ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # AP 528065

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

PIN # 4615 -- 89 -- 4973

APPLICANT/OWNER: Benfield Outdoor Services + Solutions APPLICANT ADDRESS: 939 Brandy School Rd Mooresville NC

SITE ADDRESS: 441 Bebar Loop Mooresville NC PHONE: ALT. PHONE

SITE DIRECTIONS: Brandy School to Chairwood Ln Bebar Loop Property on Right SAP CONTROLLED: ☐ YES ☒ NO

SUBDIVISION: CL+T SECTION: 7 LOT # 97 LOT AREA: .672 ac DESIGN FLOW: 360 L.T.A.R.: .30

Septic Tank 1000 (gal)	STB Infiltrator	Date	☒ New System ☐ Repair ☐ Expansion	System Type: I II (III) IV V VI	☒ Residence	No. Bedrooms	3	**Water Supply**	
~~Pump Tank~~ 1000 (Settling) (gal)	PT Infiltrator	Date	System Description: Gravity 25% Reduction		☐ Business	No. Persons	6	☐ Private	
Pump Make	Model	Serial #	Repair System Description: Existing System		☐ Other	No. Employees		☐ Public	
# Nitrification Fields 1	# Lines 3	Linear Ft 302'	Maintenance Agreement Required:	☐ YES ☒ NO	☐ Slab	☐ Crawl Space		☐ Community	
Trench Width 36	Trench Bottom Depth ~~(Low side)~~ 34in	Gravel Depth -	☒ GRAVITY	☐ PRESSURE	☒ Basement w/plumbing		☐ Basement w/o plumbing		

Comments / Conditions: Grinder pump to offsite septic house is existing

INITIAL SITE SKETCH

This permit is issued pursuant to Section 11. (C) of S.L. 2018-114 using the signed and sealed LSS Evaluation by:

Benfield Outdoor Services + Solutions

LSS# 1258 April 26, 2022

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.

- Lines 11/18/22 DW
- Tanks 11/21/22 MW

As Built Attached

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: Date: 7-13-22 Installed by: Michael Benfield

IMPROVEMENT PERMIT by: Date: 7/7/2022 OPERATION PERMIT by: Date: 11/21/22

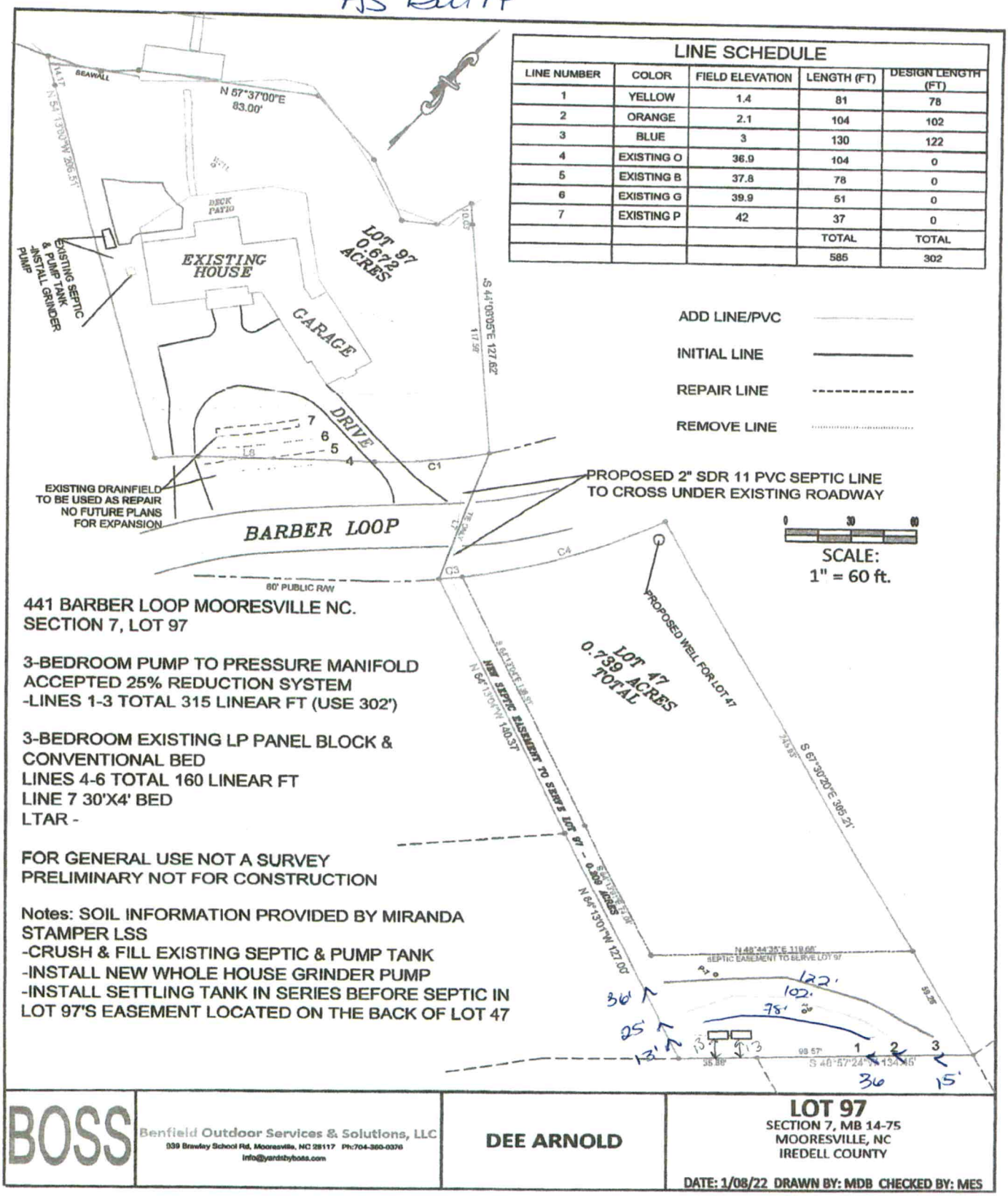
AUTHORIZATION TO CONSTRUCT by: Date: 7/7/2022 Existing System Inspected by: Date:

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

Item	Date	Initials
Drain Lines Checked	11/18/22	DW
Tanks Checked		
Pressure Manifold or Valve Box Checked		
Pressure Head Set		
Electrical Checked		
Floats Set		
Alarm Checked		
Maintenance Contract Needed? Y / (N)		
Comments:		

Repairs Only	
	State Code
Failing System Code	
Type of Distribution	G or P
Type of Failure/Malfunction	
Primary Cause of Failure/Malfunction	
Age of System? _____	
Initial or Repair? _____	

As Built



LINE SCHEDULE				
LINE NUMBER	COLOR	FIELD ELEVATION	LENGTH (FT)	DESIGN LENGTH (FT)
1	YELLOW	1.4	81	78
2	ORANGE	2.1	104	102
3	BLUE	3	130	122
4	EXISTING O	36.9	104	0
5	EXISTING B	37.8	78	0
6	EXISTING G	39.9	51	0
7	EXISTING P	42	37	0
			TOTAL	TOTAL
			585	302

ADD LINE/PVC

INITIAL LINE

REPAIR LINE

REMOVE LINE

441 BARBER LOOP MOORESVILLE NC.
SECTION 7, LOT 97

3-BEDROOM PUMP TO PRESSURE MANIFOLD
ACCEPTED 25% REDUCTION SYSTEM
-LINES 1-3 TOTAL 315 LINEAR FT (USE 302')

3-BEDROOM EXISTING LP PANEL BLOCK & CONVENTIONAL BED
LINES 4-6 TOTAL 160 LINEAR FT
LINE 7 30'X4' BED
LTAR -

FOR GENERAL USE NOT A SURVEY
PRELIMINARY NOT FOR CONSTRUCTION

Notes: SOIL INFORMATION PROVIDED BY MIRANDA STAMPER LSS
-CRUSH & FILL EXISTING SEPTIC & PUMP TANK
-INSTALL NEW WHOLE HOUSE GRINDER PUMP
-INSTALL SETTLING TANK IN SERIES BEFORE SEPTIC IN LOT 97'S EASEMENT LOCATED ON THE BACK OF LOT 47

BOSS

Benfield Outdoor Services & Solutions, LLC
939 Brawley School Rd, Mooresville, NC 28117 Ph:704-360-0376
info@yardsbyboss.com

DEE ARNOLD

LOT 97
SECTION 7, MB 14-75
MOORESVILLE, NC
IREDELL COUNTY

DATE: 1/08/22 DRAWN BY: MDB CHECKED BY: MES

ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # AP 328065

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

PIN # 4615 -- 89 -- 4973

APPLICANT/OWNER: Benfield Outdoor Service + Solutions APPLICANT ADDRESS: 939 Brawley School Rd Mooresville NC

SITE ADDRESS: 441 Barbour Loop Mooresville NC PHONE: ALT. PHONE

SITE DIRECTIONS: Brawley School to Chamberwood @ on Barbour Loop Property on Right SAP CONTROLLED: ☐ YES ☒ NO

SUBDIVISION: CL+T SECTION: 7 LOT # 97 LOT AREA: .672 Ac DESIGN FLOW: 360 L.T.A.R.: .30

Septic Tank 1000 (gal)	STB	Date	☒ New System ☐ Repair ☐ Expansion System Type: I II (III) IV V VI		☒ Residence	No. Bedrooms 3	Water Supply	
~~Pump Tank~~ 1000 (Settling gal)	PT	Date	System Description: Gravity - 25% Reduction		☐ Business	No. Persons 6	☐ Private	
Pump Make	Model	Serial #	Repair System Description: Existing System		☐ Other	No. Employees	☐ Public	
# Nitrification Fields 1	# Lines 3	Linear Ft 302'	Maintenance Agreement Required: ☐ YES ☒ NO		☐ Slab	☐ Crawl Space	☐ Community	
Trench Width 36	Trench Bottom Depth ~~(Low side)~~ 34in	Gravel Depth -	☒ GRAVITY ☐ PRESSURE		☒ Basement w/ plumbing	☐ Basement w/o plumbing		

Comments / Conditions: Condensate pump to offsite septic house is existing

INITIAL SITE SKETCH

This permit is issued pursuant to Section 11. (C) of S.L. 2018-114 using the signed and sealed LSS Evaluation by:

Benfield Outdoor Services + Solutions

LSS# 1258 April 26, 2022

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.

- Lines 7/18/22 DW

As Built Attached

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: Date: 7-13-22 Installed by: Michael Benfield

IMPROVEMENT PERMIT by: Benjamin A Bobbs Date: 7/7/2022 OPERATION PERMIT by: Date:

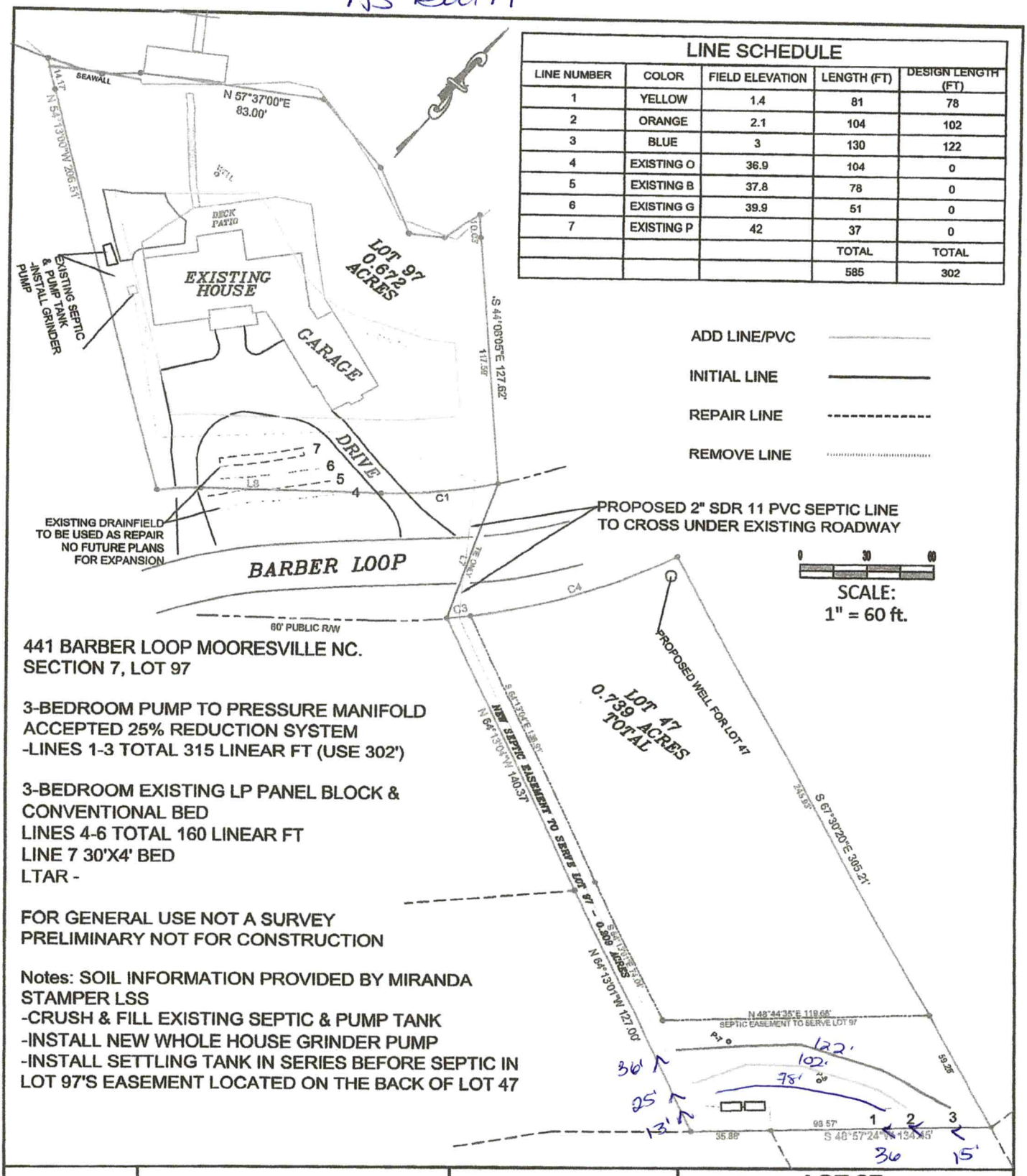
AUTHORIZATION TO CONSTRUCT by: Benjamin A Bobbs Date: 7/7/2022 Existing System Inspected by: Date:

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

Item	Date	Initials
Drain Lines Checked	11/15/22	DW
Tanks Checked		
Pressure Manifold or Valve Box Checked		
Pressure Head Set		
Electrical Checked		
Floats Set		
Alarm Checked		
Maintenance Contract Needed? Y / (N)		
Comments:		

Repairs Only	
	State Code
Failing System Code	
Type of Distribution	G or P
Type of Failure/Malfunction	
Primary Cause of Failure/Malfunction	
Age of System? _____	
Initial or Repair? _____	

As Built



LINE SCHEDULE				
LINE NUMBER	COLOR	FIELD ELEVATION	LENGTH (FT)	DESIGN LENGTH (FT)
1	YELLOW	1.4	81	78
2	ORANGE	2.1	104	102
3	BLUE	3	130	122
4	EXISTING O	36.9	104	0
5	EXISTING B	37.8	78	0
6	EXISTING G	39.9	51	0
7	EXISTING P	42	37	0
			TOTAL	TOTAL
			585	302

ADD LINE/PVC

INITIAL LINE

REPAIR LINE

REMOVE LINE

441 BARBER LOOP MOORESVILLE NC.
SECTION 7, LOT 97

3-BEDROOM PUMP TO PRESSURE MANIFOLD
ACCEPTED 25% REDUCTION SYSTEM
-LINES 1-3 TOTAL 315 LINEAR FT (USE 302')

3-BEDROOM EXISTING LP PANEL BLOCK &
CONVENTIONAL BED
LINES 4-6 TOTAL 160 LINEAR FT
LINE 7 30'X4' BED
LTAR -

FOR GENERAL USE NOT A SURVEY
PRELIMINARY NOT FOR CONSTRUCTION

Notes: SOIL INFORMATION PROVIDED BY MIRANDA STAMPER LSS
-CRUSH & FILL EXISTING SEPTIC & PUMP TANK
-INSTALL NEW WHOLE HOUSE GRINDER PUMP
-INSTALL SETTLING TANK IN SERIES BEFORE SEPTIC IN LOT 97'S EASEMENT LOCATED ON THE BACK OF LOT 47

BOSS

Benfield Outdoor Services & Solutions, LLC
939 Brawley School Rd, Mooresville, NC 28117 Ph:704-360-0376
info@yardsbyboss.com

DEE ARNOLD

LOT 97
SECTION 7, MB 14-75
MOORESVILLE, NC
IREDELL COUNTY

DATE: 1/08/22 DRAWN BY: MDB CHECKED BY: MES

RECEIVED MAY 04 2022

IREDELL COUNTY DEPARTMENT of ENVIRONMENTAL HEALTH

Relocation

APPLICATION FORM AP-328065 $500.00

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

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

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

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

Applicant Information: (PRINT CLEARLY)

Applicant Name: Benfield Outdoor Service and Solutions **Address:** 939 Brawley School Rd, Mooresville, NC **Zip:** _____

Applicant Email: info@yardsbyboss.com **Phone:** 704-360-0376 **Alt. Phone:** _____

Owner Name: Dee Arnold **Address:** _____ **Zip:** _____

Owner Email: deebylake21@gmail.com **Phone:** 704-677-6797 **Alt. Phone:** _____

Property Information:

Street Address: 441 Barber Loop, Mooresville, NC

Subdivision Name: Lake Norman **Section/Phase:** 7 **Lot Number:** 47

Driving Directions: Take exit 35 for Brawley School Rd in approximately 5 mi, turn right onto Chuckwood Rd, then 1.2 mi turn left onto Barber Loop and the property will be on the right hand side of the street about .5 mi.

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

CHECK FOUNDATION TYPE

( ) New Single Family Residence — Maximum Number of Bedrooms: 3 — ( ) Crawl Space Foundation
( ) New Multi-Family Residence — Maximum Number of Occupants: 6 — ( ) Concrete Slab Foundation
( ) Accessory Building — (X) Swimming Pool — (✓) Basement with Plumbing
( ) Bedroom(s) Addition — ( ) Other Addition/Structure: _____ — ( ) Basement without Plumbing
( ) Repair to failing septic system ___ Tank ___ Drain lines Describe Problem: _____
Non-Residential Site Development: Type of Business: _____
Square Footage of Building: _____ Max. Number of Employees: _____ Max. Number of Seats/Beds/Other: _____

Water Supply:

( ) Replacement Well – Reason: _____
( ) Multi-connection Well Number of Houses: _____ Number of Persons: _____

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

Desired Septic System Type: *(you may rank in order of preference)*

Year existing system installed: _____
( ) No Preference ( ) Alternative ( ) Conventional ( ) Innovative ( ) Modified Conventional (✓) Other: _____

Please answer the following to the best of your ability:

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

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

Signature: _____ 5-3-22
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

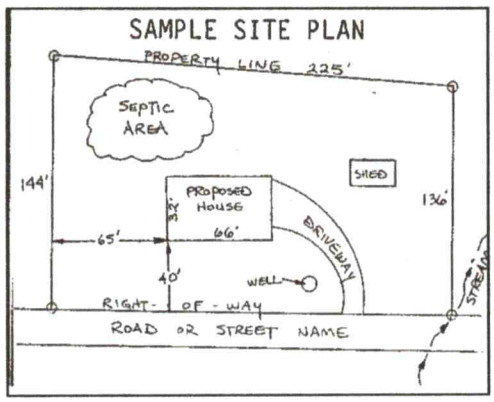
IREDELL COUNTY DEPARTMENT of ENVIRONMENTAL HEALTH

SITE PLAN WORKSHEET

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

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

- ☒ **Property Line measurements are clearly identified**
- ☒ **All proposed structures are indicated**
- ☒ **Front and side setbacks from property line**
- ☒ **Preferred driveway location**
- ☒ **Preferred well location**
- ☒ **Preferred septic system location**
- ☒ **North arrow, or other sufficient indicator of direction**



Circle N/A on the following if appropriate:

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

USE THIS SPACE TO DRAW YOUR SITE PLAN

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

See Attached

Signature: _____ 5-4-22

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

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*) Stephen Dee Arnold

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, Stephen Dee Arnold, am the legal owner(s) of the property located at 441 Barber Loop, Mooresville, NC 28117, identified as

PIN (Parcel Identification Number) 4615894973.000, located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**) Benfield Outdoor Services & Solutions, 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.

Stephen Dee Arnold
Signature of Owner(s)

12-9-21
Date

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

Benfield Outdoor Services & Solutions
Phone: (704) 360-0376
939 Brawley School Rd.
Mooresville, North Carolina 28117
Info@yardsbyboss.com
LLS: Miranda Stamper #1258

Iredell County Environmental Health Department
610 East Center Avenue
Mooresville, NC 28115
Phone: 704-664-5281
Fax: 704-664-9737

April 26, 2022

Recommended Wastewater Disposal System
Owner: Stephanie Dee Arnold
PIN: 4615894973.000.000

To whom it may concern,

You will find attached a copy of the wastewater disposal system proposed for the owner Ms. Stephanie Dee Arnold. The lot of 97, PIN #4615894973.000 located on Barber Loop in Iredell County. Also attached are the sealed soil notes, site plan and design for an onsite wastewater disposal system. This is submitted under Session Law 2018-114 (HB 374). Please review the attached proposal and contact me if you have any questions or concerns.

