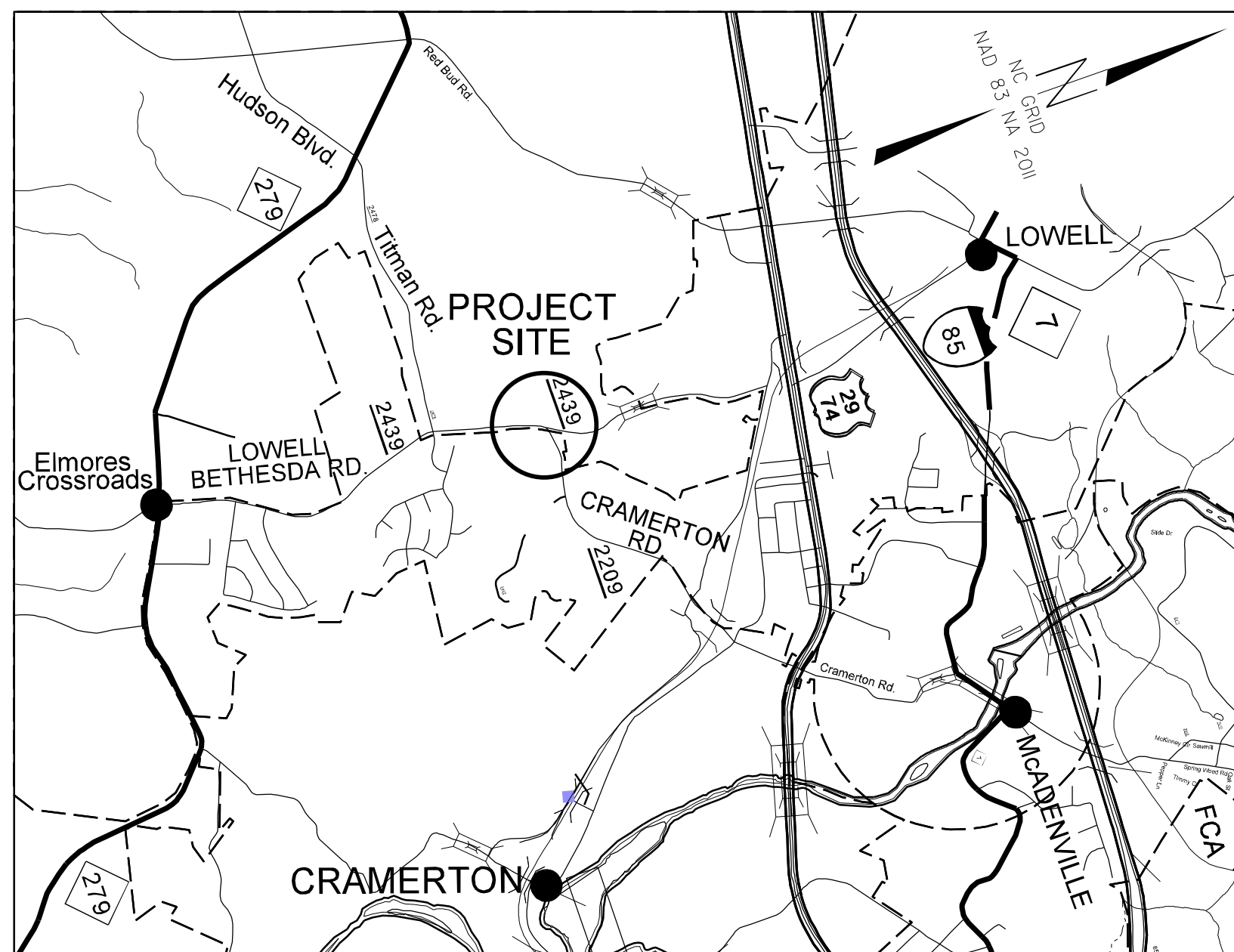


09.08/199

TIP PROJECT: SM-5712B

CONTRACT: DL00199

See Sheet 1A For Index of Sheets



VICINITY MAP - NOT TO SCALE

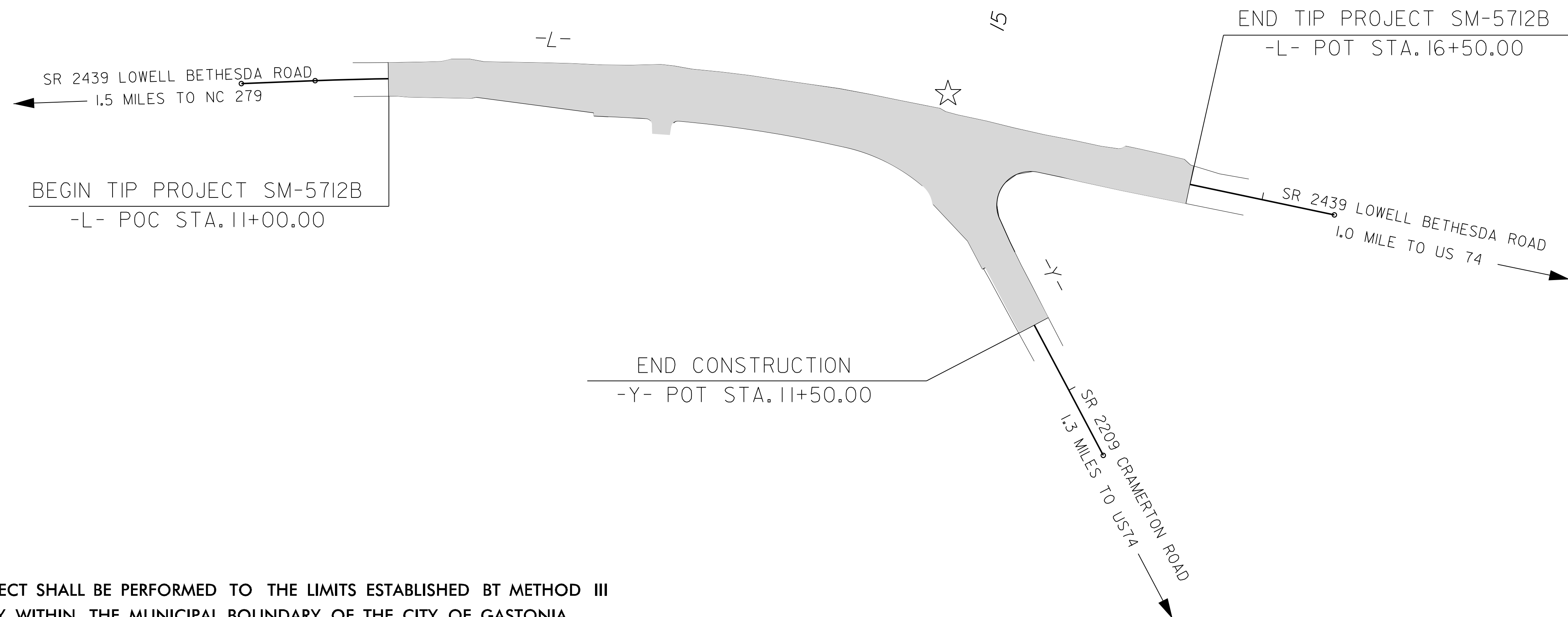
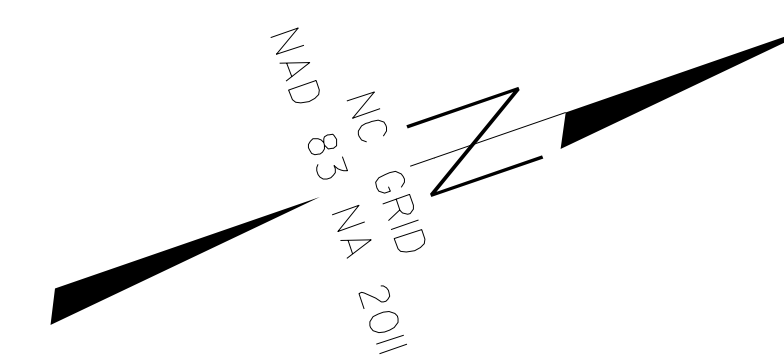
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

GASTON COUNTY

**LOCATION: INTERSECTION OF LOWELL BETHESDA ROAD (SR 2439)
AND CRAMERTON ROAD (SR 2209)**

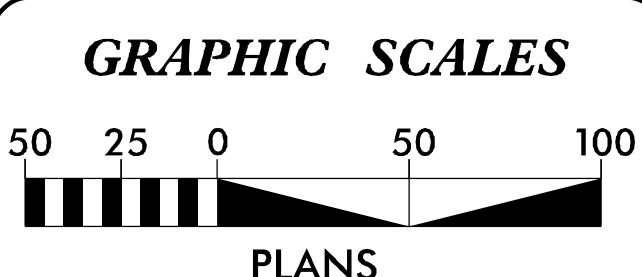
**TYPE OF WORK: GRADING, PAVING, CONCRETE CURB AND GUTTER,
AND PAVEMENT MARKINGS.**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SM-5712B	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
47909.1.1	N/A	PE	
47909.2.1	N/A	RW & UTIL	
47909.3.1	N/A	CONST	



CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III
THIS PROJECT IS PARTIALLY WITHIN THE MUNICIPAL BOUNDARY OF THE CITY OF GASTONIA

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA
ADT 2018 = 13,800

PROJECT LENGTH
LENGTH OF ROADWAY PROJECT SM-5712B = 0.104 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
1710 E. Marion St., Shelby NC, 28150

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JANUARY 28, 2019

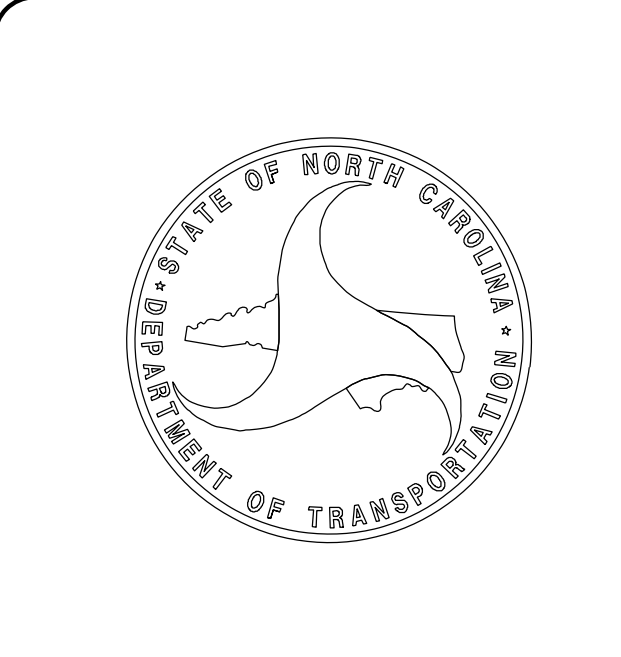
LETTING DATE:
FEBRUARY 8, 2022

MICHAEL POE, PE
PROJECT ENGINEER

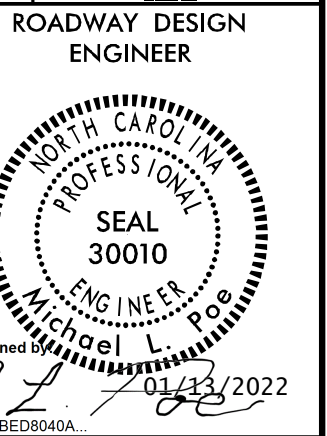
J. S. CARPENTER
PROJECT DESIGN ENGINEER

ROADWAY DESIGN ENGINEER

DocuSigned by:
M L Poe 01/13/2022
SIGNATURE P.E.



