

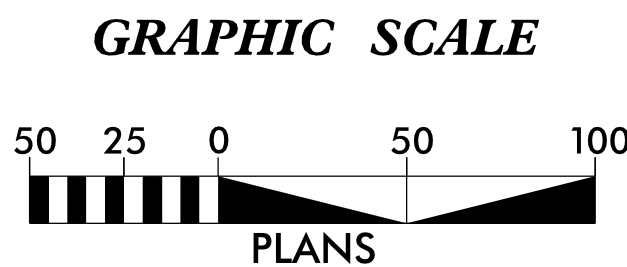
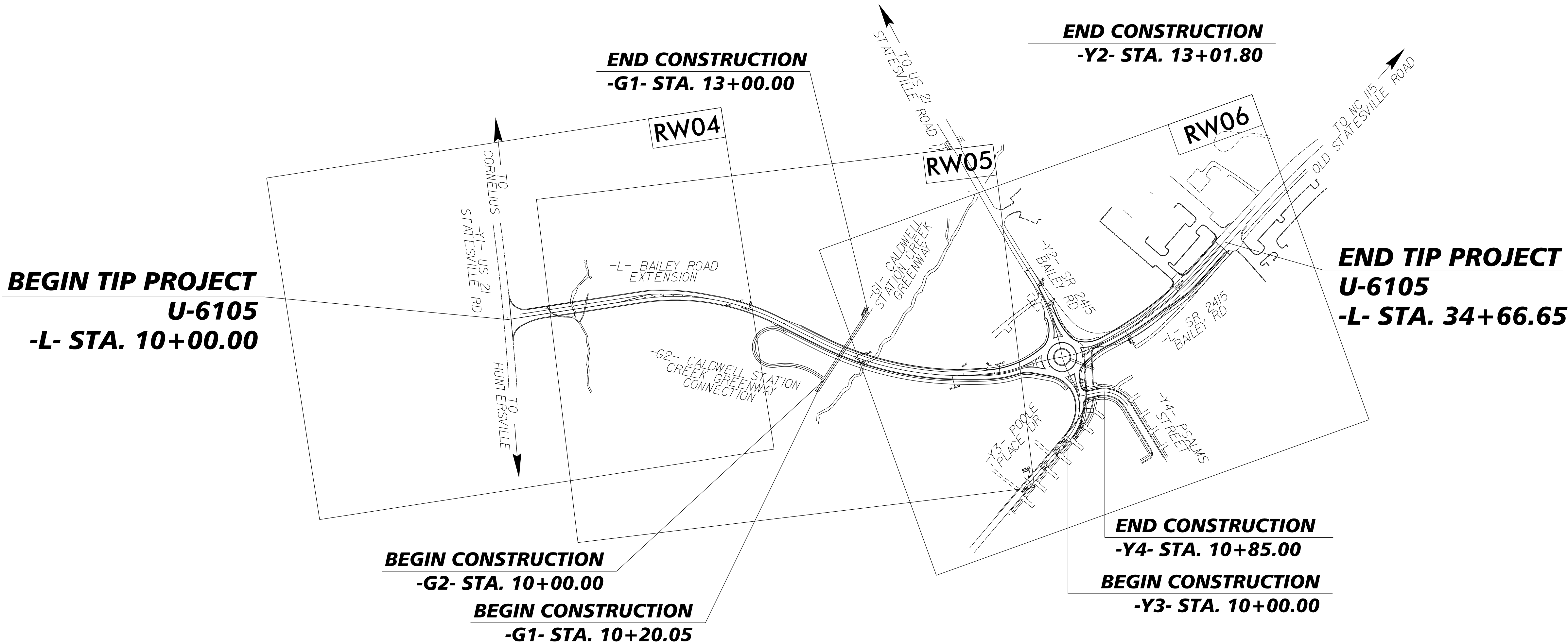
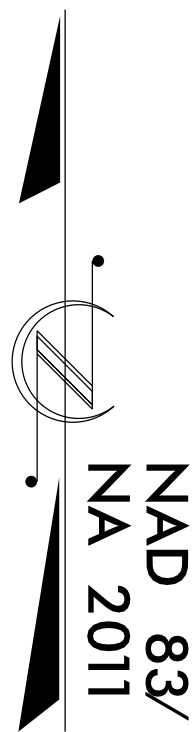
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U6105	RW01	09

TIP PROJECT: U6105

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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

