH 80	10.10	0.080	0.402
14	WHITE	90	1/2in SCH 40	7.11	0.079	0.396
15	BLUE	70	1/2in SCH 80	5.48	0.078	0.392
	Total	**500.00**	**Total**	**39.90**	**Avg.**	**0.40**

Note: Line lengths are calculated in 4' increments to reflect use of Chambers product. 2' added for endcaps.

Total Run Time	15.04	min.	
Drainfield Capacity	326.5	gal	
% of Drainfield Cap	68.2%		(Req. Range 66-75%)
Dose Volume	222.8	gal/dose	
Run Time/Dose	**5.6**	**minutes**	Range 5-7 minutes unless uphill, checked
Volume/depth	27.85	gal/in.	(Per tank manufacturer's specifications)
Estimated Drawdown	8.00	in.	

Manifold Box

Number of Taps	4	with	0	Split(s)
Manifold Length	3.5	ft.	(approximate)	

PUMP DESIGN

System (initial/repair): **Primary**

Project: HMA-NC Hwy 73
Location: NC Hwy 73 Hwy
Huntersville, NC 28078
County: 0

Friction Losses

Suction Head	0 ft		*(submersible 0)*
Elev. Difference (highest point from pump)	17.86 ft		
Design Pressure At Outlet	2 ft		

Supply Line - 2" Schedule 40 PVC

Pipe Diameter, Nominal	2 in.		
Pipe Diameter (ID)	2.047 in.	Flow	46.51 gpm
Pipe Length	250 ft	Velocity	4.53 ft/sec
Pipe Length for Fittings	25 ft		Meets requirement that 2 ft/s < v < 5 ft/s.
Equivalent Length	275 ft		
Estimated Friction Loss in Supply Line	10.11 ft		

Pressure Filter Friction Loss	1.48 ft	*(from manufacturer)*
Friction Loss - Taps/Special Fittings	3.5 ft	
TOTAL	**34.94 ft.**	

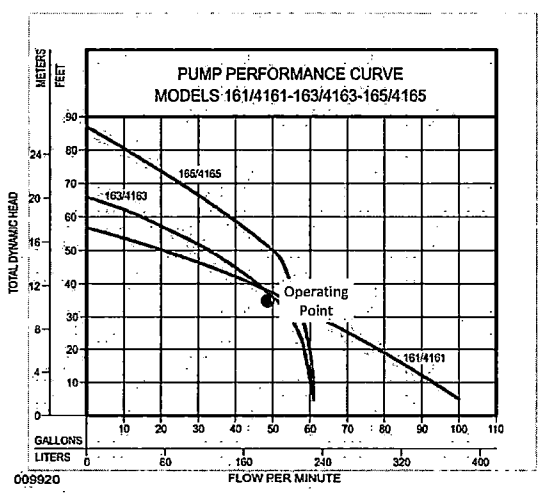
Flow for Anti-Siphon Hole

Hole Diameter	3/16 in.
Hole Flowrate	2.45 gpm

Pump Efficiency	0.7	*(assumed, typical)*
Motor Efficiency	0.9	*(assumed for electric pumps)*
Flow	**48.96 gpm**	
Required Horsepower	0.69 hp	
TDH	**34.94 ft**	

Pump Selection

Manufacturer:	Zoeller
Model:	E165
Horsepower:	1



PUMP DESIGN

System (initial/repair): **Repair**

Project: HMA-NC Hwy 73
Location: NC Hwy 73 Hwy
Huntersville, NC 28078
County: 0

Friction Losses

Suction Head	0 ft		*(submersible 0)*
Elev. Difference (highest point from pump)	15.46 ft		
Design Pressure At Outlet	2 ft		

Supply Line - 2" Schedule 40 PVC

Pipe Diameter, Nominal	2 in.		
Pipe Diameter (ID)	2.047 in.	Flow	39.9 gpm
Pipe Length	380 ft	Velocity	3.89 ft/s
Pipe Length for Fittings	38 ft		Meets requirement that 2 ft/s < v < 5 ft/s.
Equivalent Length	418 ft		
Estimated Friction Loss in Supply Line	11.57 ft		

Pressure Filter Friction Loss	0.23 ft	*(from manufacturer)*
Friction Loss - Taps/Special Fittings	3.5 ft	
TOTAL	**32.76 ft.**	

Flow for Anti-Siphon Hole

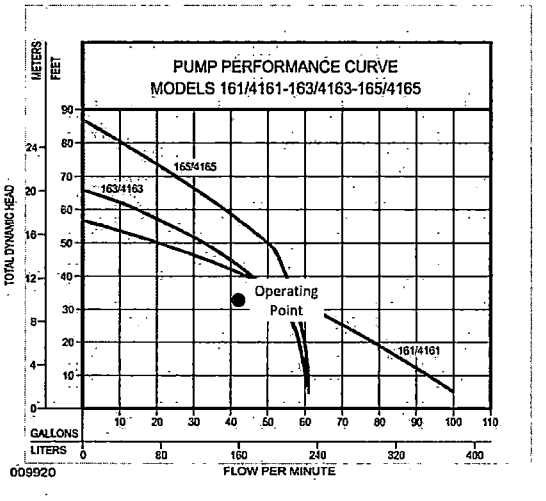
Hole Diameter	3/16 in.
Hole Flowrate	2.37 gpm

Pump Efficiency	0.7	*(assumed, typical)*
Motor Efficiency	0.9	*(assumed for electric pumps)*
Flow	**42.27 gpm**	

Required Horsepower	0.56 hp
TDH	**32.76 ft.**

Pump Selection

Manufacturer:	Zoeller
Model:	E165
Horsepower:	1



Attachment 2: Soil Boring Description Sheets

1225 Crescent Green, Suite 250
Cary, NC 27518

Engineers and Soil Scientists

919.859.0669
agriwaste.com

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

CLIENT: HMA Development, LLC c/o Hugo Hernandez
APPLICATION DATE:
ADDRESS:
EVALUATION DATE: February 23, 2026
PROPERTY ID: Single Family Residence
COUNTY: Mecklenburg
PROPOSED FACILITY: SFR
PROPOSED DESIGN FLOW (.0400): 600 GPD
PROPERTY SIZE: ~ 7.720 Acres
LOCATION OF SITE: 14600 NC-73, Huntersville NC
PROPERTY RECORDED: Yes
WATER SUPPLY: Public
WATER SUPPLY SETBACK: 10'
EVALUATION METHOD: Auger Boring
TYPE OF WASTEWATER: Domestic

PROFILE #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY .0503 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY .0503 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZ	.0509 PROFILE CLASS & LTAR*	.0502(d) SLOPE CORRECTION
SB 1, 2, 6	Linear Slope 4	0-8	w/SBK; SCL	SS; SP; FR		48"			0.275	47"
		8-30	mo/SBK; C	S; P; FI;						
		30-48	w/SBK; CL	SS; SP; FR;						
SB 3	Linear Slope 4	0-8	w/SBK; SCL	SS; SP; FR;		44"			0.275	43"
		8-26	mo/SBK; C	S; P; FI;						
		26-44	w/SBK; SCL	SS; SP; FR;		SAP	>50%	Yes		
		44-	M; SCL	SS; SP; FR;						
SB 4	Linear Slope 5	0-6	w/SBK; SCL	SS; SP; FR;		46"			0.275	44"
		6-25	mo/SBK; C	S; P; FI;						
		25-36	w/SBK; CL	SS; SP; FR;			<50%			
		36-46	w/SBK; SCL	SS; SP; FR;						
		46-	M; SCL	SS; SP; FR;		SAP	>50%	Yes		
SB 5	Linear Slope 5	0-8	w/SBK; SCL	SS; SP; FR;		45"			0.275	43"
		8-24	mo/SBK; C	S; P; FI;						
		24-45	w/SBK; SCL	SS; SP; FR;			<50%			
		45-	M; SCL	SS; SP; FR;		SAP	>50%	Yes		
SB 7	Head Slope 5	0-2	G; L	SS; SP; FR;		38"			0.3	36"
		2-25	mo/SBK; C	SS; SP; FI;						
		25-38	w/SBK; CL	SS; SP; FR;						
		38-	M; SCL	SS; SP; FR;		SAP	>50%	Yes		

SB 8 & 9	Linear Slope 6	0-16	w/SBK; SCL	SS; SP; FR;		48"			0.3	46"
		16-48	mo/SBK; C	SS; SP; FI;						

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.0508)	Suitable	Suitable
System Type(s)	Type IIIb, Pump to Horizontal PPBPS	Type IIIb, Pump to Chambers
Site LTAR	0.275 gpd/ft2	0.3 gpd/ft2
Maximum Trench Depth	31"	24"

SITE CLASSIFICATION (.0509): _____
EVALUATED BY: _____ Trevor Hackney _____
OTHER(S) PRESENT: _____ _____

Comments:

