ICHD - ENVIRONMENTAL HEALTH DIVISION

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

BLDR - 2023-33022

PERMIT # OSWP-2023-29874

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

PIN # 4762-31-9464

PPLICANT / OWNER: Adams Homes APPLICANT ADDRESS:

TE ADDRESS: 221 MOUNTAIN ISLAND DR, STATESVILLE, NC 28677 PHONE: ALT. PHONE:

TE DIRECTIONS: SAP CONTROLLED: YES ☐ NO ☑

UBDIVISION: Northlake SECTION: P3 LOT #: 46 LOT AREA: 0.51 DESIGN FLOW: 360 L.T.A.R.: 0.3

eptic Tank: 1000 (gal)	STB: 760	Date: 10/12/23	☒ New System ☐ Repair ☐ Expansion	System Type: III	☑ Residence	No. Bedrooms: 3	Water Supply: Municipal Water
ump Tank: 1000 (gal)	PT: 363	Date: 10/12/23	System Description: Pressure Manifold 25% reduction		☐ Business	No. Persons: 6	
ump Make: BNISI	Model: Zoeller	Serial #:	Repair System Description: Pressure Manifold 50% reduction		☐ Other	No. Employees:	
Nitrification Fields: 1	# Lines: 5	Linear Ft.: 300	Maintenance Agreement Required: ☐ YES ☑ NO		☐ Slab	☑ Crawl Space	
rench Width: 36	Trench Bottom Depth (Low side): 27		Gravel Depth:	☐ GRAVITY ☑ PRESSURE	☐ Basement w/ Plumbing	☐ Basement w/o Plumbing	

omments / Conditions: This Improvement Permit is issued pursuant to G.S. 130A-335 (a2) and (a3) using the signed and sealed LSS/LG evaluation(s) ttached here. This Construction Authorization is issued pursuant to G.S. 130A-335(a2) and (a5) using the signed and sealed plans or evaluations attached here.

INITIAL SITE SKETCH

AS BUILT SKETCH

see modified tanks on site plan.

TANKS SW 11/30/23
LINES
Alarm MW
Pressure Head MW 11/30/23
Float 3 MW
PM MW
Electrical - STI 12/27/23

rmit 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.

wner / Applicant Signature: Date:

IPROVEMENT PERMIT by: Brijma A Bass Date: 7/21/2023

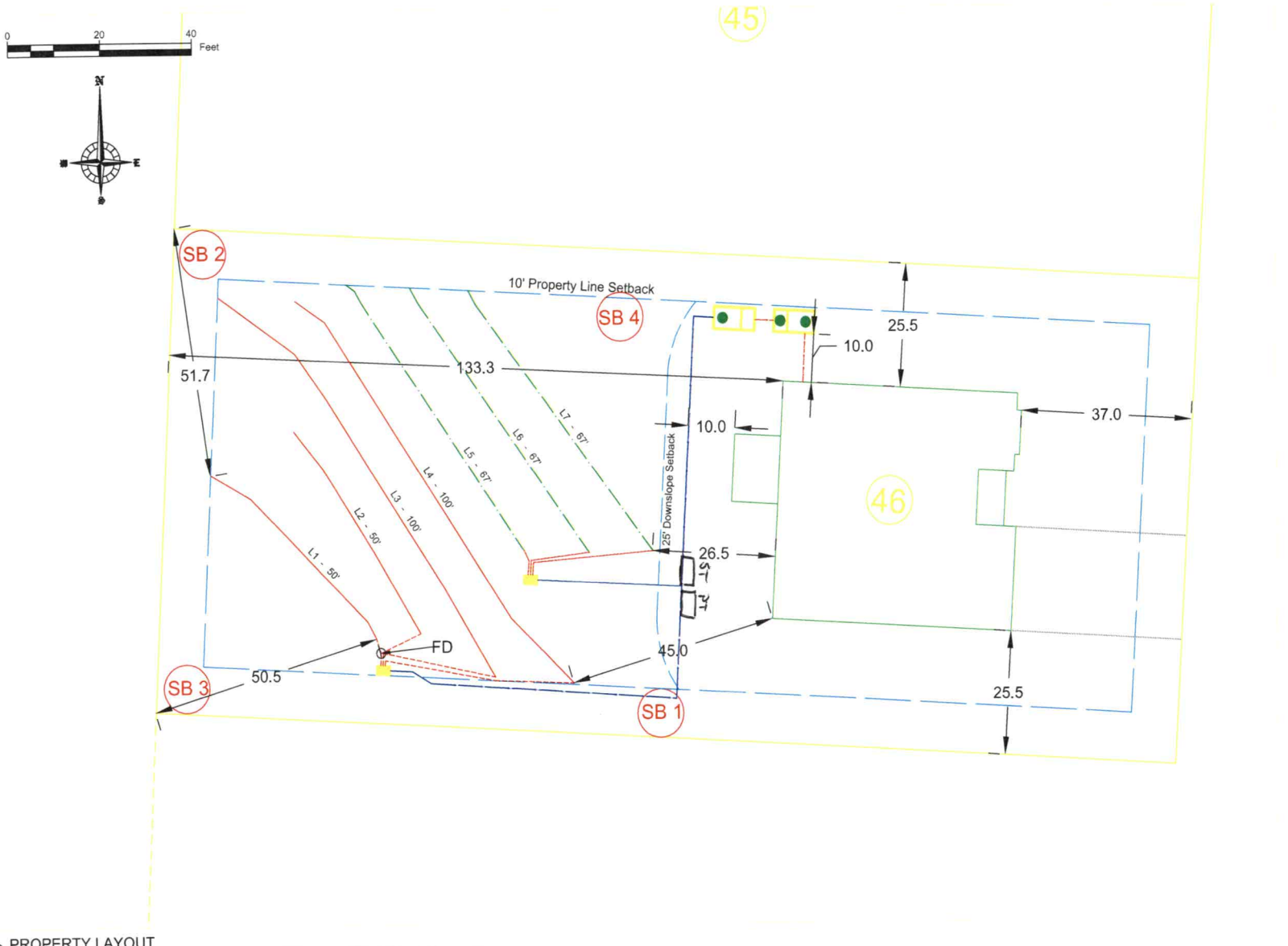
UTHORIZATION TO CONSTRUCT by: Brijma A Bass Date: 7/21/2023

Installed By: Precision Excavation

OPERATION PERMIT by: Sydney Hallcroft Date: 12/27/23

Existing System Inspected By: Date:

FOR SEPTIC FINAL INSPECTION CALL: 704-664-3703 BETWEEN 8am-9am the day the inspection is needed.



PROPERTY LAYOUT

SOURCE: AWT, Inc.

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
501 N. Salem Street, Suite 203
Apex, North Carolina 27502
919-859-0689
www.agriwaste.com

Adam's Homes
Lot 46

Project Location:
221 Mountain Island Dr
Statesville, NC 28677
Iredell County
PIN: 4762319464.000

Project Owner:
Adam's Homes
3000 Gulf Breeze Parkwasy
Gulf Breeze, FL 32563
704-361-5437
bcashion@adamshomes.com

For Permitting Purposes

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE

Property Layout

DRAWN BY:	CREATED ON:
T. Bostic	06/27/2023
REVISED BY:	REVISED ON:
####	####
RELEASED BY:	RELEASED ON:
####	####

DRAWING NUMBER

WW-2

General Drainfield Notes:

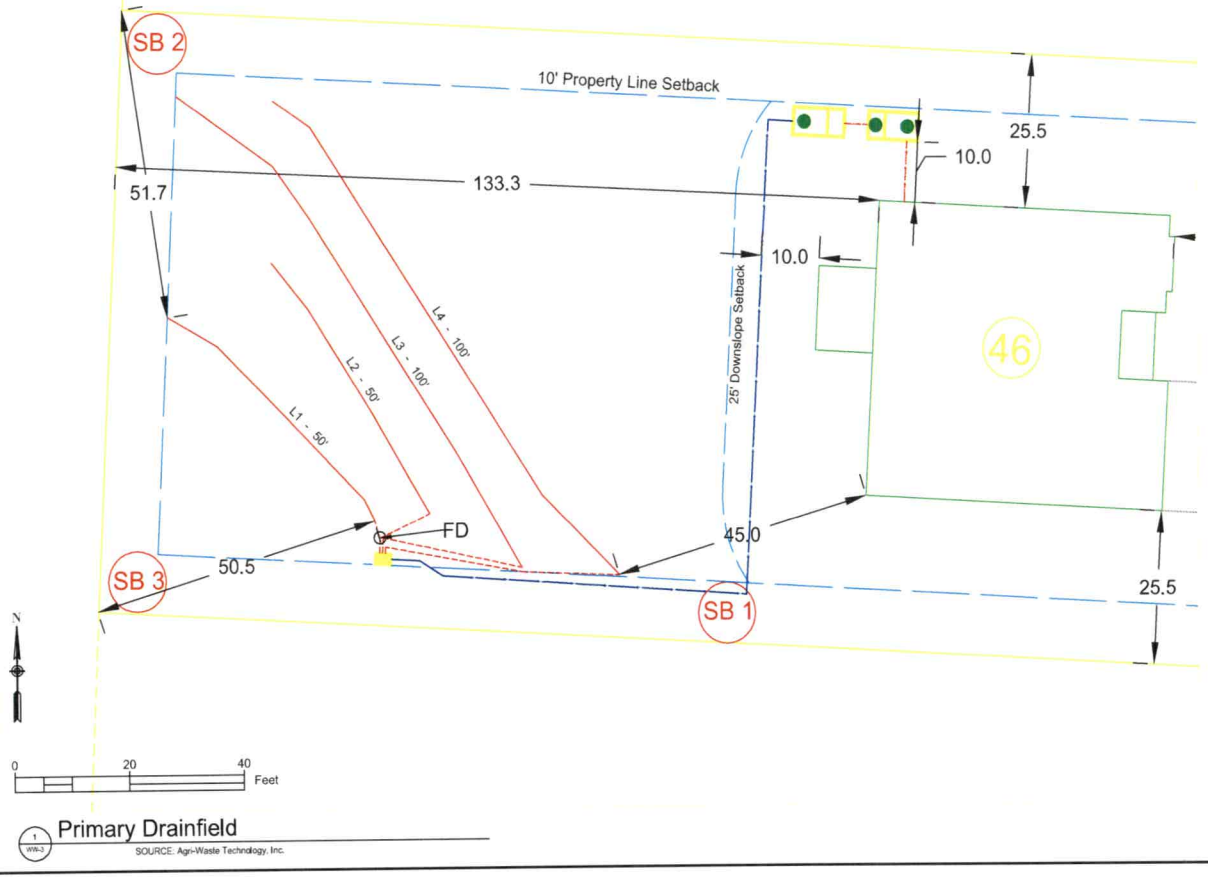
1. Clear all trees less than 8" in diameter (measured at a height 3' from soil surface) from the drainfield.
2. Vegetation that will re-grow from a cut stump shall be stumped or pulled from the ground. Stumps shall not be pushed over.
3. Drainfield area shall be cleared of all leaves, pine straw, debris, 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.

DRAINFIELD INFO. - **Primary**

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

Line No.	Flag Color	Line Length (ft)	Tap	Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
1	purple	50	1/2in SCH 80, Split	2.74	0.055	0.400
2	blue	50	1/2in SCH 80, Split	2.74	0.055	0.400
3	yellow	100	1/2in SCH 80	5.48	0.055	0.400
4	orange	100	1/2in SCH 80	5.48	0.055	0.400
	Total	**300**	**Total**	**16.44**	**Avg.**	**0.400**

Note:
Primary drainfield is chambers.



Primary Drainfield
SOURCE: Agri-Waste Technology, Inc.

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
501 N. Salem Street, Suite 203
Apex, North Carolina 27502
919-859-0689
www.agriwaste.com

Adam's Homes
Lot 46

Project Location:
221 Mountain Island Dr
Statesville, NC 28677
Iredell County
PIN: 4762319464.000

Project Owner:
Adam's Homes
3000 Gulf Breeze Parkway
Gulf Breeze, FL 32563
704-361-5437
bcashion@adamshomes.com

For Permitting Purposes

REV.	ISSUED DATE	DESCRIPTION

SHEET TITLE
Primary Drainfield

DRAWN BY:	CREATED ON:
T. Bostic	06/27/2023
REVISED BY:	REVISED ON:
####	####
RELEASED BY:	RELEASED ON:
####	####

DRAWING NUMBER
WW-3

General Drainfield Notes:

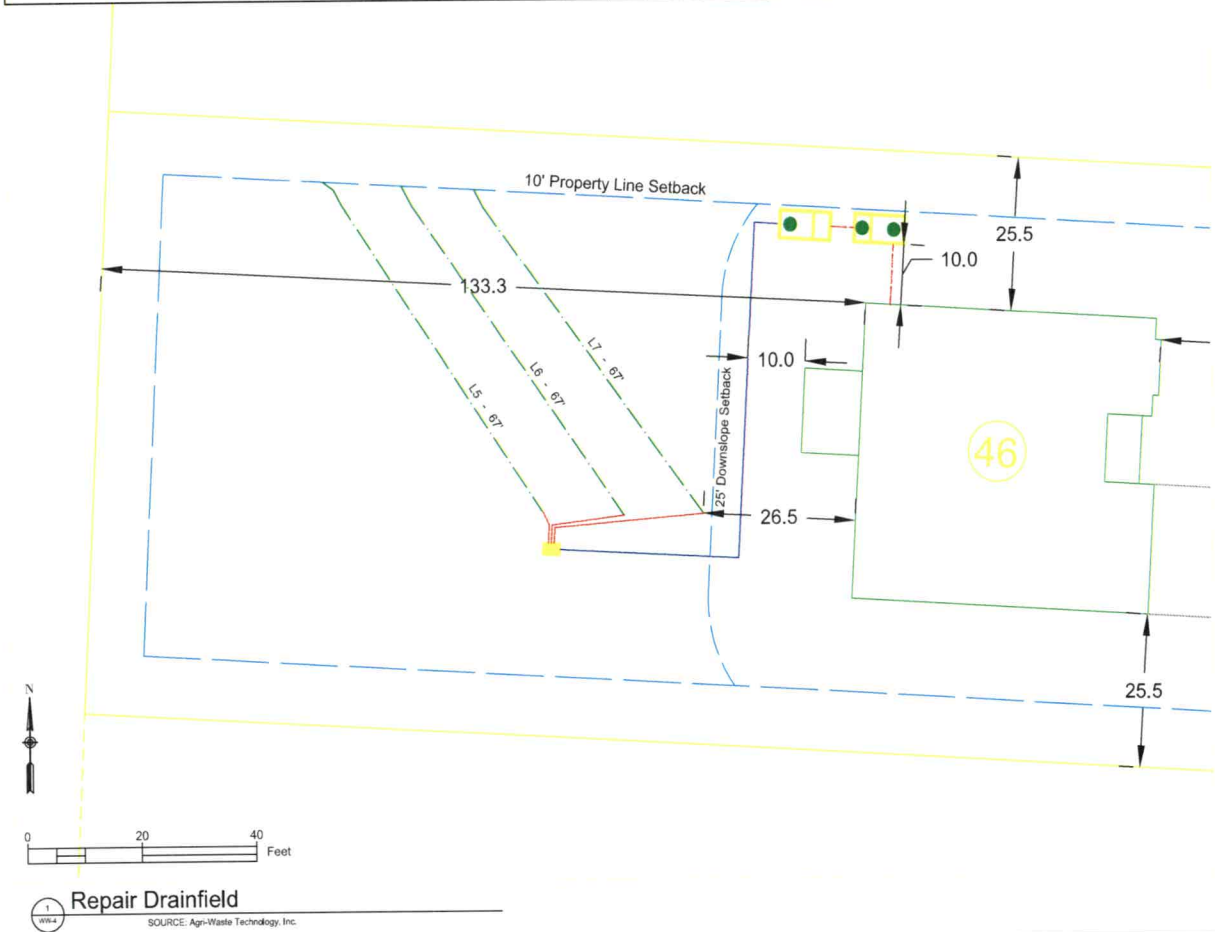
1. Clear all trees less than 8" in diameter (measured at a height 3' from soil surface) from the drainfield.
2. Vegetation that will re-grow from a cut stump shall be stumped or pulled from the ground. Stumps shall not be pushed over.
3. Drainfield area shall be cleared of all leaves, pine straw, debris, 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.

DRAINFIELD INFO. - **Repair**

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

Line No.	Flag Color	Line Length (ft.)		Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
5	red	67	1/2in SCH 80	5.48	0.082	0.597
6	purple	67	1/2in SCH 80	5.48	0.082	0.597
7	blue	67	1/2in SCH 80	5.48	0.082	0.597
	Total	**201**	**Total**	**16.44**	**Avg.**	**0.597**

Note:
Repair distribution is pressure manifold utilizing horizontal panel block.



1 WW-4 Repair Drainfield

SOURCE: Agri-Waste Technology, Inc.

