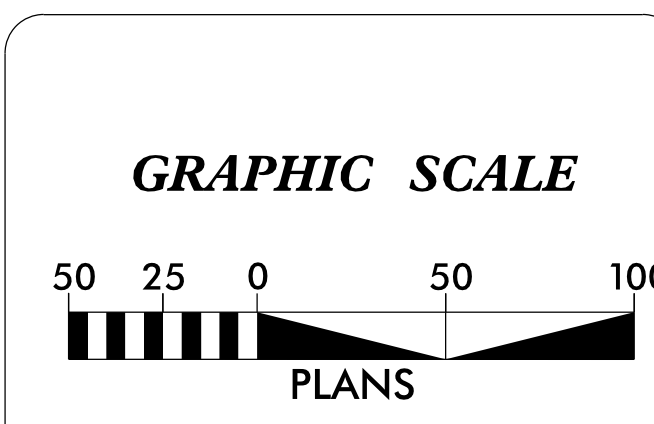
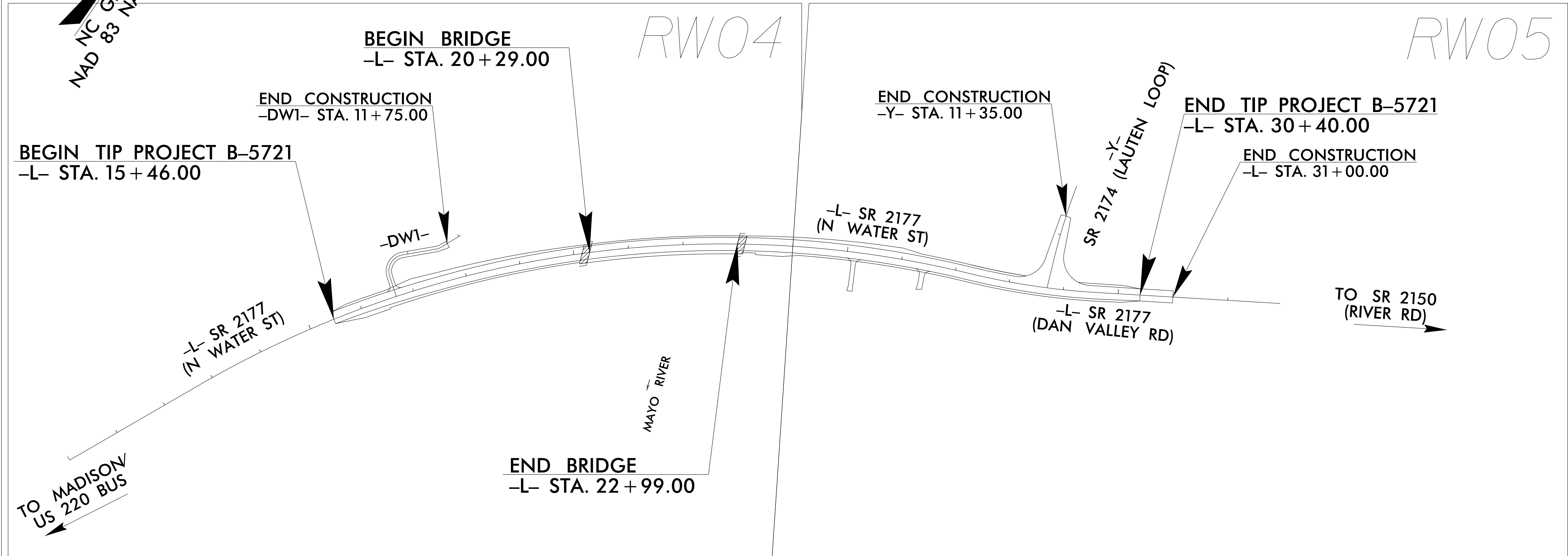


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5721	RW01	

STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS  
 SURVEY CONTROL, EXISTING CENTERLINES,  
 RIGHT OF WAY, EASEMENTS AND PROPERTY TIES

**ROCKINGHAM COUNTY**

TIP PROJECT: B-5721



**DATUM DESCRIPTION**

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B5721-2" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 962765.437(ft) EASTING: 1719062.648(ft) ELEVATION: 558.68(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 1.00004898 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B5721-2" TO -L- STATION 10+00.00 IS S 25-50'29" W 604.72(ft) ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

Prepared in the Office of:

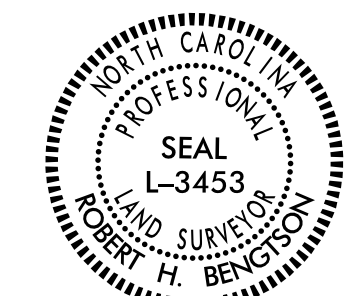
**Dewberry**  
 Dewberry Engineers Inc.  
 551 PINEY FOREST ROAD  
 DANVILLE, VA 24540  
 PHONE: 434.797.4497  
 FAX: 434.797.4341  
 NCBELS #F-0929

2018 STANDARD SPECIFICATIONS

**RIGHT OF WAY DATE:**  
 01/14/2022

**LETTING DATE:**  
 4/18/2023

**PROFESSIONAL LAND SURVEYOR**

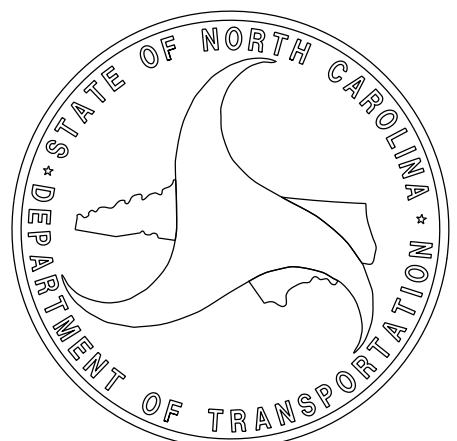


DocuSigned by:  
 Robert H. Bengtson  
 EA79E7CA33894F1...

Date: 8/30/2022

SIGNATURE:


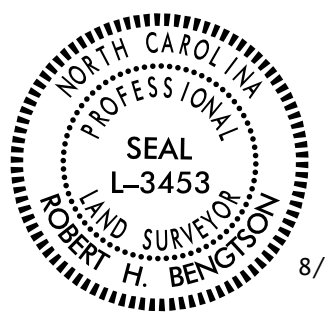
Date:



09/08/19 26-AUG-2022 13:41 P:\5054431\CAD\SURV\MICROSTATION\rw sheets\B5721\LS-RW01\_220826.dgn D:\DWELL AT PF25GW9R

# SURVEY CONTROL SHEET

## W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO. B-5721	SHEET NO. RW02C-1
<b>Location and Surveys</b>	
 Dewberry Engineers Inc. <small>551 PINEY FOREST ROAD DANVILLE, VA 24540 PHONE: 434.797.4497 FAX: 434.797.4341 NCBELS #F-0929</small>	
PROJECT SURVEYOR  <small>ROBERT H. BENGTSON 8/30/2022</small>	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

I, Robert H. Bengtson, PLS, certify that the Project Control was verified under my supervision from an actual GPS survey made by others and the following information was used to perform the survey:

Class of survey: AA  
 Type of GPS field procedure: RTN  
 Dates of survey: Dec 2016  
 Datum/Epoch: NAD 83/2011  
 Published/Fixed-control use: N/A  
 Localized around: B5721-2  
 Northing: 962765.437  
 Easting: 1719062.648  
 Combined grid factor: 1.00004898  
 Geoid model: G12NC  
 Units: US SURVEY FEET

I also certify that the Baseline Control for this project was verified under my direct and responsible charge from an actual survey made by others; that all horizontal closures had a minimum ratio of precision of 1:20,000 (Class AA) and Vertical accuracy to Class A. Field work was performed prior to December 2016, and all coordinates are based on NAD 83/2011 and all elevations are based on NAVD 88; that this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 30th day of August, 2022.

DocuSigned by:  
  
1478526338981  
 Professional Land Surveyor L-3453




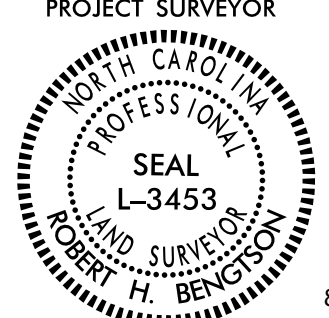
SEE SHEET RW02C-3  
 FOR FURTHER  
 ALIGNMENT DETAILS