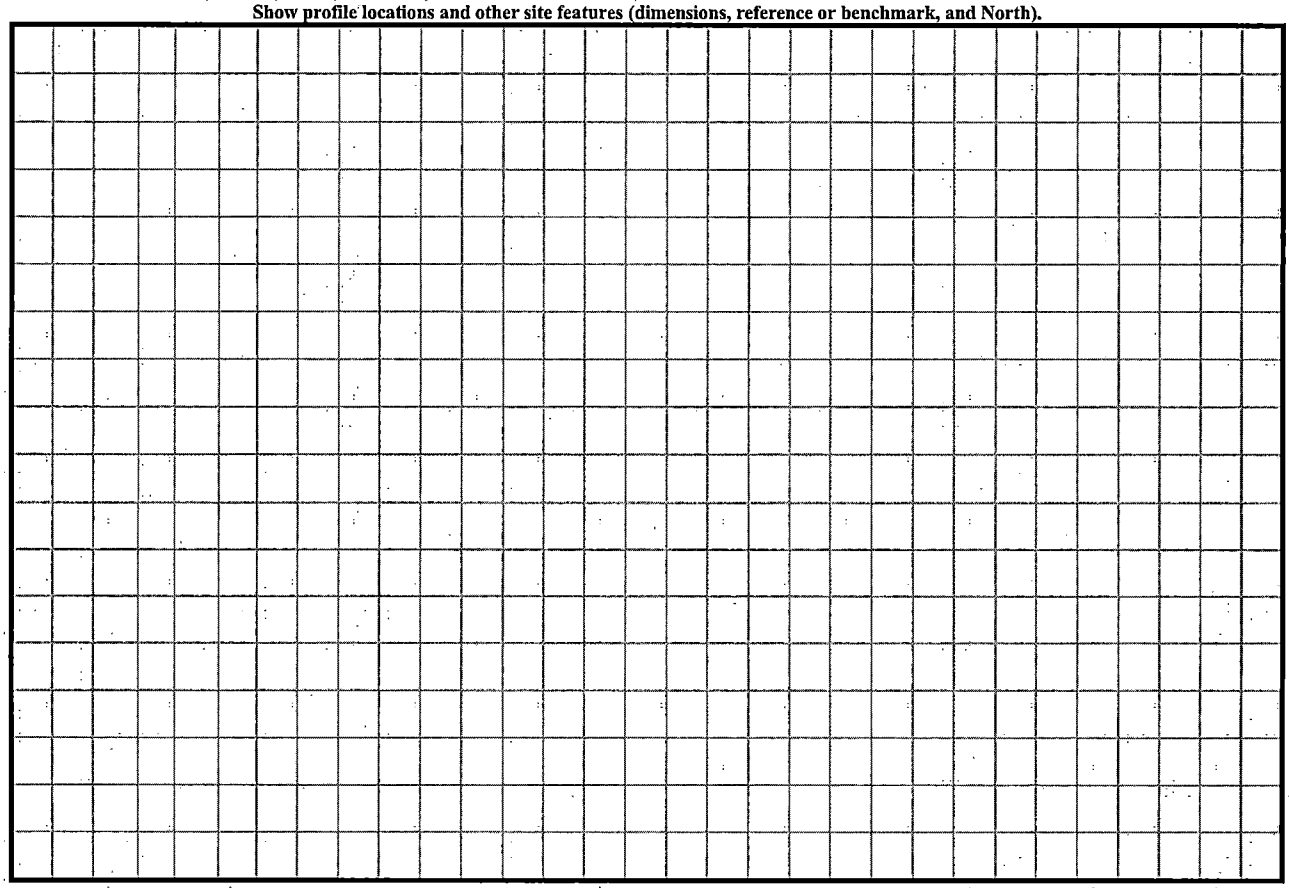
LEGEND

LANDSCAPE POSITION	SOIL GROUP	SOIL TEXTURE	CONVENTIONAL LTAR (gpd/ft²)	SAPROLITE LTAR (gpd/ft²)	LPP LTAR (gpd/ft²)	MINERALOGY/ CONSISTENCE		STRUCTURE
CC (Concave slope)	I	S (Sand)	0.8 - 1.2	0.6 - 0.8	0.4 -0.6	MOIST	WET	SG (Single grain)
CV (Convex Slope)		LS (Loamy sand)		0.5 -0.7		Lo (Loose)	NS (Non-sticky)	M (Massive)
D (Drainage way)	II	SL (Sandy loam)	0.6 - 0.8	0.4 -0.6	0.3 - 0.4	VFR (Very friable)	SS (Slightly sticky)	GR (Granular)
FP (Flood plain)		L (Loam)		0.2 - 0.4		FR (Friable)	S (Sticky)	SBK (Subangular blocky)
FS (Foot slope)	III	SiL (Silt loam)	0.3 - 0.6	0.1 - 0.3	0.15 - 0.3	FI (Firm)	VS (Very sticky)	ABK (Angular blocky)
H (Head slope)		SCL (Sandy clay loam)		0.05 - 0.15**		VFI (Very firm)	NP (Non-plastic)	PR (Prismatic)
L (Linear Slope)		CL (Clay loam)		None		EFI (Extremely firm)	SP (Slightly plastic)	PL (Platy)
N (Nose slope)		SiCL (Silty clay loam)					P (Plastic)	
R (Ridge/summit)		Si (Silt)					VP (Very plastic)	
S (Shoulder slope)	IV	SC (Sandy clay)	0.1 - 0.4		0.05 - 0.2	SEXP (Slightly expansive)		
T (Terrace)		SiC (Silty clay)				EXP (Expansive)		
TS (Toe Slope)		C (Clay)						
		O (Organic)	None					

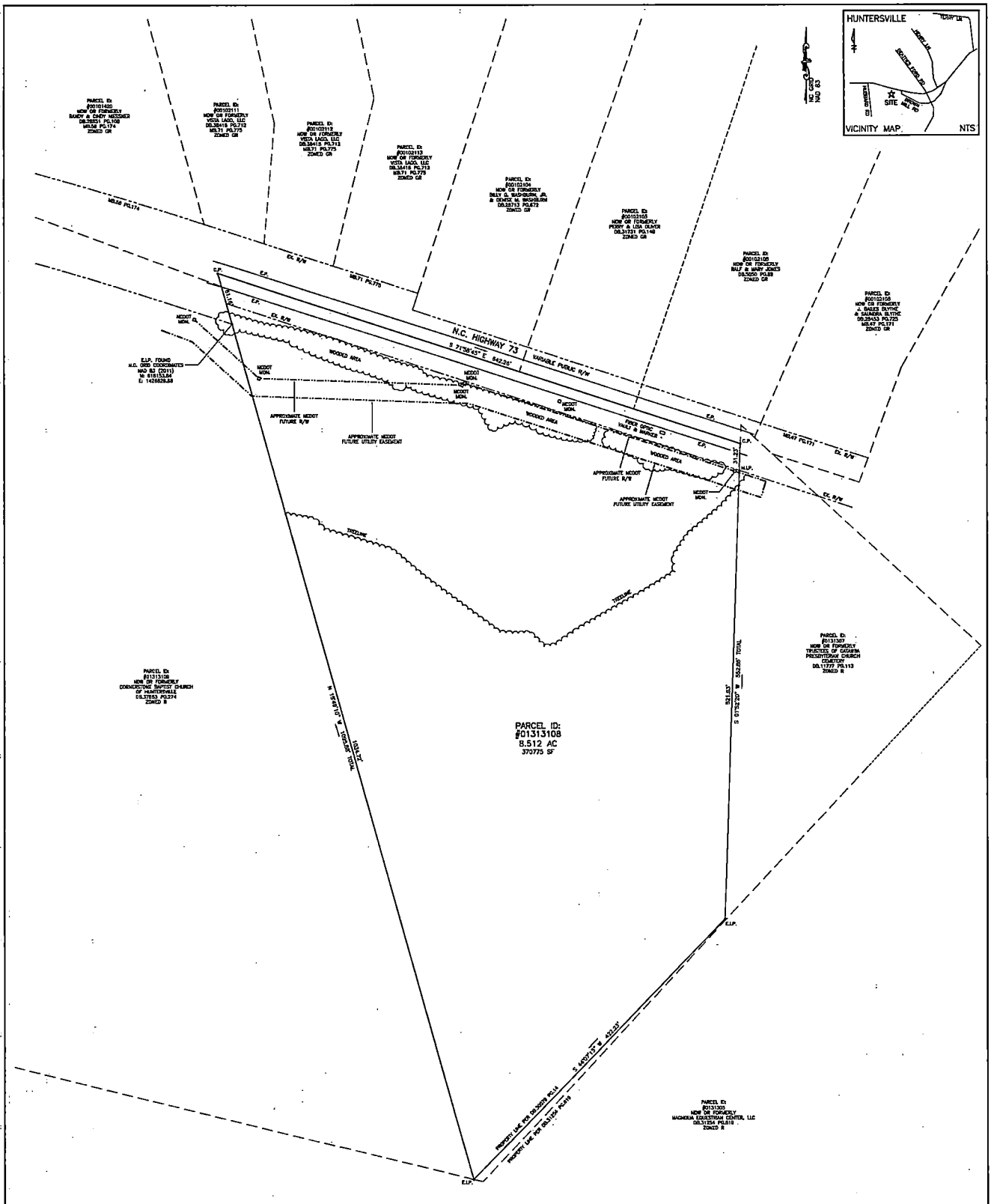
* Adjust LTAR due to depth, consistence, structure, soil wetness, landscape, position, wastewater flow and quality.
**Sandy clay loam saprolite can only be used with advanced pretreatment in accordance with 15A NCAC 18E .1200.

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); Evaluation of saprolite shall be by pits.
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) or U (Unsuitable)

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



Attachment 3: Additional Documentation



SURVEYOR'S CERTIFICATION

I, Christopher S. Sparks certify that this map was drawn by me from an actual survey made by me deed description recorded in book 30579 Page 14, etc.) (other); that the ratio of precision as calculated by latitudes and departures is 1:10,000+, that the boundries not surveyed are shown as broken lines plotted from information found in book 71 Page 775; that this map was prepared in accordance with the standards of practice for land surveying in North Carolina

Witness my hand and seal this 1st day of June, AD 2025.

Christopher Sparks
Professional Land Surveyor
L-4349

NORTH CAROLINA PROFESSIONAL SEAL L-4349 CHRISTOPHER S. SPARKS SURVEYOR

SPARKS SURVEYING PA
4495 NEEDMORE RD.
WOODLEAF, N.C. 27054
PHONE(704) 577-8429
C-4914

Notes:
1. Iron pins at all lot corners unless otherwise noted.
2. This property lies within the Jurisdiction of Huntersville
3. Property may be subject to recorded or unrecorded rights-of-way or easements not observed.
4. No USGS monument found within 2000'.
5. This property does not lie within a special flood hazard area per FEMA Flood Insurance Rate Map #3710403100H, dated 9/2/2015.
6. Property does lie within a regulated watershed. Mountain Island Lake (Protected Area)
7. Approximate MCDOT Future R/W and Utility Easements shown were taken from Preliminary Plans and Monumentation found during a field survey. They are both subject to change and should be verified with MCDOT and the Town of Huntersville. No deeds or conveyance records for additional R/W have been found.
8. All setback and zoning regulations to be confirmed with the Town of Huntersville Planning and Zoning Department.
9. Property may be subject to Post-Construction Storm Water and Watershed Ordinances from the Town of Huntersville.
10. No underground utilities or features were marked or located at the time of survey.

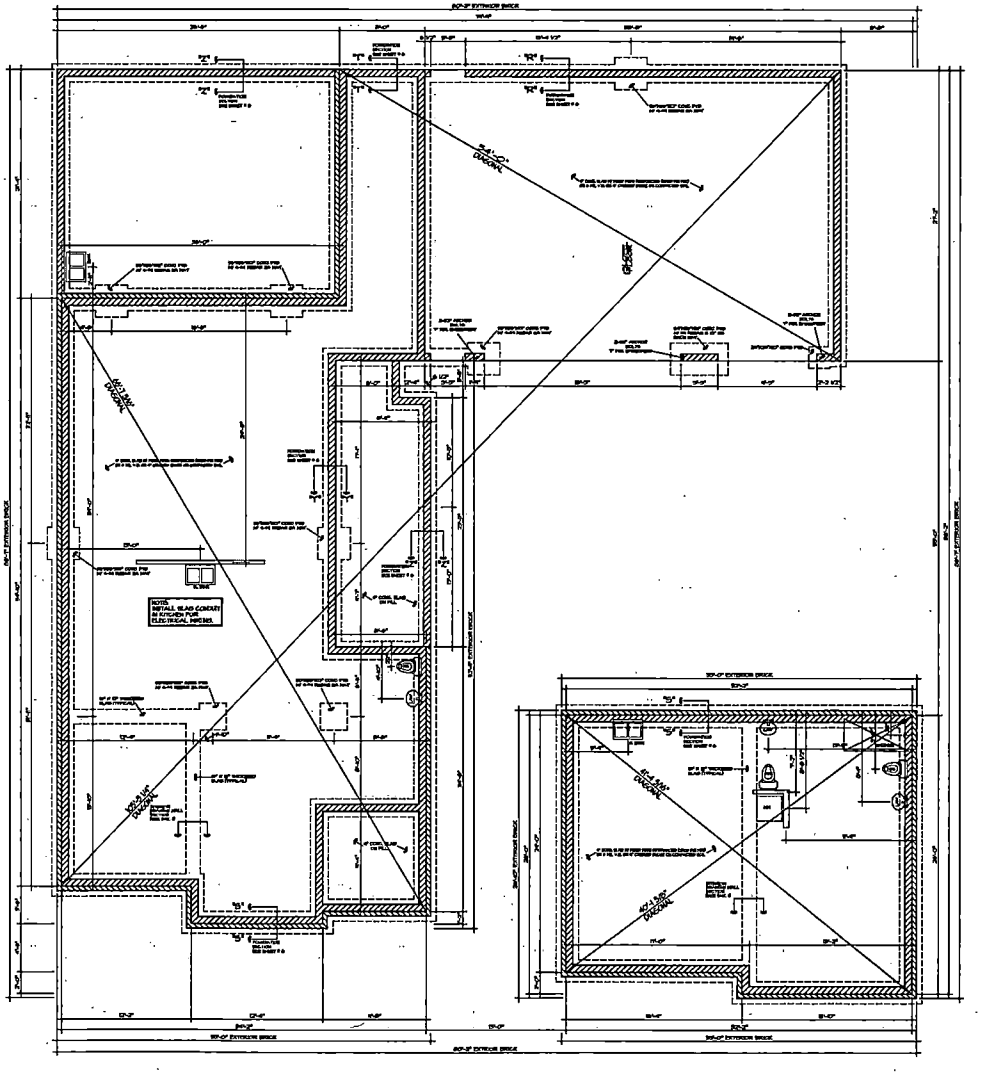
OWNER:
SANDRA BLYTHE EDENS
7463 OLD MANTON ROAD
RED SPRINGS, N.C. 28377

ZONING:
ZONED: R (RESIDENTIAL)
25' FRONT SETBACK
25' REARYARD
8' SIDEYARD

LEGEND
C.P. CALCULATED POINT
E.I.P. EXISTING IRON PIN
N.I.P. NEW IRON PIN
E.P. EDGE OF PAVEMENT
R/W RIGHT-OF-WAY
MDM. MONUMENT
SETBACKS
PROPERTY LINE
PROPERTY ADJOINERS
RIGHT-OF-WAY

