

09/06/19

TIP PROJECT: BR-0011

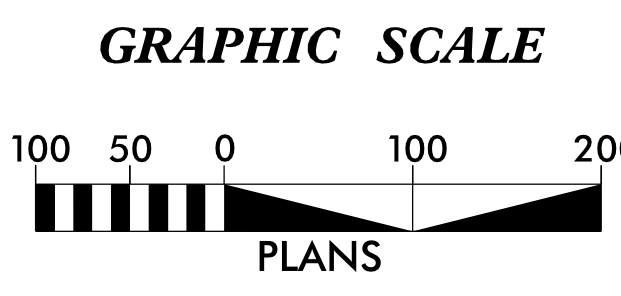
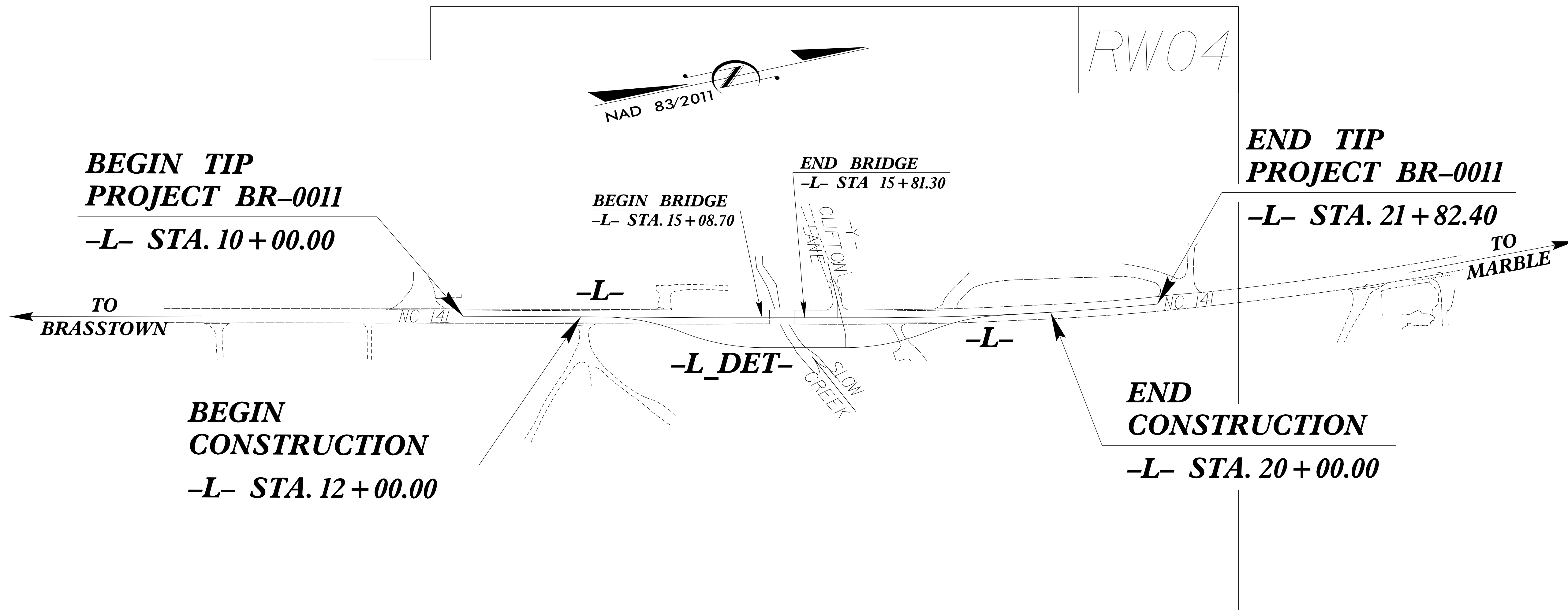
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0011	RW01	6

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

SURVEY CONTROL, EXISTING CENTERLINES,  
RIGHT OF WAY, EASEMENTS AND PROPERTY TIES

**CHEROKEE COUNTY**

LOCATION: BRIDGE 190002 ON NC141 OVER SLOW CREEK  
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURE



**DATUM DESCRIPTION**

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "BR0011-1" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 525281.500(ft) EASTING: 520950.719(ft) ELEVATION: 1636.277(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99980165 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "BR0011-1" TO -L- STATION 10+00.00 IS N 12°17'16.7" E 1,206.40(ft) ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

Prepared in the Office of:

LOCATION AND SURVEYS, DIVISION 14  
122 BONNIE LANE  
SYLVA, NC 28779

2018 STANDARD SPECIFICATIONS

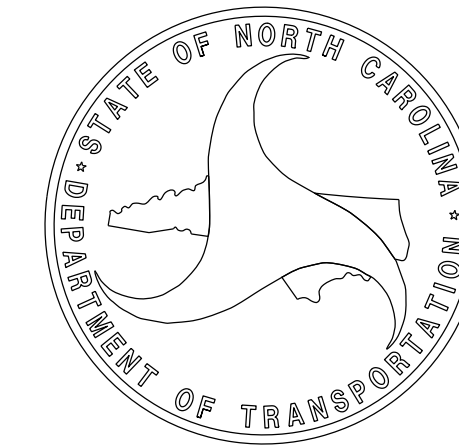
RIGHT OF WAY DATE:  
OCTOBER 8, 2019

LETTING DATE:  
APRIL 21, 2020

PROFESSIONAL LAND  
SURVEYOR



DocuSigned by:  
*Brian Barrott*  
SIGNATURE: Brian A. Barrott Date: 3/31/2020



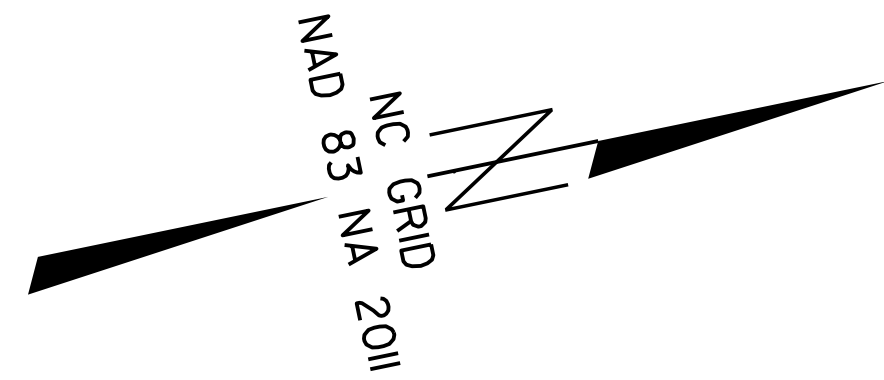
\$\$\$\$\$ SYSTEM \$\$\$\$\$\$  
\$\$\$\$\$ DDN \$\$\$\$\$\$  
\$\$\$\$\$ USERNAME \$\$\$\$\$\$

PROJECT REFERENCE NO.	SHEET NO.
BR-0011	RW02C-1
Location and Surveys	
WETHERILL ENGINEERING	