### 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.

# SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO. B-5721	SHEET NO. RW02C-2
Location and Surveys	
 Dewberry Engineers Inc. 551 PINEY FOREST ROAD DANVILLE, VA 24540 PHONE: 434.797.4497 FAX: 434.797.4341 NCBELS #F-0929	
PROJECT SURVEYOR  8/30/2022	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

## BASELINE CONTROL

BL	POINT	DESC.	NORTH	EAST	ELEVATION
1		B5721 - 1	961796.4330	1718594.4810	556.06
2		B5721 - 2	962765.4370	1719062.6480	558.68
3		DISKS-BL3	963045.2730	1719384.4230	565.56
4		DISKS-BL4	963293.2390	1719737.1770	565.21
5		DISKS-BL5	963481.5600	1720105.8180	564.93

I, Robert H. Bengtson, PLS, certify that the Project Control was verified under my supervision from an actual GPS survey made by others and the following information was used to perform the survey:

Class of survey: AA  
Type of GPS field procedure: RTN  
Dates of survey: Dec 2016  
Datum/Epoch: NAD 83/2011  
Published/Fixed-control use: N/A  
Localized around: B5721-2  
Northing: 962765.437  
Easting: 1719062.648  
Combined grid factor: 1.00004898  
Geoid model: G12NC  
Units: US SURVEY FEET

I also certify that the Baseline Control for this project was verified under my direct and responsible charge from an actual survey made by others; that all horizontal closures had a minimum ratio of precision of 1:20,000 (Class AA) and Vertical accuracy to Class A. Field work was performed prior to December 2016, and all coordinates are based on NAD 83/2011 and all elevations are based on NAVD 88; that this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 30th day of August, 2022.

DocuSigned by:  
  
EA79E7CA33894F1  
Professional Land Surveyor L-3453

## BENCHMARKS

```

*****
BM200      ELEVATION = 556.54
N 963144      E 1719412
BL STATION 10+06.00 65 LEFT
SPIKE IN A 20" MAPLE
*****

*****
BM201      ELEVATION = 556.33
N 963336      E 1719607
BL STATION 12+75.00 110 LEFT
SPIKE IN A 20" SYCAMORE
*****

```

## NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
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REVISIONS

# SURVEY CONTROL SHEET

**W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION**

PROJECT REFERENCE NO. B-5721	SHEET NO. RW02C-3
Location and Surveys	
 Dewberry Engineers Inc. <small>551 PINEY FOREST ROAD DANVILLE, VA 24540 PHONE: 434.797.4497 FAX: 434.797.4341 NCBELS #F-0929</small>	
PROJECT SURVEYOR  <small>8/30/2022</small>	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

## ALIGNMENT DATA

EL POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	962245.792	1718810.713							
LINE			N 25°20'10.5" E	299.53					
PC	962516.511	1718938.891							
CURVE			N 27°26'50.9" E	105.54	04°13'20.8"(RT)	04°00'00.0"	105.56	52.80	1432.39
PT	962610.168	1718987.537							
LINE			N 29°33'31.3" E	12.35					
PC	962620.910	1718993.629							
CURVE			N 32°11'03.7" E	105.77	05°15'04.6"(RT)	04°57'47.6"	105.80	52.94	1154.41
PCC	962710.425	1719049.965							
CURVE			N 37°41'56.4" E	99.30	05°46'40.7"(RT)	05°48'58.2"	99.34	49.71	985.11
PCC	962788.995	1719110.689							
CURVE			N 46°23'24.0" E	246.86	11°36'14.6"(RT)	04°41'33.6"	247.28	124.06	1220.96
PCC	962959.265	1719289.427							
CURVE			N 53°48'37.7" E	59.32	03°14'12.7"(RT)	05°27'20.9"	59.33	29.67	1050.18
PT	962994.291	1719337.303							
LINE			N 55°25'44.1" E	536.51					
PC	963298.721	1719779.076							
CURVE			N 56°20'06.1" E	127.46	01°48'44.1"(RT)	01°25'18.2"	127.47	63.74	4030.00
PCC	963369.378	1719885.163							
CURVE			N 58°41'44.6" E	156.31	02°54'32.9"(RT)	01°51'39.3"	156.33	78.18	3078.92
PT	963450.596	1720018.719							
LINE			N 60°09'01.1" E	174.05					
PC	963537.225	1720169.678							
CURVE			N 59°30'24.3" E	67.39	01°17'13.6"(LT)	01°54'35.5"	67.39	33.70	3000.00
PT	963571.422	1720227.749							
LINE			N 58°51'47.4" E	263.58					
POT	963707.712	1720453.352							

