

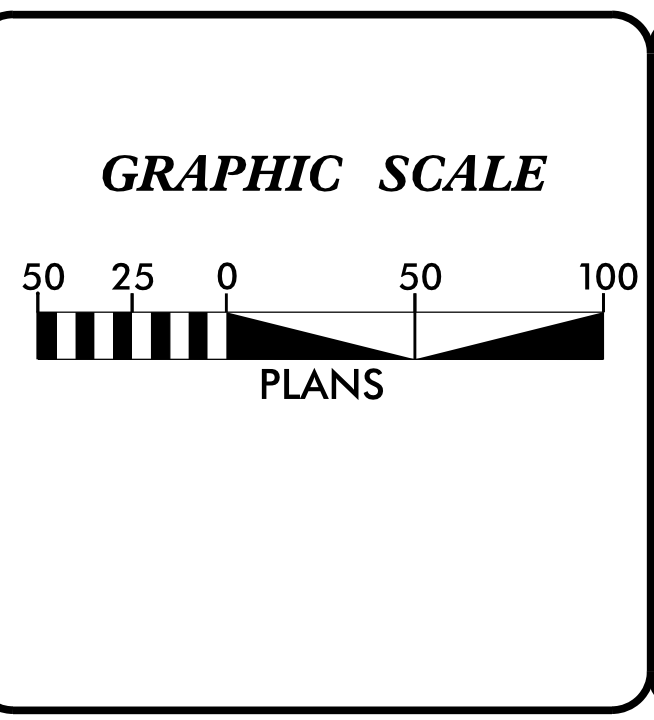
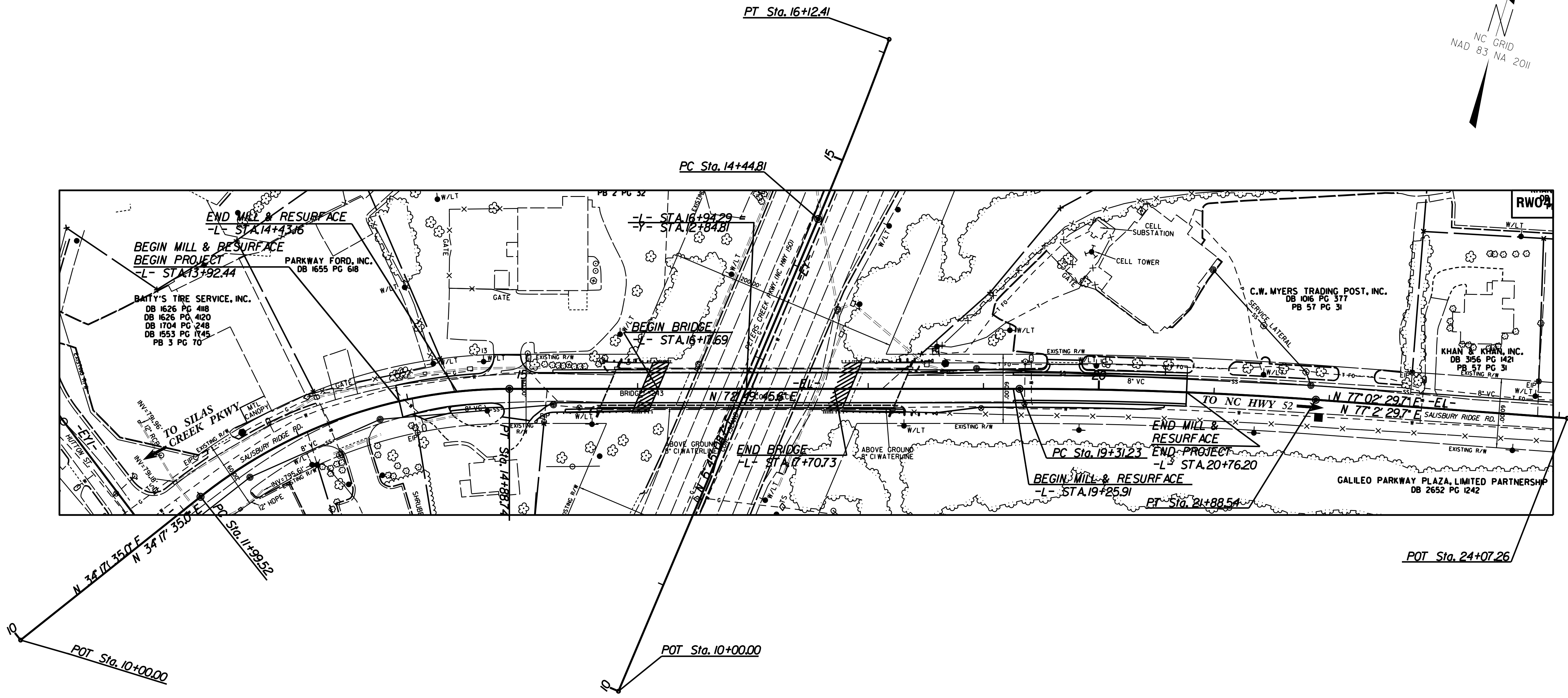
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5770	RW01	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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

