

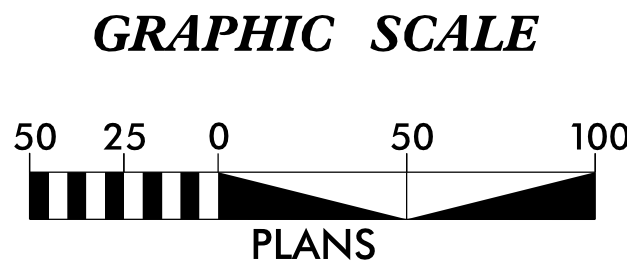
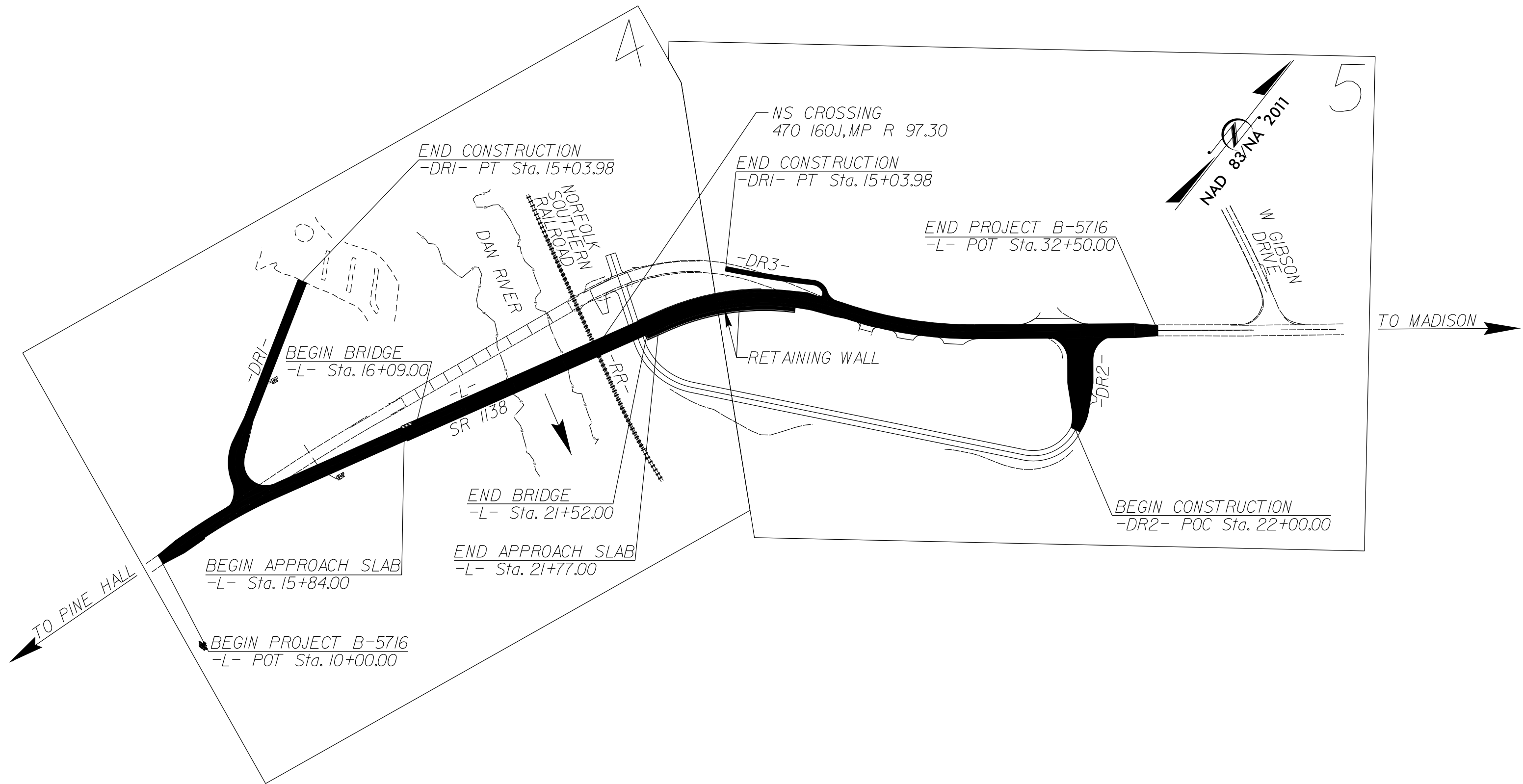
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B5716	RW01	4

