

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-4709	RW01	17

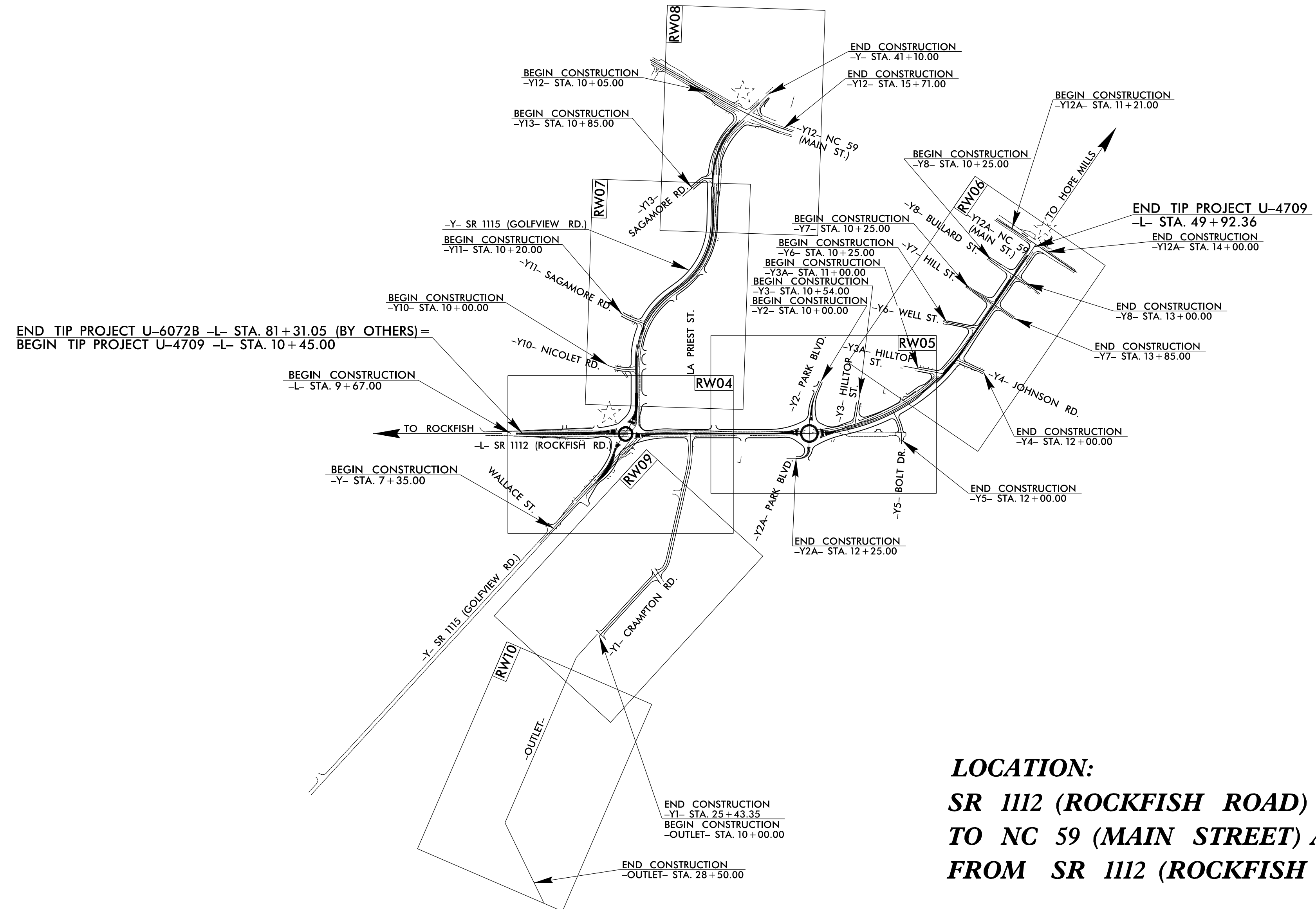
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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

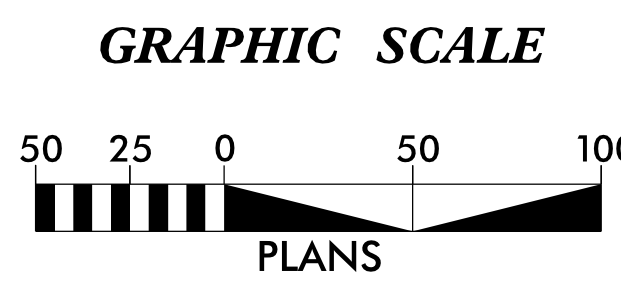
CUMBERLAND COUNTY



TIP PROJECT: U-4709



LOCATION:
SR 112 (ROCKFISH ROAD) FROM WEST OF SR 115 (GOLFVIEW ROAD)
TO NC 59 (MAIN STREET) AND SR 115 (GOLFVIEW ROAD)
FROM SR 112 (ROCKFISH ROAD) TO NC 59 (MAIN STREET)



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "BREEZE" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 455401.4875(ft) EASTING: 2024426.7025(ft) ELEVATION: 218.08(ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99988000 (1/X=1.00012001)

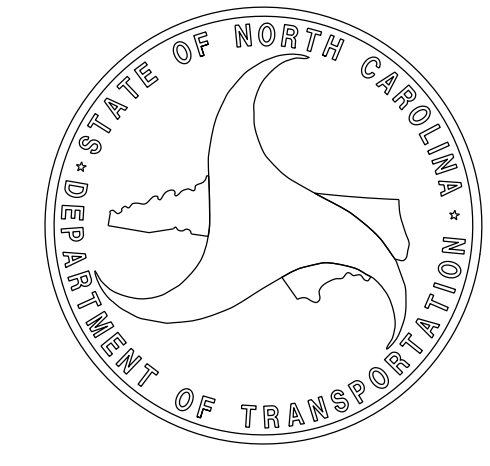
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "BREEZE" TO -L- STATION 9+67.00 IS S 51°53'51.06" W 16,800.22(ft)

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

Prepared in the Office of:

NCDOT
LOCATION & SURVEYS
DIVISION 6 FIELD OFFICE
4834 US HWY 301 S
HOPE MILLS, NC 28348

PROFESSIONAL LAND
SURVEYOR



2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: 07/30/2021	LETTING DATE: 01/21/2025
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Signed by:
Jeffrey S. Coats
ACCA7E44C4574E3...
SIGNATURE: _____ Date: 10/9/2024

09-0CT-2024 13:31
S:\Units\Div06\Hope Mills\PROJECTS\Control Sheets\U4709\q-revise.t sh_241009\U4709_L.S.-RW01.dgn
wilson AT LS-329499L

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO. SHEET NO.

U-4709 RW02C-3

Location and Surveys



3220 GLEN ROYAL RD. RALEIGH, NC 27617
TEL. (919) 788-0224 FAX (919) 788-0232
CORPORATE LICENSE # P-0189

PROJECT SURVEYOR

DocuSigned by:



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

BL	POINT	DESC.	NORTH	EAST	ELEVATION
101		TRAV CAP & REBA	444993.6997	2011554.1099	172.17
2		GPS CAP	445004.8280	2012115.9550	169.59
102		TRAV CAP & REBA	444971.8962	2012631.5007	158.18
103		TRAV CAP & REBA	444887.7276	2013202.3415	155.12
104		TRAV CAP & REBA	445085.7555	2013856.2161	161.13
105		TRAV CAP & REBA	445375.0094	2014164.4989	165.42
106		TRAV CAP & REBA	445672.2393	2014465.9550	152.85
3		GPS CAP	446124.5760	2014762.7700	130.11

BY	POINT	DESC.	NORTH	EAST	ELEVATION
122		TRAV CAP & REBA	443084.9553	2010144.9876	160.74
123		TRAV CAP & REBA	443616.5010	2010679.4660	170.07
116		TRAV CAP & REBA	444024.9651	2011099.2973	168.24
117		TRAV CAP & REBA	444368.1198	2011401.3066	170.08
107		TRAV CAP & REBA	444591.8060	2011634.5440	172.94
A2		U4709-2	445004.8280	2012115.9550	169.59
108		TRAV CAP & REBA	445374.1796	2012094.1201	168.01
1		GPS CAP	445691.2420	2012108.2300	171.31
109		TRAV CAP & REBA	446011.5019	2012515.9692	162.56
110		TRAV CAP & REBA	446651.7434	2012717.3777	174.63
5		GPS CAP	447102.6880	2012891.3130	161.72

BY1	POINT	DESC.	NORTH	EAST	ELEVATION
118		TRAV CAP & REBA	443517.4604	2011546.9109	160.05
119		TRAV CAP & REBA	443855.9617	2011941.9130	161.74
120		TRAV CAP & REBA	444138.4392	2012216.9282	158.88
121		TRAV CAP & REBA	444669.1232	2012371.3300	161.30
111		TRAV CAP & REBA	444940.6191	2012369.7356	162.76

BY3	POINT	DESC.	NORTH	EAST	ELEVATION
113		TRAV CAP & REBA	445253.8484	2014098.6362	164.19

BY4	POINT	DESC.	NORTH	EAST	ELEVATION
112		TRAV CAP & REBA	444914.5304	2013480.3441	160.27

BY6	POINT	DESC.	NORTH	EAST	ELEVATION
114		TRAV CAP & REBA	445536.1658	2014361.5195	161.13

BY8	POINT	DESC.	NORTH	EAST	ELEVATION
115		TRAV CAP & REBA	445872.6162	2014650.6865	134.54

BY10	POINT	DESC.	NORTH	EAST	ELEVATION
110		TRAV CAP & REBA	446651.7434	2012717.3777	174.63

.....
 BM-1 ELEVATION = 171.50
 N 445115 E 2012109
 EY12 STATION 14+57.00 2096 RIGHT
 BM1 18' OAK

 BM-2 ELEVATION = 162.27
 N 445996 E 2012555
 EY12 STATION 14+66.00 1109 RIGHT
 BM2 20' PINE

 BM-3 ELEVATION = 164.52
 N 445240 E 2014006
 EY12 STATION 16+33.00
 S 25+46+00.1' E DIST 1875.48
 BM3 24' PINE

I, Jeffrey S. Coats, 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: NOV 2017
 Datum/Epoch: NAD83/2011
 Published/Fixed-control use: N/A
 Localized around: NCGS "BREEZE"
 Northing: 455401.4875
 Easting: 2024426.7025
 Combined grid factor: 0.99988000
 Geoid model: 12b
 Units: US Survey Foot

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 May 2022 to July 2022, 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 10th day of July, 2023.

DocuSigned by:

 Jeffrey S. Coats
 Professional Land Surveyor L-3994

REVISIONS

I:\R\2024\SURVEYS\NCD001\AG2209 U4709 ROW Staking\U4709_Is_RW02C-1.dgn
USER:NMILE

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

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Dates of survey: NOV 2017
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Localized around: NCGS "BREEZE"
Northing: 455401.4875
Easting: 2024426.7025
Combined grid factor: 0.99988000
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This 10th day of July 2023.

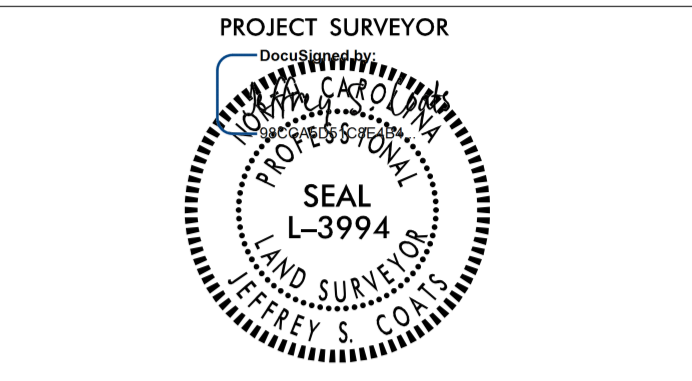
DocuSigned by:
Jeffrey S. Coats
RECCAS051C8E484
Professional Land Surveyor L-3994

PROJECT REFERENCE NO. SHEET NO.