FORSYTH COUNTY

TIP PROJECT: B-5770



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B5770-2" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF
NORTHING: 845,907.558(ft) EASTING: 1,628,344.734(ft)
ELEVATION: 824.13(ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9999396561

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B5770-2" TO -L- STATION 10+00.00 IS
S 56°10'31.26" W 837.26(ft)

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

Prepared in the Office of:

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:	LETTING DATE:

PROFESSIONAL LAND SURVEYOR


DocuSigned by:
Michael L. Molsinger
FDB8FE70E23C40E...

SIGNATURE:

1/6/2020

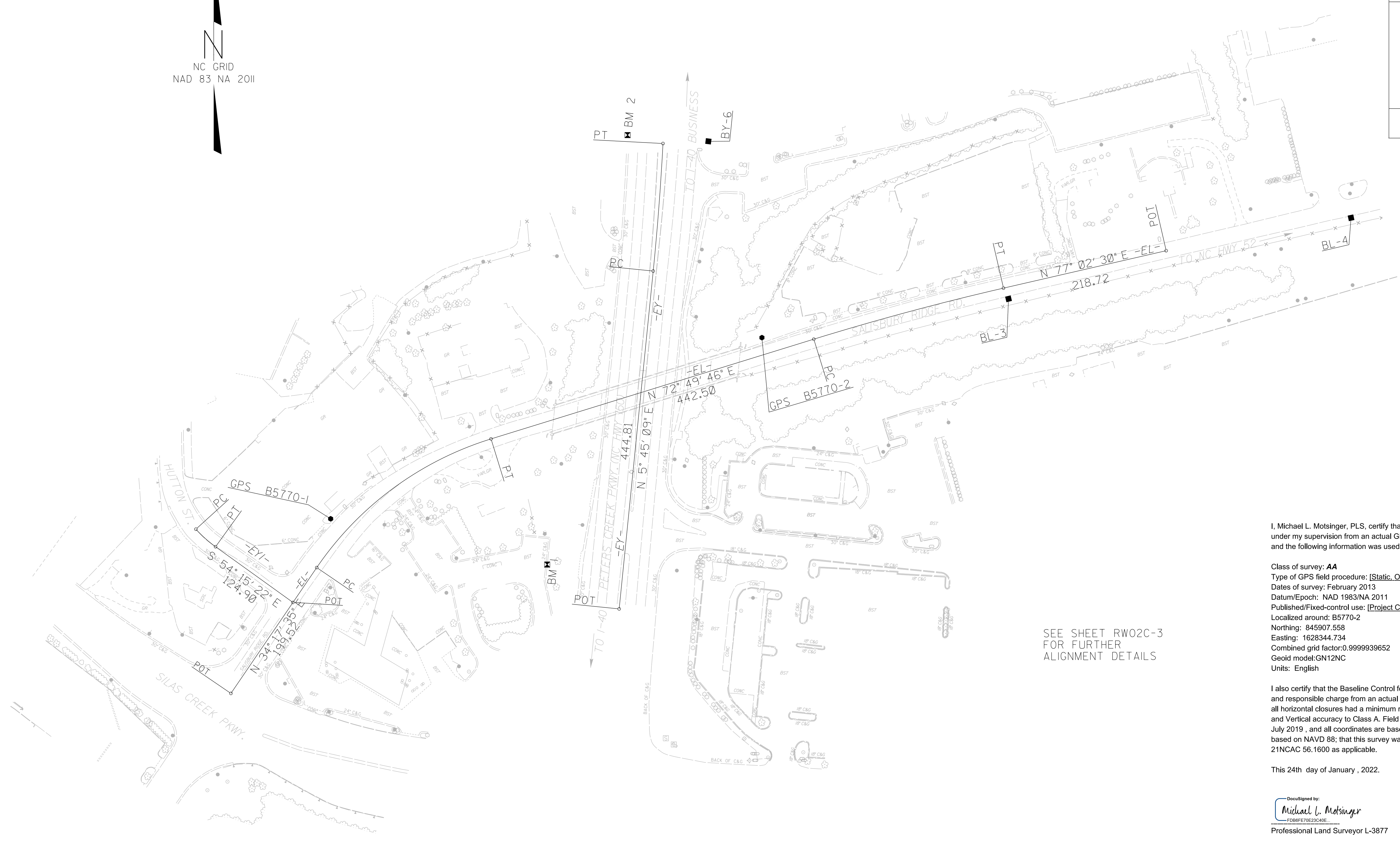
Date:

\$\$\$\$\$ SYSTEM TIME\$\$\$\$\$
\$\$\$\$\$ DGN\$\$\$\$\$
\$\$\$\$\$ USERNAME\$\$\$\$\$

PROJECT REFERENCE NO. B-5770	SHEET NO. RW02C-1
Location and Surveys	
INSERT CONSULTANT'S NAME	
PROJECT SURVEYOR	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION



SEE SHEET RW02C-3 FOR FURTHER ALIGNMENT DETAILS

I, Michael L. Motsinger, 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: [Static, OPUS, RTN]
 Dates of survey: February 2013
 Datum/Epoch: NAD 1983/NA 2011
 Published/Fixed-control use: [Project Control if applicable, N/A for RTN]
 Localized around: B5770-2
 Northing: 845907.558
 Easting: 1628344.734
 Combined grid factor: 0.9999939652
 Geoid model: GN12NC
 Units: English

I also certify that the Baseline Control for this project was verified 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 June 2019 to July 2019, 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 24th day of January, 2022.

Digitized by:

 Professional Land Surveyor L-3877




NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
2. THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
B-5770	RW02C-2
Location and Surveys	
INSERT CONSULTANT'S NAME	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

BL	POINT	DESC.	NORTH	EAST	ELEVATION
1		GPS B5770-1	845670.2542	1627779.7900	799.79
2		GPS B5770-2	845907.5580	1628344.7340	824.13
3		BL-3	845958.4247	1628667.7060	825.59
4		BL-4	846064.5304	1629116.3692	808.71

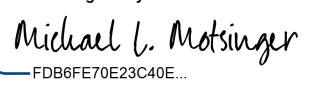
BY	POINT	DESC.	NORTH	EAST	ELEVATION
5		BY-5	845549.3466	1628208.4571	782.87
6		BY-6	846164.6929	1628274.5743	777.45

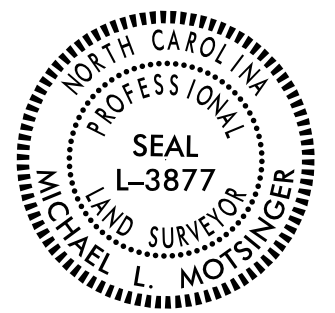
I, Michael L. Motsinger, PLS, certify that the Project Control was performed under my supervision from an actual GPS survey made under my supervision and the following information was used to perform the survey:

Class of survey: **AA**
 Type of GPS field procedure: [Static, OPUS, RTN]
 Dates of survey: February 2013
 Datum/Epoch: NAD 1983/NA 2011
 Published/Fixed-control use: [Project Control if applicable, N/A for RTN]
 Localized around: B5770-2
 Northing: 845907.558
 Easting: 1628344.734
 Combined grid factor: 0.9999939652
 Geoid model: GN12NC
 Units: English

I also certify that the Baseline Control for this project was verified 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 June 2019 to July 2019, 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 24th day of January, 2022.

DocuSigned by:

 FDB8FE7E23C40E
 Professional Land Surveyor L-3877



 BM1 ELEVATION = 792.94'
 N 845610 E 1628063
 BY STATION 5+45.12 150.71' LEFT
 SCRIBED "X" IN TOP BACK OF CURB

 BM2 ELEVATION = 775.26'
 N 846173 E 1628169
 BY STATION 11+15.73 106.10' LEFT
 SCRIBED "X" IN TOP BACK OF CURB


NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
2. THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

REVISIONS

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO. B-5770	SHEET NO. RW02C-3
Location and Surveys	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