TIP PROJECT: B5716

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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

ROCKINGHAM COUNTY



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "B5716-2" WITH NAD 83/NSRS 2011 STATE PLANE GRID COORDINATES OF NORTHING: 955642.087(ft) EASTING: 1707428.520(ft) ELEVATION: 582.84(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9999590307 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B5716-2" TO -L- STATION 10+00.00 IS N 20-01'50.3" E 321.78(ft) ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD88

Prepared in the Office of:

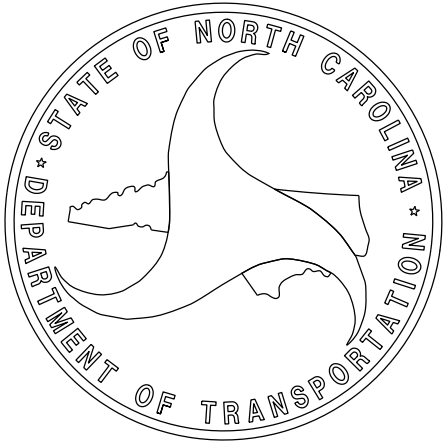
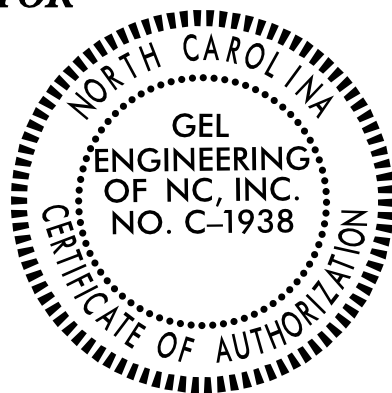
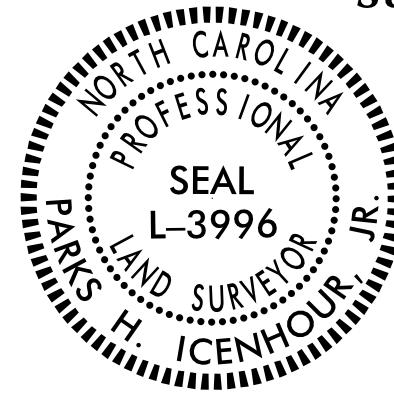
GEL SOLUTIONS
an Affiliate of THE GEL GROUP, INC.
111 CREEK RIDGE ROAD
SUITE C
GREENSBORO, NC 27406
(336) 516-9840
WWW.GEL-SOLUTIONS.COM

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
10/14/2022

LETTING DATE:
08/19/2025

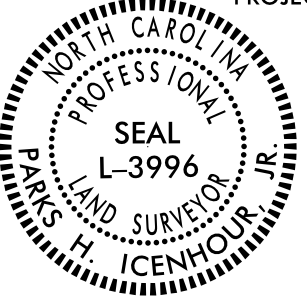
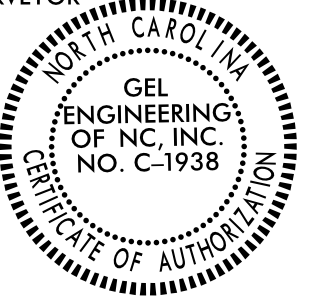
PROFESSIONAL LAND SURVEYOR



SIGNATURE:

Date:

SURVEY CONTROL SHEET
W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

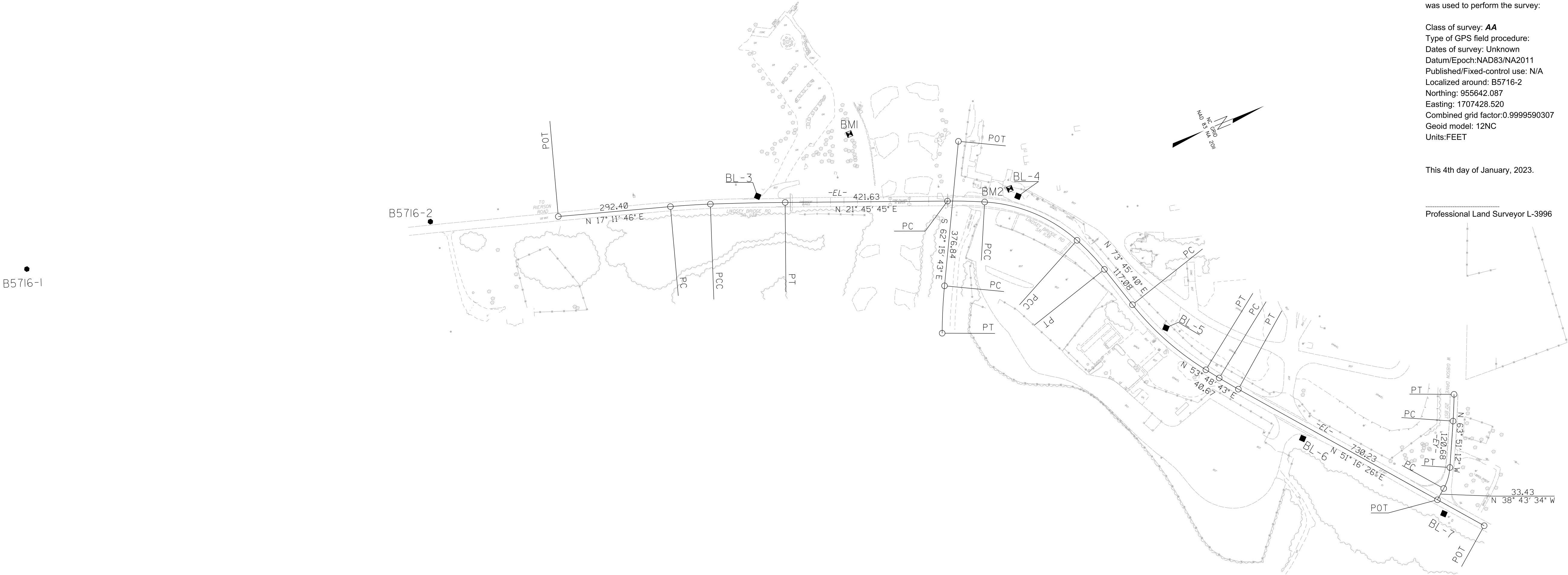
PROJECT REFERENCE NO.	SHEET NO.
B5716	RW02C-1
Location and Surveys	
GEL SOLUTIONS an Affiliate of THE GEL GROUP, INC. 111 CREEK RIDGE ROAD SUITE C GREENSBORO, NC 27406 (336) 516-9840 WWW.GEL-SOLUTIONS.COM	
PROJECT SURVEYOR	
 Professional Land Surveyor L-3996	 Professional Engineer of NC, Inc. No. C-1938
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

I, Parks H Icenhour Jr, PLS, certify that the Project Control was performed by other 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:
Dates of survey: Unknown
Datum/Epoch: NAD83/NA2011
Published/Fixed-control use: N/A
Localized around: B5716-2
Northing: 955642.087
Easting: 1707428.520
Combined grid factor: 0.9999590307
Geoid model: 12NC
Units: FEET

This 4th day of January, 2023.

Professional Land Surveyor L-3996



SEE SHEET RW02C-3
FOR FURTHER
ALIGNMENT DETAILS

NOTES:

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

SURVEY CONTROL SHEET
W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

BL	POINT	DESC.	NORTH	EAST	ELEVATION
2		B5716-2	955642.0870	1707428.5200	582.84
3		BL -3	956453.6970	1707689.1470	575.88
4		BL -4	957079.4650	1707945.0320	581.07
5		BL -5	957305.9520	1708406.7040	596.69
6		BL -6	957526.1190	1708806.8370	609.17
7		BL -7	957791.7010	1709126.3590	604.83

BM1 ELEVATION = 563.50
N 956735 E 1707630
SPIKE IN 24 INCH SYCAMORE

BM2 ELEVATION = 581.85
N 957067 E 1707919
BOLT AT N ON FIRE HYDRANT

PROJECT REFERENCE NO.
B5716

SHEET NO.
RW02C-2

Location and Surveys

GEL

SOLUTIONS

an Affiliate of THE GEL GROUP, INC.