AWT
Engineers and Soil Scientists
Agri-Waste Technology, Inc.
501 N. Salem Street, Suite 203
Apex, North Carolina 27502
919-859-0689
www.agriwaste.com

Adam's Homes
Lot 46

Project Location:
221 Mountain Island Dr
Statesville, NC 28677
Iredell County
PIN: 4762319464.000

Project Owner:
Adam's Homes
3000 Gulf Breeze Parkway
Gulf Breeze, FL 32563
704-361-5437
bcashion@adamshomes.com

For Permitting Purposes

REV. ISSUED DATE DESCRIPTION

SHEET TITLE
Repair Drainfield

DRAWN BY:	CREATED ON:
T. Bostic	06/27/2023
REVISED BY:	REVISED ON:
####	####
RELEASED BY:	RELEASED ON:
####	####

DRAWING NUMBER
WW-4

County: Iredell

IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: 4762-31-9464

Issued To: Adams Homes

Property Location: 221 Mountain Island Drive, Statesville, NC 28677

Subdivision: NorthLake Lot #: 46 Block: _____ Section: _____

LSS Report Provided: Yes ☒ No ☐

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

New ☒ Repair ☐ Expansion ☐ System Relocation ☐

Proposed Structure: Single family residence

Proposed Wastewater System Type: Pressure Manifold 25% Reduction (Initial) Pressure Manifold 50 % Reduction (Repair)

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

Proposed Design Daily Flow: 360 GPD Proposed LTAR (Initial): 0.3GPD/ft2 Proposed LTAR (Repair): 0.3 GPD/ft2

Design Wastewater Strength: ☒ domestic ☐ high strength ☐ industrial process

Number of bedrooms: 3 Number of Occupants: 6 Other: _____

Pump Required: ☒ Yes ☐ No ☐ May be required based upon final location and elevations of facilities

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

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

Drainfield location meets requirements of Rule .1945: Yes ☒ No ☐

Drainfield location meets requirements of Rule .1950: 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: Jeff Vaughan Date: 6/30/2023

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

See attached site sketch

County: Iredell

CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: 4762-31-9464

Issued To: Adams Homes

Property Location: 221 Mountain Island Drive, 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

☒ New ☐ Expansion ☐ Repair System Relocation ☐

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

Type of Wastewater System** Pressure Manifold 25% Reduction (Initial) Pressure Manifold 50% Reduction (Repair)

Design Daily Flow: 360 GPD Wastewater Strength: ☒ domestic ☐ high strength ☐ industrial process

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? ☐ Yes ☒ No

Installation Requirements/Conditions

Septic Tank Size: 1000 gallons Total Trench/Bed Length: 300 feet Trench/Bed Spacing: 9 feet on center

Drainfield square footage: 900 Trench/Bed Width: 36 inches LTAR: 0.3 gpd/ft²

Soil Cover: 6+ inches Slope Adjusted Maximum Trench/Bed Depth: 27 inches

Aggregate Depth: _____inches above pipe _____inches below pipe _____inches total

Pump Tank Size (if applicable): 1000 gallons Requires more than 1 pump? ☐ Yes ☒ No

Pump Requirements: 18.34 ft. TDH vs. 21.02 GPM Grease Trap Size (if applicable): NA 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 [.1937(h)]: Yes ☐ No ☒

Easement, Right-of-Way, or Encroachment Agreement Required [.1938(j)]: ☐ Yes ☒ No

Declaration of Restrictive Covenants: ☐ Yes ☒ No

****If applicable:**
I understand the system type specified is different from the type specified on the application. I accept the specifications of this permit.

Owner/Legal Representative Print Name: _____

Owner/Legal Representative Signature: _____ Date: _____

Pre-Construction Conference Required: Yes ☐ No ☒

Conditions: _____

The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached system layout.

AOWE/PE Print Name: Jeff Vaughan

AOWE/PE Signature: _____ Date: 6/30/2023

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

See attached site sketch

Septic System Design - Summary Page

Engineers and Soil Scientists

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

Project: LSS Permit
Property: 221 Mountain Island Dr
Statesville, NC 28677
Subdiv.: Northlake
Lot #: 46

Date: 6/27/2023
County: Iredell
Permit #:

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

Owner: Adam's Homes
Address: 3000 Gulf Breeze Parkway
Gulf Breeze, FL 32563
Phone: 704-361-5437
Email: bcashion@adamshomes.com

Type of System: III b
PIN: 4762319464

EHS:

Soil Parameters

Soil Evaluation By:

-

Special Conditions/Notes:

LTAR: 0.300 gpd/ft^2

Design Parameters

Type of Establishment: Residence, 5 or fewer bedrooms
Unit: Bedroom
# of Units: 3

Septic Tank Specifications

Min. Tank Capacity: 900 gal
Actual Tank Volume: 1,064 gal
Tank Manufacturer: Shoaf
Tank Model: TS 1000 STB 5ft Burial Depth

	Exterior	Interior	
Length:	108.0	102.0	in.
Width:	58.0	52.0	in.
Depth:	70.5	60.5	in.

Primary Drainfield Specifications

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

Trench Bottom Area: 1200 ft^2
Minimum Drain Line: 300 ft
Actual Drain Line: 300 ft
Number of Lines: 4
Minimum Line Spacing: 9 ft O.C.

Wastewater Treatment System Design Calculations

Project: LSS Permit
Location: 221 Mountain Island Dr
Statesville, NC 28677
County: Iredell

Septic Tank Sizing

Daily Flow Estimate:

Unit	# of Units	Flow/Unit	Flow/Day
Bedroom	3	120	360
			0
			0
		Q=	360 gpd

Septic Tank Minimum Capacity: Per NCAC T15A:18A .1952(b)(1):

For individual residences with 3 or fewer bedrooms,

Minimum Liquid Capacity (V)= 900 gal

Septic Tank Specs:

Manufacturer: Shoaf
Model: 1000 STB 5ft Burial Dep
Volume: 1,064 gal
Weight: 10,500 lbs

	Exterior	Interior	
Length:	108.0	102.0	in.
Width:	58.0	52.0	in.
Depth:	70.5	60.5	in.

Shape of Risers: Circular
Diameter: 2.00 ft

Pump Tank Storage & Float Settings

Project: LSS Permit
Location: 221 Mountain Island Dr
Statesville, NC 28677
County: Iredell

Tank Manufacturer	Shoaf
Tank Model	TS 1275 PT 5' Burial

Interior Height (in.) **60.5** in.
Avg. Storage **21.07** gal/in.

Primary System

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

Top of pump (including 4" block)	15.7 in.	(Pump height = 11 11/16")
Pump Off	17.5 in.	
Pump On	24.0 in.	(set for dose volume)
Alarm On	30.0 in.	(6 in. above On Float)

Emergency Storage Available
Pump Tank 643 gal
Days of Storage 1.79 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)	15.7 in.	(Pump height = 11 11/16")
Pump Off	17.5 in.	
Pump On	27.5 in.	(set for dose volume)
Alarm On	33.5 in.	(6 in. above On Float)

Emergency Storage Available
Pump Tank 569 gal
Days of Storage 1.58 days
(determined from "interior top of tank" - "High Water Alarm")

ELEVATIONS

Project: LSS Permit
Location: 221 Mountain Island Dr
Statesville, NC 28677
County: Iredell

Benchmark	0	
BM Elev	0 ft	
Septic Tank	1,064 gal	
Ground Surface		861.00 ft
Depth of Soil Cover	12 in.	1.00 ft
Overall Ht of Tank	70.5 in.	5.88 ft
Elev, Base of Tank		854.13 ft
Ht to 4" Inlet Invert	57 in.	4.75 ft
Elev, 4" Inlet Invert		858.88 ft
Ht to 4" Outlet Invert	54.5 in.	4.54 ft
Elev, 4" Outlet Invert		858.67 ft
Gravel Base	6 in.	0.50 ft
Elev, Bot of Excavation		853.63 ft
Pump Tank	1287 gal	
Ground Surface		861.00 ft
Depth of Soil Cover	16 in.	1.33 ft
Overall Ht of Tank	70.5 in.	5.88 ft
Elev, Base of Tank		853.79 ft
Ht to 4" Inlet Invert	57 in.	4.75 ft
Elev, 4" Inlet Invert		858.54 ft
Ht to 2" Outlet Invert	58 in.	4.83 ft
Elev, 2" Outlet Invert		858.63 ft
Gravel Base	6 in.	0.50 ft
Elev, Bot of Excavation		853.29 ft
ST Inlet Pipe		
Grade @ Stub-out		861 ft
Depth of Stub-out, top		1.5 ft
Elev, Stub-out Invert		859.15 ft
Elev @ ST Inlet Invert		858.88 ft
Length		10 ft
Slope		2.7 %
Pipe, ST to PT		
ID	4 in.	0.33 ft
OD	4.5 in.	0.38 ft
Elev, ST Outlet Invert		858.67 ft
Elev, PT Inlet Invert		858.54 ft
Length		4 ft
Slope		3.1 %
Cover over inlet pipe		1.77 ft
Pump Reqmt.		
Floor Thickness	4 in.	0.33 ft
Elev, Pump Tank Floor		854.13 ft
Pump Block Ht.	4 in.	0.33 ft
Elev, Pump Intake		854.46 ft
Grade @ Primary Manifold		865.00 ft
Grade @ Repair Manifold		864.00 ft
Min. Cover	18 in.	1.50 ft
Max Elev, Primary		863.50 ft
Max Elev, Repair		862.50 ft
Elev Diff, Primary		9.04 ft
Elev Diff, Repair		8.04 ft

Drainfield Design

Project	LSS Permit
Location	221 Mountain Island Dr
	Statesville, NC 28677
County	Iredell

Drainfield Sizing

Primary

LTAR	0.3 gpd/ft^2		
Daily Design Flow	360 gpd	**Type of Drainfield Media**	Chambers
Req. Drainfield Area	1,200 ft^2	**Required Drainline**	
Trench Width, Eff.	3 ft	**After 25% Reduction**	300 ft
Required Drainline	400 ft	**Minimum Line Spacing**	9 ft (O.C.)

Repair

LTAR	0.3 gpd/ft^2		
Daily Design Flow	360 gpd	**Type of Drainfield Media**	PPBPS, Horizontal
Req. Drainfield Area	1,200 ft^2	**Required Drainline**	
Trench Width, Eff.	3 ft	**After 50% Reduction**	200 ft
Required Drainline	400 ft	**Minimum Line Spacing**	8 ft (O.C.)