0 50 100
SCALE 1" = 50'
6/1/2025

BOUNDARY SURVEY
of the
SANDRA BLYTHE EDENS PROPERTY
LOCATED ON N.C. HIGHWAY 73
HUNTERSVILLE, N.C. 28078
PARCEL ID: #01313108 DB 30579 PG 14
LEWLEY TOWNSHIP, MECKLENBURG COUNTY, HUNTERSVILLE, NC



FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

**PLAN TO BE REVIEWED BY ENGINEER

GENERAL NOTES:
1. CONTRACTOR TO VERIFY ALL DIMENSIONS. SITE VERIFICATION RESPONSIBILITY OF THE CONTRACTOR, LICENSEES AND OWNER(S). NOT RESPONSIBLE FOR SITE VERIFICATION.
2. DO NOT SCALE DRAWINGS. REFER TO PLOT PLANS, PLANS AND DETAILS FOR ALL DIMENSIONS. NOTIFY DESIGNER OF ANY DISCREPANCIES BEFORE ORDERING OR CONSTRUCTION. CONSULT DESIGNER FOR FURTHER CLARIFICATION.
3. ALL JOINT AND BEAM SPANS DETERMINED FOR THE USE OF SOUTHERN YELLOW PINE. ANY OTHER SPECIES MUST BE VERIFIED.
4. DOUBLE JOIST @ FIRST FLOOR UNDER ALL PARALLEL PARTITIONS.
5. PROVIDE SHEETROCK LIGHT AND BRICK INDUSTRIAL @ DEMIL SPACE.
6. PROVIDE SOLID BLOCKING @ BEARING WALLS @ DEMIL SPACE.
7. CRAWLSPACE CLEARANCE TO BE 18" MIN. FROM BOTTOM OF JOIST TO TOP OF GRADE OR CONCRETE SLAB.
8. GARAGE SLAB TO HAVE SLOPE and MINIMUM STRENGTH AT 28 DAYS.
9. FIRST FLOOR JOIST SPANS DETERMINED BY STAIRS LOADS OF 40 psf. LIVE, 10 psf DEAD LOAD.
10. ALL EXTERIOR & BATHROOM WALLS AT CORD. SLAB AROUND PERIMETER OF BUILDING SHALL BE 2x6 @ 16" O.C. U.N.O.
11. DO NOT USE TRIANGULAR PLATE CORNERS. BOLTS SHALL EXTEND A MIN. OF 3" INTO MASONRY OR 7" INTO CONCRETE. EQUIVALENT

DHM
DESIGNS LLC
4220 HORSESHOE BEND DR
CHARLOTTE, NC 28269
C: 704-206-5585
EMAIL: dhmdesigns@me.com
DESIGNER: DANIEL H. MEDINA

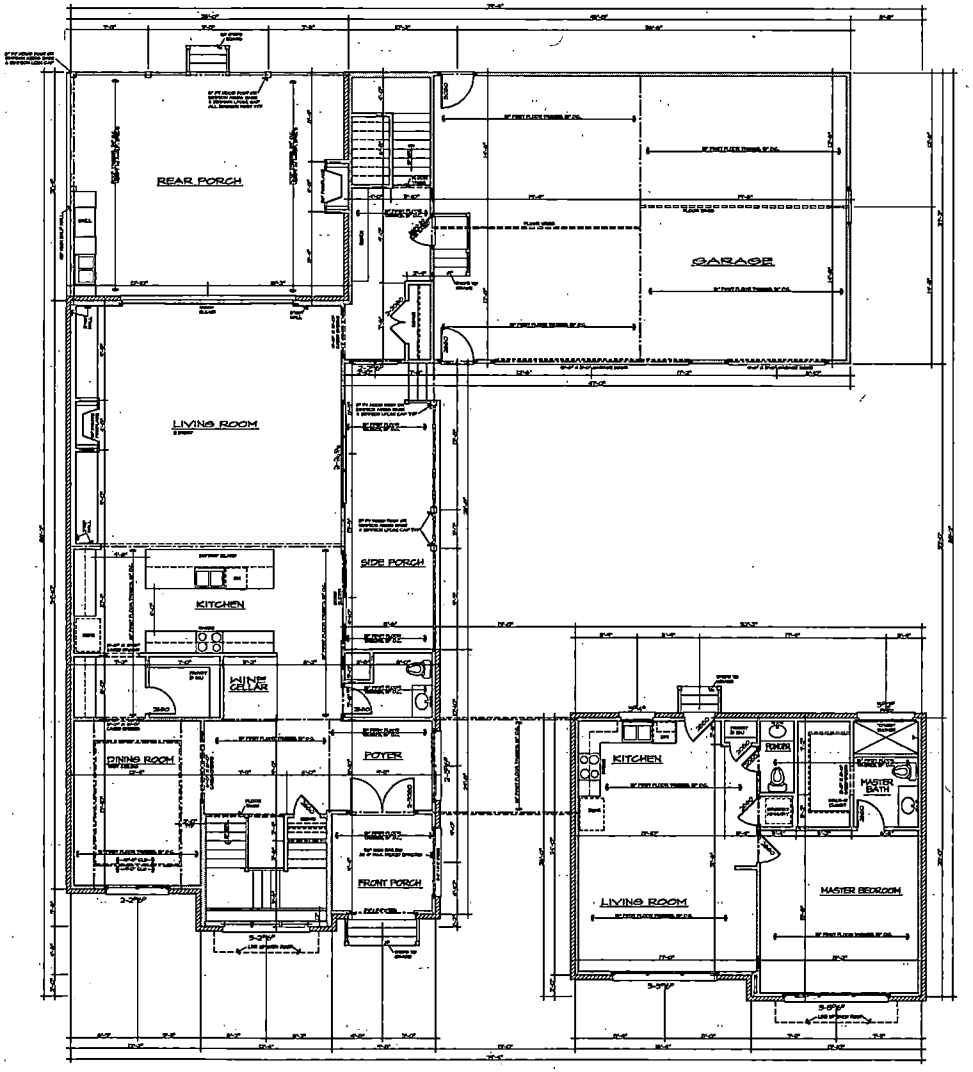
This drawing and the ideas incorporated herein, as an instrument of service is and shall remain the property of the designer. The reproduction, publication or use in any way, in whole or in part, without written permission is prohibited.

NEW RESIDENTIAL HOME
HUGO & ALICIA HERNANDEZ
PARCEL ID: 0533128, HUNTERSVILLE, NC 28078

PROJ. NO. -
ISSUED - 03/26
REVISIONS -

FOUNDATION PLAN

A1.0



FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"

**PLAN TO BE REVIEWED BY ENGINEER

BEARING WALLS SYMBOL =

WALL HEIGHT (H)	STUD SIZE / SPACING
H = 10'-0"	2"x 6" @ 16" O.C.
10'-0" < H ≤ 12'-0"	2"x 6" @ 16" O.C.
12'-0" < H ≤ 14'-0"	2"x 6" @ 16" O.C.
H > 14'-0"	OVERALL ENGINEER

* 2 STORY MAXIMUM HEIGHT FROM TOP OF FOUNDATION TO TOP OF ROOF FRAMING

HEADER NOTES - FIRST FLOOR

1. ALL EXTERIOR HEADERS OR FIRST FLOOR SHALL BE 2x10" @ 1'-0" W/ 2 SUPERIOR YELLOW PINE OR BETTER UNLESS OTHERWISE NOTED.
2. ALL INTERIOR LOAD-BEARING HEADERS ON FIRST FLOOR SHALL BE 2x10" @ 1'-0" W/ 2 NO. 2 SOUTHERN YELLOW PINE OR BETTER UNLESS OTHERWISE NOTED.
3. ALL INTERIOR NON LOAD-BEARING HEADERS ON FIRST FLOOR SHALL BE 2x10" @ 1'-0" W/ 2 NO. 2 SOUTHERN YELLOW PINE OR BETTER UNLESS OTHERWISE NOTED.
4. ALL MASTERFULL LVL (1.9 OR PORCH SHALL BE BOLTED WITH 1/2" ANCHOR BOLTS @ 12" O.C. (2 BOLTS @ HARDWOOD).
5. LVL PROPOSED WITH MINIMUM 1.9 E 2.0 @ 2.0" psi, FB=2800 psi

GENERAL NOTES-

1. CONTRACTOR TO VERIFY ALL DIMENSIONAL SITE VERIFICATION RESPONSIBILITY OF THE CONTRACTOR, ENGINEER AND DESIGNER NOT RESPONSIBLE FOR SITE VERIFICATION.
2. DO NOT SCALE DRAWINGS FROM PLANS, PLANS AND DETAILS SHALL TAKE PRECEDENCE OVER SCALED DRAWINGS. ENGINEER OR CONSULTANTS FOR WRITTEN CLARIFICATION.
3. BUILDER MAY SUBSTITUTE MATERIALS OR PRODUCTS SPECIFIED FOR THOSE OF EQUAL QUALITY AND MAKE POWER PLAN CHANGES THAT DO NOT DECREASE VALUE OR STRUCTURAL SOUNDNESS OR INDIVIDUALLY ALTER APPEARANCE. LOCATIONS OF HOUSE AND IMPROVEMENTS ON LOT MAY BE ADJUSTED BY BUILDER TO ACCOMMODATE FIELD CONDITIONS.
4. ALL JOIST AND BEAMS TO BE CENTERED AND TOP CRAFTED OR SOUTHERN YELLOW PINE ANY OTHER SPECIES MUST BE VERIFIED.
5. DOUBLE JOIST @ WOOD FLOOR UNDER ALL PARALLEL PARTITIONS.
   FLOOR TO CEILING HEIGHT FIRST FLOOR = 9'-0"
   FLOOR TO CEILING HEIGHT SECOND FLOOR = 9'-0"
   FLOOR TO HIDDEN HEAD HEIGHT FIRST FLOOR = 8'-0" U.O.S.
   FLOOR TO HIDDEN HEAD HEIGHT SECOND FLOOR = 8'-0" U.O.S.
6. SECOND FLOOR JOIST SPANS DETERMINED BY DESIGN LOADS OF 40 psf. LIVE 10 psf. DEAD LOAD.
7. BRACING FOR FLOOR JOISTS SHALL BE INSTALLED PERPENDICULAR TO JOISTS AT INTERVALS OF 10'-0" OR LESS.
8. DIAGONAL BRACING OR SOLID BLOCKING IS ACCEPTABLE.
9. ALL EXTERIOR WALLS SHALL BE SHEATHED AND BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
10. NO CONCENTRATED POINT LOADS CAN BE APPLIED TO THESE SYSTEMS UNLESS SPECIFICALLY NOTED.
11. ALL EXTERIOR WALLS TO BE 2"x 6" UNLESS OTHERWISE NOTED
12. ALL NON LOAD BEARING WALLS TO BE 2"x 4" UNLESS OTHERWISE NOTED

AREA

1ST. FLOOR HEATED	1731
2ND. FLOOR HEATED	5501
IN-LAW SUITE	204
TOTAL HEATED	5841
GARAGE & STORAGE	1080
FRONT PORCH	40
SIDE PORCH	225
REAR PORCH	535
COVERED CATWALK	117
TOTAL UNDER ROOF	7948