111 CREEK RIDGE ROAD

SUITE C

GREENSBORO NC 27406

(336) 516-9840

WWW.GEL-SOLUTIONS.COM

PROJECT SURVEYOR

SEAL

L-3996

PROFESSIONAL

PARKS H. ICENHOUR

LAND SURVEYOR

NORTH CAROLINA

GEL

ENGINEERING

OF NC, INC.

NO. C-1938

CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

I, Parks H Icenhour Jr, PLS, certify that the Project Control was performed by other from an actual GPS survey made by others and the following information was used to perform the survey:

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Type of GPS field procedure:
Dates of survey: Unknown
Datum/Epoch:NAD83/NA2011
Published/Fixed-control use: N/A[Project Control if applicable, N/A for RTN]
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Northing: 955642.087
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This 4th day of January, 2023.

Professional Land Surveyor L-3996

SEE SHEET RW02C-3
FOR FURTHER
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PROJECT REFERENCE NO.	SHEET NO.
B5716	RW02C-3
Location and Surveys	
GEL SOLUTIONS <i>an Affiliate of THE GEL GROUP, INC.</i> 111 CREEK RIDGE ROAD SUITE C GREENSBORO, NC 27406 (336) 516-9840 WWW.GEL-SOLUTIONS.COM	
PROJECT SURVEYOR	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

Class of survey: **AA**
Type of GPS field procedure:
Dates of survey: Unknown
Datum/Epoch: NAD83/NA2011
Published/Fixed-control use: N/A[Project Control if applicable, N/A for RTN]
Localized around: B5716-2
Northing: 955642.087
Easting: 1707428.520
Combined grid factor: 0.9999590307
Geoid model: 12NC
Units: FEET

Professional Land Surveyor L-3996

POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT LINE	955954.532	1707541.872	N 17°11'46.3" E	292.40					
PC	956233.861	1707628.318	N 18°40'20.0" E	103.93	02°57'07.4"(RT)	02°50'23.9"	103.95	51.98	2017.47
CURVE	956332.325	1707661.593	N 20°57'19.1" E	194.34	01°36'50.9"(RT)	00°49'49.9"	194.35	97.18	6898.66
PCC	956513.813	1707731.098	N 21°45'44.5" E	421.63					
CURVE	956905.393	1707887.420	N 23°38'35.8" E	96.56	03°45'42.5"(RT)	03°53'42.7"	96.58	48.31	1470.93
PCC	956993.845	1707926.144	N 44°45'59.4" E	259.69	38°29'04.7"(RT)	14°32'33.6"	264.63	137.53	393.98
CURVE	957178.218	1708109.020	N 68°53'06.0" E	103.74	09°45'08.6"(RT)	09°23'21.5"	103.87	52.06	610.22
PCC	957215.590	1708205.796	N 73°45'40.3" E	117.08					
CURVE	957248.332	1708318.209	N 63°47'11.4" E	254.70	19°56'57.7"(LT)	07°47'34.6"	255.99	129.31	735.23
PT	957360.838	1708546.716	N 53°48'42.6" E	40.67					
PC	957384.848	1708579.536	N 52°32'34.2" E	57.58	02°32'16.7"(LT)	04°24'26.5"	57.58	28.80	1300.00
CURVE	957419.866	1708625.243	N 51°16'25.9" E	730.23					
PT	957876.697	1709194.928							

EY POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT LINE	957789.855	1709086.633	N 38°43'34.1" W	33.43					
PC CURVE	957815.938	1709065.717	N 51°17'22.7" W	56.90	25°07'37.9(LT)	43°48'32.1"	57.36	29.15	130.79
PT LINE	957851.521	1709021.318	N 63°51'11.8" W	120.68					
PC CURVE	957904.702	1708912.986	N 65°41'11.7" W	69.54	03°40'00.2(LT)	05°16'19.4"	69.55	34.79	1086.78
PT	957933.333	1708849.615							