U-4709 RW02C-4

Location and Surveys

CH ENGINEERING
3220 GLEN ROYAL RD. RALEIGH, NC 27617
TEL. (919) 788-0224 FAX (919) 788-0232
CORPORATE LICENSE # P-0189



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

EL POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	445032.603	2011239.926							
LINE			S 86°37'35.1" E	1567.01					
PC	444940.391	2012804.216							
CURVE			S 87°22'32.4" E	308.60	01°29'54.6"(LT)	00°29'08.0"	308.61	154.31	11799.86
PCC	444926.261	2013112.495							
CURVE			N 89°10'18.7" E	137.18	05°24'23.0"(LT)	03°56'22.5"	137.23	68.67	1454.36
PCC	444928.243	2013249.663							
CURVE			N 79°47'47.3" E	329.59	13°20'39.8"(LT)	04°02'22.9"	330.33	165.92	1418.32
PCC	444986.628	2013574.037							
CURVE			N 68°31'26.7" E	240.24	09°12'01.5"(LT)	03°49'31.8"	240.50	120.51	1497.73
PCC	445074.584	2013797.601							
CURVE			N 59°02'07.0" E	230.07	09°46'37.8"(LT)	04°14'40.3"	230.35	115.45	1349.87
PCC	445192.956	2013994.880							
CURVE			N 47°27'53.4" E	343.14	13°21'49.3"(LT)	03°53'08.6"	343.92	172.74	1474.52
PCC	445424.932	2014247.726							
CURVE			N 39°17'20.2" E	191.83	02°59'17.1"(LT)	01°33'27.1"	191.85	95.95	3678.61
PT	445573.398	2014369.196							
LINE			N 37°47'41.6" E	649.39					
POT	446086.555	2014767.169							

EY POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	442722.772	2009730.930							
LINE			N 45°53'18.5" E	3183.05					
PC	444938.355	2012016.315							
CURVE			N 27°27'48.9" E	77.45	42°26'30.3"(LT)	47°37'46.1"	89.11	46.71	120.29
PT	445007.075	2012052.032							
LINE			N 03°26'48.2" E	450.96					
PC	445457.223	2012079.144							
CURVE			N 10°49'16.3" E	164.73	14°44'56.2"(RT)	08°55'42.6"	165.19	83.05	641.72
PCC	445619.027	2012110.072							
CURVE			N 28°43'26.2" E	185.07	21°03'23.7"(RT)	11°18'49.4"	186.12	94.12	506.43
PCC	445781.324	2012199.015							
CURVE			N 41°50'46.6" E	49.86	05°11'17.0"(RT)	10°24'07.2"	49.88	24.95	550.82
PCC	445818.465	2012232.277							
CURVE			N 50°42'52.5" E	124.01	12°32'54.8"(RT)	10°05'54.3"	124.26	62.38	567.37
PT	445896.989	2012328.265							
LINE			N 56°59'19.9" E	75.40					
PC	445938.066	2012391.491							
CURVE			N 53°23'26.5" E	93.70	07°11'46.7"(LT)	07°40'31.4"	93.76	46.94	746.49
PCC	445993.943	2012466.704							
CURVE			N 41°07'10.3" E	126.58	17°20'45.8"(LT)	13°39'06.8"	127.06	64.02	419.69
PCC	446089.297	2012549.943							
CURVE			N 27°09'46.8" E	122.76	10°34'01.1"(LT)	08°35'44.6"	122.93	61.64	666.56
PCC	446198.517	2012605.986							
CURVE			N 16°28'20.3" E	96.26	10°48'52.1"(LT)	11°13'05.8"	96.40	48.34	510.74
PCC	446290.823	2012633.280							
CURVE			N 08°09'33.1" E	76.43	05°48'42.2"(LT)	07°36'03.8"	76.46	38.26	753.79
LINE	446366.476	2012644.126							
PC	446733.886	2012677.908							
CURVE			N 26°54'14.8" E	258.64	43°18'05.6"(RT)	16°20'46.5"	264.90	139.14	350.51
PT	446964.535	2012794.944							
LINE			N 48°33'17.6" E	382.04					
POT	447217.408	2013081.317							

EY1 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	444964.375	2012397.343							
LINE			S 03°37'13.8" W	125.09					
PC	444839.539	2012389.444							
CURVE			S 09°50'24.5" W	108.34	12°26'21.3"(RT)	11°27'33.0"	108.55	54.49	500.00
PT	444732.793	2012370.929							
LINE			S 16°03'35.1" W	641.93					
PC	444115.917	2012193.346							
CURVE			S 38°33'27.3" W	65.12	44°59'44.3"(RT)	67°20'07.8"	66.82	35.24	85.09
PCC	444064.995	2012152.758							
CURVE			S 53°25'42.8" W	89.95	15°15'13.1"(LT)	16°54'28.8"	90.22	45.38	338.87
PT	444011.401	2012080.518							
LINE			S 45°48'06.3" W	510.74					
POT	443655.342	2011714.352							

EY2 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	445257.147	2013283.867							
LINE			S 26°32'39.4" W	122.98					
PC	445147.130	2013228.908							
CURVE			S 13°32'03.2" W	184.44	26°01'12.3"(LT)	13°59'11.3"	186.04	94.65	409.65
PT	444967.809	2013185.743							
LINE			S 00°31'27.1" W	42.11					
POT	444925.702	2013185.358							

EY3 POINT	N	E	BEARING	DIST
POT	445199.877	2013547.434		
LINE			S 12°37'36.9" W	240.61
POT	444965.084	2013494.836		

EY3-A POINT	N	E	BEARING	DIST
POT	445329.360	2013839.619		
LINE			S 75°39'19.3" E	256.12
POT	445265.905	2014087.754		

EY4 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
PC	444944.965	2013396.175							
CURVE			S 50°16'14.6" E	66.77	72°30'12.9"(LT)	101°29'22.4"	71.44	41.40	56.45
PT	444902.290	2013447.524							
LINE			S 86°31'21.1" E	228.77					
PC	444888.414	2013675.876							
CURVE			S 85°34'02.3" E	153.25	01°54'37.4"(RT)	01°14'47.5"	153.26	76.64	4596.39
PT	444876.569	2013828.667							

EY6 POINT	N	E	BEARING	DIST
POT	445608.721	2014120.610		
LINE			S 75°31'51.9" E	237.36
POT	445549.416	2014350.438		

EY7 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	445836.643	2014285.470							
LINE			S 53°11'20.5" E	216.40					
PC	445706.982	2014458.722							
CURVE			S 52°27'07.4" E	175.18	01°28'26.1"(RT)	00°50'28.8"	175.19	87.60	6810.04
PT	445600.223	2014597.613							
LINE			S 51°42'54.4" E	7.55					
POT	445595.544	2014603.541							

EY8 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	446013.933	2014444.227							
LINE			S 52°27'35.3" E	239.77					
PC	445867.836	2014634.348							
CURVE			S 51°33'15.4" E	156.87	01°48'40.0"(RT)	01°09'16.0"	156.88	78.45	4963.06
PT	445770.296	2014757.212							
LINE			S 50°38'55.4" E	20.43					
POT	445757.343	2014773.008							

EY9 POINT	N	E	BEARING	DIST
POT	444578.816	2011645.448		
LINE			S 44°04'34.7" E	220.29
POT	444420.554	2011798.687		

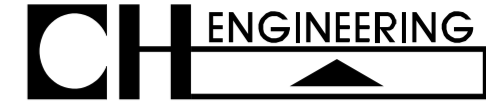
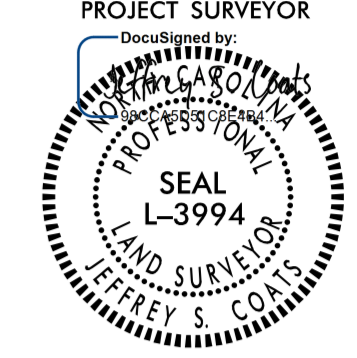
EY10 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
PC	445450.501	2011876.281							
CURVE			S 76°16'20.4" E	152.09	25°51'53.6"(LT)	16°51'45.7"	153.39	78.02	339.78
PT	445414.410	2012024.022							
LINE			S 89°12'17.2" E	52.50					
POT	445413.682	2012076.522							

EY11 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
PC	445795.747	2011976.119							
CURVE			S 58°48'01.3" E	97.39	15°01'22.4"(LT)	15°22'52.6"	97.67	49.12	372.50
PT	445745.297	2012059.423							
LINE			S 66°18'42.4" E	96.95					
POT	445706.345	2012148.209							

EY12 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	447230.653	2012636.184							
LINE			S 57°07'54.3" E	112.59					
PC	447169.549	2012730.752							
CURVE			S 59°34'07.0" E	283.11	04°52'25.5"(LT)	01°43'15.6"	283.20	141.68	3329.24
PCC	447026.152	2012974.859							
CURVE			S 65°48'18.2" E	236.93	07°35'56.9"(LT)	03°12'18.2"	237.10	118.72	1787.68
PT	446929.049	2013190.973							

EY12A POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	446266.977								

PROPOSED ALIGNMENT CONTROL SHEET

PROJECT REFERENCE NO.	SHEET NO.
U-4709	RW02D-1
Location and Surveys	
	
3220 GLEN ROYAL RD. RALEIGH, NC 27617 TEL. (919) 788-0224 FAX (919) 788-0232 CORPORATE LICENSE # P-0189	
	
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L									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	445034.575	2011206.469							
LINE			S 86°37'35.1" E	33.00					
POT	445032.633	2011239.411							
LINE			S 86°37'35.1" E	1911.30					
PC	444920.160	2013147.404							
CURVE			N 65°35'03.2" E	1212.18	55°34'43.2"(LT)	04°24'26.5"	1261.04	685.10	1300.00
PT	445421.220	2014251.176							
LINE			N 37°47'41.6" E	840.39					
POT	446085.300	2014766.195							

OUTLET				
POINT	N	E	BEARING	DIST
POT	443668.808	2011701.258		
LINE			S 45°26'29.0" W	208.04
POT	443522.836	2011553.020		
LINE			S 26°40'44.1" W	599.89
POT	442986.817	2011283.677		
LINE			S 26°43'23.2" W	598.76
POT	442452.012	2011014.428		
LINE			S 22°30'43.9" E	590.23
POT	441906.762	2011240.414		

RND									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
PC	444858.453	2013190.889							
CURVE			N 42°30'28.1" E	84.85	90°00'00.0"(LT)	95°29'34.7"	94.25	60.00	60.00
PCC	444921.005	2013248.223							
CURVE			N 47°29'31.9" W	84.85	90°00'00.0"(LT)	95°29'34.7"	94.25	60.00	60.00
PCC	444978.339	2013185.671							
CURVE			S 42°30'28.1" W	84.85	90°00'00.0"(LT)	95°29'34.7"	94.25	60.00	60.00
PCC	444915.787	2013128.336							
CURVE			S 47°29'31.9" E	84.85	90°00'00.0"(LT)	95°29'34.7"	94.25	60.00	60.00
PT	444858.453	2013190.889							

RND1									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
PC	444982.634	2011917.670							
CURVE			S 50°11'50.5" E	70.71	90°00'00.0"(LT)	114°35'29.6"	78.54	50.00	50.00
PCC	444937.368	2011971.994							
CURVE			N 39°48'09.5" E	70.71	90°00'00.0"(LT)	114°35'29.6"	78.54	50.00	50.00
PCC	444991.692	2012017.259							
CURVE			N 50°11'50.5" W	70.71	90°00'00.0"(LT)	114°35'29.6"	78.54	50.00	50.00
PCC	445036.957	2011962.935							
CURVE			S 39°48'09.5" W	70.71	90°00'00.0"(LT)	114°35'29.6"	78.54	50.00	50.00
PT	444982.634	2011917.670							

Y									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	444295.111	2011353.784							
LINE			N 45°49'51.5" E	599.51					
PC	444712.839	2011783.808							
CURVE			N 35°49'35.9" E	138.98	20°00'31.2"(LT)	14°19'26.2"	139.69	70.56	400.00
PT	444825.521	2011865.157							
LINE			N 25°49'20.3" E	51.29					
PC	444871.688	2011887.497							
CURVE			N 32°59'20.1" E	179.65	14°19'59.7"(RT)	07°57'27.9"	180.12	90.53	720.00
PCC	445022.372	2011985.311							
CURVE			N 21°48'04.1" E	179.49	36°42'31.7"(LT)	20°06'13.6"	182.60	94.56	285.00
PT	445189.025	2012051.971							
LINE			N 03°26'48.2" E	293.50					
PC	445481.996	2012069.616							
CURVE			N 30°13'04.0" E	481.96	53°32'31.7"(RT)	10°42'34.2"	499.95	269.91	535.00
PT	445898.464	2012312.180							
LINE			N 56°59'19.9" E	82.85					
PC	445943.602	2012381.656							
CURVE			N 30°46'52.1" E	476.96	52°24'55.6"(LT)	10°36'37.2"	494.00	265.00	540.00
PT	446353.369	2012625.743							
LINE			N 04°34'24.3" E	282.39					
PC	446634.857	2012648.260							
CURVE			N 26°33'50.9" E	400.67	43°58'53.3"(RT)	10°42'34.2"	410.68	216.05	535.00
PT	446993.228	2012827.439							
LINE			N 48°33'17.6" E	322.01					
POT	447206.367	2013068.814							

Y1									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	444964.375	2012397.343							
LINE			S 03°37'13.8" W	125.09					
PC	444839.539	2012389.444							
CURVE			S 09°50'24.5" W	108.34	12°26'21.3"(RT)	11°27'33.0"	108.55	54.49	500.00
PT	444732.793	2012370.929							
LINE			S 16°03'35.1" W	641.93					
PC	444115.917	2012193.346							
CURVE			S 38°33'27.3" W	65.12	44°59'44.3"(RT)	67°20'07.8"	66.82	35.24	85.09
PCC	444064.995	2012152.758							
CURVE			S 53°25'42.8" W	89.95	15°15'13.1"(LT)	16°54'28.8"	90.22	45.38	338.87
PT	444011.401	2012080.518							
LINE			S 45°48'06.3" W	510.74					
POT	443655.342	2011714.352							

Y2									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	445257.147	2013283.867							
LINE			S 26°32'39.4" W	65.29					
PC	445198.735	2013254.687							
CURVE			S 13°19'36.3" W	288.10	26°26'06.3"(LT)	09°05'40.4"	290.67	147.97	630.00
PT	444918.396	2013188.280							

Y2A									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	444918.396	2013188.280							
LINE			S 05°07'49.0" W	107.19					
PC	444811.635	2013178.695							
CURVE			S 49°06'36.1" W	83.33	87°57'34.4"(RT)	95°29'34.7"	92.11	57.90	60.00
PT	444757.088	2013115.701							
LINE			N 86°54'36.7" W	89.00					
POT	444761.885	2013026.834							

Y3				
POINT	N	E	BEARING	DIST
POT	445199.877	2013547.434		
LINE			S 12°37'36.9" W	260.65
POT	444945.528	2013490.455		

Y3A				
POINT	N	E	BEARING	DIST
POT	445329.360	2013839.619		
LINE			S 75°39'19.3" E	273.44
POT	445261.615	2014104.531		

Y4				
POINT	N	E	BEARING	DIST
POT	445350.643	2014192.332		
LINE			S 62°10'45.7" E	200.79
POT	445256.932	2014369.916		

Y5									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	445030.615	2013753.372							
LINE			S 24°02'03.4" E	48.40					
PC	444986.409	2013773.085							
CURVE			S 09°39'00.6" E	149.05	28°46'05.6"(RT)	19°05'54.9"	150.63	76.94	300.00
PT	444839.466	2013798.071							
LINE			S 04°44'02.2" W	27.44					
POT	444812.120	2013795.807							

Y6				
POINT	N	E	BEARING	DIST
POT	445608.721	2014120.610		
LINE			S 75°31'51.9" E	237.49
POT	445549.382	2014350.571		

Y7									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	445836.643	2014285.470							
LINE			S 53°11'20.5" E	216.40					
PC	445706.982	2014458.722							
CURVE			S 52°27'07.4" E	175.18	01°28'26.1"(RT)	00°50'28.8"	175.19	87.60	6810.04
PT	445600.223	2014597.613							
LINE			S 51°42'54.4" E	7.55					
POT	445595.544	2014603.541							

Y8									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	446013.933	2014444.227							
LINE			S 52°27'35.3" E	239.77					
PC	445867.836	2014634.348							
CURVE			S 51°33'15.						

