ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 x3456 Mooresville Office (704) 660-3625

SEPTIC: IMPROVEMENT PERMIT / AUTHORIZATION TO CONSTRUCT / OPERATION PERMIT / EXISTING SYSTEM

PERMIT # OSWP OSWP-2024-50693

PIN # 4762 -- 31 -- 9674

APPLICANT/OWNER: AWT

APPLICANT ADDRESS: 501 N Salem St, Suite 203, Apex NC 27502

SITE ADDRESS: 821 Bethesda Rd, Statesville, NC 28677

PHONE: 919-859-0669

ALT. PHONE:

SITE DIRECTIONS: N 21 -> R Ostwalt Amity -> L Bethesda -> lot on R, also accessed from Mountain Island

SAP CONTROLLED: ☐ YES ☑ NO

SUBDIVISION: Northlake

SECTION: 3

LOT # 44

LOT AREA: 0.51

DESIGN FLOW: 360

L.T.A.R.(Initial): 0.3

L.T.A.R (Repair): 0.3

Septic Tank 1000 (gal) STB 760 Date

Pump Tank (gal) PT Date

Pump Make Model Serial #

Nitrification Fields 1 # Lines 4 Linear Ft: 200

Trench Width 36 *Max. Trench Depth(Initial) 28 *Max. Trench Depth(Repair) 35 Gravel Depth n/a

* Measured on the downhill side of the trench

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

☑ New System ☐ Repair ☐ Expansion System Type: I II (III) IV V VI

System Description: HPPBPS

Repair System Description: VPPBPS

Maintenance Agreement Required: ☐ YES ☑ NO

☑ GRAVITY ☐ PRESSURE

Usable Depth to LC (Initial): 40

☑ Residence No. Bedrooms 3

☐ Business No. Persons 6

☐ Other No. Employees

X ☐ Slab ☐ Crawl Space

☐ Basement w/plumbing ☐ Basement w/o plumbing

Usable Depth to LC (Repair): 47 *Limiting Condition*

Water Supply

☐ Private

☑ Public

☐ Community

Comments / Conditions: Do not pave, grade, drive, park, or bury utilties in drainfield.

SEE ALL NOTES REGARDING PREVIOUSLY INSTALLED PRODUCT

INITIAL SITE SKETCH

Improvement permit issued pursuant to:
G.S. 130A-335(a2), (a3) & (a4) using signed & sealed LLS/LG Evaluation attached, from:

Jeff Vaughn

LSS# 1227

Construction authorization issued pursuant to: G.S. 130A-335(a2) & (a5)

AOWE# 10003E

AS-BUILT SKETCH

FOR SEPTIC FINAL INSPECTION CALL: 704-664-3703 between 8am-9am the day the inspection is needed. Be sure to speak with an inspector to confirm your time.

Installed as Drawn

Permit can be suspended or revoked if any false information is supplied toward securing the permit / any unauthorized changes are made to the site / any unauthorized changes are made in the installation of the system. **CONTACT A LOCATOR SERVICE PRIOR TO ANY EXCAVATION**

☐ **IMPROVEMENT PERMIT** ***with plat*** *valid without expiration.* ☑ **IMPROVEMENT PERMIT** ***with site plan*** *valid for 60 mos.* ☑ **AUTHORIZATION TO CONSTRUCT** *valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.*

Owner / Applicant Signature: Online Signature Date:

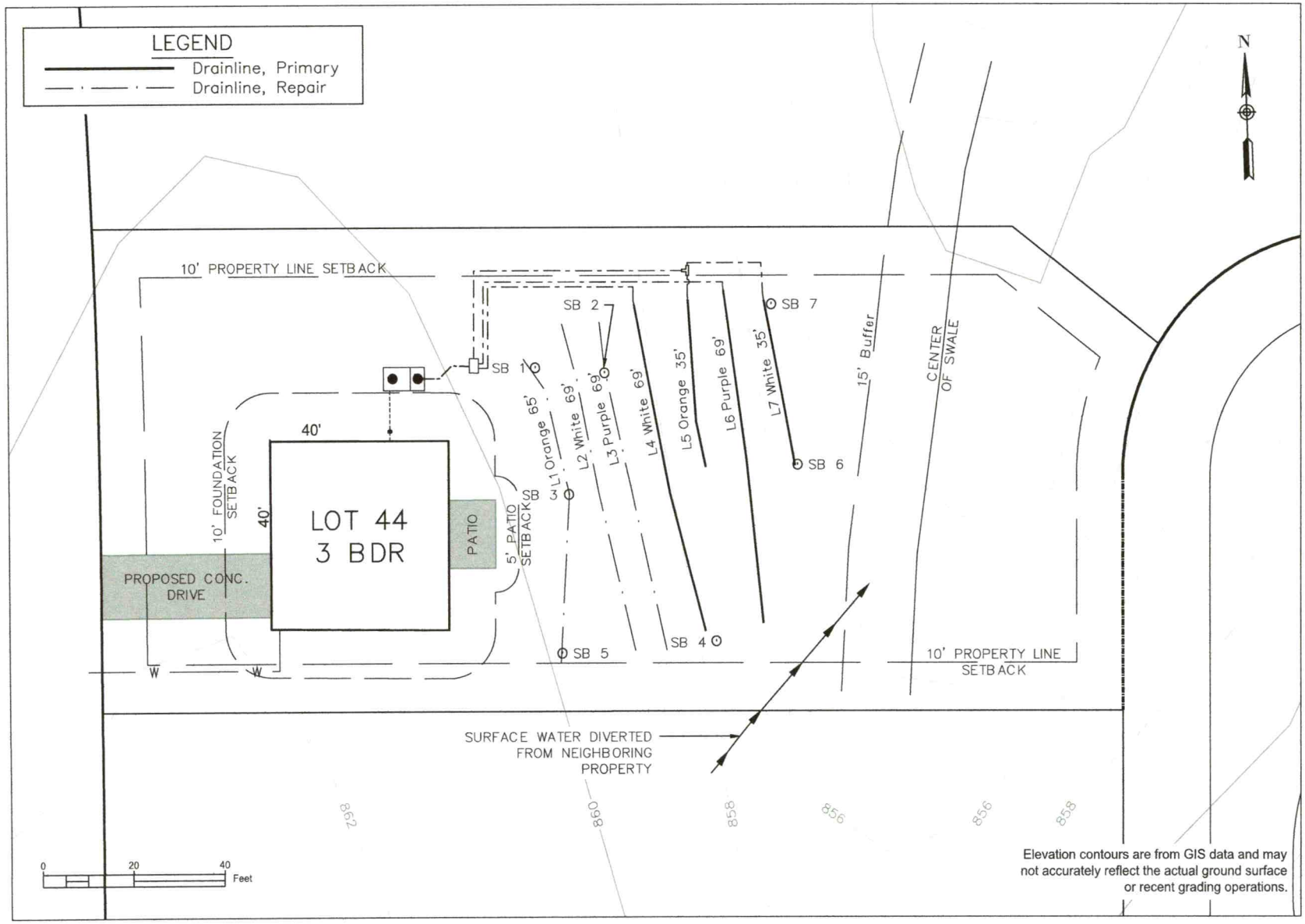
Installed by: Patriot Septic

IMPROVEMENT PERMIT by: D. Wieberg Date: 4/17/24

OPERATION PERMIT by: Date: 4/25/24

AUTHORIZATION TO CONSTRUCT by: D. Wieberg Date: 4/17/24

Existing System Inspected by: Date:



PROPERTY LAYOUT
SOURCE: AWT, Inc.