RR									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	956990.374	1707754.583							
LINE			S 62°15'42.9" E	376.84					
PC	956814.983	1708088.114							
CURVE			S 64°53'41.9" E	123.12	05°15'58.0" (LT)	04°16'32.9"	123.16	61.62	1340.00
PT	956762.747	1708199.600							

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

PROPOSED ALIGNMENT CONTROL SHEET

L			
TYPE	STATION	NORTH	EAST
POT	10+00.00	955944.4056	1707538.7381
PC	10+88.21	956028.6680	1707564.8155
PT	12+83.12	956208.5374	1707639.1873
PC	21+84.68	957006.5398	1708058.7123
PRC	25+78.89	957259.0430	1708349.5934
PT	28+61.52	957396.1945	1708595.2250
POT	34+50.00	957764.1615	1709054.4756

RR			
TYPE	STATION	NORTH	EAST
POT	10+00.00	956990.3740	1707754.5827
PC	13+76.84	956814.9835	1708088.1137
PT	15+00.00	956762.7475	1708199.6002

DR1			
TYPE	STATION	NORTH	EAST
POT	10+00.00	956156.3792	1707613.5664
PC	10+44.90	956175.0620	1707572.7415
PT	11+29.26	956236.6297	1707518.7622
POT	15+03.98	956594.8392	1707408.7314

DR2			
TYPE	STATION	NORTH	EAST
POT	10+00.00	957045.2727	1707886.6932
PC	11+44.80	956960.8502	1708004.3383
PT	14+30.23	956950.0904	1708273.6855
PC	15+41.30	957007.4422	1708368.8034
PT	17+71.84	957117.2155	1708571.4330
PC	20+53.17	957239.6797	1708824.7106
PT	22+60.92	957416.1957	1708865.1001
POT	24+14.06	957536.1799	1708769.9374

DR3			
TYPE	STATION	NORTH	EAST
POT	10+00.00	957242.5890	1708308.9178
PC	10+10.61	957252.2475	1708304.5373
PRC	10+61.77	957265.2684	1708261.2721
PT	12+50.00	957172.8738	1708097.3529

NOTES:

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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.

PROJECT REFERENCE NO.
B5716

SHEET NO.
RW02D-1

Location and Surveys

GEL SOLUTIONS

an Affiliate of THE GEL GROUP, INC.

111 CREEK RIDGE ROAD

SUITE C

GREENSBORO, NC 27406

(336) 516-9840

WWW.GEL-SOLUTIONS.COM

PROJECT SURVEYOR

SEAL

L-3996

PARKS H. ICENHOUR JR.

NORTH CAROLINA

PROFESSIONAL

LAND SURVEYOR

ICENHOUR JR.

GEL ENGINEERING

OF NC, INC.

NO. C-1938

NORTH CAROLINA

ENGINEERING

OF NC, INC.

STATE OF AUTHORITY

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

I, Parks H Icenhour 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 2nd day of May, 2023.

Professional Land Surveyor L-3996

REVISIONS

RIGHT OF WAY CONTROL SHEET

ROW MARKER IRON PIN AND CAP-E					
ALIGN	STATION	OFFSET	NORTH	EAST	DESCRIPTION
L	10+00.00	30.00	955935.5364	1707567.3963	
L	10+00.00	-30.00	955953.2751	1707510.0785	
L	10+50.00	-55.00	956008.4309	1707500.9789	
L	10+88.21	60.00	956010.9293	1707622.1334	
L	12+30.00	65.00	956133.5941	1707674.6344	12" SPIKE IN ROOT
L	13+79.82	-64.84	956324.3036	1707626.7933	
L	13+99.15	-67.51	956342.6557	1707633.4277	
L	15+92.97	-90.54	956524.9331	1707703.2343	
L	16+30.00	105.00	956466.7148	1707893.5419	
L	19+78.74	115.00	956770.7445	1708064.6738	
L	19+78.79	-130.88	956885.2032	1707847.0577	NOT SET (DEBRIS)
L	20+78.79	-139.85	956977.8950	1707885.6569	
L	20+80.16	39.63	956895.5855	1708045.1599	
L	21+84.68	40.00	956987.9265	1708094.1177	MAG NAIL SET
L	24+15.00	-66.81	957234.2209	1708165.6028	
L	24+50.00	-75.00	957263.9155	1708193.1598	
L	25+30.00	-70.00	957303.9763	1708274.8605	
L	25+70.00	-50.00	957302.7822	1708323.6440	
L	25+78.89	30.76	957230.0716	1708359.9392	
L	25+78.89	40.00	957221.3728	1708363.0455	NOT SET (IN TREE)
L	26+45.00	-39.00	957319.2718	1708394.9959	
L	27+50.00	-43.00	957369.1510	1708481.6121	
L	27+82.31	-30.15	957374.7997	1708514.6162	
L	28+02.24	29.37	957336.6253	1708564.4289	
L	28+41.55	29.26	957360.6356	1708597.2490	
L	28+99.76	30.30	957396.4618	1708644.0110	
L	32+50.00	-29.85	957662.3992	1708879.7368	
L	32+50.00	30.15	957615.5753	1708917.2538	