The LSS evaluation attached to this application is to be used to produce design and construction features for permitting in accordance with SL-2018-114 Section 11 (C). System must be installed by a certified septic installer. Drainfield must maintain natural contours and slope, improper or excessive grading will void design of wastewater system.

Owner: Stephanie Dee Arnold

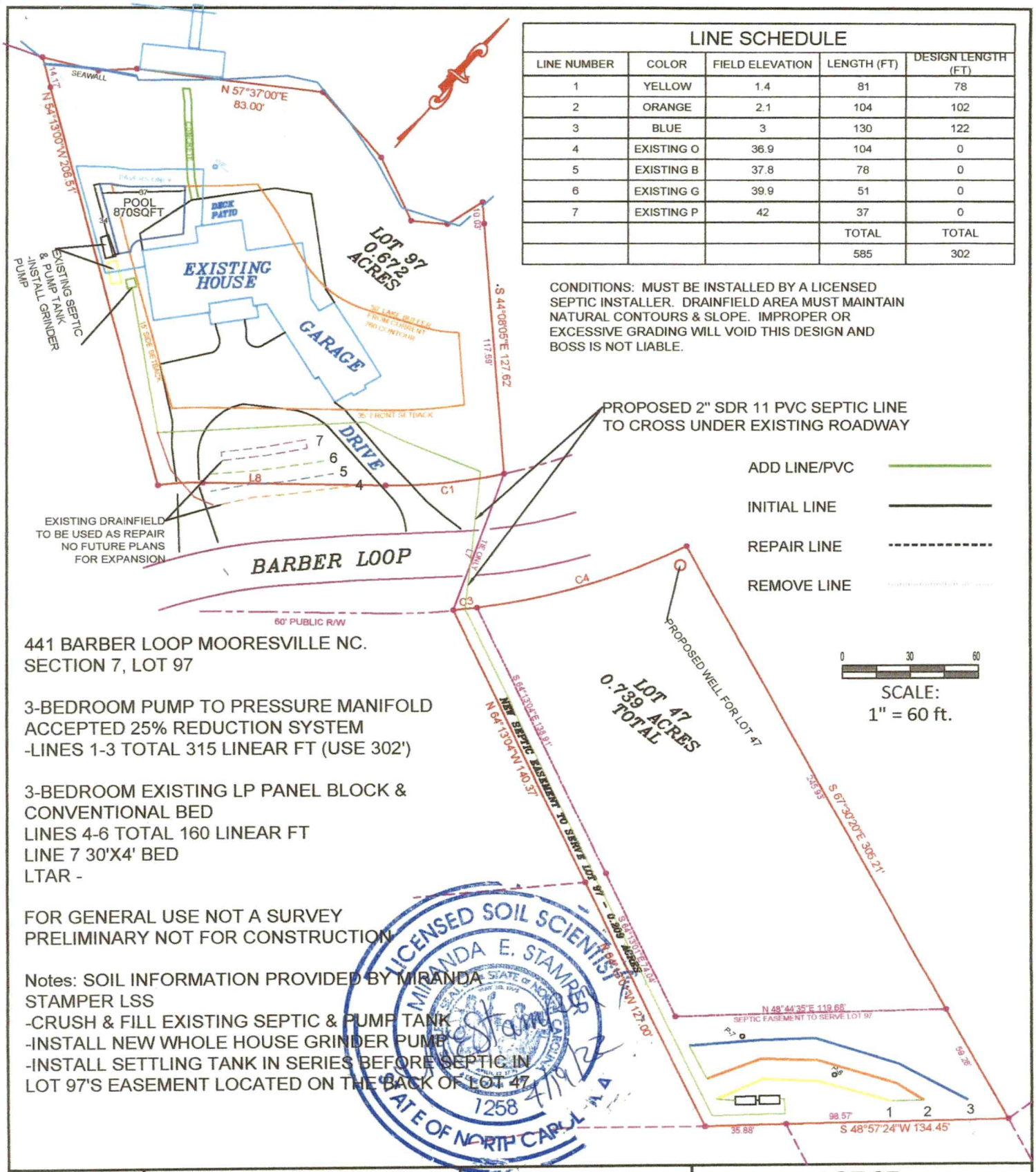
Signature: Stephanie Dee Arnold

The LSS Evaluation is submitted pursuant to and meeting requirements of SL-2018-114 Section 11 (C).

Miranda Stamper, LSS

Signature: Miranda Stamper, LSS

LICENSED SOIL SCIENTIST
MIRANDA E. STAMPER
1258
STATE OF NORTH CAROLINA
MeStamper 5/3/22



LINE SCHEDULE				
LINE NUMBER	COLOR	FIELD ELEVATION	LENGTH (FT)	DESIGN LENGTH (FT)
1	YELLOW	1.4	81	78
2	ORANGE	2.1	104	102
3	BLUE	3	130	122
4	EXISTING O	36.9	104	0
5	EXISTING B	37.8	78	0
6	EXISTING G	39.9	51	0
7	EXISTING P	42	37	0
			TOTAL	TOTAL
			585	302

CONDITIONS: MUST BE INSTALLED BY A LICENSED SEPTIC INSTALLER. DRAINFIELD AREA MUST MAINTAIN NATURAL CONTOURS & SLOPE. IMPROPER OR EXCESSIVE GRADING WILL VOID THIS DESIGN AND BOSS IS NOT LIABLE.

441 BARBER LOOP MOORESVILLE NC.
SECTION 7, LOT 97

3-BEDROOM PUMP TO PRESSURE MANIFOLD
ACCEPTED 25% REDUCTION SYSTEM
-LINES 1-3 TOTAL 315 LINEAR FT (USE 302')

3-BEDROOM EXISTING LP PANEL BLOCK &
CONVENTIONAL BED
LINES 4-6 TOTAL 160 LINEAR FT
LINE 7 30'X4' BED
LTAR -

FOR GENERAL USE NOT A SURVEY
PRELIMINARY NOT FOR CONSTRUCTION

Notes: SOIL INFORMATION PROVIDED BY MIRANDA STAMPER LSS
-CRUSH & FILL EXISTING SEPTIC & PUMP TANK
-INSTALL NEW WHOLE HOUSE GRINDER PUMP
-INSTALL SETTLING TANK IN SERIES BEFORE SEPTIC IN LOT 97'S EASEMENT LOCATED ON THE BACK OF LOT 47

LICENSED SOIL SCIENTIST
MIRANDA E. STAMPER
STATE OF NORTH CAROLINA
1258
STATE OF NORTH CAROLINA
4/14/22

BOSS

Benfield Outdoor Services & Solutions, LLC
939 Brawley School Rd, Mooresville, NC 28117 Ph:704-360-0376
Info@yardsbyboss.com

DEE ARNOLD

LOT 97
SECTION 7, MB 14-75
MOORESVILLE, NC
IREDELL COUNTY

DATE: 1/08/22 DRAWN BY: MDB CHECKED BY: MES

DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH, ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

Sheet 1 of 1
PROPERTY ID #:
COUNTY:

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

OWNER:
ADDRESS: 941 Barber Loop
PROPOSED FACILITY:
PROPOSED DESIGN FLOW (.1949): 480 gpd
LOCATION OF SITE: Right side of house
APPLICATION DATE
DATE EVALUATED: 11/5/21
PROPERTY SIZE:
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) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1956 SAPRO CLASS	OTHER PROFILE FACTORS .1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	SS 15% SaP	A 0-4	GR SL	NS NP VFR		55"			0.3
		Bt1 4-19	SBK CL	SS SP FI					
		Bt2 19-39	SBK CL	SS SP FI					
		Bt3 39-55	weak SBK SiCL	SS NP FR					
2	CC 12%	A 0-3	GR SL	NS NP VFR	- pockets of SBK CL FI	46"			0.3
		Bt1 3-32	weak SBK SCL	S P FR					
		Bt2 32-46	weak SBK SCL	S SP FR					
		A0-2	GR SL	NS NP VFR					
3	FS 8%	Bt1 2-32	weak SBK SiCl	SS SP FR	- pockets of SBK CL FI	48"			0.3
		Bt2 32-48	weak SBK SCL	SS SP FR					
4									

LICENSED SOIL SCIENTIST
MIRANDA E. STAMPER
SEAL OF THE STATE OF NORTH CAROLINA
1258
STATE OF NORTH CAROLINA

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)		
Site LTAR	0.3	

OTHER FACTORS (.1945):
SITE CLASSIFICATION (.1948):
EVALUATED BY: Miranda Stamper
OTHER(S) PRESENT:

COMMENTS:

DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH, ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

Sheet 1 of 1
PROPERTY ID #:
COUNTY:

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

OWNER:
ADDRESS: 941 Barber Loop
PROPOSED FACILITY:
PROPOSED DESIGN FLOW (.1949): 480 gpd
LOCATION OF SITE: Right side of house
APPLICATION DATE
DATE EVALUATED: 11/15/21
PROPERTY SIZE:
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) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1956 SAPRO CLASS	OTHER PROFILE FACTORS .1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	SS 15% SAP	A0-4	GR SL	NS NP VFR					
		Bt 4-19	SBK CL	SS SP FI					
		Bt2 19-39	SBK CL	SS SP FI					0.3
		Bt3 39-55	Weak SBK SiCL	SS NP FR		55"			
2	CC 12%	A 0-3	GR SL	NS NP VFR					
		Bt1 3-32	Weak SBK SCL	S P FR					
		Bt2 32-46	weak SBK SCL	S SP FR	- pockets of SBK CL FI			-	0.3
		A0-2	GR SL	NS NP VFR		46"			
3	FS 9%	Bt1 2-32	Weak SBK SiCL	SS SP FR					
		Bt2 32-48	Weak SBK SCL	SS SP FR	- pockets of SBK CL FI				0.3
						48"			
4									

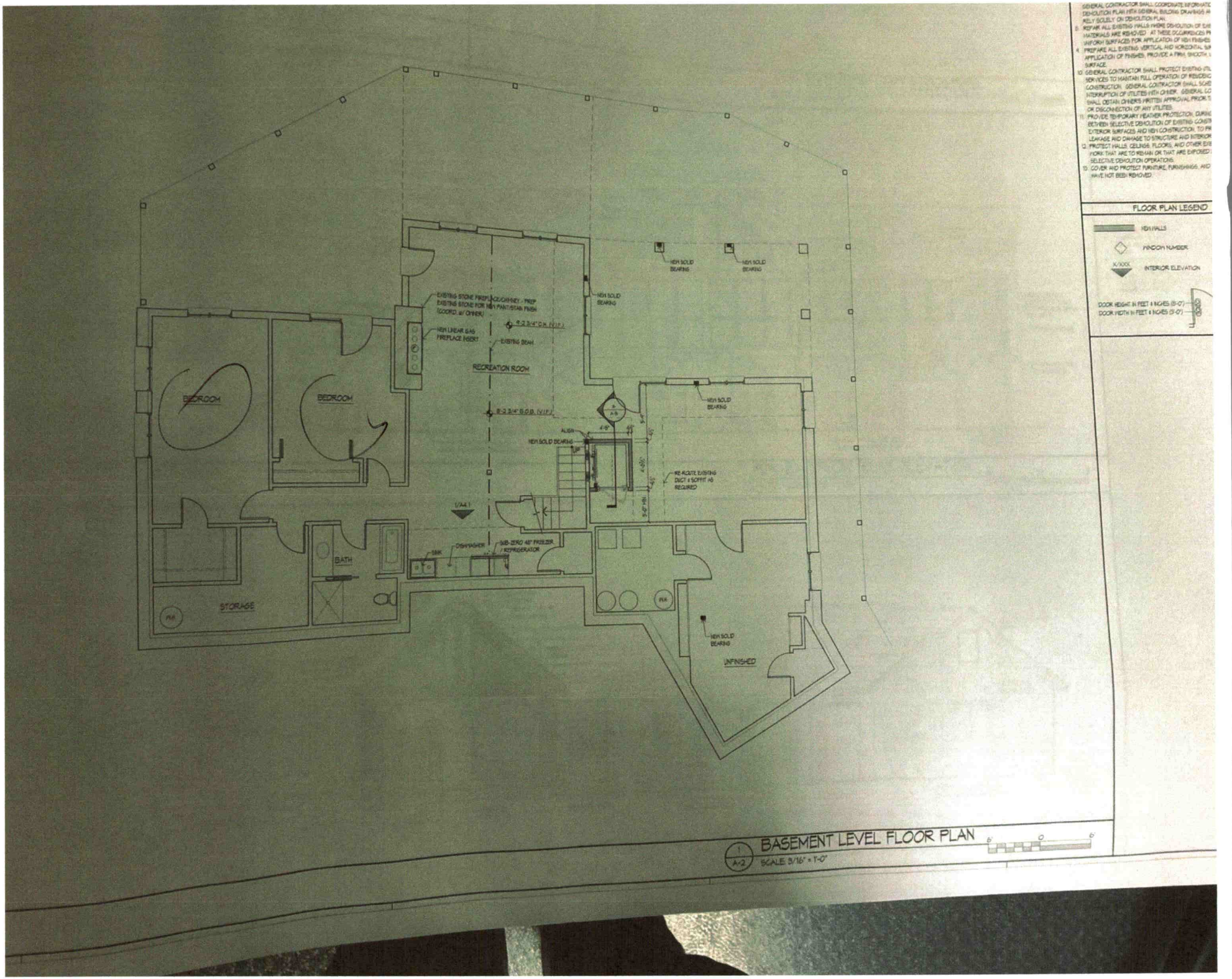
DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)		
Site LTAR	0.3	

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948):
EVALUATED BY: Miranda E. Stamper
OTHER(S) PRESENT:

LICENSED SOIL SCIENTIST
MIRANDA E. STAMPER
SEAL OF THE STATE OF NORTH CAROLINA
1258
STATE OF NORTH CAROLINA

COMMENTS:

MASTER SUITE
MASTER SUN PORCH
ENTRY HALL
FAMILY ROOM
SCREEN PORCH
DINING AREA
OPEN DECK
KITCHEN
PANTRY
LAUNDRY
EXISTING 2x10 FLOOR JOIST
EXISTING 2x10 FLOOR JOIST @16" O.C.
EXISTING 11 7/8" I-JOIST



1 A-2 BASEMENT LEVEL FLOOR PLAN

SCALE: 3/16" = 1'-0"

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

March 15, 2022

Ms. Dee Arnold
441 Barber Loop
Mooresville, NC 28117

County: Iredell

Subject: Right of Way Encroachment Agreement: E122-049-22-00040

Route: SR1458 (Barber Loop)

To Whom It May Concern:

Attached is an approved Right of Way Encroachment Agreement covering the installation of: Install 1 2" SDR11 PVC septic line, from lot #97 to lot #47 by crossing under the right of way of Barber Loop (SR1458) via bore.

The encroaching party shall comply with all applicable state and federal environmental regulations and shall obtain all necessary state and federal environmental permits, including but not limited to, those related to sediment control, storm water, wetlands, streams, endangered species and historical sites.

NOTE: Approval is subject to the attached Special Provisions.

NOTE: Approval is contingent upon receipt of a performance and indemnity bond in the amount of five thousand dollars ($5,000.00) for the above referenced project. The bond must be received by our office prior to beginning of work.

NOTE: All construction shall be done using NCDOT approved materials. Uncased Pipes under NCDOT roads shall be ductile iron or high or medium molecular weight polyethylene plastic pipe that the gas industry uses.

NOTE: It shall be the responsibility of the Homeowner to maintain/ and or repair the proposed drain field septic line from any damages within the Right of Way.

NOTE: All construction shall be done using NCDOT approved materials.

NOTE: Installation should be placed as close to the right of way limits as possible.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
DIVISION 12, DISTRICT 2
124 PRISON CAMP ROAD
STATESVILLE, NC 28625

Telephone: (704)380-6040
Fax: (704) 876-0602
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
124 PRISON CAMP ROAD
STATESVILLE, NC 28625

NOTE: Excavation within 1000 feet of a signalized intersection will require notification by the party of the second part to the Division Traffic Engineer at telephone number 980-552-4120. All traffic signal or detection cables must be located prior to excavation.

It would be appreciated if you would advise the District Office at (704) 380-6040 at least forty-eight (48) hours prior to the date of beginning work on installation of this encroachment. Furthermore, it will be necessary for you to notify the District Office in writing when work is completed on this installation.

The Department of Transportation does not guarantee the right of way on this road, nor will it be responsible for any claim for damages brought by any property owner by reason of this installation.

Respectfully yours,

DocuSigned by:
Jonathan Barnette
3C3C9EA386204C7...

Jonathan A. Barnette
Assistant District Supervisor
Division 12, District 2

JAB: rrn
cc: File

days and all encroachment points of contact indicated at the end of this plan should be notified of potential exposure to the disease without identifying the affected employee.

- Consideration should be given to employees at "High Risk" of severe illness from COVID-19, who, per NCDHHS, include employees:
    - Over 65 years of age, **OR**
    - With underlying health conditions including heart disease, lung disease, or diabetes, **OR**
    - With weakened immune system
- "High Risk" Employees should be given the opportunity to discuss alternate work arrangements/duties with their employer or take leave according to their company policies.
- For guidance on confirmed positive tests for COVID-19, refer to the most recent version of the "COVID-19 Guidance for Employees on Encroachment Job Sites within NCDOT Right of Way" located on last page of this plan.

PERSONAL HYGIENE

- Clean hands often by washing with soap and water for 20 seconds. If soap and water are not available and hands are not visibly dirty, an alcohol-based hand sanitizer that contains 60%-95% alcohol may be used.
- Avoid touching your eyes, nose, mouth, or other parts of your face.
- Do not breathe, cough, or sneeze on another person or into the open air. Employees should cover their noses and mouth with a tissue when coughing or sneezing (or an elbow or shoulder if no tissue is available).
- A facemask for covering nose and mouth is encouraged on the job site.
- Appropriate gloves are encouraged while performing functions of the job.

CLEANING/DISINFECTING

- Wash stations and/or hand sanitizer are encouraged on each project site.
- Appropriate cleaning staff should clean frequently touched surfaces and objects with disinfectants at a minimum of once per day.
    - Office/buildings: door knobs, light switches, phones, computers/keyboards, copy machines, elevator buttons, toilets, faucets, sinks, countertops, paper towel dispensers, desktops, handrails, folders, vending machines, counters, tables, cabinets/knobs, etc.
    - Shop Yard/Jobsite: vehicle/equipment door handles, keys, gear shifts, steering wheel/operator controls and levers, fuel pump dispensers, touch points on machinery, etc.
    - Electronic equipment: cell phones, computers, keyboards, etc.
- Appropriate cleaning staff should sanitize/disinfect facilities and work areas after persons suspected/confirmed to have COVID-19 have been in the facility or work area.

- It is recommended to close off access to areas used by the ill persons and wait as long as practical, 24 hours if possible, before beginning cleaning and disinfection to minimize potential for exposure to respiratory droplets. Open outside doors and windows to increase air circulation in the area if possible.
- Appropriate cleaning staff should clean and disinfect all areas used by the ill persons, focusing especially on frequently touched surfaces.

GENERAL

- Increase communication measures between all parties regarding schedule, daily activities, etc. to reduce/minimize worker exposure in accordance with but not limited to the requirements below.
- Minimize on-site personnel such as subcontractors, work crews, QC personnel, and inspection staff to those required for that day's activities. If work is postponed or cancelled, immediately notify appropriate parties.
- Practice "Social Distancing" whenever feasible. Social Distancing is designed to limit the spread of a disease by reducing the opportunities for close contact between people. All personnel have the responsibility to remind each other to stay 6 feet or more apart. Examples of Social Distancing include:
  - Reducing face-to-face exposure by using conference calls and video conferencing
    - If an in-person meeting is absolutely required and cannot be rescheduled or attended remotely, the meeting is limited to a maximum of 10 people while maintaining Social Distancing of 6 feet or more.
  - Avoiding unnecessary travel
- Do not congregate at lunch or breaks. Bringing your lunch is encouraged.
- No communal coolers or drink stations are allowed. Supervisors should confirm with employees prior to beginning work for appropriate hydration and nutrition availability to employees for the duration of the employee's shift and without direct contact with others on the job site.
- First line of communication should be by phone, rather than in-person.
- Do not shake hands.
- Do not share iPads, tablets, pens, or clipboards for signing or any other purpose. Take pictures as proof of attendance at meetings.
- Sharing of Personal Protective Equipment (PPE) is strictly prohibited.
- Vehicles, equipment, and tools
  - Limit the number of people riding in a vehicle together.
  - Wipe down and disinfect vehicles after each trip.
  - As much as possible, do not share tools or equipment. If a tool or piece of equipment must be shared, the parts of it that are touched should be sanitized between uses.

RETURN TO WORK

- The following criteria must be followed for an employee who is tested for Covid-19, or asked to self-quarantine by health officials, or has contact with another employee with a positive test result to return to work:
    - at least a 14-day quarantine; **OR**
    - release by a health care provider.
- In accordance with CDC guidance, the following criteria must be followed for an employee with a positive test result to return to work:
    - at least 14 days from positive test notification; **AND**
    - at least 3 days (72 hours) have passed since recovery defined as resolution of fever without the use of fever-reducing medications and improvement in respiratory symptoms (e.g., cough, shortness of breath); **AND**
    - at least 7 days have passed since symptoms first appeared.

  NCDOT may require certification of fitness to work from a health care provider.

ADDITIONAL RESOURCES

NCDOT and their partners should review the CDC and NCDHHS resources listed below for up-to-date information on how to respond to COVID-19. Additional guidelines may be issued by state or federal agencies that should be followed in addition to the guidelines included in this document.