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
501 N Salem Street, Suite 203, Apex, NC 27502
agriwaste.com | 919.859.9669

Adams Homes AEC LLC
Adams Homes - Lot 44

Project Location:
821 Bethesda Road
Statesville, NC 28677
Iredell County
PIN: 4762-31-9674

Project Owner:
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze, FL 32563
704-361-5437
kferguson@adamshomes.com

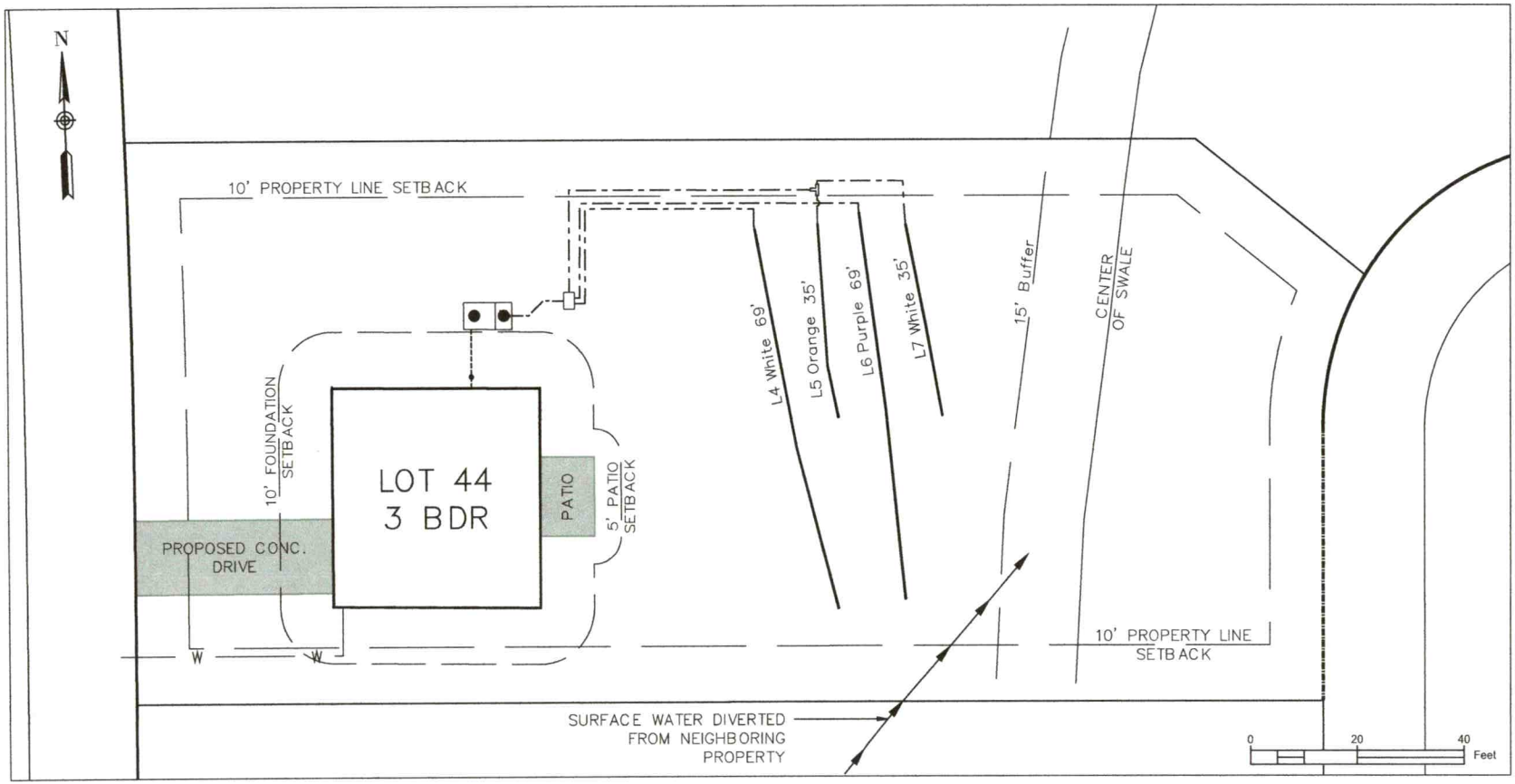
For Review Only

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Property Layout

Drawn By:	Drawn On:
C. Barbee	3/20/2324
Revised By:	Revised On:
--	--
Released By:	Released On:
--	--

Drawing Number:
WW-2



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.

Line	Use	Flag Color	Elevation	Line Length	Used as Primary	Used as Repair
1	Layout Line	Orange	859.8	72		65.0
2	Layout Line	White	859.1	70		69.3
3	Layout Line	Purple	858.8	74		69.3
4	Layout Line	White	857.1	75	69.3	
5	Layout Line	Orange	857.0	42	34.7	
6	Layout Line	Purple	854.8	76	69.3	
7	Layout Line	White	854.1	38	34.7	
			Total	447	208	204

1 WW-4 Primary Drainfield
SOURCE: AWT, Inc.

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
501 N Salem Street, Suite 203, Apex, NC 2750
agriwaste.com | 919.859.9669

Adams Homes AEC LLC
Adams Homes - Lot 44

Project Location:
821 Bethesda Road
Statesville, NC 28677
Iredell County
PIN: 4762-31-9674

Project Owner:
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze, FL 32563
704-361-5437
kferguson@adamshomes.com

For Review Only

REV. ISSUED DATE DESCRIPTION

SHEET TITLE
Primary Drainfield

Drawn By:	Drawn On:
C. Barbee	3/20/2324
Revised By:	Revised On:
--	--
Released By:	Released On:
--	--