PROPOSED ALIGNMENT CONTROL SHEET

PROJECT REFERENCE NO. SHEET NO.

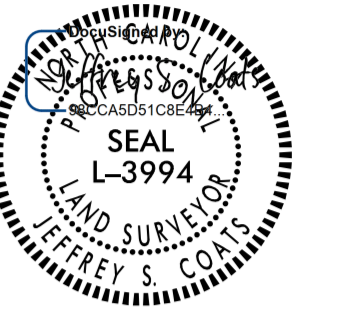
U-4709 RW02D-2

Location and Surveys



3220 GLEN ROYAL RD. RALEIGH, NC 27617
TEL. (919) 788-0224 FAX (919) 788-0232
CORPORATE LICENSE # P-0189

PROJECT SURVEYOR



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

I, Jeffrey S. Coats, 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 10th day of July, 2023.

DocuSigned by:
Jeffrey S. Coats
08CCAD51CE4E4

Professional Land Surveyor L-3994

Y12									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	447230.653	2012636.184	S 57°07'54.3" E	112.59					
LINE									
PC	447169.549	2012730.752	S 59°34'07.0" E	283.11	04°52'25.5"(L T)	01°43'15.6"	283.20	141.68	3329.24
CURVE									
PCC	447026.152	2012974.859	S 65°48'18.2" E	236.93	07°35'56.9"(L T)	03°12'18.2"	237.10	118.72	1787.68
CURVE									
PT	446929.049	2013190.973							

Y12A									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	446266.977	2014513.490	S 55°50'12.7" E	50.84					
LINE									
PC	446238.427	2014555.558	S 54°07'27.8" E	239.07	03°25'29.7"(RT)	01°25'56.6"	239.10	119.59	4000.00
CURVE									
PT	446098.327	2014749.273							
LINE									
POT	446085.300	2014766.195	S 52°24'43.0" E	21.36					
LINE									
POT	445882.824	2015029.230	S 52°24'43.0" E	331.94					

Y13									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	446543.220	2012438.206	N 52°18'06.6" E	100.60					
LINE									
PC	446604.739	2012517.807	N 52°56'40.6" E	33.65	01°17'08.0"(RT)	03°49'11.0"	33.66	16.83	1500.00
CURVE									
PT	446625.018	2012544.665	N 53°35'14.5" E	33.72					
LINE									
PC	446645.033	2012571.799	N 73°10'04.9" E	25.47	39°09'40.8"(RT)	150°46'42.1"	25.97	13.52	38.00
CURVE									
PT	446652.408	2012596.178	S 87°15'04.6" E	53.55					
LINE									
POT	446649.840	2012649.671							

SW1									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	445509.824	2012127.597	S 02°11'56.2" E	125.16					
LINE									
PC	445384.759	2012132.399	S 00°37'26.0" W	9.85	05°38'44.4"(RT)	57°17'44.8"	9.85	4.93	100.00
CURVE									
PT	445374.910	2012132.292	S 03°26'48.2" W	189.65					
LINE									
PC	445185.605	2012120.890	S 08°00'35.4" W	55.69	09°07'34.3"(RT)	16°22'12.8"	55.75	27.93	350.00
CURVE									
PT	445130.458	2012113.130	S 12°34'22.5" W	31.18					
LINE									
PC	445100.029	2012106.343	S 07°17'53.3" W	27.58	10°32'58.4"(L T)	38°11'49.9"	27.62	13.85	150.00
CURVE									
PT	445072.673	2012102.840	S 02°01'24.1" W	5.91					
LINE									
PC	445066.765	2012102.631	S 45°31'18.8" E	51.65	95°05'25.8"(L T)	163°42'08.0"	58.09	38.26	35.00
CURVE									
PT	445030.579	2012139.482	N 86°55'58.3" E	122.56					
LINE									
PC	445037.137	2012261.868	S 85°45'41.7" E	39.99	14°36'40.1"(RT)	36°26'30.7"	40.09	20.16	157.23
CURVE									
PCC	445034.182	2012301.744	S 82°32'28.4" E	56.99	08°10'13.5"(L T)	14°19'26.2"	57.04	28.57	400.00
CURVE									
PT	445026.784	2012358.254	S 86°37'35.1" E	35.04					
LINE									
PC	445024.721	2012393.236	N 78°01'54.7" E	26.46	30°41'00.3"(L T)	114°35'29.6"	26.78	13.72	50.00
CURVE									
PCC	445030.208	2012419.119	N 78°01'54.7" E	26.46	30°41'00.3"(RT)	114°35'29.6"	26.78	13.72	50.00
CURVE									
PT	445035.694	2012445.001	S 86°37'35.1" E	44.44					
LINE									
PC	445033.079	2012489.364	S 68°11'29.3" E	31.62	36°52'11.6"(RT)	114°35'29.6"	32.18	16.67	50.00
CURVE									
PCC	445021.331	2012518.724	S 68°11'29.3" E	31.62	36°52'11.6"(L T)	114°35'29.6"	32.18	16.67	50.00
CURVE									
PT	445009.583	2012548.083	S 86°37'35.1" E	86.85					
LINE									
PC	445004.472	2012634.782	N 82°35'27.5" E	18.71	21°33'54.7"(L T)	114°35'29.6"	18.82	9.52	50.00
CURVE									
PCC	445006.885	2012653.334	N 82°35'27.5" E	18.71	21°33'54.7"(RT)	114°35'29.6"	18.82	9.52	50.00
CURVE									
PT	445009.297	2012671.886	S 86°37'35.1" E	290.05					
LINE									
PC	444992.229	2012961.438	N 78°56'57.7" E	185.33	28°50'54.3"(L T)	15°24'07.5"	187.30	95.68	372.00
CURVE									
PCC	445027.752	2013143.331	N 35°58'51.7" E	47.78	57°05'17.7"(L T)	114°35'29.6"	49.82	27.20	50.00
CURVE									
PCC	445066.419	2013171.405	N 16°14'25.0" E	95.50	17°36'24.3"(RT)	18°21'50.5"	95.88	48.32	312.00
CURVE									
PT	445158.108	2013198.113	N 25°02'37.2" E	53.64					
LINE									
PC	445206.708	2013220.821	N 20°02'24.8" E	17.44	10°00'24.8"(L T)	57°17'44.8"	17.47	8.75	100.00
CURVE									
PCC	445223.095	2013226.798	N 19°53'12.2" E	16.91	09°41'59.6"(RT)	57°17'44.8"	16.93	8.49	100.00
CURVE									
PT	445238.996	2013232.550	N 24°44'12.0" E	46.07					
LINE									
POT	445280.838	2013251.828							

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 MAY 2022 TO JULY 2022.

REVISIONS

RIGHT OF WAY CONTROL SHEET

PROJECT REFERENCE NO.	SHEET NO.
U-4709	RW03E-1
Location and Surveys	
	
3220 GLEN ROYAL RD. RALEIGH, NC 27617 TEL. (919) 788-0224 FAX (919) 788-0232 CORPORATE LICENSE # P-0189	
PROJECT SURVEYOR 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
L	10+45.00	-50.00	445079.8983	2011287.2758
L	10+45.00	-35.00	445064.9243	2011286.3931
L	10+99.14	30.00	444996.8508	2011336.6176
L	10+99.17	50.00	444976.8839	2011335.4678
L	15+10.00	-50.00	445052.5349	2011751.4699
L	15+32.03	50.00	444951.4117	2011767.5802
L	19+00.00	52.00	444927.7618	2012134.7918
L	19+80.00	45.00	444930.0420	2012215.0651
L	21+05.00	45.00	444922.6862	2012339.8485
L	22+15.00	45.00	444916.2132	2012449.6579
L	24+65.00	45.00	444901.5017	2012699.2246
L	26+87.00	50.00	444883.4465	2012920.5457
L	27+90.00	-51.13	444978.3447	2013029.3186
L	28+12.00	40.00	444886.0735	2013045.9175
L	31+00.00	-43.40	444965.9825	2013332.1764
L	31+45.00	50.35	444877.4136	2013386.7442
L	31+80.00	-45.99	444977.5695	2013408.5834
L	32+27.00	-52.00	444990.9657	2013452.1963
L	33+53.00	-52.00	445018.8163	2013569.8577
L	33+70.00	-50.26	445021.7781	2013586.0121
L	36+00.00	-61.00	445113.7518	2013786.0080
L	36+00.00	-50.74	445104.6087	2013790.6626
L	36+90.87	50.00	445060.5458	2013918.8958
L	37+72.00	-61.00	445197.5559	2013926.7577
L	38+15.00	-47.67	445210.6341	2013968.0397
L	38+55.00	-46.87	445233.3811	2013999.1658
L	39+80.00	-47.00	445312.4491	2014090.0182
L	40+45.00	50.00	445290.2117	2014204.6589
L	41+35.00	42.00	445365.3604	2014260.3051
L	41+72.35	40.00	445396.7065	2014282.7849
L	41+72.35	-47.00	445450.0233	2014214.0366
L	42+57.00	-47.00	445516.9184	2014265.9162
L	42+80.00	35.00	445484.8406	2014344.8087
L	43+63.00	-47.00	445600.6806	2014330.8769
L	44+73.00	-47.00	445687.6037	2014398.2889
L	44+75.00	35.00	445638.9315	2014464.3118
L	45+73.00	35.00	445716.3720	2014524.3698
L	46+39.68	-129.97	445870.1613	2014434.8672
L	47+05.00	35.00	445820.6797	2014605.2642
L	48+03.00	47.00	445890.7662	2014674.8047
L	48+26.44	-35.00	445959.5399	2014624.3714
L	49+40.00	47.00	445999.0249	2014758.7634
L	49+50.00	-35.00	446057.1796	2014700.0946

MAG NAIL

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y1	10+68.00	24.93	444898.0854	2012368.1653
Y1	10+68.00	-25.07	444894.9279	2012418.0660

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y2	11+01.49	-24.00	445156.4319	2013261.5004
Y2	11+47.00	-29.00	445113.9870	2013250.4105
Y2	12+46.00	-54.00	445018.3042	2013251.2220
Y2	12+53.00	32.12	445026.1719	2013165.1869

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y2A	11+07.19	-36.00	444808.4161	2013214.5504
Y2A	11+07.19	40.00	444815.2121	2013138.8548

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y3	11+00.00	25.00	445107.7604	2013501.1785
Y3	11+00.00	20.00	445106.6674	2013506.0576
Y3	11+00.00	-20.00	445097.9233	2013545.0902
Y3	11+00.00	-25.00	445096.8303	2013549.9692
Y3	11+50.00	-25.00	445048.0396	2013539.8392
Y3	11+90.00	25.00	445019.9371	2013481.5044

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y3A	11+00.00	27.00	445278.4262	2013929.8124
Y3A	11+00.00	20.00	445285.2080	2013931.5467
Y3A	11+00.00	-20.00	445323.9609	2013941.4568
Y3A	11+00.00	-25.00	445328.8050	2013942.6956
Y3A	11+67.00	27.00	445261.8267	2013994.7235
Y3A	12+10.00	-25.00	445301.5520	2014049.2661

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y4	10+65.00	25.00	445298.1972	2014238.1511
Y4	10+65.00	-25.00	445342.4178	2014261.4864
Y4	12+00.00	25.00	445235.1920	2014357.5469
Y4	12+00.00	9.38	445249.0094	2014364.8383
Y4	12+00.00	-15.63	445271.1239	2014376.5081
Y4	12+00.00	-25.00	445279.4126	2014380.8821

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y5	11+53.65	-78.48	444890.1884	2013876.6866

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y6	10+25.00	22.00	445581.1720	2014139.3207
Y6	10+25.00	20.00	445582.3301	2014139.6196
Y6	11+45.00	22.00	445551.1894	2014255.5147
Y6	11+70.00	-31.24	445596.4990	2014293.0252