Drainfield Layout

Line	Use	Flag Color	Elevation (ft)	Line Length (ft)	Used as Primary (ft)	Used as Repair (ft)
1	Layout Line	purple			50.0	
2	Layout Line	blue			50.0	
3	Layout Line	yellow			100.0	
4	Layout Line	orange			100.0	
5	Layout Line	red				67.0
6	Layout Line	purple				67.0
7	Layout Line	blue				67.0
8	Layout Line					
9	Layout Line					
10	Layout Line					
11	Layout Line					
12	Layout Line					
13	Layout Line					
14	Layout Line					
15	Layout Line					
16	Layout Line					
17	Layout Line					
18	Layout Line					
19	Layout Line					
20	Layout Line					
			Total	0	300	201
			Count	0	4	3

Note: Line length totals are shown to the nearest foot.

For Chambers or Low-profile Chambers:

Effective trench lengths are shown. Add 1' for total installation length.

PRESSURE MANIFOLD DESIGN (Primary)

Site Information

Project: LSS Permit
Location: 221 Mountain Island Dr
Statesville, NC 28677
County: Iredell

Design Information

Estimated Daily Flow	360	gal/day
L.T.A.R. (from Iredell 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	400	ft.
Length after 25% Reduction	300	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. - **Primary**

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

Line No.	Flag Color	Line Length (ft)	Tap	Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
1	purple	50	1/2in SCH 80, Split	2.74	0.055	0.400
2	blue	50	1/2in SCH 80, Split	2.74	0.055	0.400
3	yellow	100	1/2in SCH 80	5.48	0.055	0.400
4	orange	100	1/2in SCH 80	5.48	0.055	0.400
	Total	**300**	**Total**	**16.44**	**Avg.**	**0.400**

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

Total Run Time	21.90	min.	
Drainfield Capacity	195.9	gal	
% of Drainfield Cap	69.9%		(Req. Range 66-75%)
Dose Volume	136.9	gal/dose	
Run Time/Dose	**8.3**	**minutes**	Range 5-7 minutes unless uphill, checked
Volume/depth	21.07	gal/in.	(Per tank manufacturer's specifications)
Estimated Drawdown	6.50	in.	

Manifold Box

Number of Taps	3	with	1	Split(s)
Manifold Length	3.0	ft.	(approximate)	

PRESSURE MANIFOLD SYSTEM DESIGN (Repair)

Site Information

Project: LSS Permit
Location: 221 Mountain Island Dr
Statesville, NC 28677
County: Iredell

Design Information

Estimated Daily Flow	360	gal/day
L.T.A.R. (from Iredell 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	400	ft.
Length after 50% Reduction	200	ft
L.T.A.R. Reduced	0.600	gal/day/ft^2
L.T.A.R. Reduced + 5%	0.630	gal/day/ft^2

DRAINFIELD INFO. - **Repair**

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

Line No.	Flag Color	Line Length (ft.)		Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
5	red	67	1/2in SCH 80	5.48	0.082	0.597
6	purple	67	1/2in SCH 80	5.48	0.082	0.597
7	blue	67	1/2in SCH 80	5.48	0.082	0.597
	Total	**201**	**Total**	**16.44**	**Avg.**	**0.597**

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

Total Run Time	21.90	min.	
Drainfield Capacity	324.0	gal	
% of Drainfield Cap	65.0%		(Max. 100.5% to not exceed 7.2 gal/panel)
Dose Volume	210.6	gal/dose	
Run Time/Dose	**12.8**	**minutes**	Time to deliver max. 7.2 gal/panel
Volume/depth	21.07	gal/in.	(Per tank manufacturer's specifications)
Estimated Drawdown	10.00	in.	

Manifold Box

Number of Taps	3	with	0	Split(s)	
Manifold Length	3.0	ft.	(approximate)		

PUMP DESIGN

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

Project: LSS Permit
Location: 221 Mountain Island Dr
Statesville, NC 28677
County: Iredell

Friction Losses

Suction Head	0 ft		*(submersible 0)*
Elev. Difference (highest point from pump)	9.04 ft		
Design Pressure At Outlet	2 ft		

Supply Line - 1.25" Schedule 40 PVC

Pipe Diameter, Nominal	1.25 in.		
Pipe Diameter (ID)	1.36 in.	Flow	16.44 gpm
Pipe Length	150 ft	Velocity	3.63 ft/sec
Pipe Length for Fittings	15 ft		Meets requirement that 2 ft/s < v < 5 ft/s.
Equivalent Length	165 ft		
Estimated Friction Loss in Supply Line	6.48 ft		
Friction Loss - Taps/Special Fittings	3.5 ft		
TOTAL	**21.02 ft.**		

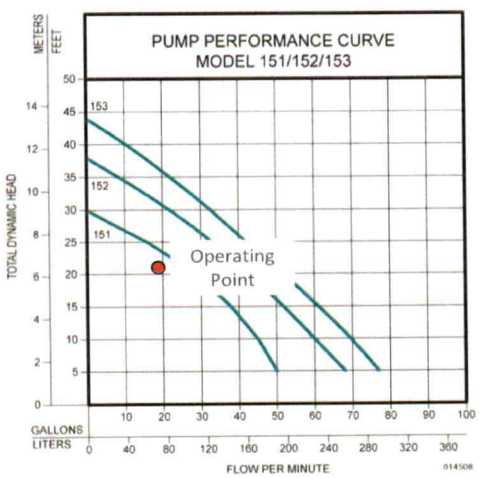
Flow for Anti-Siphon Hole

Hole Diameter	3/16 in.
Hole Flowrate	1.90 gpm

Pump Efficiency	0.7	*(assumed, typical)*
Motor Efficiency	0.9	*(assumed for electric pumps)*
Flow	**18.34 gpm**	
Required Horsepower	0.15 hp	
TDH	**21.02 ft**	

Pump Selection

Manufacturer:	Zoeller
Model:	N151
Horsepower:	**0.33**



PUMP DESIGN

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

Project: LSS Permit
Location: 221 Mountain Island Dr
Statesville, NC 28677
County: Iredell

Friction Losses

Suction Head	0 ft		*(submersible 0)*
Elev. Difference (highest point from pump)	8.04 ft		
Design Pressure At Outlet	2 ft		

Supply Line - *2.0" Schedule 40 PVC*

Pipe Diameter, Nominal	1.25 in.		
Pipe Diameter (ID)	1.36 in.	Flow	16.44 gpm
Pipe Length	90 ft	Velocity	3.63 ft/s
Pipe Length for Fittings	9 ft		Meets requirement that 2 ft/s < v < 5 ft/s.
Equivalent Length	99 ft		
Estimated Friction Loss in Supply Line		3.89 ft	
Friction Loss - Taps/Special Fittings		3.5 ft	
TOTAL		**17.43 ft.**	

Flow for Anti-Siphon Hole

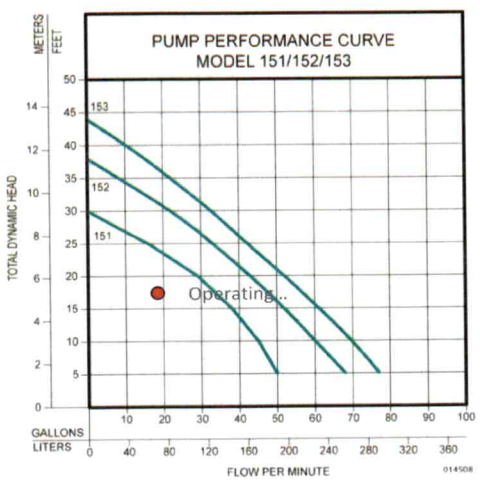
Hole Diameter	3/16	in.
Hole Flowrate	1.73	gpm

Pump Efficiency	0.7	*(assumed, typical)*
Motor Efficiency	0.9	*(assumed for electric pumps)*
Flow	**18.17 gpm**	

Required Horsepower 0.13 hp
TDH **17.43 ft.**

Pump Selection

Manufacturer:	Zoeller
Model:	N151
Horsepower:	**0.33**



Septic Tank Buoyancy Calculation

Project: LSS Permit
Location: 221 Mountain Island Dr
Statesville, NC 28677
County: Iredell

Tank Size (nominal) 1064 gal

Properties/Assumptions:

Min. liquid level to be maintained in tank at all times after initial installation.

Min. depth to water table	12.0	in.	from ground surface
Effluent Density	62.4	lb/ft^3	(Specific Weight of Water)
Concrete Density	142.6	lb/ft^3	
Soil App. Sp. Grav.	1.3		*(typical value)*
Soil Cover Over Tank	12	in.	(minimum)
Additional Cover	0	in.	for pipe grade
Unsubmerged wt of soil	81.1	lb/ft^3	
Submerged wt of soil	49.9	lb/ft^3	50% Porosity Assumed

Tank Dimensions (from supplier):

		Exterior		*Interior*		
		Top	Bottom	Top	Bottom	
Tank	Length	108.0	104.0	102.0	98.0	in.
	Width	58.0	54.0	52.0	48.0	in.
	Height	64.5	(w/o lid)	60.5		in.
Lid	Length	108.0	in.			
	Width	58.0	in.			
	Height	6.0	in.			