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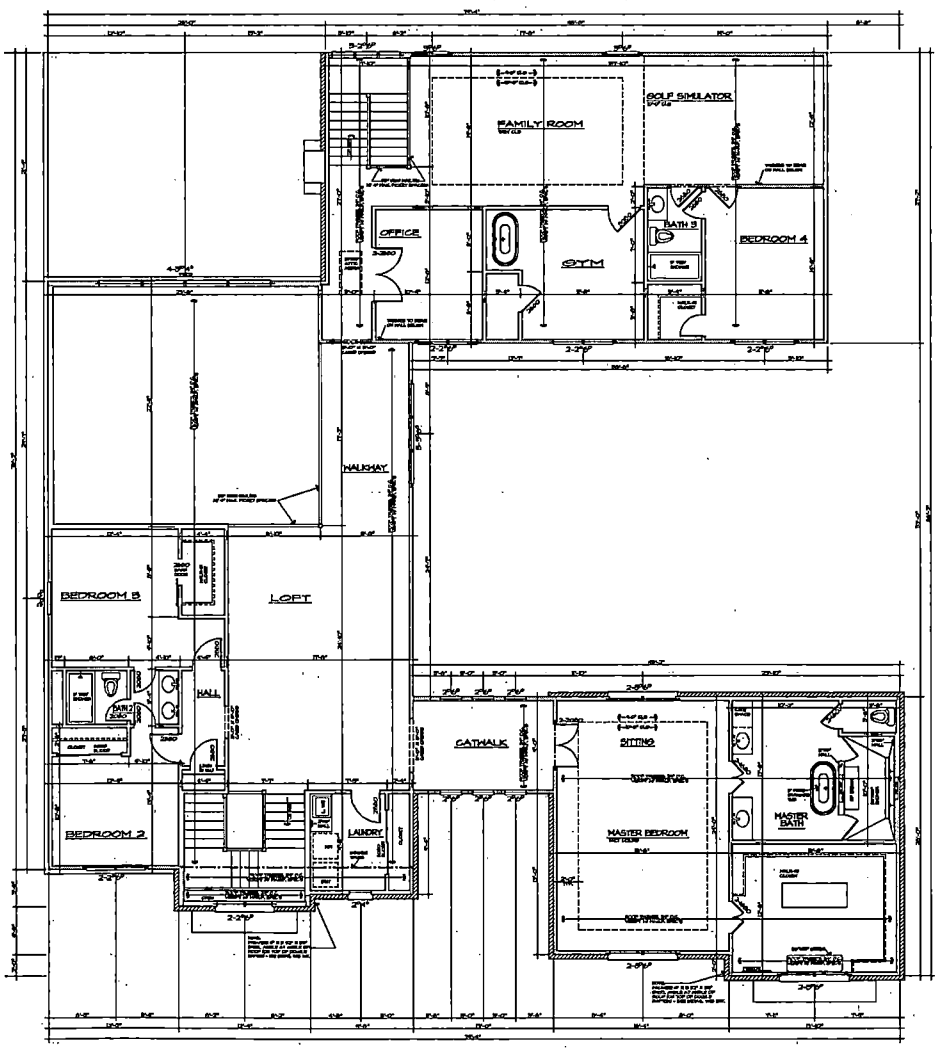
E-MAIL: dhmdesigns@yahoo.com
DESIGNER: DANIEL HERNANDEZ

NEW RESIDENTIAL HOME
HUGO & ALICIA HERNANDEZ
PARCEL ID: 0008105, HUNTERSVILLE, NC 28078

FIRST FLOOR PLAN

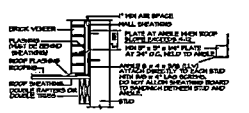
2

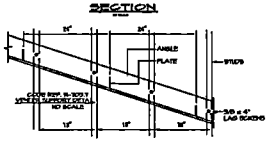
SHEET



SECOND FLOOR PLAN
SCALE: 1/4" = 1'-0"

**PLAN TO BE REVIEWED BY ENGINEER





DETAIL OF ANGLE TO CARRY BRICK OVER GABLE

BEARING WALLS SYMBOL =

HEADER NOTES - SECOND FLOOR:

1. ALL EXTERIOR LOAD-BEARING HEADERS SHALL BE 2-2"X 8 1/2" NO. 2 SOUTHERN YELLOW PINE OR BETTER UNLESS OTHERWISE NOTED.
2. ALL EXTERIOR NON LOAD-BEARING HEADERS SHALL BE 2-2"X 6" NO. 2 SOUTHERN YELLOW PINE OR BETTER UNLESS OTHERWISE NOTED.
3. ALL INTERIOR LOAD-BEARING HEADERS SHALL BE 2-2"X 6" NO. 2 SOUTHERN YELLOW PINE OR BETTER UNLESS OTHERWISE NOTED.
4. ALL PRELIM LVL'S OR HORD SHALL BE BOLTED WITH 1/2" ANCHOR BOLT @ 2'-0" O.C. 2 ROWS STAGGERED.
5. LVL PROVIDED WITH MINIMUM: C=2.0 E 1.7 psi, Fb=2900 psi

GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS, SITE VERIFICATION SHALL BE MADE BY THE CONTRACTOR, OWNER AND OWNER NOT RESPONSIBLE FOR SITE VERIFICATION.
2. DO NOT SCALE DRAWINGS FROM PRINTS. PLANS AND DETAILS ARE NOT ALWAYS DRAWN TO SCALE. USE DIMENSIONS GIVEN OR CONSULT OWNER FOR FURTHER CLARIFICATION.
3. BUILDER MAY SUBSTITUTE VIA DETAILS OR PRODUCTS SPECIFIED FOR SIMILAR PRODUCTS OF EQUAL OR BETTER QUALITY. BUILDER SHALL NOT BE RELIEVED OF FINAL RESPONSIBILITY FOR STRUCTURAL SOUND CONSTRUCTION AFTER ANY CHANGE. LOCATION OF HOSE AND FAUCET BIBBS OR LOCATION OF ELECTRICAL OUTLETS MAY BE ALTERED DUE TO ARCHITECTURAL AND OTHER CONSIDERATIONS.
4. ALL JOIST AND BEAM SPANS DETERMINED FOR THE USE OF #2 SOUTHERN YELLOW PINE. ANY OTHER SPECIES MUST BE VERIFIED.
5. FLOOR JOIST IN SECOND FLOOR UNDER ALL PARALLEL PARTITIONS.
6. ROOF JOIST SPACING AT 16" O.C. UNLESS NOTED.
7. FLOOR TO CEILING HEIGHT SECOND FLOOR = 9'-0"
   FLOOR TO HINSON HEAD HEIGHT FIRST FLOOR = 9'-0" EQUAL
   FLOOR TO HINSON HEAD HEIGHT SECOND FLOOR = 8'-0" EQUAL
8. CEILING JOIST SPANS (AS DESIGNED BY DESIGN LOADS OF 20 psf LIVE, 10 psf DEAD LOAD.
   20 psf LIVE, 10 psf DEAD LOAD.
9. RAFTER SPANS (AS DESIGNED BY DESIGN DESIGN LOADS OF 30 psf LIVE, 10 psf DEAD LOAD.
10. BRIDGING FOR FLOOR JOISTS SHALLBE INSTALLED PERPENDICULAR TO JOISTS AT INTERVALS OF 10 FT. OR LESS.
11. DIAGONAL BRIDGING OR SOLID BLOCKING IS ACCEPTABLE.
12. DAMAGED FLOOR SYSTEMS SHOULD BE REMOVED AND INSTALLED BY CONTRACTOR TO THESE DRAWINGS OR SPECIFICATIONS.
13. FOOTINGS DESIGNED FOR 1500 PSF LOADS CAN BE APPLIED TO THESE SYSTEMS UNLESS SPECIFICALLY NOTED.
14. ALL EXTERIOR WALLS TO BE 2" X 4" UNLESS OTHERWISE NOTED

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DESIGNER: DANIEL HERNANDEZ

These drawings and the designs incorporated herein, as an instrument of service, are and shall remain the property of DHM DESIGNS LLC. The use of these plans for any project other than the one for which they were prepared is prohibited. Visual contact with these plans shall constitute prima facie evidence of acceptance of these restrictions.

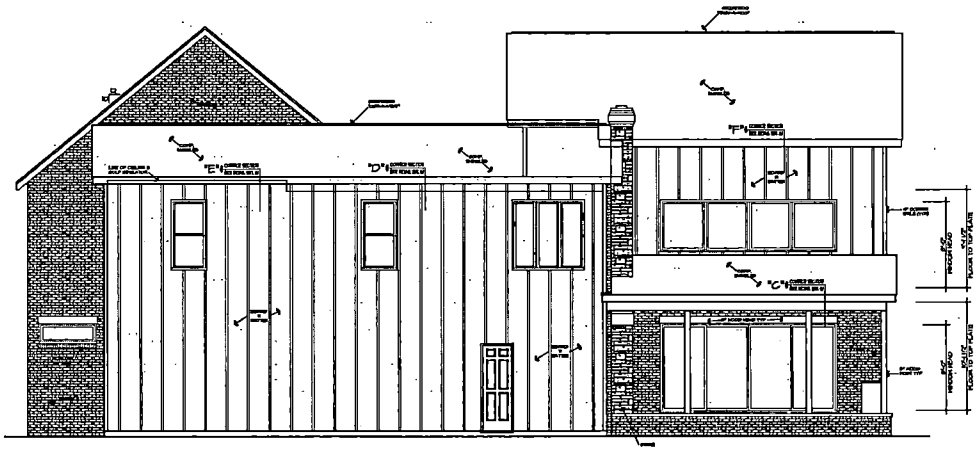
NEW RESIDENTIAL HOME
HUGO & ALICIA HERNANDEZ
PARCEL ID: 4705908, HUNTERSVILLE, NC 28078

SCALE: 3/8" = 1'-0"
DRAWING: - 05/25
REVISIONS: -

SECOND FLOOR PLAN

3

OF 8



REAR ELEVATION
SCALE: 1/4" = 1'-0"



FRONT ELEVATION
SCALE: 1/4" = 1'-0"

1. CONTRACTOR TO VERIFY ALL DIMENSIONS, SITE VERIFICATION RESPONSIBILITY OF THE CONTRACTOR, DESIGNER AND ENGINEER NOT RESPONSIBLE FOR SITE VERIFICATION.
2. DO NOT SCALE DIMENSIONS FROM PRINTS, PLANS AND DETAILS ARE NOT ALWAYS DRAWN TO SCALE. USE DIMENSIONS GIVEN ON CONSULT DESIGNER FOR FURTHER CLARIFICATION.
3. GRADE ELEVATIONS MAY VARY DUE TO TYPE OF FOUNDATION AND OTHER ON SITE CONSIDERATIONS.
4. CONSTRUCT SIZE AND LOCATION TO BE DETERMINED ON SITE BY BUTTER CONTRACTOR.
5. ALL PLANNING SHALL BE NOT CONCURRENT

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NEW RESIDENTIAL HOME
HUGO & ALICIA HERNANDEZ
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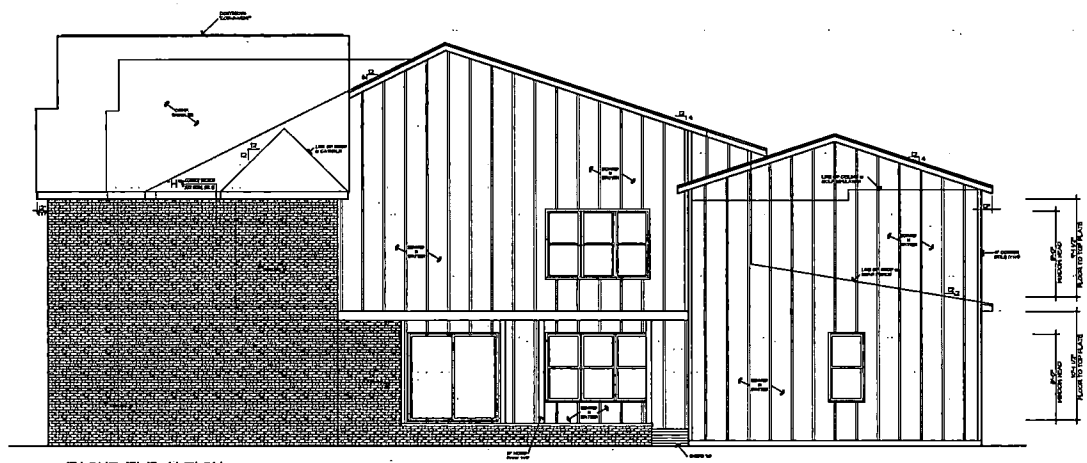
PROJECT NO. -
REVISION - 05/25
REVISIONS -