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y7	10+53.70	27.00	445782.8481	2014312.2891
Y7	10+53.70	12.50	445794.4570	2014320.9772
Y7	10+53.70	-12.50	445814.4724	2014335.9566
Y7	10+53.70	-20.00	445820.4771	2014340.4504
Y7	11+03.80	-20.00	445790.4610	2014380.5577
Y7	11+53.00	27.00	445723.3526	2014391.7866
Y7	12+90.00	20.00	445646.6825	2014505.2535
Y7	12+90.00	-20.00	445678.4462	2014529.5653
Y7	13+85.00	20.00	445588.5888	2014580.0669
Y7	13+85.00	12.50	445594.4803	2014584.7080
Y7	13+85.00	-12.50	445614.1188	2014600.1783
Y7	13+85.00	-20.00	445620.0103	2014604.8194

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y8	10+25.00	25.00	445978.8769	2014448.8175
Y8	10+25.00	15.00	445986.8062	2014454.9106
Y8	10+25.00	-15.00	446010.5940	2014473.1902
Y8	10+25.00	-25.00	446018.5232	2014479.2833
Y8	10+74.77	25.00	445948.5499	2014488.2830
Y8	11+05.97	-65.04	446000.9370	2014567.8805
Y8	11+07.19	-25.00	445968.4415	2014544.4564
Y8	12+80.00	15.00	445831.3756	2014656.9110
Y8	12+80.00	-15.00	445855.0145	2014675.3828

MAG NAIL

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
RND	11+33.00	52.00	444989.634	2013274.7042

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
RNDI	11+04.80	50.00	444905.5384	2012025.2353
RNDI	12+58.00	50.00	445073.0199	2011916.1951

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y	7+53.90	-65.00	444448.9680	2011418.8836
Y	7+90.00	-30.59	444449.4368	2011468.7577
Y	10+00.00	-40.00	444602.5133	2011612.8280
Y	10+00.00	-30.00	444595.3404	2011619.7958
Y	10+31.76	77.00	444540.7208	2011717.1325
Y	10+50.00	55.00	444569.2098	2011714.8862
Y	11+50.00	35.00	444653.2333	2011772.6794
Y	11+99.51	-40.00	444741.5302	2011755.9370
Y	11+99.51	40.00	444684.1443	2011811.6762
Y	12+55.00	46.00	444725.8856	2011857.1089
Y	13+39.20	-40.00	444842.9444	2011829.1509
Y	13+39.20	57.62	444800.4222	2011917.0249
Y	13+72.30	-40.00	444872.7407	2011843.5693
Y	16+55.00	-61.00	445117.9546	2011973.3894
Y	17+53.20	-47.00	445191.8503	2012005.0560
Y	19+35.00	-47.00	445373.3185	2012015.9857
Y	20+17.00	-47.00	445455.1701	2012020.9156
Y	20+46.71	-47.00	445484.8264	2012022.7017
Y	22+42.00	-47.00	445689.9049	2012073.4705
Y	23+27.00	-47.00	445770.7613	2012118.1301
Y	25+46.66	-47.00	445937.8765	2012286.5739
Y	26+29.51	-47.00	445983.0141	2012356.0502
Y	31+23.51	-47.00	446357.1165	2012578.8931
Y	33+76.00	-47.00	446608.8013	2012599.0256
Y	34+61.00	-47.00	446698.0044	2012609.2551
Y	35+42.05	47.00	446752.3221	2012720.5747
Y	35+91.07	-47.00	446832.6674	2012651.5581
Y	38+00.00	-48.92	447017.7155	2012781.6851
Y	38+16.58	47.00	446957.9976	2012858.5482
Y	38+30.00	47.00	446966.8832	2012868.6109
Y	39+54.78	-28.78	447106.2810	2012911.9862
Y	40+25.00	39.00	447101.9509	2013009.4858
Y	40+25.00	-26.81	447151.2813	2012965.9261

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y10	11+28.00	25.00	445390.8080	2011996.4646
Y10	11+32.00	-25.00	445440.3058	2012004.5813

X IN CON

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y11	11+13.00	25.00	445716.2442	2012063.4180
Y11	11+17.00	-25.00	445760.4244	2012087.1690

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y12	10+40.00	57.00	447161.0691	2012638.8461
Y12	10+40.00	44.75	447171.3574	2012645.4938
Y12	11+12.59	57.00	447121.6731	2012699.8171
Y12	12+08.00	57.00	447070.1825	2012782.0682
Y12	13+71.00	72.00	446974.5455	2012918.7481
Y12	14+20.00	-40.48	447050.9315	2013014.8319
Y12	14+45.00	49.03	446959.7424	2012996.8130

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION</			

PERMANENT EASEMENT CONTROL SHEET

PROJECT REFERENCE NO.	SHEET NO.
U-4709	RW03E-2
Location and Surveys	
CH ENGINEERING	
3220 GLEN ROYAL RD, RALEIGH, NC 27617 TEL. (919) 788-0224 FAX (919) 788-0232 CORPORATE LICENSE # P-0189	
PROJECT SURVEYOR	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

ROW MARKER PERMANENT EASEMENT-E				
ALIGN	STATION	OFFSET	NORTH	EAST
L	9+67.00	-43.00	445077.5004	2011208.9990
L	9+67.00	-30.00	445064.5230	2011208.2340
L	11+30.00	50.00	444975.0697	2011366.2439
L	11+35.00	-50.00	445074.6022	2011377.1198
L	11+35.00	-60.00	445084.5849	2011377.7083
L	12+85.00	67.00	444948.9780	2011519.9749
L	12+85.00	82.00	444934.0040	2011519.0922
L	13+06.00	68.00	444946.7440	2011540.8796
L	13+06.00	83.00	444931.7700	2011539.9970
L	13+60.00	-50.00	445061.3618	2011601.7299
L	13+60.00	-57.00	445068.3497	2011602.1418
L	14+56.00	68.00	444937.9171	2011690.6197
L	14+64.00	78.00	444927.4637	2011698.0174
L	14+68.00	-93.00	445097.9320	2011712.0731
L	14+68.00	-50.00	445055.0065	2011709.5427
L	14+79.00	68.00	444936.5637	2011713.5798
L	14+98.00	-93.00	445096.1666	2011742.0211
L	14+98.00	-50.00	445053.2411	2011739.4907
L	15+64.00	-60.00	445059.3399	2011805.9648
L	15+64.00	-89.00	445088.2897	2011807.6714
L	15+84.00	-63.76	445061.9137	2011826.1513
L	15+84.00	-92.00	445090.1076	2011827.8132
L	16+28.00	-71.79	445067.3433	2011870.5477
L	18+91.00	74.00	444906.3295	2012124.5128
L	18+97.00	90.00	444890.0042	2012129.5609
L	19+10.00	66.00	444913.1976	2012143.9506
L	19+16.00	82.00	444896.8722	2012148.9987
L	19+36.00	48.85	444928.7879	2012170.9148
L	20+39.00	-67.09	445038.4631	2012280.5587
L	20+34.00	-81.00	445052.6459	2012276.3861
L	20+54.00	-88.00	445058.4569	2012296.7634
L	20+59.00	-71.00	445041.1921	2012300.7543
L	20+94.00	45.00	444923.3335	2012328.8676
L	21+05.00	79.00	444888.7451	2012337.8477
L	21+22.00	58.10	444908.6122	2012356.0484
L	21+25.00	76.00	444890.5630	2012357.9896
L	23+77.00	-73.00	445024.4756	2012618.3210
L	23+81.00	-90.00	445041.2108	2012623.3144
L	24+01.00	-85.00	445035.0425	2012642.9855
L	23+97.00	-68.00	445018.3074	2012637.9921
L	24+27.00	-51.57	445000.1403	2012666.9732
L	25+43.00	46.76	444895.1580	2012776.9861
L	25+68.00	80.00	444860.5012	2012799.9865
L	25+73.00	64.00	444876.1792	2012805.9194
L	25+88.00	85.00	444854.3329	2012819.6576
L	25+93.00	69.00	444870.0110	2012825.5905
L	26+77.00	70.00	444864.0697	2012909.3861
L	26+77.00	49.77	444884.2598	2012910.5763
L	26+97.00	70.00	444862.8927	2012929.3514
L	26+97.00	49.20	444883.6567	2012930.5754
L	27+55.00	-70.00	444999.2371	2012995.4894
L	27+55.00	-50.53	444979.7990	2012994.3435
L	27+77.00	-50.87	444978.8436	2013016.3254
L	27+77.00	-70.00	444997.9425	2013017.4513
L	27+97.00	-107.00	445033.7014	2013039.5939
L	27+98.00	-87.00	445013.6772	2013039.4152
L	28+26.00	86.00	444839.3293	2013057.1864
L	28+28.00	73.00	444852.1891	2013059.9479
L	28+46.00	89.00	444835.1576	2013076.9752
L	28+46.00	-74.64	444998.5100	2013086.6045
L	28+48.00	73.00	444851.0122	2013079.9132
L	28+48.00	-90.00	445013.7297	2013089.5051
L	28+56.00	-110.00	445033.2243	2013098.6682
L	28+59.00	-132.00	445055.0096	2013102.9576
L	28+77.23	-87.74	445009.7560	2013118.5523
L	28+84.00	-128.00	445049.5454	2013127.6789
L	28+61.02	73.00	444850.2463	2013092.9062
L	30+54.00	101.00	444818.7211	2013295.1637
L	30+71.00	102.00	444818.7746	2013313.5181
L	30+72.00	87.00	444833.8125	2013313.6240
L	32+57.00	109.00	444838.9985	2013513.5427
L	32+57.00	126.00	444822.3616	2013517.0373
L	32+76.00	113.00	444839.4767	2013534.5437
L	32+76.00	126.00	444826.7947	2013537.4017
L	33+37.31	129.00	444840.2291	2013603.4336
L	33+43.84	105.53	444864.7524	2013604.0000
L	33+76.00	-284.00	445246.8597	2013522.7718
L	33+91.82	-276.81	445243.7258	2013536.7614
L	34+87.00	-65.00	445072.8309	2013686.5316
L	34+87.00	-51.23	445060.0656	2013691.6890
L	35+07.00	-51.25	445067.4129	2013709.4400
L	35+07.00	-65.00	445080.0835	2013704.0927
L	35+39.00	-51.18	445079.6503	2013737.6377
L	36+00.00	-57.00	445110.1872	2013787.8227
L	37+57.00	-61.00	445189.5142	2013914.9379

HOLE IN CONC
NOT SET

MAG NAIL

ROW MARKER PERMANENT EASEMENT-E				
ALIGN	STATION	OFFSET	NORTH	EAST
L	37+57.00	-77.00	445202.7945	2013906.0142
L	37+77.00	-61.00	445200.2668	2013930.6769
L	37+77.00	-59.53	445199.0625	2013931.5133
L	37+77.00	-77.00	445213.4082	2013921.5499
L	38+00.00	-60.00	445212.1187	2013949.1547
L	39+55.00	50.00	445224.5898	2014138.1357
L	39+62.00	121.00	445177.5455	2014191.8335
L	39+84.00	50.00	445245.2297	2014160.0651
L	39+89.00	118.00	445200.0250	2014211.1421
L	40+07.00	-56.00	445337.0047	2014102.2809
L	40+36.00	50.00	445283.4442	2014198.2130
L	40+61.00	-47.00	445368.1368	2014144.7181
L	40+61.00	-54.00	445372.8842	2014139.5739
L	42+01.00	38.69	445420.1517	2014299.3117
L	43+47.50	-63.00	445598.2341	2014308.7318
L	47+01.00	58.00	445803.4236	2014620.9877
L	47+01.00	35.00	445817.5188	2014602.8129
L	47+01.00	50.00	445808.3263	2014614.6660
L	47+22.13	58.00	445820.1219	2014633.9378
L	47+31.93	58.00	445827.8609	2014639.9398
L	47+45.07	77.23	445826.4597	2014663.1917
L	48+25.81	-58.00	445973.1400	2014605.8125
L	48+25.35	-75.00	445983.1922	2014592.0951
L	48+34.00	47.00	445915.2627	2014693.8027
L	48+34.00	-75.00	445990.0288	2014597.3971
L	48+34.00	-90.00	445999.2213	2014585.5440
L	48+42.00	-58.00	445985.9322	2014615.7334
L	48+42.00	-35.00	445971.8370	2014633.9082
L	48+55.00	85.00	445908.5693	2014736.7002
L	48+55.00	-90.00	446015.8157	2014598.4135
L	48+55.00	47.00	445931.8571	2014706.6723
L	48+65.00	-52.00	446000.4300	2014634.5699
L	49+40.00	-53.00	446060.3086	2014679.7424
L	49+36.00	-35.00	446046.1167	2014691.5148
L	49+36.00	-50.00	446055.3092	2014679.6617
L	49+56.00	-40.54	446065.3140	2014699.3963
L	49+56.00	-50.00	446071.1134	2014691.9184

MAG NAIL

ROW MARKER PERMANENT EASEMENT-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y	9+50.00	-40.00	444567.6744	2011576.9636
Y	9+50.00	-50.00	444574.8473	2011569.9959
Y	11+50.00	-61.00	444722.0929	2011705.7888
Y	13+50.00	-68.00	444864.8613	2011808.6505
Y	13+63.00	-77.00	444880.4835	2011806.2117
Y	17+18.00	67.20	445141.8315	2012113.7619
Y	17+26.00	85.00	445148.8169	2012133.0161
Y	17+36.00	64.94	445164.0875	2012114.8837
Y	17+40.00	75.00	445167.8975	2012125.4475
Y	18+21.00	63.43	445252.8858	2012119.3594
Y	18+42.00	-79.00	445282.4105	2011978.4524
Y	18+42.00	-47.00	445280.4867	2012010.3945
Y	18+69.00	-77.00	445309.2415	2011982.0720
Y	18+69.00	-47.00	445307.4378	2012012.0177
Y	19+28.00	-47.00	445366.3311	2012015.5648
Y	19+28.00	-68.00	445367.5936	2011994.6028
Y	20+34.42	58.00	445466.2433	2012126.7728
Y	20+67.00	-66.00	445508.6896	2012005.5377
Y	20+67.00	-47.00	445506.8289	2012024.4464
Y	20+71.00	62.00	445499.6723	2012133.2819
Y	20+71.00	91.00	445496.6165	2012162.1205
Y	20+87.00	-66.00	445531.0026	2012008.1554
Y	20+87.00	-47.00	445528.4364	2012026.9813
Y	26+57.00	50.37	445918.3699	2012433.8769
Y	26+57.00	90.00	445886.2822	2012457.1286
Y	26+77.00	90.00	445900.3202	2012475.7650
Y	26+77.00	50.90	445931.1119	2012451.6643
Y	27+10.00	93.00	445922.7160	2012507.3287
Y	27+31.00	113.00	445924.9581	2012539.2665
Y	27+38.00	53.65	445973.1724	2012503.7213
Y	27+58.00	75.00	445974.2159	2012534.6353
Y	28+50.00	55.18	446067.1113	2012583.2372
Y	28+50.00	77.00	446055.0390	2012601.4118
Y	30+33.00	67.00	446247.7616	2012675.9760
Y	30+33.00	55.80	446250.5049	2012665.1161
Y	30+53.00	55.91	446271.9718	2012670.2303
Y	30+53.00	67.00	446269.6554	2012681.0772
Y	36+91.00	-70.19	446940.2400	2012686.4594

X IN CONC

X IN CONC

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 MAY 2022 TO JULY 2022 AND MAY 2023.