Area of Riser Openings 6.28 ft^2

Permanent Liquid Depth in Tank 0.0 in. 0.00 ft

Tank Weight 10,500 lb (per manufacturer)

Buoyancy Force Calculation:

Buoyancy Force Specific Weight of Water x Displaced Volume

Displaced Volume	243.4 ft^3 *
Buoyancy Force	**15,186 lb.**

Weight Calculation:

Tank Weight	10500 lb		
Water Weight in Tank	0 lb	Volume	0.0 ft^3 *
Soil Weight Over Tank	3019 lb		
Soil Friction Force	4611 lb		
Total Weight	**18,130 lb**		

Factor of Safety = 1.19

Note: Total weight must be greater than buoyancy force so that tank will not float during high water table conditions.

** Volume calculated by the prismoidal formula.*

Pump Tank Buoyancy Calculation

Project: LSS Permit
Location: 221 Mountain Island Dr
Statesville, NC 28677
County: Iredell

Tank Size (nominal) 1287 gal

Properties/Assumptions:

Min. liquid level to be maintained in tank at all times after initial installation.

Min. depth to water table	12	in.	from ground surface
Effluent Density	62.4	lb/ft^3	(Specific Weight of Water)
Concrete Density	142.6	lb/ft^3	
Soil App. Sp. Grav.	1.3		*(typical value)*
Soil Cover Over Tank	12	in.	(minimum)
Additional Cover	4	in.	for pipe grade
Unsubmerged wt of soil	81.1	lb/ft^3	
Submerged wt of soil	49.9	lb/ft^3	50% porosity assumed

Tank Dimensions (from supplier):

		Exterior		Interior		
		Top	Bottom	Top	Bottom	
Tank	Length	108.0	104.0	102.0	98.0	in.
	Width	58.0	54.0	52.0	48.0	in.
	Height	64.5	(w/o lid)	60.5		in.
Lid	Length	108.0	in.			
	Width	58.0	in.			
	Height	6.0	in.			

Area of Riser Openings 3.14 ft^2

Permanent Liquid Depth in Tank 0.0 in. 0.00 ft

Tank Weight 10500 lb (per manufacturer)

Buoyancy Force Calculation:

Buoyancy Force Specific Weight of Water x Displaced Volume

Displaced Volume	244.4	ft^3 *
Buoyancy Force	**15,252**	**lb**

Weight Calculation:

Tank Weight	10500	lb		
Water Weight in Tank	0	lb	Volume	0.0 ft^3 *
Soil Weight Over Tank	3945	lb		
Soil Friction Force	4611	lb		
Total Weight	**19,056**	**lb**		

Factor of Safety = 1.25

Note: Total weight must be greater than buoyancy force so that tank will not float during high water table conditions.

** Volume calculated by the prismoidal formula.*

NCDHHS

Permit #: OSWP-2023-29874

This Section for Local Health Department Use Only

Initial submittal received: 7/17/21 (*Date*) by BB (*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: Benjamin A Botkins Date: 7/21/2023

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 by the Health Department 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 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 evaluations, submittals, or actions from a licensed soil scientist or licensed geologist pursuant to GS 130A-335(a2).

Improvement Permit Expiration Date: 7/21/2028

See attached site sketch

NCDHHS

Permit #: OSWP-2023-29874

This Section for Local Health Department Use Only

Initial submittal received: 7/17/2023 (*Date*) by BB (*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: Benjamin A Botkins Date of Issuance: 7/21/2023

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: 7/23/2028

See attached site sketch

COUNTY: Iredell Co.__

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

CLIENT: Adams Homes APPLICATION DATE_____
ADDRESS: (Lot 46) 221 Mountain Island Rd. Statesville, NC. 28677 DATE EVALUATED: 5/19/23
PROPOSED FACILITY: Single Family Residence PROPOSED DESIGN FLOW (.1949): 360 GPD PROPERTY SIZE: .51 ac
LOCATION OF SITE (Lot 46) 221 Mountain Island Rd. Statesville, NC. 28677 PROPERTY RECORDED: _____
WATER SUPPLY: ☐ Private ☒ Public ☐ Well ☐ Spring ☐ Other _____
EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
SB 1	3%	0-8"	SCL; WSBK	SS; SP; FR	-	45"	-	-	Provisionally Suitable 0.3
		8-30"	C; SBK	SS; SP; FI					
		30-45+"	CL; WSBK	SS; SP; FR					
SB 2	3%	0-8"	SCL; WSBK	SS; SP; FR	-	45"	-	-	Provisionally Suitable 0.3
		8-35"	C; SBK	SS; SP; FI					
		35-45"	CL; WSBK	SS; SP; FR					
SB 3	3%	0-10"	SCL; WSBK	SS; SP; FR	-	40"	-	-	Provisionally Suitable 0.3
		10-40"	C; SBK	SS; SP; FI					
		40+"	SCL; MA	SS; SP; FR					
SB 4	5%	0-8"	SCL; WSBK	SS; SP; FR	-	42"	-	-	Provisionally Suitable 0.3
		8-34"	C; SBK	SS; SP; FI					
		34-42"	CL; WSBK	SS; SP; FR					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	Provisionally Suitable	Provisionally Suitable
System Type(s)	Pressure Manifold 25% Reduction	Pressure Manifold 50 % Reduction
Site LTAR	0.3 GPD/Ft^2	0.3 GPD/Ft^2

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): _____

EVALUATED BY: Trevor Hackney
OTHER(S) PRESENT: Nathan Estevez

LEGEND

use the following standard abbreviations

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

*Adjust LTAR due to depth, consistence, structure, soil wetness, landscape, position, wastewater flow and quality.

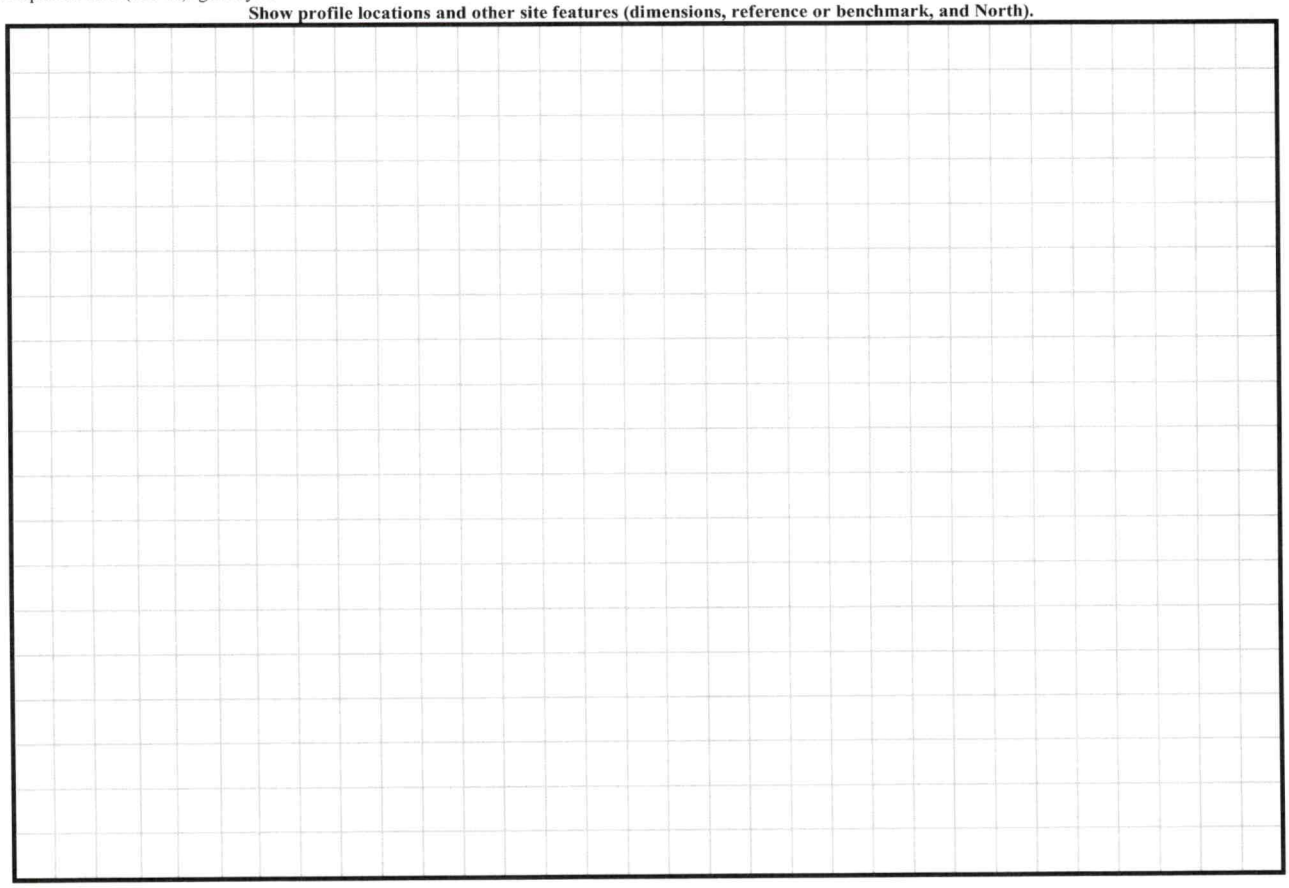
NOTES

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

Evaluation of saprolite shall be by pits.