- NCDHHS COVID-19 Resources:
    - https://www.ncdhhs.gov/divisions/public-health/coronavirus-disease-2019-covid-19-response-north-carolina
- NCOSHR Communicable Disease Emergency Policy
    - https://oshr.nc.gov/policies-forms/workplace-wellness/communicable-disease-emergency
- OSHA Guidance on Preparing Workplaces for COVID-19
    - https://www.osha.gov/Publications/OSHA3990.pdf
- CDC COVID-19 Resources:
    - https://www.cdc.gov/coronavirus/2019-ncov/index.html

AGREEMENT

The encroaching party shall adhere to the requirements of this plan in order to continue work under their approved encroachment agreement. Violations to this plan could result in the violating entity not being allowed to continue work or all work ceasing as determined by the NCDOT District Engineer or Resident Engineer.

PROJECT POINTS OF CONTACT

NCDOT Encroachment ID#: E122-049-22-00040

DocuSigned by:
NCDOT
Jonathan Barnette
3C3C9EA386204C7...

Name: Jonathan Barnette

Phone #: 704-380-6040

Encroaching Party (Primary Contact)

Name: Dee Arnold

Phone #: 704-677-6797

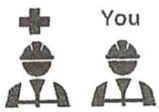
Primary Contractor to Encroaching Party (Point of Contact)

Name: Benfield Outdoor Services & Solutions

Phone #: 704-360-0376 Michael Benfield

1-19-22

COVID-19 Guidance for Employees on Encroachment Job sites within NCDOT Right of Way

Relationship to Confirmed POSITIVE Test		CONTACT GROUP		
		What YOU Should Do	**What your CREW Should Do** *Exposure within 6' and longer than 10 minutes*	*No e*
Employee		Notify your supervisor Self-quarantine for 14 days	Advise of POSITIVE test without identifying the affected employee* Directly exposed crew self-quarantine for 14 days Continue hygiene & disinfecting measures	Advi affe Site cont polic Cont
Direct Contact *Interaction with an infected person within 6' and longer than 10 minutes*		Self-quarantine for 14 days	Advise of POSITIVE test without identifying the affected employee* Crew may continue onsite work or follow their company policy Continue hygiene & disinfecting measures	Advi Cont
Secondary Contact		You may continue onsite work or follow your company policy Continue hygiene & disinfecting measures	Continue hygiene & disinfecting measures	Cont
Two or more Persons Removed from Contact		Continue hygiene & disinfecting measures	Continue hygiene & disinfecting measures	Cont
***Notification Protocol** *(Comply with HIPAA & ADA confidentiality requirements)*	NCDOT employee / agent tests POSITIVE	NCDOT District Engineer/Resident Engineer notifies Encroaching Party's primary point o Contact, CDC and, if Resident Engineer has oversight for the job site, FHWA any Consult Encroaching party representative notifies other Contractors, Sub-Contractors and Suppl		
	Encroaching Party or Contract crew member on job site tests POSITIVE	Encroaching party representative or Contractor point of contact notifies appropriate NC Engineer and all other Contractors, Sub-Contractors and Suppliers with exposed Employ NCDOT notifies CDC, and as appropriate, FHWA and any Consultant Firms working for N		

Pre-Construction

Contact Offices & Outside Agency issues/contacts/info

1. Approval may be rescinded upon failure to follow any of the provisions in this permit and may be considered a violation of the encroachment agreement. **This Encroachment Agreement is Valid for 1 year. If this encroachment agreement should expire then the encroaching party must re-apply or request and extension for another year.**

2. The Encroaching party or their contractor shall provide the following notices prior to construction activity within the NCDOT Right of Way:
   a. Three (3) business days advance phone call at telephone (704) 380-6040 or email to rrnaraidu@ncdot.gov to the District Engineer's office
   b. If the construction falls within the limits of an NCDOT managed construction project, five (5) business days advance phone call to the Resident Engineer, Mr. Matthew Evans at (704) 380-6050 or email to Mevans8@ncdot.gov.
   c. If the construction falls within the Bridge Maintenance Department Pipe, Culvert, and or Bridge. A one (1) business day advance phone call to the bridge maintenance supervisor, Mr. Eric Schenz at (704) 380-6080 or email to eschenz@ncdot.gov

   Failure to provide these notifications prior to beginning construction is subject to the Division Engineer's discretion to cease construction activity for this encroachment. NCDOT reserves the right to cease any construction or maintenance work associated with this installation by the encroaching party until the construction or maintenance meets the satisfaction of the Division Engineer or their representative.

3. Prior to beginning work, it is the requirement of the Encroaching Party to contact the appropriate Utility Companies involved and make arrangements to adjust or relocate any utilities that conflict with the proposed work.

4. It shall be the responsibility of the encroaching party to determine the location of utilities within the encroachment area. NCGS § 87-115 through § 87-130 of the Underground Utility Safety and Damage Prevention Act requires underground utilities to be located by calling 811 prior to construction. The encroaching party shall be responsible for notifying other utility owners and providing protection and safeguards to prevent damage or interruption to existing facilities and maintain access to them.

5. The encroaching party shall notify the appropriate municipal office prior to beginning any work within the municipality's limits of jurisdiction.

6. This installation is within the I-77 Toll Corridor right of way. The encroaching party shall notify the North Carolina Turnpike Authority (NCTA) at telephone (919) 825-2612 or e-mail ncta_tmc@ncdot.gov at least ten (10) business days prior to beginning construction. The NCTA fiber trunk line shall be located prior to any excavation or boring within the Toll Corridor right of way. The cost to repair or relocate any signage, cables, signals or associated equipment due to this installation shall be the responsibility of the encroaching party.

7. The encroaching party is made aware that the I-77 Expressway is a toll facility and as such, toll revenue is required to operate and maintain the facility. If any NCTA owned asset is damaged as a result of the encroaching party's construction, it shall be repaired at no cost to NCTA. Additionally, if the damage results in the failure or hindrance of NCTA to properly collect toll revenue (damaged toll fiber, road closure, safety concern, etc.) the encroaching party will be sought to reimburse NCTA for the lost revenue.
8. This installation is within the NCDOT Division 12 Interstate Corridor right of way. The encroaching party shall notify the following at least ten (10) business days prior to beginning construction: NCDOT Division 12 Interstate Maintenance: Justin Johnson, jtjohnson4@ncdot.gov or by phone at 704-380-6070.

9. This installation is within the Mobility Partners (NCDOT Contractor) Managed I-77 Toll Corridor right of way. The encroaching party shall notify the following at least ten (10) business days prior to beginning construction:
    a. Mobility Partners: David Hannon, dhannon@i77partners.com or by phone at 980-337-2396 AND documentcontrol@i77partners.com.
    b. NCDOT Division 10 Interstate Maintenance: Michael Mariano, mamariano@ncdot.gov or by phone at 980-262-6260.
    c. The North Carolina Turnpike Authority (NCTA) at telephone (919) 825-2612 or e-mail ncta_tmc@ncdot.gov.

    The NCTA fiber trunk line shall be located prior to any excavation or boring within the Toll I-77 right of way. The cost to repair or relocate any structure, signage, cables, signals or associated equipment due to this installation shall be the responsibility of the encroaching party.

10. Excavation within 1000 feet of a signalized intersection will require notification by the encroaching party to the Division Traffic Engineer at telephone number (980) 552-4214 no less than one week prior to beginning work. All traffic signal or detection cables must be located prior to excavation. Cost to replace or repair NCDOT signs, signals, pavement markings or associated equipment and facilities shall be the responsibility of the encroaching party.

11. This agreement does not authorize installations within nor encroachment onto railroad rights of way. Permits for installations within railroad right of way must be obtained from the railroad and are the responsibility of the encroaching party.

12. At the option of the District Engineer, a preconstruction meeting including representatives of NCDOT, the encroaching party, contractors and municipality, if applicable, shall be required. A pre-construction conference held between a municipality (or other facility owner) and a contractor without the presence of NCDOT personnel with subsequent construction commencing may be subject to NCDOT personnel ceasing any work on NCDOT right-of-way related to this encroachment until such meeting is held. Contact the District office to schedule.

13. At the discretion of the District Engineer, a NOTIFICATION FOR UTILITY / NON-UTILITY ENCROACHMENT WITHIN NCDOT R/W form (See corresponding attachment) with the scheduled pre-construction meeting and associated construction schedule details must be completed and submitted to the District Engineer's office a minimum of one week prior to construction.

14. At the discretion of the District Engineer, the encroaching party (not the utility contractor) shall make arrangements to have a qualified inspector, under the supervision of a Professional Engineer registered in North Carolina, on site at all times during construction. The registered Professional Engineer shall be required to submit a signed and PE sealed certification that the utility was installed in accordance with the encroachment agreement.

Legal & Right-of-Way Issues

15. This approval and associated plans and supporting documents shall not be interpreted to allow any design change or change in the intent of the design by the Owner, Design Engineer, or any of their representatives. Any revisions or changes to these approved plans or intent for construction must be obtained in writing from the Division Engineer's office or their representative prior to construction or during construction if an issue arises during construction to warrant changes.

16. NCDOT does not guarantee the right of way on this road, nor will it be responsible for any claim for damages brought about by any property owner by reason of this installation. It is the responsibility of the encroaching party to verify the right of way.

17. Encroaching party shall be responsible for obtaining all necessary permanent and/or temporary construction, drainage, utility and/or sight distance easements.

18. All Right of Way and easements necessary for construction and maintenance shall be dedicated to NCDOT with proof of dedication furnished to the District Engineer prior to beginning work.

19. No commercial advertising shall be allowed within NCDOT Right of Way.

20. The encroaching party shall obtain proper approval from all affected pole owners prior to attachment to any pole.

21. The installation within the Control of Access fence shall not adversely affect the design, construction, maintenance, stability, traffic safety or operation of the controlled access highway, and the utility must be serviced without access from the through-traffic roadways or ramps.

Bonds

22. A Performance and Indemnity Bond in the amount of **$5,000.00** shall be posted with the District Engineer's Office by the Party of the Second Part prior to beginning any work within the NCDOT Right of Way. The bond shall be held for a minimum of one year after a satisfactory final inspection of the installation by NCDOT. The bond may be held for a period longer than one year after completion if, in the opinion of NCDOT, the size or complexity of the installation warrants a longer period.
23. The release of the bond is subject to a final inspection by NCDOT. Contact the District office to schedule a Final Inspection and to request release of the bond.

Work Zone Traffic

24. Traffic control shall be coordinated with the District Engineer and the Division Traffic Engineer, Mr. Byron Engle, PE at telephone (980) 552-4214 or Mr. John Cook (704)-380-6040, prior to construction.

25. WORK ZONE TRAFFIC CONTROL QUALIFICATIONS AND TRAINING PROGRAM

    All personnel performing any activity inside the highway right of way are required to be familiar with the NCDOT Maintenance / Utility Traffic Control Guidelines (MUTCG). No specific training course or test is required for qualification in the Maintenance /Utility Traffic Control Guidelines (MUTCG).

    All flagging, spotting, or operating Automated Flagger Assist Devices (AFAD) inside the highway right of way requires qualified and trained Work Zone Flaggers. Training for this certification is provided by NCDOT approved training resources and by private entities that have been pre-approved to train themselves.

    All personnel involved with the installation of Work Zone Traffic Control devices inside the highway right of way are required to be qualified and trained Work Zone Installers. Training for this certification is provided by NCDOT approved training resources and by private entities that have been pre-approved to train themselves.

    All personnel in charge of overseeing work zone Temporary Traffic Control operations and installations inside the highway right of way are required to be qualified and trained Work Zone Supervisors. Training for this certification is provided by NCDOT approved training resources and by private entities that have been pre-approved to train themselves.

    For questions and/or additional information regarding this training program please refer to https://connect.ncdot.gov/projects/WZTC/Pages/Training.aspx or call the NCDOT Work Zone Traffic Control Section (919) 814-5000.

26. The party of the second part shall employ traffic control measures that are in accordance with the prevailing federal, state, local, and NCDOT policies, standards, and procedures. These policies, standards, and procedures include, but are not limited to the following:
    a. Manual on Uniform Traffic Control Devices (MUTCD) – North Carolina has adopted the MUTCD to provide basic principles and guidelines for traffic control device design, application, installation, and maintenance. North Carolina uses the MUTCD as a minimum requirement where higher supplemental standards specific to North Carolina are not established. Use fundamental principles and best practices of MUTCD (Part 6, Temporary Traffic Control).
    b. NCDOT Maintenance / Utility Traffic Control Guidelines – This document enhances the fundamental principles and best practices established in MUTCD Part 6, Temporary Traffic Control, incorporating NCDOT-specific standards and details. It also covers important safety knowledge for a wide range of work zone job responsibilities.

27. If the Traffic Control Supervisor determines that portable concrete barrier (PCB) is required to shield a hazard within the clear zone, then PCB shall be designed and sealed by a licensed North Carolina Professional Engineer. PCB plans and design calculations shall be submitted to the District Engineer for review and approval prior to installation.

28. Ingress and egress shall be maintained to all businesses and dwellings affected by the project. Special attention shall be paid to police, EMS and fire stations, fire hydrants, secondary schools, and hospitals.

29. Traffic shall be maintained at all times. All lanes of traffic are to be open during the hours of 7:00 A.M. to 9:00 A.M. and from 4:00 P.M. to 6:00 P.M. Monday through Friday, during any time of inclement weather, **or as directed by the District Engineer**. Any violation of these hours will result in ceasing any further construction by the Encroaching Party or their contractor. If the construction is within 1000 feet of a school location or on a designated bus route, the construction shall be coordinated with the school start and end times to avoid traffic delays.

30. Nighttime and weekend operations will NOT be allowed unless written approval is received from the District Engineer. If nighttime or weekend work is allowed or required, all signs must be retro-reflective, and a work zone lighting plan must be submitted for approval prior to construction.

31. Work requiring lane or shoulder closures shall not be performed on both sides of the road simultaneously within the same area.

32. Any work requiring equipment or personnel within 5 feet of the edge of any travel lane of an undivided facility and within 10 feet of the edge of any travel lane of a divided facility shall require a lane closure with appropriate tapers per current *NCDOT Roadway Standard Drawings or MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.*

33. At the discretion of the District Engineer, a traffic control plan shall be developed and submitted under the seal and signature of a Licensed North Carolina Professional Engineer prior to construction. The plan shall be specific to the site and adequately detailed. Issues such as the close proximity to intersections shall be addressed.

34. Temporary and final pavement markings are the responsibility of the encroaching party. Final pavement markings and sign plans shall be submitted with the encroachment request to the Division Traffic Engineer prior to construction. Final pavement markings shall be thermoplastic unless otherwise directed by the Division Traffic Engineer or District Engineer.

35. Any pavement markings that are damaged or obliterated shall be restored by the encroaching party at no expense to NCDOT.

36. Sidewalk closures shall be installed as necessary. Pedestrian traffic shall be detoured around these closures and shall be signed appropriately and in accordance with The American with Disabilities Act Accessibility Guidelines. The encroaching party must adhere to the guidelines for accommodating pedestrians in encroachment work zones as described in the NCDOT Pedestrian Work Zone Accommodations Training found at https://www.youtube.com/watch?v=AOuYa5IW3dg&feature=youtu.be

Holiday and Holiday Weekend Lane Closure Restrictions

37. The Contractor shall not narrow or close a lane of traffic on **ANY ROAD**, detain and /or alter the traffic flow on or during holiday weekends, special events, or any other time when traffic is unusually heavy, including the following schedules:

    - For **unexpected occurrence** that creates unusually high traffic volumes, as directed by the District Engineer.
    - For **New Year's Day**, between the hours of 8:00am December 31st and 8:00 pm January 2nd. If New Year's Day is on a Friday, Saturday, Sunday, or Monday, then until 8:00pm the following Tuesday.
    - For Easter, between the hours of 8:00am Thursday and 8:00pm Monday.
    - For Memorial Day, between the hours of 8:00am Friday and 8:00pm Tuesday.
    - For **Independence Day**, between the hours of 8:00am the day before Independence Day and 8:00pm the day after Independence Day.

      If **Independence Day** is on a Friday, Saturday, Sunday or Monday, then between the hours of 8:00am the Thursday before Independence Day and 8:00pm the Tuesday after Independence Day.
    - For **Labor Day**, between the hours of 8:00am Friday and 8:00pm Tuesday.
    - For **Thanksgiving Day**, between the hours of 8:00am Tuesday and 8:00pm Monday.
    - For **Christmas**, between the hours of 8:00am the Friday before the week of Christmas Day and 8:00pm the following Tuesday after the week of Christmas Day.
    - For **NASCAR Races** in Charlotte, between the hours of 8:00am the day before the NASCAR Races and 8:00pm the day after the end of the NASCAR Races in Charlotte.

      Holidays and holiday weekends shall include New Year's, Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas. The Contractor shall schedule his work so that lane closures are not required during these periods, unless otherwise directed by the District Engineer.

Roadside Environmental

38. The encroaching party shall comply with all applicable Federal, State and local environmental regulations and shall obtain all necessary Federal, State and local environmental permits, including but not limited to, those related to sediment control, stormwater, wetland, streams, endangered species and historical sites. Additional information can be obtained by contacting the NCDOT Roadside Environmental Engineer regarding the North Carolina Natural Heritage Program or the United States Fish and Wildlife Services. Contact the Division Roadside Environmental Engineer's *Office at 980-552-4256.*

39. When surface area in excess of one acre will be disturbed, the Encroacher shall submit a Sediment and Erosion Control Plan which has been approved by the appropriate regulatory agency or authority prior to beginning any work on the Right of Way. Failure to provide this information shall be

grounds for suspension of operations. Proper temporary and permanent measures shall be used to control erosion and sedimentation in accordance with the approved sediment and erosion control plan.

40. The Verification of Compliance with Environmental Regulations (VCER-1) form is required for all non-utility encroachment agreements or any utility encroachments when land disturbance within NCDOT right of way exceeds 1 acre. The VCER-1 form must be PE sealed by a NC registered professional engineer who has verified that all appropriate environmental permits (if applicable) have been obtained and all applicable environmental regulations have been followed.

41. All erosion control devices and measures shall be constructed, installed, maintained, and removed by the Encroacher in accordance with all applicable Federal, State, and Local laws, regulations, ordinances, and policies. Permanent vegetation shall be established on all disturbed areas in accordance with the recommendations of the Division Roadside Environmental Engineer. All areas disturbed (shoulders, ditches, removed accesses, etc.) shall be graded and seeded in accordance with the latest *NCDOT Standards Specifications for Roads and Structures* and within 15 calendar days with an approved NCDOT seed mixture (all lawn type areas shall be maintained and reseeded as such). Seeding rates per acre shall be applied according to the Division Roadside Environmental Engineer. Any plant or vegetation in the NCDOT planted sites that is destroyed or damaged as a result of this encroachment shall be replaced with plants of like kind or similar shape.

42. No trees within NCDOT shall be cut without authorization from the Division Roadside Environmental Engineer. An inventory of trees measuring greater than 4 caliper inches (measured 6" above the ground) is required when trees within C/A right of way will be impacted by the encroachment installation. Mitigation is required and will be determined by the Division Roadside Environmental Engineer's Office.

43. Prior to installation, the Encroaching Party shall contact the District Engineer to discuss any environmental issues associated with the installation to address concerns related to the root system of trees impacted by boring or non-utility construction of sidewalk, roadway widening, etc.

44. The applicant is responsible for identifying project impacts to waters of the United States (wetlands, intermittent streams, perennial streams and ponds) located within the NCDOT right-of-way. The discharge of dredged or fill material into waters of the United States requires authorization from the United States Army Corps of Engineers (USACE) and certification from the North Carolina Division of Water Quality (NCDWQ). The applicant is required to obtain pertinent permits or certification from these regulatory agencies if construction of the project impacts waters of the United States within the NCDOT right-of-way. The applicant is responsible for complying with any river or stream Riparian Buffer Rule as regulated by the NCDWQ. The Rule regulates activity within a 50-foot buffer along perennial streams, intermittent streams and ponds. Additional information can be obtained by contacting the NCDWQ or the USACE.

45. The contractor shall not begin the construction until after the traffic control and erosion control devices have been installed to the satisfaction of the Division Engineer or their agent.

46. The contractor shall perform all monitoring and record keeping and any required maintenance of erosion and sediment control measures to maintain compliance with stormwater regulations.

STIP (or Division Managed) Projects

47. State Transportation Improvement Project (STIP) N/A is scheduled for future construction. Any encroachment determined to be in conflict with the construction of this NCDOT project shall be removed and/or relocated at the encroaching party's expense.

48. For NCDOT STIP projects, even though proposed right of way are shown on the plans. The Right of Way are sometimes not acquired/ guaranteed/ finalized to NCDOT until the plans are signed and sealed. NCDOT STIP projects that are in the design phase are subject to change including but not limited to Right of Way etc. The applicant (Utility Provider etc.) will have to verify existing/ proposed right of way prior to placing their utilities within the STIP project limits that are in design phases, even though an approved encroachment is granted from NCDOT.

Construction

General

49. An executed copy of the encroachment agreement, provisions and approved plans shall be present at the construction site at all times. If safety or traffic conditions warrant such an action, NCDOT reserves the right to further limit, restrict or suspend operations within the right of way.

50. The Encroaching Party and/or their Contractor shall comply with all OSHA requirements. If OSHA visits the work area associated with this encroachment, the District Office shall be notified by the encroaching party immediately if any violations are cited.

51. Any REVISIONS marked in RED on the attached non-PE sealed plans shall be incorporated into and made part of the approved encroachment agreement.