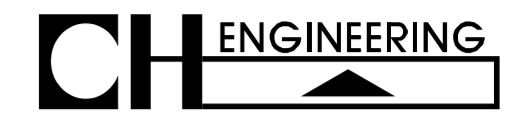
REVISIONS

6/22/2023

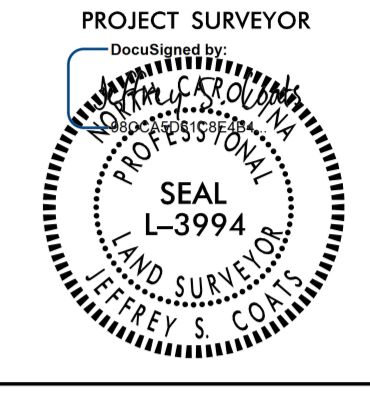
PERMANENT EASEMENT CONTROL SHEET

PROJECT REFERENCE NO.	SHEET NO.
U-4709	RW03E-3

Location and Surveys



3220 GLEN ROYAL RD. RALEIGH, NC 27617
 TEL. (919) 788-0224 FAX (919) 788-0232
 CORPORATE LICENSE # P-0189



DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

ROW MARKER PERMANENT EASEMENT - E

ALIGN	STATION	OFFSET	NORTH	EAST
RND	10+36.00	55.82	444825.7357	2013257.7741

ROW MARKER PERMANENT EASEMENT - E

ALIGN	STATION	OFFSET	NORTH	EAST
RND1	10+94.00	56.01	444889.5147	2012008.7399
RND1	12+53.00	84.00	445108.4953	2011910.5924
RND1	12+53.00	68.00	445094.0078	2011917.3831
RND1	12+61.00	85.00	445098.7110	2011891.4251
RND1	12+62.00	69.00	445084.1304	2011898.4842

NOT SET
 NOT SET

ROW MARKER PERMANENT EASEMENT - E

ALIGN	STATION	OFFSET	NORTH	EAST
Y1	11+25.00	35.00	444841.8348	2012354.5197
Y1	12+35.00	35.00	444741.1672	2012336.9185
Y1	13+76.11	35.00	444605.5647	2012297.8821
Y1	14+37.64	35.00	444546.4395	2012280.8614
Y1	18+67.00	35.00	444133.8318	2012162.0823
Y1	19+56.84	40.35	444092.1798	2012119.2479
Y1	20+04.07	36.33	444058.4922	2012078.7412
Y1	25+12.37	35.00	443702.0258	2011712.1563

ROW MARKER PERMANENT EASEMENT - E

ALIGN	STATION	OFFSET	NORTH	EAST
Y2	11+90.00	-57.00	445067.4570	2013265.3314
Y2	11+95.00	-43.20	445066.5764	2013250.8126
Y2	12+11.00	-63.00	445047.5658	2013266.4700
Y2	12+16.00	-48.16	445046.4799	2013250.9831
Y2	12+35.00	44.00	445047.0737	2013156.9105
Y2	12+42.00	32.32	445037.5944	2013166.9915
Y2	12+50.00	55.00	445033.1536	2013143.1646
Y2	12+58.00	41.81	445022.5047	2013154.7691

ROW MARKER PERMANENT EASEMENT - E

ALIGN	STATION	OFFSET	NORTH	EAST
Y2A	11+98.00	-114.00	444643.0909	2013113.3257
Y2A	12+13.00	-87.00	444670.9525	2013097.3324
Y2A	12+30.00	-81.00	444677.8601	2013080.6806
Y2A	12+37.00	-100.00	444659.2651	2013072.6666

MAG NAIL
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 MAG NAIL
 MAG NAIL

ROW MARKER PERMANENT EASEMENT - E

ALIGN	STATION	OFFSET	NORTH	EAST
Y3	11+71.00	42.00	445042.1938	2013469.0690
Y3	11+75.00	59.00	445042.0068	2013451.6057
Y3	11+91.00	38.00	445021.8032	2013468.6002
Y3	11+94.00	55.00	445022.5919	2013451.3556
Y3	12+02.00	32.71	445009.9117	2013471.3625

ROW MARKER PERMANENT EASEMENT - E

ALIGN	STATION	OFFSET	NORTH	EAST
Y3A	11+16.00	27.00	445274.4621	2013945.3136
Y3A	11+23.00	51.00	445249.4761	2013946.1492
Y3A	11+38.00	27.00	445269.0115	2013966.6277
Y3A	11+40.00	-30.00	445323.7389	2013982.6873
Y3A	11+40.00	-25.00	445318.8948	2013981.4485
Y3A	11+43.00	46.00	445249.3651	2013966.7645
Y3A	11+79.00	-30.00	445314.0765	2014020.4714

ROW MARKER PERMANENT EASEMENT - E

ALIGN	STATION	OFFSET	NORTH	EAST
Y4	10+73.00	25.00	445294.4636	2014245.2264
Y4	10+76.00	-60.00	445368.2385	2014287.5496
Y4	10+92.00	-46.00	445348.3895	2014295.1664
Y4	10+95.00	-54.00	445354.0647	2014301.5532
Y4	11+15.00	-25.00	445319.0826	2014305.7070

ROW MARKER PERMANENT EASEMENT - E

ALIGN	STATION	OFFSET	NORTH	EAST
Y7	10+25.00	25.00	445801.6485	2014290.5061
Y7	10+25.00	12.50	445811.6562	2014297.9958
Y7	10+95.00	27.00	445758.1048	2014345.3509
Y7	12+77.79	-32.18	445695.5701	2014527.2195
Y7	12+78.00	33.32	445643.3532	2014487.6677
Y7	13+60.00	29.00	445596.8875	2014554.9145
Y7	13+60.00	20.00	445603.9777	2014560.4579

ROW MARKER PERMANENT EASEMENT - E

ALIGN	STATION	OFFSET	NORTH	EAST
Y12	10+56.00	57.00	447152.3858	2012652.2849
Y12	10+56.00	65.00	447145.6664	2012647.9432
Y12	10+76.00	65.00	447134.8122	2012664.7416
Y12	10+76.00	57.00	447141.5316	2012669.0833
Y12	11+30.00	73.00	447098.6185	2012706.1014
Y12	11+30.00	57.00	447112.1025	2012714.7144
Y12	11+50.00	73.00	447087.6681	2012723.3589
Y12	11+50.00	57.00	447101.2035	2012731.8907
Y12	11+95.00	57.00	447077.0594	2012770.7747
Y12	14+48.00	-330.00	447298.1070	2013167.6367
Y12	14+77.00	-379.00	447332.0609	2013209.9272
Y12	15+04.00	-333.00	447281.2338	2013210.1209
Y12	15+14.00	-239.00	447192.1412	2013178.9920
Y12	15+20.00	-359.00	447299.6320	2013232.5705
Y12	15+30.00	-40.53	447004.7777	2013111.9093
Y12	15+60.00	-251.00	447187.3394	2013220.1816
Y12	15+71.00	-40.17	446988.7630	2013148.6456

MAG NAIL
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ROW MARKER PERMANENT EASEMENT - E

ALIGN	STATION	OFFSET	NORTH	EAST
Y12A	11+21.00	-52.00	446241.0309	2014643.2126
Y12A	11+37.00	-33.16	446216.3075	2014645.5276
Y12A	11+40.00	-69.00	446243.7579	2014668.7775
Y12A	11+72.00	-31.98	446194.7893	2014673.5164
Y12A	12+12.00	27.52	446123.1360	2014670.6894

MAG NAIL

ROW MARKER PERMANENT EASEMENT - E

ALIGN	STATION	OFFSET	NORTH	EAST
OUTLET	10+23.69	20.00	443666.4339	2011670.3423
OUTLET	10+25.12	-18.46	443638.0317	2011696.3068
OUTLET	11+75.32	-17.49	443533.3341	2011588.6052
OUTLET	11+75.41	-20.00	443531.4862	2011590.3086
OUTLET	12+04.74	-20.00	443510.9042	2011569.4070
OUTLET	12+08.04	20.27	443534.7688	2011536.6327
OUTLET	18+07.93	-20.00	442977.8363	2011301.5475
OUTLET	18+07.95	20.00	442995.7959	2011265.8060
OUTLET	23+97.52	-20.00	442451.2040	2011036.4129
OUTLET	24+06.69	22.00	442452.8205	2010992.4435
OUTLET	26+70.00	-45.00	442225.9938	2011156.8164
OUTLET	26+70.00	-20.00	442216.4218	2011133.7215
OUTLET	26+70.00	20.00	442201.1066	2011096.7695
OUTLET	26+70.00	55.00	442187.7058	2011064.4366
OUTLET	28+50.00	-45.00	442059.7101	2011225.7348
OUTLET	28+50.00	55.00	442021.4221	2011133.3550

MAG NAIL

I, Jeffrey S. Coats, 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 5-22 to 7-22, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 10th day of July, 2023
 Jeffrey S. Coats
 Professional Land Surveyor L-3994

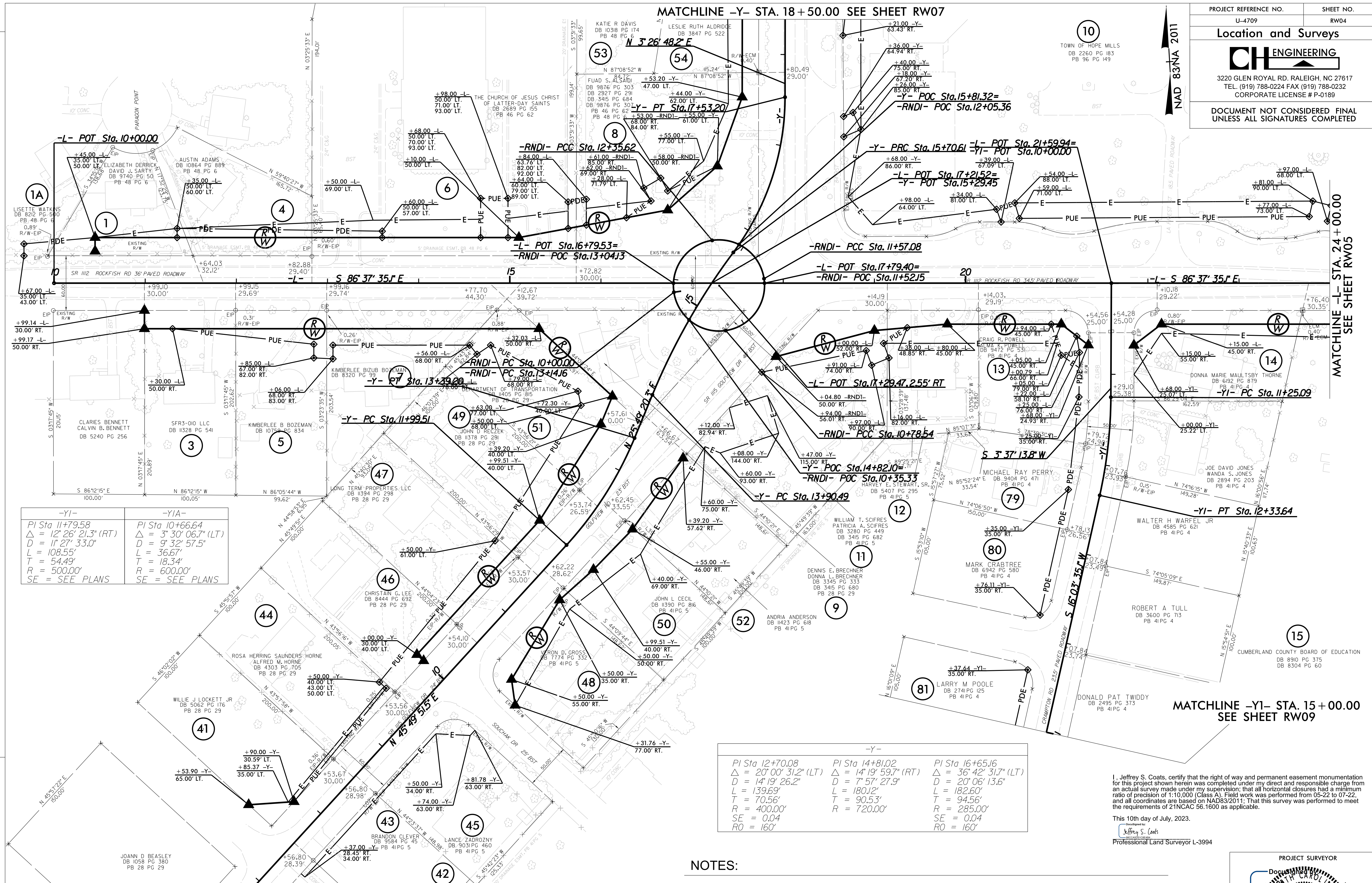
NOTES:

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 MAY 2022 TO JULY 2022.