Long-term Acceptance Rate (LTAR): gal/day/ft^2

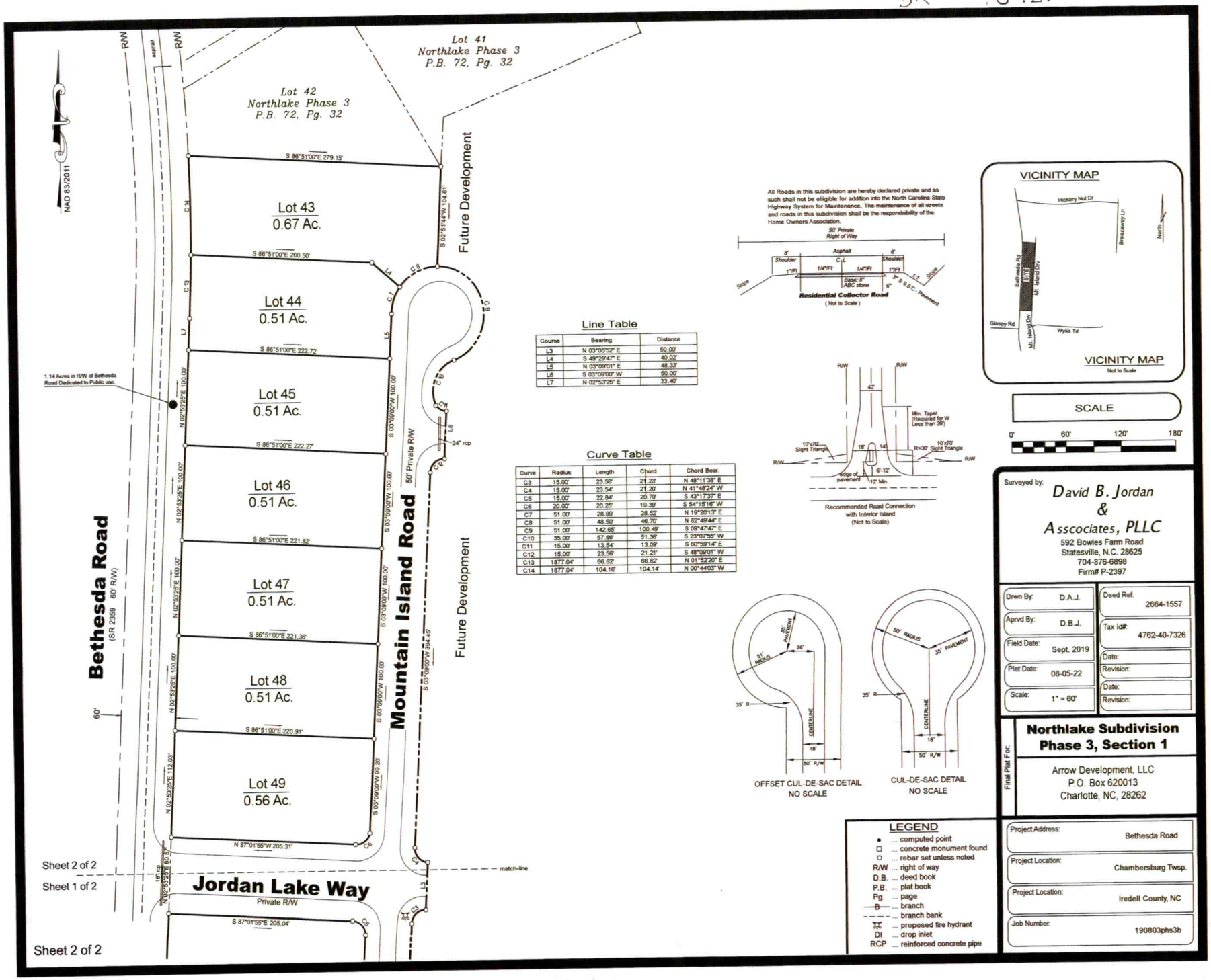
Show profile locations and other site features (dimensions, reference or benchmark, and North).



COMMENTS:

Attachment 3: Additional Documentation

BK PG 127



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.

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°11'38" 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°59'14" E
C12	15.00'	23.56'	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

Recommended Road Connection with Interior Island (Not to Scale)

OFFSET CUL-DE-SAC DETAIL
NO SCALE

CUL-DE-SAC DETAIL
NO SCALE

SCALE

0' 60' 120' 180'

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

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

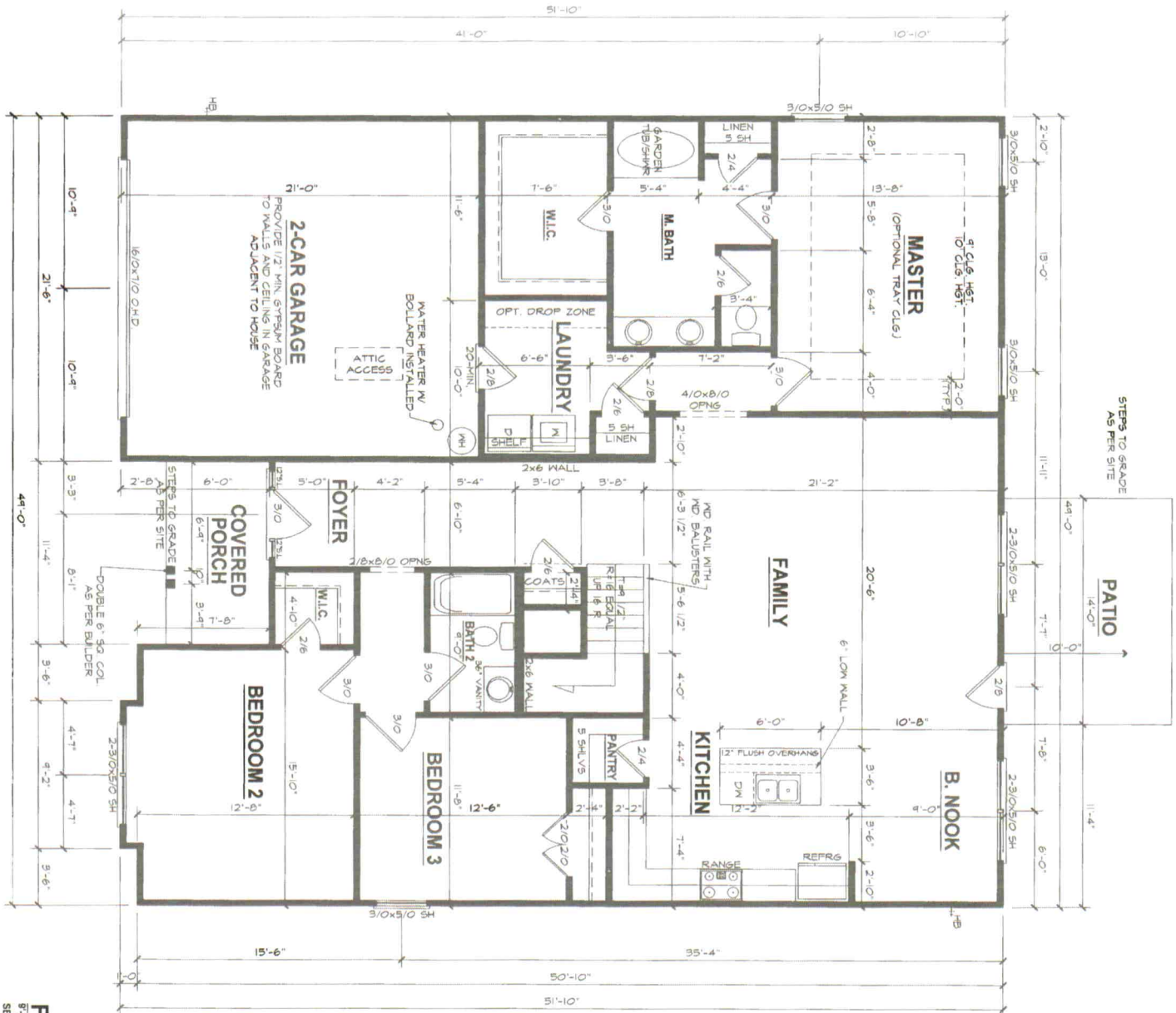
Drwn By:	D.A.J.	Deed Ref:	2664-1557
Aprvd By:	D.B.J.	Tax Id#:	4762-40-7326
Field Date:	Sept. 2019	Date:	
Plat Date:	08-05-22	Revision:	
Scale:	1" = 60'	Date:	
		Revision:	

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



FIRST FLOOR PLAN

9'-0" (NOM.) CLG. HGT. U.N.O.
SET WINDOWS @ 7'-0" U.N.O.

