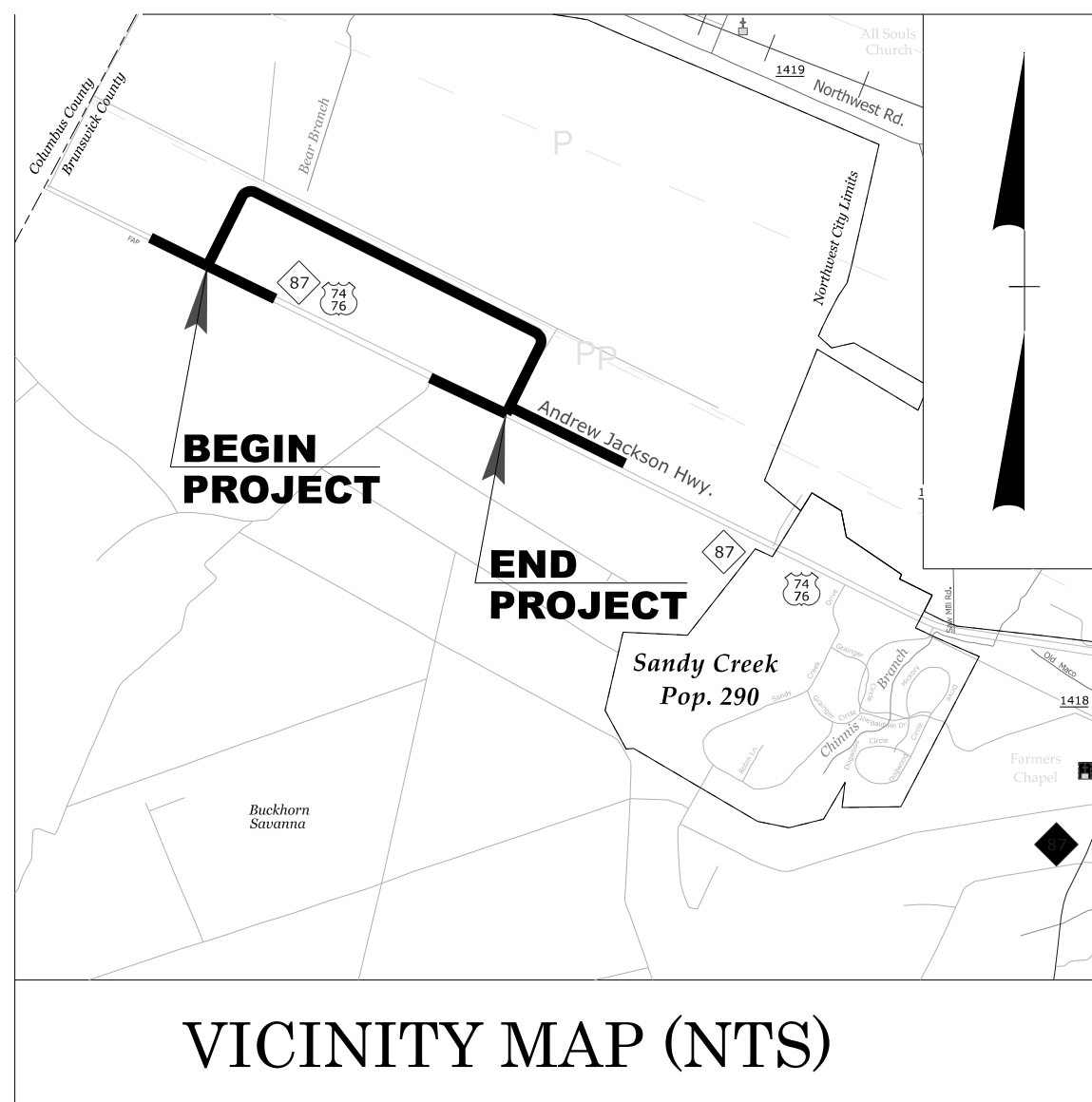


TIP PROJECT: HE-0016

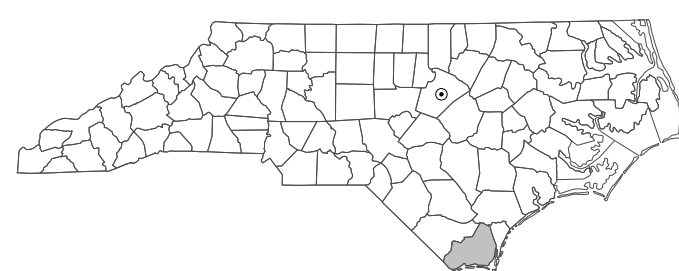
See Sheet 1A For Index of Sheets



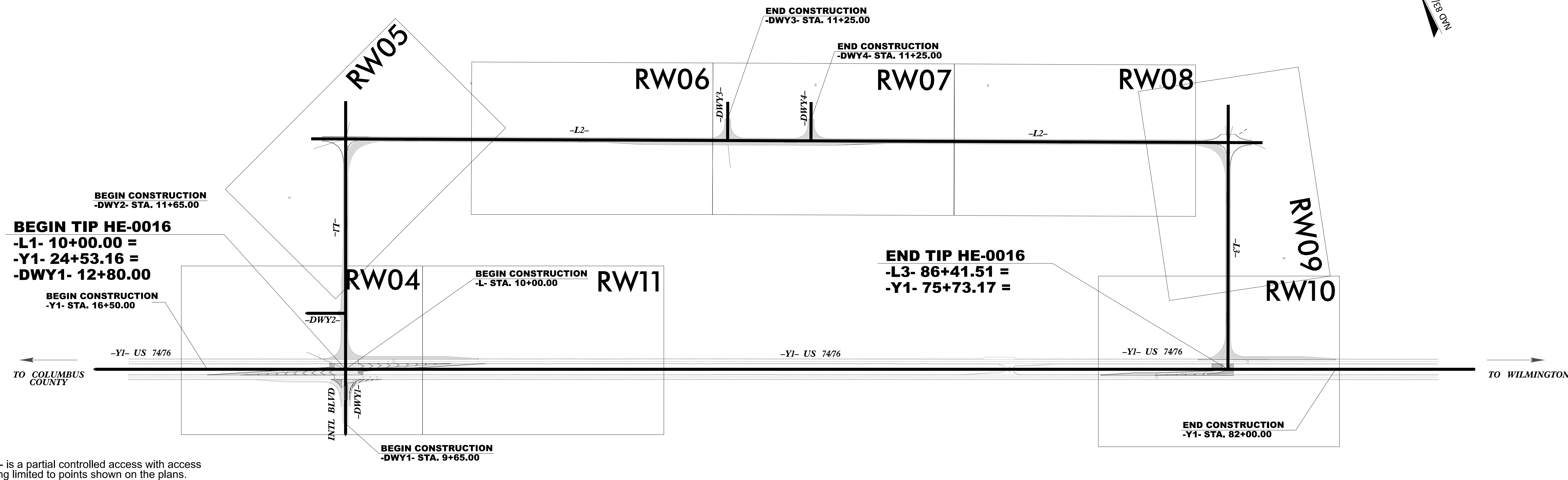
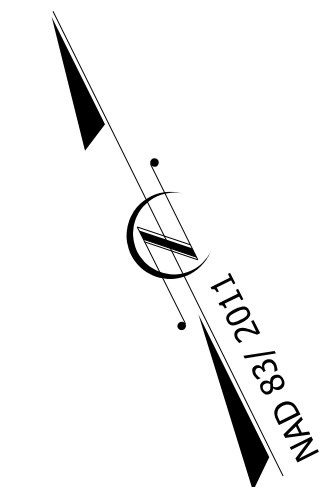
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

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

BRUNSWICK COUNTY



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HE-0016	RW01	15



-Y1- is a partial controlled access with access being limited to points shown on the plans.

GRAPHIC SCALE

SEE EACH INDIVIDUAL ROW AND C-SERIES SHEET FOR THE CORRECT SCALE

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT HE0016-2 WITH NAD 83/NSRS 2011 STATE PLANE GRID COORDINATES OF NORTHING: 202888.8437' EASTING: 2244431.2891' ELEVATION: 61.67'

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT GROUND TO GRID: 1.0000120778

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES.

VERTICAL DATUM USED IS NAVD88

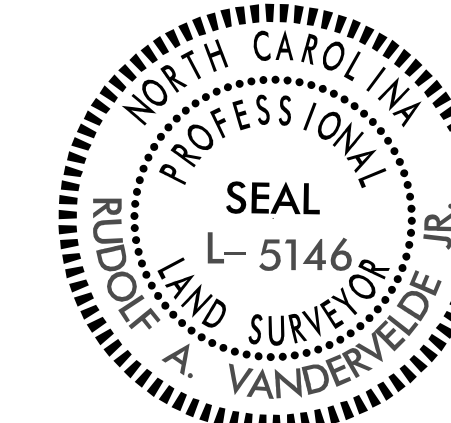
Prepared in the Office of:

WITHERS RAVENEL
 219 STATION ROAD
 SUITE 101
 WILMINGTON, NC 28405

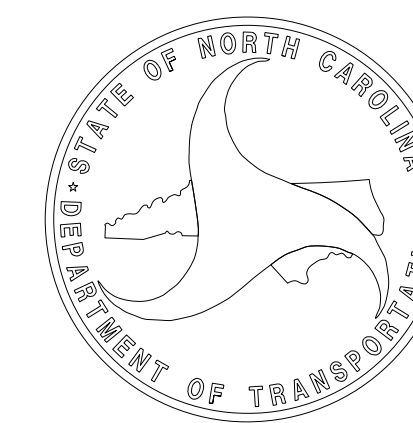
RIGHT OF WAY DATE:
JANUARY 20, 2025

LETTING DATE:
JUNE 16, 2026

PROFESSIONAL LAND SURVEYOR



DocuSigned by:
 Rudolf A. VanderVelde Jr.
 DATE: 3/18/2026



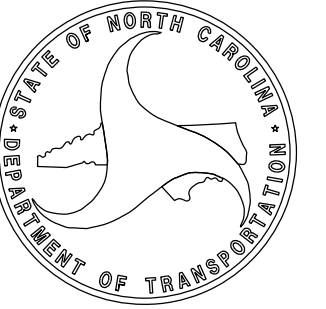
SURVEY CONTROL SHEET

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

HE-0016

R/W 02G-1

NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION



PROFESSIONAL LAND
SURVEYOR

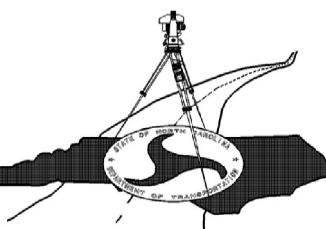


DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL SIGNATURES
ARE COMPLETED

2024 STANDARD
SPECIFICATIONS

TIP PROJECT: HE-0016
County: BRUNSWICK

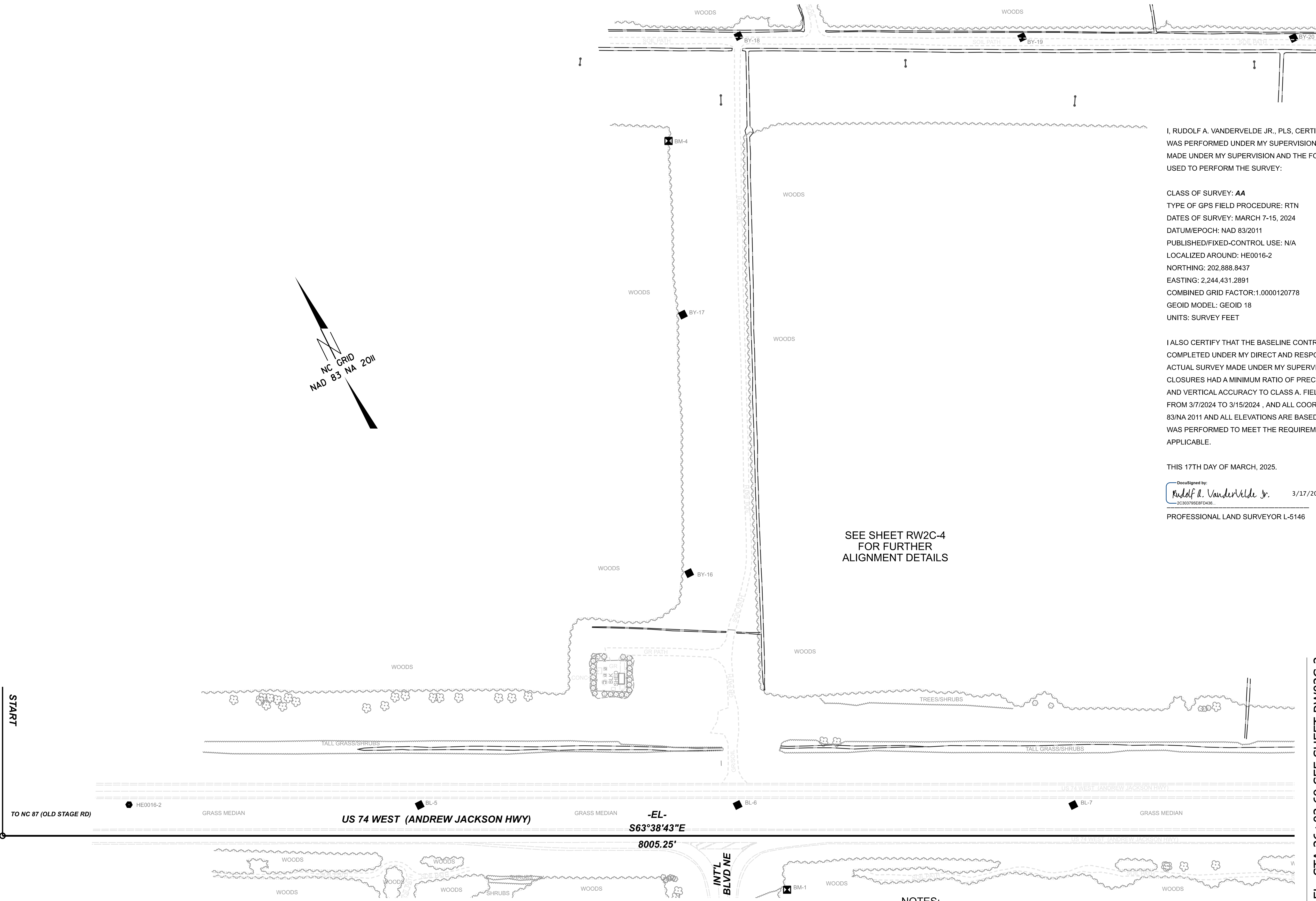
PREPARED FOR



LOCATION AND
SURVEYS UNIT

PREPARED BY

WITHERSRAVENEL, INC
115 MACKENAN
CARY NC 27511
OFFICE #: 919-469-3340
LICENSE #: F-1479



I, RUDOLF A. VANDERVELDE JR., PLS, CERTIFY THAT THE PROJECT CONTROL WAS PERFORMED UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE UNDER MY SUPERVISION AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

CLASS OF SURVEY: AA
TYPE OF GPS FIELD PROCEDURE: RTN
DATES OF SURVEY: MARCH 7-15, 2024
DATUM/EPOCH: NAD 83/2011
PUBLISHED/FIXED-CONTROL USE: N/A
LOCALIZED AROUND: HE0016-2
NORTHING: 202,888.8437
EASTING: 2,244,431.2891
COMBINED GRID FACTOR: 1.0000120778
GEOID MODEL: GEOID 18
UNITS: SURVEY FEET

I ALSO CERTIFY THAT THE BASELINE CONTROL FOR THIS PROJECT 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 1:20,000 (CLASS AA) AND VERTICAL ACCURACY TO CLASS A. FIELD WORK WAS PERFORMED FROM 3/7/2024 TO 3/15/2024, AND ALL COORDINATES ARE BASED ON NAD 83/NA 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 17TH DAY OF MARCH, 2025.

DocuSigned by:
Rudolf A. Vandervelde Jr. 3/17/2025
2C303765E8FD436
PROFESSIONAL LAND SURVEYOR L-5146

SEE SHEET RW2C-4
FOR FURTHER
ALIGNMENT DETAILS

NOTES:

- 1. 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.



MATCH -EL- STA 36+03.69 SEE SHEET RW02C-2

HE0016-1 OFFSITE

START

TO NC 87 (OLD STAGE RD)

US 74 WEST (ANDREW JACKSON HWY)

-EL-
S63°38'43"E
8005.25'

INT'L
BLVD NE

US 74 WEST (ANDREW JACKSON HWY)

GRASS MEDIAN

GRASS MEDIAN

HE0016-2

NC GRID
NAD 83 NA 2011

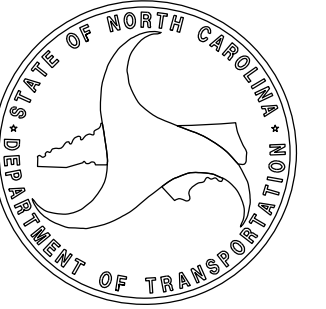
SURVEY CONTROL SHEET

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

HE-0016

R/W 02C-2

NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION



PROFESSIONAL LAND
SURVEYOR

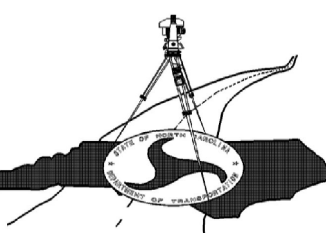


DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL SIGNATURES
ARE COMPLETED

2024 STANDARD
SPECIFICATIONS

TIP PROJECT: HE-0016
County: BRUNSWICK

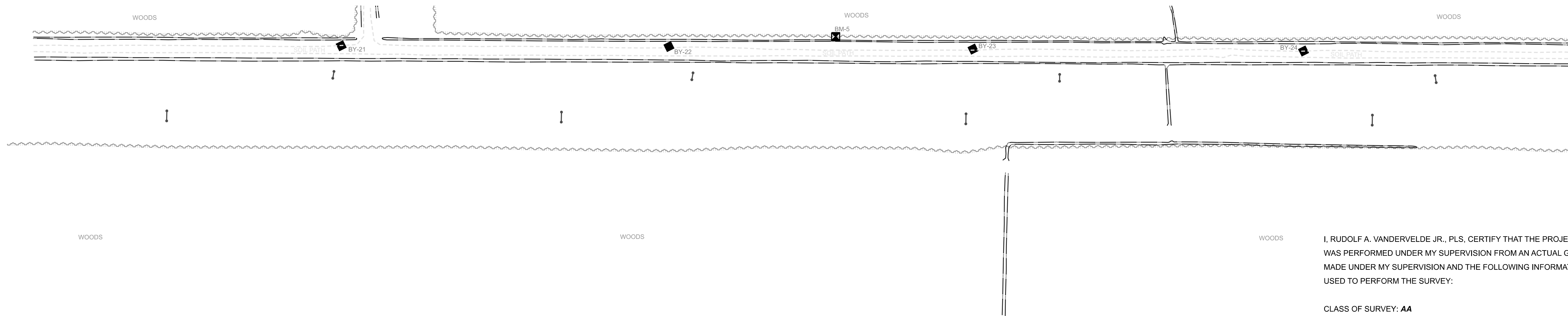
PREPARED FOR



LOCATION AND
SURVEYS UNIT

PREPARED BY

WITHERSRAVENEL, INC
115 MACKENAN
CARY NC 27511
OFFICE #: 919-469-3340
LICENSE #: F-1479



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TYPE OF GPS FIELD PROCEDURE: RTN
DATES OF SURVEY: MARCH 7-15, 2024
DATUM/EPOCH: NAD 83/2011
PUBLISHED/FIXED-CONTROL USE: N/A
LOCALIZED AROUND: HE0016-2
NORTHING: 202,888.8437
EASTING: 2,244,431.2891
COMBINED GRID FACTOR: 1.0000120778
GEOID MODEL: GEOID 18
UNITS: SURVEY FEET

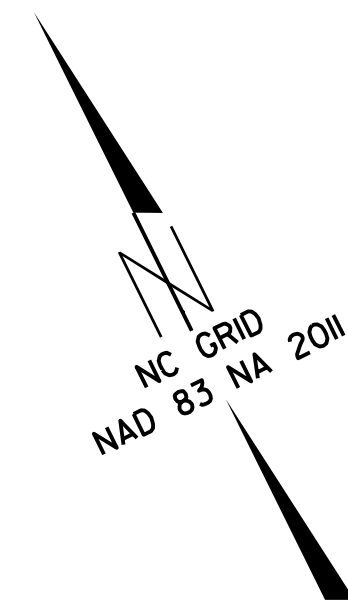
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THIS 17TH DAY OF MARCH, 2025.