EL									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	845441.490	1627649.177							
LINE			N 34°17'35.0" E	199.52					
PC	845606.330	1627761.594							
CURVE			N 53°33'40.3" E	283.79	38°32'10.6"(RT)	13°19'28.6"	289.21	150.32	430.00
PT	845774.891	1627989.902							
LINE			N 72°49'45.6" E	442.50					
PC	845905.524	1628412.675							
CURVE			N 74°56'07.7" E	257.25	04°12'44.1"(RT)	01°38'13.3"	257.31	128.71	3500.00
PT	845972.387	1628661.088							
LINE			N 77°02'29.7" E	218.72					
POT	846021.433	1628874.238							

EY									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	845552.198	1628157.751							
LINE			N 05°45'08.7" E	444.81					
PC	845994.770	1628202.334							
CURVE			N 04°22'50.3" E	167.58	02°44'37.0"(LT)	01°38'13.3"	167.60	83.81	3500.00
PT	846161.862	1628215.135							

EY1									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
PC	845656.609	1627603.315							
CURVE			S 48°14'59.8" E	34.53	12°00'45.4"(LT)	34°43'29.0"	34.59	17.36	165.00
PT	845633.616	1627629.077							
LINE			S 54°15'22.4" E	124.90					
POT	845560.657	1627730.447							

I, Michael L. Molsinger, 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:

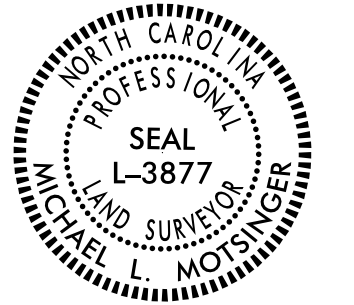
Class of survey: **AA**
 Type of GPS field procedure: [Static, OPUS, RTN]
 Dates of survey: February 2013
 Datum/Epoch: NAD 1983/NA 2011
 Published/Fixed-control use: [Project Control if applicable, N/A for RTN]
 Localized around: B5770-2
 Northing: 845907.558
 Easting: 1628344.734
 Combined grid factor: 0.9999939652
 Geoid model: GN12NC
 Units: English

I also certify that the Baseline Control for this project was verified 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 June 2019 to July 2019, 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 24th day of January, 2022.

DocuSigned by:

 F0B8FF70E23C40E
 Professional Land Surveyor L-3877




NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
2. THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

REVISIONS

PROPOSED ALIGNMENT CONTROL SHEET

PROJECT REFERENCE NO. B-5770	SHEET NO. RW02D-1
Location and Surveys	
PROJECT SURVEYOR	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

L

TYPE	STATION	NORTH	EAST
POT	10+00.00	845441.4898	1627649.1771
PC	11+99.52	845606.3297	1627761.5940
PT	14+88.74	845774.8914	1627989.9016
PC	19+31.23	845905.5245	1628412.6752
PT	21+88.54	845972.3865	1628661.0882
POT	24+07.26	846021.4331	1628874.2382

Y

TYPE	STATION	NORTH	EAST
POT	10+00.00	845552.1979	1628157.7508
PC	14+44.81	845994.7702	1628202.3344
PT	16+12.41	846161.8617	1628215.1346

I, Michael L. Motsinger, 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 24th day of January, 2022.

DocuSigned by:
Michael L. Motsinger
F0B6FE70E23C40E...

Professional Land Surveyor L-3877

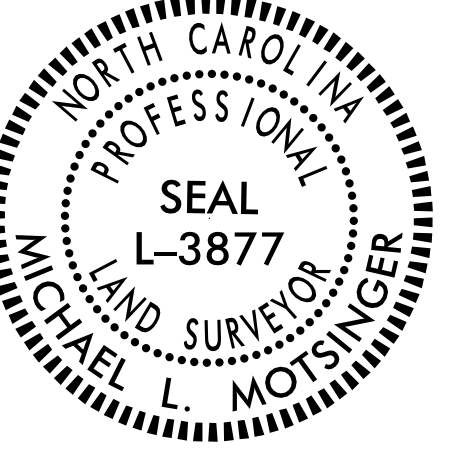


REVISIONS

NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
2. THE PROPOSED ALIGNMENT CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