# SURVEY CONTROL SHEET BR-0011

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

**SEE SHEET RW02C-2  
FOR FURTHER  
ALIGNMENT DETAILS**

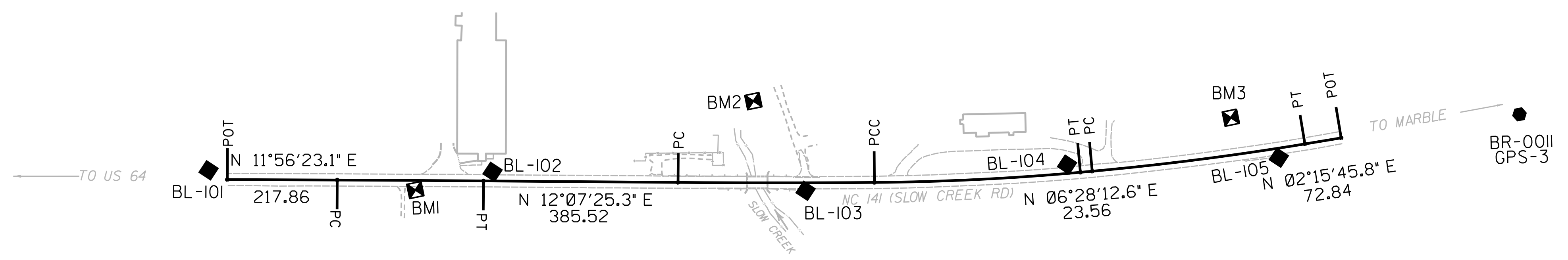


BR-0011  
GPS-2

BR-0011  
GPS-1

BR-0011  
GPS-4

BR-0011  
GPS-3



REVISIONS

**NOTES:**

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
2. THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
3. NOTE: DRAWING NOT TO SCALE

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bababatt

# SURVEY CONTROL SHEET BR-0011

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO. BR-0011	SHEET NO. RW02C-2
Location and Surveys	
WETHERILL ENGINEERING	

## BASELINE DATA

BL	POINT	DESC.	NORTH	EAST	ELEVATION
101		BL - 101	525931.0040	521076.4030	1634.61
102		BL - 102	526481.4650	521193.3370	1630.29
103		BL - 103	527081.2660	521355.7510	1623.65
104		BL - 104	527599.2000	521409.9330	1626.68
105		BL - 105	528012.8640	521481.3640	1637.58
3		BR0011-3	528497.3660	521493.8500	1656.97

## BENCHMARK DATA

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.....
BM1      ELEVATION = 1634.45
N 526324      E 521198
BM ON BONNET BOLT OF FH
.....
BM2      ELEVATION = 1619.67
N 527016      E 521161
BENCHTIE NAIL SET IN 30" ASH
.....
BM3      ELEVATION = 1642.81
N 527936      E 521385
BENCHTIE NAIL SET IN 38" EVERGREEN
.....

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## OFFSITE PRIMARY CONTROL

PRIMARY POINT	DESC.	NORTH	EAST	ELEVATION
1	BR0011-1	525281.5000	520950.7190	1636.28
2	BR0011-2	525312.0330	520361.6110	1636.03
4	BR0011-4	529146.1180	521513.4870	1678.83

## ALIGNMENT DATA

EL POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	525963.673	521101.987							
LINE			N 11°56'23.1" E	217.86					
PC	526176.817	521147.058							
CURVE			N 12°01'54.2" E	289.81	00°11'02.2"(RT)	00°03'48.5"	289.81	144.91	90270.41
PT	526460.262	521207.470							
LINE			N 12°07'25.3" E	385.52					
PC	526837.179	521288.437							
CURVE			N 11°41'24.7" E	389.09	00°52'01.2"(LT)	00°13'22.2"	389.10	194.55	25713.62
PT	527218.202	521367.275							
LINE			S 11°15'24.2" W	0.00					
PC	527218.200	521367.275							
CURVE			N 08°51'48.4" E	408.65	04°47'11.5"(LT)	01°10'15.5"	408.77	204.50	4893.04
PT	527621.970	521430.239							
LINE			N 06°28'12.6" E	23.56					
PC	527645.375	521432.894							
CURVE			N 04°21'59.2" E	424.89	04°12'26.8"(LT)	00°59'24.1"	424.98	212.59	5787.29
PT	528069.028	521465.243							
LINE			N 02°15'45.8" E	72.84					
POT	528141.815	521468.119							

### NOTES:

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3. NOTE: DRAWING NOT TO SCALE

REVISIONS

6/2/09

25-MAR-2020 14:40  
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# PROPOSED ALIGNMENT CONTROL SHEET

PROJECT REFERENCE NO.	SHEET NO.
BR-0011	RW02D-1
Location and Surveys	
LOCATION AND SURVEYS, DIVISION 14 122 BONNIE LANE SYLVA, NC 28779	

6/2/09

REVISIONS

L

TYPE	STATION	NORTH	EAST
POT	10+00.00	526460.2630	521207.4719
PC	11+98.61	526654.4471	521249.1839
PT	12+14.04	526669.5199	521252.4459
PC	13+93.38	526844.7463	521290.6515
PT	14+31.12	526881.6525	521298.5525
PC	16+87.85	527132.8939	521351.3486
PT	21+82.40	527620.9420	521430.1232