52. All disturbed areas are to be fully restored to current NCDOT minimum roadway standards or as directed by the Division Engineer or their representative. Disturbed areas within NCDOT Right-of-Way include, but not limited to, any excavation areas, pavement removal, drainage or other features.

53. The encroaching party shall notify the Division Engineer or their representative immediately in the event any drainage structure is blocked, disturbed or damaged. All drainage structures disturbed, damaged or blocked shall be restored to its original condition as directed by the Division Engineer or their representative.

54. A minimum of 5 feet clearance is required for utility installations beneath or near drainage pipes, headwalls, and a minimum of two-foot clearance below the flowline of streams. If directional drilling, a minimum ten-foot clearance distance is required from drainage structures and a minimum of 5 feet below flowline of streams.

55. At points where the utility is placed under existing storm drainage, the trench will be backfilled with excavatable flowable fill up to the outside diameter of the existing pipe.

56. Unless specified otherwise, during non-working hours, equipment shall be located away from the job site or parked as close to the right of way line as possible and be properly barricaded in order not to have any equipment obstruction within the Clear Zone. Also, during non-working hours, no parking or material storage shall be allowed along the shoulders of any state-maintained roadway.

57. No access to the job site, parking or material storage shall be allowed along or from the **Control of Access Roadway.**

58. Guardrail removed or damaged during construction shall be replaced or repaired to its original condition, meeting current NCDOT standards or as directed by the Division Engineer or their representative.

59. The resetting of the Control of Access fence shall be in accordance with the applicable NCDOT standard and as directed by the Division Engineer or their representative.

60. Right of Way monuments disturbed during construction shall be referenced by a registered Land Surveyor and reset after construction.

61. All Traffic signs moved during construction shall be reinstalled as soon as possible to the satisfaction of the Division Engineer or their representative.

62. Any utility markers, cabinets, pedestals, meter bases and services for meter reading required shall be as close to the Right of Way line as possible. If it is not feasible to install at or near Right of Way line, then written approval shall be obtained from NCDOT prior to installation.

63. Detection tape, where required by NCGS § 87-115 through § 87-130 of the Underground Utility Safety and Damage Prevention Act, shall be buried in the trench approximately 1 foot above the installed facility. Where conduit is installed in the right of way and is not of ferrous material, locating tape or detection wire shall be installed with the conduit.

64. All driveways disturbed during construction shall be returned to a state comparable with the condition of the driveways prior to construction.

65. Conformance with driveway permit review should be required in conjunction with this encroachment agreement. In the event there is a conflict between the driveway permit and the encroachment agreement, the District Engineer should resolve the conflict and notify the parties involved.

66. If the approved method of construction is unsuccessful and other means are required, prior approval must be obtained through the District Engineer before construction may continue.

67. The encroaching party and their construction contractor must sign and submit the NCDOT *Workforce Safety Plan for Encroachment Activities: COVID-19* form to the District Engineer prior to construction.

68. The attached Duke Energy response to the NCDOT *COVID-19 Workforce Safety Plan* shall be applied for all employees on the job site unless otherwise directed by the District Engineer.

Engineering

69. All traffic control, asphalt mixes, structures, construction, workmanship and construction methods, and materials shall be in compliance with the most-recent versions of the following resources: *ASTM Standards*, *Manual on Uniform Traffic Control Devices, NCDOT Utilities Accommodations Manual, NCDOT Standard Specifications for Roads and Structures, NCDOT Roadway Standard Drawings,* NCDOT *Asphalt Quality Management System* manual, **and the approved plans.**

70. Prior approval for any blasting must be obtained from the Division Engineer or their representative.

71. Regulator stations, metering stations, cathodic test stations, and anode beds are not permitted within NCDOT right of way. Header wires are permitted.

72. Non-Utility Communication and Data Transmission installations (ground mounted type or Small Cell pole-mounted type) must adhere to guidelines in the Utilities Accommodations Manual and, when located within municipal jurisdictions, are subject to review and approval by municipal ordinances and any additional municipal approval for proximity to historic districts and landmarks. All wiring and related telecommunications work shall conform to the latest regulations by the Federal Communications Commission.

73. All wiring and related electrical work shall conform to the latest edition of the National Electrical Safety Code.

Location within R/W

74. All utility access points, such as manholes, vaults, handholes, splice boxes and junction boxes shall be located as close to the right of way line as possible and shall not be placed in the ditch line, side slopes of the ditches or in the pavement. All manholes, handholes, splice boxes, junction boxes and vaults and covers shall be flush with the ground when located within the vehicle clear zone. Slack loops for telecommunications in industry standard housing units shall be buried a minimum of 18 inches when buried or meet minimum NCDOT vertical and horizontal clearances when installed aerially.

75. Fire Hydrants shall be of the breakaway type. Hydrants shall be placed near the right of way line. In curb and gutter sections with written approval from the District, the hydrants may be placed at 6' behind the back of the curb or minimum 2' back of sidewalk.

76. Luminaire and/or utility poles and guy wires shall be set as close to the Right of Way line as practical and outside the Clear Zone in accordance with the latest version of the AASHTO Roadside Design Guide (See corresponding attachment) or made breakaway in accordance with the requirements of NCHRP Report 350. Any relocation of the utility poles from the original design due to Clear Zone requirements shall require a re-submittal for the utility design.

77. Luminaire and/or utility poles shall be set a minimum of 5'-6" behind face of any guardrail or otherwise sufficiently protected. However, standard placement may be reduced to 3'-6" behind face of guardrail when posts are spaced 3'-1 ½", or where speed limit is less than 55 MPH.

78. Hot box (aka ASSE 1060) or Safe-T-Cover type enclosures covering utility main pipe joints, backflow preventers, valves, vent pipes, cross connections, pumps, grinders, irrigation assemblies, transformers, generators, and other similar large appurtenances shall be located outside sight distance triangles and off of the NCDOT Right-of-Way.

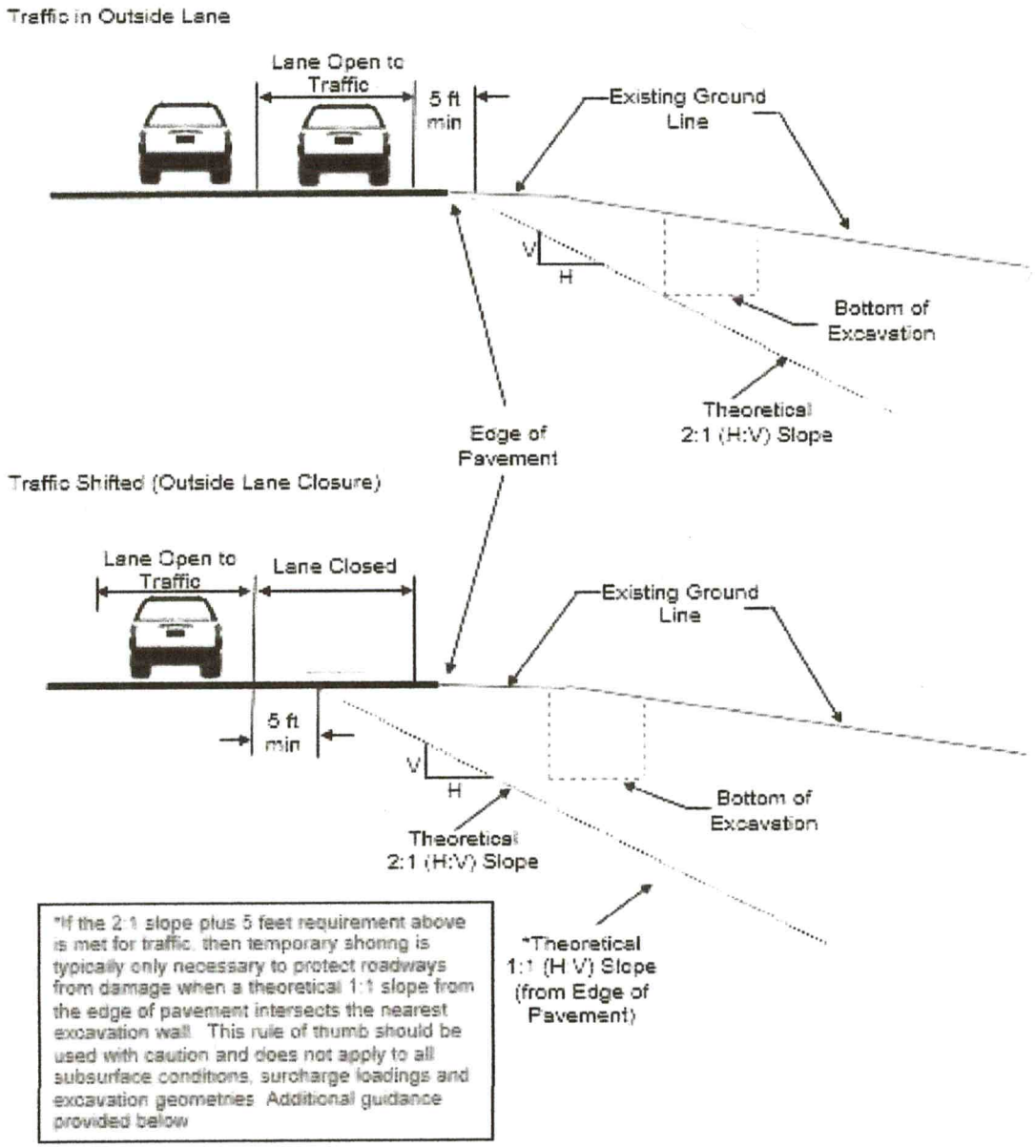
79. Sprinkler heads shall be located a minimum of 10 feet from the edge of pavement, edge of shoulder, or back of curb whichever is greater and shall be directed so that water does not spray or drain on the roadway surface, sidewalk, or passing vehicles at any time. Upon completion of the installation and prior to activation of the system, the Encroacher shall contact the District Engineer to schedule a test of the system to verify the spray pattern. Sprinkler systems shall not be operated during periods of high wind or freezing weather, or to the extent that the subgrade adjacent to the pavement structure becomes saturated. NCDOT reserves the right to require immediate termination and removal of any sprinkler system which in its judgement and opinion adversely affects safety, maintenance, or operation of the roadway.

Excavation

80. Excavation material shall not be placed on pavement.

81. It is the responsibility of the encroaching party or their contractor to prevent any mud/dirt from tracking onto the roadway. Any dirt which may collect on the roadway pavement from equipment and/or truck traffic on site shall be immediately removed to avoid any unsafe traffic conditions.

82. The utility shall be installed within 5 feet of the right of way line and outside the 5-foot minimum from travel lane plus theoretical 2:1 slope from the edge of pavement to the bottom of the nearest excavation wall for temporary shoring. Temporary shoring is required when a theoretical 2:1 slope from the bottom of excavation will intersect the existing ground line less than 5 feet from the outside edge of an open travel lane as shown in the figure below or when a theoretical 2:1 slope from the bottom of excavation will intersect any existing structure, support, utility, property, etc. to be protected.



If the 2:1 slope plus 5 feet requirement above is met for traffic, then temporary shoring is typically only necessary to protect roadways from damage when a theoretical 1:1 slope from the edge of pavement intersects the nearest excavation wall. This rule of thumb should be used with caution and does not apply to all subsurface conditions, surcharge loadings and excavation geometries. Situations where this 1:1 slope is not recommended include groundwater depth is above bottom of excavation or excavation is deeper than 10 feet or in Type B or C soils as defined by OSHA Technical Manual. Temporary shoring may be avoided by locating trenches, bore pits, and other excavations far enough away from the open travel lane, edge of pavement and any existing structure, support, utility, property, etc. to be protected.

Temporary shoring shall be designed and constructed in accordance with current NCDOT Standard Temporary Shoring provisions (refer to https://connect.ncdot.gov/resources/Specifications/Pages/2018-Specifications-and-Special-Provisions.aspx and see SP11 R002

a. Temporary excavation shoring, such as sheet piling, shall be installed. The design of the shoring shall include the effects of traffic loads. The shoring system shall be designed and sealed by a licensed North Carolina Professional Engineer. Shoring plans and design calculations shall be submitted to the Division Engineer for review and approval prior to construction. (See NCDOT *Utilities Accommodations Manual* for more information on requirements for shoring plans, design calculations, and subsurface investigation report.) **Trench boxes shall not be accepted as temporary shoring and will not be approved for use in instances where shoring is required to protect the highway, drainage structure, and/or supporting pavement or structure foundation.**
b. All trench excavation inside the limits of the theoretical two-to-one slope plus 5 feet requirement, as defined by the policy, shall be completely backfilled and compacted at the end of each construction day. No portion of the trench shall be left open overnight. Any excavation that is not backfilled by the end of the workday must address any safety and traveling public concerns including accommodations for bicycles, pedestrians and persons with disabilities.
c. The trench backfill material shall meet the Statewide Borrow Criteria. The trench shall be backfilled in accordance with Section 300-7 of the latest *NCDOT Standard Specifications for Roads and Structures,* which basically requires the backfill material to be placed in layers not to exceed 6 inches loose and compacted to at least 95% of the density obtained by compacting a sample in accordance with AASHTO T99 as modified by DOT.
d. At the discretion of the Division Engineer, a qualified NCDOT inspector shall be on the site at all times during construction. The encroaching party shall reimburse NCDOT for the cost of providing the inspector. If NCDOT cannot supply an inspector, the encroaching party (not the utility contractor) should make arrangements to have a qualified inspector, under the supervision of a licensed North Carolina Professional Engineer, on the site at all times. The Professional Registered Engineer shall certify that the utility was installed in accordance with the encroachment agreement and that the backfill material meets the Statewide Borrow Criteria.
e. The length of parallel excavation shall be limited to the length necessary to install and backfill one joint of pipe at a time, not to exceed twenty-five (25) feet.

83. All material to a depth of 8 inches below the finished surface of the subgrade shall be compacted to a density equal to at least 100% of that obtained by compacting a sample of the material in accordance with AASHTO T99 as modified by the Department. The subgrade shall be compacted at a moisture content which is approximately that required to produce the maximum density indicated by the above test method. The contractor shall dry or add moisture to the subgrade when required to provide a uniformly compacted and acceptable subgrade. The option to backfill any trenches with dirt or either #57 stone or #78 stone with consolidation with a plate tamp and without a conventional density test may be pursued with the written consent of the District Engineer. If this option is exercised, then roadway ABC stone and asphalt repair as required will also be specified by the District Engineer.

Directional bore

84. Boring equipment will be provided of a type and size to facilitate boring in the local geologic conditions and shall be able to facilitate the encroachment work.

85. When Horizontal Directional Drilling (HDD) is used, the following stipulations apply:
    a. Use drilling fluids as appropriate for the type soils but use of water alone is prohibited. Pump drilling fluids only while drilling or reaming. Directional boring using jetting with a

Bentonite (or equivalent material) slurry is recommended. Monitor flow rates to match the amount leaving the bore hole and do not increase pressure or flow to free stuck drill heads, reamers or piping. Open cutting to retrieve stuck drill heads is not allowed without prior permission from the District Engineer.

b. The minimum depth shall adhere to the table below for transverse (under non-controlled access, partial controlled access, or limited controlled access roadway) installations and refers to maximum diameter of hole drilled and not the dimension of the carrier or encasement pipe.

Diameter of Drilled Hole (Backream)	Minimum Depth of Cover
2" to 6"	5 feet
>6" to 15"	12 times hole diameter (e.g. 6-inch hole means 6 feet minimum depth)
>15" to 36"	15 feet or greater

c. Under fully controlled access roadway installations, the minimum depth for transverse crossings shall be 15 feet under any pavement (ramps or thru lanes)
d. An overbore (backream diameter) shall not be more than 1.5 times the outside diameter of the pipe or encasement under any highway for pipes 12 inches in diameter or less. For pipes with outer diameter larger than 12 inches, the overbore may be no larger than outer diameter of pipe plus 6 inches. An overbore exceeding 1.5 times greater than the outside diameter of the pipe or encasement may be considered if the encroachment agreement includes a statement signed and sealed by a licensed North Carolina Professional Engineer indicating that an overbore in excess of 1.5 times the outside diameter of the pipe or encasement will appropriately arch and no damage will be done to the pavement or sub-grade.
e. Directional boring is allowed beneath embankment material in naturally occurring soil.
f. Any parallel installation utilizing the directional boring method shall be made at a minimum depth of five (5') feet (cover) below the ground surface and outside the theoretical 1:1 slope from the existing edge of pavement except where the parallel installation crosses a paved roadway.
g. All directional bores shall maintain ten (10) feet minimum (clear) distance from the nearest part of any structure, including but not limited to bridges, footings, pipe culverts or box culverts. Directional bores are not allowed beneath bridge footings, culvert wingwall footings, slope protection or retaining walls.
h. The tip of the drill string shall have a cutter head.
i. Detection wire shall be installed with non-ferrous material.
j. HDPE pipe installed by directional boring shall not be connected to existing pipe or fittings for one (1) week from the time of installation to allow tensional stresses to relax.

Aerial clearances

86. Vertical clearance of overhead power and communication lines shall meet the National Electrical Safety Code requirements except the minimum vertical clearance shall be 18' for crossings over NCDOT roadways (24' over Fully Controlled Access roadways) and 16' for parallel installations.

87. In relation to the bridge, the utility line shall be located with minimum clearances as indicated on the attachment for NCDOT **Required Clearances for Aerial Installations by Encroachment Near Bridge Structures**.

Pavement Detail and Repair

88. The paving of this roadway shall be in accordance with the latest version of NCDOT Standard Specifications, Sections 610, 1012 and 1020. The Contractor shall follow all procedures of the Quality Management System (QMS) for asphalt pavement - Maintenance Version (see https://connect.ncdot.gov/resources/Materials/MaterialsResources/2018%20QMS%20Asphalt%20Manual.pdf). The Contractor must adhere to all testing requirements and quality control requirements specified. The Contractor shall contact the NCDOT Division QA Supervisor prior to producing plant mix and make the Supervisor aware that the mix is being produced for a future NCDOT road. Contact the District Engineer to determine the NCDOT Division QA Supervisor. Only NCDOT approved mix designs will be acceptable. A Quality Control Plan shall be submitted (as Directed by the District Engineer) to the District Engineer's Office prior to asphalt production utilizing form QMS-MV1. Failing mixes and/or densities are subject to penalties including monetary payments or removal and replacement. To minimize traffic queuing in construction areas, the possibility of traffic detours may be considered when working on high traffic routes even if traffic control is used. The District Engineer may require traffic detours.

89. When paving beyond utility installation is involved, a Roadway certification report sealed by a Professional Engineer shall be submitted to the District Engineer's office indicating the following:
    - Pavement thickness by type
    - Pavement density, core and/or test locations
    - Base thickness
    - Base density
    - Subgrade density

    Test frequency and method shall be in conformance with the NCDOT *Materials and Tests Manual.* Test must be performed by a Certified Technician including name and Certification number on report.

90. "Potholing" pavement cores to expose existing utilities shall be made with an 18" diameter keyhole pavement core. Pavement core locations shall not be placed in the wheel path whenever possible. Vacuum excavation shall be utilized to expose underground utilities. Pavement cores shall be repaired within the same working day. The pavement core shall be retained and reused to fill the core hole.

    The excavation shall be backfilled and compacted with select material to the bottom of the existing pavement structure or as indicated by the District Engineer. The retained core shall be placed in the hole and secured with a waterproof, mechanical joint. If the pavement core is damaged and cannot be re-used, the core may be replaced with the surface mix, S9.5B. The asphalt patch shall match the thickness of the existing asphalt or four inches, whichever is greater. All materials must be listed on the NCDOT Approved Products List (APL) found at: https://apps.ncdot.gov/vendor/approvedproducts/.

91. The minimum pavement design for pavement repair shall be according to NCDOT Standard Drawing 654.01 (https://connect.ncdot.gov/resources/Specifications/2018StandardRdwyDrawings/Division%2006%20Asphalt%20Bases%20and%20Pavements.pdf) and shall include a mechanical overlay extent to be a minimum of 25 feet each side of the pavement repair area OR as directed by the District Engineer.

92. Pavement cuts shall be repaired the same day the cuts are made unless an asphalt patch cannot be accomplished the same day due to material availability or time restrictions. When the asphalt patch is not feasible, the following apply:

a. The pavement cut shall be filled to the surface with ABC stone or Flowable Fill per NCDOT's Standards and Specifications.
b. Once the cut is filled, a minimum ¾-inch steel plate shall be placed and pinned to prevent moving. Plates shall be designed large enough to span a minimum of 1-foot on all sides on the pavement cut.
c. When flowable fill is used, it shall cure for 24 hours prior to any asphalt material placement. Flowable fill bleed water shall not be present during paving operations. Paving shall not cause damage (shoving, distortion, pumping, etc.) to the flowable fill.
d. Install and leave "BUMP" signs according to MUTCD until the steel plate has been removed. Once the flowable fill has cured, remove the steel plate, and mill/fill according to the directions of the District Engineer.
e. All pavement cuts must be sealed with NCDOT approved sealant to prevent future pavement separation or cracking.

93. Any pavement damaged because of settlement of the pavement or damaged by equipment used to perform encroachment work, shall be re-surfaced to the satisfaction of the District Engineer. This may include the removal of pavement and a 50' mechanical overlay. All pavement work and pavement markings (temporary and final) are the responsibility of the Encroaching Party.

Post Construction

Close out/ Inspection

94. The Encroaching party shall notify the District Engineer's office within 2 business days after construction is complete. The District Engineer may perform a construction inspection. Any deficiencies may be noted and reported to the encroaching party to make immediate repairs or resolve any issues to restore the right-of-way to a similar condition prior to construction, including pavement, signage, traffic signals, pavement markings, drainage, structures/pipes, or other highway design features.