MECKLENBURG COUNTY



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "I5405-1" WITH NAD 83/NA2011 STATE PLANE GRID COORDINATES OF NORTHING: 592139.124(ft) EASTING: 1450285.308(ft) ELEVATION: 706.086(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999844 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "I5405-1" TO -L- STATION 10+00.00 IS N 10-49'44.8" W 33865.32(ft) ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

Prepared in the Office of:
GEL Engineering of NC, Inc. DBA

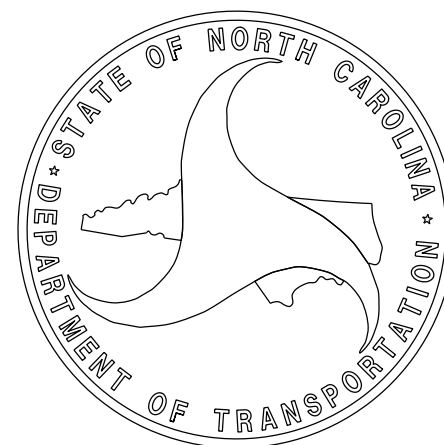
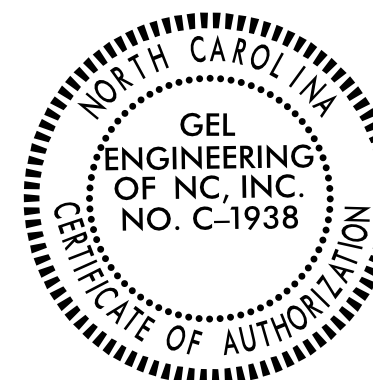
GEL SOLUTIONS
an Affiliate of THE GEL GROUP, INC.
111 CREEK RIDGE ROAD
SUITE C
GREENSBORO, NC 27406
(336) 516-9840
WWW.GEL-SOLUTIONS.COM