06-JAN-2022 10:09
S:\DDC\District 1\Cadstn\SM_5712B_LowellBethesda\CramerTon\Rdy\SM-5712B_Rdy_+sh.dgn
Jscarpenter AT DIV12-297495



**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

SHEET NUMBER	INDEX OF SHEETS SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
RW01 THRU RW04	SURVEY CONTROL SHEETS
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
3A-1	ROADWAY SUMMARIES
4	PLAN AND PROFILE SHEET
PMP-1	PAVEMENT MARKING PLANS
EC-1 THRU EC-2	EROSION CONTROL PLANS
X-1 THRU X-5	CROSS-SECTIONS

2018 ROADWAY ENGLISH STANDARD DRAWINGS
 EFF. 01-16-2018 REV.
 The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2018 are applicable to this project and by reference hereby are considered a part of these plans:

STD. NO.	TITLE
DIVISION 2 - EARTHWORK	
200.03	Method of Clearing - Method III
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superlevation - Two Lane Pavement
225.06	Method of Grading Sight Distance at Intersections
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
846.01	Concrete Curb, Gutter and Curb & Gutter
848.02	Driveway Turnout - Radius Type

GENERAL NOTES: 2018 SPECIFICATIONS
 EFFECTIVE: 01-16-2018
 REVISED:

GRADE LINE:
 GRADING AND SURFACING:
 THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:
 CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

SUPERELEVATION:
 ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:
 ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01

SIDE ROADS:
 THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

DRIVEWAYS:
 DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.02 USING 3 FOOT RADI OR RADI AS SHOWN ON THE PLANS. LOCATIONS OF DRIVES WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

UTILITIES:
 UTILITY OWNERS ON THIS PROJECT ARE CITY OF GASTONIA (WATER), CITY OF GASTONIA (SEWER), PSNC (GAS), DUKE (POWER), AT&T (FIBER)

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EIP
Computed Property Corner	----->
Property Monument	□ EDM
Parcel/Sequence Number	⑫③
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	-----MLB
Proposed Wetland Boundary	-----MLB
Existing Endangered Animal Boundary	-----EAB
Existing Endangered Plant Boundary	-----EPB
Existing Historic Property Boundary	-----HPB
Known Contamination Area: Soil	☠-S-☠
Potential Contamination Area: Soil	??-S-??
Known Contamination Area: Water	☠-W-☠
Potential Contamination Area: Water	??-W-??
Contaminated Site: Known or Potential	☠??

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○ S
Well	○ W
Small Mine	✕
Foundation	□
Area Outline	□
Cemetery	□
Building	□
School	□
Church	□
Dam	□

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	-----
Jurisdictional Stream	-----JS
Buffer Zone 1	-----BZ 1
Buffer Zone 2	-----BZ 2
Flow Arrow	←
Disappearing Stream	-----
Spring	○
Wetland	-----
Proposed Lateral, Tail, Head Ditch	-----
False Sump	-----

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○ MILEPOST 35
Switch	□ SWITCH
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY & PROJECT CONTROL:

Secondary Horiz and Vert Control Point	◆
Primary Horiz Control Point	○
Primary Horiz and Vert Control Point	◆
Exist Permanent Easement Pin and Cap	◇
New Permanent Easement Pin and Cap	◆
Vertical Benchmark	▲
Existing Right of Way Marker	△
Existing Right of Way Line	-----
New Right of Way Line	-----
New Right of Way Line with Pin and Cap	-----
New Right of Way Line with Concrete or Granite RW Marker	-----
New Control of Access Line with Concrete C/A Marker	-----
Existing Control of Access	-----
New Control of Access	-----
Existing Easement Line	-----E
New Temporary Construction Easement	-----E
New Temporary Drainage Easement	-----TDE
New Permanent Drainage Easement	-----PDE
New Permanent Drainage / Utility Easement	-----DUE
New Permanent Utility Easement	-----PUE
New Temporary Utility Easement	-----TUE
New Aerial Utility Easement	-----AUE

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-----C
Proposed Slope Stakes Fill	-----F
Proposed Curb Ramp	-----CR
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	-----

VEGETATION:

Single Tree	☼
Single Shrub	☼

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

Hedge	-----
Woods Line	-----
Orchard	-----
Vineyard	-----

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	-----CONC
Bridge Wing Wall, Head Wall and End Wall	-----CONC WW
MINOR:	
Head and End Wall	-----CONC HW
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	□ CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	○ S
Storm Sewer	-----S

UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⊕
Power Line Tower	⊠
Power Transformer	⊠
U/G Power Cable Hand Hole	-----
H-Frame Pole	●
U/G Power Line LOS B (S.U.E.*)	-----P
U/G Power Line LOS C (S.U.E.*)	-----P
U/G Power Line LOS D (S.U.E.*)	-----P

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Pedestal	⊠
Telephone Cell Tower	⊠
U/G Telephone Cable Hand Hole	-----
U/G Telephone Cable LOS B (S.U.E.*)	-----T
U/G Telephone Cable LOS C (S.U.E.*)	-----T
U/G Telephone Cable LOS D (S.U.E.*)	-----T
U/G Telephone Conduit LOS B (S.U.E.*)	-----TC
U/G Telephone Conduit LOS C (S.U.E.*)	-----TC
U/G Telephone Conduit LOS D (S.U.E.*)	-----TC
U/G Fiber Optics Cable LOS B (S.U.E.*)	-----T FO
U/G Fiber Optics Cable LOS C (S.U.E.*)	-----T FO
U/G Fiber Optics Cable LOS D (S.U.E.*)	-----T FO

WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
U/G Water Line LOS B (S.U.E.*)	-----W
U/G Water Line LOS C (S.U.E.*)	-----W
U/G Water Line LOS D (S.U.E.*)	-----W
Above Ground Water Line	-----A/G Water

TV:

TV Pedestal	⊠
TV Tower	⊗
U/G TV Cable Hand Hole	-----
U/G TV Cable LOS B (S.U.E.*)	-----TV
U/G TV Cable LOS C (S.U.E.*)	-----TV
U/G TV Cable LOS D (S.U.E.*)	-----TV
U/G Fiber Optic Cable LOS B (S.U.E.*)	-----TV FO
U/G Fiber Optic Cable LOS C (S.U.E.*)	-----TV FO
U/G Fiber Optic Cable LOS D (S.U.E.*)	-----TV FO

GAS:

Gas Valve	◇
Gas Meter	⊕
U/G Gas Line LOS B (S.U.E.*)	-----G
U/G Gas Line LOS C (S.U.E.*)	-----G
U/G Gas Line LOS D (S.U.E.*)	-----G
Above Ground Gas Line	-----A/G Gas

SANITARY SEWER:

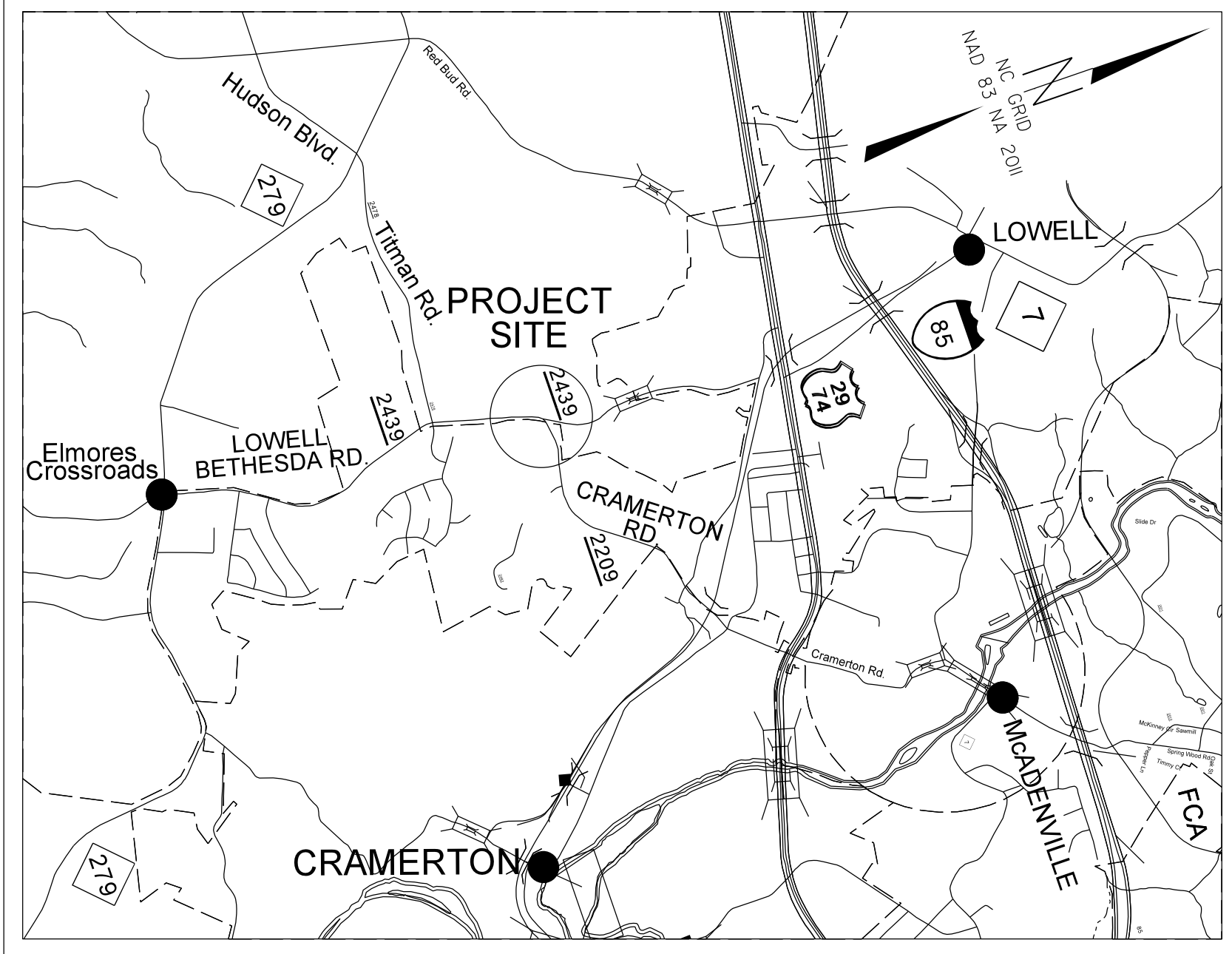
Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	-----SS
Above Ground Sanitary Sewer	-----A/G Sanitary Sewer
SS Forced Main Line LOS B (S.U.E.*)	-----FSS
SS Forced Main Line LOS C (S.U.E.*)	-----FSS
SS Forced Main Line LOS D (S.U.E.*)	-----FSS

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊠
Utility Unknown U/G Line LOS B (S.U.E.*)	-----?UTL
U/G Tank; Water, Gas, Oil	-----
Underground Storage Tank, Approx. Loc.	⊕ UST
A/G Tank; Water, Gas, Oil	-----
Geoenvironmental Boring	⊕
U/G Test Hole LOS A (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SM-5712B	RW01	5