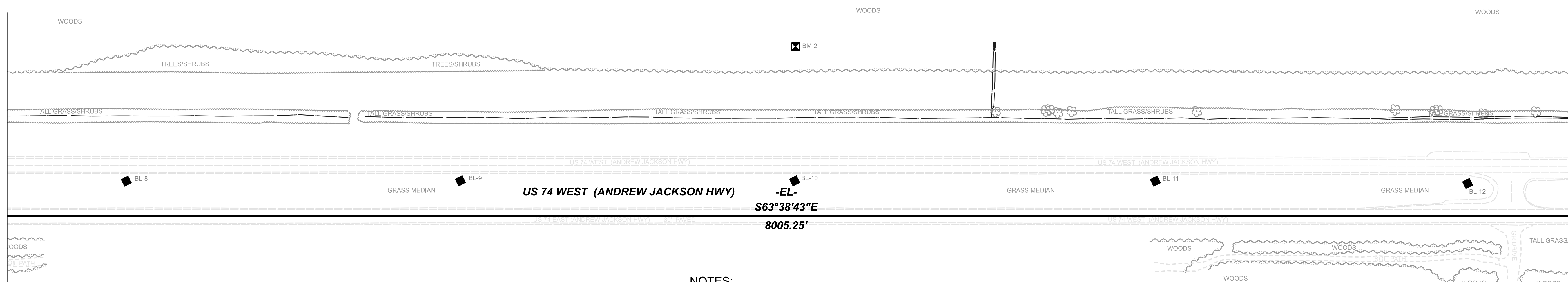
DocuSigned by:
Rudolf A. Vandervelde Jr. 3/17/2025
202503170856P0436

PROFESSIONAL LAND SURVEYOR L-5146

SEE SHEET RW2C-4
FOR FURTHER
ALIGNMENT DETAILS



MATCH -EL- STA 36+03.69 SEE SHEET RW02C-1



MATCH -EL- STA 64+07.38 SEE SHEET RW02C-3



NOTES:

- 1. 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.

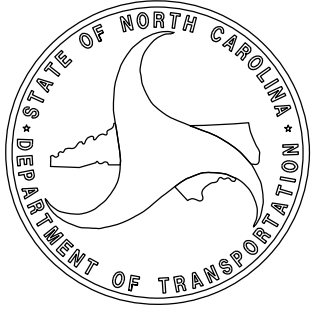
SURVEY CONTROL SHEET

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

HE-0016

R/W 02C-3

NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION



PROFESSIONAL LAND
SURVEYOR



DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL SIGNATURES
ARE COMPLETED

2024 STANDARD
SPECIFICATIONS

I, RUDOLF A. VANDERVELDE JR., PLS, CERTIFY THAT THE PROJECT CONTROL WAS PERFORMED UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE UNDER MY SUPERVISION AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

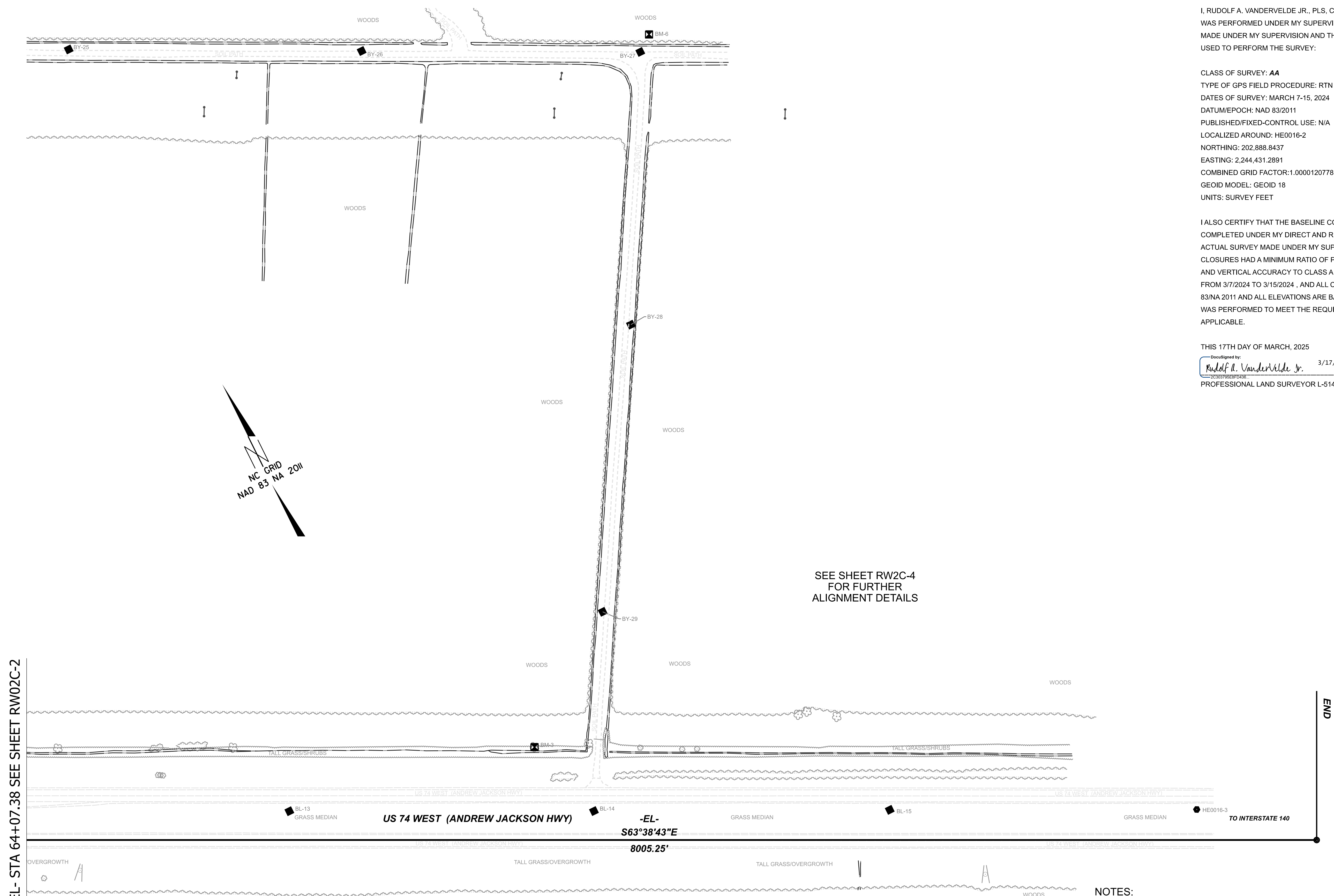
CLASS OF SURVEY: AA
TYPE OF GPS FIELD PROCEDURE: RTN
DATES OF SURVEY: MARCH 7-15, 2024
DATUM/EPOCH: NAD 83/2011
PUBLISHED/FIXED-CONTROL USE: N/A
LOCALIZED AROUND: HE0016-2
NORTHING: 202,888.8437
EASTING: 2,244,431.2891
COMBINED GRID FACTOR: 1.0000120778
GEOID MODEL: GEOID 18
UNITS: SURVEY FEET

I ALSO CERTIFY THAT THE BASELINE CONTROL FOR THIS PROJECT 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 1:20,000 (CLASS AA) AND VERTICAL ACCURACY TO CLASS A. FIELD WORK WAS PERFORMED FROM 3/7/2024 TO 3/15/2024, AND ALL COORDINATES ARE BASED ON NAD 83/NA 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 17TH DAY OF MARCH, 2025

DocuSigned by:
Rudolf A. Vandervelde Jr. 3/17/2025
PROFESSIONAL LAND SURVEYOR L-5146

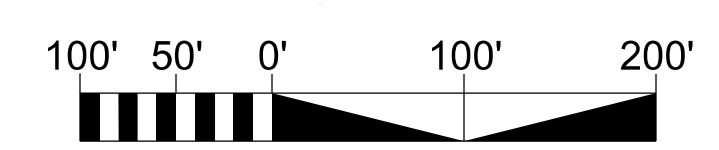
SEE SHEET RW2C-4
FOR FURTHER
ALIGNMENT DETAILS



MATCH -EL- STA 64+07.38 SEE SHEET RW02C-2

END

HE0016-4 OFFSITE

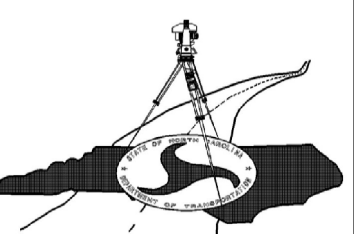


NOTES:

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TIP PROJECT: HE-0016
County: BRUNSWICK

PREPARED FOR



LOCATION AND SURVEYS UNIT

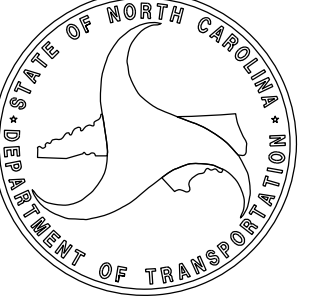
PREPARED BY

WITHERSRAVENEL, INC
115 MACKENAN
CARY NC 27511
OFFICE #: 919-469-3340
LICENSE # F-1479

SURVEY CONTROL SHEET

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

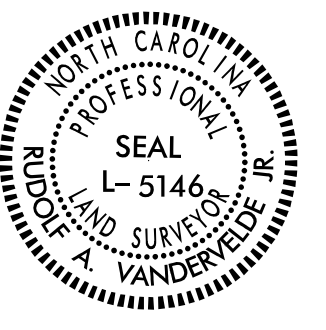
HE-0016
 R/W 02C-4
 NORTH CAROLINA
 DEPARTMENT
 OF TRANSPORTATION



I, RUDOLF A. VANDERVELDE JR., PLS. CERTIFY THAT THE PROJECT CONTROL WAS PERFORMED UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE UNDER MY SUPERVISION AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

CLASS OF SURVEY: **AA**
 TYPE OF GPS FIELD PROCEDURE: RTN
 DATES OF SURVEY: MARCH 7-15, 2024
 DATUM/EPOCH: NAD 83/2011
 PUBLISHED/FIXED-CONTROL USE: N/A
 LOCALIZED AROUND: HE0016-2
 NORTHING: 202,888.8437
 EASTING: 2,244,431.2891
 COMBINED GRID FACTOR: 1.0000120778
 GEOID MODEL: GEOID 18
 UNITS: SURVEY FEET

PROFESSIONAL LAND SURVEYOR



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES ARE COMPLETED

2024 STANDARD SPECIFICATIONS

I ALSO CERTIFY THAT THE BASELINE CONTROL FOR THIS PROJECT 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 1:20,000 (CLASS AA) AND VERTICAL ACCURACY TO CLASS A. FIELD WORK WAS PERFORMED FROM 3/7/2024 TO 3/15/2024, AND ALL COORDINATES ARE BASED ON NAD 83/NA 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 17TH DAY OF MARCH, 2025