Drawing Number:
WW-4

Permit/File #: OSWP-2024-50693

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: Iredell
PIN/Lot Identifier: 4762319674
Issued To: Adams Homes AEC LLC
Property Location: 821 Bethesda Road, Statesville, NC. 28677
Subdivision (if applicable) Northlake Lot #: 44 Block: _____ Section: _____
LSS Report Provided: Yes ☒ No ☐
If yes, name and license number of LSS: Jeff Vaughan, License number: 1227
New ☒ Expansion ☐ System Relocation ☐ Change of Use ☐
Facility Type: Single Family Residence
Number of bedrooms: 3 Number of Occupants: 6 Other: _____
Design Wastewater Strength: ☒ Domestic ☐ High Strength ☐ Industrial Process Wastewater
Proposed Design Daily Flow: 360 GPD Proposed LTAR (Initial): 0.3 Proposed LTAR (Repair): 0.3
Proposed Wastewater System Type*: Gravity, 50% Reduction (Horizontal) (Initial) Pump Required: ☐ Yes ☒ No ☐ May be required
Proposed Wastewater System Type*: Gravity 50% Reduction (Vertical) (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]: 40" (Slope Corrected) Usable Depth to LC (Repair)[x]: 47" (Slope Corrected) *[x] Limiting Condition*
Max. Trench Depth (Initial)[‡]: 28" Max. Trench Depth (Repair)[‡]: 35" *[‡] 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:
Two existing chamber lines to be removed and replaced with Horizontal Panel block trenches for the primary system.
The primary system will be horizontal panels on 8' centers and the repair will be vertical panels on 6' centers.
The fill over the repair system is a suitable soil cover and should remain in place if the system is installed.

Licensed Soil Scientist Print Name: Jeff Vaughan
Licensed Soil Scientist Signature: _____ Date: 03/28/2024

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 #: OSWP-2024-50693

This Section for Local Health Department Use Only

Initial submittal received: 04/16/2024 (Date) by DW (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: _____

[X Complete

State Authorized Agent: D. Wieberg Date: 04/17/2024

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: 4/17/29

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: OSWP-2024-50693

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

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

PIN/Lot Identifier: 4762319674

Issued To: Adams Homes AEC LLC

Property Location: 821 Bethesda Road, Statesville, NC. 28677

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: 3 Number of Occupants: 6 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* Gravity, 50% Reduction (Horizontal) (Initial) Gravity, 50% Reduction (Vertical) (Repair)

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

Design Daily Flow: 360 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: 1,000 gallons Total Trench/Bed Length: 200 feet Trench/Bed Spacing: 8 feet on center

Trench/Bed Width: 36 inches LTAR: 0.3 gpd/ft² Usable Depth to LC (Initial)ˣ: 40" (Slope Corrected) ˣ***Limiting condition***

Soil Cover: 6+ inches Slope Corrected Maximum Trench/Bed Depth‡: 28" inches ‡ ***Measured on the downhill side of the trench***

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

Pump Requirements: - ft. TDH vs. - 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:
Two existing chamber lines to be removed and replaced with Horizontal Panel block trenches for the primary system.
The primary system will be horizontal panels on 8' centers and the repair will be vertical panels on 6' centers.
The fill over the repair system is a suitable soil cover and should remain in place if the system is installed.

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: 03/28/2024

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 #: OSWP-2024-50693

This Section for Local Health Department Use Only

Initial submittal received: 04/16/2024 (*Date*) by DW (*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: _____

X] Complete

State Authorized Agent: D. Wieberg Date of Issuance: 04/17/2024

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: 4/17/29

See attached site sketch

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 _____ ☐ 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: Adams Homes AEC LLC
Mailing Address: 3000 Gulf Breeze Parkway
City: Gulf Breeze
State: FL Zip: 32563
Phone #: 704-361-5437
Email: kferguson@adamshomes.com

Owner: Adams Homes AEC LLC
Mailing Address: 3000 Gulf Breeze Parkway
City: Gulf Breeze
State: FL Zip: 32563
Phone #: 704-361-5437
Email: kferguson@adamshomes.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: _____ Date: _____

Owner's Signature: _____ Date: 4/2/24

AGRITEC-01 CGARKALNS

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 1/12/2024

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	CONTACT NAME: Connie Garkalns	
Hartsfield & Nash Agency, Inc. 10405 Ligon Mill Rd., Ste H Wake Forest, NC 27587	PHONE (A/C, No, Ext): (919) 556-3698	FAX (A/C, No): (919) 556-8758
	E-MAIL ADDRESS: Connie@hartsfield-nash.com	

INSURED	INSURER(S) AFFORDING COVERAGE	NAIC #
Agri-Waste Technology Inc 501 N. Salem St Ste 203 Apex, NC 27502	INSURER A : Selective Insurance Company of the Southeast	39926
	INSURER B : ACCIDENT FUND INSURANCE COMPANY OF AMERICA	10166
	INSURER C : Evanston Insurance Company	35378
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **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	
A	[X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC [ ] OTHER:			S 2253659	1/18/2024	1/18/2025	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
A	AUTOMOBILE LIABILITY [X] ANY AUTO [ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS [ ] HIRED AUTOS ONLY [ ] NON-OWNED AUTOS ONLY			S 2253659	1/18/2024	1/18/2025	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
A	[ ] UMBRELLA LIAB [X] OCCUR [ ] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $			S 2253659	1/18/2024	1/18/2025	EACH OCCURRENCE AGGREGATE	$ 2,000,000 $ 2,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N [N] If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		100003072	1/18/2024	1/18/2025	[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
C	Prof & Pollution			MKLV3ENV104078	8/22/2023	8/22/2024	Each Claim	5,000,000
A	Leased / Rented			S 2253659	1/18/2024	1/18/2025	Equipment	25,000

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

CERTIFICATE HOLDER

***This is ONLY For Informational Purposes
Contact Agency for Specific Holder info to be added
****

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

© 1988-2015 ACORD CORPORATION. All rights reserved.

The ACORD name and logo are registered marks of ACORD

Engineers and Soil Scientists

Agri-Waste Technology, Inc.
501 N Salem Street, Suite 203, Apex, NC 27502
agriwaste.com | 919.859.0669





Soil Suitability for Domestic Sewage Treatment and Disposal Systems
(Lot 44) 821 Bethesda Road, Statesville, NC. 28677
(Iredell County PIN: 4762319674)

PREPARED FOR: Adams Homes AEC LLC – Client

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

DATE: March 28, 2024

Soil suitability for domestic sewage treatment and disposal systems was evaluated on March 18, 2024, for the home at 821 Bethesda Road, Statesville, NC. 28677. Trevor Hackney of Agri-Waste Technology, Inc. (AWT) 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.

This property is approximately .51 acres and is cleared. The home is mostly built near the front of the property (Bethesda Road) and the septic system is proposed behind the home. The proposed septic system is a conventional gravity septic system utilizing a distribution box with a 50% reduction drain-field product for the primary repair area. A constructed swale is near the rear of the property for surface water diversion. The neighboring properties surface water is diverting onto this property and should be directed into the swale.

Soil Suitability for Domestic Sewage Treatment and Disposal Systems
The drawing in Attachment 1 details the property boundaries (David B. Jordan), 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 18E Rules for Wastewater Treatment and Dispersal Systems. These borings were advanced with a hand auger.