TIP PROJECT: SM-5712B



VICINITY MAP - NOT TO SCALE

75% APPROVED PLANS

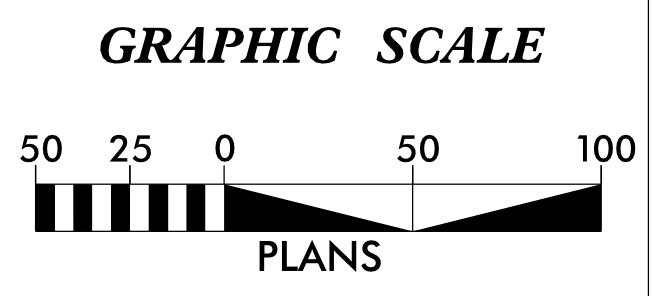
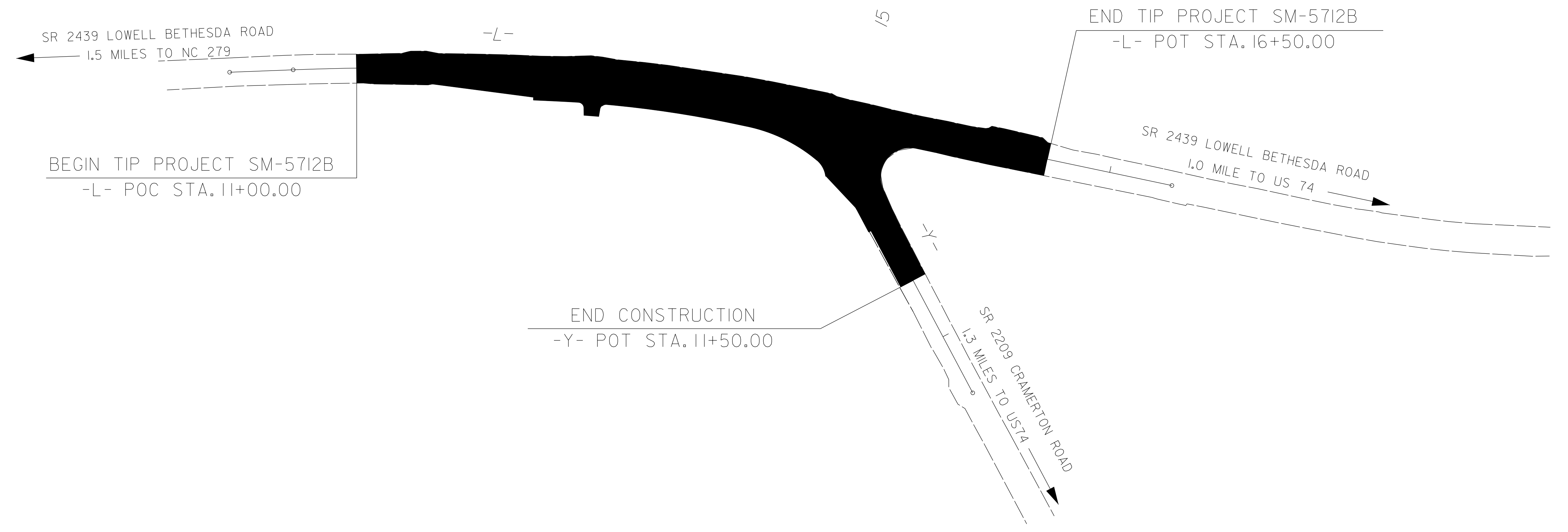
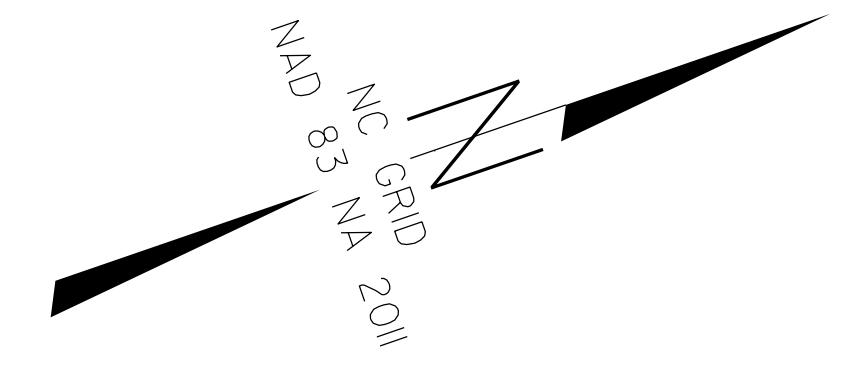
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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

GASTON COUNTY

**LOCATION: INTERSECTION OF LOWELL BETHESDA ROAD (SR 2439)
AND CRAMERTON ROAD (SR 2209)**

**TYPE OF WORK: GRADING, PAVING, CONCRETE CURB AND GUTTER,
AND PAVEMENT MARKINGS.**



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY OTHERS FOR MONUMENT "BL-1" WITH NAD 83/NSRS 2011 STATE PLANE GRID COORDINATES OF NORTHING: 549,476.539(ft) EASTING: 1,373,374.936(ft) ELEVATION: 712.418(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9998434684 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "BL-1" TO -L- STATION 10+00 IS N 77°28'07" W 24.06(ft) ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

Prepared in the Office of:
NCDOT
DIVISION 12
LOCATION & SURVEYS UNIT

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JAN. 28, 2019

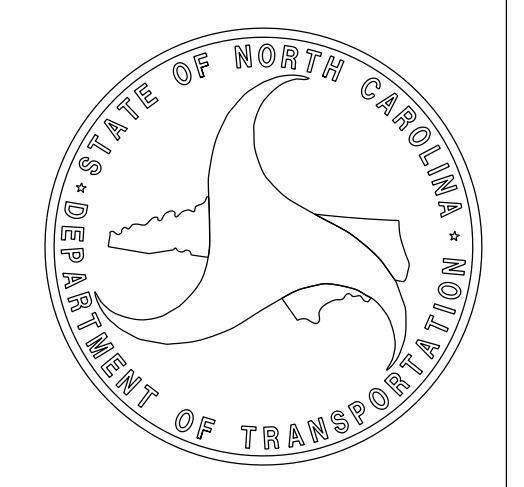
LETTING DATE:
FEB. 8, 2022

PROFESSIONAL LAND SURVEYOR



DocuSigned by:
SIGNATURE:

Date: 01/07/2022

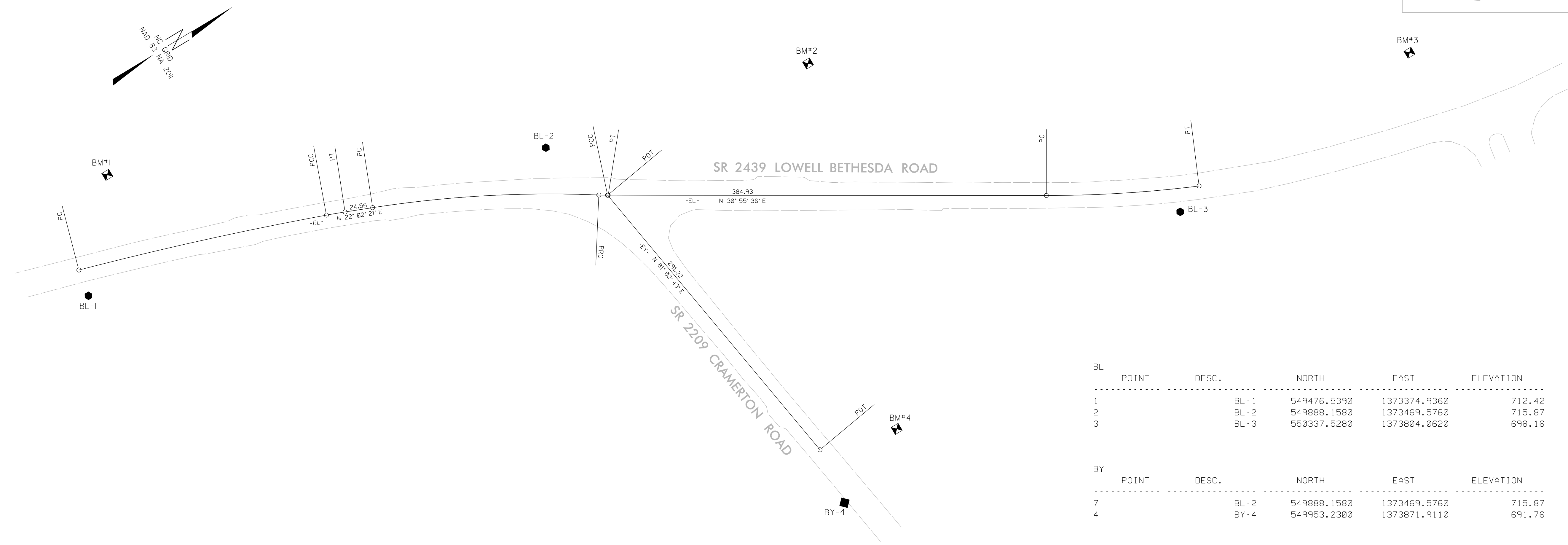


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Kawoiff AT LS-314620

1/7/2022

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION



BL POINT	DESC.	NORTH	EAST	ELEVATION
1	BL-1	549476.5390	1373374.9360	712.42
2	BL-2	549888.1580	1373469.5760	715.87
3	BL-3	550337.5280	1373804.0620	698.16

BY POINT	DESC.	NORTH	EAST	ELEVATION
7	BL-2	549888.1580	1373469.5760	715.87
4	BY-4	549953.2300	1373871.9110	691.76

.....
 BM1 ELEVATION = 710.47
 N 549545 E 1373292
 BM1 BENCHTIE IN 28' OAK

 BM2 ELEVATION = 706.38
 N 550124 E 1373524
 BM 2 BENCHTIE IN 13' HICKORY

 BM3 ELEVATION = 696.48
 N 550582 E 1373787
 BM 3 BENCHTIE IN 12' GUM

 BM4 ELEVATION = 700.15
 N 550026 E 1373840
 BM 4 BENCHTIE IN 28' OAK

I, KYLE A. WOLFF, 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 7th day of January, 2022.
 DocuSigned by:

 KYLE A. WOLFF L-4870



EL POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
PC	549480.906	1373351.190							
CURVE			N 18°23'00.7" E	222.79	04°06'00.3"(RT)	01°50'23.8"	222.84	111.47	3113.98
PCC	549692.325	1373421.452							
CURVE			N 21°14'11.0" E	16.61	01°36'20.2"(RT)	09°39'59.4"	16.61	8.31	592.72
PT	549707.807	1373427.468							
LINE			N 22°02'21.1" E	24.56					
PC	549730.576	1373436.686							
CURVE			N 27°41'06.2" E	198.97	11°17'30.3"(RT)	05°39'57.8"	199.29	99.97	1011.21
PCC	549906.763	1373529.127							
CURVE			N 32°11'59.3" E	7.74	02°15'44.2"(LT)	29°13'31.5"	7.74	3.87	196.05
PCC	549913.313	1373533.252							
CURVE			N 30°59'51.5" E	0.49	00°08'31.3"(LT)	29°13'31.6"	0.49	0.24	196.05
PT	549913.729	1373533.502							
LINE			N 30°55'35.9" E	384.93					
PC	550243.935	1373731.335							
CURVE			N 27°19'28.8" E	134.48	07°12'14.3"(LT)	05°21'11.7"	134.57	67.37	1070.30
PT	550363.413	1373793.067							

EY POINT	N	E	BEARING	DIST
POT	549913.313	1373533.252		
LINE			N 81°02'43.2" E	291.22
POT	549958.642	1373820.920		

NOTES:

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

9/7/18

REVISIONS

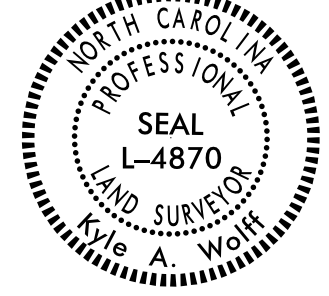
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1/7/22

REVISIONS

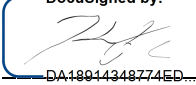
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kawolff AT US-314620

PROPOSED ALIGNMENT CONTROL SHEET

PROJECT REFERENCE NO. SM-5712B	SHEET NO. RW02D-1
Location and Surveys	
NCDOT DIVISION 12 LOCATION & SURVEYS UNIT	
PROJECT SURVEYOR 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

I, KYLE A. WOLFF, 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 7th day of JANUARY, 2022.