DocuSigned by:
Rudolf A. Vandervelde Jr. 3/17/2025
 2C303795E8FFD436

PROFESSIONAL LAND SURVEYOR L-5146

TIP PROJECT: HE-0016
 County: BRUNSWICK

BASELINE POINTS TABLE				
POINT	DESC	NORTH	EAST	ELEVATION
HE0016-1	GPS CAP & REBAR	203240.8720	2243664.6380	61.390
HE0016-2	GPS CAP & REBAR	202888.8440	2244431.2890	61.670
HE0016-3	GPS CAP & REBAR	199554.3640	2251159.2760	61.540
HE0016-4	GPS CAP & REBAR	199188.7770	2251897.6370	61.600
BL-5	TRV CAP & REBAR	202628.1310	2244955.8130	61.631
BL-6	TRV CAP & REBAR	202343.7590	2245530.0090	61.500
BL-7	TRV CAP & REBAR	202043.4540	2246136.1330	61.433
BL-8	TRV CAP & REBAR	201750.6350	2246727.3300	61.329
BL-9	TRV CAP & REBAR	201484.8690	2247265.2230	61.537
BL-10	TRV CAP & REBAR	201218.3590	2247803.1050	61.451
BL-11	TRV CAP & REBAR	200930.1820	2248383.4500	61.523
BL-12	TRV CAP & REBAR	200677.4920	2248884.0450	61.416
BL-13	TRV CAP & REBAR	200362.4880	2249520.2690	61.051
BL-14	TRV CAP & REBAR	200090.4470	2250070.0130	61.435
BL-15	TRV CAP & REBAR	199828.1570	2250604.9180	61.472
BY-16	TRV CAP & REBAR	202805.7120	2245649.8750	59.524
BY-17	TRV CAP & REBAR	203277.9450	2245869.6960	59.515
BY-18	TRV CAP & REBAR	203731.0450	2246219.2890	59.976
BY-19	TRV CAP & REBAR	203475.1620	2246730.3550	59.714
BY-20	TRV CAP & REBAR	203230.8820	2247219.9520	60.052
BY-21	TRV CAP & REBAR	202960.2850	2247757.2310	60.335
BY-22	TRV CAP & REBAR	202697.6960	2248284.1090	60.149
BY-23	TRV CAP & REBAR	202451.1090	2248771.4340	59.363
BY-24	TRV CAP & REBAR	202184.5010	2249301.8180	59.079
BY-25	TRV CAP & REBAR	201934.2440	2249802.9800	60.432
BY-26	TRV CAP & REBAR	201669.4460	2250330.2670	60.487
BY-27	TRV CAP & REBAR	201418.7250	2250832.1810	60.138
BY-28	TRV CAP & REBAR	200935.0930	2250571.4780	60.074
BY-29	TRV CAP & REBAR	200442.0890	2250263.9640	60.658

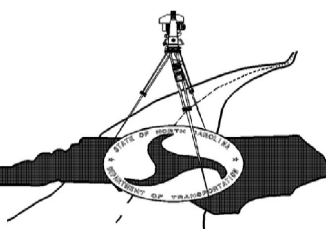
BENCHMARK TABLE				
BENCHMARK	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM1	202146.6	2245543.7	63.93	BENCH TIE IN 21" PINE
BM2	201433.3	2247911.5	63.84	BENCH TIE IN 18" PINE
BM3	200258.9	2250020.0	61.93	BENCH TIE IN 12" PINE
BM4	203604.3	2245999.2	61.85	BENCH TIE IN 12" PINE
BM5	202580.8	2248560.3	61.09	BENCH TIE IN 10" PINE
BM6	201442.4	2250863.7	61.54	BENCH TIE IN 12" PINE

EXISTING ALIGNMENT NAME:EL									
POINT	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R
START	202945.831	2244175.187							
LINE			"	8005.252					
END	199392.087	2251348.397							

NOTES:

1. 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.

PREPARED FOR



LOCATION AND SURVEYS UNIT

PREPARED BY

WITHERSRAVENEL, INC
 115 MACKENAN
 CARY NC 27511
 OFFICE #: 919-469-3340
 LICENSE #: F-1479

PROPOSED ALIGNMENT CONTROL SHEET

I, RUDOLF A. VANDERVELDE JR., 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.

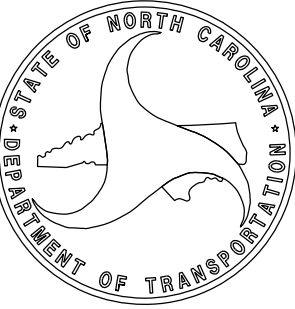
THIS 13TH DAY OF OCTOBER, 2025.

DocuSigned by:
Rudolf A. Vandervelde Jr. 10/13/2025
 PROFESSIONAL LAND SURVEYOR L-5146

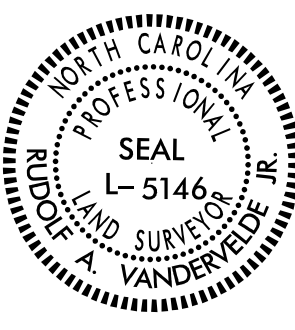
HE-0016

R/W 020-1

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION



PROFESSIONAL LAND SURVEYOR

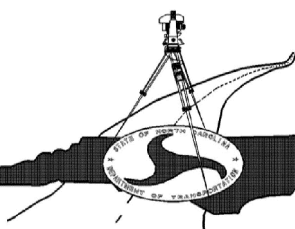


DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES ARE COMPLETED

2024 STANDARD SPECIFICATIONS

TIP PROJECT: HE-0016
 County: Brunswick

PREPARED FOR



LOCATION AND SURVEYS UNIT

PREPARED BY
 WITHERS RAVENEL
 219 STATION ROAD
 SUITE 101
 WILMINGTON, NC 28409

PROPOSED ALIGNMENT: L1												
POINT	STATION	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R	LT	ST
START	1000.00	202340.6104	2245497.0631	N26°22'36.6"E	1557.000							
END	2557.00	203735.5133	2246188.7964									

PROPOSED ALIGNMENT: L2												
POINT	STATION	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R	LT	ST
START	2070.00	203628.0941	2245912.2120	S63°24'54.6"E	5520.000							
END	7590.00	201157.7695	2250848.5970									

PROPOSED ALIGNMENT: L3												
POINT	STATION	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R	LT	ST
START	7106.00	201442.8960	2250768.0112	S26°24'52.9"W	1535.507							
END	8641.51	200067.6998	2250084.9184									

PROPOSED ALIGNMENT: Y1												
POINT	STATION	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R	LT	ST
START	10+00.00	202985.7062	2244194.9415	S63°38'43.1"E	8005.25							
END	90+05.25	199431.9614	2251368.1522									

PROPOSED ALIGNMENT: DWY1												
POINT	STATION	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R	LT	ST
START	9+00.00	202000.1717	2245328.2394	N26°22'36.6"E	380.00							
END	12+80.00	202340.6104	2245497.0631									

PROPOSED ALIGNMENT: DWY2												
POINT	STATION	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R	LT	ST
START	10+00.00	202731.6586	2245439.8377	S63°38'43.1"E	225.00							
END	12+25.00	202631.7751	2245641.4519									

PROPOSED ALIGNMENT: DWY3												
POINT	STATION	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R	LT	ST
START	10+00.00	202546.7030	2248073.1274	N26°35'05.4"E	225.00							
END	12+25.00	202747.9144	2248173.8200									

PROPOSED ALIGNMENT: DWY4												
POINT	STATION	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R	LT	ST
START	10+00.00	202330.2974	2248505.5652	N26°35'05.4"E	225.00							
END	12+25.00	202531.5087	2248606.2578									

NOTES:

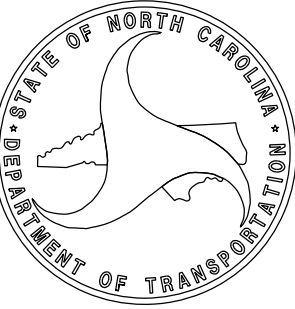
1. THE PROPOSED ALIGNMENT CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

RIGHT OF WAY CONTROL SHEET

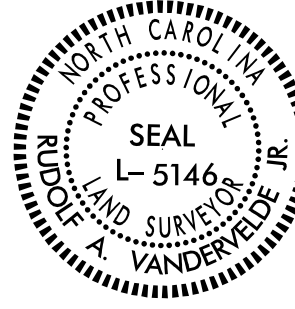
HE-0016

R/W 03E-1

NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION



PROFESSIONAL LAND
SURVEYOR



DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL SIGNATURES
ARE COMPLETED

2024 STANDARD
SPECIFICATIONS

I, RUDOLF A. VANDERVELDE JR., PLS, 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 FEBRUARY 20, 2025 TO MARCH 4, 2025 AND 10/2/2025 TO 10/3/2025. AND ALL COORDINATES ARE BASED ON NAD83/NA 2011; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS OF 21NCAC 56.1600 AS APPLICABLE.

THIS 15TH DAY OF OCTOBER, 2025.

DocuSigned by:
Rudolf A. Vandervelde Jr.
2C30378E8F0436...

10/15/2025

PROFESSIONAL LAND SURVEYOR L-5146

PERMANENT ROW MARKER IRON PIN AND CAP: L1				
STATION	OFFSET	NORTH	EAST	DESC
11+84.28	-64.71	202534.4575	2245520.9568	REBAR AND CAP
11+85.00	50.00	202484.1367	2245624.0482	REBAR AND CAP
12+33.43	-64.86	202578.5550	2245542.6581	REBAR AND CAP
13+73.37	-70.00	202706.2123	2245600.2309	REBAR AND CAP
13+73.39	-65.07	202704.0383	2245604.6550	REBAR AND CAP
21+50.00	50.00	203348.6718	2246052.7718	REBAR AND CAP
22+40.00	-70.00	203482.6148	2245985.2494	REBAR AND CAP
22+40.00	90.00	203411.5311	2246128.5920	REBAR AND CAP

PERMANENT ROW MARKER IRON PIN AND CAP: L2				
STATION	OFFSET	NORTH	EAST	DESC
22+00.00	-50.00	203614.6298	2246050.8436	REBAR AND CAP
24+50.00	70.00	203395.4393	2246220.7104	REBAR AND CAP
40+00.00	-50.00	202809.0890	2247660.5340	REBAR AND CAP
40+00.00	70.00	202701.7764	2247606.8316	REBAR AND CAP
55+00.00	-50.00	202137.8050	2249001.9430	REBAR AND CAP
55+00.00	70.00	202030.4926	2248948.2406	REBAR AND CAP
71+85.00	70.00	201276.4171	2250455.0900	REBAR AND CAP
74+55.84	-50.00	201262.5247	2250750.9937	REBAR AND CAP

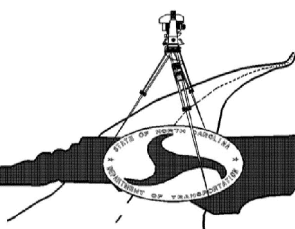
PERMANENT ROW MARKER IRON PIN AND CAP: L3				
STATION	OFFSET	NORTH	EAST	DESC
75+00.00	-65.00	201061.1142	2250650.9483	REBAR AND CAP
75+00.00	65.00	201118.9454	2250534.5200	REBAR AND CAP
84+55.00	65.00	200263.6495	2250109.6741	REBAR AND CAP

PERMANENT ROW MARKER: Y1				
STATION	OFFSET	NORTH	EAST	DESC
17+84.65	74.97	202570.2020	2244864.7590	EXISTING EIP
17+84.68	96.84	202550.5927	2244855.0750	EXISTING EIP
19+95.54	109.70	202445.4592	2245038.3124	EXISTING EIP
23+25.00	-120.50	202505.4789	2245435.7180	REBAR AND CAP
23+46.86	110.15	202289.0947	2245352.9120	EXISTING EIP
25+65.00	-120.50	202398.9365	2245650.7730	REBAR AND CAP
25+68.01	119.19	202182.8204	2245547.0690	EXISTING EIP
27+88.00	75.19	202124.5917	2245763.7270	EXISTING EIP
74+15.00	-120.50	200245.8921	2249996.6800	REBAR AND CAP
76+38.30	-120.50	200146.7669	2250196.7700	REBAR AND CAP