95. At the discretion of the District Engineer, a final inspection report may be provided to the encroaching party upon satisfactory completion of the work.

96. A written acknowledgement of the completed work by the District Engineer's office begins the one-year warranty period associated with the performance bond.

97. If the actual construction differs from the approved plans associated with this encroachment, a copy of "as-built" plans shall be submitted to the District Engineer's office in a PDF format and in a current ESRI GIS format within 4 weeks of construction.

98. The encroaching party shall provide the North Carolina Turnpike Authority (NCTA) with an *electronic copy of coordinate correct as-built plans within two weeks of installation completion.* Failure to provide the as-built plans may jeopardize future approvals within NCTA right of way.

99. A copy (in PDF format) of the completed ground water analysis shall be given to the District Engineer, including detailed drawings of the "as-built" wells showing location, depth and water level in well.

ATTACHMENT FORM

NOTIFICATION FOR UTILITY / NON-UTILITY ENCROACHMENT WITHIN NCDOT R/W

Instructions for use:
This form must be completed in its entirety and submitted directly to the designated personnel in the District Engineer's office via email, fax or hand delivery a minimum of one week prior to construction for the encroachment. If the designated NCDOT personnel names are unknown by the person completing this form, please contact the District Engineer's office to determine that contact info.

Date: _____ Submitted by Name: _____

To: District Personnel Name: Ritchie Naraidu
District Personnel Email: rrnaraidu@ncdot.gov
District Fax No.: 704-876-0602

This notification is to inform you that we (encroaching party or their contractor) will begin construction work on the following project in a minimum of one week.

Encroachment number
(assigned by NCDOT) for the project: _____

Construction start date: _____

Approximate ending date: _____

Contact NCDOT inspector a minimum of 72 hrs. in advance to set-up Preconstruction meeting in the District Engineer's office or other location as directed by the District Engineer

Preconstruction meeting date & time: _____

Preconstruction meeting address: _____
_____

Type of project: _____
[Examples: power, telecommunication, water, sewer, gas, petroleum, other (describe)]

Contact Info for this project:

Contractor Company Name:
_____
Contractor Contact Name:
_____
Contractor Phone Number:
_____
Contractor Email:
_____

NCDOT Utility Inspector Name:
_____
NCDOT Utility Inspector Phone:
_____
NCDOT Utility Inspector Email:
_____
NCDOT Utility Project Manager Name:
_____
NCDOT Utility Project Manager Phone:
_____
NCDOT Utility Project Manager Email:
_____

ROUTE SR1458 Barber Loop PROJECT _____ COUNTY OF Iredell STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY ENCROACHMENT AGREEMENT
PRIMARY AND SECONDARY HIGHWAYS

Dee Arnold -AND-
441 Barber Loop, Mooresville, NC 28117
704-677-6797, deebylake21@gmail.com

THIS AGREEMENT, made and entered into this the 15th day of March 20 22 by and between the Department of Transportation, party of the first part; and Dee Arnold
441 Barber Loop, Mooresville, NC 28117 party of the second part,

WITNESSETH

THAT WHEREAS, the party of the second part desires to encroach on the right of way of the public road designated as Route(s) SR1458 Barber Loop, located 441 Barber Loop

with the construction and/or erection of: Install a 2" SDR11 PVC septic line, from lot #97 to lot #47 by crossing under the right of way of Barber Loop (SR1458) via bore

WHEREAS, it is to the material advantage of the party of the second part to effect this encroachment, and the party of the first part in the exercise of authority conferred upon it by statute, is willing to permit the encroachment within the limits of the right of way as indicated, subject to the conditions of this agreement;

NOW, THEREFORE, IT IS AGREED that the party of the first part hereby grants to the party of the second part the right and privilege to make this encroachment as shown on attached plan sheet(s), specifications and special provisions which are made a part hereof upon the following conditions, to wit:

That the installation, operation, and maintenance of the above described facility will be accomplished in accordance with the party of the first part's latest POLICIES AND PROCEDURES FOR ACCOMMODATING UTILITIES ON HIGHWAY RIGHTS-OF-WAY, and such revisions and amendments thereto as may be in effect at the date of this agreement. Information as to these policies and procedures may be obtained from the Division Engineer or State Utility Agent of the party of the first part.

That the said party of the second part binds and obligates himself to install and maintain the encroaching facility in such safe and proper condition that it will not interfere with or endanger travel upon said highway, nor obstruct nor interfere with the proper maintenance thereof, to reimburse the party of the first part for the cost incurred for any repairs or maintenance to its roadways and structures necessary due to the installation and existence of the facilities of the party of the second part, and if at any time the party of the first part shall require the removal of or changes in the location of the said facilities, that the said party of the second part binds himself, his successors and assigns, to promptly remove or alter the said facilities, in order to conform to the said requirement, without any cost to the party of the first part.

That the party of the second part agrees to provide during construction and any subsequent maintenance proper signs, signal lights, flagmen and other warning devices for the protection of traffic in conformance with the latest Manual on Uniform Traffic Control Devices for Streets and Highways and Amendments or Supplements thereto. Information as to the above rules and regulations may be obtained from the Division Engineer of the party of the first part.

That the party of the second part hereby agrees to indemnify and save harmless the party of the first part from all damages and claims for damage that may arise by reason of the installation and maintenance of this encroachment.

That the party of the second part agrees to restore all areas disturbed during installation and maintenance to the satisfaction of the Division Engineer of the party of the first part. The party of the second part agrees to exercise every reasonable precaution during construction and maintenance to prevent eroding of soil; silting or pollution of rivers, streams, lakes, reservoirs, other water impoundments, ground surfaces or other property; or pollution of the air. There shall be compliance with applicable rules and regulations of the North Carolina Division of Environmental Management, North Carolina Sedimentation Control Commission, and with ordinances and regulations of various counties, municipalities and other official agencies relating to pollution prevention and control. When any installation or maintenance operation disturbs the ground surface and existing ground cover, the party of the second part agrees to remove and replace the sod or otherwise reestablish the grass cover to meet the satisfaction of the Division Engineer of the party of the first part.

That the party of the second part agrees to assume the actual cost of any inspection of the work considered to be necessary by the Division Engineer of the party of the first part.

That the party of the second part agrees to have available at the construction site, at all times during construction, a copy of this agreement showing evidence of approval by the party of the first part. The party of the first part reserves the right to stop all work unless evidence of approval can be shown.

Provided the work contained in this agreement is being performed on a completed highway open to traffic; the party of the second part agrees to give written notice to the Division Engineer of the party of the first part when all work contained herein has been completed. Unless specifically requested by the party of the first part, written notice of completion of work on highway projects under construction will not be required.

That in the case of noncompliance with the terms of this agreement by the party of the second part, the party of the first part reserves the right to stop all work until the facility has been brought into compliance or removed from the right of way at no cost to the party of the first part.

That it is agreed by both parties that this agreement shall become void if actual construction of the work contemplated herein is not begun within one (1) year from the date of authorization by the party of the first part unless written waiver is secured by the party of the second part from the party of the first part.

During the performance of this contract, the second party, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor"), agrees as follows:

a. Compliance with Regulations: The contractor shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the U. S. Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

b. Nondiscrimination: The contractor, with regard to the work performed by it during the contract, shall not discriminate on the

grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

c. Solicitations for Subcontracts, including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

d. Information and Reports: The contractor shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Department of Transportation or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the Department of Transportation, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.

e. Sanctions for Noncompliance: In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the Department of Transportation shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to,

(1) withholding of payments to the contractor under the contract until the contractor complies, and/or
(2) cancellation, termination or suspension of the contract, in whole or in part.

f. Incorporation of Provisions: The contractor shall include the provisions of paragraphs "a" through "f" in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Department of Transportation or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Department of Transportation to enter into such litigation to protect the interests of the State, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

R/W (161) : Party of the Second Part certifies that this agreement is true and accurate copy of the form R/W (161) incorporating all revisions to date.

IN WITNESS WHEREOF, each of the parties to this agreement has caused the same to be executed the day and year first above written.

DEPARTMENT OF TRANSPORTATION

DocuSigned by:
Jonathan Barnette
BY: _____
DIVISION ENGINEER C9EA386204C7...

ATTEST OR WITNESS:

Michael Benfield

939 Brawley School, Mooresville, NC 28117

704-360-0376, info@yardsbyboss.com

Dee Arnold

441 Barber Loop, Mooresville, NC 28117

704-677-6797, deebylake21@gmail.com

Second Party

INSTRUCTIONS

When the applicant is a corporation or a municipality, this agreement must have the corporate seal and be attested by the corporation secretary or by the empowered city official, unless a waiver of corporate seal and attestation by the secretary or by the empowered City official is on file in the Raleigh office of the Manager of Right of Way. In the space provided in this agreement for execution, the name of the corporation or municipality shall be typed above the name, and title of all persons signing the agreement should be typed directly below their signature.

When the applicant is not a corporation, then his signature must be witnessed by one person. The address should be included in this agreement and the names of all persons signing the agreement should be typed directly below their signature.

This agreement must be accompanied, in the form of an attachment, by plans or drawings showing the following applicable information:

1. All roadways and ramps.
2. Right of way lines and where applicable, the control of access lines.
3. Location of the existing and/or proposed encroachment.
4. Length, size and type of encroachment.
5. Method of installation.
6. Dimensions showing the distance from the encroachment to edge of pavement, shoulders, etc.
7. Location by highway survey station number. If station number cannot be obtained, location should be shown by distance from some identifiable point, such as a bridge, road, intersection, etc. (To assist in preparation of the encroachment plan, the Department's roadway plans may be seen at the various Highway Division Offices, or at the Raleigh office.)
8. Drainage structures or bridges if affected by encroachment (show vertical and horizontal dimensions from encroachment to nearest part of structure).
9. Method of attachment to drainage structures or bridges.
10. Manhole design.
11. On underground utilities, the depth of bury under all traveled lanes, shoulders, ditches, sidewalks, etc.
12. Length, size and type of encasement where required.
13. On underground crossings, notation as to method of crossing - boring and jacking, open cut, etc.
14. Location of vents.

GENERAL REQUIREMENTS

1. Any attachment to a bridge or other drainage structure must be approved by the Head of Structure Design in Raleigh prior to submission of encroachment agreement to the Division Engineer.
2. All crossings should be as near as possible normal to the centerline of the highway.
3. Minimum vertical clearances of overhead wires and cables above all roadways must conform to clearances set out in the National Electric Safety Code.
4. Encasements shall extend from ditch line to ditch line in cut sections and 5' beyond toe of slopes in fill sections.
5. All vents should be extended to the right of way line or as otherwise required by the Department.
6. All pipe encasements as to material and strength shall meet the standards and specifications of the Department.
7. Any special provisions or specifications as to the performance of the work or the method of construction that may be required by the Department must be shown on a separate sheet attached to encroachment agreement provided that such information cannot be shown on plans or drawings.
8. The Department's Division Engineer should be given notice by the applicant prior to actual starting of installation included in this agreement.

NCDOT Hold Harmless Declaration for Private Facility FORM

Private Facility Encroachment
Hold Harmless Declaration

Encroachment Agreement Second Party: Tim & Mary Bruin

Encroachment Number: E122-049-22-00040

446 Barber Loop, Mooresville, NC 28117

County: Iredell

704-293-6486, tim@livethelake.com

The party of the second part of the above-referenced encroachment agreement agrees to indemnify and save harmless the North Carolina Department of Transportation from all claims of liability for the overburdening of right of way easements caused by the installation of private facilities owned by the party of the second part and installed under the approval of the above-referenced encroachment agreement.

Second Party: Tim & Mary Bruin

446 Barber Loop, Mooresville, NC 28117

704-293-6486, tim@livethelake.com

Attest or Witness: Michael Benfield

939 Brawley School, Mooresville, NC 28117

704-360-0376, info@yardsbyboss.com

Date: 3/14/22

Published by NCDOT Utilities Unit 7/17/2017
Separate Form to be signed by each property owner affected by the installation.

NCDOT Hold Harmless Declaration for Private Facility FORM

Private Facility Encroachment Hold Harmless Declaration

Encroachment Agreement Second Party: Dee Arnold

Encroachment Number: E122-049-22-00040

441 Barber Loop, Mooresville, NC 28117

County: Iredell

704-677-6797, deebylake21@gmail.com

The party of the second part of the above-referenced encroachment agreement agrees to indemnify and save harmless the North Carolina Department of Transportation from all claims of liability for the overburdening of right of way easements caused by the installation of private facilities owned by the party of the second part and installed under the approval of the above-referenced encroachment agreement.

Second Party: Dee Arnold

Attest or Witness: Michael Benfield

441 Barber Loop, Mooresville, NC 28117

939 Brawley School, Mooresville, NC 28117

704-677-6797, deebylake21@gmail.com

704-360-0376, info@yardsbyboss.com

Date: 1-24-22

Published by NCDOT Utilities Unit 7/17/2017
Separate Form to be signed by each property owner affected by the installation.

Property Owner Consent Form For Water Line

E122-049-22-00040

I, Tim Bruin, consent to Dee Arnold to have a licensed septic installer/utility installer install a 2" septic line on my property to serve a proposed drain field.

Property Owner Signature Tim Bruin Date 2-24-22
(Tim Bruin, 446 Barber Loop, Mooresville, NC 28117)

Property Owner Signature S. Dee Arnold Date 2-24-22
(Dee Arnold, 441 Barber Loop, Mooresville, NC 28117)

Notary Signature [signature] Date 2-24-22

North Carolina
Iredell County

I certify that the following person(s) personally appeared before me this day, each acknowledging to me that he or she signed the foregoing document: _____

Tim Bruin

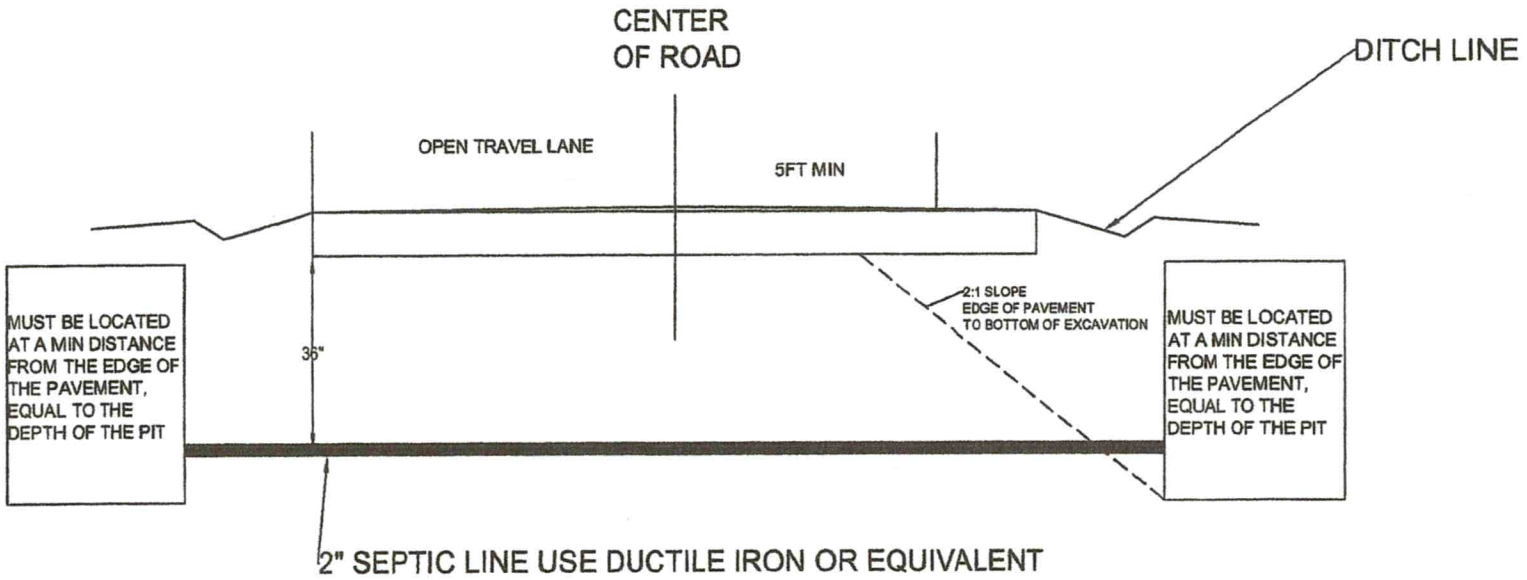
S. Dee Arnold

MANIR KARIM
Notary Public, North Carolina
Cabarrus County
My Commission Expires
June 01, 2022

Manir Karim
Notary Public

Date: 2-24-22

My Commission expires: 06-01-2022


CENTER
OF ROAD
DITCH LINE
OPEN TRAVEL LANE
5FT MIN
2:1 SLOPE
EDGE OF PAVEMENT
TO BOTTOM OF EXCAVATION
MUST BE LOCATED AT A MIN DISTANCE FROM THE EDGE OF THE PAVEMENT, EQUAL TO THE DEPTH OF THE PIT
36"
MUST BE LOCATED AT A MIN DISTANCE FROM THE EDGE OF THE PAVEMENT, EQUAL TO THE DEPTH OF THE PIT
2" SEPTIC LINE USE DUCTILE IRON OR EQUIVALENT

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

January 26, 2022

Ms. Dee Arnold
441 Barber Loop
Mooresville, NC 28117

County: Iredell

Subject: Right of Way Encroachment Agreement: E122-049-22-00016

Route: SR1458 (Barber Loop)

To Whom It May Concern:

Attached is an approved Right of Way Encroachment Agreement covering the installation of: Utilize Existing drain field that currently encroaches into road right of way as a repair system so that the homeowner can install a pool.

The encroaching party shall comply with all applicable state and federal environmental regulations and shall obtain all necessary state and federal environmental permits, including but not limited to, those related to sediment control, storm water, wetlands, streams, endangered species and historical sites.

NOTE: Approval is subject to the attached Special Provisions.

NOTE: All construction shall be done using NCDOT approved materials.

NOTE: It shall be the responsibility of the Homeowner to maintain/ and or repair the existing drain field from any damages within the Right of Way. If there are any damages to NCDOT roadway from the drain field within the Right of Way, the homeowner will be liable.

NOTE: Installation should be placed as close to the right of way limits as possible.

NOTE: Excavation within 1000 feet of a signalized intersection will require notification by the party of the second part to the Division Traffic Engineer at telephone number 980-552-4120. All traffic signal or detection cables must be located prior to excavation.

It would be appreciated if you would advise the District Office at (704) 380-6040 at least forty-eight (48) hours prior to the date of beginning work on installation of this encroachment. Furthermore, it will be necessary for you to notify the District Office in writing when work is completed on this installation.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
DIVISION 12, DISTRICT 2
124 PRISON CAMP ROAD
STATESVILLE, NC 28625

Telephone: (704)380-6040
Fax: (704) 876-0602
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
124 PRISON CAMP ROAD
STATESVILLE, NC 28625

The Department of Transportation does not guarantee the right of way on this road, nor will it be responsible for any claim for damages brought by any property owner by reason of this installation.

Respectfully yours,

DocuSigned by:
Jonathan Barnette
3C3C9EA386204C7...

Jonathan A. Barnette
Assistant District Supervisor
Division 12, District 2

JAB: rrn
cc: File

WORKFORCE SAFETY PLAN FOR ENCROACHMENT ACTIVITIES: COVID-19

EFFORTS THE N.C. TRANSPORTATION INDUSTRY IS TAKING TO STOP THE SPREAD OF COVID-19

The North Carolina Department of Transportation (NCDOT) and their partners expect all parties involved in the delivery of transportation projects to abide by the guidelines issued from the Centers for Disease Control and Prevention (CDC) and the North Carolina Department of Health and Human Services (NCDHHS).

Response to COVID-19 is rapidly evolving; new information and guidelines may be issued from the CDC, NCDHHS, or other state or federal agencies. NCDOT and their partners should review the current CDC and NCDHHS guidance, including the resources listed at the end of this document, for up-to-date information on how to respond to COVID-19. Additional guidelines may be issued by state or federal agencies that should be followed in addition to the guidance included in this document.

Though certain Americans with Disabilities Act (ADA) requirements have been relaxed in response to the pandemic, employers must still maintain all information about employee illness as a confidential medical record in compliance with the ADA. If an employee is suspected of having or tests positive for COVID-19, it is essential that management keep the identity of the employee and details related to the employee's health confidential.

Below are precautions required by NCDOT and from encroaching parties and their contractors performing construction within NCDOT Rights of Way. The term employee refers to any person on a job site within NCDOT right of way for the purpose of constructing or inspecting the work related to construction of a facility under an approved encroachment agreement and where that employee may or may not be under employment by or under contract to NCDOT.

EMPLOYEE WELLNESS

- If an employee has not yet reported to work and develops any COVID-19 symptoms (i.e. fever, coughing, or shortness of breath) — STAY HOME and immediately:
    - Call a health care provider
    - Self-Isolate
    - Communicate with your supervisor
    - Remain calm and follow all instructions from your health care provider
- Employees who appear to have acute respiratory illness symptoms (i.e. cough, shortness of breath) upon arrival to work, or become sick during the day, should be separated from others and sent home immediately. The potentially affected employees should immediately follow the steps outlined above, which includes immediately contacting a health care provider.
- Should an employee show symptoms of acute respiratory illness or be diagnosed with COVID-19, all other employees who have worked in close proximity to the affected employee during the last 14

days and all encroachment points of contact indicated at the end of this plan should be notified of potential exposure to the disease without identifying the affected employee.