A septic layout was performed to demonstrate available space. The layout in Attachment 1 indicates there is available space for a three-bedroom conventional gravity septic system utilizing a distribution box with a 50% reduction T& J panel block drain-field product on 8' centers with horizontal configuration for the primary septic system. The repair system will be a vertical T& J panel block septic system on 6' centers. Two infiltrator chamber trenches were installed and should be removed and replaced with T & J panel block for the primary septic system.

The proposed LTAR (Long Term Acceptance Rate) by AWT is 0.3 GPD/ft^2. The soils on this property are group IV soils within the distribution and treatment zone as used to define the LTAR. Since usable slope corrected soil depths meet or exceed 40" AWT is recommending the use of PPBPS (Horizontal) drain field product. The maximum trench bottom should not exceed 28" on the low side of the trench. With an LTAR of 0.3 GPD/ft^2, 200 linear feet of trench are necessary to support a three-bedroom home initial system. The attached drawing proves that 208 linear feet of trench can be installed for the primary septic system.

The repair system will be a vertical panel block septic system. The usable slope corrected soil depth within the repair system area is 47". The maximum low side of the trench bottom should not exceed 35". The five inches of fill soil over the repair drain field is a suitable texture for soil cover and can be used as appropriate cover if repair system is installed. The repair system requires a minimum of 200 linear feet of trench. The attached drawing proves that 204 linear feet of trench can be installed for the repair septic system with the existing home location on the property.

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

ADAMS HOMES – LOT 44

Project Location
821 Bethesda Road
Statesville, NC 28677
Iredell County
PIN: 4762-31-9674

Project Owner
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze, FL 32563
704-361-5437
kferguson@adamshomes.com

Project Consultant
Jeff Vaughan, L.S.S
(919) 367-6313
Agri-Waste Technology, Inc.
501 N. Salem Street, Suite 203
Apex, NC 27502
(919) 859-0669
(919) 233-1970 Fax

System Overview
Single Family Residence
Three (3) Bedroom, 360 gpd
PPBPS Horizontal Dispersal Primary
PPBPS Vertical Dispersal Repair
D-Box Distribution Primary
D-Box Distribution Repair



VICINITY MAP

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	Excavation Safety

North Carolina 811 www.nc811.org

AWT Engineers and Soil Scientists

Agri-Waste Technology, Inc.
501 N Salem Street, Suite 203, Apex, NC 2750
agriwaste.com | 919.859.0669

Adams Homes AEC LLC
Adams Homes - Lot 44

Project Location:
821 Bethesda Road
Statesville, NC 28677
Iredell County
PIN: 4762-31-9674

Project Owner:
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze, FL 32563
704-361-5437
kferguson@adamshomes.com

For Review Only

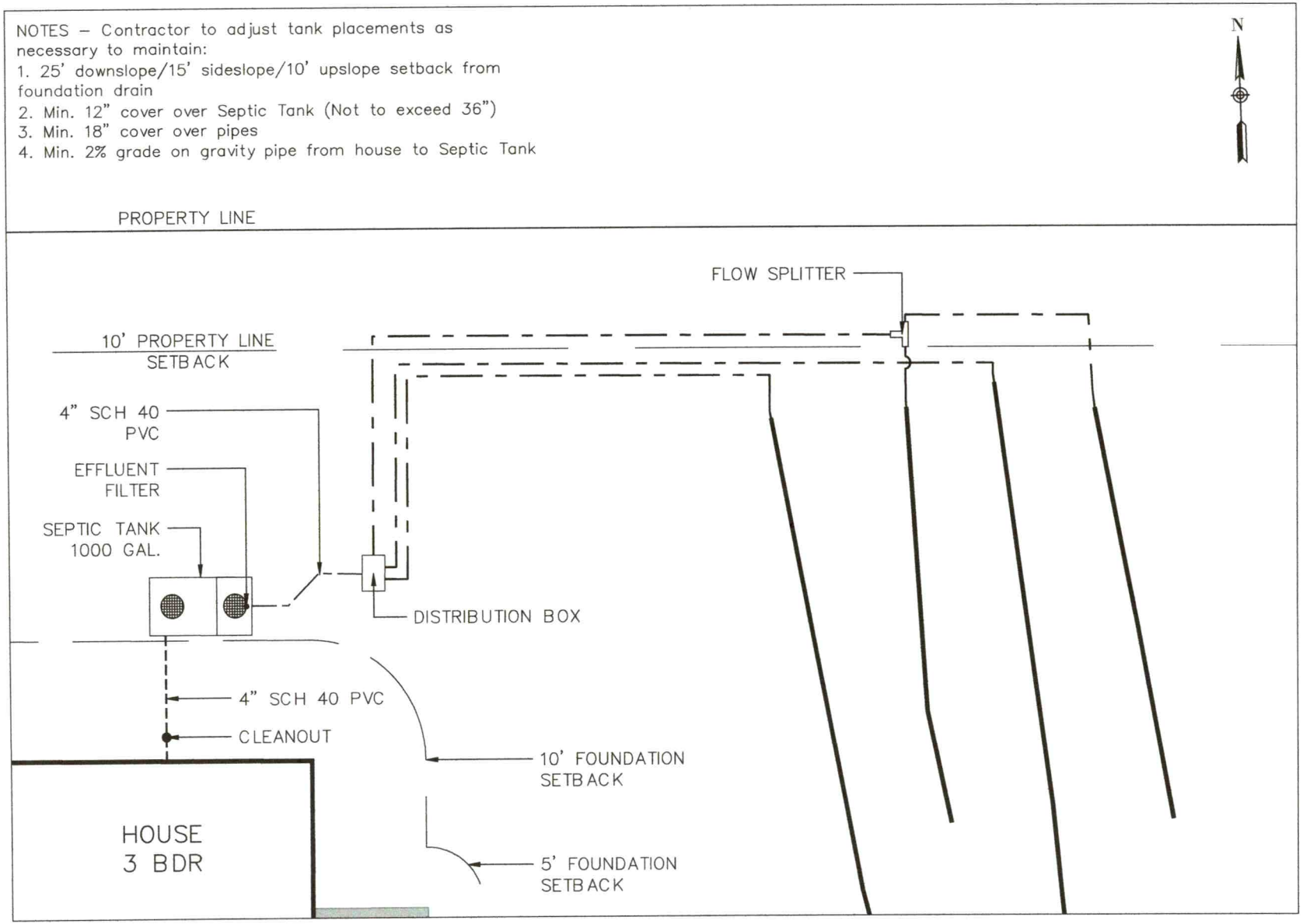
REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Cover Sheet

Drawn By:	Drawn On:
C. Barbee	3/20/2324
Revised By:	Revised On:
--	--
Released By:	Released On:
--	--

Drawing Number:
WW-1

NOTES – Contractor to adjust tank placements as necessary to maintain:
1. 25' downslope/15' sideslope/10' upslope setback from foundation drain
2. Min. 12" cover over Septic Tank (Not to exceed 36")
3. Min. 18" cover over pipes
4. Min. 2% grade on gravity pipe from house to Septic Tank