DocuSigned by:

KYLE A. WOLFF L-4870

L

TYPE	STATION	NORTH	EAST
POT	10+00.00	549481.7597	1373351.4479
PC	10+50.00	549529.6173	1373365.9274
PT	12+66.32	549733.5396	1373437.8853
PC	12+66.33	549733.5459	1373437.8878
PT	14+03.06	549855.8055	1373498.7987
POT	17+50.01	550153.4291	1373677.1108

Y

TYPE	STATION	NORTH	EAST
POT	10+00.00	549913.3127	1373533.2517
POT	12+00.00	549944.4433	1373730.8141
POT	12+50.00	549952.2259	1373780.2047

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.

1/7/22

REVISIONS

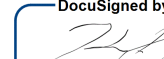
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County\sm5712b\Stake RW Dec 2021\sm5712b.ls.rw03e-1.dgn
Kawohl

RIGHT OF WAY CONTROL SHEET

PROJECT REFERENCE NO. SM-5712B	SHEET NO. RW03E-1
Location and Surveys	
NCDOT DIVISION 12 LOCATION & SURVEYS UNIT	
PROJECT SURVEYOR 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

I, KYLE A. WOLFF, 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 JAN. 3, 2022 to JAN. 7, 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 7th day of JANUARY, 2022.


Designed by:
KYLE A. WOLFF L-4870

ROW MARKER IRON PIN AND CAP

ALIGN	STATION	OFFSET	NORTH	EAST
L	11+64.94	25.19	549630.3338	1373425.5891
L	11+65.63	35.00	549627.6871	1373435.0558
L	12+66.32	35.00	549720.4049	1373470.3272
L	14+03.06	35.00	549837.8176	1373528.0227

ROW MARKER IRON PIN AND CAP

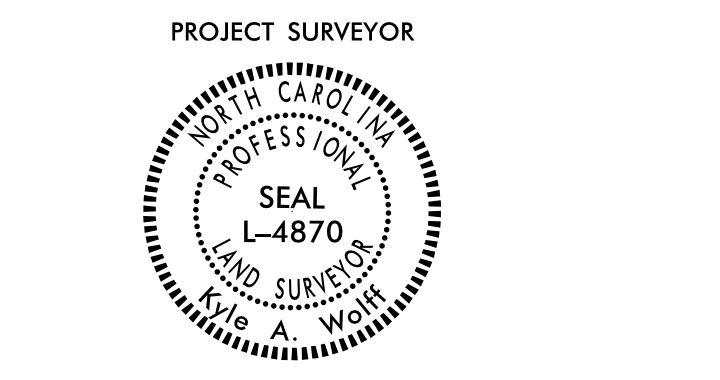
ALIGN	STATION	OFFSET	NORTH	EAST
Y	10+41.41	35.00	549885.1844	1373579.6020
Y	11+26.83	35.00	549898.4808	1373663.9843
Y	11+30.18	25.00	549908.8805	1373665.7376

NOTES:

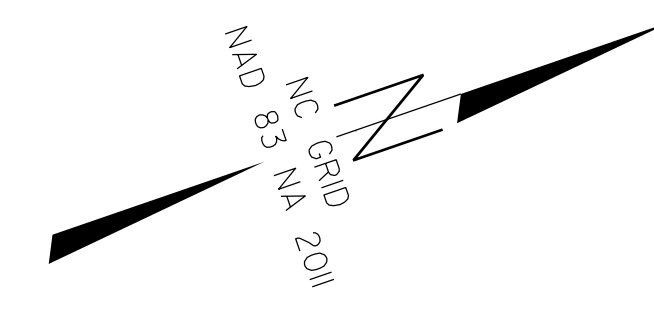
1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. RIGHT OF WAY MONUMENTATION ESTABLISHED JAN. 3, 2022 TO JAN. 7, 2022 .

Location and Surveys

NCDOT
DIVISION 12
LOCATION & SURVEYS UNIT

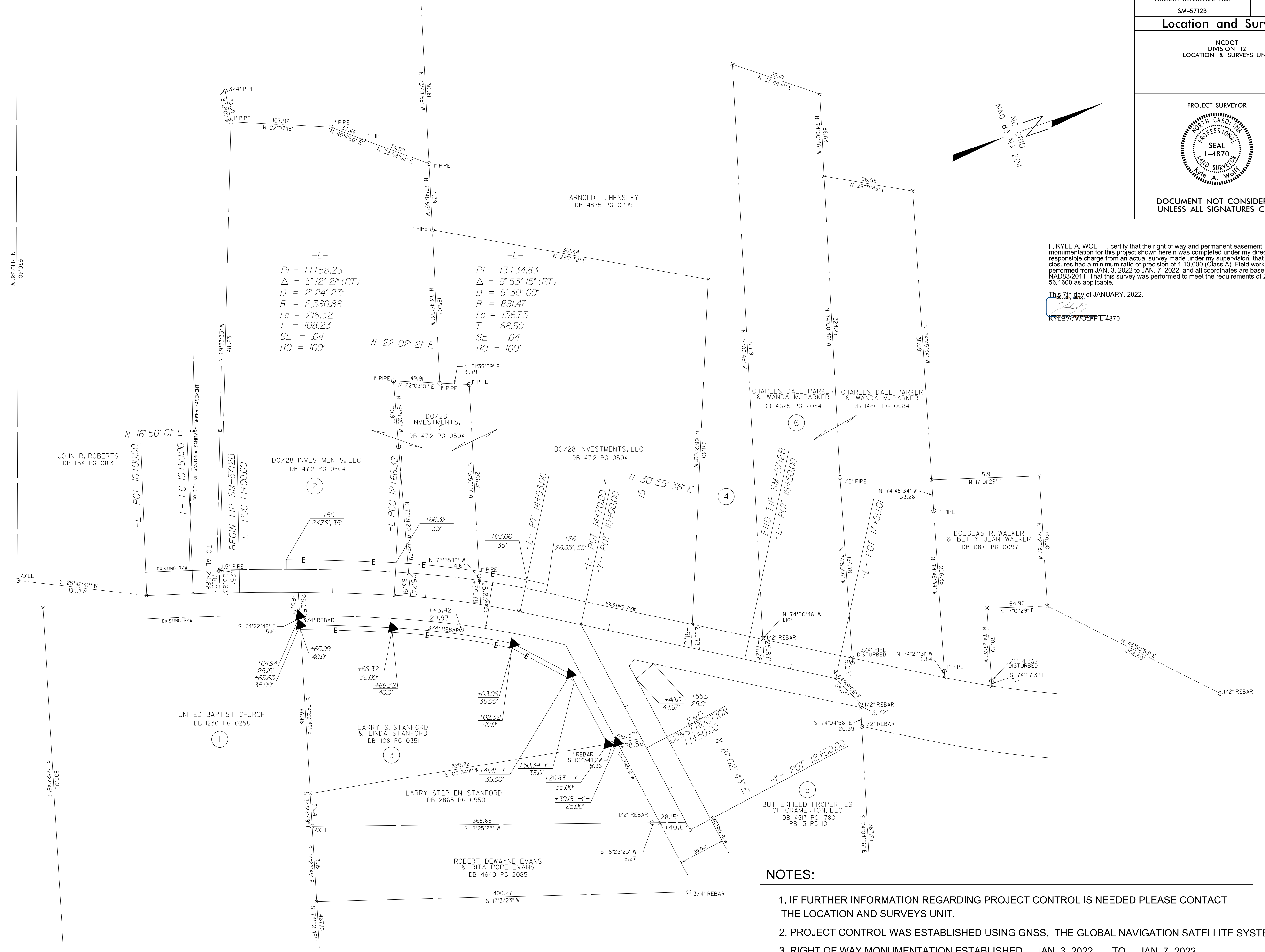


DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



I, KYLE A. WOLFF, 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 JAN. 3, 2022 to JAN. 7, 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 7th day of JANUARY, 2022.
Kyle A. Wolff
KYLE A. WOLFF L-4870



-L-
 $PI = 11+58.23$
 $\Delta = 5^{\circ}12'21'' (RT)$
 $D = 2^{\circ}24'23''$
 $R = 2,380.88$
 $Lc = 216.32$
 $T = 108.23$
 $SE = .04$
 $RO = 100'$

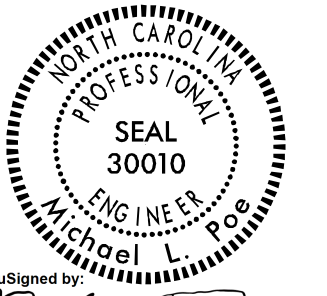
-L-
 $PI = 13+34.83$
 $\Delta = 8^{\circ}53'15'' (RT)$
 $D = 6^{\circ}30'00''$
 $R = 881.47$
 $Lc = 136.73$
 $T = 68.50$
 $SE = .04$
 $RO = 100'$