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
DR1	10+55.00	-65.00	956123.6473	1707530.9107
DR1	11+29.26	-65.00	956217.5439	1707456.6275
DR1	12+00.00	-50.00	956289.5737	1707450.1938
DR1	13+03.72	-45.00	956390.1880	1707424.5188

PERMANENT EASEMENT IRON PIN AND CAP					
ALIGN	STATION	OFFSET	NORTH	EAST	
L	20+78.67	50.00	956889.4377	1708053.6380	
L	21+84.68	50.00	956983.2732	1708102.9691	MAG NAIL SET
L	25+78.89	50.00	957211.9553	1708366.4086	
L	25+90.00	50.00	957215.9837	1708377.4607	
L	25+90.00	30.91	957233.8749	1708370.8068	

PROJECT REFERENCE NO.
B5716

SHEET NO.
RW03E-1

Location and Surveys

ENTER CONSULTANT'S NAME
IN THIS BOX

GEL SOLUTIONS

an Affiliate of THE GEL GROUP, INC.
111 CREEK RIDGE ROAD
SUITE C
GREENSBORO, NC 27406
(336) 518-9840
WWW.GEL-SOLUTIONS.COM

PROJECT SURVEYOR

SEAL
L-3996

NORTH CAROLINA
PROFESSIONAL
LAND SURVEYOR

GEL
ENGINEERING
OF NC, INC.
NO. C-1938

CERTIFICATE OF AUTHORIZATION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

I, Parks H Icenhour Jr., 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 11/09/2022 to 4/26/2023, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