1 WW-3 COMPONENT LAYOUT
SOURCE: AWT, Inc.

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
501 N Salem Street, Suite 203, Apex, NC 2750
agriwaste.com | 919.859.0669

Adams Homes AEC LLC
Adams Homes - Lot 44

Project Location:
821 Bethesda Road
Statesville, NC 28677
Iredell County
PIN: 4762-31-9674

Project Owner:
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze, FL 32563
704-361-5437
kferguson@adamshomes.com

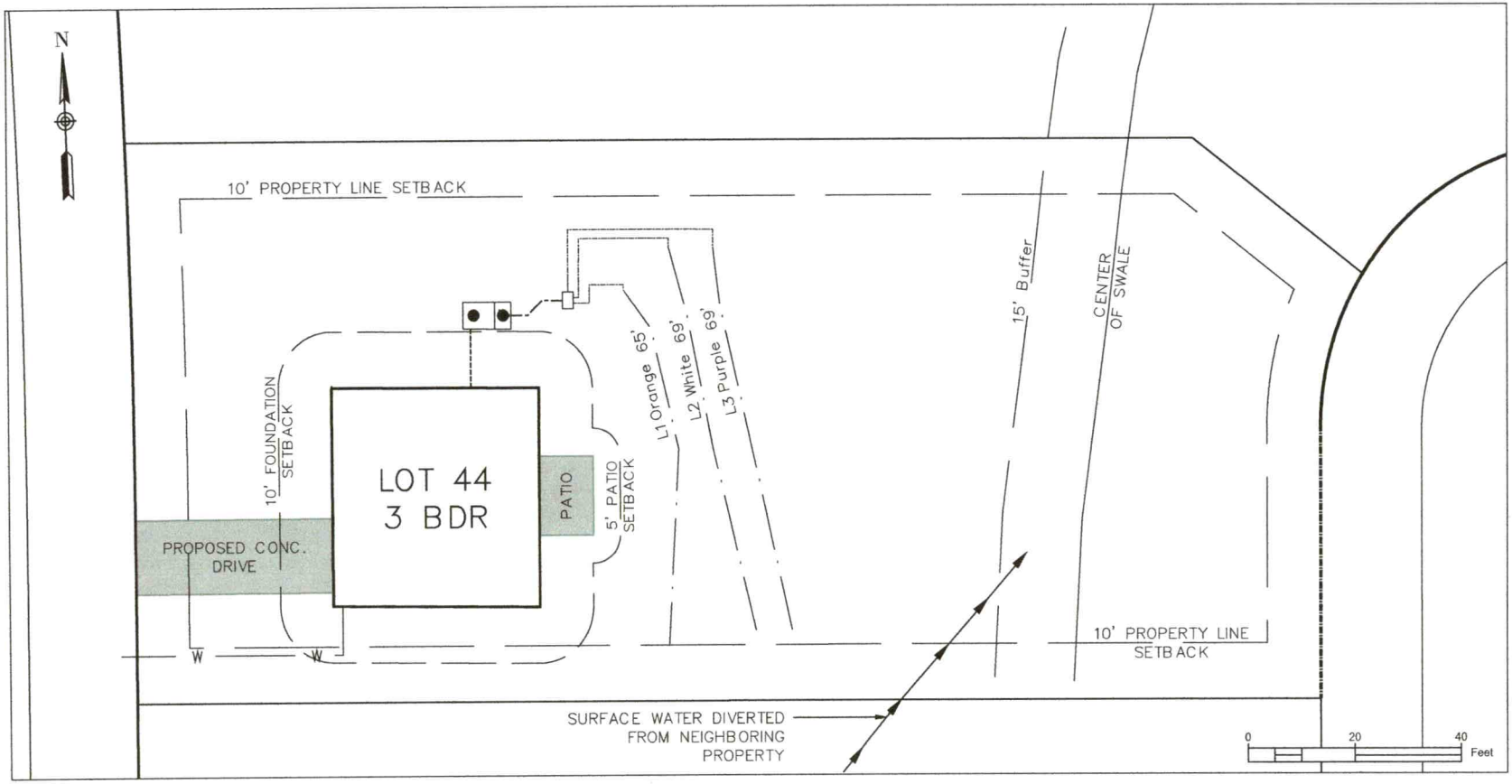
For Review Only

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Component Layout

Drawn By:	Drawn On:
C. Barbee	3/20/2324
Revised By:	Revised On:
--	--
Released By:	Released On:
--	--

Drawing Number:
WW-3



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.

Line	Use	Flag Color	Elevation	Line Length	Used as Primary	Used as Repair
1	Layout Line	Orange	859.8	72		65.0
2	Layout Line	White	859.1	70		69.3
3	Layout Line	Purple	858.8	74		69.3
4	Layout Line	White	857.1	75	69.3	
5	Layout Line	Orange	857.0	42	34.7	
6	Layout Line	Purple	854.8	76	69.3	
7	Layout Line	White	854.1	38	34.7	
			Total	447	208	204

1 WW-5 Repair Drainfield
SOURCE: AWT, Inc.

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
501 N Salem Street, Suite 203, Apex, NC 2750
agriwaste.com | 919.859.0669

Adams Homes AEC LLC
Adams Homes - Lot 44

Project Location:
821 Bethesda Road
Statesville, NC 28677
Iredell County
PIN: 4762-31-9674

Project Owner:
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze, FL 32563
704-361-5437
kferguson@adamshomes.com