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
07/26/2022

LETTING DATE:
01/09/2024

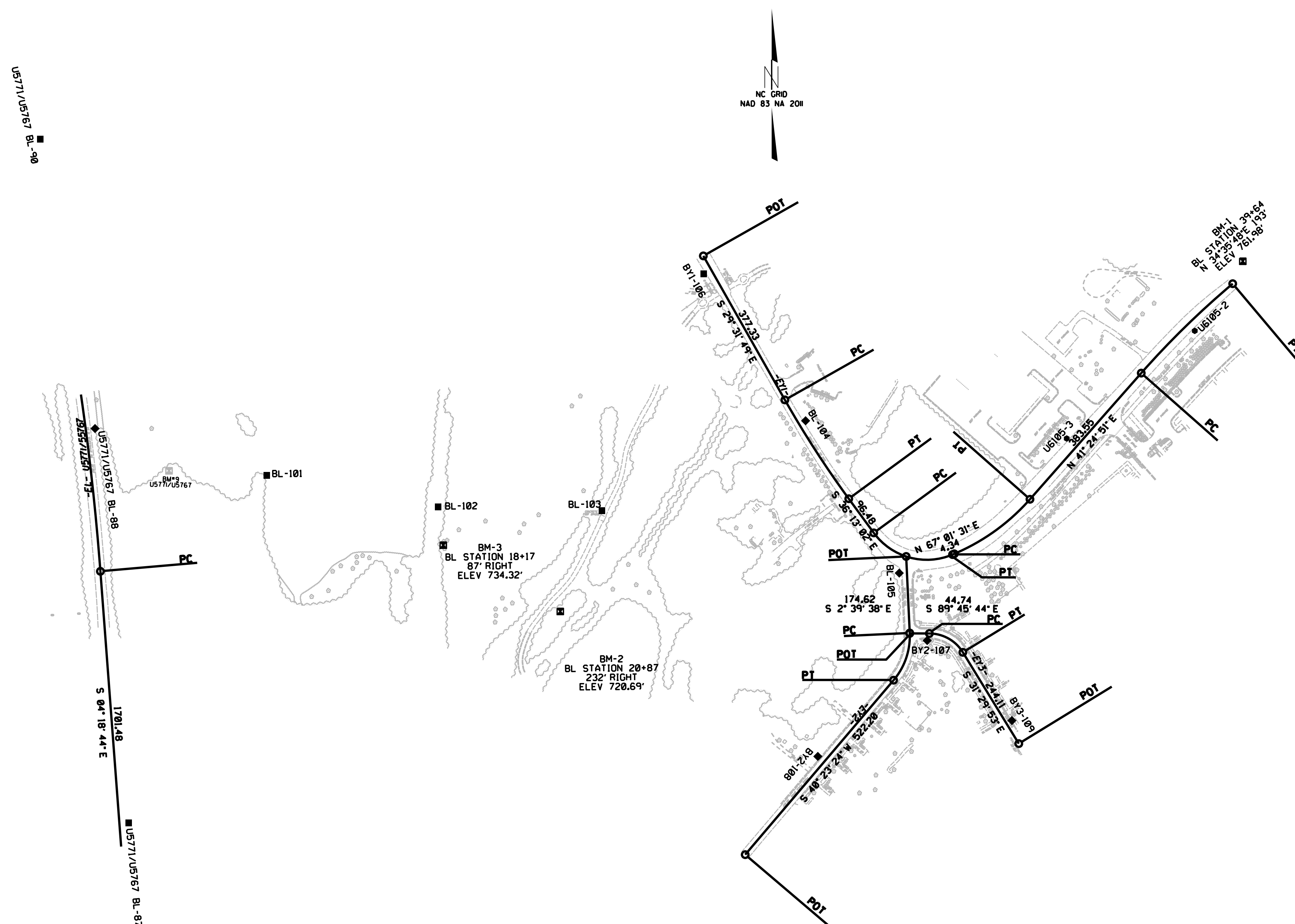
PROFESSIONAL LAND
SURVEYOR



SIGNATURE:

Date:

SURVEY CONTROL SHEET
W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION



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.

6/2/99

REVISIONS

25-FEB-2020 14:08
C:\U6105\U6105_13.rw02g-2.dgn
Andy Smith AT ANDYSMITH-GEG

SURVEY CONTROL SHEET
W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
48173.1.1	RW02C-1
Location and Surveys	
GEL SOLUTIONS 111 CREEK RIDGE ROAD GREENSBORO, NC 27406	

BL	POINT	DESC.	NORTH	EAST	ELEVATION
88		U5771-BL88	625638.3000	1443917.6500	750.22
101		BL-101	625531.4600	1444309.1270	741.95
102		BL-102	625459.0130	1444700.1570	738.32
103		BL-103	625450.4380	1445073.9780	723.32
104		BL-104	625655.5510	1445537.9920	732.98
105		BL-105	625308.3160	1445751.5870	760.81
3		U6105-3	625615.1720	1446133.4520	760.08
2		U6105-2	625860.5600	1446425.4700	764.67

BM1 ELEVATION = 761.98
N 626019 E 1446535
BENCHTIE NAIL IN BASE OF 25" POPLAR

BM2 ELEVATION = 720.69
N 625221 E 1444979
BENCHTIE NAIL IN BASE OF 23" SWEETGUM

BY1	POINT	DESC.	NORTH	EAST	ELEVATION
106		BY1-106	625990.5520	1445305.3130	726.02
154		BL-104	625655.5510	1445537.9920	732.98

BM3 ELEVATION = 734.32
N 625372 E 1444712
BENCHTIE NAIL IN BASE OF 15" SWEET GUM

BY2	POINT	DESC.	NORTH	EAST	ELEVATION
155		BL-105	625308.3160	1445751.5870	760.81
107		BY2-107	625154.5660	1445815.2410	753.70
108		BY2-108	624890.2900	1445565.9220	747.77

BY3	POINT	DESC.	NORTH	EAST	ELEVATION
157		BL-107	625154.5660	1445815.2410	753.70
109		BY3-109	624972.0920	1446008.4490	741.86

- 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.

6/2/99

REVISIONS

25-FEB-2020 14:13
C:\Users\andy.smith\OneDrive\Documents\25-FEB-2020 14:13
Andy Smith

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.

48173.1.1

SHEET NO.