- Consideration should be given to employees at "High Risk" of severe illness from COVID-19, who, per NCDHHS, include employees:
    - Over 65 years of age, **OR**
    - With underlying health conditions including heart disease, lung disease, or diabetes, **OR**
    - With weakened immune system
- "High Risk" Employees should be given the opportunity to discuss alternate work arrangements/duties with their employer or take leave according to their company policies.
- For guidance on confirmed positive tests for COVID-19, refer to the most recent version of the "COVID-19 Guidance for Employees on Encroachment Job Sites within NCDOT Right of Way" located on last page of this plan.

PERSONAL HYGIENE

- Clean hands often by washing with soap and water for 20 seconds. If soap and water are not available and hands are not visibly dirty, an alcohol-based hand sanitizer that contains 60%-95% alcohol may be used.
- Avoid touching your eyes, nose, mouth, or other parts of your face.
- Do not breathe, cough, or sneeze on another person or into the open air. Employees should cover their noses and mouth with a tissue when coughing or sneezing (or an elbow or shoulder if no tissue is available).
- A facemask for covering nose and mouth is encouraged on the job site.
- Appropriate gloves are encouraged while performing functions of the job.

CLEANING/DISINFECTING

- Wash stations and/or hand sanitizer are encouraged on each project site.
- Appropriate cleaning staff should clean frequently touched surfaces and objects with disinfectants at a minimum of once per day.
    - Office/buildings: door knobs, light switches, phones, computers/keyboards, copy machines, elevator buttons, toilets, faucets, sinks, countertops, paper towel dispensers, desktops, handrails, folders, vending machines, counters, tables, cabinets/knobs, etc.
    - Shop Yard/Jobsite: vehicle/equipment door handles, keys, gear shifts, steering wheel/operator controls and levers, fuel pump dispensers, touch points on machinery, etc.
    - Electronic equipment: cell phones, computers, keyboards, etc.
- Appropriate cleaning staff should sanitize/disinfect facilities and work areas after persons suspected/confirmed to have COVID-19 have been in the facility or work area.

- It is recommended to close off access to areas used by the ill persons and wait as long as practical, 24 hours if possible, before beginning cleaning and disinfection to minimize potential for exposure to respiratory droplets. Open outside doors and windows to increase air circulation in the area if possible.
- Appropriate cleaning staff should clean and disinfect all areas used by the ill persons, focusing especially on frequently touched surfaces.

GENERAL

- Increase communication measures between all parties regarding schedule, daily activities, etc. to reduce/minimize worker exposure in accordance with but not limited to the requirements below.
- Minimize on-site personnel such as subcontractors, work crews, QC personnel, and inspection staff to those required for that day's activities. If work is postponed or cancelled, immediately notify appropriate parties.
- Practice "Social Distancing" whenever feasible. Social Distancing is designed to limit the spread of a disease by reducing the opportunities for close contact between people. All personnel have the responsibility to remind each other to stay 6 feet or more apart. Examples of Social Distancing include:
  - Reducing face-to-face exposure by using conference calls and video conferencing
    - If an in-person meeting is absolutely required and cannot be rescheduled or attended remotely, the meeting is limited to a maximum of 10 people while maintaining Social Distancing of 6 feet or more.
  - Avoiding unnecessary travel
- Do not congregate at lunch or breaks. Bringing your lunch is encouraged.
- No communal coolers or drink stations are allowed. Supervisors should confirm with employees prior to beginning work for appropriate hydration and nutrition availability to employees for the duration of the employee's shift and without direct contact with others on the job site.
- First line of communication should be by phone, rather than in-person.
- Do not shake hands.
- Do not share iPads, tablets, pens, or clipboards for signing or any other purpose. Take pictures as proof of attendance at meetings.
- Sharing of Personal Protective Equipment (PPE) is strictly prohibited.
- Vehicles, equipment, and tools
  - Limit the number of people riding in a vehicle together.
  - Wipe down and disinfect vehicles after each trip.
  - As much as possible, do not share tools or equipment. If a tool or piece of equipment must be shared, the parts of it that are touched should be sanitized between uses.

RETURN TO WORK

- The following criteria must be followed for an employee who is tested for Covid-19, or asked to self-quarantine by health officials, or has contact with another employee with a positive test result to return to work:
    - at least a 14-day quarantine; **OR**
    - release by a health care provider.
- In accordance with CDC guidance, the following criteria must be followed for an employee with a positive test result to return to work:
    - at least 14 days from positive test notification; **AND**
    - at least 3 days (72 hours) have passed since recovery defined as resolution of fever without the use of fever-reducing medications and improvement in respiratory symptoms (e.g., cough, shortness of breath); **AND**
    - at least 7 days have passed since symptoms first appeared.

NCDOT may require certification of fitness to work from a health care provider.

ADDITIONAL RESOURCES

NCDOT and their partners should review the CDC and NCDHHS resources listed below for up-to-date information on how to respond to COVID-19. Additional guidelines may be issued by state or federal agencies that should be followed in addition to the guidelines included in this document.

- NCDHHS COVID-19 Resources:
    - https://www.ncdhhs.gov/divisions/public-health/coronavirus-disease-2019-covid-19-response-north-carolina
- NCOSHR Communicable Disease Emergency Policy
    - https://oshr.nc.gov/policies-forms/workplace-wellness/communicable-disease-emergency
- OSHA Guidance on Preparing Workplaces for COVID-19
    - https://www.osha.gov/Publications/OSHA3990.pdf
- CDC COVID-19 Resources:
    - https://www.cdc.gov/coronavirus/2019-ncov/index.html

AGREEMENT

The encroaching party shall adhere to the requirements of this plan in order to continue work under their approved encroachment agreement. Violations to this plan could result in the violating entity not being allowed to continue work or all work ceasing as determined by the NCDOT District Engineer or Resident Engineer.

PROJECT POINTS OF CONTACT

NCDOT Encroachment ID#: E122-049-22-00016

DocuSigned by:
NCDOT
Jonathan Barnette
3C3C9EA386204C7...

Name:

Phone #: 704-380-6040

Encroaching Party (Primary Contact)

Name: Dee Arnold

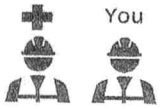
Phone #: 704-677-6797

Primary Contractor to Encroaching Party (Point of Contact)

Name: Benfield Outdoor Services & Solutions

Phone #: 704-360-0376

1-19-22

COVID-19 Guidance for Employees on Encroachment Job sites within NCDOT Right of Way				
Relationship to Confirmed POSITIVE Test		**CONTACT GROUP**		
		What YOU Should Do	**What your CREW Should Do** *Exposure within 6' and longer than 10 minutes*	No
Employee		Notify your supervisor Self-quarantine for 14 days	Advise of POSITIVE test without identifying the affected employee* Directly exposed crew self-quarantine for 14 days Continue hygiene & disinfecting measures	Advi affe Site cont polic Cont
Direct Contact *Interaction with an infected person within 6' and longer than 10 minutes*		Self-quarantine for 14 days	Advise of POSITIVE test without identifying the affected employee* Crew may continue onsite work or follow their company policy Continue hygiene & disinfecting measures	Advi Cont
Secondary Contact		You may continue onsite work or follow your company policy Continue hygiene & disinfecting measures	Continue hygiene & disinfecting measures	Cont
Two or more Persons Removed from Contact		Continue hygiene & disinfecting measures	Continue hygiene & disinfecting measures	Cont
***Notification Protocol** *(Comply with HIPAA & ADA confidentiality requirements)*	NCDOT employee / agent tests POSITIVE	NCDOT District Engineer/Resident Engineer notifies Encroaching Party's primary point o Contact, CDC and, if Resident Engineer has oversight for the job site, FHWA any Consult Encroaching party representative notifies other Contractors, Sub-Contractors and Suppl		
	Encroaching Party or Contract crew member on job site tests POSITIVE	Encroaching party representative or Contractor point of contact notifies appropriate NC Engineer and all other Contractors, Sub-Contractors and Suppliers with exposed Employ NCDOT notifies CDC, and as appropriate, FHWA and any Consultant Firms working for N		

Pre-Construction

Contact Offices & Outside Agency issues/contacts/info

1. Approval may be rescinded upon failure to follow any of the provisions in this permit and may be considered a violation of the encroachment agreement. **This Encroachment Agreement is Valid for 1 year. If this encroachment agreement should expire then the encroaching party must re-apply or request and extension for another year.**

2. The Encroaching party or their contractor shall provide the following notices prior to construction activity within the NCDOT Right of Way:
   a. Three (3) business days advance phone call at telephone (704) 380-6040 or email to rrnaraidu@ncdot.gov to the District Engineer's office
   b. If the construction falls within the limits of an NCDOT managed construction project, five (5) business days advance phone call to the Resident Engineer, Mr. Matthew Evans at (704) 380-6050 or email to Mevans8@ncdot.gov.
   c. If the construction falls within the Bridge Maintenance Department Pipe, Culvert, and or Bridge. A one (1) business day advance phone call to the bridge maintenance supervisor, Mr. Eric Schenz at (704) 380-6080 or email to eschenz@ncdot.gov

   Failure to provide these notifications prior to beginning construction is subject to the Division Engineer's discretion to cease construction activity for this encroachment. NCDOT reserves the right to cease any construction or maintenance work associated with this installation by the encroaching party until the construction or maintenance meets the satisfaction of the Division Engineer or their representative.

3. Prior to beginning work, it is the requirement of the Encroaching Party to contact the appropriate Utility Companies involved and make arrangements to adjust or relocate any utilities that conflict with the proposed work.

4. It shall be the responsibility of the encroaching party to determine the location of utilities within the encroachment area. NCGS § 87-115 through § 87-130 of the Underground Utility Safety and Damage Prevention Act requires underground utilities to be located by calling 811 prior to construction. The encroaching party shall be responsible for notifying other utility owners and providing protection and safeguards to prevent damage or interruption to existing facilities and maintain access to them.

5. The encroaching party shall notify the appropriate municipal office prior to beginning any work within the municipality's limits of jurisdiction.

6. This installation is within the I-77 Toll Corridor right of way. The encroaching party shall notify the North Carolina Turnpike Authority (NCTA) at telephone (919) 825-2612 or e-mail ncta_tmc@ncdot.gov at least ten (10) business days prior to beginning construction. The NCTA fiber trunk line shall be located prior to any excavation or boring within the Toll Corridor right of way. The cost to repair or relocate any signage, cables, signals or associated equipment due to this installation shall be the responsibility of the encroaching party.

7. The encroaching party is made aware that the I-77 Expressway is a toll facility and as such, toll revenue is required to operate and maintain the facility. If any NCTA owned asset is damaged as a result of the encroaching party's construction, it shall be repaired at no cost to NCTA. Additionally, if the damage results in the failure or hindrance of NCTA to properly collect toll revenue (damaged toll fiber, road closure, safety concern, etc.) the encroaching party will be sought to reimburse NCTA for the lost revenue.
8. This installation is within the NCDOT Division 12 Interstate Corridor right of way. The encroaching party shall notify the following at least ten (10) business days prior to beginning construction: NCDOT Division 12 Interstate Maintenance: Justin Johnson, jtjohnson4@ncdot.gov or by phone at 704-380-6070.

9. This installation is within the Mobility Partners (NCDOT Contractor) Managed I-77 Toll Corridor right of way. The encroaching party shall notify the following at least ten (10) business days prior to beginning construction:
    a. Mobility Partners: David Hannon, dhannon@i77partners.com or by phone at 980-337-2396 AND documentcontrol@i77partners.com.
    b. NCDOT Division 10 Interstate Maintenance: Michael Mariano, mamariano@ncdot.gov or by phone at 980-262-6260.
    c. The North Carolina Turnpike Authority (NCTA) at telephone (919) 825-2612 or e-mail ncta_tmc@ncdot.gov.

    The NCTA fiber trunk line shall be located prior to any excavation or boring within the Toll I-77 right of way. The cost to repair or relocate any structure, signage, cables, signals or associated equipment due to this installation shall be the responsibility of the encroaching party.

10. Excavation within 1000 feet of a signalized intersection will require notification by the encroaching party to the Division Traffic Engineer at telephone number (980) 552-4214 no less than one week prior to beginning work. All traffic signal or detection cables must be located prior to excavation. Cost to replace or repair NCDOT signs, signals, pavement markings or associated equipment and facilities shall be the responsibility of the encroaching party.

11. This agreement does not authorize installations within nor encroachment onto railroad rights of way. Permits for installations within railroad right of way must be obtained from the railroad and are the responsibility of the encroaching party.

12. At the option of the District Engineer, a preconstruction meeting including representatives of NCDOT, the encroaching party, contractors and municipality, if applicable, shall be required. A pre-construction conference held between a municipality (or other facility owner) and a contractor without the presence of NCDOT personnel with subsequent construction commencing may be subject to NCDOT personnel ceasing any work on NCDOT right-of-way related to this encroachment until such meeting is held. Contact the District office to schedule.

13. At the discretion of the District Engineer, a NOTIFICATION FOR UTILITY / NON-UTILITY ENCROACHMENT WITHIN NCDOT R/W form (See corresponding attachment) with the scheduled pre-construction meeting and associated construction schedule details must be completed and submitted to the District Engineer's office a minimum of one week prior to construction.

14. At the discretion of the District Engineer, the encroaching party (not the utility contractor) shall make arrangements to have a qualified inspector, under the supervision of a Professional Engineer registered in North Carolina, on site at all times during construction. The registered Professional Engineer shall be required to submit a signed and PE sealed certification that the utility was installed in accordance with the encroachment agreement.

Legal & Right-of-Way Issues

15. This approval and associated plans and supporting documents shall not be interpreted to allow any design change or change in the intent of the design by the Owner, Design Engineer, or any of their representatives. Any revisions or changes to these approved plans or intent for construction must be obtained in writing from the Division Engineer's office or their representative prior to construction or during construction if an issue arises during construction to warrant changes.

16. NCDOT does not guarantee the right of way on this road, nor will it be responsible for any claim for damages brought about by any property owner by reason of this installation. It is the responsibility of the encroaching party to verify the right of way.

17. Encroaching party shall be responsible for obtaining all necessary permanent and/or temporary construction, drainage, utility and/or sight distance easements.

18. All Right of Way and easements necessary for construction and maintenance shall be dedicated to NCDOT with proof of dedication furnished to the District Engineer prior to beginning work.

19. No commercial advertising shall be allowed within NCDOT Right of Way.

20. The encroaching party shall obtain proper approval from all affected pole owners prior to attachment to any pole.

21. The installation within the Control of Access fence shall not adversely affect the design, construction, maintenance, stability, traffic safety or operation of the controlled access highway, and the utility must be serviced without access from the through-traffic roadways or ramps.

Work Zone Traffic

22. Traffic control shall be coordinated with the District Engineer and the Division Traffic Engineer, Mr. Byron Engle, PE at telephone (980) 552-4214 or Mr. John Cook (704)-380-6040, prior to construction.

23. WORK ZONE TRAFFIC CONTROL QUALIFICATIONS AND TRAINING PROGRAM

    All personnel performing any activity inside the highway right of way are required to be familiar with the NCDOT Maintenance / Utility Traffic Control Guidelines (MUTCG). No specific training course or test is required for qualification in the Maintenance /Utility Traffic Control Guidelines (MUTCG).

    All flagging, spotting, or operating Automated Flagger Assist Devices (AFAD) inside the highway right of way requires qualified and trained Work Zone Flaggers. Training for this certification is provided by NCDOT approved training resources and by private entities that have been pre-approved to train themselves.

    All personnel involved with the installation of Work Zone Traffic Control devices inside the highway right of way are required to be qualified and trained Work Zone Installers. Training for this certification is provided by NCDOT approved training resources and by private entities that have been pre-approved to train themselves.

    All personnel in charge of overseeing work zone Temporary Traffic Control operations and installations inside the highway right of way are required to be qualified and trained Work Zone Supervisors. Training for this certification is provided by NCDOT approved training resources and by private entities that have been pre-approved to train themselves.

    For questions and/or additional information regarding this training program please refer to https://connect.ncdot.gov/projects/WZTC/Pages/Training.aspx or call the NCDOT Work Zone Traffic Control Section (919) 814-5000.

24. The party of the second part shall employ traffic control measures that are in accordance with the prevailing federal, state, local, and NCDOT policies, standards, and procedures. These policies, standards, and procedures include, but are not limited to the following:
    a. Manual on Uniform Traffic Control Devices (MUTCD) – North Carolina has adopted the MUTCD to provide basic principles and guidelines for traffic control device design, application, installation, and maintenance. North Carolina uses the MUTCD as a minimum requirement where higher supplemental standards specific to North Carolina are not established. Use fundamental principles and best practices of MUTCD (Part 6, Temporary Traffic Control).
    b. NCDOT Maintenance / Utility Traffic Control Guidelines – This document enhances the fundamental principles and best practices established in MUTCD Part 6, Temporary Traffic Control, incorporating NCDOT-specific standards and details. It also covers important safety knowledge for a wide range of work zone job responsibilities.

25. If the Traffic Control Supervisor determines that portable concrete barrier (PCB) is required to shield a hazard within the clear zone, then PCB shall be designed and sealed by a licensed North Carolina Professional Engineer. PCB plans and design calculations shall be submitted to the District Engineer for review and approval prior to installation.

26. Ingress and egress shall be maintained to all businesses and dwellings affected by the project. Special attention shall be paid to police, EMS and fire stations, fire hydrants, secondary schools, and hospitals.

27. Traffic shall be maintained at all times. All lanes of traffic are to be open during the hours of 7:00 A.M. to 9:00 A.M. and from 4:00 P.M. to 6:00 P.M. Monday through Friday, during any time of inclement weather, **or as directed by the District Engineer**. Any violation of these hours will result in ceasing any further construction by the Encroaching Party or their contractor. If the construction is within 1000 feet of a school location or on a designated bus route, the construction shall be coordinated with the school start and end times to avoid traffic delays.

28. Nighttime and weekend operations will NOT be allowed unless written approval is received from the District Engineer. If nighttime or weekend work is allowed or required, all signs must be retro-reflective, and a work zone lighting plan must be submitted for approval prior to construction.

29. Work requiring lane or shoulder closures shall not be performed on both sides of the road simultaneously within the same area.

30. Any work requiring equipment or personnel within 5 feet of the edge of any travel lane of an undivided facility and within 10 feet of the edge of any travel lane of a divided facility shall require a lane closure with appropriate tapers per current *NCDOT Roadway Standard Drawings or MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.*

31. At the discretion of the District Engineer, a traffic control plan shall be developed and submitted under the seal and signature of a Licensed North Carolina Professional Engineer prior to construction. The plan shall be specific to the site and adequately detailed. Issues such as the close proximity to intersections shall be addressed.

32. Temporary and final pavement markings are the responsibility of the encroaching party. Final pavement markings and sign plans shall be submitted with the encroachment request to the Division Traffic Engineer prior to construction. Final pavement markings shall be thermoplastic unless otherwise directed by the Division Traffic Engineer or District Engineer.

33. Any pavement markings that are damaged or obliterated shall be restored by the encroaching party at no expense to NCDOT.

34. Sidewalk closures shall be installed as necessary. Pedestrian traffic shall be detoured around these closures and shall be signed appropriately and in accordance with The American with Disabilities Act Accessibility Guidelines. The encroaching party must adhere to the guidelines for accommodating pedestrians in encroachment work zones as described in the NCDOT Pedestrian Work Zone Accommodations Training found at https://www.youtube.com/watch?v=AOuYa5IW3dg&feature=youtu.be

Holiday and Holiday Weekend Lane Closure Restrictions

35. The Contractor shall not narrow or close a lane of traffic on **ANY ROAD**, detain and /or alter the traffic flow on or during holiday weekends, special events, or any other time when traffic is unusually heavy, including the following schedules:

    - For **unexpected occurrence** that creates unusually high traffic volumes, as directed by the District Engineer.
    - For **New Year's Day**, between the hours of 8:00am December 31st and 8:00 pm January 2nd. If New Year's Day is on a Friday, Saturday, Sunday, or Monday, then until 8:00pm the following Tuesday.
    - For Easter, between the hours of 8:00am Thursday and 8:00pm Monday.
    - For Memorial Day, between the hours of 8:00am Friday and 8:00pm Tuesday.
    - For **Independence Day**, between the hours of 8:00am the day before Independence Day and 8:00pm the day after Independence Day.

      If **Independence Day** is on a Friday, Saturday, Sunday or Monday, then between the hours of 8:00am the Thursday before Independence Day and 8:00pm the Tuesday after Independence Day.
    - For **Labor Day**, between the hours of 8:00am Friday and 8:00pm Tuesday.
    - For **Thanksgiving Day**, between the hours of 8:00am Tuesday and 8:00pm Monday.
    - For **Christmas**, between the hours of 8:00am the Friday before the week of Christmas Day and 8:00pm the following Tuesday after the week of Christmas Day.
    - For **NASCAR Races** in Charlotte, between the hours of 8:00am the day before the NASCAR Races and 8:00pm the day after the end of the NASCAR Races in Charlotte.

      Holidays and holiday weekends shall include New Year's, Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas. The Contractor shall schedule his work so that lane closures are not required during these periods, unless otherwise directed by the District Engineer.

Roadside Environmental

36. The encroaching party shall comply with all applicable Federal, State and local environmental regulations and shall obtain all necessary Federal, State and local environmental permits, including but not limited to, those related to sediment control, stormwater, wetland, streams, endangered species and historical sites. Additional information can be obtained by contacting the NCDOT Roadside Environmental Engineer regarding the North Carolina Natural Heritage Program or the United States Fish and Wildlife Services. Contact the Division Roadside Environmental Engineer's Office at 980-552-4256.