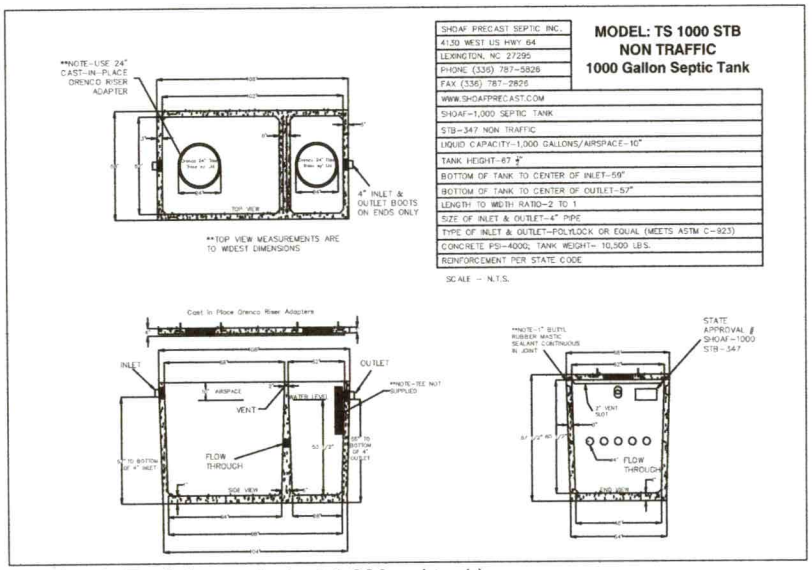
For Review Only

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Repair Drainfield

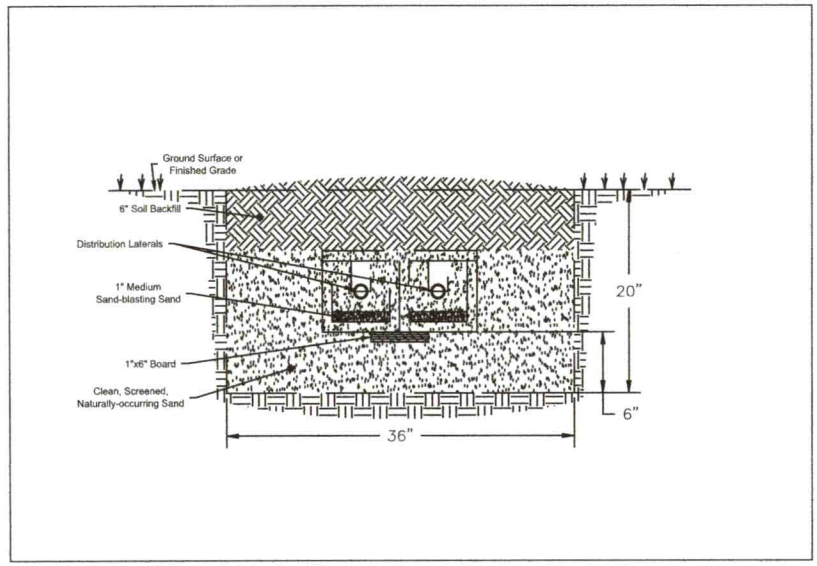
Drawn By:	Drawn On:
C. Barbee	3/20/2324
Revised By:	Revised On:
--	--
Released By:	Released On:
--	--

Drawing Number:
WW-5



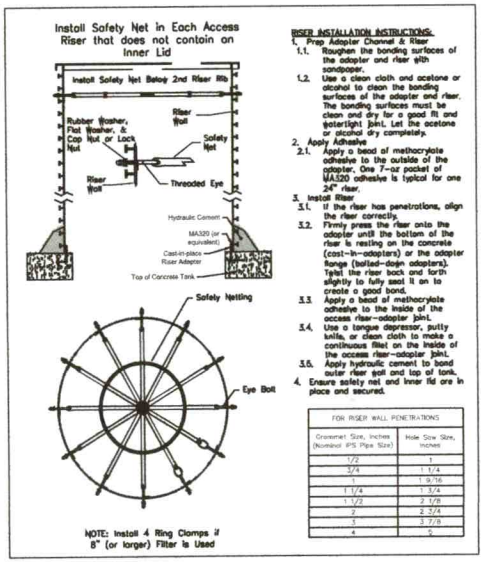
1 WW-6 N.T.S. Septic Tank (or equivalent 1,000-gal tank)

SOURCE: Shoaf Precast Septic, Inc.



2 WW-6 N.T.S. Horizontal Panel Block - Trench Cross-Section (Typical)

INFILTRATOR Water Technologies, LLC



3 WW-6 N.T.S. Riser Safety Nets

SOURCE: SIM-TECH, Inc.

NOTES

1. Installation to follow all NC DHHS and Iredell County applicable rules and regulations.
2. Iredell 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. 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.
13. 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.
14. All penetrations to be sealed.
15. Spigot to be located on outside of building within 50' of tanks.
16. Contractor to adjust tank placement to meet site constraints.

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
501 N Salem Street, Suite 203, Apex, NC 27502
agriwaste.com | 919.859.0663

Adams Homes AEC LLC
Adams Homes - Lot 44

Project Location:
821 Bethesda Road
Statesville, NC 28677
Iredell County
PIN: 4762-31-9674

Project Owner:
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze, FL 32563
704-361-5437
kferguson@adamshomes.com

For Review Only

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Detail Sheet

Drawn By:	Drawn On:
C. Barbee	3/20/2324
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 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 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.

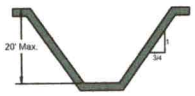
(i) Observe samples of soil that are excavated and soil in the sides of the excavation. Estimate the range of particle sizes and the relative amounts of the particle sizes. Soil that is primarily composed of fine-grained material material is cohesive material. Soil composed primarily of coarse-grained 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.

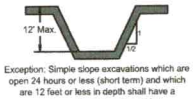
(2) Manual tests. Manual analysis of soil samples is conducted to determine quantitative as well as qualitative properties of soil and to provide more information in order to classify soil properly.

(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.

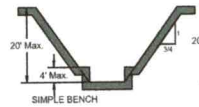
EXCAVATIONS IN TYPE A SOILS

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

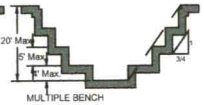




Exception: Simple slope excavations which are open 24 hours or less (short term) and which are 12 feet or less in depth shall have a maximum allowable slope of ½:1

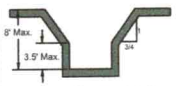


SIMPLE BENCH

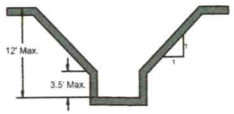


MULTIPLE BENCH

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

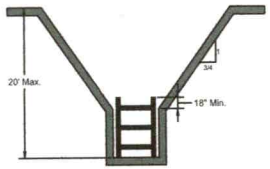


All excavations 8 feet or less in depth which have unsupported vertically sided lower portions shall have a maximum vertical side of 3½ feet.



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.

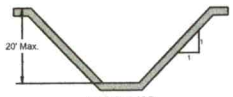
All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded shall have a maximum allowable slope of ½:1. The support or shield system must extend at least 18 inches above the top of the vertical side.



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).

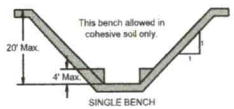
EXCAVATIONS IN TYPE B SOILS

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

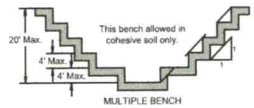


SIMPLE SLOPE

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

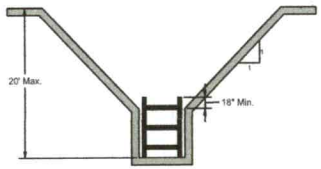


SINGLE BENCH



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.

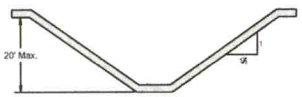


VERTICALLY SIDED LOWER PORTION

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

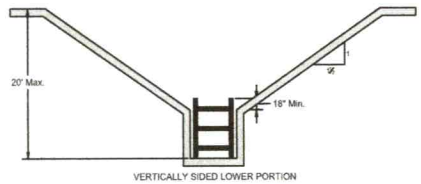
EXCAVATIONS IN TYPE C SOILS

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.