Y

TYPE	STATION	NORTH	EAST
POT	1+00.00	527083.6202	521340.9942
PC	1+16.74	527087.0638	521324.6075
PT	1+34.93	527088.6201	521306.5371
POT	1+95.00	527086.5001	521246.4985

L\_DET

TYPE	STATION	NORTH	EAST
POT	50+00.00	526693.3216	521257.6510
PC	50+00.00	526693.3199	521257.6506
PT	51+38.00	526819.7890	521310.9085
PC	51+38.01	526819.7833	521310.9047
PT	52+78.81	526948.9840	521364.7472
PC	54+19.31	527086.4783	521393.6394
PT	55+64.68	527230.9297	521395.5594
PC	55+64.68	527230.9297	521395.5594
PT	56+87.75	527353.4251	521393.5443
POT	56+87.75	527353.4251	521393.5443
POT	57+75.38	527440.1048	521406.4317

YDET

TYPE	STATION	NORTH	EAST
POT	5+00.00	527086.4785	521393.6395
PC	5+12.58	527089.0665	521381.3238
PT	5+30.77	527090.6228	521363.2534
POT	6+50.00	527086.4152	521244.0941

**NOTES:**

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babbarwatt

# RIGHT OF WAY CONTROL SHEET

PROJECT REFERENCE NO. BR-0011	SHEET NO. RW03E-1
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### Location and Surveys

LOCATION AND SURVEYS, DIVISION 14  
122 BONNIE LANE  
SYLVIA, NC 28779



DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

I, Brian Barwatt, a Professional Land Surveyor in the state of North Carolina hereby certify to the best of my knowledge and belief that the following work item(s) (Base map Compilation, R/W Staking) performed under my responsible charge meet NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures.

I further certify that the data compiled came from available surveys/mapping performed by others and provided to me by NCDOT and do not certify to the accuracy or quality of the individual data sources.

I further certify that the right of way and permanent easement points shown herein and outlined in the tables shown hereon (localized coordinates, station/offset) have been checked and are accurate representations of the right of way and permanent easement points depicted on the corresponding highway plans. I also certify that the right of way and permanent easement points shown herein have been field monumented under my supervision from existing survey control provided by others; that the depicted property data shown herein were surveyed by others; and these monuments denote the right of way and easement boundaries at the time of staking which may be subject to change due to right of way revisions (See deeds for final determination).

Witness my original signature, registration number and seal this 1st day of July, 2020.

DocuSigned by:  
*Brian Barwatt*  
Professional Land Surveyor

L-4727  
PLS #

Seal

PUE

### ROW MARKER IRON PIN AND CAP - E

ALIGN	STATION	OFFSET	NORTH	EAST
L	12+00.00	40.00	526647.3910	521288.5808
L	12+00.00	14.00	526652.8586	521263.1616
L	12+00.00	-40.00	526664.2140	521210.3696
L	12+00.00	-14.00	526658.7466	521235.7877
L	13+93.00	-40.00	526852.8977	521251.4890
L	13+93.00	40.00	526835.8553	521329.6527
L	14+31.00	-40.00	526889.7609	521259.3828
L	14+31.00	40.00	526873.3071	521337.6725
L	14+54.00	-40.00	526912.2684	521264.1125
L	14+54.20	-35.00	526911.4359	521269.0468
L	14+75.40	-40.00	526933.2110	521268.5134
L	14+75.40	-35.00	526932.1827	521273.4065
L	16+88.00	-40.00	527141.2657	521312.2342
L	16+88.00	40.00	527124.8160	521390.5247
L	19+88.00	40.00	527422.2568	521444.1974
L	19+94.00	13.71	527432.1325	521419.1012
L	20+00.00	-14.27	527442.1995	521392.3109
L	20+00.00	-40.00	527445.9853	521366.8608