EY POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	963490.019	1720087.418							
LINE			N 20°56'15.7" W	54.36					
PC	963540.794	1720067.991							
CURVE			N 17°17'37.6" W	139.31	07°17'16.3"(RT)	05°13'40.9"	139.40	69.79	1095.93
PT	963673.802	1720026.579							

I, Robert H. Bengtson, PLS, certify that the Project Control was verified under my supervision from an actual GPS survey made by others and the following information was used to perform the survey:

Class of survey: AA  
 Type of GPS field procedure: RTN  
 Dates of survey: Dec 2016  
 Datum/Epoch: NAD 83/2011  
 Published/Fixed-control use: N/A  
 Localized around: B5721-2  
 Northing: 962765.437  
 Easting: 1719062.648  
 Combined grid factor: 1.00004898  
 Geoid model: G12NC  
 Units: US SURVEY FEET

I also certify that the Baseline Control for this project was verified under my direct and responsible charge from an actual survey made by others; that all horizontal closures had a minimum ratio of precision of 1:20,000 (Class AA) and Vertical accuracy to Class A. Field work was performed prior to December 2016, and all coordinates are based on NAD 83/2011 and all elevations are based on NAVD 88; that this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 30th day of August, 2022.


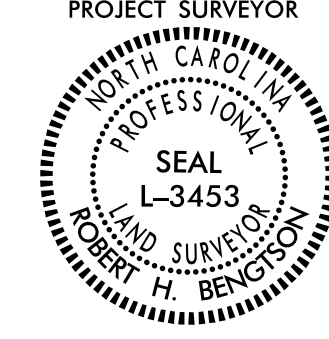
DocuSigned by:  
  
EAT9E7CA389AF1  
 Professional Land Surveyor L-3453

**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.

REVISIONS

# PROPOSED ALIGNMENT CONTROL SHEET

PROJECT REFERENCE NO. B-5721	SHEET NO. RW02D-1
<b>Location and Surveys</b>	
 Dewberry Engineers Inc. <small>551 PINEY FOREST ROAD DANVILLE, VA 24540 PHONE: 434.797.4497 FAX: 434.797.4341 NCBELS #F-0929</small>	
PROJECT SURVEYOR  8/30/2022	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

REVISIONS

L

TYPE	STATION	NORTH	EAST
POT	10+00.00	962221.1904	1718799.0648
PC	12+79.17	962473.5105	1718918.5313
PRC	27+26.17	963431.5468	1719956.1763
PT	29+58.48	963533.3130	1720164.6669
POT	32+95.76	963707.7122	1720453.3522

Y

TYPE	STATION	NORTH	EAST
POT	10+00.00	963490.1399	1720087.3715
PC	10+54.24	963540.8013	1720067.9880
PT	11+93.64	963673.8025	1720026.5791

DW1

TYPE	STATION	NORTH	EAST
POT	10+00.00	962804.4461	1719119.8834
PC	10+38.62	962827.7776	1719089.1103
PT	10+90.16	962873.1200	1719086.2478
PC	11+51.81	962916.2478	1719130.2986
PT	11+63.18	962925.5362	1719136.7415
POT	12+04.10	962962.9522	1719153.3121

I, Robert H. Bengtson, PLS, 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.


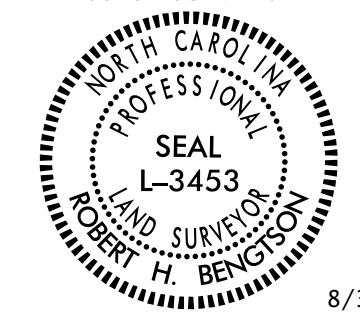
This 30th day of August, 2022.

DocuSigned by:  
  
 EA79E7CA33894F7  
 Professional Land Surveyor L-3453

**NOTES:**

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
2. THE PROPOSED ALIGNMENT 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.