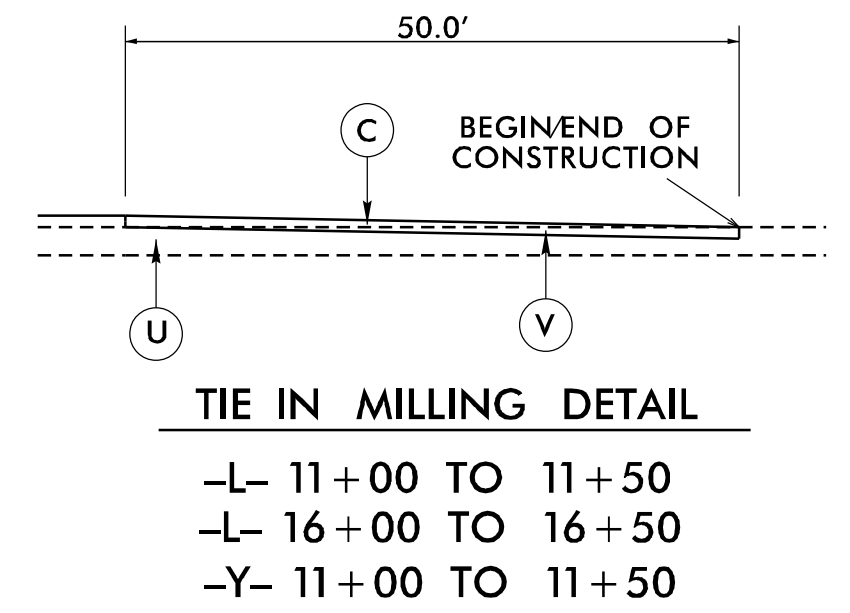
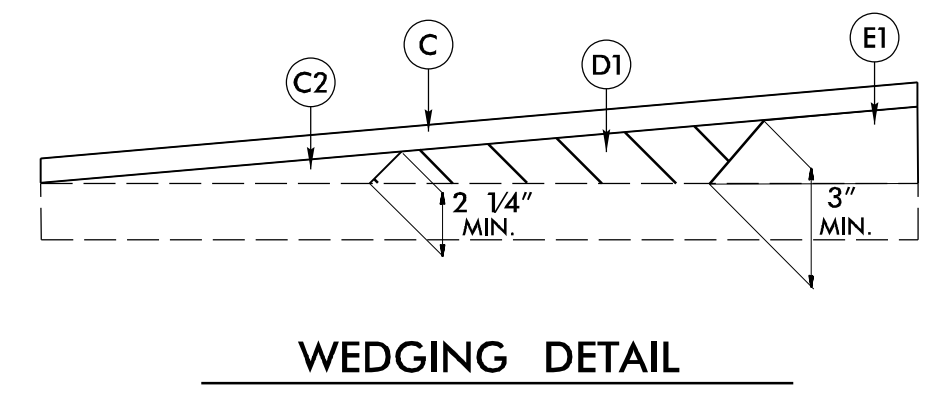
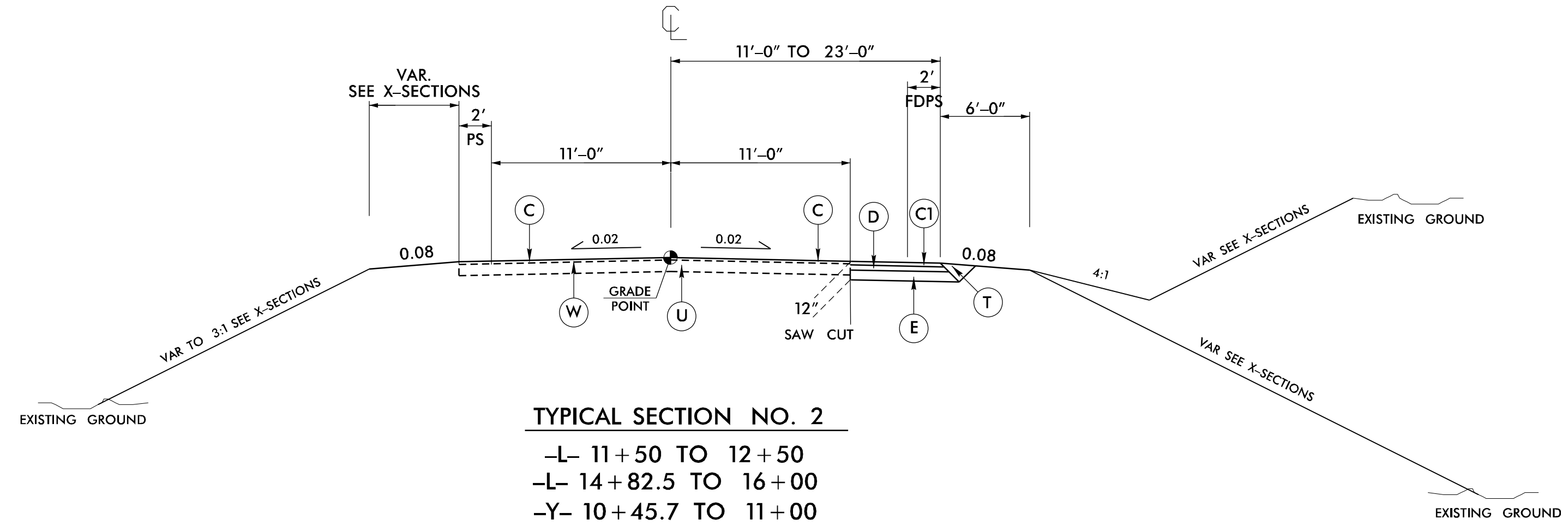
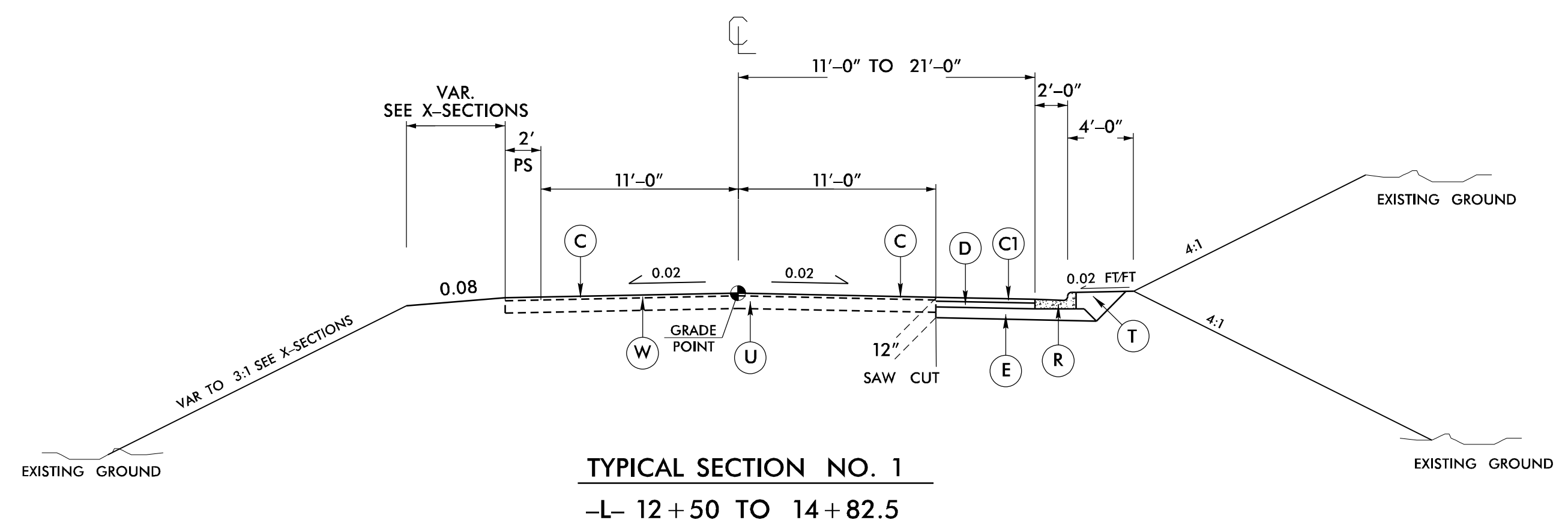
- NOTES:**
1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
 2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
 3. RIGHT OF WAY MONUMENTATION ESTABLISHED JAN. 3, 2022 TO JAN. 7, 2022 .

REVISIONS

07 JAN 2022 11:35 C:\p\2022\01\03\Location_County\sm5712b\Stake RW Dec 2021\sm5712b\ls_rw04.dgn
 1/7/2022
 KAW

5/14/99

PROJECT REFERENCE NO. <i>SM-5712B</i>	SHEET NO. <i>2A-1</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	
	
Digitized by <i>M.L. Leach</i> 01/13/2022	



PAVEMENT SCHEDULE	
C	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.
D	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
D1	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2 1/2" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
E1	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5 1/2" IN DEPTH.
R	2'-6" CONCRETE CURB AND GUTTER.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	VAR. MILLING DEPTH 0" - 1.5"
W	WEDGING

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE STATED

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STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

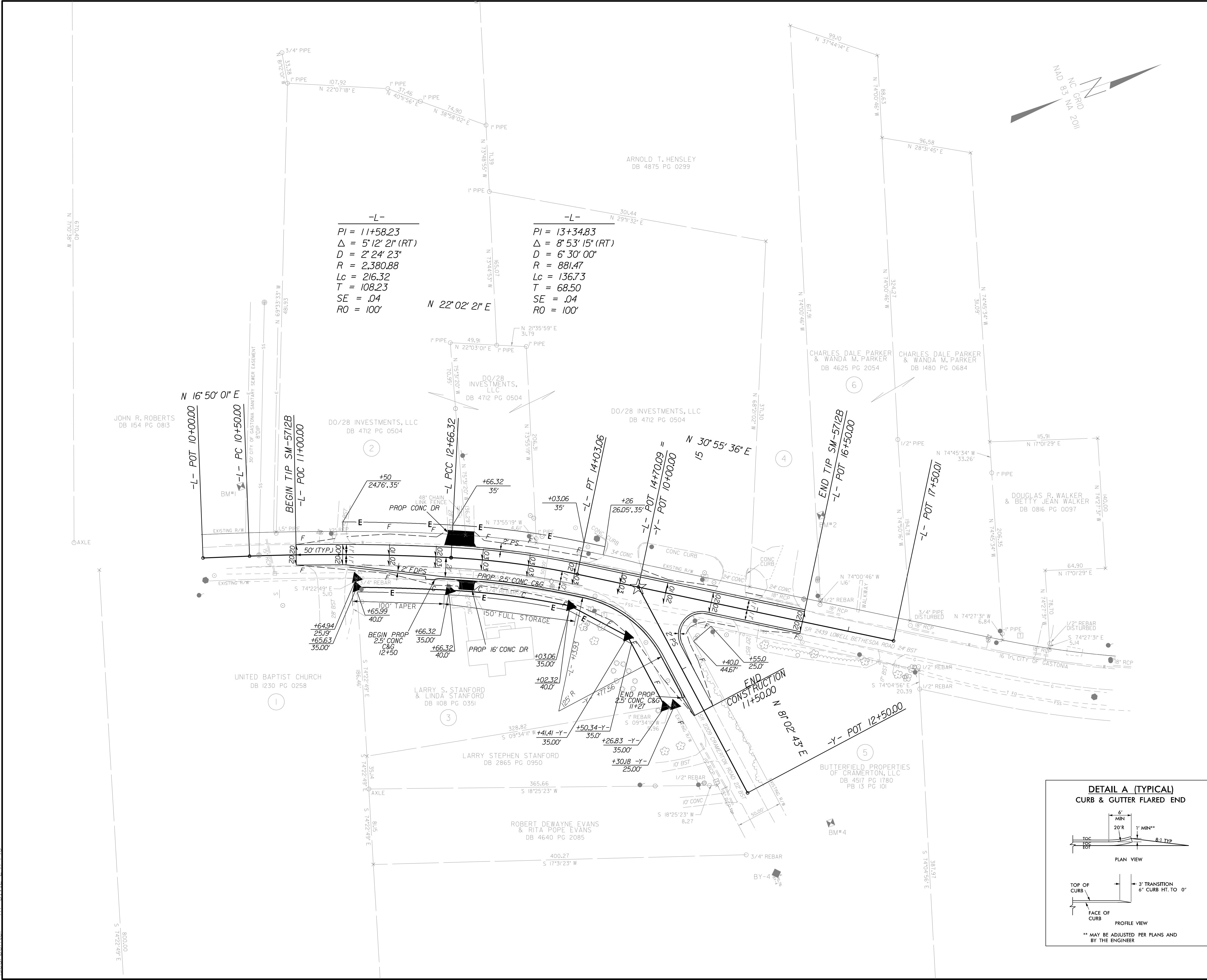
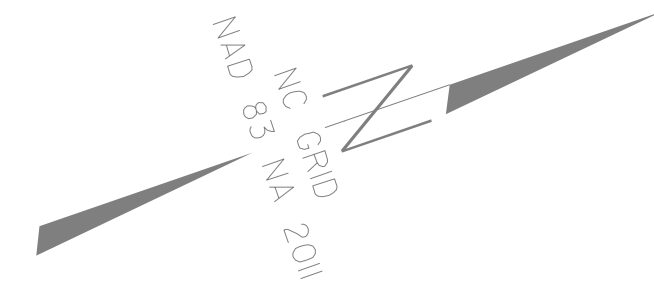
Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L- 11+00	-L- 16+50	112.5	127.5	127.5	112.5
-Y- 10+50	-Y- 11+50	0	27.8	27.8	0
SUBTOTALS:		113	155	155	113
SUBTOTALS:					
PROJECT TOTALS:		113	155	155	113
PROJECT TOTALS:		113	155	155	113
GRAND TOTALS:		113	155	155	113
SAY:		150	175	175	150

Note: Approximate quantities only. Borrow Excavation, Fine Grading, Clearing and Grubbing, and Removal of Existing Pavement will be paid for at the contract lump sum price for grading.

Note: All Unclassified Excavation deemed to be asphalt and concrete and will be paid for under the Lump Sum Grading. Unclassified Excavation is not suitable material for Borrow.