### PDE

### ROW MARKER PERMANENT EASEMENT - E

ALIGN	STATION	OFFSET	NORTH	EAST
L	12+60.00	40.00	526705.9082	521301.3196
L	13+10.00	50.00	526752.6302	521321.7416
L	13+23.00	-49.00	526786.4218	521227.7835
L	13+23.00	-40.00	526784.5045	521236.5769
L	13+50.00	53.00	526791.0729	521333.1939
L	14+12.00	-49.00	526873.2078	521246.6707
L	14+12.00	-40.00	526871.3233	521255.4712
L	14+13.00	53.00	526852.8382	521346.6211
L	14+13.00	40.00	526855.5578	521333.9088
L	15+30.30	-50.00	526988.9940	521270.0173
L	15+30.30	-40.00	526986.9375	521279.8036
L	16+07.00	-40.00	527061.9981	521295.5768
L	16+07.00	-50.00	527064.0546	521285.7906

### ROW MARKER PERMANENT EASEMENT - E

ALIGN	STATION	OFFSET	NORTH	EAST
L	10+61.50	-47.00	526530.2621	521174.4360
L	10+62.40	-14.00	526524.2118	521206.8877
L	10+76.00	42.00	526525.7473	521264.4964
L	10+76.00	14.00	526531.6280	521237.1196
L	10+81.00	14.00	526536.5165	521238.1697
L	10+81.00	42.00	526530.6358	521265.5465
L	13+22.80	-70.00	526790.7000	521207.2229
L	13+27.00	51.00	526769.0269	521326.3402
L	13+38.88	60.20	526778.6749	521337.8623
L	13+46.00	66.00	526784.3953	521345.0434
L	13+60.75	67.93	526798.3995	521350.0712
L	14+66.00	85.00	526898.3057	521388.9085
L	15+59.10	-71.00	527021.4971	521255.3888
L	16+80.69	84.79	527108.4456	521432.8580
L	17+18.00	85.00	527145.4151	521440.7464
L	17+33.69	79.53	527162.1239	521438.5476
L	17+43.80	-40.00	527195.5166	521323.3329
L	17+43.80	-52.00	527197.8593	521311.5631
L	17+91.00	61.00	527222.6718	521431.4994
L	17+98.00	50.00	527231.6658	521422.0047
L	18+30.00	40.00	527265.2213	521418.0483
L	19+93.00	43.00	527426.7934	521447.9144
L	19+97.00	44.00	527430.6340	521449.5006
L	19+99.00	14.00	527437.0483	521420.1254
L	20+05.00	14.00	527442.9992	521421.0083

### NOTES:

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- PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
- RIGHT OF WAY MONUMENTATION ESTABLISHED 10/28/2019 TO 6/23/2020.

REVISIONS

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BR-0011  
L-4727  
B. Barwatt

Location and Surveys

LOCATION AND SURVEYS, DIVISION 14  
122 BONNIE LANE  
SYLVA, NC 28779



DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

I, Brian Barwatt, a Professional Land Surveyor in the state of North Carolina hereby certify to the best of my knowledge and belief that the following work item(s) (Base map Compilation, R/W Staking) performed under my responsible charge meet NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures.