# RIGHT OF WAY CONTROL SHEET

PROJECT REFERENCE NO.	SHEET NO.
B-5721	RW03E-1
<b>Location and Surveys</b>	
 Dewberry Engineers Inc. <small>551 PINEY FOREST ROAD DANVILLE, VA 24040 PHONE: 434.797.4497 FAX: 434.797.4341 NCBELS #F-0929</small>	
PROJECT SURVEYOR  <small>8/30/2022</small>	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

I, Robert H. Bengtson, certify that the right of way and permanent easement monumentation for this project shown herein was completed under my direct and responsible charge from an actual survey made under my supervision; that all horizontal closures had a minimum ratio of precision of 1:10,000 (Class A). Field work was performed from 7/5/22 to 7/15/22, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 30th day of August, 2022.

*Robert H. Bengtson*  
DocuSigned by:  
 Professional Land Surveyor L-3453

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
L	15+37.74	-65.00	962734.3329	1718990.8789
L	15+37.74	-32.75	962716.6459	1719017.8417
L	15+37.74	27.25	962683.7317	1719068.0174
L	15+37.74	60.00	962665.7707	1719095.3979
L	16+50.00	-50.00	962820.5194	1719069.4241
L	16+50.00	-65.00	962829.4731	1719057.3896
L	18+25.00	-50.00	962959.4801	1719183.1131
L	18+25.00	-65.00	962969.5027	1719171.9531
L	19+09.32	60.00	962945.5055	1719320.8470
L	19+73.00	97.00	962961.9902	1719390.2958
L	19+73.00	70.00	962981.5411	1719371.6709
L	20+25.00	77.25	963010.2001	1719413.2593
L	20+25.00	97.00	962995.5331	1719426.4853
L	26+70.00	-65.00	963470.7494	1719879.0326
L	26+70.00	-46.00	963453.2074	1719886.3318
L	26+85.57	53.00	963367.5605	1719938.3598
L	27+26.17	53.00	963382.0333	1719975.0817
L	27+71.20	-65.00	963508.2175	1719972.6784
L	27+95.93	-65.00	963517.5596	1719994.2382
L	29+58.48	53.00	963487.9484	1720192.0723
L	29+65.01	-65.00	963592.3228	1720136.6415
L	30+40.00	-65.00	963631.1002	1720200.8303
L	30+40.00	-30.00	963601.1425	1720218.9282
L	30+73.00	53.00	963547.1636	1720290.0920
L	30+73.00	30.00	963566.8501	1720278.1991

POINT NOT SET,HITS IN TREE TRUNK

ROW MARKER PERMANENT EASEMENT-E				
ALIGN	STATION	OFFSET	NORTH	EAST
L	15+05.00	-33.10	962688.8265	1718999.5230
L	15+05.00	-45.00	962695.1817	1718989.4610
L	15+37.74	-50.00	962726.1052	1719003.4211
L	16+44.50	60.00	962750.5808	1719154.5045
L	16+44.50	70.00	962744.6349	1719162.5448
L	16+65.00	70.00	962760.4466	1719174.3702
L	16+65.00	60.00	962766.4789	1719166.3945
L	21+49.00	-132.00	963251.1337	1719374.4420
L	21+49.00	-85.00	963214.2507	1719403.5736
L	21+76.00	-111.00	963252.2070	1719410.0092
L	21+76.00	-126.00	963264.1091	1719400.8801
L	22+75.00	-65.00	963275.8764	1719520.8325
L	26+02.00	-83.00	963458.9371	1719807.0949
L	26+02.00	-99.00	963473.4799	1719800.4236
L	26+25.00	-93.00	963477.9528	1719824.9143
L	26+25.00	-73.00	963459.6746	1719833.0328
L	26+38.00	-65.00	963457.7788	1719848.5860
L	27+96.00	53.00	963409.7674	1720042.2472
L	28+10.00	61.00	963408.4855	1720058.8579
L	28+10.00	80.00	963391.2090	1720066.7650
L	28+33.00	86.00	963396.1550	1720091.4678
L	28+33.00	69.00	963411.4853	1720084.1206
L	29+22.00	69.00	963454.8518	1720167.1873
L	29+22.00	86.00	963440.0600	1720175.5660
L	29+45.00	65.00	963470.4201	1720186.1226
L	29+45.00	81.00	963456.6401	1720194.2534
L	30+07.00	53.00	963513.0361	1720233.6003
L	30+16.00	-97.00	963646.0801	1720163.7412
L	30+16.00	-65.00	963618.6902	1720180.2878
L	30+40.00	-97.00	963658.4901	1720184.2836