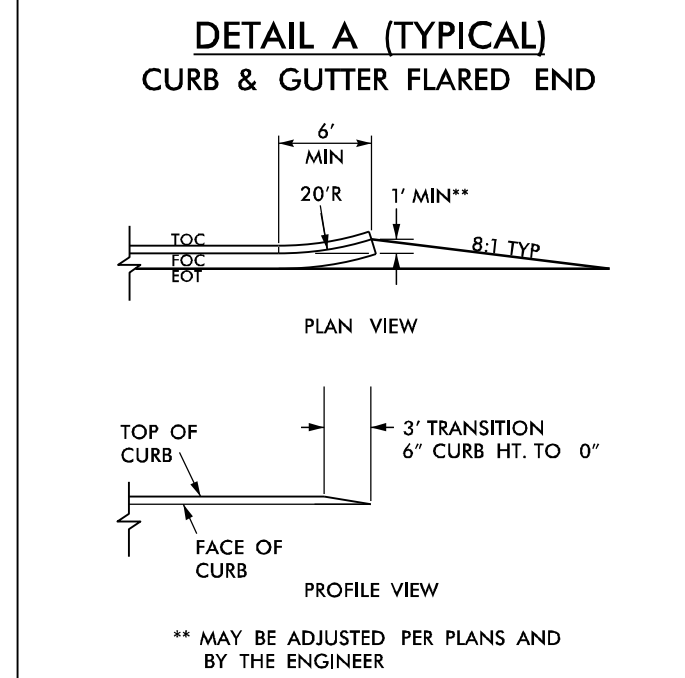
2'6" CONCRETE CURB & GUTTER SUMMARY

LINE	Station	Station	LENGTH
L TO Y	L 12+50	Y 11+27	319'
		TOTAL:	319'
		SAY:	320'



-L-
 $PI = 11+58.23$
 $\Delta = 5' 12' 21'' (RT)$
 $D = 2' 24' 23''$
 $R = 2,380.88$
 $Lc = 216.32$
 $T = 108.23$
 $SE = .04$
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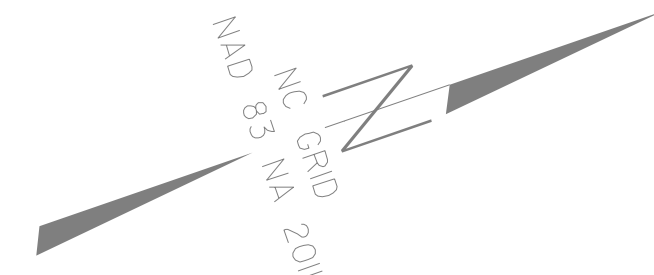
-L-
 $PI = 13+34.83$
 $\Delta = 8' 53' 15'' (RT)$
 $D = 6' 30' 00''$
 $R = 881.47$
 $Lc = 136.73$
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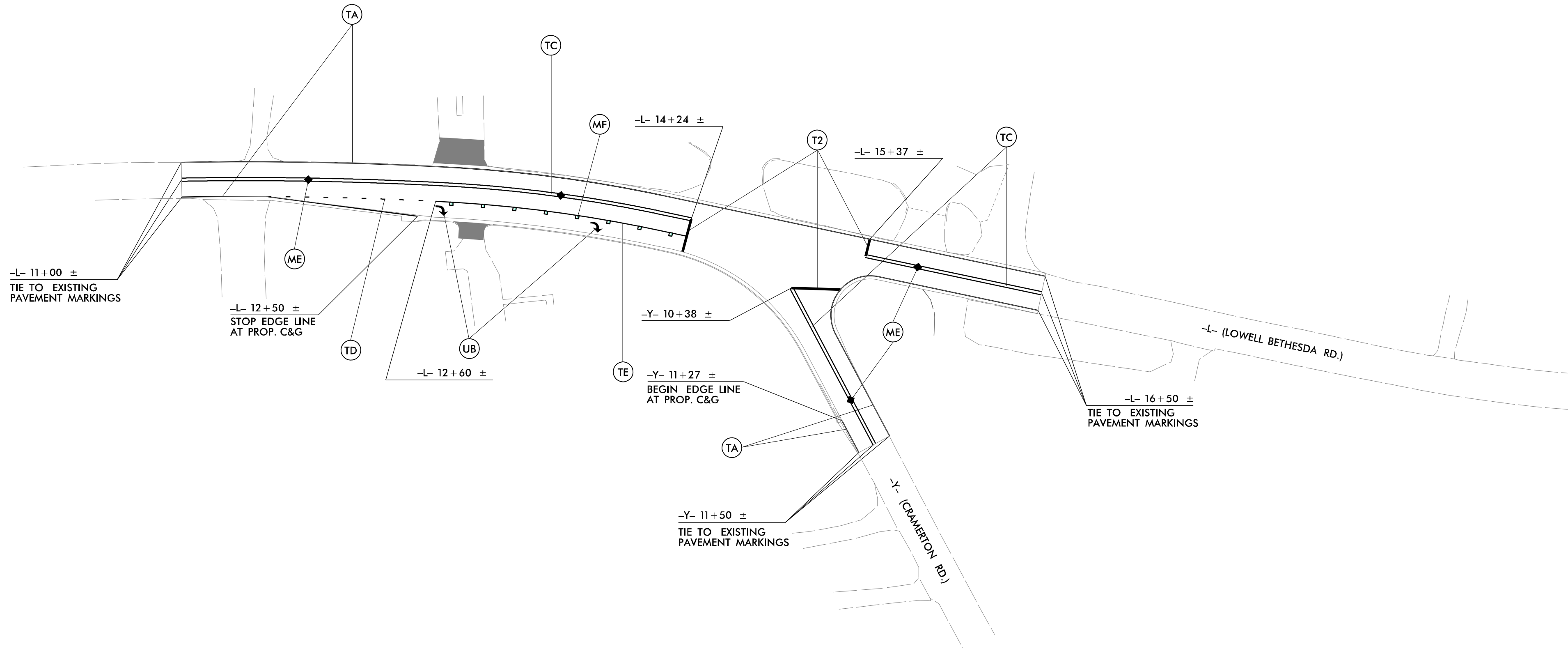
06-JAN-2022 15:46
 S:\DCC\District 1\Gaston\SM_5712B_Lowe\11 Bethesda\C:\emer ton\Rdy\SM-5712B_Rdy_psh_4.dgn
 isocenter AT DIV12-297495
 8/17/99
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 00:00:00

PAVEMENT MARKING SCHEDULE	
FINAL PAVEMENT MARKINGS	
THEROMPLASTIC (4", 90 MILS) HIGHLY REFLECTIVE ELEMENTS	
(TA)	WHITE EDGELINE
(TD)	3 FT. - 9 FT./SP WHITE MINI-SKIP
(TE)	WHITE SOLID LANE LINE
(TC)	YELLOW DOUBLE CENTER
THEROMPLASTIC (24", 90 MILS) HIGHLY REFLECTIVE ELEMENTS	
(T2)	WHITE STOPBAR
THEROMPLASTIC PAVEMENT MARKING SYMBOLS (90 MILS) HIGHLY REFLECTIVE ELEMENTS	
(UB)	RIGHT TURN ARROW
MARKERS	
SNOWPLOWABLE RAISED PAVEMENT MARKERS	
(ME)	YELLOW & YELLOW
(MF)	CRYSTAL & RED

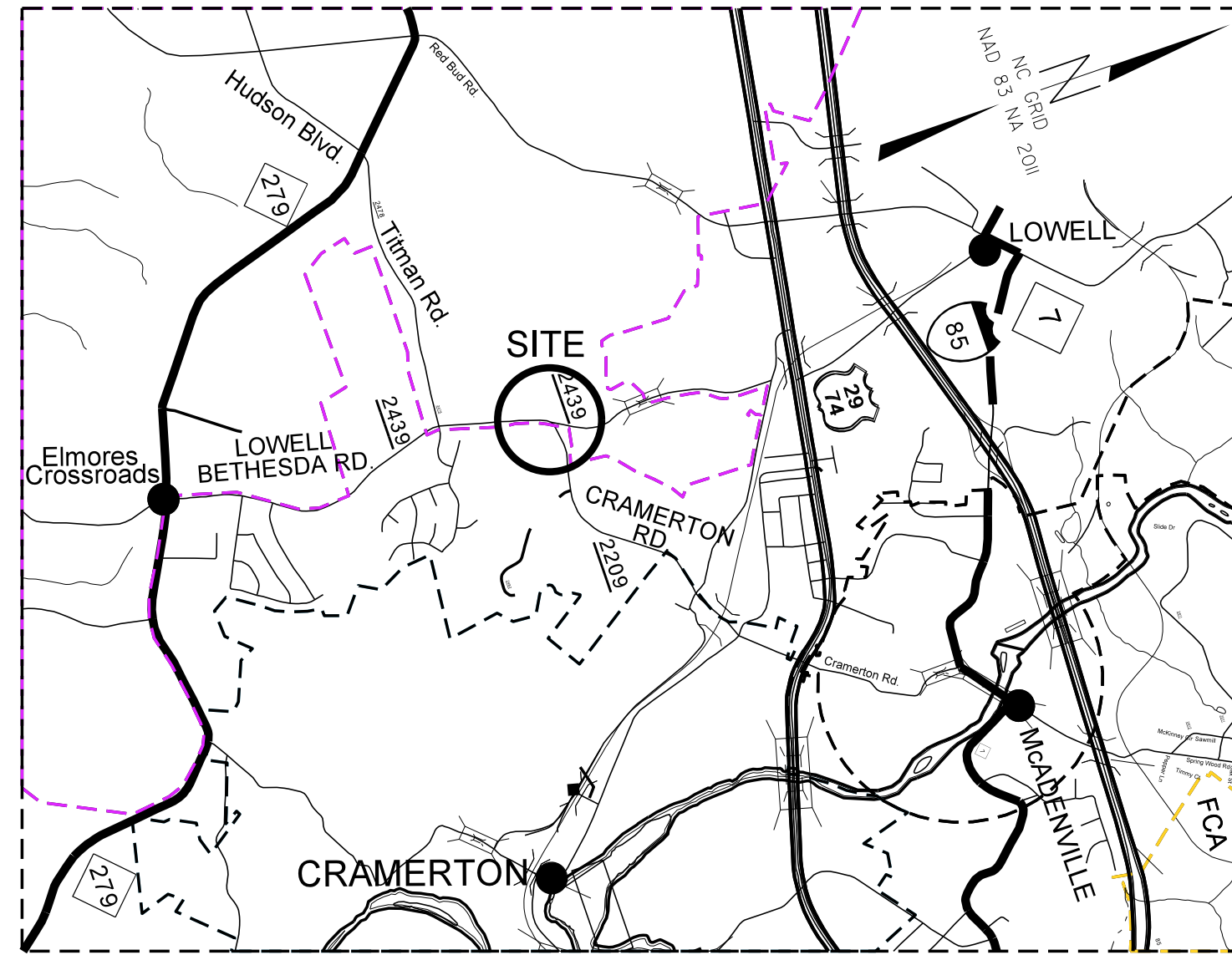
*NOTE: REMOVE ANY EXISTING PAVEMENT MARKING OR MARKER THAT IS IN CONFLICT WITH PAVEMENT MARKING PLANS.