PERMANENT ROW MARKER: DWY1				
STATION	OFFSET	NORTH	EAST	DESC
9+60.00	-42.00	202072.5846	2245317.2680	REBAR AND CAP
9+60.00	58.00	202028.1588	2245406.8540	REBAR AND CAP
9+71.85	-42.00	202083.2027	2245322.5340	EXISTING EIP
9+71.94	58.00	202038.8568	2245412.1600	EXISTING EIP
11+37.33	91.35	202172.2081	2245515.5230	EXISTING EIP
11+45.83	-77.01	202254.6223	2245368.4600	EXISTING EIP

TIP PROJECT: HE-0016
County: Brunswick

PREPARED FOR



LOCATION AND
SURVEYS UNIT

PREPARED BY
WITHERS RAVENEL
219 STATION ROAD
SUITE 101
WILMINGTON, NC 28405

NOTES:

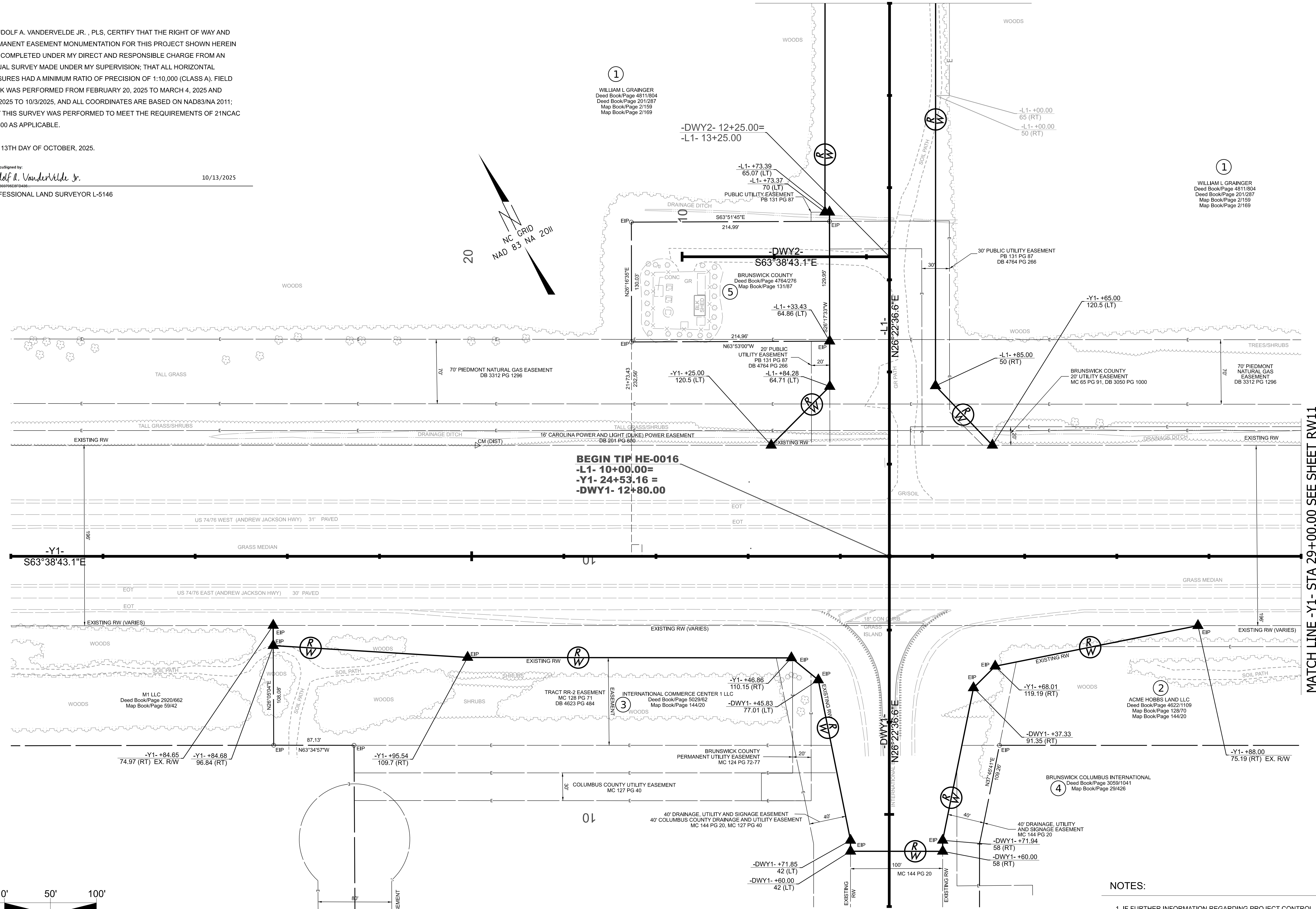
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THIS 13TH DAY OF OCTOBER, 2025.

DocuSigned by:
Rudolf A. Vandervelde Jr.
20099995656F0409
10/13/2025
PROFESSIONAL LAND SURVEYOR L-5146

MATCH LINE -L1- STA 16+00.00 SEE SHEET RW05



NOTES:
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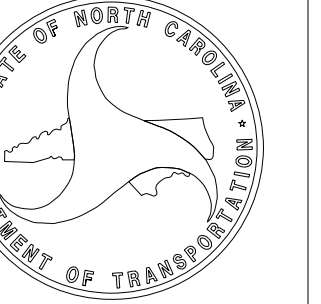
HE-0016
R/W 04
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
PROFESSIONAL LAND SURVEYOR
WILLIAM L. GRAINGER
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Deed Book/Page 201/287
Map Book/Page 2/159
Map Book/Page 2/169
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2024 STANDARD SPECIFICATIONS

TIP PROJECT: HE-0016
County: Brunswick

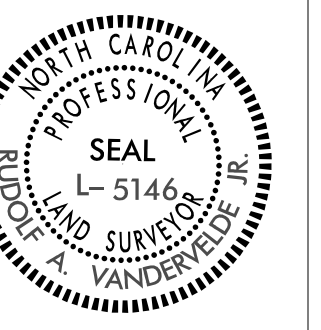
PREPARED FOR
LOCATION AND SURVEYS UNIT

PREPARED BY
WITHERS RAVENEL
219 STATION ROAD
SUITE 101
WILMINGTON, NC 28405

MATCH LINE -Y1- STA 29+00.00 SEE SHEET RW11



PROFESSIONAL LAND SURVEYOR



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2024 STANDARD SPECIFICATIONS

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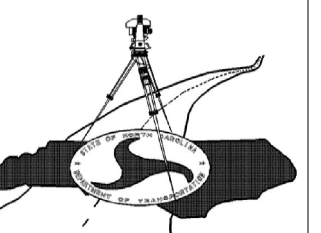
THIS 13TH DAY OF OCTOBER, 2025.

DocuSigned by: Rudolf A. VanderVelde Jr. 10/13/2025
PROFESSIONAL LAND SURVEYOR L-5146

TIP PROJECT: HE-0016

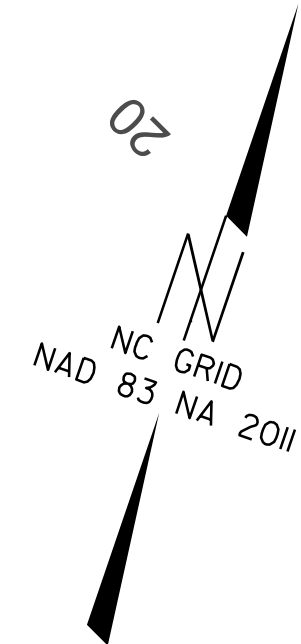
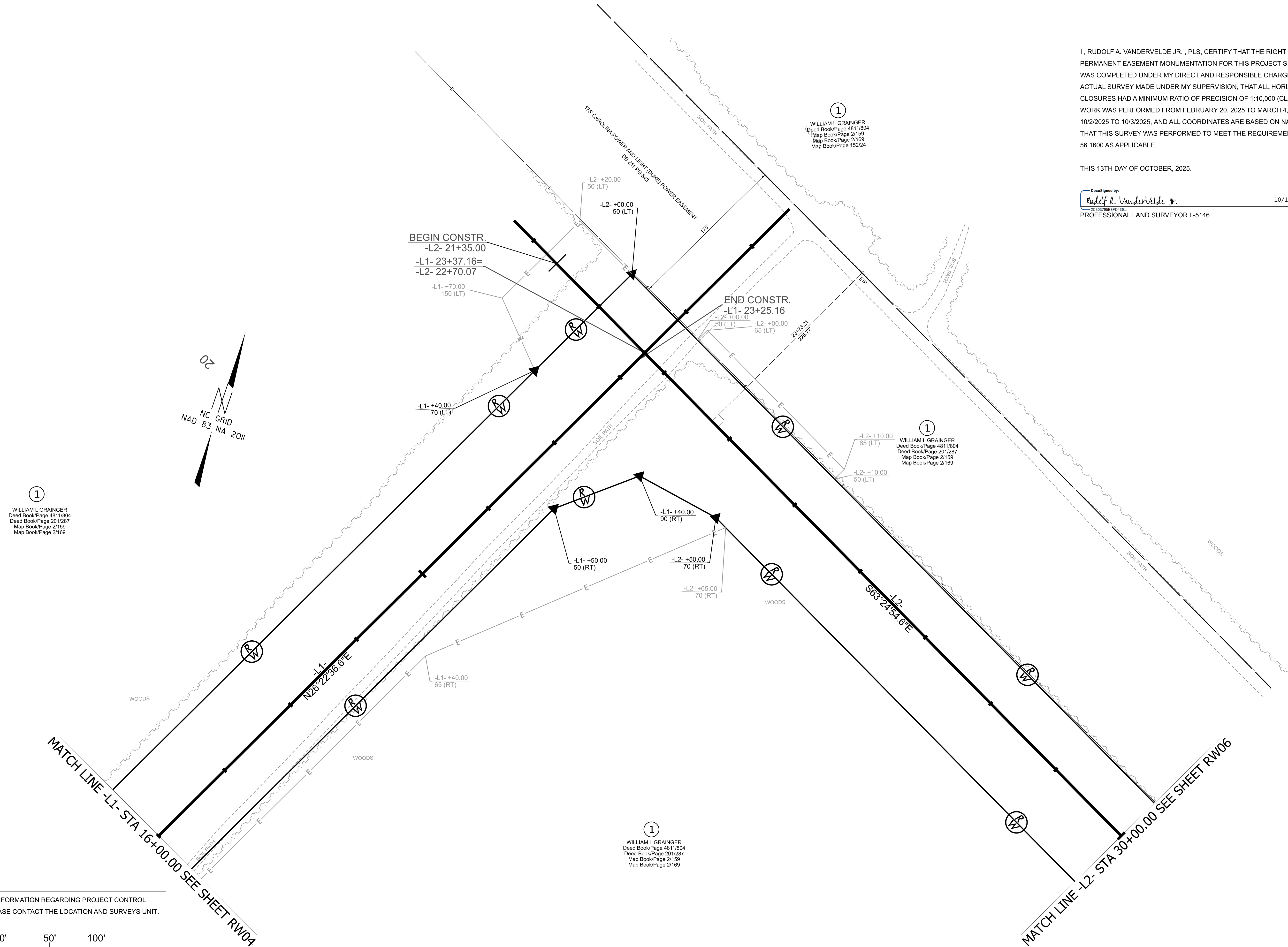
County: Brunswick