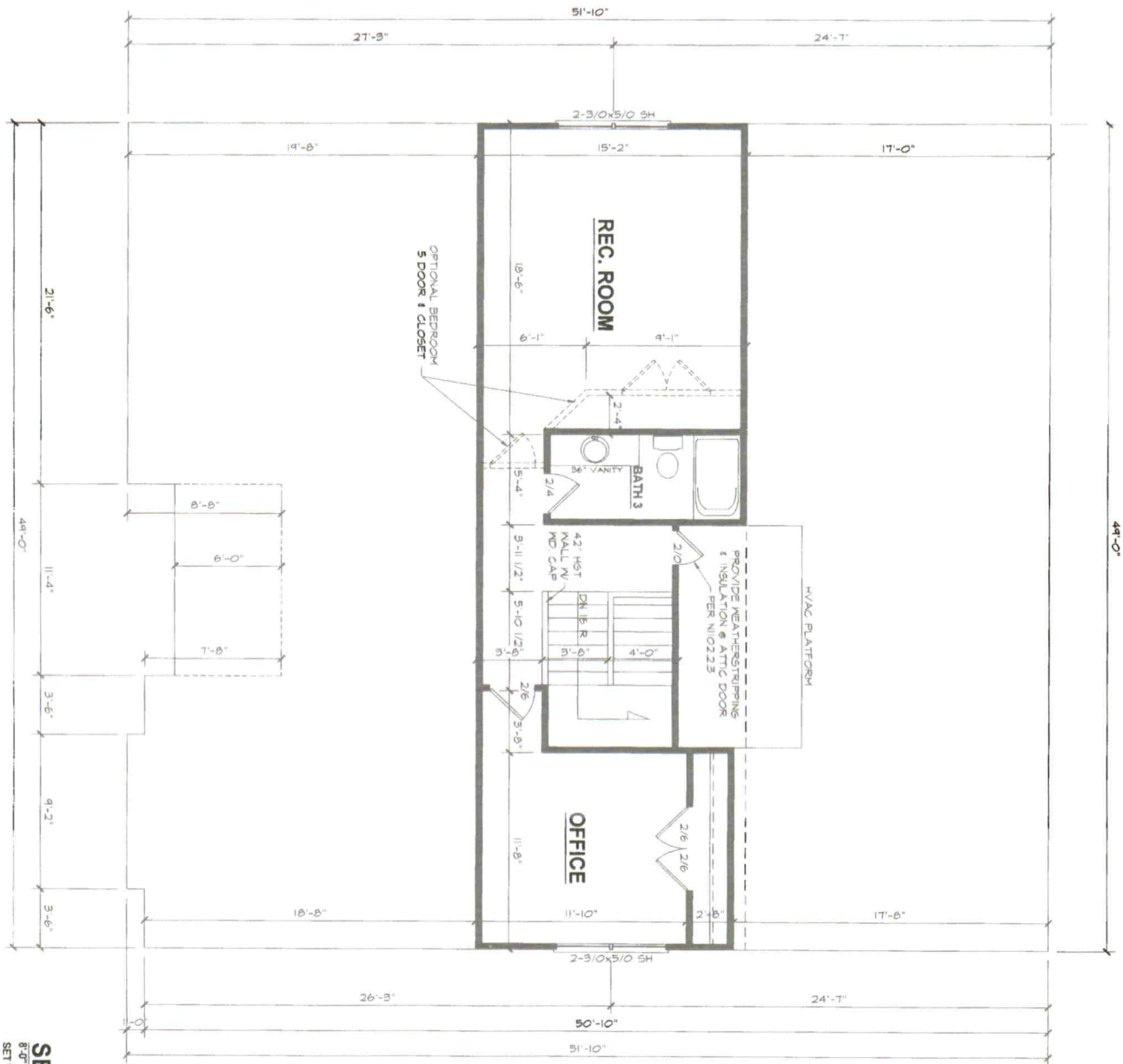
SCALE: 1/4"=1'-0"

SHEET 3

DATE DRAWN 3/10/2023
PROJECT 5613
REVISIONS

2604 "A" FE (L) NR4603

ADAMS HOMES AEC, LLC



SECOND FLOOR PLAN

8'-0" (NOM.) CLG. HGT. U.N.O. SCALE: 1/4"=1'-0"

SET WINDOWS @ 7'-2" U.N.O.

SHEET 4

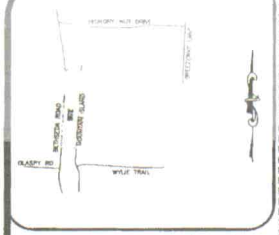
DATE DRAWN 3/10/2023

PROJECT 5813

REVISIONS

2604 "A" FE (L) NR4603

ADAMS HOMES AEC, LLC



VICINITY MAP (NTS)

LEGEND
AC=AIR CONDITIONING UNIT
AG=ABOVE GROUND
BOC=BACK OF CURB
BG=BELOW GROUND
CATV=CABLE TV
CB=CATCH BASIN
C/WD=COVERED
DW=CONC. DRIVEWAY
EB=ELECTRIC BOX
EM=ELECTRIC METER
EOP=EDGE OF PAVEMENT
EP=ELECTRIC PEDESTAL
FH=FIRE HYDRANT
ICV=IRRIGATION CONTROL VALVE
LP=LIGHT POLE
MTR=METER
N/F=NOW OR FORMERLY
PO=PORCH
PP=POWER POLE
RCP=REINFORCED CONC. PIPE
R/W=RIGHT OF WAY
SCO=CLEANOUT
SW=SIDEWALK
TP=TELEPHONE PEDESTAL
TF=TRANSFORMER
WM=WATER METER
WV=WATER VALVE
○ EIP=EXISTING IRON PIPE
◉ IRON PIPE SET
○ EIR=EXISTING IRON ROD

NORTH CAROLINA PROFESSIONAL SEAL L-4817 LAND SURVEYOR NICHOLAS M. FRENCH

THIS EXHIBIT MAP IS OF AN EXISTING PARCEL OR PARCELS OF LAND AND DOES NOT CREATE A NEW STREET OR CHANGE AN EXISTING STREET.

NICHOLAS M. FRENCH, PLS L-4817 DATE

THIS MAP IS ONLY INTENDED FOR THE PARTIES AND PURPOSES SHOWN. THIS MAP IS NOT FOR RECORDATION. NO TITLE REPORT PROVIDED.

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.

GENERAL NOTES:

1. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.

2. AREAS SHOWN HEREON WERE COMPUTED USING THE COORDINATE METHOD.

3. LINES NOT SURVEYED ARE SHOWN AS DASHED LINES FROM INFORMATION REFERENCED ON THE FACE OF THIS SURVEY.

4. PROPERTY MAY BE SUBJECT TO ANY/ALL EASEMENTS AND RESTRICTIONS OF RECORD. THIS SURVEY IS A CORRECT REPRESENTATION OF THE LAND PLATTED AND OR DEEDED AND HAS BEEN PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. A NORTH CAROLINA LICENSED ATTORNEY-AT-LAW SHOULD BE CONSULTED REGARDING CORRECT OWNERSHIP, WIDTH AND LOCATION OF EASEMENTS, AND OTHER TITLE QUESTIONS REVEALED BY TITLE EXAMINATION.

5. DRIVEWAY IMPERVIOUS CALCULATION SHOWN HEREON CALCULATED TO THE FRONT PROPERTY LINE/RIGHT-OF-WAY.

6. THIS PARCEL IS NOT LOCATED WITHIN A FLOOD HAZARD ZONE AS INDICATED ON CID NO. 370313 PANEL 4762, SUFFIX J IREDELL COUNTY WITH AN EFFECTIVE DATE OF 03/18/2008.