RIGHT OF WAY CONTROL SHEET

PROJECT REFERENCE NO. B-5770	SHEET NO. RW03E-1
Location and Surveys	
PROJECT SURVEYOR	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	13+95.79	-30.00	845764.1992	1627889.9406
L	14+30.64	-65.61	845813.5579	1627908.0853
L	14+32.72	-55.33	845805.2174	1627914.5467
L	14+37.38	-67.45	845818.4573	1627914.4095
L	14+50.97	-59.15	845816.9393	1627932.0025
L	14+57.99	-30.00	845792.7316	1627949.9991
L	14+88.43	30.00	845746.1441	1627998.4853
L	15+03.51	43.71	845737.4918	1628016.9187
L	15+11.06	35.71	845747.3658	1628021.7721
L	15+16.67	30.00	845754.4767	1628025.4523
L	15+29.44	52.36	845736.8867	1628044.2519
L	15+34.81	46.43	845744.1375	1628047.6320
L	15+78.68	-89.09	845886.5650	1628049.5320
L	15+85.67	-59.92	845860.7541	1628064.8225
L	15+87.78	-107.11	845906.4681	1628052.9103
L	15+90.35	-91.89	845892.6849	1628059.8625
L	15+95.67	-108.44	845910.0709	1628060.0531
L	15+97.81	-62.83	845867.1169	1628075.5630
L	15+98.29	-92.92	845896.0142	1628067.1433
L	16+11.71	-61.47	845869.9260	1628089.2518
L	16+23.96	-90.42	845901.1976	1628092.4020
L	16+78.28	294.61	845549.3689	1628257.9719
L	16+81.49	287.03	845557.5598	1628258.7970
L	17+25.47	309.15	845549.4069	1628307.3506
L	17+28.29	302.78	845556.3277	1628308.1608
L	17+31.63	295.22	845564.5375	1628309.1219
L	17+37.60	281.71	845579.2034	1628310.8388
L	17+52.91	321.28	845545.9187	1628337.1471
L	17+61.40	98.06	845761.6981	1628279.3616
L	17+65.04	293.84	845575.7153	1628340.6353
L	17+69.58	78.72	845782.5923	1628281.4663
L	18+05.30	120.97	845752.7710	1628328.0710
L	18+09.55	81.85	845791.3998	1628320.5775
L	18+15.55	-30.00	845900.0373	1628293.2974
L	18+22.32	-46.00	845917.3168	1628295.0381
L	18+32.47	30.00	845847.7043	1628327.1688
L	18+32.50	-70.06	845943.3180	1628297.6574
L	18+48.48	105.06	845780.7147	1628364.6339
L	18+73.65	48.13	845842.5450	1628371.8721
L	18+76.80	-176.78	846058.3610	1628308.4839
L	18+79.21	-182.83	846064.8478	1628308.9972
L	18+83.13	-65.12	845953.5437	1628347.4879
L	19+02.26	48.82	845850.3230	1628399.4044
L	19+03.03	58.88	845840.9453	1628403.1114
L	19+06.40	-184.14	846074.1267	1628334.5887
L	19+08.83	30.00	845870.2487	1628400.1302
L	19+11.01	58.26	845843.8862	1628410.5512
L	19+14.72	-52.13	845950.4601	1628381.5130
L	19+25.29	-46.00	845947.7166	1628393.4221
L	19+25.46	-51.83	845953.3412	1628391.8552
L	19+40.00	-46.01	845952.0926	1628407.5845
L	19+40.04	-30.00	845936.7994	1628412.3099

I, Michael L. Motsinger, 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 2/22/2021 to 2/3/2021, and all coordinates are based on NAD83/2011. That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 24th day of January, 2022.
 DocuSigned by:
 Michael L. Motsinger
 Michael L. Motsinger
 Professional Land Surveyor L-3877



REVISIONS

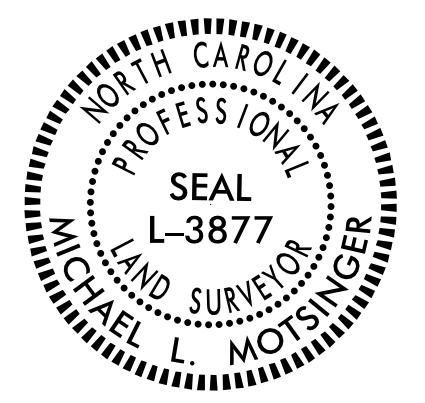
27-Jan-2022 08:55
 S:\Units\2022\08\Washington\Ruhs Computer\Bridgege\B5770\Row Staking\2022-01-13\ToBeChecked\B5770.L.S.RW03E-1.dgn
 mmotsinger AT LS-312635

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 _____ TO _____.