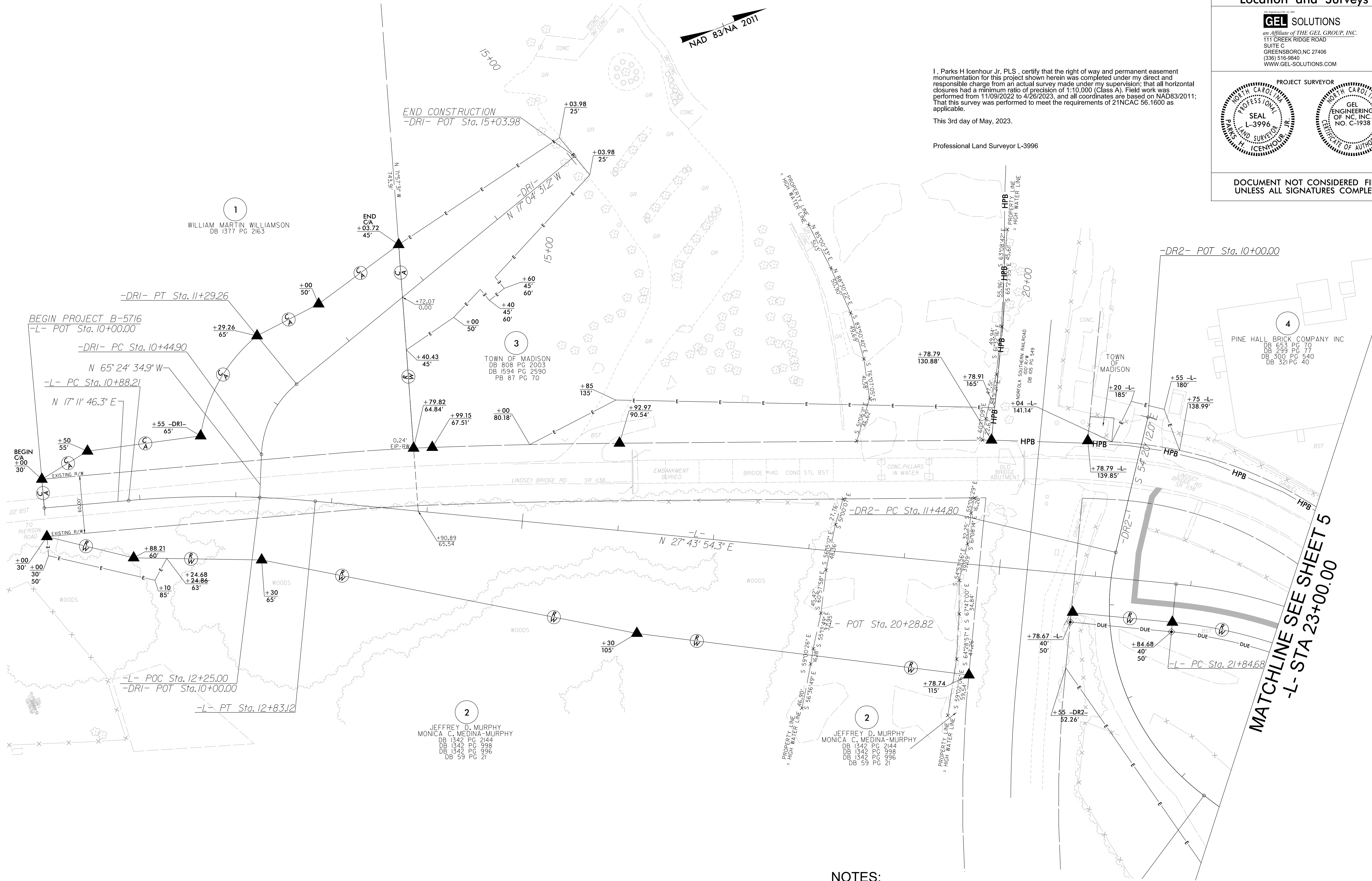
This 2nd day of May, 2023.

Professional Land Surveyor L-3996

NOTES:

- IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
- PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
- RIGHT OF WAY MONUMENTATION ESTABLISHED 11/09/2022 TO 04/26/2023 .

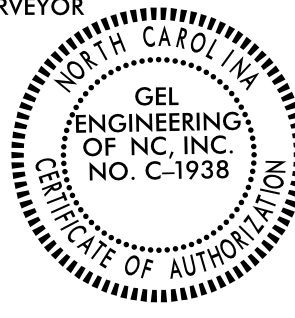
REVISIONS



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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 11/09/2022 to 4/26/2023, and all coordinates are based on NAD83/2011;
That this survey was performed to meet the requirements of 21NCAC 56.1600 as
applicable.

This 3rd day of May, 2023.