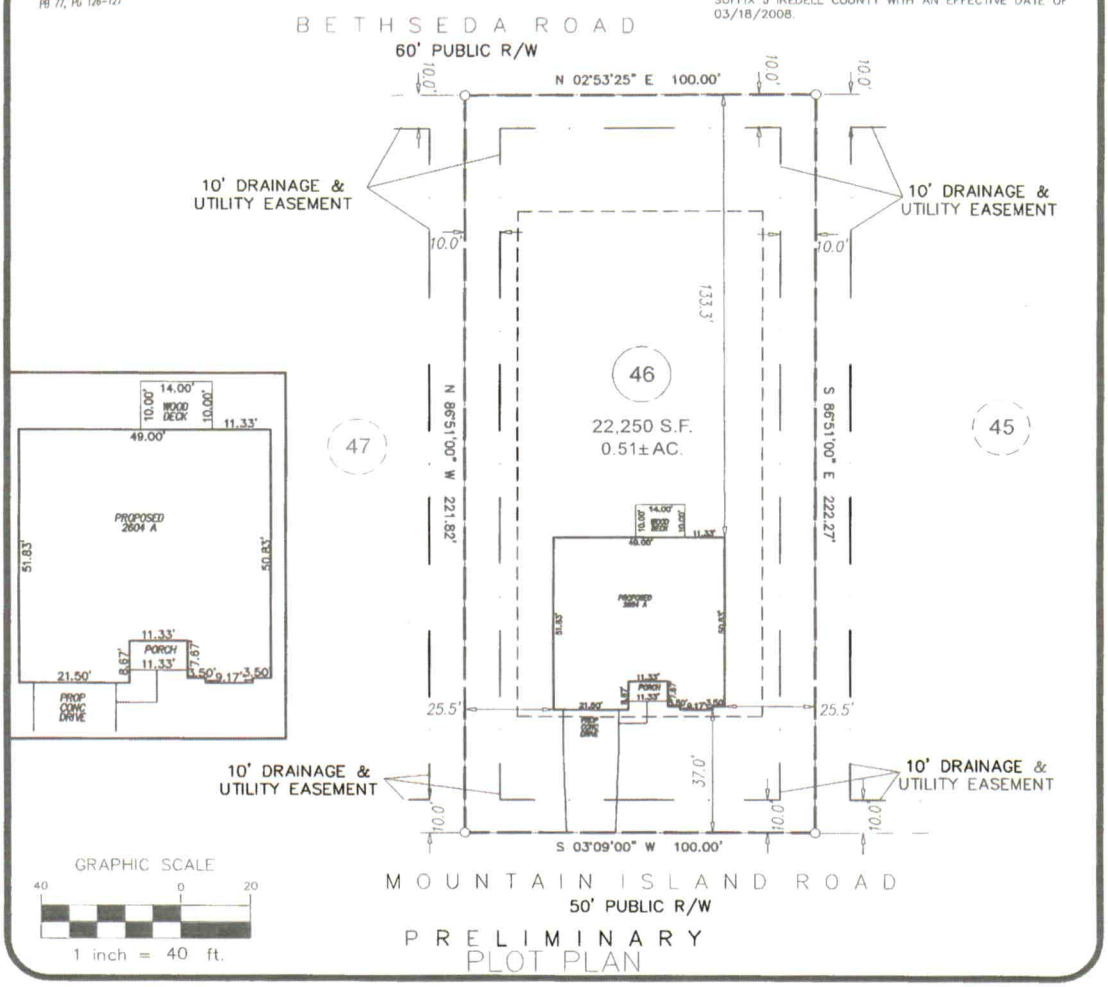
SETBACKS PER
PB 77 PG 126-127

FRONT	35'
SIDE	15'
REAR	35'

IMPERVIOUS AREA

HOUSE	2,502 SQ.FT.
DRIVE TO R/W	565 SQ.FT.
WALK	46 SQ.FT.
DECK	140 SQ.FT.
TOTAL	3,253 SQ.FT.

PLAT NORTH
PB 77, PG 126-127



GRAPHIC SCALE
40 0 20
1 inch = 40 ft.

PRELIMINARY
PLOT PLAN

PROJECT:	NORTHLAKE PHASE 3
DRAWN BY:	SEER
SURVEYED BY:	N/A
SCALE:	1"=40'
FIELD WORK:	N/A
DWG DATE:	03-06-2023

FOR
ADAMS HOMES
221 MOUNTAIN ISLAND DRIVE
LOT 46 NORTHLAKE SUBDIVISION PHASE 3
CHAMBERSBURG TWP., IREDELL CO., NC
P.B. 77, PG. 126-127

ECLS GLOBAL, INC
U.S. VETERAN-OWNED
19 N McKINLEY ST
COATS, NC 27521
910.897.3257 ECLSGLOBALINC.COM
910.897.2329 (FAX) COA#C-4175

Fair Wind Lane
(45' R/W)
1.14 Acres in R/W of Bethesda
Road Dedicated to Public use.
C1
26.01'
100.00'
100.00'
100.00'
100.01'
104.14'
Chord
Lot 43
0.58 Ac.
Lot 44
0.51 Ac.
Lot 45
0.51 Ac.
Lot 46
0.51 Ac.
256.41'
224.36'
222.72'
222.27'
221.82'
House Box
5'x5'
Mountain Island Drive
18' asphalt
58.62'
28.97'
Chord
21.21'
Chord
110.03'
Lot 14
113.76'
60.03'
Chord
50.30'
35.57'
Chord
7.18'
102.84'
Chord
215.
212.4
217

IREDELL COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH

DOCUMENTATION TO AUTHORIZE AN OWNER'S LEGAL REPRESENTATIVE

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.

I, Arrow Development LLC c/o Rebecca Zolzer, am the legal owner(s) of the property located at 221 Mountain Island Dr, Statesville, NC 28677, identified as PIN (Parcel Identification Number) Portion of 4762407325.000, located in Iredell County, North Carolina.

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

Signature of Owner(s)	Date	Signature of Witness	Date
[signature]	8-3-20	[signature]	8-3-20

Please return this signed form to the appropriate office:

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

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

ENVIRONMENTAL HEALTH REQUIREMENTS for SEPTIC PERMITS

The following items* must be completed *PRIOR* to the *SUBMITTAL of the Improvement Permit (IP) Authorization to Construct (AC) / Existing System application packet.

***** Initial each statement to indicate you have read and agree. *****

Lot 46

✓ **Complete all Environmental Health forms**: septic system application, site plan, new well water application (if applicable), and sign this green sheet **after** you have completed all items. Include a copy of the site Zoning Permit. NOTE: *A Zoning Permit is not required for septic system repairs or expansion where no addition is being made to an existing structure.* All applications requiring zoning must submit completed paperwork and applicable fees to *CENTRAL PERMITTING* before any name will be placed on the service request (appointment) list. Applications not requiring zoning may be submitted and paid for at Central Permitting in Statesville OR the Mooresville office of Environmental Health. Only properly completed applications will be placed on the service request list on a first come, first serve basis. **Incomplete applications will be returned to the applicant.**

✓ **Lots must be cleared** to allow access and provide good visibility. Structure footprint must be visible and adequate area for septic drain field and repair area must be cleared sufficiently to provide staff room to move about freely, shoot laser level elevations as well as test soil with hand auger, etc. **If they cannot access the lot, you will incur a $100 revisit fee AFTER clearing the lot before Environmental Health will return to the site.**

✓ Clearly **mark all property corners by locating existing iron or concrete markers**. Flag all property lines every twenty-five feet if adjacent corners are not visible when standing on any given corner. Property lines must be flagged by a licensed NC surveyor and easily identified. 'Mow lines' and/or fence lines do NOT constitute marked lines.

✓ **Stake or flag the footprint of the proposed building structure or addition to match site plan application**. Without a footprint Environmental Health cannot determine the location and size of a proposed septic system.

N/A Where an **Authorization to Construct (AC) is desired**, submit a recorded copy of the plat for the subdivision lot and include a legible copy of the basic floor plan not larger than 11" x 17" for each floor in the structure. Be sure to include any decks, porches, etc.

✓ In the event that backhoe pits are required for soil evaluation (which cannot be determined until Environmental Health staff arrive to test soil) understand that **you are responsible for securing these services.** This may delay the permitting process, but will not result in the application being returned to the bottom of the work list. You must coordinate with the Environmental Health Specialist when test pits are to be dug. The application will be worked back into the schedule as quickly as possible.

Any site not meeting the above requirements when staff arrives for the evaluation will result in a $100 site revisit fee and the request being returned to the bottom of the service request list. Once work by Environmental Health staff begins, the up-front fees paid toward securing any health department permit are non-refundable. Refunds for work not started, due to a customer changing their mind or plans, are subject to an administrative fee of $50 to defray a portion of the costs of processing the refund.

By signing below I am acknowledging the above specifications have been met and the site is READY to be evaluated.

Signature _____ **Date** 8-3-20

Questions? Call between 8:00-9:00a.m., to speak with a Registered Environmental Health Specialist.

Statesville Office
349 North Center Street
(2nd Floor-Building Standards)
Statesville, NC 28677-4063
Phone: (704)878-5305 ext. 3456
This office closes for lunch 1:00 – 2:00 daily.

Mooresville Office
610 East Center Avenue
(2nd Floor-Government Center South)
Mooresville, NC 28115-2548
Phone: (704)660-3625
This office closes for lunch 12-1:00 daily.

IREDELL COUNTY · NC

IREDELL COUNTY
PO Box 788
349 North Center St.
Statesville, NC 28677

APPLICATION NUMBER
309662 Issue Date:

Permit Type: ZONING

Parcel Number	Street Address	Jurisdiction
4762407326.000	846 BETHESDA RD	Iredell County

Owner Information	Applicant Information
Name: ARROW DEV LLC	Name: ARROW DEV LLC
Address:	Address: 1518 Mecklenburg Hwy #512
,	Mt Mourne, NC 28123
Phone:	Phone: (817)818-4000

Use Requested	Zone Code
Single Family Dwelling	RA

Lot Acreage	F Setback	B Setback	L Setback	R Setback	Watershed	Flood Zone
0.51	35	35	15	15	N/A	NO

Remarks
sfd / 221 mountain island lot 46

The applicant certifies that there are no deed restrictions, contractual agreements or governmental regulations of any kind that interfere with or prohibit the use of the property or the use for which this permit is requested. The applicant further acknowledges that enforcement of deed restrictions, plat conditions and other contractual agreements will not be undertaken by Iredell County and is the sole responsibility of the affected parties.

Date: 08/04/2020

Signature of Owner/Contractor

Permit Number	309662	TOTAL FEES:	$77.25