POINT NOT SET,UNSAFE DROP OFF

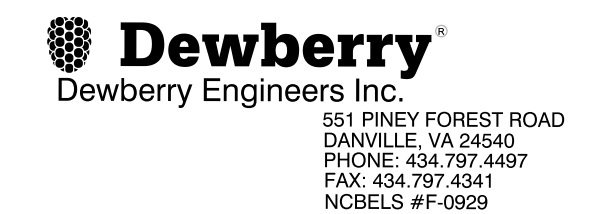
POINT NOT SET,HITS IN TREE TRUNK

REVISIONS

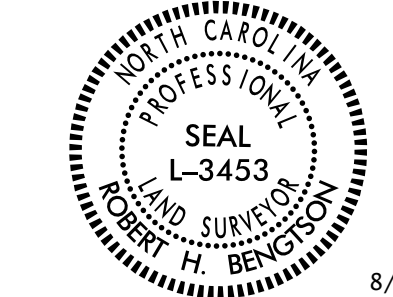
### NOTES:

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. RIGHT OF WAY MONUMENTATION ESTABLISHED 7/05/22 TO 7/15/22 .

Location and Surveys



PROJECT SURVEYOR



8/30/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

I, Robert H. Bengtson, certify that the right of way and permanent easement monumentation for this project shown herein was completed under my direct and responsible charge from an actual survey made under my supervision; that all horizontal closures had a minimum ratio of precision of 1:10,000 (Class A). Field work was performed from 7/5/22 to 7/15/22, and all coordinates are based on NAD83/2011; that this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 30th day of August, 2022.  
Robert H. Bengtson  
Professional Land Surveyor L-3453