PREPARED FOR



LOCATION AND SURVEYS UNIT

PREPARED BY
WITHERS RAVENEL
219 STATION ROAD
SUITE 101
WILMINGTON, NC 28405



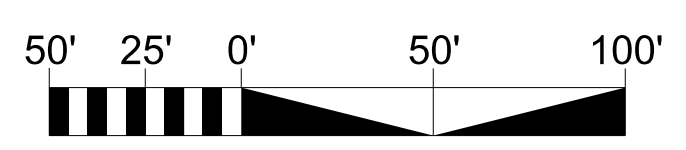
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WILLIAM L GRAINGER
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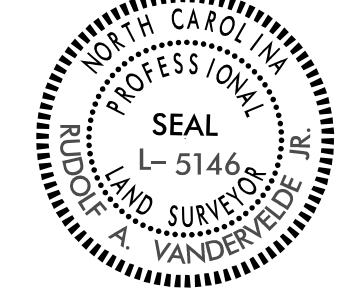
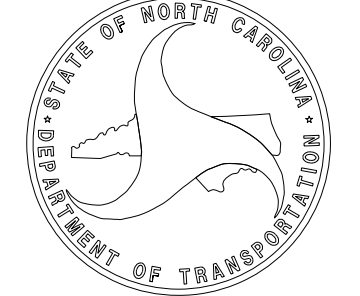
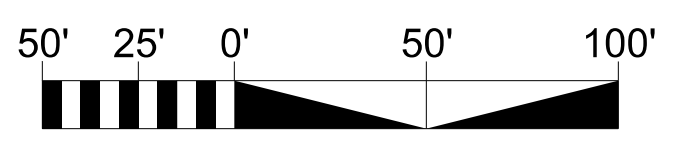
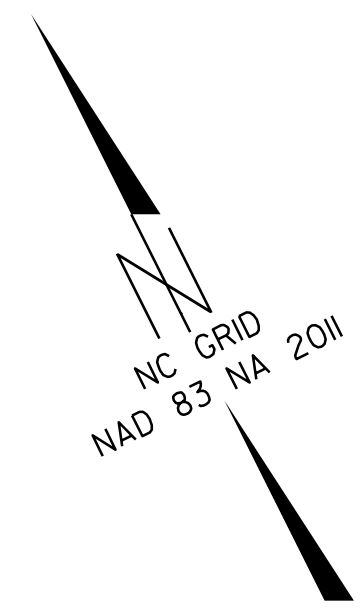
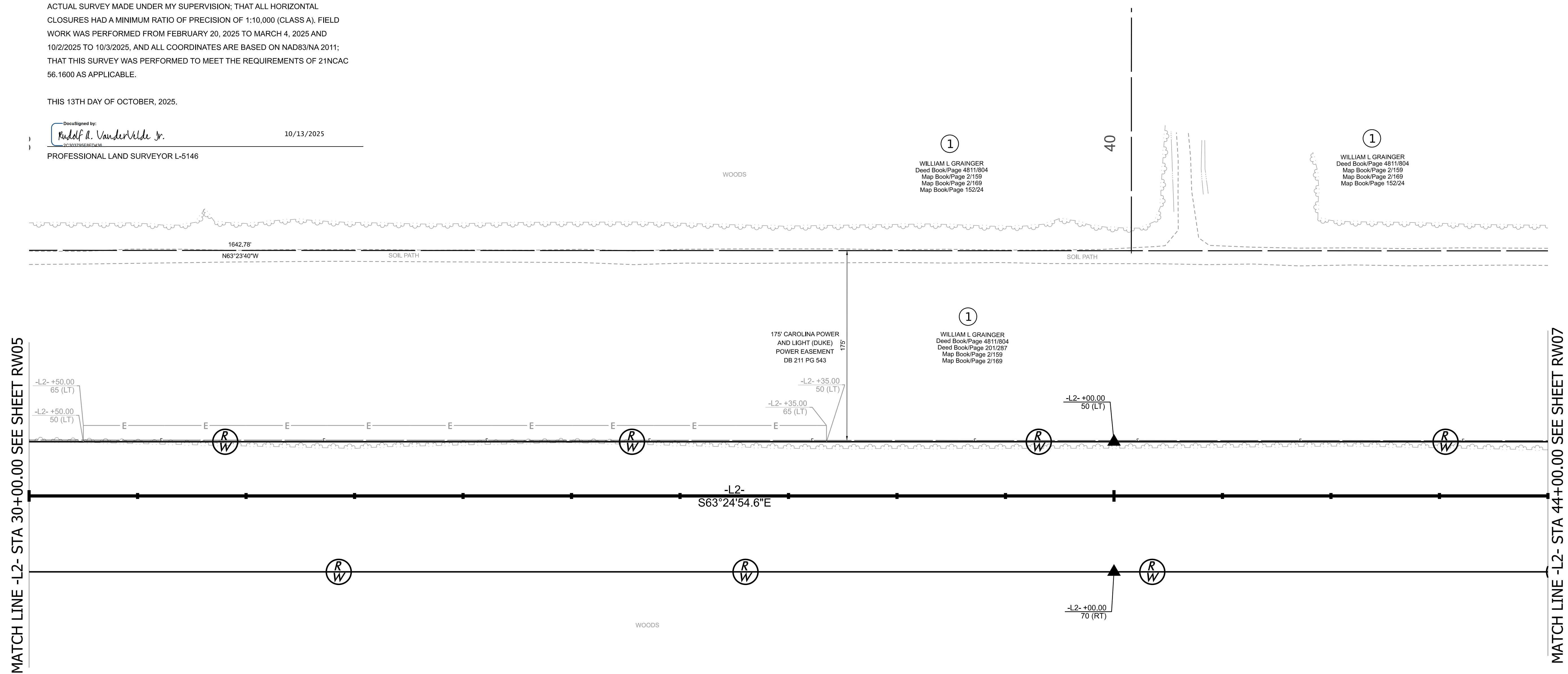
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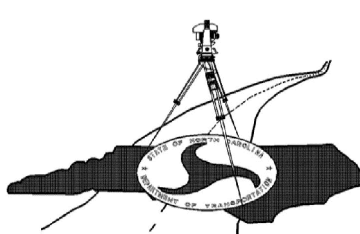
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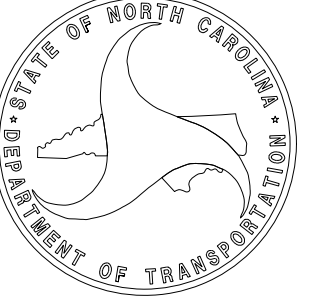
DocuSigned by:
Rudolf A. Vandervelde Jr. 10/13/2025
PROFESSIONAL LAND SURVEYOR L-5146



TIP PROJECT: HE-0016
County: Brunswick



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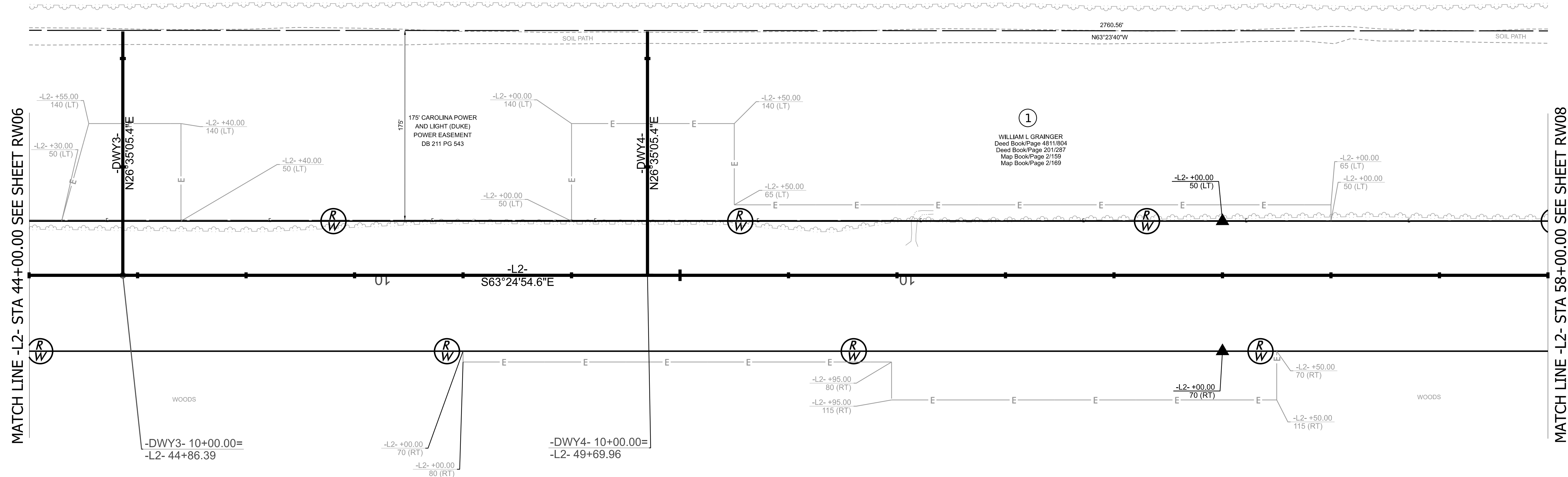
DocuSigned by:
Rudolf A. VanderVelde Jr. 10/13/2025
PROFESSIONAL LAND SURVEYOR L-5146

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WILLIAM L GRAINGER
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Map Book/Page 2/159
Map Book/Page 2/169
Map Book/Page 152/24