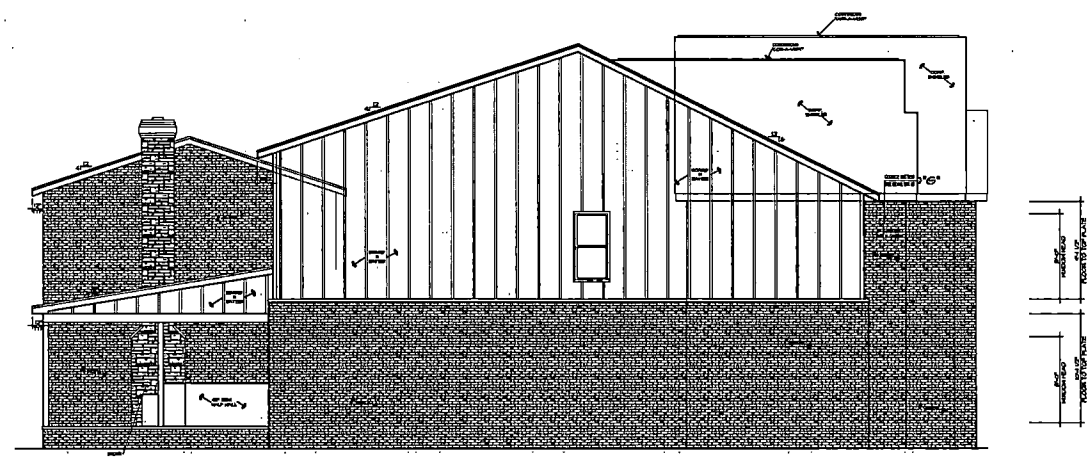
FRONT & REAR ELEVATIONS

4

GP 5



RIGHT ELEVATION
SCALE: 1/4" = 1'-0"



LEFT ELEVATION
SCALE: 1/4" = 1'-0"

1. CONTRACTOR TO VERIFY ALL DIMENSIONS, SITE VERIFICATION RESPONSIBILITY OF THE CONTRACTOR, DESIGNER AND ENGINEER NOT RESPONSIBLE FOR SITE VERIFICATION.
2. DO NOT SCALE DIMENSIONS FROM PRINTS, PLANS AND DETAILS ARE NOT ALWAYS DRAWN TO SCALE, USE DIMENSIONS GIVEN OR CONSULT DESIGNER FOR FURTHER CLARIFICATION.
3. GRADE ELEVATIONS MAY VARY DUE TO TYPE OF FOUNDATION AND OTHER ON SITE CONSIDERATIONS.
4. DOWNSPOUT SIZE AND LOCATION TO BE DETERMINED ON SITE BY GUTTER CONTRACTOR.
5. ALL PLANNING SHALL BE NOW CORRECTIVE

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NEW RESIDENTIAL HOME
HUGO & ALICIA HERNANDEZ
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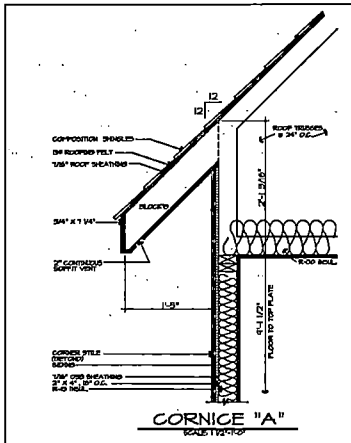
PROJ. NO. -
ISSUED - 03/25
REVISIONS -
RIGHT & LEFT ELEVATIONS

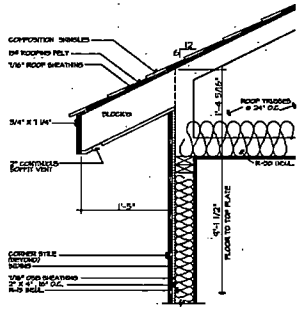
5

OF 8



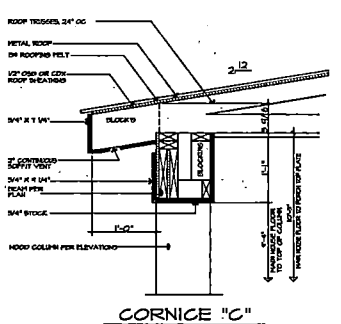
CORNICE "A"

SCALE: 1 1/2"=1'-0"



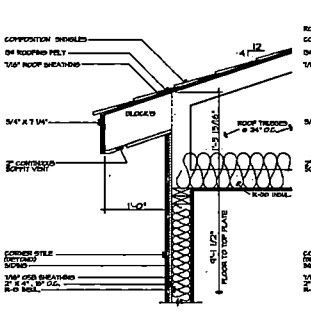
CORNICE "B"

SCALE: 1 1/2"=1'-0"



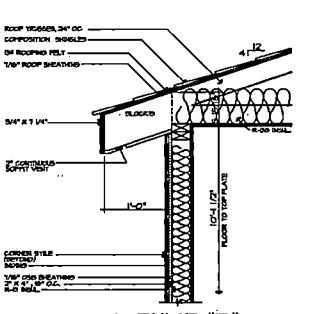
CORNICE "C"

SCALE: 1 1/2"=1'-0"



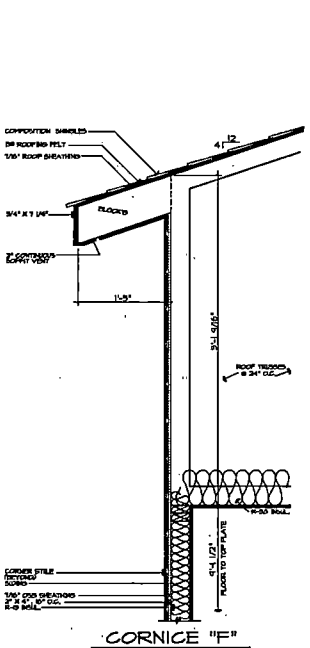
CORNICE "D"

SCALE: 1 1/2"=1'-0"



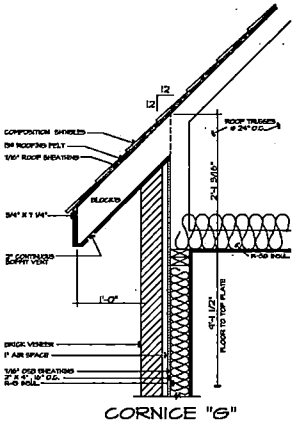
CORNICE "D"

SCALE: 1 1/2"=1'-0"



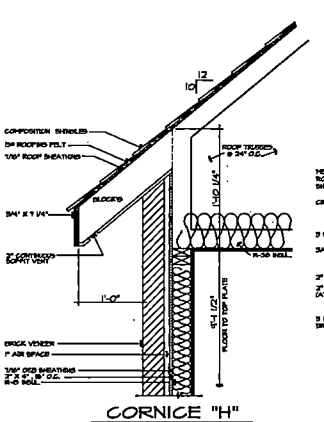
CORNICE "F"

SCALE: 1 1/2"=1'-0"



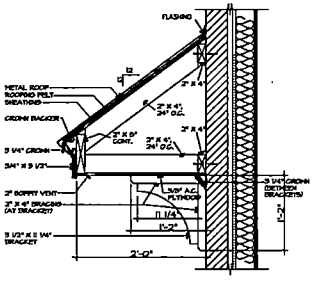
CORNICE "G"

SCALE: 1 1/2"=1'-0"



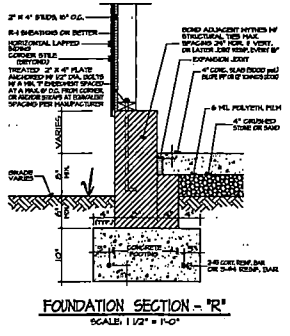
CORNICE "H"

SCALE: 1 1/2"=1'-0"



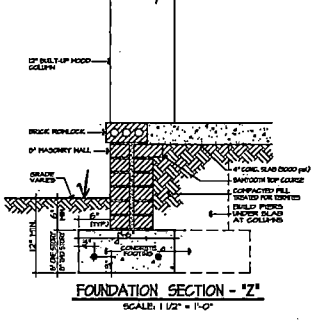
SHED ROOF DETAIL

SCALE: 1 1/2"=1'-0"



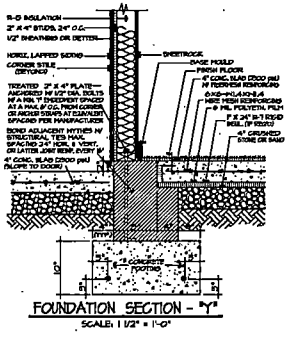
FOUNDATION SECTION - "R"

SCALE: 1 1/2" = 1'-0"



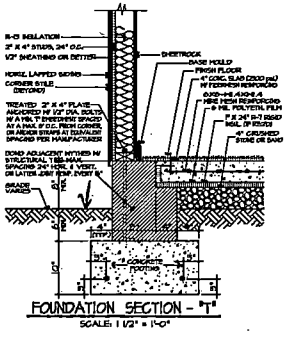
FOUNDATION SECTION - "Z"

SCALE: 1 1/2" = 1'-0"



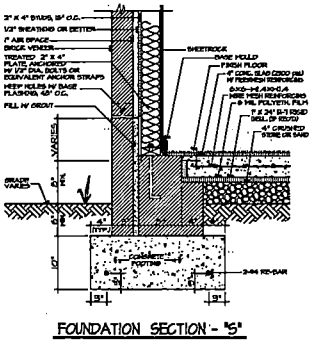
FOUNDATION SECTION - "Y"

SCALE: 1 1/2" = 1'-0"



FOUNDATION SECTION - "T"

SCALE: 1 1/2" = 1'-0"



FOUNDATION SECTION - "S"

SCALE: 1 1/2" = 1'-0"

**PLAN TO BE REVIEWED BY ENGINEER

GENERAL NOTES:
1. CONTRACTOR TO VERIFY ALL DIMENSIONS, SITE VERIFICATION NOT RESPONSIBLE FOR ANY CONSTRUCTION DONE PRIOR TO SITE VERIFICATION.
2. DO NOT SCALE DRAWINGS, PRIOR PERMITS, PLANS AND DETAILS ARE NOT ALWAYS DRAWN TO SCALE. USE DIMENSIONS GIVEN OR CONSULT DESIGNER FOR FURTHER CLARIFICATION.