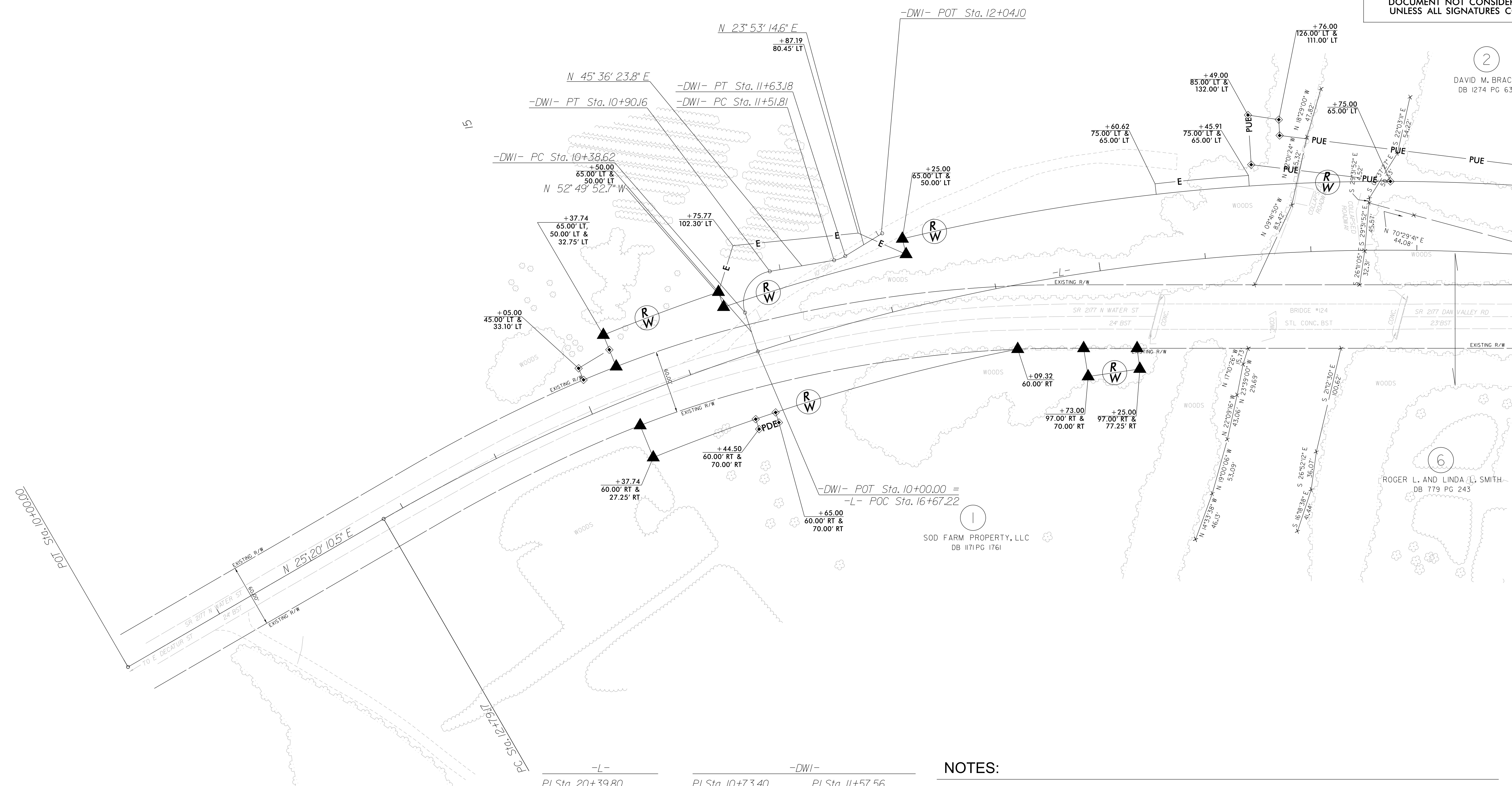
SOD FARM PROPERTY, LLC  
DB 171PG 1761

20

2  
DAVID M. BRACEY  
DB 1274 PG 634

MATCHLINE -L- STA. 24 + 00.00 SEE SHEET 5

6  
ROGER L. AND LINDA L. SMITH  
DB 779 PG 243



-L-	-DWI-	-DWI-
PI Sta 20+39.80	PI Sta 10+73.40	PI Sta 11+57.56
$\Delta = 43^{\circ} 38' 06.8''$ (RT)	$\Delta = 98^{\circ} 26' 16.6''$ (RT)	$\Delta = 21^{\circ} 43' 09.2''$ (LT)
D = 3' 00' 56.0"	D = 190' 59' 09.4"	D = 190' 59' 09.4"
L = 1,447.00'	L = 51.54'	L = 11.37'
T = 760.62'	T = 34.78'	T = 5.76'
R = 1,900.00'	R = 30.00'	R = 30.00'
e = 0.035 FT/FT		
R.O. = 84.00'		

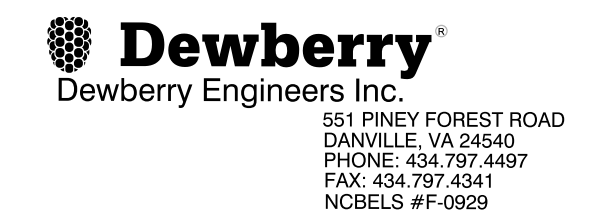
NOTES:

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2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. RIGHT OF WAY MONUMENTATION ESTABLISHED 7/05/22 TO 7/15/22 .

REVISIONS

PROJECT: 2022\_1559 Sur-VMICROSTATION V\* sheets\B5721.LS.RW04\_220830.dgn  
DATE: 8/24/22  
DRAWN BY: JTB  
CHECKED BY: JTB  
DATE: 8/24/22

Location and Surveys



PROJECT SURVEYOR



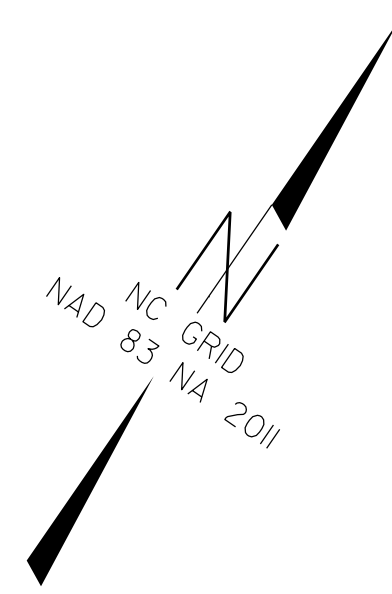
8/30/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