PROJECT REFERENCE NO. <i>SM-5712B</i>	SHEET NO. <i>PMP-1</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



TIP PROJECT: SM-5712B



VICINITY MAP - NOT TO SCALE

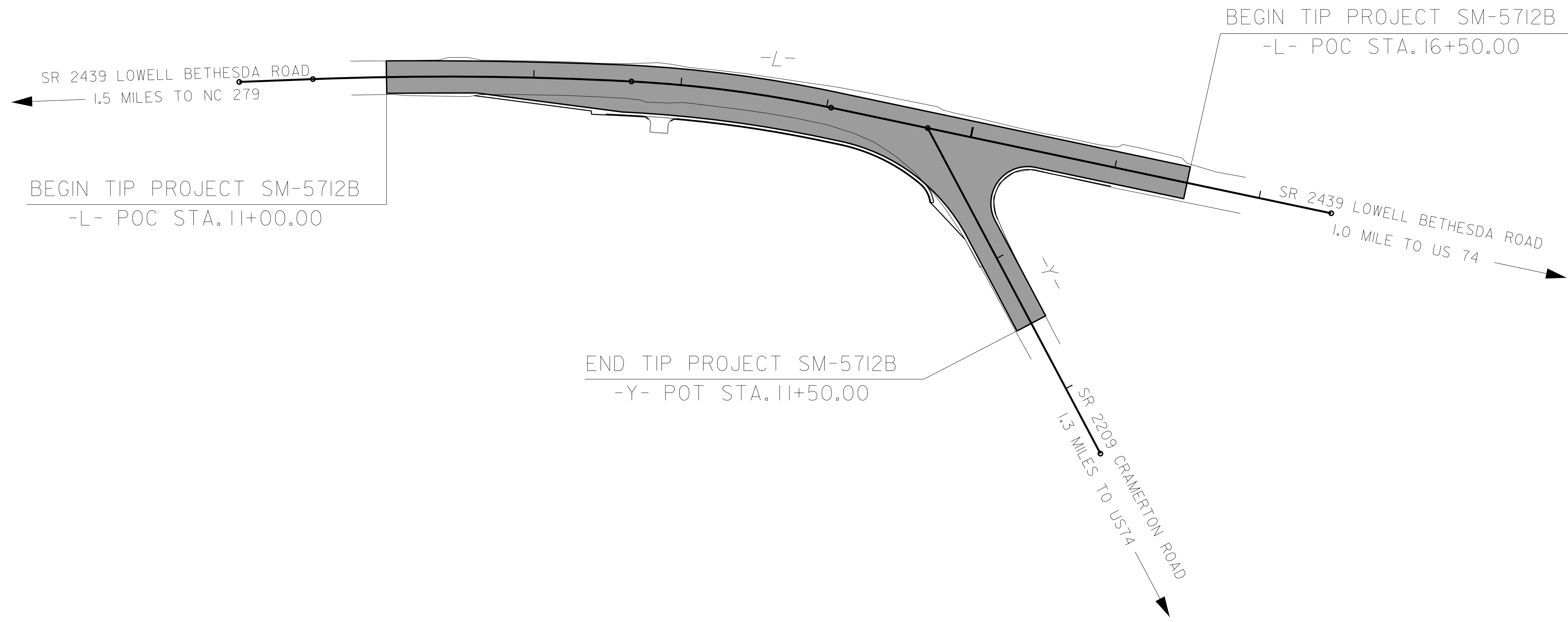
STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

 PLAN FOR PROPOSED
 HIGHWAY EROSION CONTROL

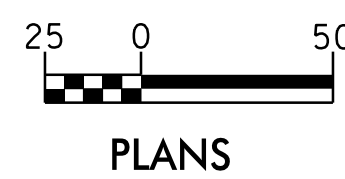
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SM-5712B	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
47909.1.1	N/A	PE	
47909.2.1	N/A	RW & UTIL	
47909.3.1	N/A	CONST	

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	— III — III — III —
1606.01	Special Sediment Control Fence	— X X X X X X X X —
1633.02	Wattle/Coir Fiber Wattle	—) —



GRAPHIC SCALE



ROADSIDE ENVIRONMENTAL UNIT
 DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY
 WITH THE REGULATIONS SET FORTH BY THE
 NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011
 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND
 NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared in the Office of:
DIVISION 12 DDC
 1710 E. Marion St.
 Shelby, NC 28150

2018 STANDARD SPECIFICATIONS

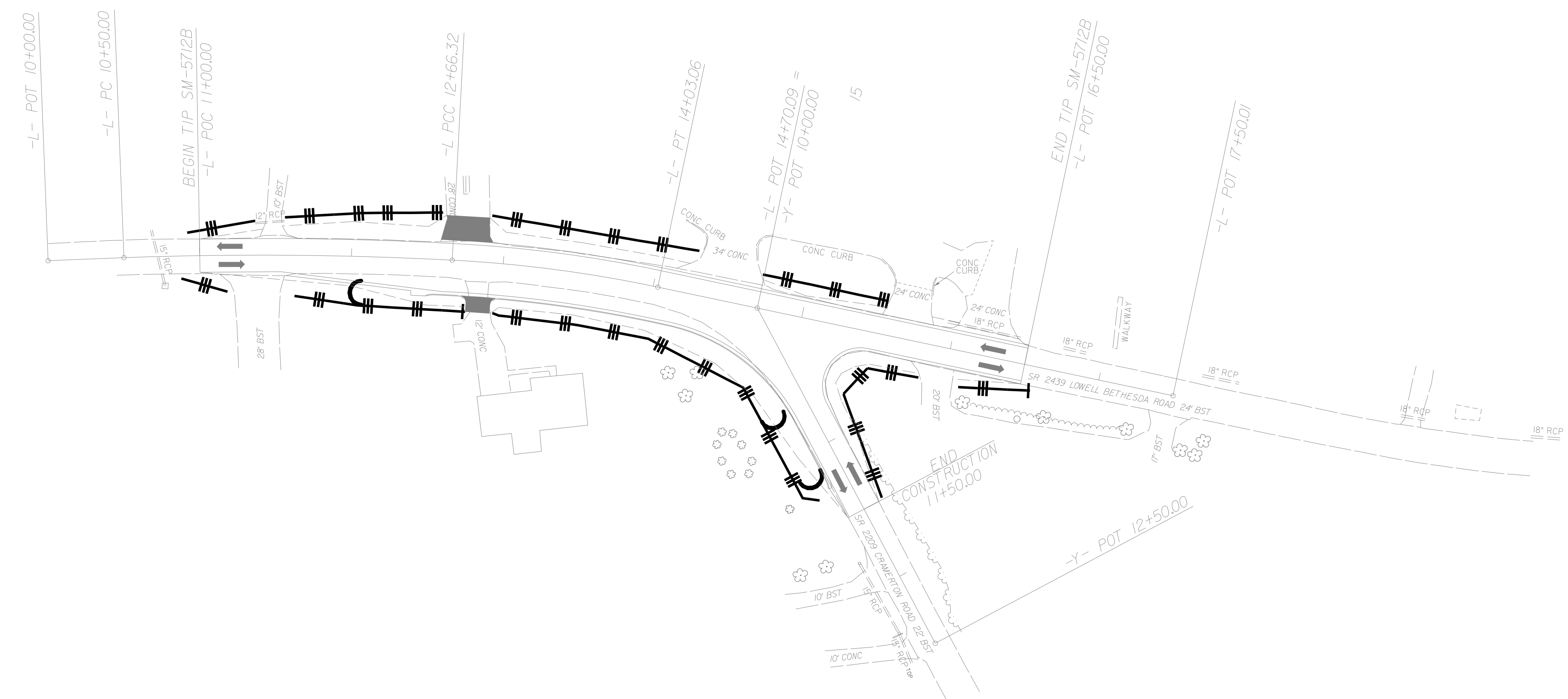
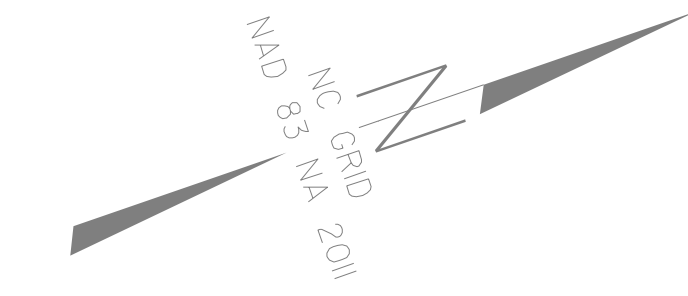
Designed by:
J.S. CARPENTER **3877**
 NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1633.02 Temporary Rock Silt Check Type B
1630.02 Silt Basin Type B	1634.01 Temporary Rock Sediment Dam Type A
1630.03 Temporary Silt Ditch	1634.02 Temporary Rock Sediment Dam Type B
1630.04 Stilling Basin	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.05 Temporary Diversion	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.06 Special Stilling Basin	1640.01 Coir Fiber Baffle
1631.01 Matting Installation	1645.01 Temporary Stream Crossing

23-JAN-2019 10:38 C:\Users\jcarpenter\Documents\Projects\SM-5712B-EC.dwg EC-1.dgn



2018 STANDARD SPECIFICATIONS

Designed by:

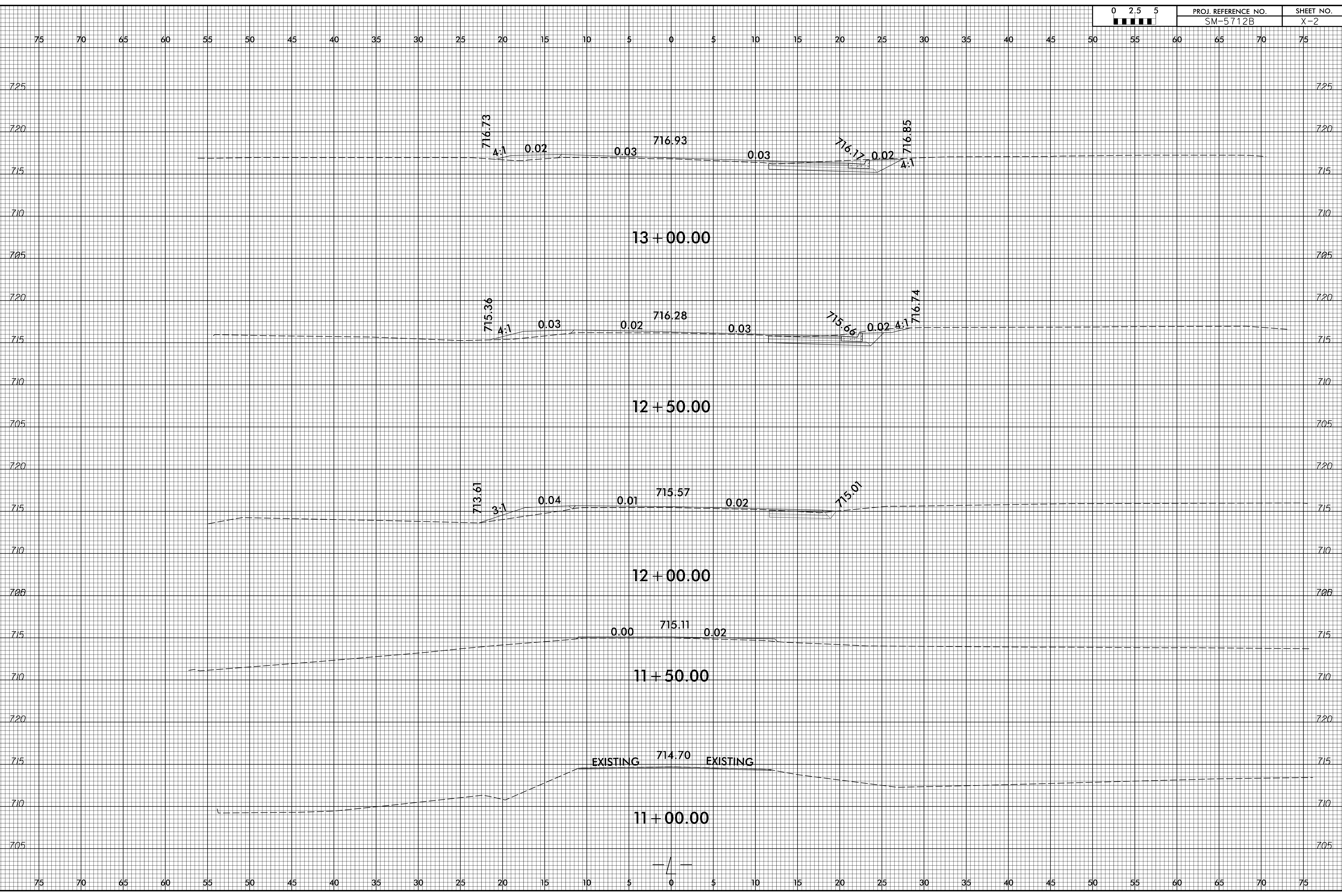
J.S. CARPENTER
NAME

3877
LEVEL III CERTIFICATION NO.

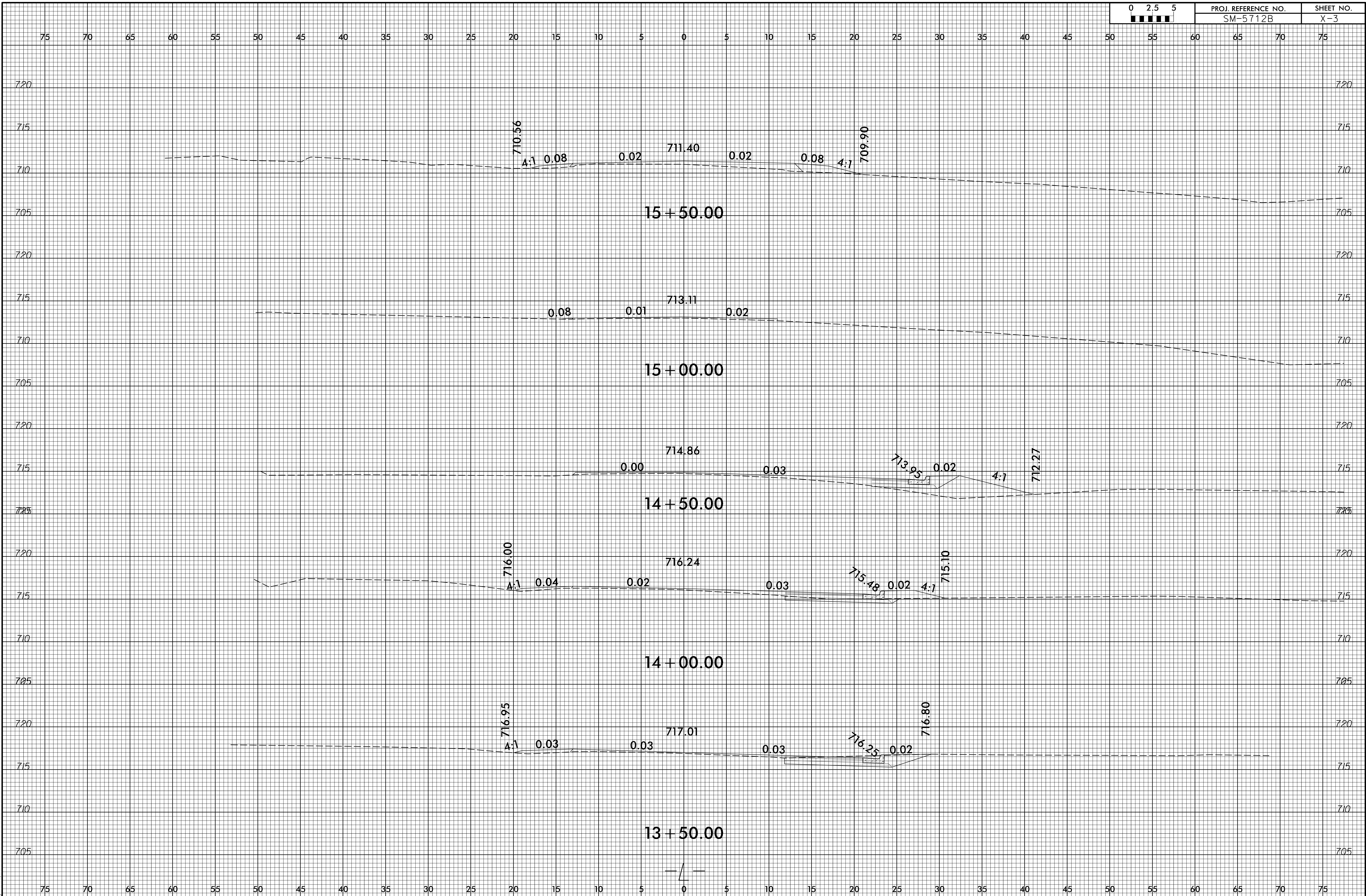
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 8/17/99
 JSCarpenter AT DIV12-297495

6/23/16

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■■■■■	SM-5712B	X-2

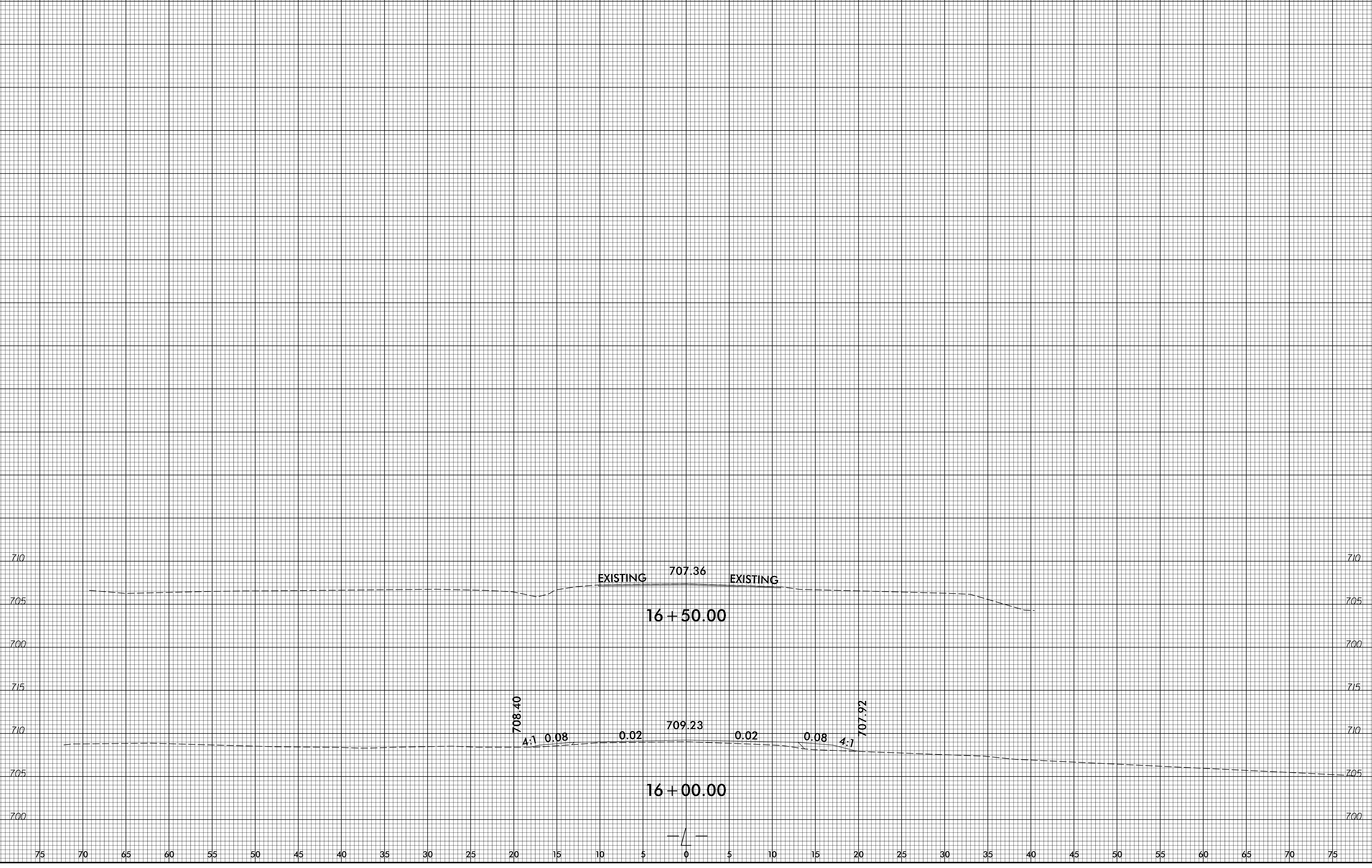


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EXISTING 707.36 EXISTING

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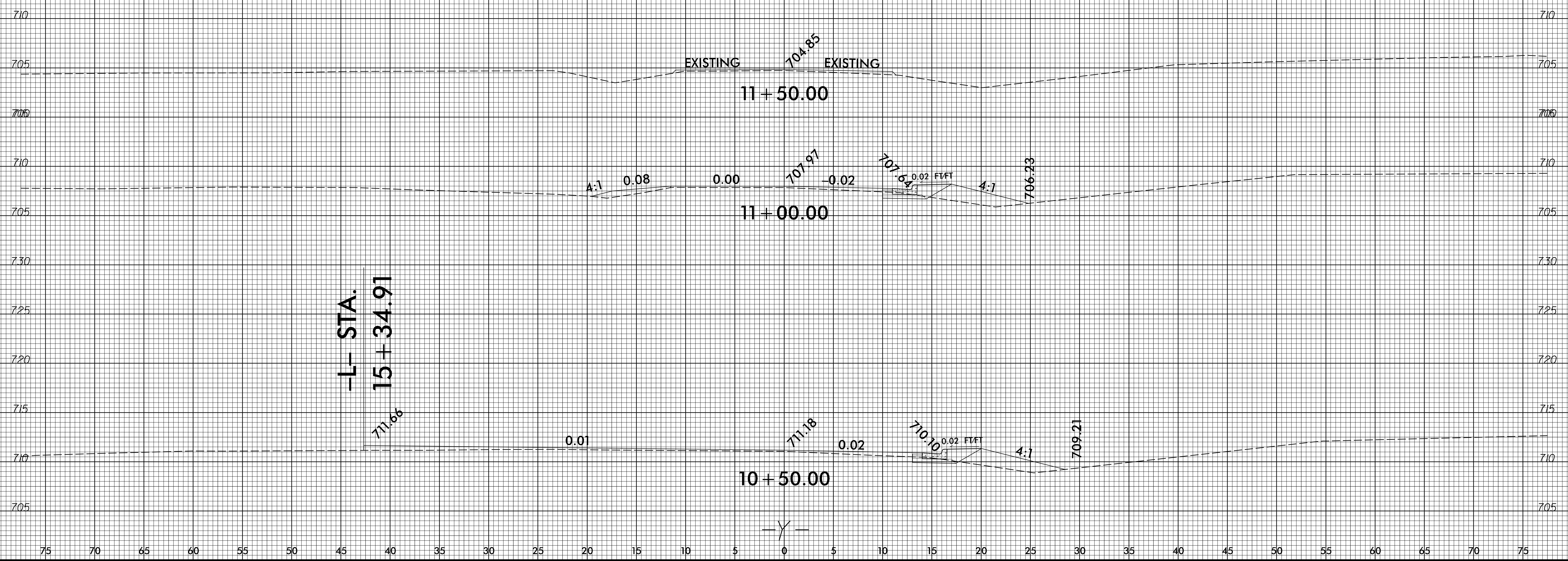
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6/23/16

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