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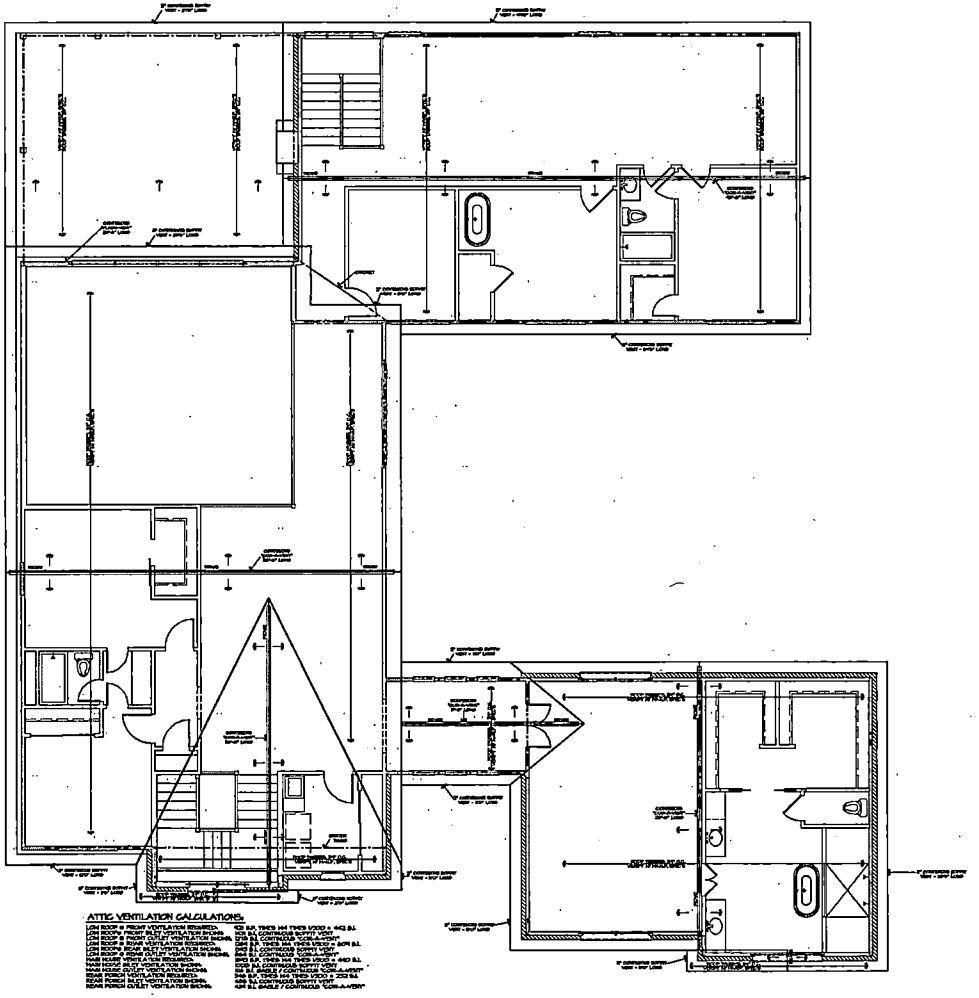
NEW RESIDENTIAL HOME
HUGO & ALICIA HERNANDEZ
PARCEL ID: 0535005, HUNTERSVILLE NC 28078

PROJ. NO. -
ISSUED - 05/25
REVISIONS -

CORNICE & FOUNDATION DETAIL SHEET

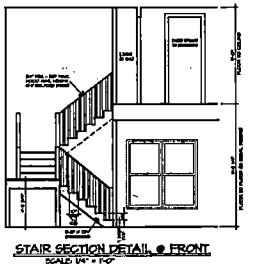
6

OF 9

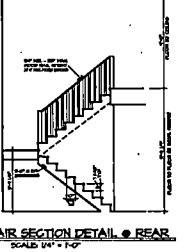


ATTIC VENTILATION CALCULATIONS

ROOF PLAN
SCALE: 1/4" = 1'-0"



STAIR SECTION DETAIL @ FRONT
SCALE: 1/4" = 1'-0"



STAIR SECTION DETAIL @ REAR
SCALE: 1/4" = 1'-0"

**PLAN TO BE REVIEWED BY ENGINEER

GENERAL NOTES:
1. CONTRACTOR TO VERIFY ALL DIMENSIONS AND VERTICAL CLEARANCES IN THE FIELD PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
2. DO NOT SCALE DRAWINGS. PROVIDE PLANS AND DETAILS AS NECESSARY TO CLARIFY ANY DIMENSIONS NOT SHOWN.
3. REFER TO ELECTRICAL PLANS FOR LOCATIONS OF ALL LIGHTING, OUTLETS, SWITCHES, AND EXHAUST FANS.
4. REFER TO MECHANICAL PLANS FOR LOCATIONS OF ALL HVAC EQUIPMENT, DUCTWORK, AND REGISTERS.
5. REFER TO PLUMBING PLANS FOR LOCATIONS OF ALL PLUMBING FIXTURES AND EQUIPMENT.
6. REFER TO STRUCTURAL PLANS FOR ALL FOUNDATION, FRAMING, AND STRUCTURAL DETAILS.
7. REFER TO ROOF PLAN FOR ROOF SLOPES, RIDGE, HIP, AND VALLEY LOCATIONS.
8. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR FINISH MATERIALS AND LOCATIONS.
9. REFER TO INTERIOR ELEVATIONS FOR INTERIOR FINISH MATERIALS AND LOCATIONS.
10. REFER TO DOOR AND WINDOW SCHEDULE FOR ALL DOOR AND WINDOW SIZES AND TYPES.
11. REFER TO FLOOR PLAN FOR ALL WALL TYPES AND LOCATIONS.
12. REFER TO FLOOR PLAN FOR ALL FLOOR FINISH MATERIALS AND LOCATIONS.
13. REFER TO CEILING PLAN FOR ALL CEILING FINISH MATERIALS AND LOCATIONS.
14. REFER TO CEILING PLAN FOR ALL CEILING HEIGHTS AND LOCATIONS.
15. REFER TO CEILING PLAN FOR ALL LIGHTING AND EXHAUST FAN LOCATIONS.
16. REFER TO CEILING PLAN FOR ALL HVAC REGISTER LOCATIONS.
17. REFER TO CEILING PLAN FOR ALL SPRINKLER HEAD LOCATIONS.
18. REFER TO CEILING PLAN FOR ALL SMOKE DETECTOR LOCATIONS.
19. REFER TO CEILING PLAN FOR ALL CARBON MONOXIDE DETECTOR LOCATIONS.
20. REFER TO CEILING PLAN FOR ALL ATTIC ACCESS LOCATIONS.
21. REFER TO CEILING PLAN FOR ALL ATTIC VENTILATION LOCATIONS.
22. REFER TO CEILING PLAN FOR ALL ATTIC INSULATION LOCATIONS.
23. REFER TO CEILING PLAN FOR ALL ATTIC FLOORING LOCATIONS.
24. REFER TO CEILING PLAN FOR ALL ATTIC LADDER LOCATIONS.
25. REFER TO CEILING PLAN FOR ALL ATTIC LIGHTING LOCATIONS.
26. REFER TO CEILING PLAN FOR ALL ATTIC OUTLET LOCATIONS.
27. REFER TO CEILING PLAN FOR ALL ATTIC SWITCH LOCATIONS.
28. REFER TO CEILING PLAN FOR ALL ATTIC EXHAUST FAN LOCATIONS.
29. REFER TO CEILING PLAN FOR ALL ATTIC HVAC REGISTER LOCATIONS.
30. REFER TO CEILING PLAN FOR ALL ATTIC SPRINKLER HEAD LOCATIONS.
31. REFER TO CEILING PLAN FOR ALL ATTIC SMOKE DETECTOR LOCATIONS.
32. REFER TO CEILING PLAN FOR ALL ATTIC CARBON MONOXIDE DETECTOR LOCATIONS.
33. REFER TO CEILING PLAN FOR ALL ATTIC ACCESS LOCATIONS.
34. REFER TO CEILING PLAN FOR ALL ATTIC VENTILATION LOCATIONS.
35. REFER TO CEILING PLAN FOR ALL ATTIC INSULATION LOCATIONS.
36. REFER TO CEILING PLAN FOR ALL ATTIC FLOORING LOCATIONS.
37. REFER TO CEILING PLAN FOR ALL ATTIC LADDER LOCATIONS.
38. REFER TO CEILING PLAN FOR ALL ATTIC LIGHTING LOCATIONS.
39. REFER TO CEILING PLAN FOR ALL ATTIC OUTLET LOCATIONS.
40. REFER TO CEILING PLAN FOR ALL ATTIC SWITCH LOCATIONS.
41. REFER TO CEILING PLAN FOR ALL ATTIC EXHAUST FAN LOCATIONS.
42. REFER TO CEILING PLAN FOR ALL ATTIC HVAC REGISTER LOCATIONS.
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44. REFER TO CEILING PLAN FOR ALL ATTIC SMOKE DETECTOR LOCATIONS.
45. REFER TO CEILING PLAN FOR ALL ATTIC CARBON MONOXIDE DETECTOR LOCATIONS.
46. REFER TO CEILING PLAN FOR ALL ATTIC ACCESS LOCATIONS.
47. REFER TO CEILING PLAN FOR ALL ATTIC VENTILATION LOCATIONS.
48. REFER TO CEILING PLAN FOR ALL ATTIC INSULATION LOCATIONS.
49. REFER TO CEILING PLAN FOR ALL ATTIC FLOORING LOCATIONS.
50. REFER TO CEILING PLAN FOR ALL ATTIC LADDER LOCATIONS.

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E-MAIL: DHMDESIGNS@YAHOO.COM
DESIGNER: DANIEL H HERNANDEZ

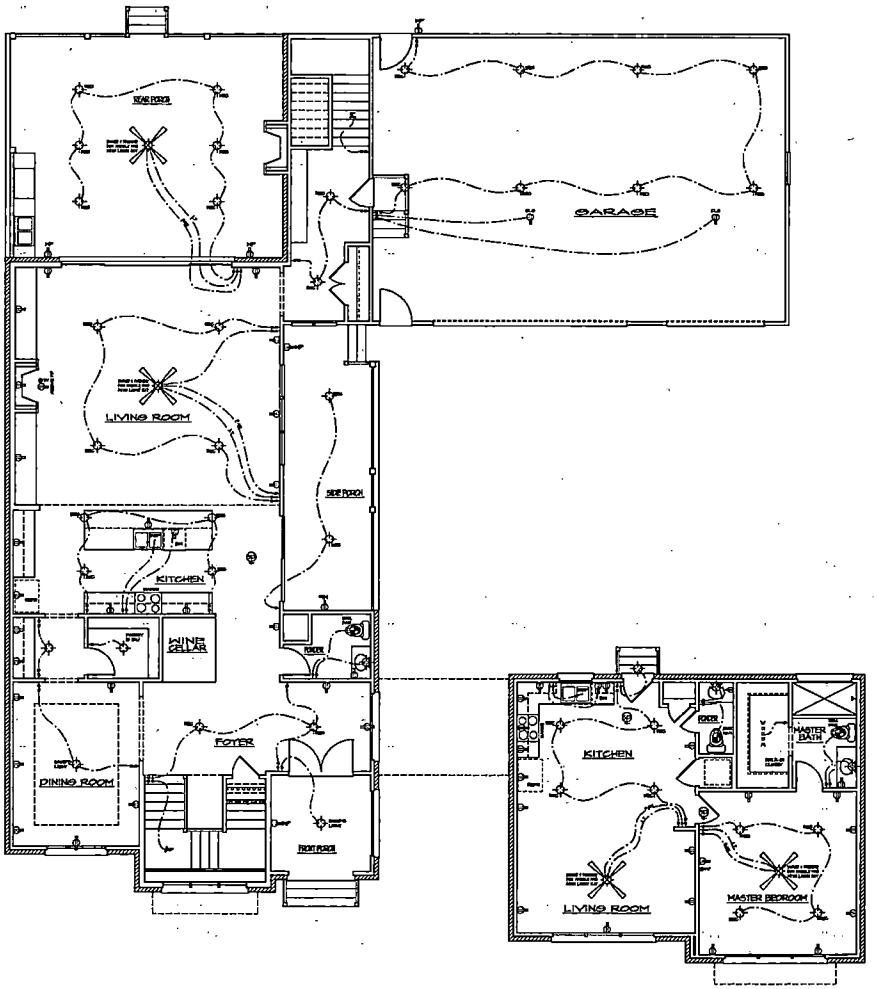
NEW RESIDENTIAL HOME
HUGO & ALICIA HERNANDEZ
PARCEL ID: (DESIGN) HARTSVILLE NC 29579