RW02C-3

Location and Surveys

GEL

SOLUTIONS

111 CREEK RIDGE ROAD
GREENSBORO, NC 27406

EY1									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	626031.468	1445304.917							
LINE			S 29°31'48.8" E	377.33					
PC	625703.150	1445490.899							
CURVE			S 32°52'25.6" E	268.28	06°41'13.5"(LT)	02°29'28.0"	268.44	134.37	2300.00
PT	625477.827	1445636.521							
LINE			S 36°13'02.3" E	96.48					
PC	625399.992	1445693.523							
CURVE			S 74°35'45.8" E	186.26	76°45'26.9"(LT)	38°11'49.9"	200.95	118.80	150.00
PT	625350.518	1445873.089							
LINE			N 67°01'30.8" E	4.34					
PC	625352.213	1445877.087							
CURVE			N 54°13'10.9" E	212.78	25°36'39.8"(LT)	11°56'11.8"	214.56	109.10	480.00
PT	625476.619	1446049.705							
LINE			N 41°24'51.0" E	383.55					
PC	625764.260	1446303.421							
CURVE			N 45°39'32.2" E	291.63	08°29'22.5"(RT)	02°54'30.3"	291.90	146.22	1970.00
PT	625968.088	1446511.993							

EY2									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	625346.214	1445767.416							
LINE			S 02°39'38.2" E	174.62					
PC	625171.778	1445775.522							
CURVE			S 18°51'52.8" W	113.74	43°03'02.1"(RT)	36°57'54.1"	116.46	61.14	155.00
PT	625064.145	1445738.745							
LINE			S 40°23'23.9" W	522.20					
POT	624666.413	1445400.368							

EY3									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	625170.802	1445775.564							
LINE			S 89°45'43.5" E	44.74					
PC	625170.616	1445820.306							
CURVE			S 60°37'48.2" E	87.63	58°15'50.6"(RT)	63°39'43.1"	91.52	50.16	90.00
PT	625127.639	1445896.671							
LINE			S 31°29'52.9" E	244.11					
POT	624919.498	1446024.210							

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.

PROPOSED ALIGNMENT CONTROL SHEET

L			
TYPE	STATION	NORTH	EAST
POT	10+00.00	625401.3733	1443922.6838
PC	14+25.26	625466.5564	1444342.9158
PT	18+77.81	625397.3275	1444782.8452
PC	20+26.81	625330.3723	1444915.9542
PCC	26+07.04	625228.5865	1445479.1153
PRC	26+83.46	625246.3903	1445553.2162
PRC	28+22.60	625281.8989	1445687.4864
PCC	29+12.77	625306.9841	1445773.8341
PT	33+53.57	625564.5424	1446127.2588
POT	36+19.88	625764.2595	1446303.4208

Y2			
TYPE	STATION	NORTH	EAST
PC	10+00.00	625281.8989	1445687.4864
PRC	13+01.80	625560.8338	1445578.4941
PT	14+68.95	625703.1439	1445490.9023

Y3			
TYPE	STATION	NORTH	EAST
POT	8+00.00	624873.4764	1445576.5304
PC	10+00.00	625025.8068	1445706.1277
PRC	11+90.72	625204.0040	1445722.1555
PT	12+76.15	625281.8989	1445687.4864

Y4			
TYPE	STATION	NORTH	EAST
POT	10+00.00	625156.4943	1445740.0913
PC	10+63.50	625168.8863	1445802.3676
PT	11+73.07	625127.6391	1445896.6711

G1			
TYPE	STATION	NORTH	EAST
PC	10+00.00	625172.2502	1444906.5768
PT	10+20.05	625189.3070	1444917.1163
POT	13+00.48	625424.5215	1445069.8012

G2			
TYPE	STATION	NORTH	EAST
POT	10+00.00	625210.2295	1444930.6978
PC	10+29.79	625226.7685	1444905.9174
PT	11+63.39	625254.9297	1444778.4344
PC	11+67.09	625254.3635	1444774.7798
PCC	12+79.93	625322.9884	1444706.3239
PT	13+92.77	625367.2570	1444792.5555
POT	14+12.77	625358.2698	1444810.4225

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.

PROJECT REFERENCE NO.
U6105

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

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 9th day of March, 2023.