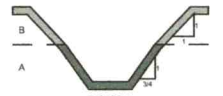


VERTICALLY SIDED LOWER PORTION

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

EXCAVATIONS IN LAYERED SOILS

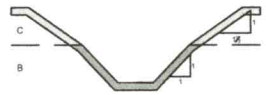
All excavations 20 feet or less in depth made in layered soils shall have a maximum allowable slope for each layer as set forth below.



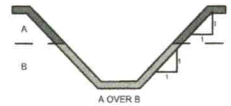
B OVER A



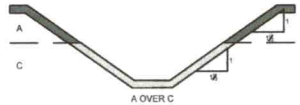
C OVER A



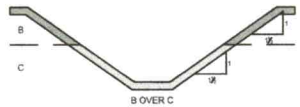
C OVER B



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.
501 N Salem Street, Suite 203, Apex, NC 27502
agrIwaste.com | 919.859.0665

Adams Homes AEC LLC
Adams Homes - Lot 44

Project Location:
821 Bethesda Road
Statesville, NC 28677
Iredell County
PIN: 4762-31-9674

Project Owner:
Adams Homes AEC LLC
3000 Gulf Breeze Parkway
Gulf Breeze, FL 32563
704-361-5437
kferguson@adamshomes.com

For Review Only

REV:	ISSUED DATE	DESCRIPTION

SHEET TITLE

Excavation Safety

Drawn By:	Drawn On:
C. Barbee	3/20/2324
Revised By:	Revised On:
--	--
Released By:	Released On:
--	--

Drawing Number:

WW-7

COUNTY: Iredell Co.

SOIL/SITE EVALUATION
***for* ON-SITE WASTEWATER SYSTEM**
(Complete all fields in full)

CLIENT: Adams Homes AEC LLC
ADDRESS: 821 Bethesda Road, Statesville, NC. 28677
PROPOSED FACILITY: Single Family Residence PROPOSED DESIGN FLOW (.1949): 360 GPD
LOCATION OF SITE: 821 Bethesda Road, Statesville, NC. 28677
APPLICATION DATE
DATE EVALUATED: 3/18/24
PROPERTY SIZE: 0.51 ac.
PROPERTY RECORDED:
WATER SUPPLY: ☐ Private ☒ Public ☐ Well ☐ Spring ☐ Other
EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut
TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			STRUCTURE/ TEXTURE	CONSISTENCE/ MINERALOGY	SOIL WETNESS/ COLOR	SOIL DEPTH	SAPRO CLASS	RESTR HORIZ	
SB 1	3%	0-5"	Fill Soil	-	-	48"	-	-	0.3
		5-14"	SCL; GR	SS; SP; FR					
		14-34"	C; SBK	SS; SP; FI					
		34-48"	CL; WSBK	SS; SP; FR					
SB 2	3%	0-9"	SCL; GR	SS; SP; FR	-	48"	-	-	0.3
		9-30"	C; SBK	SS; SP; FI					
		30-48"	CL; WSBK	SS; SP; FR					
SB 3	3%	0-5"	Fill Soil	-	-	48"	-	-	0.3
		5-18"	SCL; GR	SS; SP; FR					
		18-33"	C; SBK	SS: SP; FI					
		33-48"	CL; WSBK	SS; SP FR					
SB 4	5%	0-8"	SCL; GR	SS; SP; FR	-	48"	-	-	0.3
		8-30"	C; SBK	SS; SP; FI					
		30-48"	CL; WSBK	SS; SP; FR					

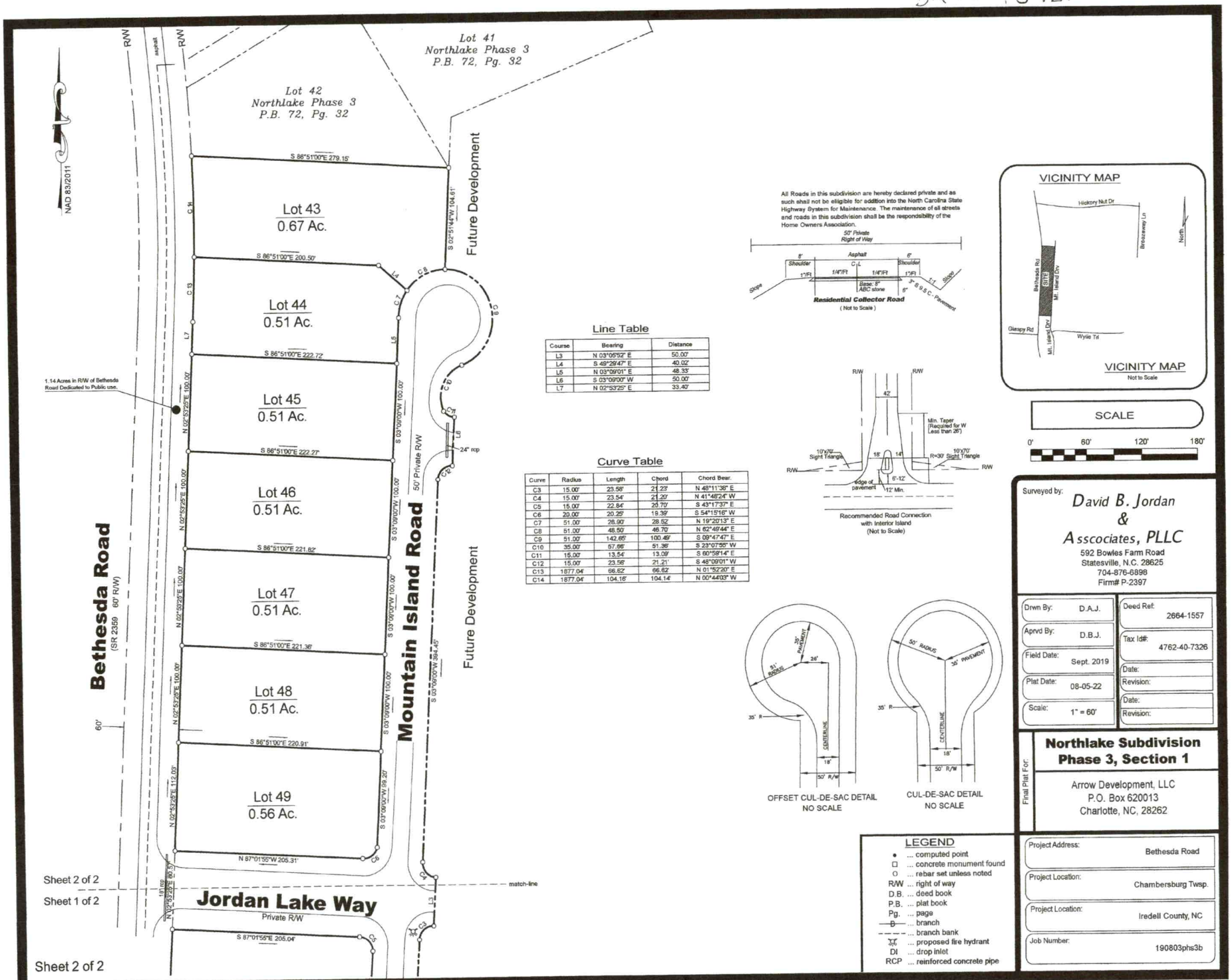
DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space	Provisionally Suitable	Provisionally Suitable
System Type(s)	Gravity Horizontal 50% Reduction (8' Centers)	Gravity Vertical 50% Reduction (6' Centers)
Site LTAR	0.3 GPD/Ft^2	0.3 GPD/Ft^2