PHASE NO: -
SUBMITTED - 05/25
REVISIONS: -

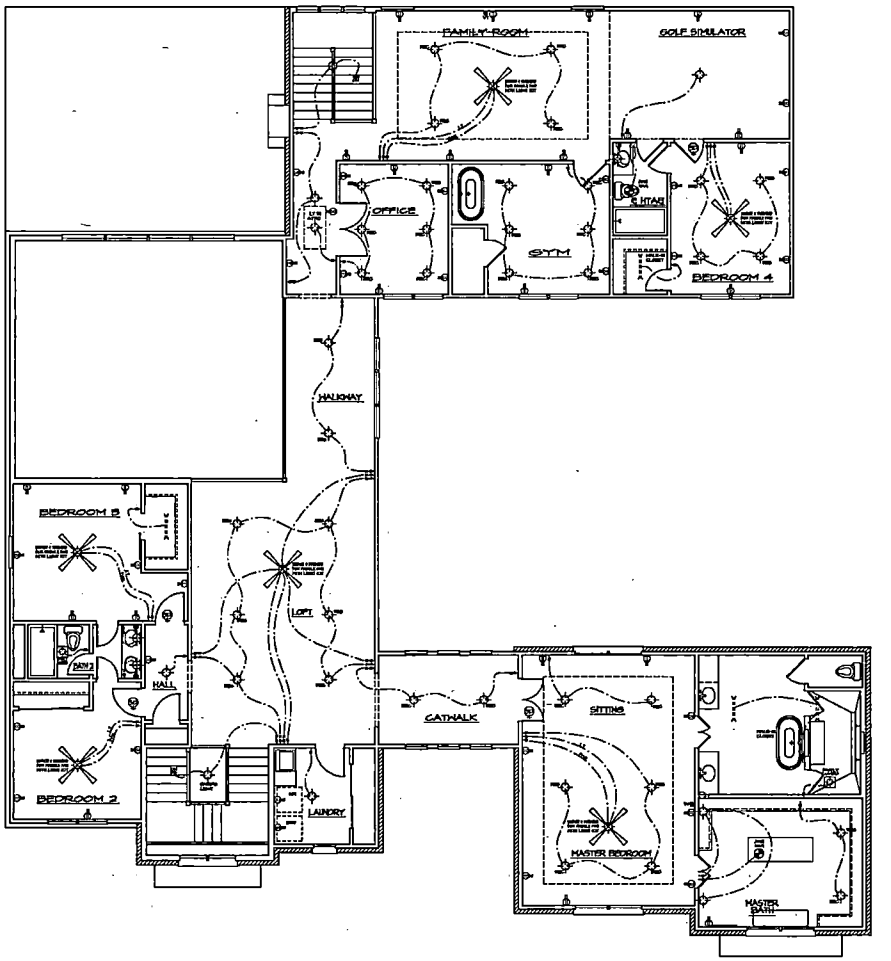
ROOF PLAN & STAIR SECTION

7

OF 8



FIRST FLOOR ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"



SECOND FLOOR ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"

GENERAL NOTES:
1. CONTRACTOR TO VERIFY ALL DIMENSIONS AND VERIFICATION OF DIMENSIONS BY THE DRAWING SHALL BE MADE AND DIMENSIONS FOR CONSTRUCTION OF THE DRAWING SHALL BE MADE AND DIMENSIONS FOR CONSTRUCTION.
2. DO NOT SCALE DIMENSIONS FROM PRINTS, PLANS AND DETAILS. ANY NOT ALWAYS DRAWN TO SCALE. ANY DIMENSIONS GIVEN ON CONSULT DESIGNER FOR FURTHER CLARIFICATION.

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DESIGNER: DANIEL H. HERNAN

NEW RESIDENTIAL HOME
HUGO & ALICIA HERNANDEZ
PARCEL ID: 0053008, HUNTERSVILLE, NC 28078

PROJ. NO. -
DRAWN BY - 03/25
REVISIONS -
FIRST FLOOR & SECOND FLOOR ELECTRICAL PLAN

8

OF 8

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date: 03/18/26
Receipt #: 160622
Check / Auth #: VISA 8813
Received By: ALVARJS

Amount: 200.00
Tendered: 200.00
Returned: 0.00

Account Information

Account #: 200000
Contractor: AWT AGRI WASTE
Attn: 14600 NC-73
Address:
Address:
City/State/Zip: ,

Item	Description	Quantity	Unit Price	Total Price
0703	Septic Operational Permit 14600 NC-73	1	200.00	200.00

Permit#

----------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: 03/18/26
Receipt #: 160621
Check / Auth #: VISA 8813
Received By: ALVARJS

Amount: 180.00
Tendered: 180.00
Returned: 0.00

Account Information

Account #: 200000
Contractor: AWT AGRI WASTE
Attn: 14600 NC-73
Address:
Address:
City/State/Zip: ,

Item	Description	Quantity	Unit Price	Total Price
0789	A2 Session Law IP/CA Combo 14600 NC-73	1	180.00	180.00

Permit#

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

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

SUPERVISOR/ADMINISTRATIVE PROFESSIONAL CHECKLIST

☑ NEW SEPTIC ☐ REPAIR ☐ USE EXISTING ☐ MODIFIED PLOT PLAN ☐ ALTERATION

File Number: 11813B

Assigned Inspector: Heather Ray

☑ IP $250.00: SH 11/20/23 Initial/Date

☐ IP Commercial $450.00: _____ Initial/Date

☐ CA & OP $400.00: _____ Initial/Date

☐ Alteration Fees $300: _____ Initial/Date

☐ Modified Plot Plan Fees $100.00: _____ Initial/Date

☐ Use Existing Fees $100.00: _____ Initial/Date

☐ Use Existing Approved ☐ Use Existing Denied

☐ Send IP permit for signature: _____ ☐ Signature received: _____

☐ Floor plans reviewed

☐ Generate CA ☐ Approve as Noted in Winchester

☐ This site is served by septic and well. Verify each is complete before final hold is released

☐ This septic system requires a certified operation contract before final hold is released

☐ Certified operator contract is on file: _____

☐ Septic file complete: _____

☐ Release final hold in Winchester: _____

Comments: Was told to contact a consulant

11813B

20 NOV '23 PM 4:48

MECKLENBURG COUNTY
HEALTH DEPARTMENT

#1425

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: 01313108
STREET ADDRESS: Hwy 73
CITY: Huntersville
STATE: NC ZIP: _____
SUBDIVISION NAME: _____
LOT #: _____ LOT SIZE (acres): 8.5
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: 2700
NUMBER OF BEDROOMS: 4
NUMBER OF OCCUPANTS: 4
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: Sandra Blythe edens
ADDRESS: _____
CITY: _____
STATE: _____ ZIP: _____
WORK PHONE: _____
MOBILE PHONE: _____
FAX: _____
E-MAIL: _____

13. OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:
NAME: Amy Smith
ADDRESS: 19634 Bustle Rd
CITY: Cornelius
STATE: NC ZIP: 28031
WORK PHONE: _____
MOBILE PHONE: (704) 560 1996
FAX: _____
E-MAIL: iakasmith@yahoo.com

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST. SUITE 211 CHARLOTTE, NC 28202, OFFICE: 980-314-1680, FAX: 704-336-6894
Email: Wellreg@MecklenburgCountyNC.gov

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.

AS (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.

_____ (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.

Amy Smith
Property Owner's or Owner's Legal Representative Signature

11/20/23
Date

OFFICE USE ONLY

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

SEPTIC APPLICATION FEE RECEIVED: $ _____ DATE FEE RECEIVED: _____

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

APPLICATION PROCESSED BY: _____

GWS FILE NUMBER ASSIGNED: _____

APPLICATION ID NUMBER ASSIGNED: _____

COMMENTS:

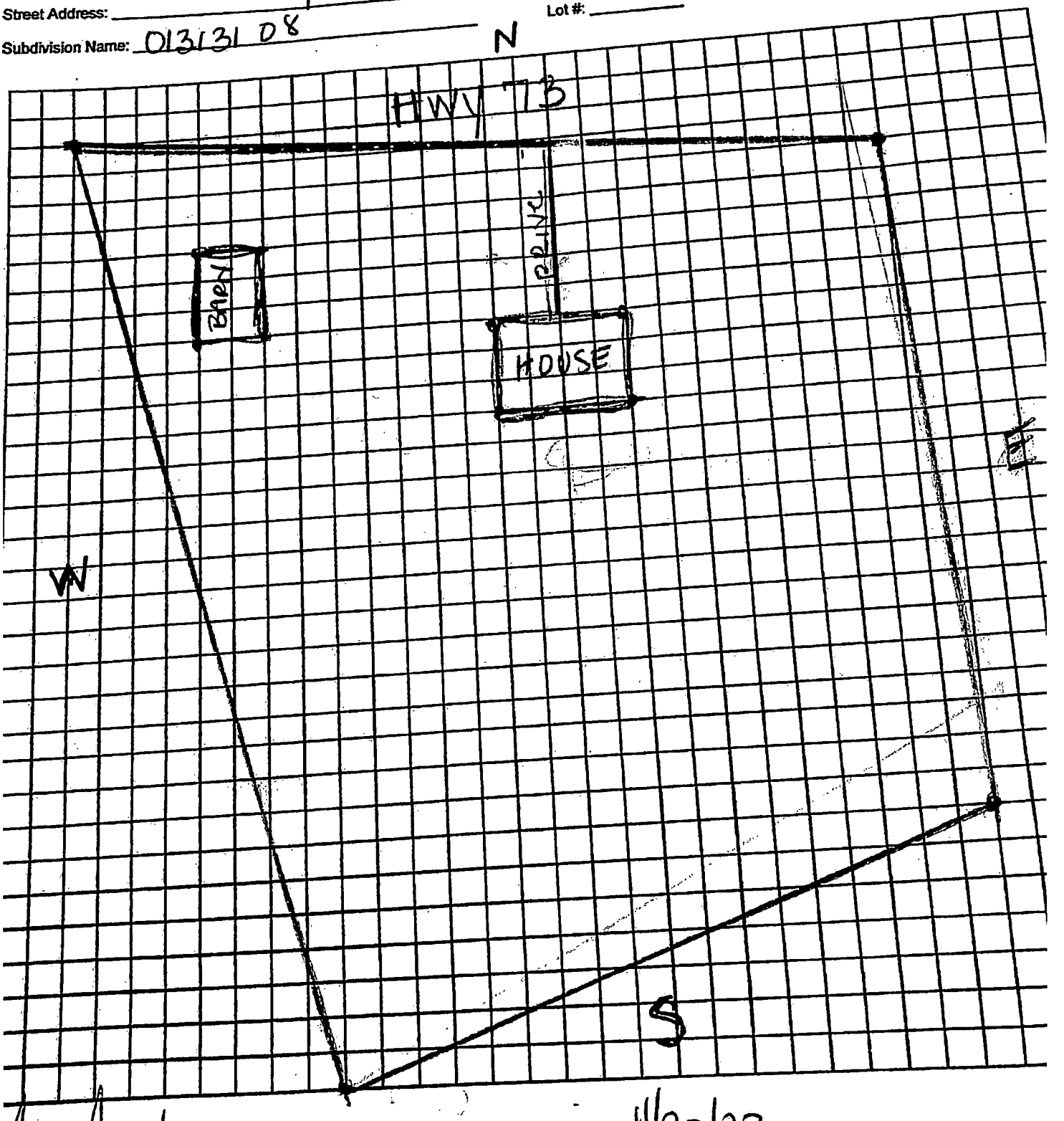
PROPOSED PLOT PLAN

File #: _____

A drawing showing the locations of the following items is required: existing and proposed property lines with dimensions, easements or right-of-ways, proposed building pad(s) or existing building footprint(s), all appurtenances (garage, driveway, deck, pool, etc.), location of existing or proposed well(s), location of existing or proposed sewer lines and sewage disposal systems, surface water bodies, and any aboveground or underground storage tanks. Provide names for all roads that adjoin the property.