Professional Land Surveyor L-3996

REVISIONS

RIGHT OF WAY CONTROL SHEET

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
L	10+45.93	61.13	625348.0082	1443977.4417
L	10+53.15	-52.00	625460.9055	1443967.2343
L	11+13.00	30.00	625389.0483	1444038.9468
L	14+25.26	30.00	625436.9109	1444347.5142
L	14+25.26	-30.00	625496.2019	1444338.3174
L	14+25.26	-52.00	625517.9419	1444334.9453
L	18+00.00	30.00	625400.4436	1444701.0480
L	18+00.00	40.00	625391.0828	1444697.5303
L	18+77.81	-30.00	625424.1280	1444796.3261
L	18+77.81	40.00	625361.5936	1444764.8707
L	20+26.81	40.00	625294.6384	1444897.9797
L	20+26.81	-30.00	625357.1728	1444929.4351
L	20+75.00	40.00	625273.2031	1444943.2525
L	20+75.00	70.00	625245.7902	1444931.0650
L	20+85.00	-50.00	625351.6235	1444988.5189
L	20+85.00	-30.00	625333.2687	1444980.5753
L	21+10.00	85.00	625217.2723	1444959.9047
L	22+05.00	-75.00	625336.5978	1445102.7778
L	22+15.00	85.00	625180.2170	1445067.4873
L	22+15.00	40.00	625223.4679	1445079.9116
L	22+70.00	-75.00	625321.2793	1445160.9578
L	22+70.00	-30.00	625277.4163	1445150.9060
L	26+07.04	40.00	625188.8215	1445483.4441
L	26+07.04	-30.00	625258.4104	1445475.8686
L	27+00.00	55.00	625200.1897	1445587.0011
L	27+50.00	-60.00	625324.8134	1445600.8895
L	29+98.01	-29.85	625370.5942	1445836.2207
L	31+50.00	-30.00	625450.3772	1445960.1015
L	33+50.00	-29.99	625581.7871	1446102.4667

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y2	11+40.00	-35.00	625404.8490	1445619.1762
Y2	13+02.00	-21.35	625549.1516	1445560.6212

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y3	10+50.00	-16.78	625074.6744	1445716.3086
Y3	12+00.00	-55.00	625185.6013	1445669.3897

PERMANENT EASEMENT IRON PIN AND CAP				
ALIGN	STATION	OFFSET	NORTH	EAST
L	10+55.47	-98.00	625506.7187	1443962.4727
L	11+75.00	91.00	625338.2725	1444109.5642
L	12+01.00	-103.00	625533.9652	1444105.5208
L	12+27.00	91.00	625346.2430	1444160.9497
L	12+33.00	101.00	625337.2809	1444168.4116
L	12+52.00	90.00	625351.0632	1444185.5010
L	12+52.00	97.00	625344.1459	1444186.5739
L	14+25.00	-73.00	625538.6543	1444331.4721
L	15+60.00	56.51	625418.3604	1444475.4812
L	16+00.00	-60.00	625532.2979	1444522.2626
L	16+50.00	75.00	625392.4331	1444555.2690
L	16+85.00	75.00	625386.8747	1444586.1742
L	16+85.00	30.00	625430.9603	1444595.1992
L	17+60.00	-60.00	625498.8012	1444691.7893
L	17+60.00	-30.00	625470.1828	1444682.7901
L	19+60.00	65.00	625302.3279	1444827.0584
L	19+60.00	40.00	625324.6616	1444838.2925
L	20+17.00	108.00	625238.3001	1444858.6567
L	21+70.00	110.00	625171.0299	1445012.9463
L	22+05.00	-102.00	625362.4732	1445110.4889
L	22+63.00	40.00	625210.8351	1445128.1822
L	22+63.00	93.00	625159.2575	1445115.9857
L	22+70.00	-102.00	625347.5971	1445166.9889
L	26+45.00	42.70	625193.5402	1445526.4282
L	26+45.00	69.00	625167.9627	1445532.5507
L	26+70.00	69.00	625176.3582	1445562.1232
L	26+70.00	47.56	625196.7221	1445555.4136
L	29+46.93	-58.26	625373.7550	1445779.8107
L	29+60.99	-59.02	625380.2264	1445791.3894
L	29+89.80	50.81	625295.5734	1445867.0109
L	30+27.00	-60.00	625410.4269	1445845.6704
L	30+27.00	-31.60	625385.8431	1445859.8981
L	30+72.00	61.88	625329.7714	1445947.5094
L	30+72.00	103.00	625295.1370	1445969.6698
L	30+88.00	-60.00	625440.6485	1445894.4319
L	31+05.00	103.00	625315.2333	1445999.9759
L	31+05.00	62.55	625348.5777	1445977.0721
L	32+50.00	-50.00	625527.2534	1446020.9715
L	32+50.00	-34.80	625516.0819	1446031.2839