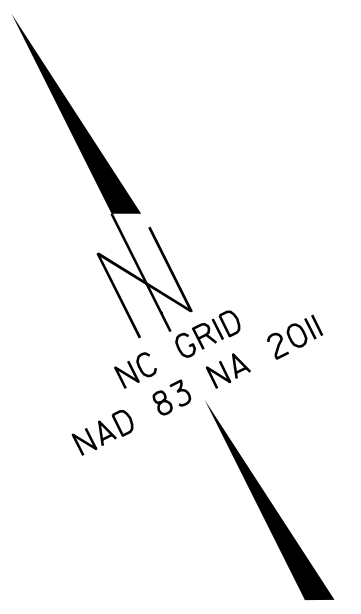
50

WOODS



MATCH LINE -L2- STA 44+00.00 SEE SHEET RW06

MATCH LINE -L2- STA 58+00.00 SEE SHEET RW08



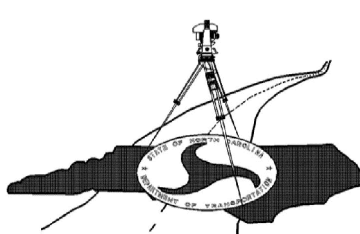
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WILLIAM L GRAINGER
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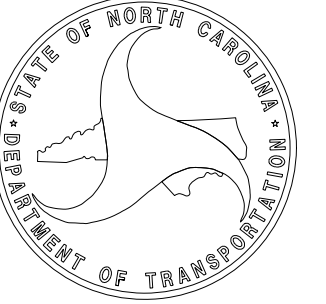
TIP PROJECT: HE-0016
County: Brunswick

PREPARED FOR



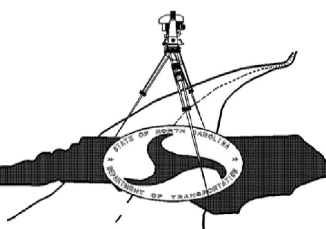
LOCATION AND SURVEYS UNIT

PREPARED BY
WITHERS RAVENEL
219 STATION ROAD
SUITE 101
WILMINGTON, NC 28405



TIP PROJECT: HE-0016
County: Brunswick

PREPARED FOR



LOCATION AND SURVEYS UNIT

PREPARED BY
WITHERS RAVENEL
219 STATION ROAD
SUITE 101
WILMINGTON, NC 28405

60

WOODS

1

WILLIAM L GRAINGER
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1

WILLIAM L GRAINGER
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70

WOODS

SOIL PATH

SOIL PATH

SOIL PATH

SOIL PATH

EIP

67.76,55
225.18'

175' CAROLINA POWER
AND LIGHT (DUKE) POWER
EASEMENT
DB 211 PG 543

175' CAROLINA POWER
AND LIGHT (DUKE) POWER
EASEMENT
DB 211 PG 543

-L2- +00.00
65 (LT)

-L2- +00.00
50 (LT)

-L2-
S63°24'54.6"E

-L2- +85.00
70 (RT)

MATCH LINE -L2- STA 58+00.00 SEE SHEET RW07

MATCH LINE -L2- STA 72+00.00 SEE SHEET RW09

I, RUDOLF A. VANDERVELDE JR., PLS. 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 FEBRUARY 20, 2025 TO MARCH 4, 2025 AND 10/2/2025 TO 10/3/2025, AND ALL COORDINATES ARE BASED ON NAD83/NA 2011; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS OF 21NCAC 58.1600 AS APPLICABLE.

THIS 13TH DAY OF OCTOBER, 2025.

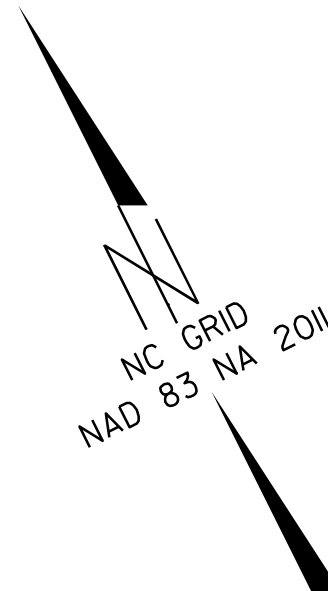
DocSigned by:
Rudolf A. Vandervelde Jr.

10/13/2025

PROFESSIONAL LAND SURVEYOR L-5146

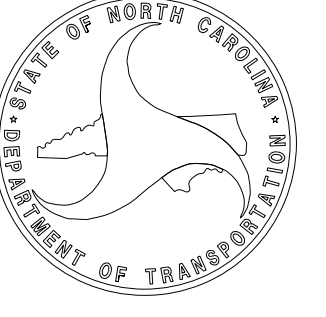
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WILLIAM L GRAINGER
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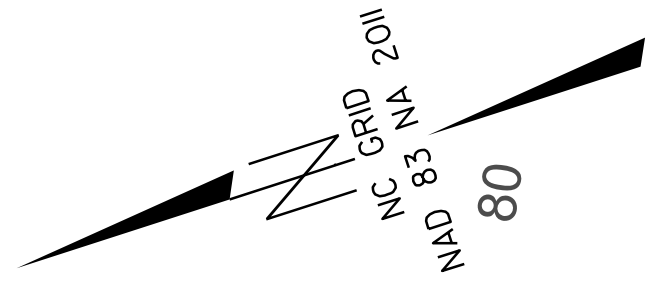
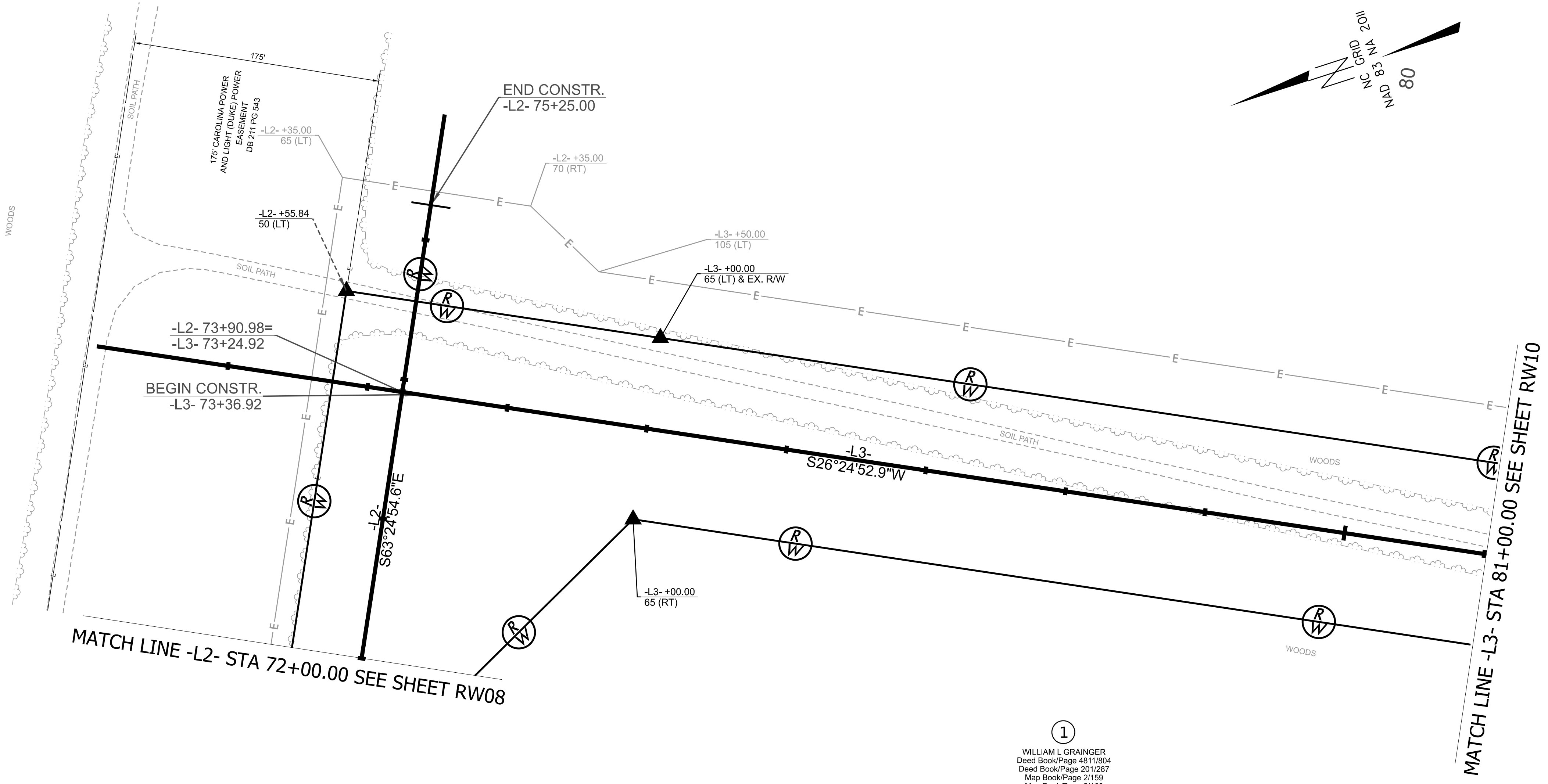
THIS 13TH DAY OF OCTOBER, 2025.

DocuSigned by:
Rudolf A. VanderVelde Jr.
PROFESSIONAL LAND SURVEYOR L-5146
10/13/2025