REVISIONS

I:\8\2024
 S:\SURVEY\NCDOT\AG22209_U4709_ROW_Staking\U4709_RdJ_row.dgn
 USER:NAME

PROJECT REFERENCE NO.	SHEET NO.
U-4709	RW04
Location and Surveys	
CH ENGINEERING	
3220 GLEN ROYAL RD. RALEIGH, NC 27617 TEL. (919) 788-0224 FAX (919) 788-0232 CORPORATE LICENSE # P-0189	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



-YI-	-YIA-
PI Sta 11+79.58	PI Sta 10+66.64
$\Delta = 12' 26'' 21.3''$ (RT)	$\Delta = 3' 30'' 06.7''$ (LT)
D = 11' 27' 33.0"	D = 9' 32' 57.5"
L = 108.55'	L = 36.67'
T = 54.49'	T = 18.34'
R = 500.00'	R = 600.00'
SE = SEE PLANS	SE = SEE PLANS

-Y-		
PI Sta 12+70.08	PI Sta 14+81.02	PI Sta 16+65.16
$\Delta = 20' 00'' 31.2''$ (LT)	$\Delta = 14' 19'' 59.7''$ (RT)	$\Delta = 36' 42'' 31.7''$ (LT)
D = 14' 19' 26.2"	D = 7' 57' 27.9"	D = 20' 06' 13.6"
L = 139.69'	L = 182.60'	L = 182.60'
T = 70.56'	T = 90.53'	T = 94.56'
R = 400.00'	R = 720.00'	R = 285.00'
SE = 0.04	SE = 0.04	SE = 0.04
RO = 160'	RO = 160'	RO = 160'

-RNDI-			
PI Sta 10+50.00	PI Sta 11+28.54	PI Sta 12+07.08	PI Sta 12+85.62
$\Delta = 90' 00'' 00.0''$ (LT)	$\Delta = 90' 00'' 00.0''$ (LT)	$\Delta = 90' 00'' 00.0''$ (LT)	$\Delta = 90' 00'' 00.0''$ (LT)
D = 114' 35' 29.6"	D = 114' 35' 29.6"	D = 114' 35' 29.6"	D = 114' 35' 29.6"
L = 78.54'	L = 78.54'	L = 78.54'	L = 78.54'
T = 50.00'	T = 50.00'	T = 50.00'	T = 50.00'
R = 50.00'	R = 50.00'	R = 50.00'	R = 50.00'

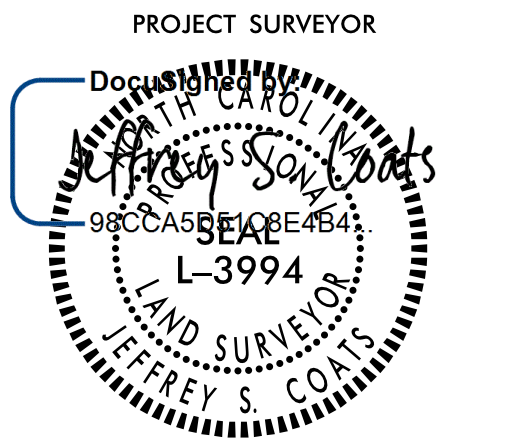
NOTES:

- 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 MAY 2022 TO JULY 2022 .

I, Jeffrey S. Coats, 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 05-22 to 07-22, and all coordinates are based on NAD83/2011. That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 10th day of July, 2023.

Jeffrey S. Coats
Professional Land Surveyor L-3994



REVISIONS

MATCHLINE -L- STA. 24 + 00.00
SEE SHEET RW05

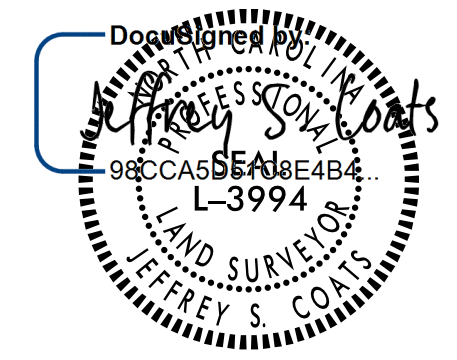
MATCHLINE -YI- STA. 15 + 00.00
SEE SHEET RW09

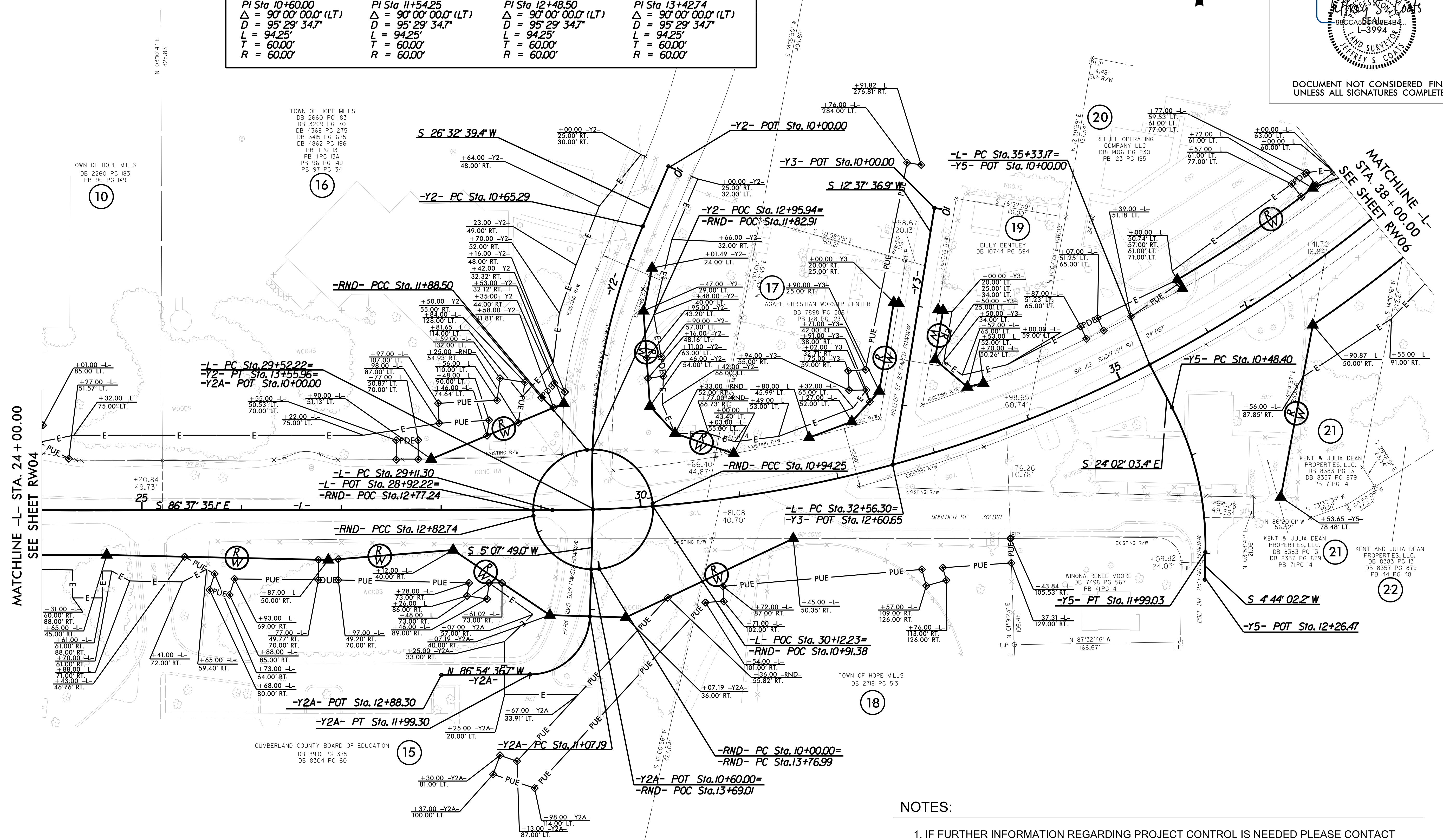
-L-	-Y2-	-Y2A-	-Y5-
PI Sta 35+96.41 Δ = 55° 34' 43.2" (LT) D = 4' 2" 26.5" L = 1261.04' T = 685.10' R = 1300.00' SE = 0.03 RO = 102'	PI Sta 12+13.26 Δ = 26° 26' 06.3" (LT) D = 9' 05' 40.4" L = 290.67' T = 147.97' R = 630.00' SE = SEE PLANS	PI Sta 11+65.09 Δ = 87° 57' 34.4" (RT) D = 95' 29' 34.7" L = 92.11' T = 57.90' R = 60.00' SE = SEE PLANS	PI Sta 11+25.34 Δ = 28° 46' 05.6" (RT) D = 19' 05' 54.9" L = 150.63' T = 76.94' R = 300.00' SE = 0.04 RO = 72'
-RND-			
PI Sta 10+60.00 Δ = 90° 00' 00.0" (LT) D = 95' 29' 34.7" L = 94.25' T = 60.00' R = 60.00'	PI Sta 11+54.25 Δ = 90° 00' 00.0" (LT) D = 95' 29' 34.7" L = 94.25' T = 60.00' R = 60.00'	PI Sta 12+48.50 Δ = 90° 00' 00.0" (LT) D = 95' 29' 34.7" L = 94.25' T = 60.00' R = 60.00'	PI Sta 13+42.74 Δ = 90° 00' 00.0" (LT) D = 95' 29' 34.7" L = 94.25' T = 60.00' R = 60.00'

I, Jeffrey S. Coats, 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 05-22 to 07-22, and all coordinates are based on NAD83/2011. That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 10th day of July, 2023.

Jeffrey S. Coats
Professional Land Surveyor L-3994

PROJECT REFERENCE NO. U-4709	SHEET NO. RW05
Location and Surveys	
CH ENGINEERING	
3220 GLEN ROYAL RD. RALEIGH, NC 27617 TEL. (919) 788-0224 FAX (919) 788-0232 CORPORATE LICENSE # P-0189	
PROJECT SURVEYOR	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



REVISIONS

NOTES:

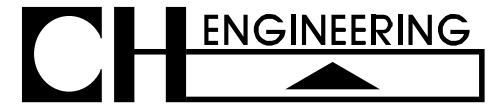
1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. RIGHT OF WAY MONUMENTATION ESTABLISHED MAY 2022 TO JULY 2022.

6/2/2023

-L-	-Y7-	-Y8-	-Y12A-
PI Sta 35+96.41	PI Sta 13+04.00	PI Sta 13+18.22	PI Sta 11+70.43
$\Delta = 55^{\circ} 34' 43.2''$ (LT)	$\Delta = 1^{\circ} 28' 26.1''$ (RT)	$\Delta = 1^{\circ} 48' 40.0''$ (RT)	$\Delta = 3^{\circ} 25' 29.7''$ (RT)
D = 4' 24' 26.5"	D = 0' 50' 28.8"	D = 1' 09' 16.0"	D = 1' 25' 56.6"
L = 1,261.04'	L = 175.19'	L = 156.88'	L = 239.10'
T = 685.10'	T = 87.60'	T = 78.45'	T = 119.59'
R = 1,300.00'	R = 6,810.04'	R = 4,963.06'	R = 4,000.00'
SE = 0.03	SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS
RO = 102'			