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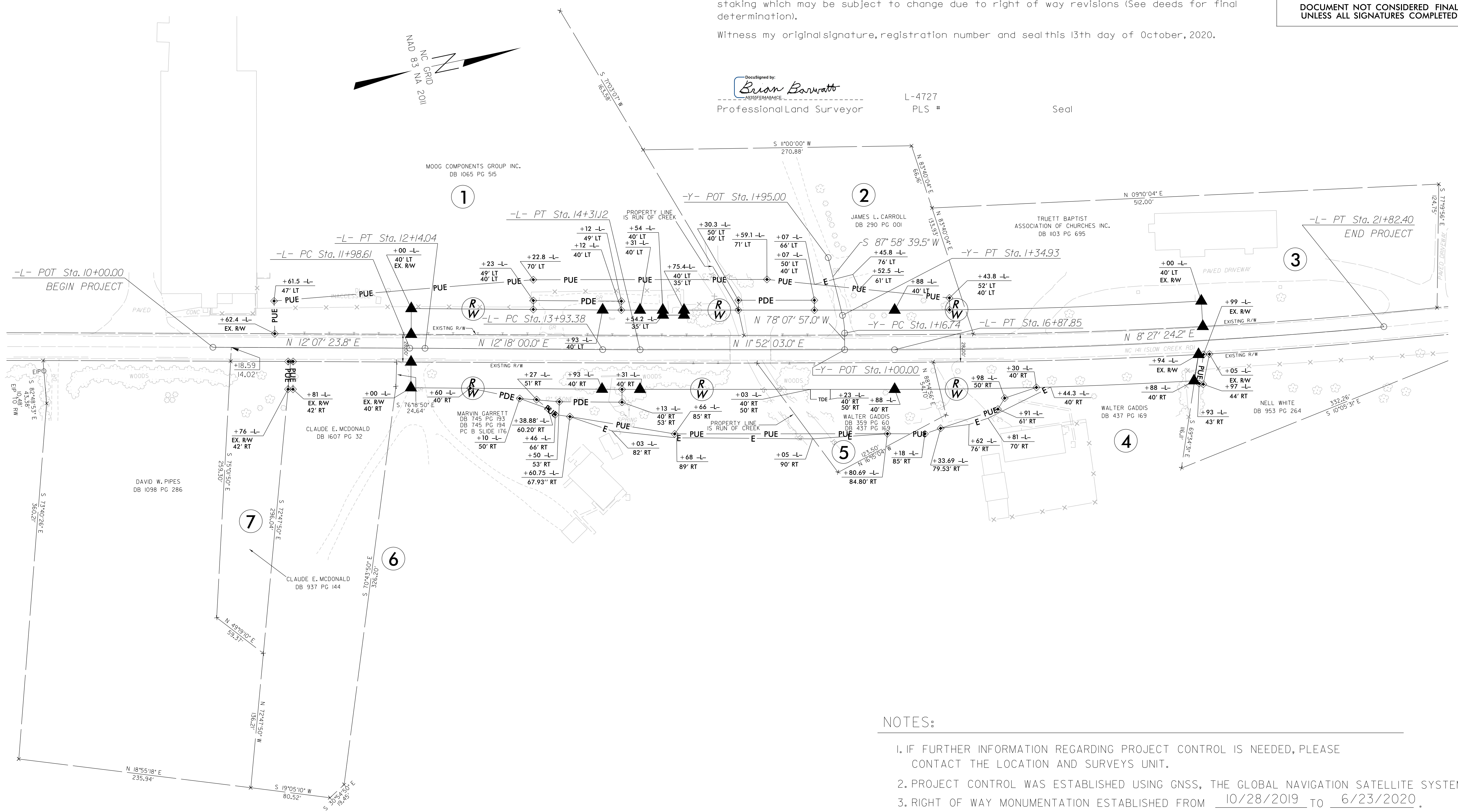
I further certify that the right of way and permanent easement points shown herein and outlined in the tables shown hereon (localized coordinates, station/offset) have been checked and are accurate representations of the right of way and permanent easement points depicted on the corresponding highway plans. I also certify that the right of way and permanent easement points shown herein have been field monumented under my supervision from existing survey control provided by others; that the depicted property data shown herein were surveyed by others; and these monuments denote the right of way and easement boundaries at the time of staking which may be subject to change due to right of way revisions (See deeds for final determination).

Witness my original signature, registration number and seal this 13th day of October, 2020.

DocuSigned by:  
*Brian Barwatt*  
Professional Land Surveyor

L-4727  
PLS # Seal

-L- CURVE DATA			-Y- CURVE DATA		
PI Sta 12+06.32	PI Sta 14+12.25	PI Sta 19+35.31	PI Sta 1+25.88		
$\Delta = 0^{\circ}10'36.2''$ (RT)	$\Delta = 0^{\circ}25'57.0''$ (LT)	$\Delta = 5^{\circ}23'50.1''$ (LT)	$\Delta = 13^{\circ}53'23.5''$ (LT)		
D = 1'08'45.3"	D = 1'08'45.3"	D = 1'05'28.9"	D = 76'23'39.7"		
L = 15.42'	L = 37.74'	L = 494.55'	L = 18.18'		
T = 7.71'	T = 18.87'	T = 247.46'	T = 9.14'		
R = 5000.00'	R = 5000.00'	R = 5250.00'	R = 75.00'		



REVISIONS

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 15-317502  
 babbarwatt

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