1
WILLIAM L GRAINGER
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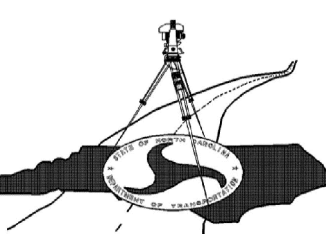


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TIP PROJECT: HE-0016

County: Brunswick

PREPARED FOR



LOCATION AND SURVEYS UNIT

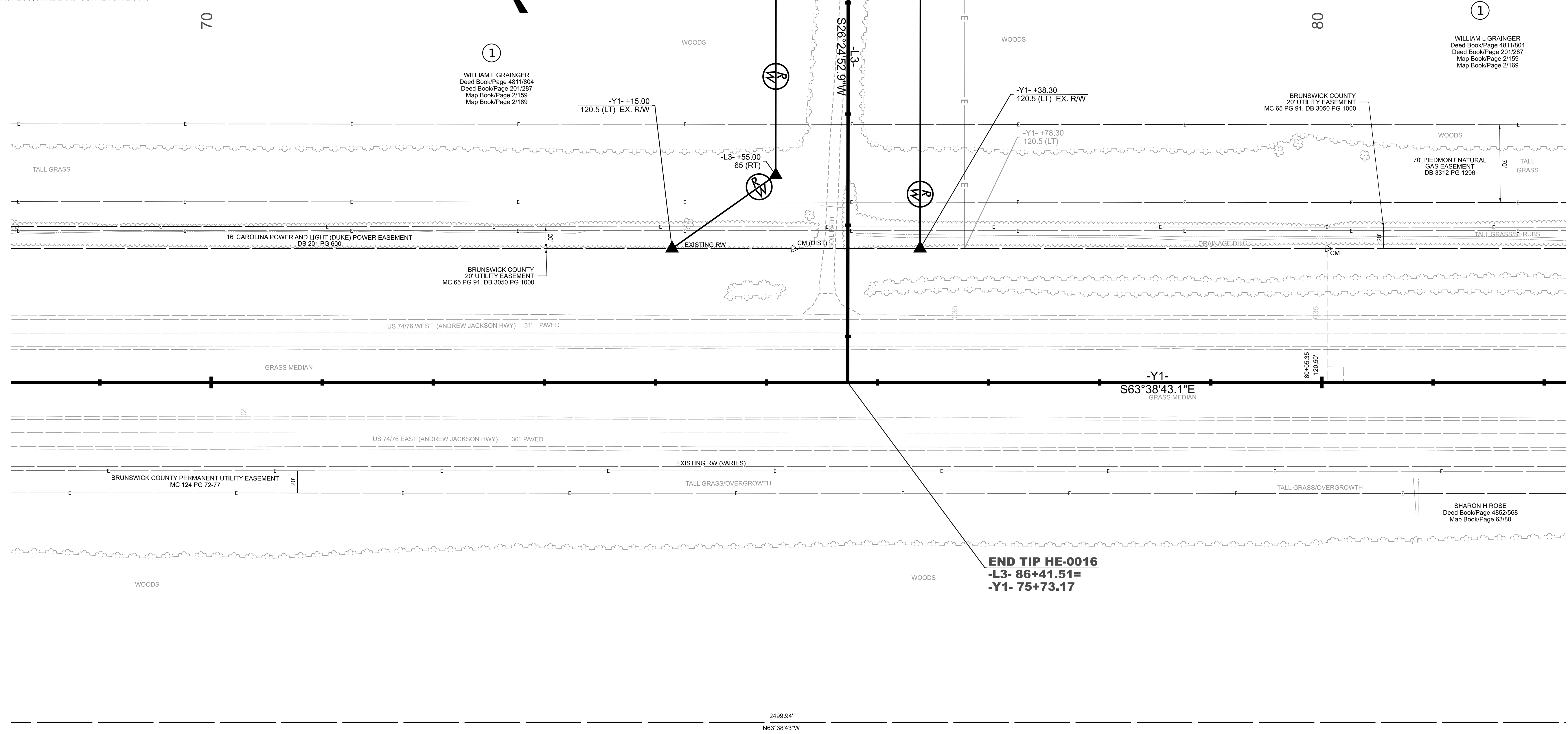
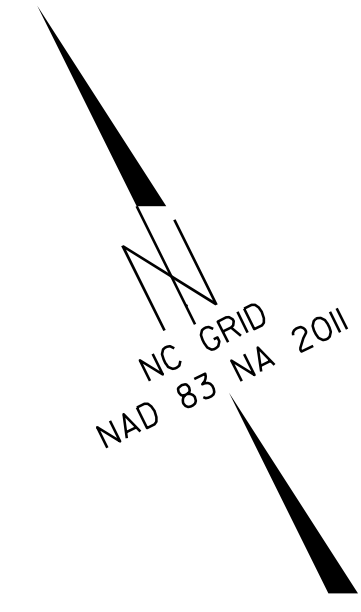
PREPARED BY
WITHERS RAVENEL
219 STATION ROAD
SUITE 101
WILMINGTON, NC 28405

MATCH LINE -L3- STA 81+00.00 SEE SHEET RW09

I, RUDOLF A. VANDERVELDE JR., PLS. 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 FEBRUARY 20, 2025 TO MARCH 4, 2025 AND 10/2/2025 TO 10/3/2025, AND ALL COORDINATES ARE BASED ON NAD83/NA 2011; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS OF 21NCAC 56.1600 AS APPLICABLE.

THIS 13TH DAY OF OCTOBER, 2025.

DocuSigned by:
Rudolf A. VanderVelde Jr.
10/13/2025
PROFESSIONAL LAND SURVEYOR L-5146



END TIP HE-0016
-L3- 86+41.51=
-Y1- 75+73.17

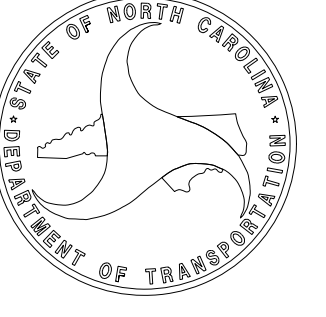


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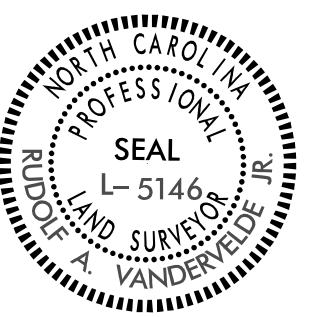
HE-0016

R/W 10

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION



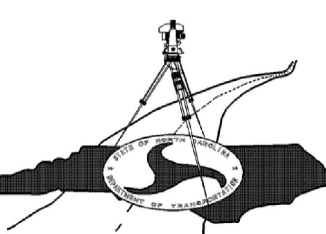
PROFESSIONAL LAND SURVEYOR



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES ARE COMPLETED
2024 STANDARD SPECIFICATIONS

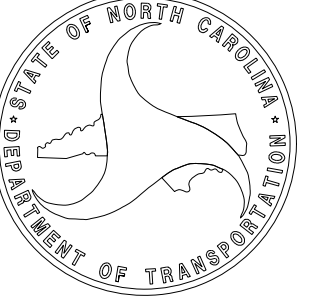
TIP PROJECT: HE-0016
County: Brunswick

PREPARED FOR



LOCATION AND SURVEYS UNIT

PREPARED BY
WITHERS RAVENEL
219 STATION ROAD
SUITE 101
WILMINGTON, NC 28405



I, RUDOLF A. VANDERVELDE JR., PLS, 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 FEBRUARY 20, 2025 TO MARCH 4, 2025 AND 10/2/2025 TO 10/3/2025, AND ALL COORDINATES ARE BASED ON NAD83/NA 2011; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS OF 21NCAC 56.1600 AS APPLICABLE.

THIS 13TH DAY OF OCTOBER, 2025.

Decided by: Rudolf A. Vandervelde Jr. 10/13/2025
PROFESSIONAL LAND SURVEYOR L-5146

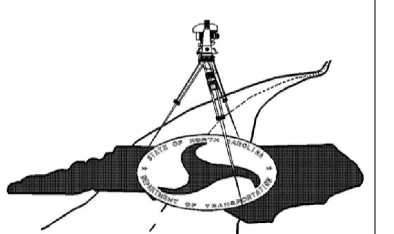
PROFESSIONAL LAND SURVEYOR



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES ARE COMPLETED
2024 STANDARD SPECIFICATIONS

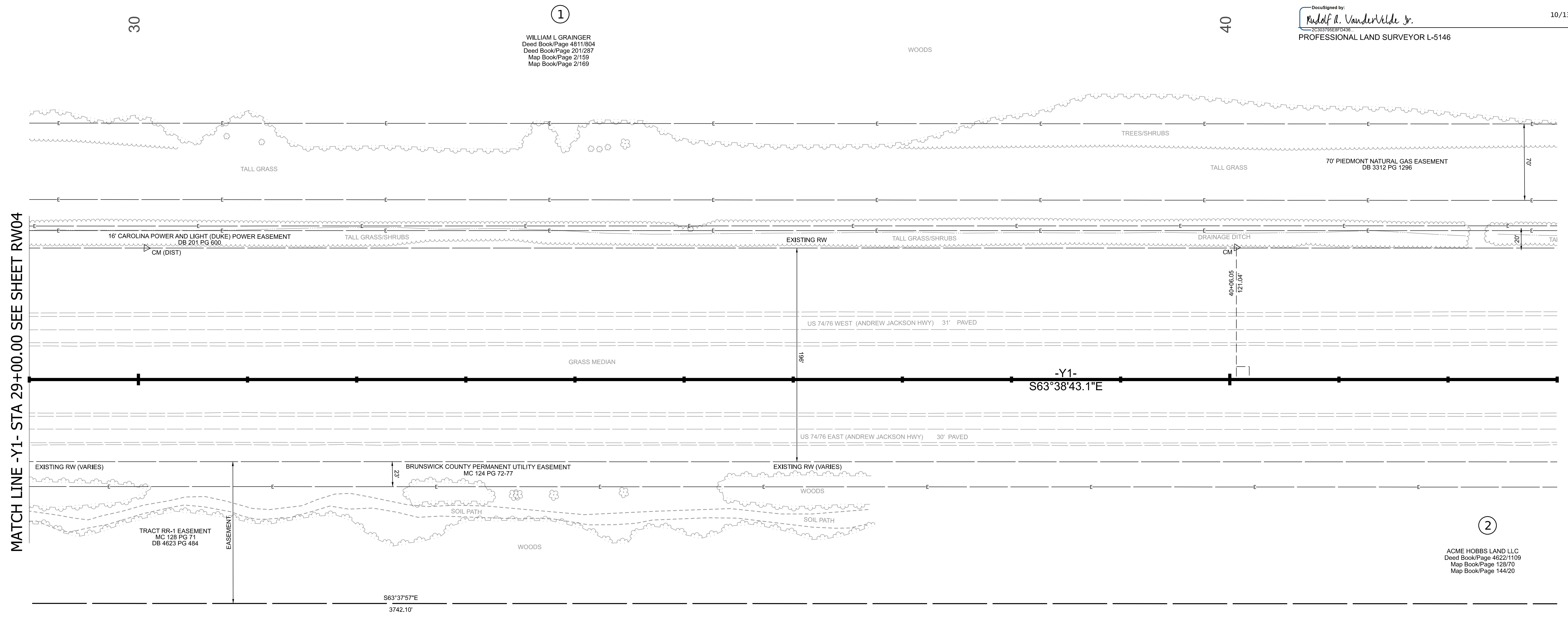
TIP PROJECT: HE-0016
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LOCATION AND SURVEYS UNIT

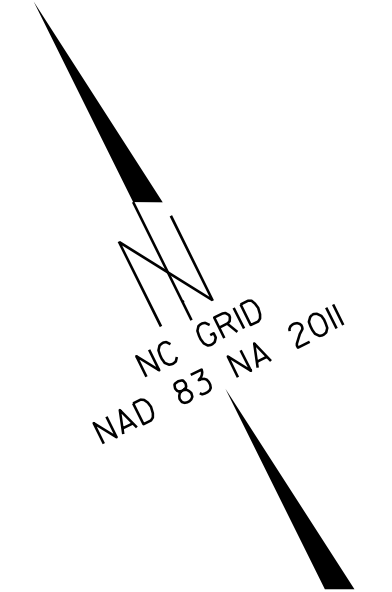
PREPARED BY
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WILMINGTON, NC 28405



①
WILLIAM L GRAINGER
Deed Book/Page 4811/804
Deed Book/Page 201/287
Map Book/Page 2/159
Map Book/Page 2/169

②
ACME HOBBS LAND LLC
Deed Book/Page 4622/1109
Map Book/Page 128/70
Map Book/Page 144/20

MATCH LINE -Y1- STA 29+00.00 SEE SHEET RW04



NOTES:
1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.