PROJECT REFERENCE NO. U-4709 SHEET NO. RW06

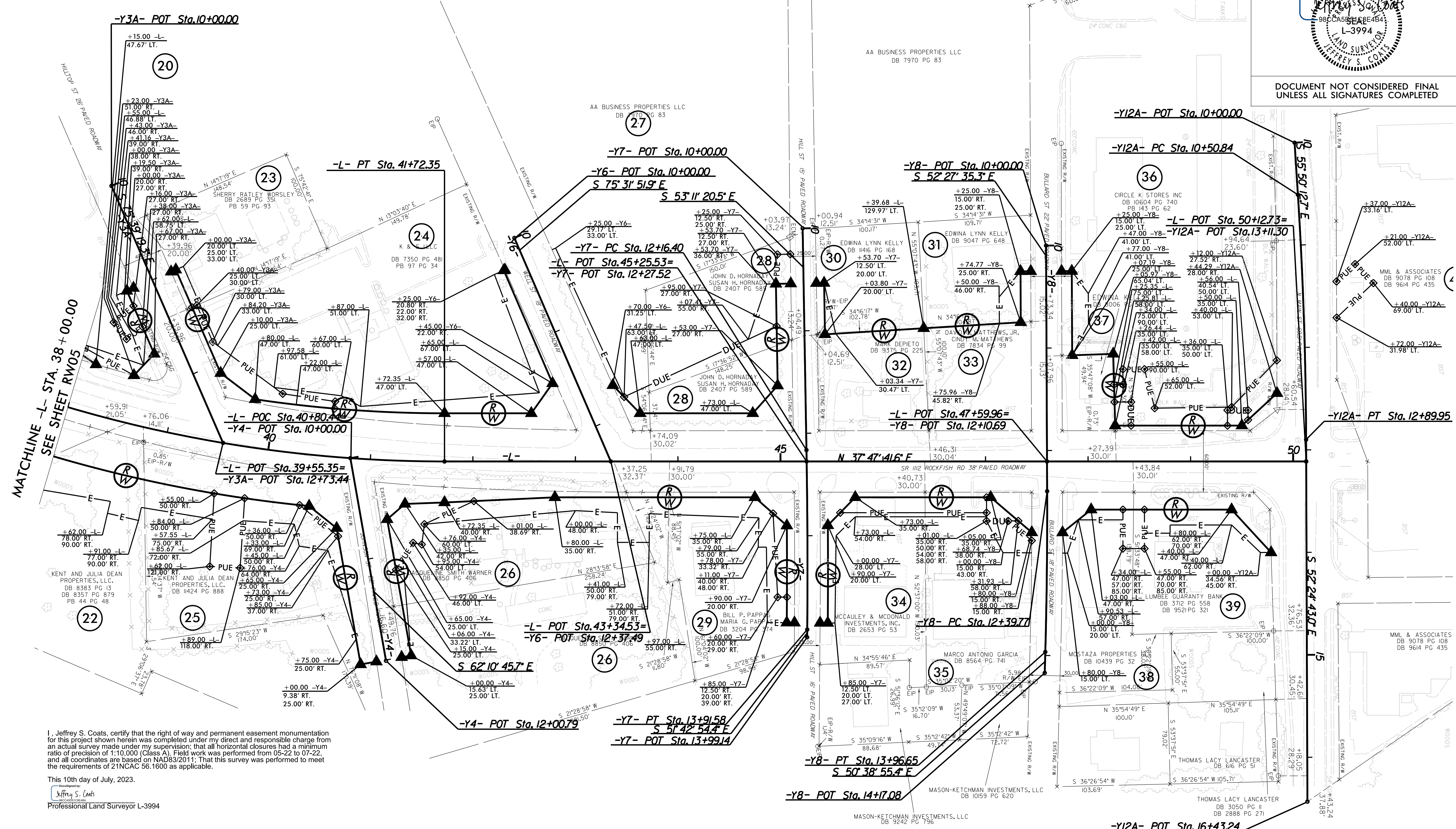
Location and Surveys



3220 GLEN ROYAL RD. RALEIGH, NC 27617
TEL. (919) 788-0224 FAX (919) 788-0232
CORPORATE LICENSE # P-0189

PROJECT SURVEYOR
Jeffrey S. Coats
Professional Land Surveyor L-3994

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



I, Jeffrey S. Coats, 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 05-22 to 07-22, and all coordinates are based on NAD83/2011. That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 10th day of July, 2023.

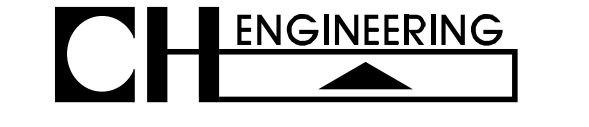
Jeffrey S. Coats
Professional Land Surveyor L-3994

NOTES:

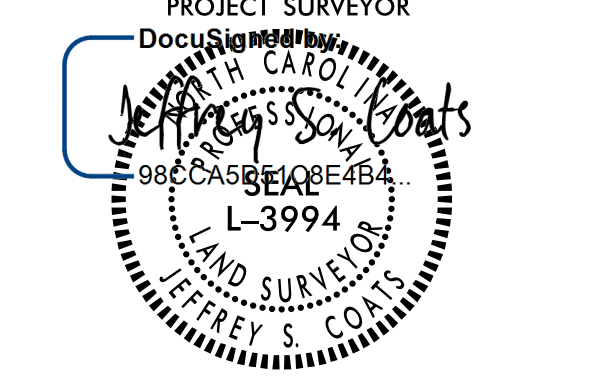
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3. RIGHT OF WAY MONUMENTATION ESTABLISHED MAY 2022 TO JULY 2022.

REVISIONS

Location and Surveys



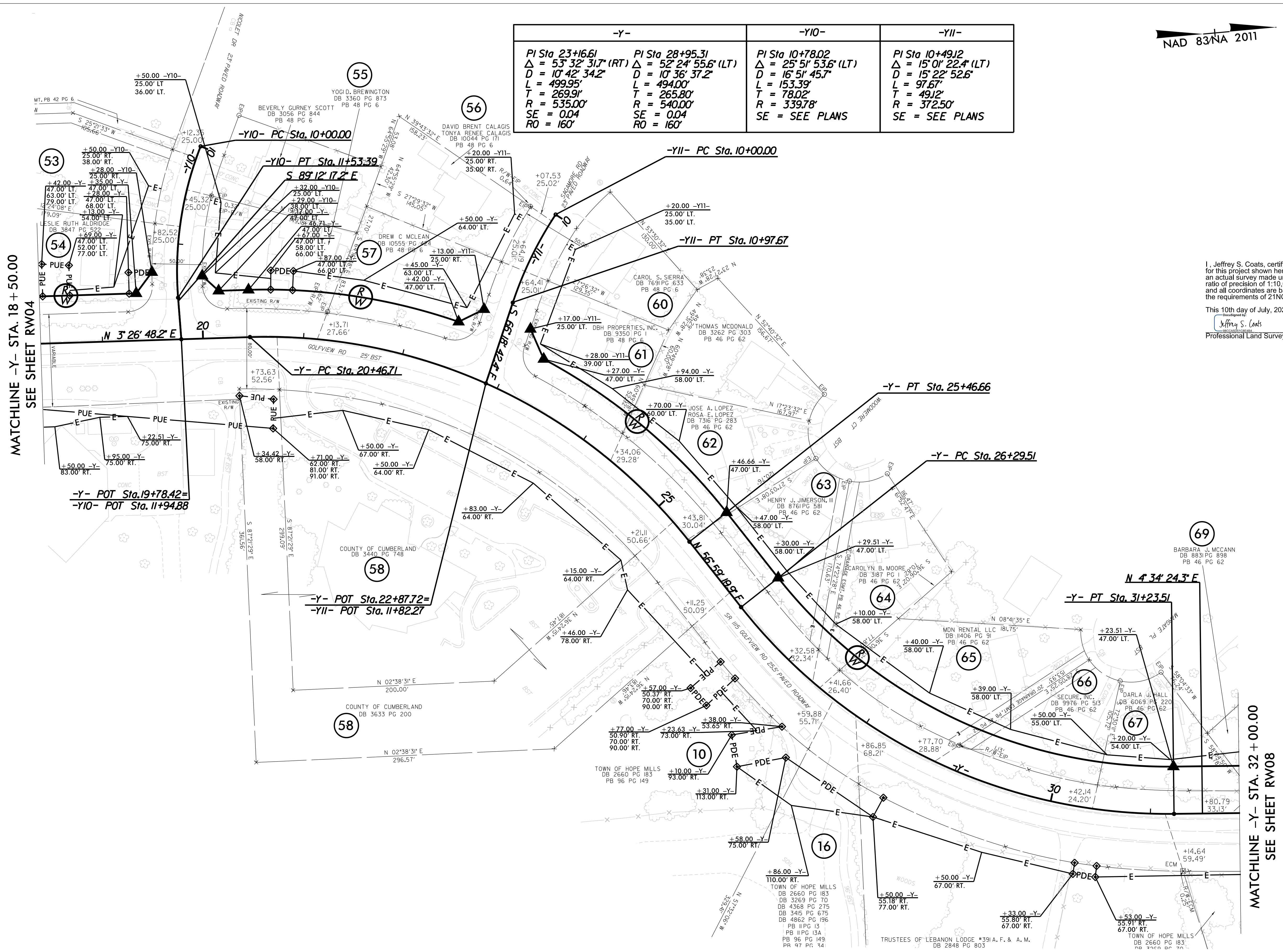
3220 GLEN ROYAL RD. RALEIGH, NC 27617
TEL. (919) 788-0224 FAX (919) 788-0232
CORPORATE LICENSE # P-0189



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



-Y-	-Y10-	-Y11-
PI Sta 23+16.61 Δ = 53° 32' 31.7" (RT) D = 10' 42' 34.2" L = 499.95' T = 269.91' R = 535.00' SE = 0.04 RO = 160'	PI Sta 28+95.31 Δ = 52° 24' 55.6" (LT) D = 10' 36' 37.2" L = 494.00' T = 265.80' R = 540.00' SE = 0.04 RO = 160'	PI Sta 10+78.02 Δ = 25° 51' 53.6" (LT) D = 16' 51' 45.7" L = 153.39' T = 78.02' R = 339.78' SE = SEE PLANS
PI Sta 10+49.12 Δ = 15° 01' 22.4" (LT) D = 15' 22' 52.6" L = 97.67' T = 49.12' R = 372.50' SE = SEE PLANS		



MATCHLINE -Y- STA. 18 + 50.00
SEE SHEET RW04

MATCHLINE -Y- STA. 32 + 00.00
SEE SHEET RW08

NOTES:

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3. RIGHT OF WAY MONUMENTATION ESTABLISHED MAY 2022 TO JULY 2022 .

I, Jeffrey S. Coats, 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 05-22 to 07-22, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 10th day of July, 2023.
 Signed by: *Jeffrey S. Coats*
 Professional Land Surveyor L-3994

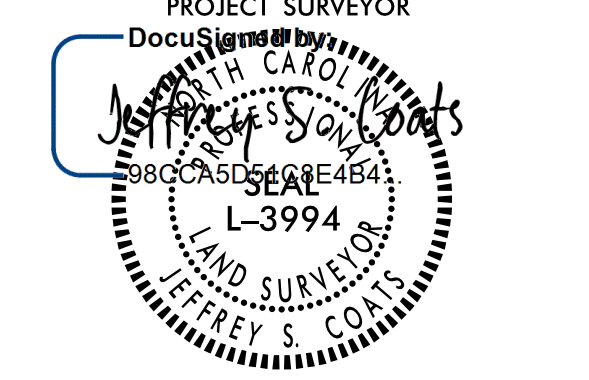
REVISIONS

UNPLANNED CONSTRUCTION

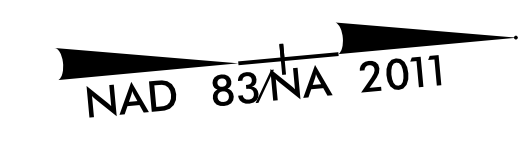
Location and Surveys



3220 GLEN ROYAL RD. RALEIGH, NC 27617
TEL. (919) 788-0224 FAX (919) 788-0232
CORPORATE LICENSE # P-0189



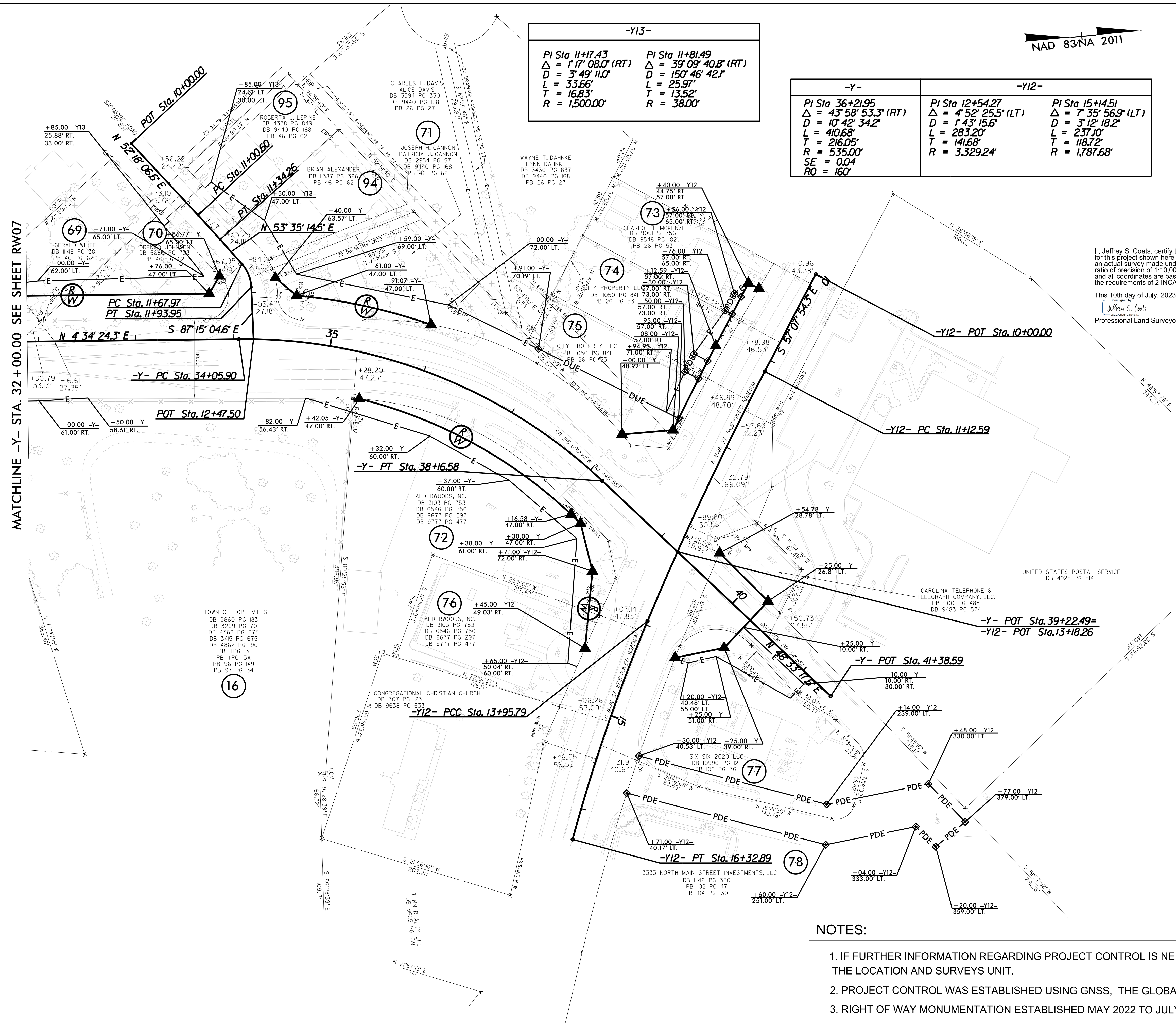
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