37. When surface area in excess of one acre will be disturbed, the Encroacher shall submit a Sediment and Erosion Control Plan which has been approved by the appropriate regulatory agency or authority prior to beginning any work on the Right of Way. Failure to provide this information shall be

grounds for suspension of operations. Proper temporary and permanent measures shall be used to control erosion and sedimentation in accordance with the approved sediment and erosion control plan.

38. The Verification of Compliance with Environmental Regulations (VCER-1) form is required for all non-utility encroachment agreements or any utility encroachments when land disturbance within NCDOT right of way exceeds 1 acre. The VCER-1 form must be PE sealed by a NC registered professional engineer who has verified that all appropriate environmental permits (if applicable) have been obtained and all applicable environmental regulations have been followed.

39. All erosion control devices and measures shall be constructed, installed, maintained, and removed by the Encroacher in accordance with all applicable Federal, State, and Local laws, regulations, ordinances, and policies. Permanent vegetation shall be established on all disturbed areas in accordance with the recommendations of the Division Roadside Environmental Engineer. All areas disturbed (shoulders, ditches, removed accesses, etc.) shall be graded and seeded in accordance with the latest *NCDOT Standards Specifications for Roads and Structures* and within 15 calendar days with an approved NCDOT seed mixture (all lawn type areas shall be maintained and reseeded as such). Seeding rates per acre shall be applied according to the Division Roadside Environmental Engineer. Any plant or vegetation in the NCDOT planted sites that is destroyed or damaged as a result of this encroachment shall be replaced with plants of like kind or similar shape.

40. No trees within NCDOT shall be cut without authorization from the Division Roadside Environmental Engineer. An inventory of trees measuring greater than 4 caliper inches (measured 6" above the ground) is required when trees within C/A right of way will be impacted by the encroachment installation. Mitigation is required and will be determined by the Division Roadside Environmental Engineer's Office.

41. Prior to installation, the Encroaching Party shall contact the District Engineer to discuss any environmental issues associated with the installation to address concerns related to the root system of trees impacted by boring or non-utility construction of sidewalk, roadway widening, etc.

42. The applicant is responsible for identifying project impacts to waters of the United States (wetlands, intermittent streams, perennial streams and ponds) located within the NCDOT right-of-way. The discharge of dredged or fill material into waters of the United States requires authorization from the United States Army Corps of Engineers (USACE) and certification from the North Carolina Division of Water Quality (NCDWQ). The applicant is required to obtain pertinent permits or certification from these regulatory agencies if construction of the project impacts waters of the United States within the NCDOT right-of-way. The applicant is responsible for complying with any river or stream Riparian Buffer Rule as regulated by the NCDWQ. The Rule regulates activity within a 50-foot buffer along perennial streams, intermittent streams and ponds. Additional information can be obtained by contacting the NCDWQ or the USACE.

43. The contractor shall not begin the construction until after the traffic control and erosion control devices have been installed to the satisfaction of the Division Engineer or their agent.

44. The contractor shall perform all monitoring and record keeping and any required maintenance of erosion and sediment control measures to maintain compliance with stormwater regulations.

Construction

General

45. An executed copy of the encroachment agreement, provisions and approved plans shall be present at the construction site at all times. If safety or traffic conditions warrant such an action, NCDOT reserves the right to further limit, restrict or suspend operations within the right of way.

46. The Encroaching Party and/or their Contractor shall comply with all OSHA requirements. If OSHA visits the work area associated with this encroachment, the District Office shall be notified by the encroaching party immediately if any violations are cited.

47. Any REVISIONS marked in RED on the attached non-PE sealed plans shall be incorporated into and made part of the approved encroachment agreement.

48. All disturbed areas are to be fully restored to current NCDOT minimum roadway standards or as directed by the Division Engineer or their representative. Disturbed areas within NCDOT Right-of-Way include, but not limited to, any excavation areas, pavement removal, drainage or other features.

49. The encroaching party shall notify the Division Engineer or their representative immediately in the event any drainage structure is blocked, disturbed or damaged. All drainage structures disturbed, damaged or blocked shall be restored to its original condition as directed by the Division Engineer or their representative.

50. A minimum of 5 feet clearance is required for utility installations beneath or near drainage pipes, headwalls, and a minimum of two-foot clearance below the flowline of streams. If directional drilling, a minimum ten-foot clearance distance is required from drainage structures and a minimum of 5 feet below flowline of streams.

51. At points where the utility is placed under existing storm drainage, the trench will be backfilled with excavatable flowable fill up to the outside diameter of the existing pipe.

52. Unless specified otherwise, during non-working hours, equipment shall be located away from the job site or parked as close to the right of way line as possible and be properly barricaded in order not to have any equipment obstruction within the Clear Zone. Also, during non-working hours, no parking or material storage shall be allowed along the shoulders of any state-maintained roadway.

53. No access to the job site, parking or material storage shall be allowed along or from the **Control of Access Roadway.**

54. Guardrail removed or damaged during construction shall be replaced or repaired to its original condition, meeting current NCDOT standards or as directed by the Division Engineer or their representative.

55. The resetting of the Control of Access fence shall be in accordance with the applicable NCDOT standard and as directed by the Division Engineer or their representative.

56. Right of Way monuments disturbed during construction shall be referenced by a registered Land Surveyor and reset after construction.

57. All Traffic signs moved during construction shall be reinstalled as soon as possible to the satisfaction of the Division Engineer or their representative.

58. Any utility markers, cabinets, pedestals, meter bases and services for meter reading required shall be as close to the Right of Way line as possible. If it is not feasible to install at or near Right of Way line, then written approval shall be obtained from NCDOT prior to installation.

59. Detection tape, where required by NCGS § 87-115 through § 87-130 of the Underground Utility Safety and Damage Prevention Act, shall be buried in the trench approximately 1 foot above the installed facility. Where conduit is installed in the right of way and is not of ferrous material, locating tape or detection wire shall be installed with the conduit.

60. All driveways disturbed during construction shall be returned to a state comparable with the condition of the driveways prior to construction.

61. Conformance with driveway permit review should be required in conjunction with this encroachment agreement. In the event there is a conflict between the driveway permit and the encroachment agreement, the District Engineer should resolve the conflict and notify the parties involved.

62. If the approved method of construction is unsuccessful and other means are required, prior approval must be obtained through the District Engineer before construction may continue.

63. The encroaching party and their construction contractor must sign and submit the NCDOT *Workforce Safety Plan for Encroachment Activities: COVID-19* form to the District Engineer prior to construction.

64. The attached Duke Energy response to the NCDOT *COVID-19 Workforce Safety Plan* shall be applied for all employees on the job site unless otherwise directed by the District Engineer.

Engineering

65. All traffic control, asphalt mixes, structures, construction, workmanship and construction methods, and materials shall be in compliance with the most-recent versions of the following resources: *ASTM Standards*, *Manual on Uniform Traffic Control Devices, NCDOT Utilities Accommodations Manual, NCDOT Standard Specifications for Roads and Structures, NCDOT Roadway Standard Drawings,* NCDOT *Asphalt Quality Management System* manual, **and the approved plans.**

66. Prior approval for any blasting must be obtained from the Division Engineer or their representative.

67. Regulator stations, metering stations, cathodic test stations, and anode beds are not permitted within NCDOT right of way. Header wires are permitted.

68. Non-Utility Communication and Data Transmission installations (ground mounted type or Small Cell pole-mounted type) must adhere to guidelines in the Utilities Accommodations Manual and, when located within municipal jurisdictions, are subject to review and approval by municipal ordinances and any additional municipal approval for proximity to historic districts and landmarks. All wiring and related telecommunications work shall conform to the latest regulations by the Federal Communications Commission.

69. All wiring and related electrical work shall conform to the latest edition of the National Electrical Safety Code.

Location within R/W

70. All utility access points, such as manholes, vaults, handholes, splice boxes and junction boxes shall be located as close to the right of way line as possible and shall not be placed in the ditch line, side slopes of the ditches or in the pavement. All manholes, handholes, splice boxes, junction boxes and vaults and covers shall be flush with the ground when located within the vehicle clear zone. Slack loops for telecommunications in industry standard housing units shall be buried a minimum of 18 inches when buried or meet minimum NCDOT vertical and horizontal clearances when installed aerially.

71. Fire Hydrants shall be of the breakaway type. Hydrants shall be placed near the right of way line. In curb and gutter sections with written approval from the District, the hydrants may be placed at 6' behind the back of the curb or minimum 2' back of sidewalk.

72. Luminaire and/or utility poles and guy wires shall be set as close to the Right of Way line as practical and outside the Clear Zone in accordance with the latest version of the AASHTO Roadside Design Guide (See corresponding attachment) or made breakaway in accordance with the requirements of NCHRP Report 350. Any relocation of the utility poles from the original design due to Clear Zone requirements shall require a re-submittal for the utility design.

73. Luminaire and/or utility poles shall be set a minimum of 5'-6" behind face of any guardrail or otherwise sufficiently protected. However, standard placement may be reduced to 3'-6" behind face of guardrail when posts are spaced 3'-1 ½", or where speed limit is less than 55 MPH.

74. Hot box (aka ASSE 1060) or Safe-T-Cover type enclosures covering utility main pipe joints, backflow preventers, valves, vent pipes, cross connections, pumps, grinders, irrigation assemblies, transformers, generators, and other similar large appurtenances shall be located outside sight distance triangles and off of the NCDOT Right-of-Way.

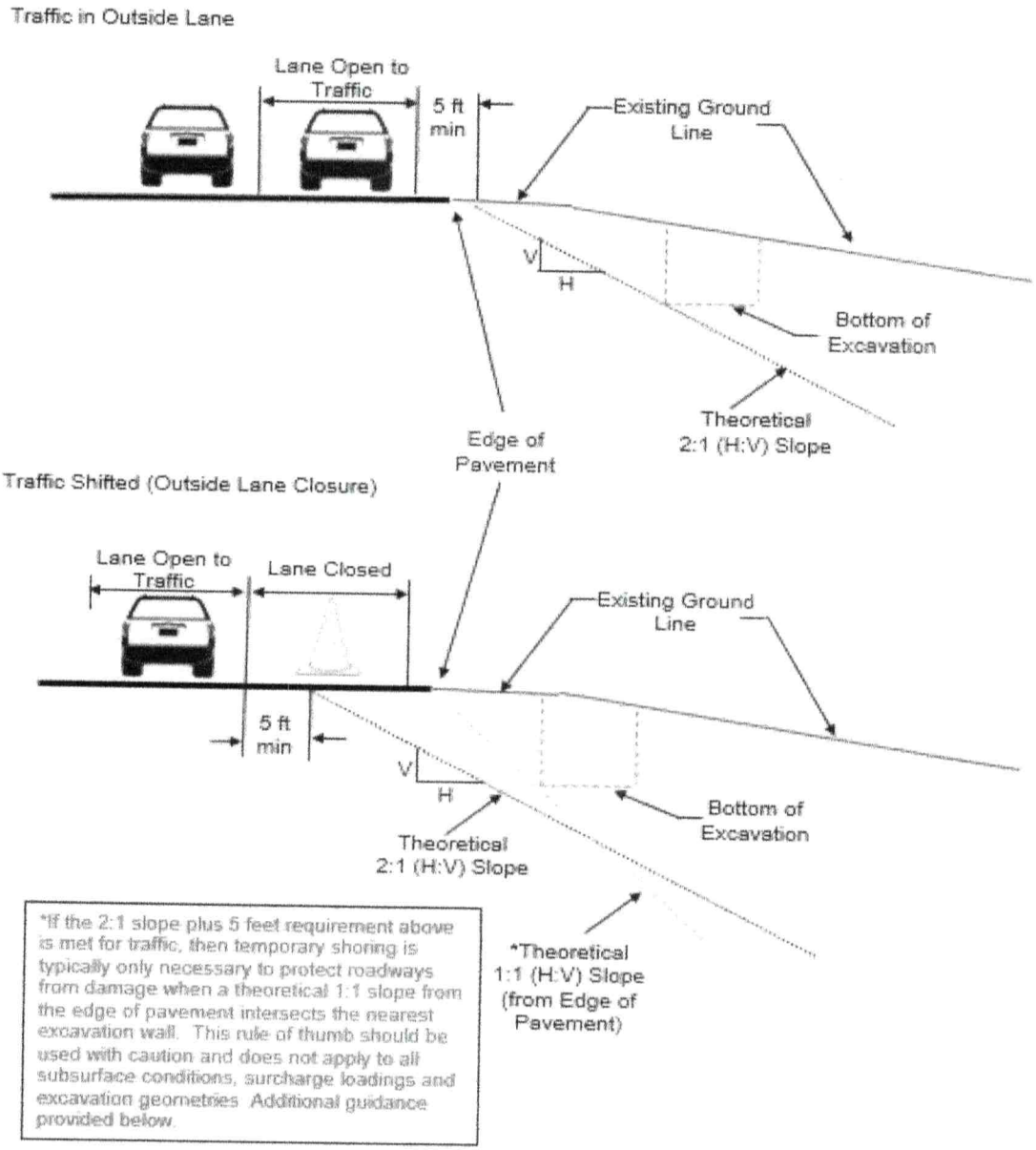
75. Sprinkler heads shall be located a minimum of 10 feet from the edge of pavement, edge of shoulder, or back of curb whichever is greater and shall be directed so that water does not spray or drain on the roadway surface, sidewalk, or passing vehicles at any time. Upon completion of the installation and prior to activation of the system, the Encroacher shall contact the District Engineer to schedule a test of the system to verify the spray pattern. Sprinkler systems shall not be operated during periods of high wind or freezing weather, or to the extent that the subgrade adjacent to the pavement structure becomes saturated. NCDOT reserves the right to require immediate termination and removal of any sprinkler system which in its judgement and opinion adversely affects safety, maintenance, or operation of the roadway.

Excavation

76. Excavation material shall not be placed on pavement.

77. It is the responsibility of the encroaching party or their contractor to prevent any mud/dirt from tracking onto the roadway. Any dirt which may collect on the roadway pavement from equipment and/or truck traffic on site shall be immediately removed to avoid any unsafe traffic conditions.

78. The utility shall be installed within 5 feet of the right of way line and outside the 5-foot minimum from travel lane plus theoretical 2:1 slope from the edge of pavement to the bottom of the nearest excavation wall for temporary shoring. Temporary shoring is required when a theoretical 2:1 slope from the bottom of excavation will intersect the existing ground line less than 5 feet from the outside edge of an open travel lane as shown in the figure below or when a theoretical 2:1 slope from the bottom of excavation will intersect any existing structure, support, utility, property, etc. to be protected.



If the 2:1 slope plus 5 feet requirement above is met for traffic, then temporary shoring is typically only necessary to protect roadways from damage when a theoretical 1:1 slope from the edge of pavement intersects the nearest excavation wall. This rule of thumb should be used with caution and does not apply to all subsurface conditions, surcharge loadings and excavation geometries. Situations where this 1:1 slope is not recommended include groundwater depth is above bottom of excavation or excavation is deeper than 10 feet or in Type B or C soils as defined by OSHA Technical Manual. Temporary shoring may be avoided by locating trenches, bore pits, and other excavations far enough away from the open travel lane, edge of pavement and any existing structure, support, utility, property, etc. to be protected.

Temporary shoring shall be designed and constructed in accordance with current NCDOT Standard Temporary Shoring provisions (refer to https://connect.ncdot.gov/resources/Specifications/Pages/2018-Specifications-and-Special-Provisions.aspx and see SP11 R002

a. Temporary excavation shoring, such as sheet piling, shall be installed. The design of the shoring shall include the effects of traffic loads. The shoring system shall be designed and sealed by a licensed North Carolina Professional Engineer. Shoring plans and design calculations shall be submitted to the Division Engineer for review and approval prior to construction. (See NCDOT *Utilities Accommodations Manual* for more information on requirements for shoring plans, design calculations, and subsurface investigation report.) **Trench boxes shall not be accepted as temporary shoring and will not be approved for use in instances where shoring is required to protect the highway, drainage structure, and/or supporting pavement or structure foundation.**
b. All trench excavation inside the limits of the theoretical two-to-one slope plus 5 feet requirement, as defined by the policy, shall be completely backfilled and compacted at the end of each construction day. No portion of the trench shall be left open overnight. Any excavation that is not backfilled by the end of the workday must address any safety and traveling public concerns including accommodations for bicycles, pedestrians and persons with disabilities.
c. The trench backfill material shall meet the Statewide Borrow Criteria. The trench shall be backfilled in accordance with Section 300-7 of the latest *NCDOT Standard Specifications for Roads and Structures,* which basically requires the backfill material to be placed in layers not to exceed 6 inches loose and compacted to at least 95% of the density obtained by compacting a sample in accordance with AASHTO T99 as modified by DOT.
d. At the discretion of the Division Engineer, a qualified NCDOT inspector shall be on the site at all times during construction. The encroaching party shall reimburse NCDOT for the cost of providing the inspector. If NCDOT cannot supply an inspector, the encroaching party (not the utility contractor) should make arrangements to have a qualified inspector, under the supervision of a licensed North Carolina Professional Engineer, on the site at all times. The Professional Registered Engineer shall certify that the utility was installed in accordance with the encroachment agreement and that the backfill material meets the Statewide Borrow Criteria.
e. The length of parallel excavation shall be limited to the length necessary to install and backfill one joint of pipe at a time, not to exceed twenty-five (25) feet.

79. All material to a depth of 8 inches below the finished surface of the subgrade shall be compacted to a density equal to at least 100% of that obtained by compacting a sample of the material in accordance with AASHTO T99 as modified by the Department. The subgrade shall be compacted at a moisture content which is approximately that required to produce the maximum density indicated by the above test method. The contractor shall dry or add moisture to the subgrade when required to provide a uniformly compacted and acceptable subgrade. The option to backfill any trenches with dirt or either #57 stone or #78 stone with consolidation with a plate tamp and without a conventional density test may be pursued with the written consent of the District Engineer. If this option is exercised, then roadway ABC stone and asphalt repair as required will also be specified by the District Engineer.

Directional bore

80. Boring equipment will be provided of a type and size to facilitate boring in the local geologic conditions and shall be able to facilitate the encroachment work.

81. When Horizontal Directional Drilling (HDD) is used, the following stipulations apply:
    a. Use drilling fluids as appropriate for the type soils but use of water alone is prohibited. Pump drilling fluids only while drilling or reaming. Directional boring using jetting with a

Bentonite (or equivalent material) slurry is recommended. Monitor flow rates to match the amount leaving the bore hole and do not increase pressure or flow to free stuck drill heads, reamers or piping. Open cutting to retrieve stuck drill heads is not allowed without prior permission from the District Engineer.

b. The minimum depth shall adhere to the table below for transverse (under non-controlled access, partial controlled access, or limited controlled access roadway) installations and refers to maximum diameter of hole drilled and not the dimension of the carrier or encasement pipe.

Diameter of Drilled Hole (Backream)	Minimum Depth of Cover
2" to 6"	5 feet
>6" to 15"	12 times hole diameter (e.g. 6-inch hole means 6 feet minimum depth)
>15" to 36"	15 feet or greater

c. Under fully controlled access roadway installations, the minimum depth for transverse crossings shall be 15 feet under any pavement (ramps or thru lanes)

d. An overbore (backream diameter) shall not be more than 1.5 times the outside diameter of the pipe or encasement under any highway for pipes 12 inches in diameter or less. For pipes with outer diameter larger than 12 inches, the overbore may be no larger than outer diameter of pipe plus 6 inches. An overbore exceeding 1.5 times greater than the outside diameter of the pipe or encasement may be considered if the encroachment agreement includes a statement signed and sealed by a licensed North Carolina Professional Engineer indicating that an overbore in excess of 1.5 times the outside diameter of the pipe or encasement will appropriately arch and no damage will be done to the pavement or sub-grade.

e. Directional boring is allowed beneath embankment material in naturally occurring soil.

f. Any parallel installation utilizing the directional boring method shall be made at a minimum depth of five (5') feet (cover) below the ground surface and outside the theoretical 1:1 slope from the existing edge of pavement except where the parallel installation crosses a paved roadway.

g. All directional bores shall maintain ten (10) feet minimum (clear) distance from the nearest part of any structure, including but not limited to bridges, footings, pipe culverts or box culverts. Directional bores are not allowed beneath bridge footings, culvert wingwall footings, slope protection or retaining walls.

h. The tip of the drill string shall have a cutter head.

i. Detection wire shall be installed with non-ferrous material.

j. HDPE pipe installed by directional boring shall not be connected to existing pipe or fittings for one (1) week from the time of installation to allow tensional stresses to relax.

Aerial clearances

82. Vertical clearance of overhead power and communication lines shall meet the National Electrical Safety Code requirements except the minimum vertical clearance shall be 18' for crossings over NCDOT roadways (24' over Fully Controlled Access roadways) and 16' for parallel installations.

83. In relation to the bridge, the utility line shall be located with minimum clearances as indicated on the attachment for NCDOT **Required Clearances for Aerial Installations by Encroachment Near Bridge Structures**.