OTHER FACTORS :
SITE CLASSIFICATION :

EVALUATED BY: Trevor Hackney
OTHER(S) PRESENT:

PROFILE #	LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			STRUCTURE/ TEXTURE	CONSISTENCE/ MINERALOGY	SOIL WETNESS/ COLOR	SOIL DEPTH	SAPRO CLASS	RESTR HORIZ	
SB 5	3%	0-9"	SCL; GR	SS; SP; FR	-	48"	-	-	0.3
		9-30"	C; SBK	SS; SP; FI					
		30-48"	CL; WSBK	SS; SP; FR					
SB 6	10%	0-9"	SCL; GR	SS; SP; FR	-	44"	-	Saprolite	0.3
		9-30"	C; SBK	SS; SP; FI					
		30-44"	CL; WSBK	SS; SP; FR					
		44+"	SCL; MA	SS; SP; FR					
SB 7	10%	0-12"	SCL; GR	SS; SP; FR	-	44"	-	Saprolite	0.3
		12-38"	C; SBK	SS; SP; FI					
		38-44"	CL; WSBK	SS; SP; FI					
		44+"	SCL; MA	SS; SP; FR					

BK PG 127



Line Table

Course	Bearing	Distance
L3	N 03°05'52" E	50.00'
L4	S 49°29'47" E	40.02'
L5	N 03°09'01" E	48.33'
L6	S 03°09'00" W	50.00'
L7	N 02°53'25" E	33.40'

Curve Table

Curve	Radius	Length	Chord	Chord Bear.
C3	15.00'	23.58'	21.23'	N 48°11'36" E
C4	15.00'	23.54'	21.20'	N 41°48'24" W
C5	15.00'	22.84'	20.70'	S 43°17'37" E
C6	20.00'	20.25'	19.39'	S 54°15'16" W
C7	51.00'	28.90'	28.52'	N 19°20'13" E
C8	51.00'	48.50'	46.70'	N 62°49'44" E
C9	51.00'	142.65'	100.49'	S 09°47'47" E
C10	35.00'	57.66'	51.36'	S 23°07'55" W
C11	15.00'	13.54'	13.09'	S 60°58'14" E
C12	15.00'	23.58'	21.21'	S 48°09'01" W
C13	1877.04'	66.62'	66.62'	N 01°52'20" E
C14	1877.04'	104.16'	104.14'	N 00°44'03" W

All Roads in this subdivision are hereby declared private and as such shall not be elligible for addition into the North Carolina State Highway System for Maintenance. The maintenance of all streets and roads in this subdivision shall be the responsibility of the Home Owners Association.

OFFSET CUL-DE-SAC DETAIL
NO SCALE

CUL-DE-SAC DETAIL
NO SCALE

LEGEND

- ● ... computed point
- □ ... concrete monument found
- O ... rebar set unless noted
- R/W ... right of way
- D.B. ... deed book
- P.B. ... plat book
- Pg. ... page
- —B— ... branch
- - - - - ... branch bank
- ⋈ ... proposed fire hydrant
- DI ... drop inlet
- RCP ... reinforced concrete pipe

SCALE

0' 60' 120' 180'

Surveyed by:
David B. Jordan
&
Asscociates, PLLC
592 Bowles Farm Road
Statesville, N.C. 28625
704-876-6898
Firm# P-2397

Drwn By: D.A.J.	Deed Ref: 2664-1557
Aprvd By: D.B.J.	Tax Id#: 4762-40-7326
Field Date: Sept. 2019	Date:
Plat Date: 08-05-22	Revision:
Scale: 1" = 60'	Date:
	Revision:

Final Plat For:

Northlake Subdivision
Phase 3, Section 1

Arrow Development, LLC
P.O. Box 620013
Charlotte, NC, 28262

Project Address:	Bethesda Road
Project Location:	Chambersburg Twsp.
Project Location:	Iredell County, NC
Job Number:	190803phs3b

IREDELL COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH

DOCUMENTATION TO AUTHORIZE AN OWNER'S LEGAL REPRESENTATIVE

(Check and sign only ONE of the options below)

☐ **1. * APPLICANT AND OWNER ARE THE SAME. *** (*Sign here*) _____

Applications for permits require the "signature of the owner or owner's legal representative" (15A NCAC 18A .1937). If the owner does not sign the application himself or herself, they can submit any one of the following documents to designate their legal representative: *Power of Attorney; Real Estate Contract; Estate executor; Bankruptcy trustee; Court ordered guardianship*

In the absence of the above documentation, the property owner may provide the local health department with documentation that designates a legal representative. A property owner may:

Complete this form to document his or her legal representative, or provide his or her own form that contains the information in this form. If there are multiple property owners, then all property owners must sign the form that designates a legal representative.

By signing a form that designates a legal representative for purposes of 15A NCAC 18A .1937, the property owner authorizes that representative to act on their behalf in matters pertaining to the application and permitting process, including signing or receiving any application, document or permit. The owner retains full responsibility to meet all permit conditions specified by the local health department.

☐ **2.** I, Keith Teague, am the legal owner(s) of the property located at 821 Bethesda Rd, Statesville, NC, identified as PIN (Parcel Identification Number) 4762319674, located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**)

Trevor Hackney/AWT, _____, to act as an agent on my behalf in applying for/signing/obtaining any of the documents described below.

- Application for Improvement Permit (IP) / Authorization to Construct (AC)
- Improvement Permit (IP) / Authorization to Construct (AC)
- Application for soil-site evaluation (new/repair)
- Application/permit for private drinking water well/well abandonment
- Application for Compliance Inspection

I agree to abide by all decisions and/or conditions between the legal representative acting on my behalf and the Iredell County Department of Public Health, Environmental Health Division.

_____ 4-2-24

Signature of Owner(s) Date

Mooresville - Environmental Health
barbara.nebel@co.iredell.nc.us
Fax: 704-662-3239
610 E. Center Avenue, Mooresville, NC 28115

Statesville - Environmental Health
ronda.hart@co.iredell.nc.us
Fax: 704-871-3483
349 N. Center Street, Statesville, NC 28677