-Y13-

PI Sta 11+74.43 Δ = 1°17' 08.0" (RT) D = 3°49' 11.0" L = 33.66' T = 16.83' R = 1,500.00'	PI Sta 11+81.49 Δ = 3°09' 40.8" (RT) D = 150°46' 42.1" L = 25.97' T = 13.52' R = 38.00'
---	--

-Y-	-Y12-
PI Sta 36+21.95 Δ = 4°58' 53.3" (RT) D = 10°42' 34.2" L = 410.68' T = 216.05' R = 535.00' SE = 0.04' RO = 160'	PI Sta 12+54.27 Δ = 4°52' 25.5" (LT) D = 1°43' 15.6" L = 283.20' T = 141.68' R = 3,329.24'
	PI Sta 15+14.51 Δ = 7°35' 56.9" (LT) D = 3°12' 18.2" L = 237.10' T = 118.72' R = 1,787.68'



I, Jeffrey S. Coats, 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 05-22 to 07-22, and all coordinates are based on NAD83/2011. That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 10th day of July, 2023.
Jeffrey S. Coats
Professional Land Surveyor L-3994

REVISIONS

MATCHLINE -Y- STA. 32+00.00 SEE SHEET RW07

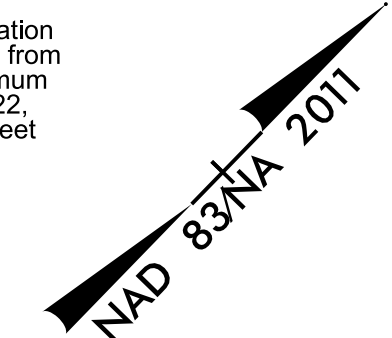
NOTES:

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- RIGHT OF WAY MONUMENTATION ESTABLISHED MAY 2022 TO JULY 2022 .

10/23/2023
JEFFREY S. COATS
L-3994
PROFESSIONAL LAND SURVEYOR
STATE OF NORTH CAROLINA

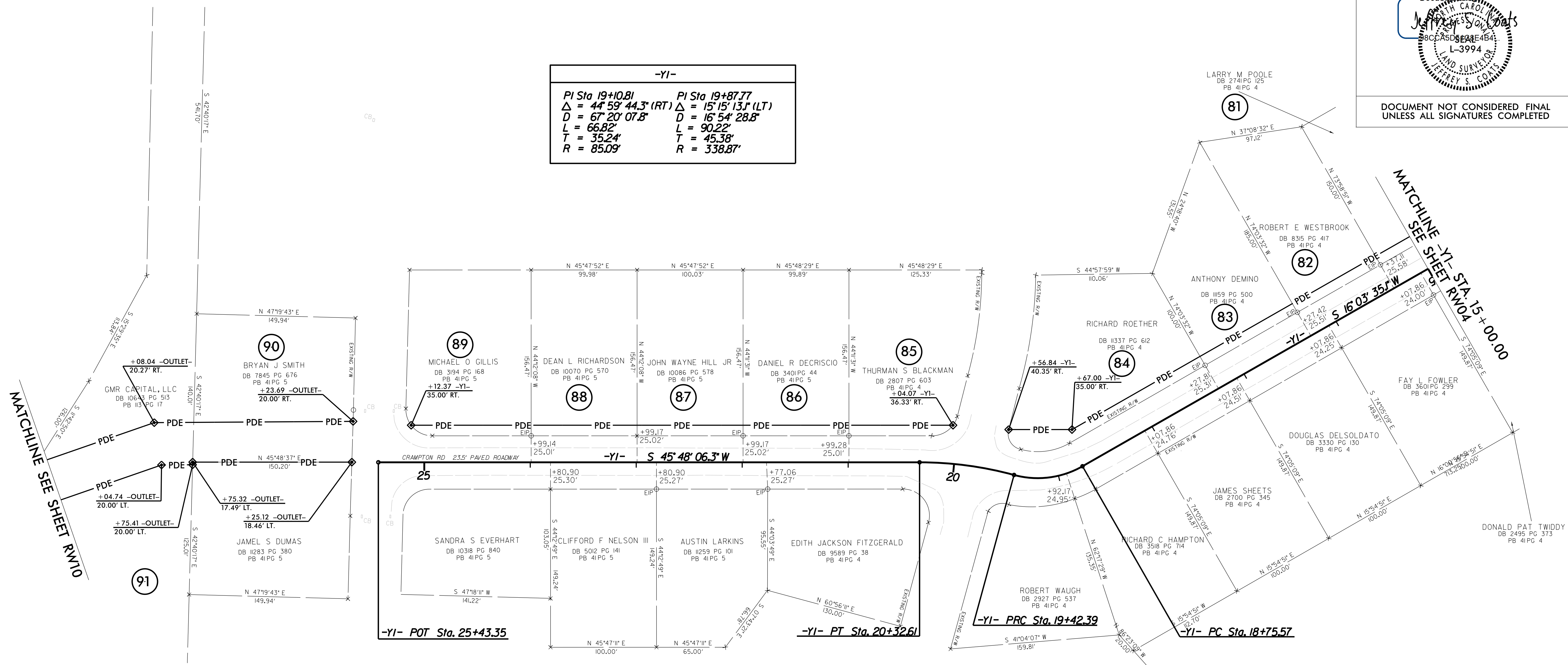
I, Jeffrey S. Coats, certify that the right of way and permanent easement monumentation for this project shown herein was completed under my direct and responsible charge from an actual survey made under my supervision; that all horizontal closures had a minimum ratio of precision of 1:10,000 (Class A). Field work was performed from 05-22 to 07-22, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 10th day of July, 2023.
 (Signed) Jeffrey S. Coats
 Professional Land Surveyor L-3994



PROJECT REFERENCE NO.	SHEET NO.
U-4709	RW09
Location and Surveys	
3220 GLEN ROYAL RD. RALEIGH, NC 27617 TEL. (919) 788-0224 FAX (919) 788-0232 CORPORATE LICENSE # P-0189	
PROJECT SURVEYOR DocuSign 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

-YI-	
PI Sta 19+10.81	PI Sta 19+87.77
$\Delta = 44^{\circ} 59' 44.3" (RT)$	$\Delta = 15^{\circ} 15' 13.1" (LT)$
$D = 67^{\circ} 20' 07.8"$	$D = 16^{\circ} 54' 28.8"$
$L = 66.82'$	$L = 90.22'$
$T = 35.24'$	$T = 45.38'$
$R = 85.09'$	$R = 338.87'$



REVISIONS

MATCHLINE SEE SHEET RW10

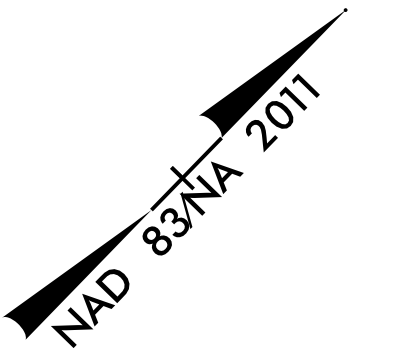
MATCHLINE SEE SHEET RW04

NOTES:

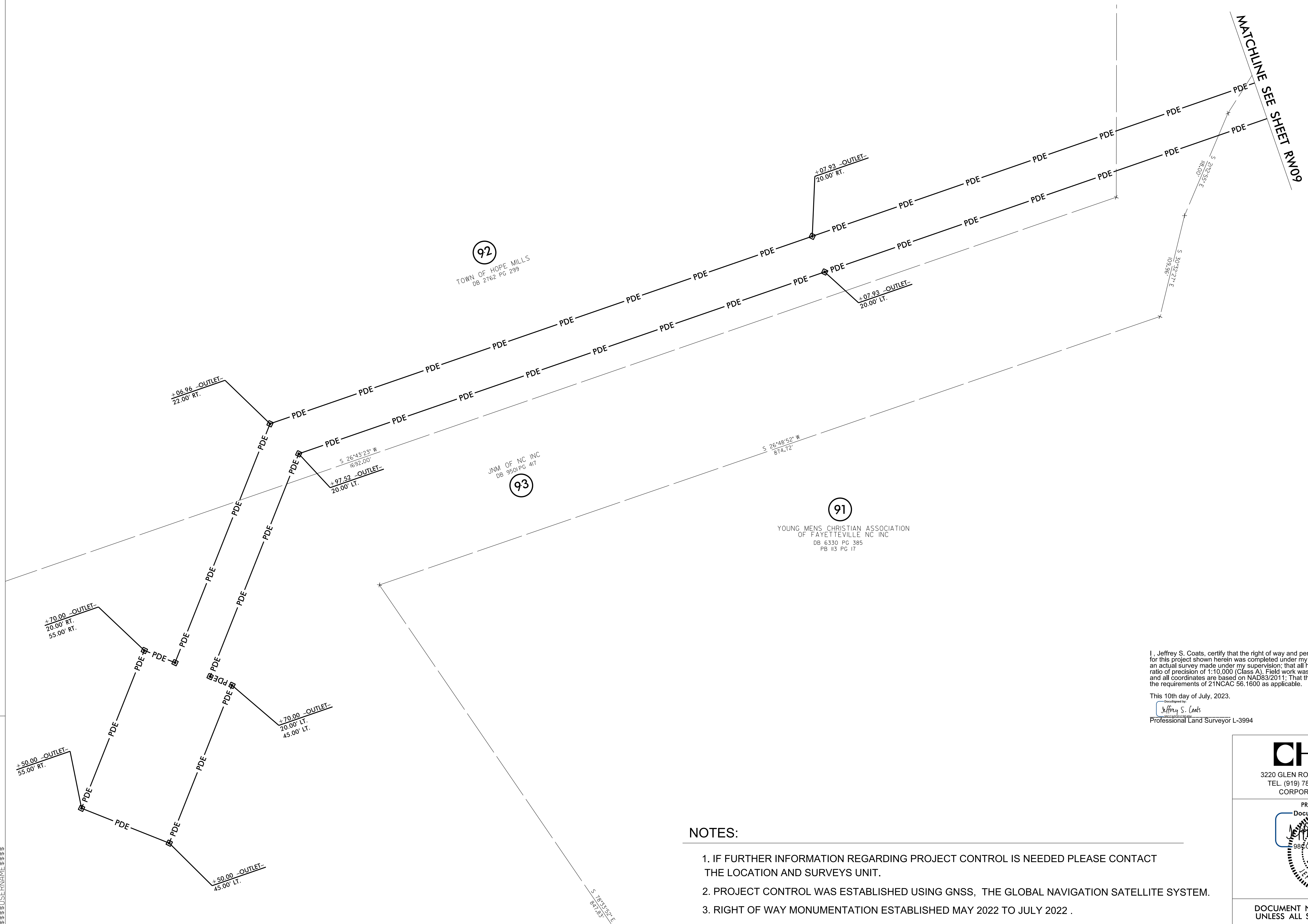
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2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. RIGHT OF WAY MONUMENTATION ESTABLISHED MAY 2022 TO JULY 2022 .

11
 10
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PROJECT REFERENCE NO.	SHEET NO.
U-4709	RW10
Location and Surveys	

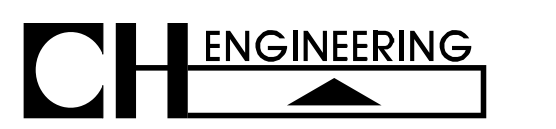


REVISIONS

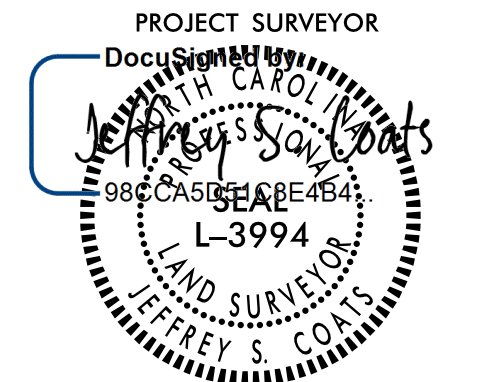


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This 10th day of July, 2023.
 Jeffrey S. Coats
 Professional Land Surveyor L-3994



3220 GLEN ROYAL RD. RALEIGH, NC 27617
 TEL. (919) 788-0224 FAX (919) 788-0232
 CORPORATE LICENSE # P-0189



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