Location and Surveys

PROJECT SURVEYOR

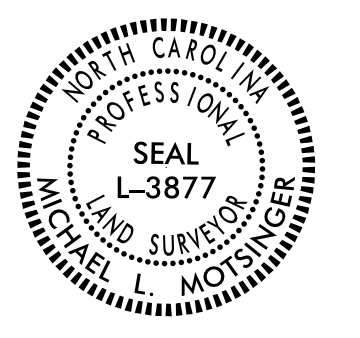


DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

I, Michael L. Motsinger, 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 2/2/2021 to 2/3/2021, and all coordinates are based on NAD83/2011. That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

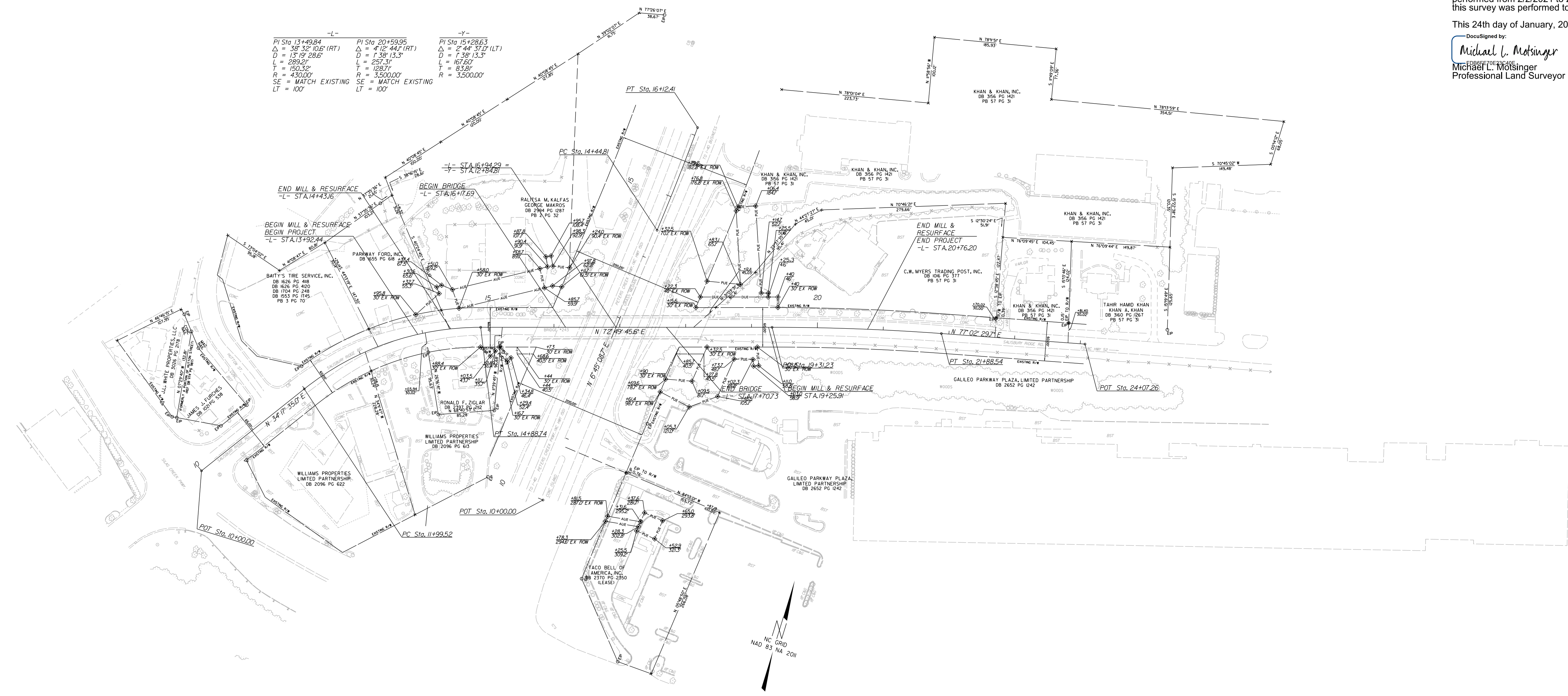
This 24th day of January, 2022.

DocuSigned by:
Michael L. Motsinger
 Michael L. Motsinger
 Professional Land Surveyor L-3877



REVISIONS

S:\Units\2022\08\01\Winston_Ruths Computer\Bridges\B5770\Row Staking\2022-01-13\ToBeChecked\B5770.LS.RW04.dgn
 27-Jan-2022 09:01
 S:\Units\2022\08\01\Winston_Ruths Computer\Bridges\B5770\Row Staking\2022-01-13\ToBeChecked\B5770.LS.RW04.dgn
 mmo:tsinger AT LS-312635



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 ____ TO ____.