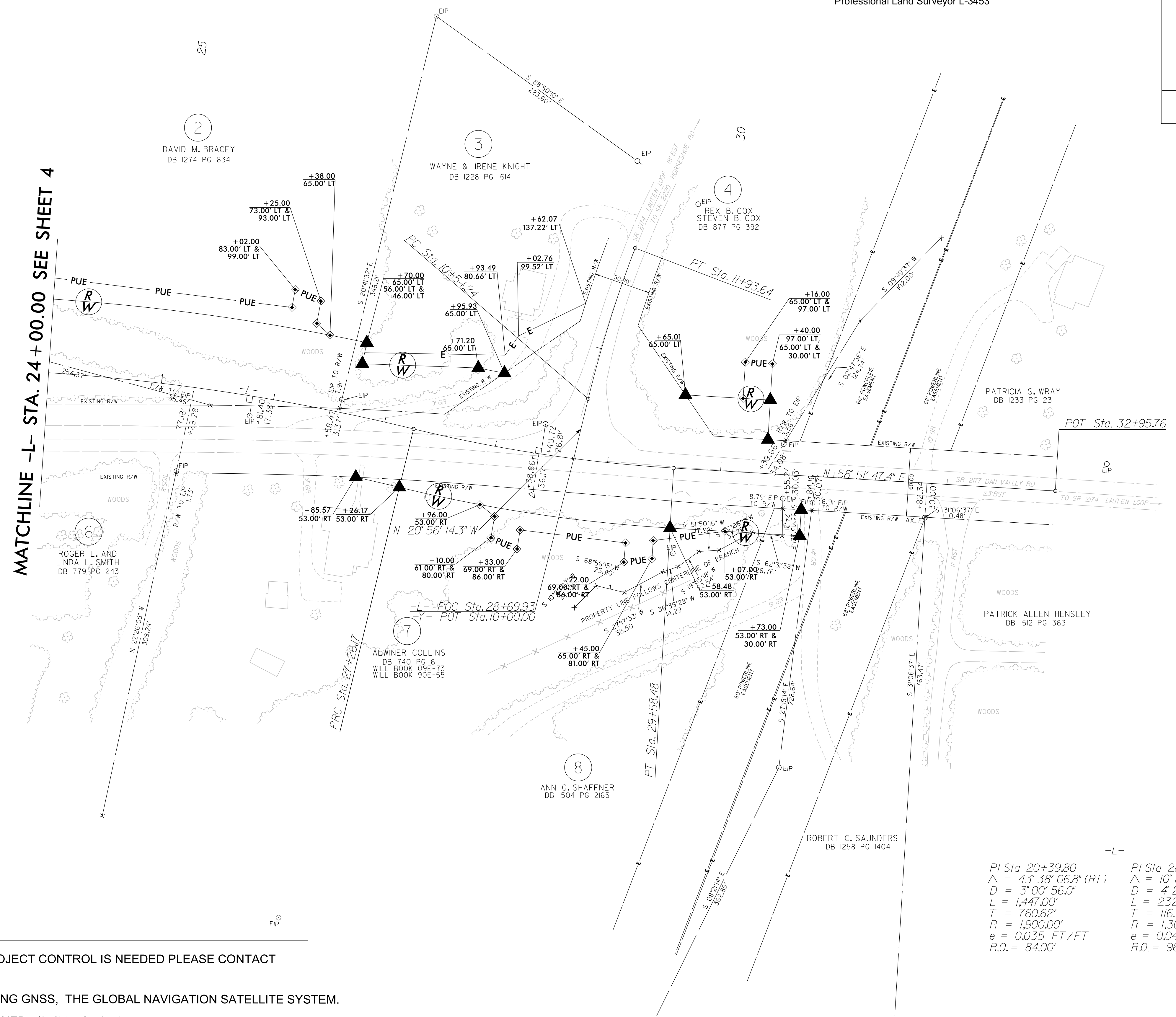
I, Robert H. Bengtson, certify that the right of way and permanent easement monumentation for this project shown herein was completed under my direct and responsible charge from an actual survey made under my supervision; that all horizontal closures had a minimum ratio of precision of 1:10,000 (Class A). Field work was performed from 7/5/22 to 7/15/22, and all coordinates are based on NAD83/2011. That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 30th day of August, 2022.

Robert H. Bengtson Professional Land Surveyor L-3453



MATCHLINE -L- STA. 24+00.00 SEE SHEET 4



NOTES:

- 1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. RIGHT OF WAY MONUMENTATION ESTABLISHED 7/05/22 TO 7/15/22 .

Table with 3 columns: -L-, -Y-, and -Y-. Each column contains curve data including PI Sta, Delta, D, L, T, R, e, and R.O. values.

REVISIONS

Vertical text on the left margin: P:\AUGUST2022\1710 Survey\MICROSTATION\work sheets\B5721.L.S.\_RW05\_220830.dgn