Professional Land Surveyor L-3996

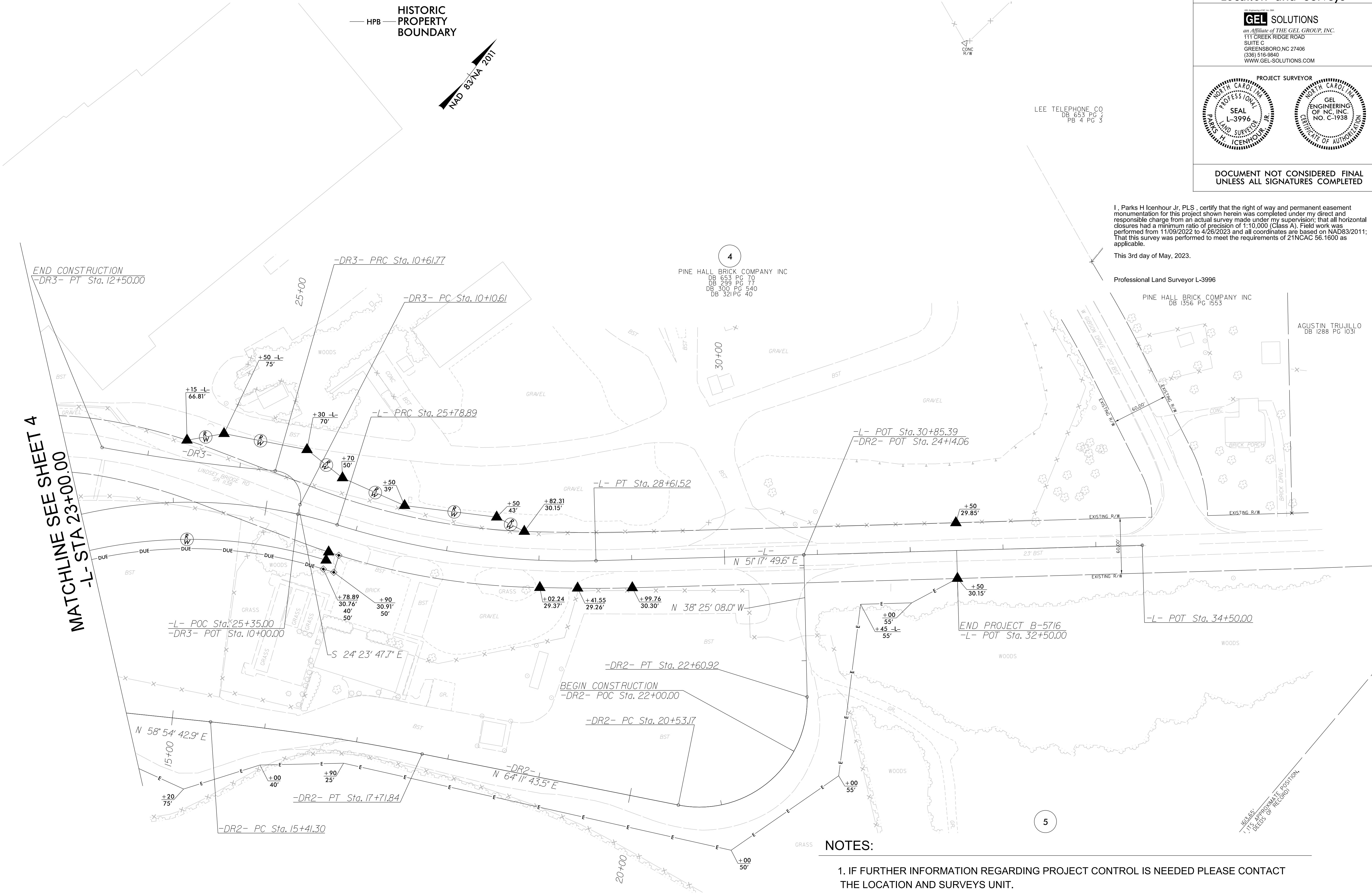
PROJECT REFERENCE NO.	SHEET NO.
B5716	RW04
Location and Surveys	
GEL SOLUTIONS an Affiliate of THE GEL GROUP, INC. 111 CREEK RIDGE ROAD SUITE C GREENSBORO, NC 27406 (336) 516-9840 WWW.GEL-SOLUTIONS.COM	
PROJECT SURVEYOR  	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

NOTES:

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3. RIGHT OF WAY MONUMENTATION ESTABLISHED 11/09/2022 TO 4/26/2023.

REVISIONS

MATCHLINE SEE SHEET 4
-L- STA 23+00.00



PROJECT REFERENCE NO.		SHEET NO.	
B5716		RW05	
Location and Surveys			
 an Affiliate of THE GEL GROUP, INC. 111 CREEK RIDGE ROAD SUITE C GREENSBORO, NC 27406 (336) 616-9940 WWW.GEL-SOLUTIONS.COM			
PROJECT SURVEYOR			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

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This 3rd day of May, 2023.

Professional Land Surveyor L-3996

- NOTES:
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 2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
 3. RIGHT OF WAY MONUMENTATION ESTABLISHED 11/09/2022 TO 4/26/2023.