PERMANENT EASEMENT IRON PIN AND CAP				
ALIGN	STATION	OFFSET	NORTH	EAST
Y2	11+25.00	-44.09	625388.4525	1445615.4299
Y2	11+25.00	-72.00	625379.2629	1445589.0745
Y2	11+45.00	68.00	625445.9700	1445713.7495
Y2	12+40.00	33.78	625524.1544	1445640.1166
Y2	12+40.00	44.28	625529.1855	1445649.3307
Y2	13+00.00	-35.00	625539.9892	1445550.3233
Y2	13+10.00	-21.04	625556.0500	1445556.4123

PERMANENT EASEMENT IRON PIN AND CAP				
ALIGN	STATION	OFFSET	NORTH	EAST
Y3	8+09.08	-70.00	624925.7539	1445529.1007
Y3	8+12.00	-24.77	624898.6698	1445565.4366
Y3	8+19.00	-71.00	624933.9548	1445534.7648
Y3	8+20.00	-64.50	624930.5046	1445540.3636
Y3	11+14.44	-50.00	625129.7501	1445693.0131
Y3	11+68.11	70.14	625209.6844	1445797.1793

600 NAIL SET(UTILITY CONFLICT)

12" SPIKE SET IN TREE ROOT

MAG NAIL SET
600 NAIL SET(UTILITY CONFLICT)
12" SPIKE SET IN TREE ROOT

MAG NAIL SET

EIP FOUND

12" SPIKE SET(UTILITY CONFLICT)

PROJECT REFERENCE NO.
U6105

SHEET NO.
RW03E-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

NORTH CAROLINA
PROFESSIONAL
SURVEYOR
SEAL
L-3996
PARKS H. ICENHOUR

NORTH CAROLINA
ENGINEERING
OF NC, INC.
NO. C-1936
CERTIFICATE OF AUTHORIZATION

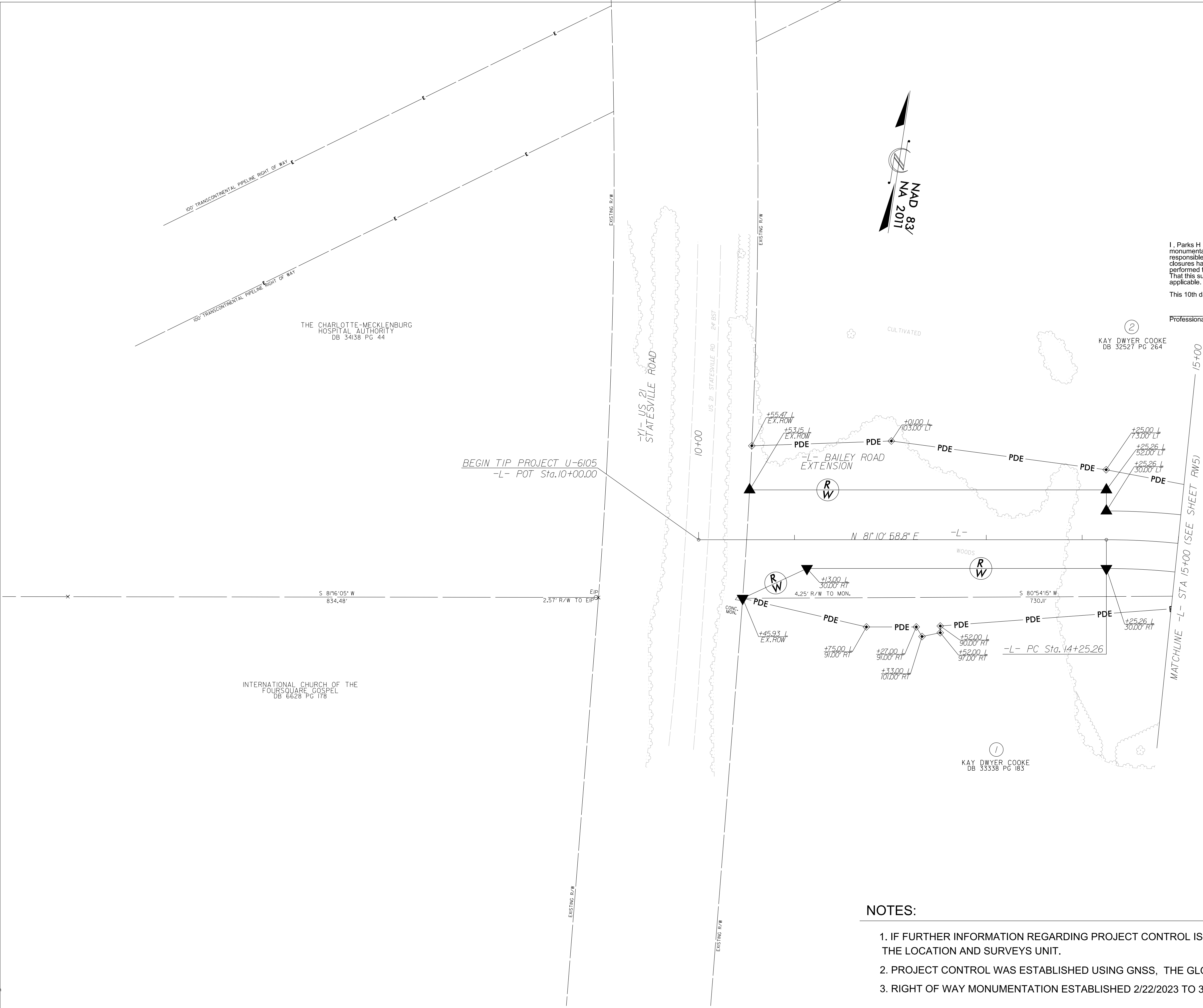
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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 2/22/2022 to 3/08/2022, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 9th day of March, 2023.