Pavement Detail and Repair

84. The paving of this roadway shall be in accordance with the latest version of NCDOT Standard Specifications, Sections 610, 1012 and 1020. The Contractor shall follow all procedures of the Quality Management System (QMS) for asphalt pavement - Maintenance Version (see https://connect.ncdot.gov/resources/Materials/MaterialsResources/2018%20QMS%20Asphalt%20Manual.pdf). The Contractor must adhere to all testing requirements and quality control requirements specified. The Contractor shall contact the NCDOT Division QA Supervisor prior to producing plant mix and make the Supervisor aware that the mix is being produced for a future NCDOT road. Contact the District Engineer to determine the NCDOT Division QA Supervisor. Only NCDOT approved mix designs will be acceptable. A Quality Control Plan shall be submitted (as Directed by the District Engineer) to the District Engineer's Office prior to asphalt production utilizing form QMS-MV1. Failing mixes and/or densities are subject to penalties including monetary payments or removal and replacement. To minimize traffic queuing in construction areas, the possibility of traffic detours may be considered when working on high traffic routes even if traffic control is used. The District Engineer may require traffic detours.

85. When paving beyond utility installation is involved, a Roadway certification report sealed by a Professional Engineer shall be submitted to the District Engineer's office indicating the following:
    - Pavement thickness by type
    - Pavement density, core and/or test locations
    - Base thickness
    - Base density
    - Subgrade density

    Test frequency and method shall be in conformance with the NCDOT *Materials and Tests Manual*. Test must be performed by a Certified Technician including name and Certification number on report.

86. "Potholing" pavement cores to expose existing utilities shall be made with an 18" diameter keyhole pavement core. Pavement core locations shall not be placed in the wheel path whenever possible. Vacuum excavation shall be utilized to expose underground utilities. Pavement cores shall be repaired within the same working day. The pavement core shall be retained and reused to fill the core hole.

    The excavation shall be backfilled and compacted with select material to the bottom of the existing pavement structure or as indicated by the District Engineer. The retained core shall be placed in the hole and secured with a waterproof, mechanical joint. If the pavement core is damaged and cannot be re-used, the core may be replaced with the surface mix, S9.5B. The asphalt patch shall match the thickness of the existing asphalt or four inches, whichever is greater. All materials must be listed on the NCDOT Approved Products List (APL) found at: https://apps.ncdot.gov/vendor/approvedproducts/.

87. The minimum pavement design for pavement repair shall be according to NCDOT Standard Drawing 654.01 (https://connect.ncdot.gov/resources/Specifications/2018StandardRdwyDrawings/Division%2006%20Asphalt%20Bases%20and%20Pavements.pdf) and shall include a mechanical overlay extent to be a minimum of 25 feet each side of the pavement repair area OR as directed by the District Engineer.

88. Pavement cuts shall be repaired the same day the cuts are made unless an asphalt patch cannot be accomplished the same day due to material availability or time restrictions. When the asphalt patch is not feasible, the following apply:

a. The pavement cut shall be filled to the surface with ABC stone or Flowable Fill per NCDOT's Standards and Specifications.
b. Once the cut is filled, a minimum ¾-inch steel plate shall be placed and pinned to prevent moving. Plates shall be designed large enough to span a minimum of 1-foot on all sides on the pavement cut.
c. When flowable fill is used, it shall cure for 24 hours prior to any asphalt material placement. Flowable fill bleed water shall not be present during paving operations. Paving shall not cause damage (shoving, distortion, pumping, etc.) to the flowable fill.
d. Install and leave "BUMP" signs according to MUTCD until the steel plate has been removed. Once the flowable fill has cured, remove the steel plate, and mill/fill according to the directions of the District Engineer.
e. All pavement cuts must be sealed with NCDOT approved sealant to prevent future pavement separation or cracking.

89. Any pavement damaged because of settlement of the pavement or damaged by equipment used to perform encroachment work, shall be re-surfaced to the satisfaction of the District Engineer. This may include the removal of pavement and a 50' mechanical overlay. All pavement work and pavement markings (temporary and final) are the responsibility of the Encroaching Party.

Post Construction

Close out/ Inspection

90. The Encroaching party shall notify the District Engineer's office within 2 business days after construction is complete. The District Engineer may perform a construction inspection. Any deficiencies may be noted and reported to the encroaching party to make immediate repairs or resolve any issues to restore the right-of-way to a similar condition prior to construction, including pavement, signage, traffic signals, pavement markings, drainage, structures/pipes, or other highway design features.

91. At the discretion of the District Engineer, a final inspection report may be provided to the encroaching party upon satisfactory completion of the work.

92. A written acknowledgement of the completed work by the District Engineer's office begins the one-year warranty period associated with the performance bond.

93. If the actual construction differs from the approved plans associated with this encroachment, a copy of "as-built" plans shall be submitted to the District Engineer's office in a PDF format and in a current ESRI GIS format within 4 weeks of construction.

94. The encroaching party shall provide the North Carolina Turnpike Authority (NCTA) with an electronic copy of coordinate correct as-built plans within two weeks of installation completion. Failure to provide the as-built plans may jeopardize future approvals within NCTA right of way.

95. A copy (in PDF format) of the completed ground water analysis shall be given to the District Engineer, including detailed drawings of the "as-built" wells showing location, depth and water level in well.

ATTACHMENT FORM

NOTIFICATION FOR UTILITY / NON-UTILITY ENCROACHMENT WITHIN NCDOT R/W

Instructions for use:
This form must be completed in its entirety and submitted directly to the designated personnel in the District Engineer's office via email, fax or hand delivery a minimum of one week prior to construction for the encroachment. If the designated NCDOT personnel names are unknown by the person completing this form, please contact the District Engineer's office to determine that contact info.

Date: _____ Submitted by Name: _____

To: District Personnel Name: Ritchie Naraidu
District Personnel Email: rrnaraidu@ncdot.gov
District Fax No.: 704-876-0602

This notification is to inform you that we (encroaching party or their contractor) will begin construction work on the following project in a minimum of one week.

Encroachment number
(assigned by NCDOT) for the project: _____

Construction start date: _____

Approximate ending date: _____

Contact NCDOT inspector a minimum of 72 hrs. in advance to set-up Preconstruction meeting in the District Engineer's office or other location as directed by the District Engineer

Preconstruction meeting date & time: _____

Preconstruction meeting address: _____
_____

Type of project: _____
[Examples: power, telecommunication, water, sewer, gas, petroleum, other (describe)]

Contact Info for this project:

Contractor Company Name:
_____
Contractor Contact Name:
_____
Contractor Phone Number:
_____
Contractor Email:
_____

NCDOT Utility Inspector Name:
_____
NCDOT Utility Inspector Phone:
_____
NCDOT Utility Inspector Email:
_____
NCDOT Utility Project Manager Name:
_____
NCDOT Utility Project Manager Phone:
_____
NCDOT Utility Project Manager Email:
_____

ROUTE SR1458 Barber Loop PROJECT _____ COUNTY OF Iredell STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY ENCROACHMENT AGREEMENT
PRIMARY AND SECONDARY HIGHWAYS

Dee Arnold -AND-
441 Barber Loop, Mooresville, NC 28117
704-677-6797, deebylake21@gmail.com

THIS AGREEMENT, made and entered into this the 26th day of January 20 22 by and between the Department of Transportation, party of the first part; and Dee Arnold
441 Barber Loop, Mooresville, NC 28117 party of the second part,

WITNESSETH

THAT WHEREAS, the party of the second part desires to encroach on the right of way of the public road designated as Route(s) SR1458 Barber Loop , located 441 Barber Loop

with the construction and/or erection of: Utilize existing drainfield that currently encroaches into road right of way as a repair system so that the home owner can install a pool. See future easement application for additional information.

WHEREAS, it is to the material advantage of the party of the second part to effect this encroachment, and the party of the first part in the exercise of authority conferred upon it by statute, is willing to permit the encroachment within the limits of the right of way as indicated, subject to the conditions of this agreement;

NOW, THEREFORE, IT IS AGREED that the party of the first part hereby grants to the party of the second part the right and privilege to make this encroachment as shown on attached plan sheet(s), specifications and special provisions which are made a part hereof upon the following conditions, to wit:

That the installation, operation, and maintenance of the above described facility will be accomplished in accordance with the party of the first part's latest POLICIES AND PROCEDURES FOR ACCOMMODATING UTILITIES ON HIGHWAY RIGHTS-OF-WAY, and such revisions and amendments thereto as may be in effect at the date of this agreement. Information as to these policies and procedures may be obtained from the Division Engineer or State Utility Agent of the party of the first part.

That the said party of the second part binds and obligates himself to install and maintain the encroaching facility in such safe and proper condition that it will not interfere with or endanger travel upon said highway, nor obstruct nor interfere with the proper maintenance thereof, to reimburse the party of the first part for the cost incurred for any repairs or maintenance to its roadways and structures necessary due to the installation and existence of the facilities of the party of the second part, and if at any time the party of the first part shall require the removal of or changes in the location of the said facilities, that the said party of the second part binds himself, his successors and assigns, to promptly remove or alter the said facilities, in order to conform to the said requirement, without any cost to the party of the first part.

That the party of the second part agrees to provide during construction and any subsequent maintenance proper signs, signal lights, flagmen and other warning devices for the protection of traffic in conformance with the latest Manual on Uniform Traffic Control Devices for Streets and Highways and Amendments or Supplements thereto. Information as to the above rules and regulations may be obtained from the Division Engineer of the party of the first part.

That the party of the second part hereby agrees to indemnify and save harmless the party of the first part from all damages and claims for damage that may arise by reason of the installation and maintenance of this encroachment.

That the party of the second part agrees to restore all areas disturbed during installation and maintenance to the satisfaction of the Division Engineer of the party of the first part. The party of the second part agrees to exercise every reasonable precaution during construction and maintenance to prevent eroding of soil; silting or pollution of rivers, streams, lakes, reservoirs, other water impoundments, ground surfaces or other property; or pollution of the air. There shall be compliance with applicable rules and regulations of the North Carolina Division of Environmental Management, North Carolina Sedimentation Control Commission, and with ordinances and regulations of various counties, municipalities and other official agencies relating to pollution prevention and control. When any installation or maintenance operation disturbs the ground surface and existing ground cover, the party of the second part agrees to remove and replace the sod or otherwise reestablish the grass cover to meet the satisfaction of the Division Engineer of the party of the first part.

That the party of the second part agrees to assume the actual cost of any inspection of the work considered to be necessary by the Division Engineer of the party of the first part.

That the party of the second part agrees to have available at the construction site, at all times during construction, a copy of this agreement showing evidence of approval by the party of the first part. The party of the first part reserves the right to stop all work unless evidence of approval can be shown.

Provided the work contained in this agreement is being performed on a completed highway open to traffic; the party of the second part agrees to give written notice to the Division Engineer of the party of the first part when all work contained herein has been completed. Unless specifically requested by the party of the first part, written notice of completion of work on highway projects under construction will not be required.

That in the case of noncompliance with the terms of this agreement by the party of the second part, the party of the first part reserves the right to stop all work until the facility has been brought into compliance or removed from the right of way at no cost to the party of the first part.

That it is agreed by both parties that this agreement shall become void if actual construction of the work contemplated herein is not begun within one (1) year from the date of authorization by the party of the first part unless written waiver is secured by the party of the second part from the party of the first part.

During the performance of this contract, the second party, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor"), agrees as follows:

a. Compliance with Regulations: The contractor shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the U. S. Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

b. Nondiscrimination: The contractor, with regard to the work performed by it during the contract, shall not discriminate on the

grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

c. Solicitations for Subcontracts, including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

d. Information and Reports: The contractor shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Department of Transportation or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the Department of Transportation, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.

e. Sanctions for Noncompliance: In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the Department of Transportation shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to,

(1) withholding of payments to the contractor under the contract until the contractor complies, and/or
(2) cancellation, termination or suspension of the contract, in whole or in part.

f. Incorporation of Provisions: The contractor shall include the provisions of paragraphs "a" through "f" in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Department of Transportation or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Department of Transportation to enter into such litigation to protect the interests of the State, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

R/W (161) : Party of the Second Part certifies that this agreement is true and accurate copy of the form R/W (161) incorporating all revisions to date.

IN WITNESS WHEREOF, each of the parties to this agreement has caused the same to be executed the day and year first above written.

DocuSigned by:
DEPARTMENT OF TRANSPORTATION Jonathan Barnette
BY: 9C8C8EA8B6204C7...
~~DIVISION ENGINEER~~

ATTEST OR WITNESS:

Michael Benfield
939 Brawley School, Mooresville, NC 28117
704-360-0376, info@yardsbyboss.com

Dee Arnold
441 Barber Loop, Mooresville, NC 28117
704-677-6797, deebylake21@gmail.com
Second Party

INSTRUCTIONS

When the applicant is a corporation or a municipality, this agreement must have the corporate seal and be attested by the corporation secretary or by the empowered city official, unless a waiver of corporate seal and attestation by the secretary or by the empowered City official is on file in the Raleigh office of the Manager of Right of Way. In the space provided in this agreement for execution, the name of the corporation or municipality shall be typed above the name, and title of all persons signing the agreement should be typed directly below their signature.

When the applicant is not a corporation, then his signature must be witnessed by one person. The address should be included in this agreement and the names of all persons signing the agreement should be typed directly below their signature.

This agreement must be accompanied, in the form of an attachment, by plans or drawings showing the following applicable information:

1. All roadways and ramps.
2. Right of way lines and where applicable, the control of access lines.
3. Location of the existing and/or proposed encroachment.
4. Length, size and type of encroachment.
5. Method of installation.
6. Dimensions showing the distance from the encroachment to edge of pavement, shoulders, etc.
7. Location by highway survey station number. If station number cannot be obtained, location should be shown by distance from some identifiable point, such as a bridge, road, intersection, etc. (To assist in preparation of the encroachment plan, the Department's roadway plans may be seen at the various Highway Division Offices, or at the Raleigh office.)
8. Drainage structures or bridges if affected by encroachment (show vertical and horizontal dimensions from encroachment to nearest part of structure).
9. Method of attachment to drainage structures or bridges.
10. Manhole design.
11. On underground utilities, the depth of bury under all traveled lanes, shoulders, ditches, sidewalks, etc.
12. Length, size and type of encasement where required.
13. On underground crossings, notation as to method of crossing - boring and jacking, open cut, etc.
14. Location of vents.

GENERAL REQUIREMENTS

1. Any attachment to a bridge or other drainage structure must be approved by the Head of Structure Design in Raleigh prior to submission of encroachment agreement to the Division Engineer.
2. All crossings should be as near as possible normal to the centerline of the highway.
3. Minimum vertical clearances of overhead wires and cables above all roadways must conform to clearances set out in the National Electric Safety Code.
4. Encasements shall extend from ditch line to ditch line in cut sections and 5' beyond toe of slopes in fill sections.
5. All vents should be extended to the right of way line or as otherwise required by the Department.
6. All pipe encasements as to material and strength shall meet the standards and specifications of the Department.
7. Any special provisions or specifications as to the performance of the work or the method of construction that may be required by the Department must be shown on a separate sheet attached to encroachment agreement provided that such information cannot be shown on plans or drawings.
8. The Department's Division Engineer should be given notice by the applicant prior to actual starting of installation included in this agreement.

NCDOT Hold Harmless Declaration for Private Facility FORM

Private Facility Encroachment Hold Harmless Declaration

Encroachment Agreement Second Party:
Dee Arnold

Encroachment Number:
E122-049-22-00016

441 Barber Loop, Mooresville, NC 28117

County:

704-677-6797, deebylake21@gmail.com

Iredell

The party of the second part of the above-referenced encroachment agreement agrees to indemnify and save harmless the North Carolina Department of Transportation from all claims of liability for the overburdening of right of way easements caused by the installation of private facilities owned by the party of the second part and installed under the approval of the above-referenced encroachment agreement.

Second Party:
Dee Arnold

Attest or Witness:
Michael Benfield

441 Barber Loop, Mooresville, NC 28117

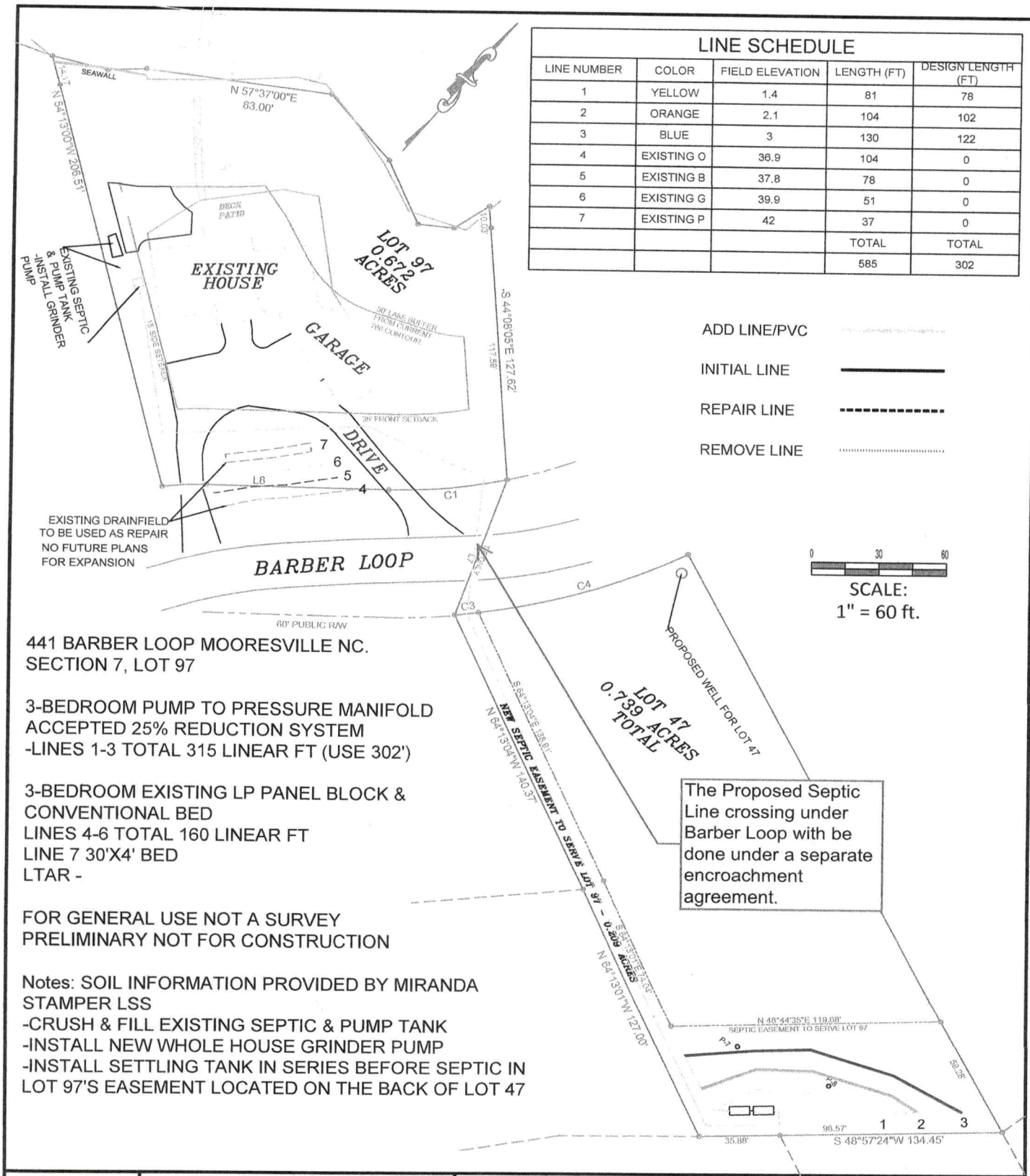
939 Brawley School, Mooresville, NC 28117

704-677-6797, deebylake21@gmail.com

704-360-0376, info@yardsbyboss.com

Date: 1-24-22

Published by NCDOT Utilities Unit 7/17/2017
Separate Form to be signed by each property owner affected by the installation.



LINE SCHEDULE				
LINE NUMBER	COLOR	FIELD ELEVATION	LENGTH (FT)	DESIGN LENGTH (FT)
1	YELLOW	1.4	81	78
2	ORANGE	2.1	104	102
3	BLUE	3	130	122
4	EXISTING O	36.9	104	0
5	EXISTING B	37.8	78	0
6	EXISTING G	39.9	51	0
7	EXISTING P	42	37	0
			TOTAL	TOTAL
			585	302

ADD LINE/PVC

INITIAL LINE

REPAIR LINE

REMOVE LINE

0 30 60

SCALE:
1" = 60 ft.

441 BARBER LOOP MOORESVILLE NC.
SECTION 7, LOT 97

3-BEDROOM PUMP TO PRESSURE MANIFOLD
ACCEPTED 25% REDUCTION SYSTEM
-LINES 1-3 TOTAL 315 LINEAR FT (USE 302')

3-BEDROOM EXISTING LP PANEL BLOCK &
CONVENTIONAL BED
LINES 4-6 TOTAL 160 LINEAR FT
LINE 7 30'X4' BED
LTAR -

FOR GENERAL USE NOT A SURVEY
PRELIMINARY NOT FOR CONSTRUCTION

Notes: SOIL INFORMATION PROVIDED BY MIRANDA STAMPER LSS
-CRUSH & FILL EXISTING SEPTIC & PUMP TANK
-INSTALL NEW WHOLE HOUSE GRINDER PUMP
-INSTALL SETTLING TANK IN SERIES BEFORE SEPTIC IN LOT 97'S EASEMENT LOCATED ON THE BACK OF LOT 47

The Proposed Septic Line crossing under Barber Loop with be done under a separate encroachment agreement.

939 Brawley School Rd, Mooresville, NC 28117 Ph:704-360-0376
Info@yardsbyboss.com

DEE ARNOLD

LOT 97
SECTION 7, MB 14-75
MOORESVILLE, NC
IREDELL COUNTY

DATE: 1/08/22 DRAWN BY: MDB CHECKED BY: MES