Street Address: Hwy 73 Huntersville Tax Parcel #: _____

Subdivision Name: 013131 08 Lot #: _____



Property Owner's or Owner's Legal Representative Signature

11/20/23
Date

MECKLENBURG COUNTY
Health Department

Gibbie Harris, MSPH, BSN
Director

(980) 314-9020

Addendum to Application for
New Well or Septic System Installation
Abandonment or Repair of Existing Well or Septic System

Your signature below confirms the following:

1. The information on the application is true, complete and accurate.
2. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliances with applicable laws and rules.
3. I acknowledge that Amy Smith is acting as my legal representative (agent) in the submittal of the application for a water supply well or septic permit located at

01313108 Huntersville
Number Street Town
(Or Parcel Number)

Sandra Blythe Edens
Property Owner (print name)

Edgar Edens
Property Owner (signature)

11/13/2023
Date

11/13/2023

Mecklenburg County

Environmental Health

Groundwater & Wastewater Services

How to Prepare Your Property for an Improvement Permit:

The following items must be done before a Mecklenburg County Health Department representative can visi your site:

- Identity and mark all property corners
    - **Note: For tracts larger than 2 acres contact this department for specific instructions relati to identifying property lines.**
- All property lines should be marked every 50 feet.
- You are responsible for marking all structures to be built on site.
- Clearing excessive underbrush (i.e., thick briars, pine thickets, broom sage bushes, kudzu, honeys weeds, etc.) is required to allow thorough inspection for soil and wastewater system layout.
    - **Note: Absolutely no grading, filling, or cutting shall occur on site prior to evaluation for permit issuance.**
- When lot is clearly marked as above instructions require, give our office a call at 980-314-1680. then connect you with the inspector who will complete the soil test.

Note: Failure to follow these instructions properly can result in a 2-week delay in processing your application. If the lot is improperly marked and results in an additional trip a $100 extra trip fee ma

By signing below, I acknowledge that I have fully read and understand this document.

Property Owner's or Owner's Legal Representative Signature

11/20/23
Date

3205 Freedom Dr. Suite 8000 J, Charlotte NC • 28208 • (980) 314-1680 • Fax (704) 336-6894

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date: 11/20/23
Receipt #: 145197
Check / Auth #: VISA 426123
Received By: MOORES

Amount: 250.00
Tendered: 250.00
Returned: 0.00

Account Information

Account #: 200000
Contractor: AMY SMITH
Attn:
Address:
Address:
City/State/Zip: ,

Item	Description	Permit#	Quantity	Unit Price	Total Price
0701	Improvment Permit App-Residen 01313108		1	250.00	250.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
				555.00	

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

Sheet: 1 of 2
Property ID: 01313108
Lot #: NA
File #:11813b
AppID: 14252

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Property owner:amy smith
Address: hwy 73
Proposed Facility: 4 bedroom
Location of Site:hwy 73
Water Supply: [ ] Public [X] Individual
Evaluation Method: [x] Auger Boring
Type of Wastewater: [X] Sewage

Design Flow (.1949): 480
[X] Well
[ ] Pit
[ ] Industrial Process

Applicant: sandra blythe edens
Date Evaluated: 12/723
Property Size:
Property Recorded:
[ ] Spring [ ] Municipal
[ ] Cut
[ ] Mixed

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	b PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	General Comments	Profile Class & LTAR
	LS	0-30	sbk c	s p fr SEXP					complex topo	**PS IV**
	3	30-48	sbk, scl	SS SP FR SEXP		48			sap inclusions 36	.
#1										**.1**
	LS	0-10	sbk scl	SS SP FR SEXP						
#2	5	10-28	sbk c	s p fr SEXP	chroma 2	48				**us**
					2"					
	LS	0-10	sbk	ss, sp,fr, sexp						
#3	5	10-20	sbk c	s p fr SEXP	Chroma 2					**US**
			Rock	augur refusal	8"	48				
		0-30								
#4	cc		sbk scl	ss,sp,fr,sexp	Choma 2					**US**
					2"					
	ls									**ps**
6	10%	0-10	sbk scl	ss sp fr sexp	yellow browns				complex topo	**.1**
		10-48	cl sbk	s p fr sexp	30"					
5	ls	0-30	sbk scl	ss,sp,fr,sexp	Choma 2					**US**
	3				2"					

Description	Initial System	Repair System
Available Space (.1945)	us	us
System Type(s)		
Site LTAR (gpd/sq ft)	**us**	**us**

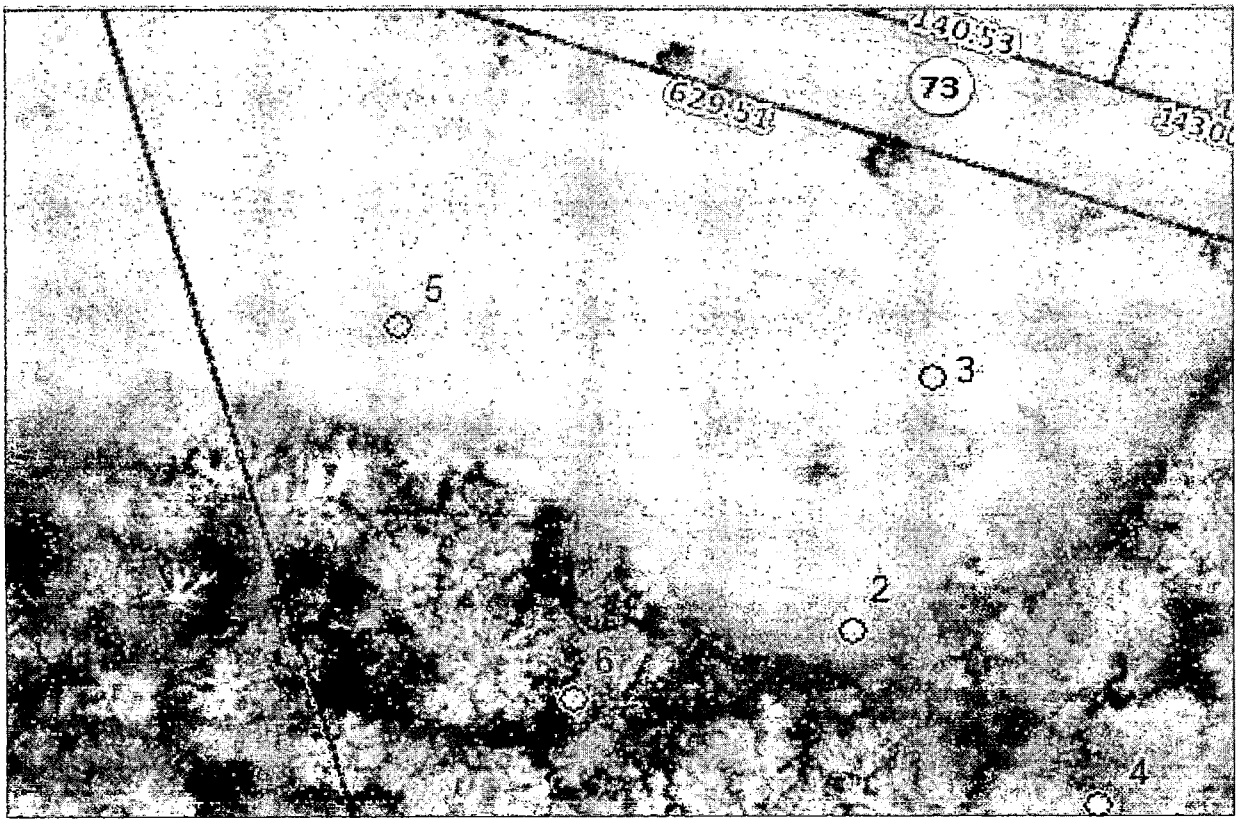
Other Factors (.1946):
Soil Evaluation By: Heather Ray
Others Present: Applicants
Site Classification (.1948): us
Site Evaluation By:
Others Present:

COMMENTS:

Landscape Position	Group	Texture	.1955 LTAR	Structure
R-Ridge	I	S-Sand	1.2 - 0.8	sg-Single Grai
SS-Shoulder Slope		LS-Loamy Sand		mass-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-Subangul
HS-Head Slope				abk-Angular B
CC-Concave Slope	III	Si-Silt	0.6 - 0.3	pl-Platy
CV-Convex Slope		SiCL-Silty Clay Loam		pr-Prismatic
T-Terrace				Sap-Saprolite
FP-Flood Plain		CL-Clay Loam		**Structure Pre**
D-Drainage Way		SCL-Sandy Clay Loam		w-weak
				m-moderate
		SiL-Silt Loam		s-strong
				f-fine
	IV	SC-Sandy Clay	0.4 - 0.1	m-medium
		SiC-Silty Clay		c-coarse
		C-Clay		

Consistence Moist	Consistence Wet	Mineralogy
VFR-Very Friable	SS-Slightly Sticky	SEXP-Slightly
FR-Friable	S-Sticky	EXP-Expansiv
FI-Firm	VS-Very Sticky	**Classificatior**
VFI-Very Firm	NP-Non-Plastic	US-Unsuitable
EFI-Extremely Firm	SP-Slightly Plastic	PS-Provisiona
	P-Plastic	S-Suitable
	VP-Very Plastic	NA-Not Applic

Sketch of Soil Evaluation Locations



NC DEPARTMENT OF
HEALTH AND HUMAN SERVICES

ROY COOPER • Governor
KODY H. KINSLEY • Secretary
MARK BENTON • Chief Deputy Secretary for Health
SUSAN KANSAGRA • Assistant Secretary for Public Health
Division of Public Health

Application for Services

This application, in conjunction with the common form established in G.S. 130A-335(a3) and (a5), is optional for local health departments to be used for applications submitted in accordance with G.S. 130A-335(a2), (a3), and (a5).
[hereinafter, G.S. 130A-335(a3) and (a5) permits referred to as (a2) Improvement Permit and (a2) Construction Authorization]

Applying for:
☑ (a2) Improvement Permit ☑ (a2) Construction Authorization ☐ (a2) Repair/Construction Authorization

If applying for a Construction Authorization, please indicate desired system type(s):
☐ Accepted ☐ Conventional ☐ Innovative ☑ Other Type IIIb, Pump to Horizontal PPBPS (50% reduction drain field product) ☐ Any

☑ New Construction ☐ Expansion ☐ System Relocation ☐ Change of Use ☐ Repair
☑ 5-Year Expiration Requested (site plan provided) ☐ Non-Expiring Permit Requested (plat provided, defined in G.S.130A-334(7a)
Requesting DHHS review? (systems >3000 GPD or IPWW) ☐ Yes ☑ No

Applicant: Nathan Estevez
Mailing Address: 1225 Crescent Green Dr. Suite 250
City: Cary
State: NC Zip: 27518
Phone #: (704)285-5944
Email: nestevez@agriwaste.com

Owner: HMA Builders, LLC c/o Hugo Hernandez
Mailing Address: 2284 Barrowcliffe Dr NW
City: Concord
State: NC Zip: 28027
Phone #: 305-970-8802
Email: hugo@hmadevelop.com

If the answer to any of the following questions is "yes", applicant must attach supporting documentation.

☐ Yes	☒ No	Does the site contain any jurisdictional wetlands?
☐ Yes	☒ No	Is any wastewater going to be generated on the site other than domestic sewage?
☐ Yes	☒ No	Is the site subject to approval by any other public agency?
☒ Yes	☐ No	Are there any easements or right of ways on this property?

I understand that the documentation and fees, as required in G.S. 130A-335(a2), (a3), (a5), and (a6), attached to this application are to be used to issue an Improvement Permit and/or Construction Authorization pursuant to G.S. 130A-335(a2),(a3), and (a5). I understand that authorized county and state officials are granted right of entry to the property indicated on this application to conduct necessary inspections to determine compliance with applicable laws and rules. ***I understand that if the information in the application for an Improvements Permit and/or Construction Authorization is falsified, changed, or the site is altered, then the Improvement Permit and Construction Authorization shall become invalid.***

Applicant Signature: Nathan Estevez Date: 05/04/2026

Owner's Signature: Date: 05/04/2026

MECKLENBURG COUNTY
Health Department

Raynard Washington, PhD, MPH
Health Director

(704) 336-4700

Addendum to Application for
New Well or Septic System Installation
Abandonment or Repair of Existing Well or Septic System

Your signature below confirms the following:

1. The information on the application is true, complete and accurate.
2. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliances with applicable laws and rules.
3. I acknowledge that Nathan Estevez, Agri-Waste Technology Inc. is acting as my legal representative (agent) in the submittal of the application for a water supply well or septic permit located at

Parcel Number: 01313281 .
Number Street Town
(Or Parcel Number)

Hugo Hernandez
Property Owner (print name)

Property Owner (signature)

08/28/2026
Date