Professional Land Surveyor L-3996

REVISIONS



PROJECT REFERENCE NO.	SHEET NO.
U6105	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	
SEAL L-3996 AND SURVEYOR H. ICENHOUR, JR. PROFESSIONAL NORTH CAROLINA 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 2/22/2023 to 3/08/2023, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 66.1600 as applicable.

This 10th day of March, 2023.

Professional Land Surveyor L-3996

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 2/22/2023 TO 3/08/2023.

REVISIONS

-L-
PI Sta 23+25.18
Δ = 32° 54' 56.4" (LT)
D = 5' 40' 22.3"
L = 580.23'
T = 298.37'
SE = 0.04
RO = 80'
DS = 40

-L-
PI Sta 26+45.46
Δ = 14° 35' 39.9" (LT)
D = 19° 05' 54.9"
L = 76.42'
T = 38.42'
R = 300.00'

-L-
PI Sta 27+53.29
Δ = 11° 59' 17.3" (RT)
D = 8° 36' 57.3"
L = 139.14'
T = 69.82'
R = 665.00'

-L-
PI Sta 28+67.93
Δ = 14° 45' 50.8" (RT)
D = 16° 22' 12.8"
L = 90.17'
T = 45.33'
R = 350.00'

-L-
PI Sta 31+36.74
Δ = 25° 00' 22.6" (LT)
D = 5° 40' 22.3"
L = 440.81'
T = 223.97'
R = 1,010.00'

-Y2-
PI Sta 11+53.28
Δ = 24° 42' 11.1" (LT)
D = 8° 11' 06.4"
L = 301.80'
T = 153.28'
R = 700.00'
SE = 0.03
RO = 51'
DS = 30

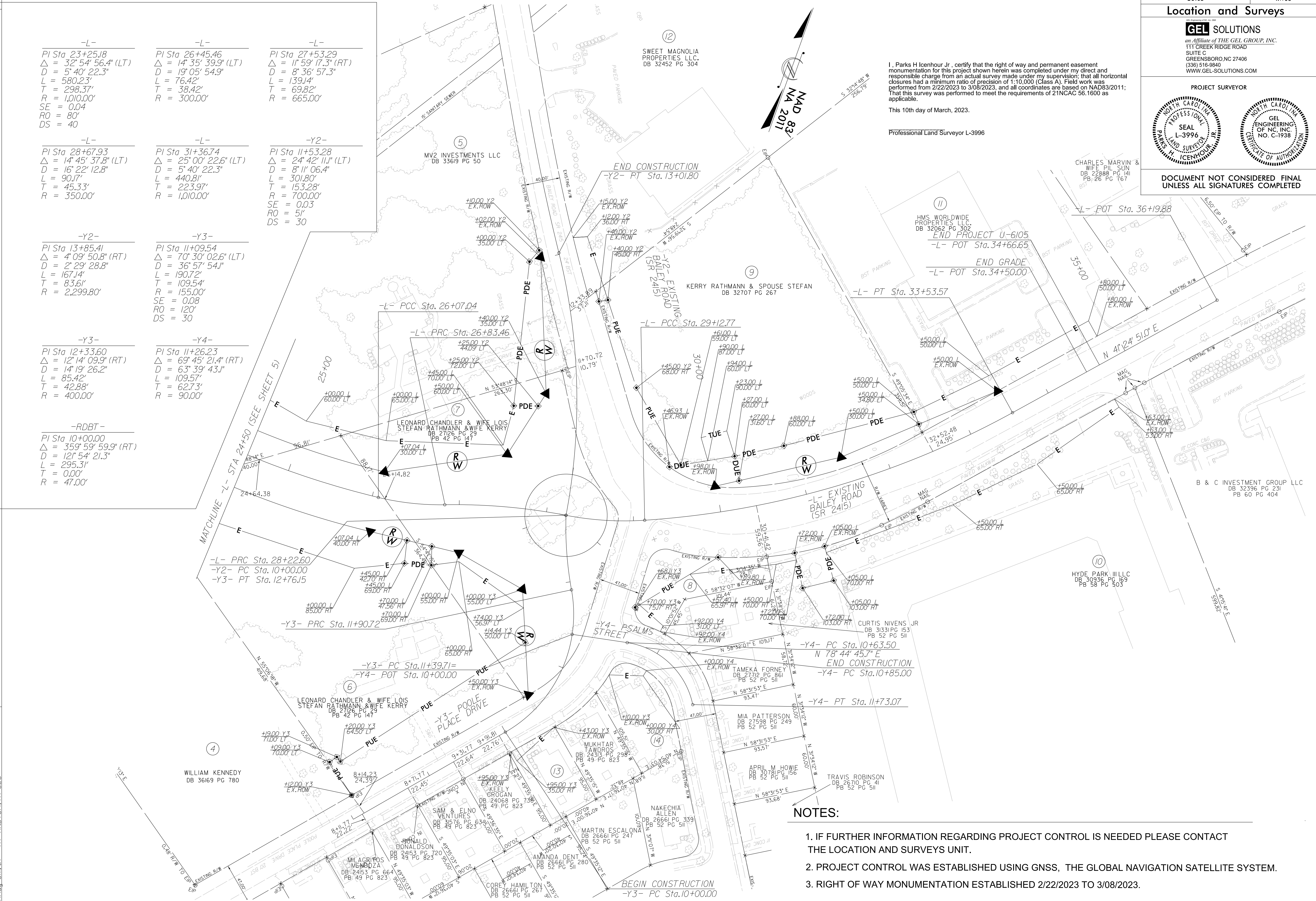
-Y2-
PI Sta 13+85.41
Δ = 4° 09' 50.8" (RT)
D = 2° 29' 28.8"
L = 167.14'
T = 83.61'
R = 2,299.80'

-Y3-
PI Sta 11+09.54
Δ = 70° 30' 02.6" (LT)
D = 36° 57' 54.1"
L = 190.72'
T = 109.54'
R = 155.00'
SE = 0.08
RO = 120'
DS = 30

-Y3-
PI Sta 12+33.60
Δ = 12° 14' 09.9" (RT)
D = 14° 19' 26.2"
L = 85.42'
T = 42.88'
R = 400.00'

-Y4-
PI Sta 11+26.23
Δ = 63° 45' 21.4" (RT)
D = 63° 39' 43.1"
L = 109.57'
T = 62.73'
R = 90.00'

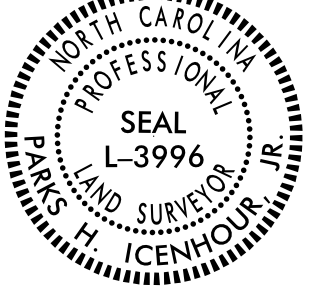
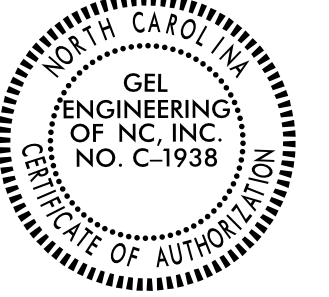
-RDBT-
PI Sta 10+00.00
Δ = 359° 59' 59.9" (RT)
D = 121° 54' 21.3"
L = 295.31'
T = 0.00'
R = 47.00'



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 2/22/2023 to 3/08/2023, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 10th day of March, 2023.

Professional Land Surveyor L-3996

PROJECT REFERENCE NO.		SHEET NO.	
U6105		RW06	
Location and Surveys			
 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:

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 2/22/2023 TO 3/08/2023.