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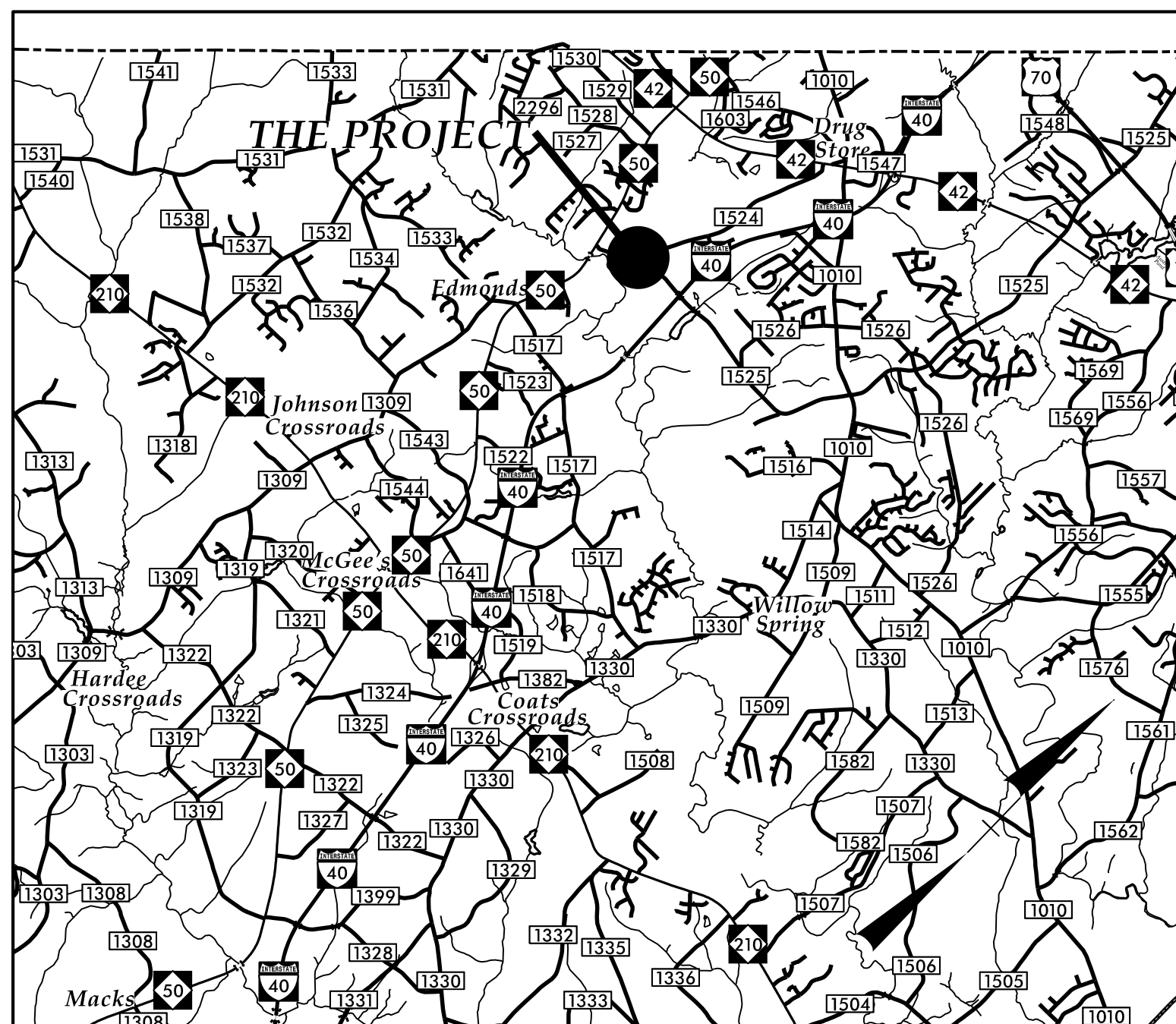
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numbers appear on each page, on the dates appearing
with their signature on that page.**

**This file or an individual page
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See Sheet 1-A For Index of Sheets

TIP PROJECT: W-5204E

CONTRACT: DD00444



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

JOHNSTON COUNTY

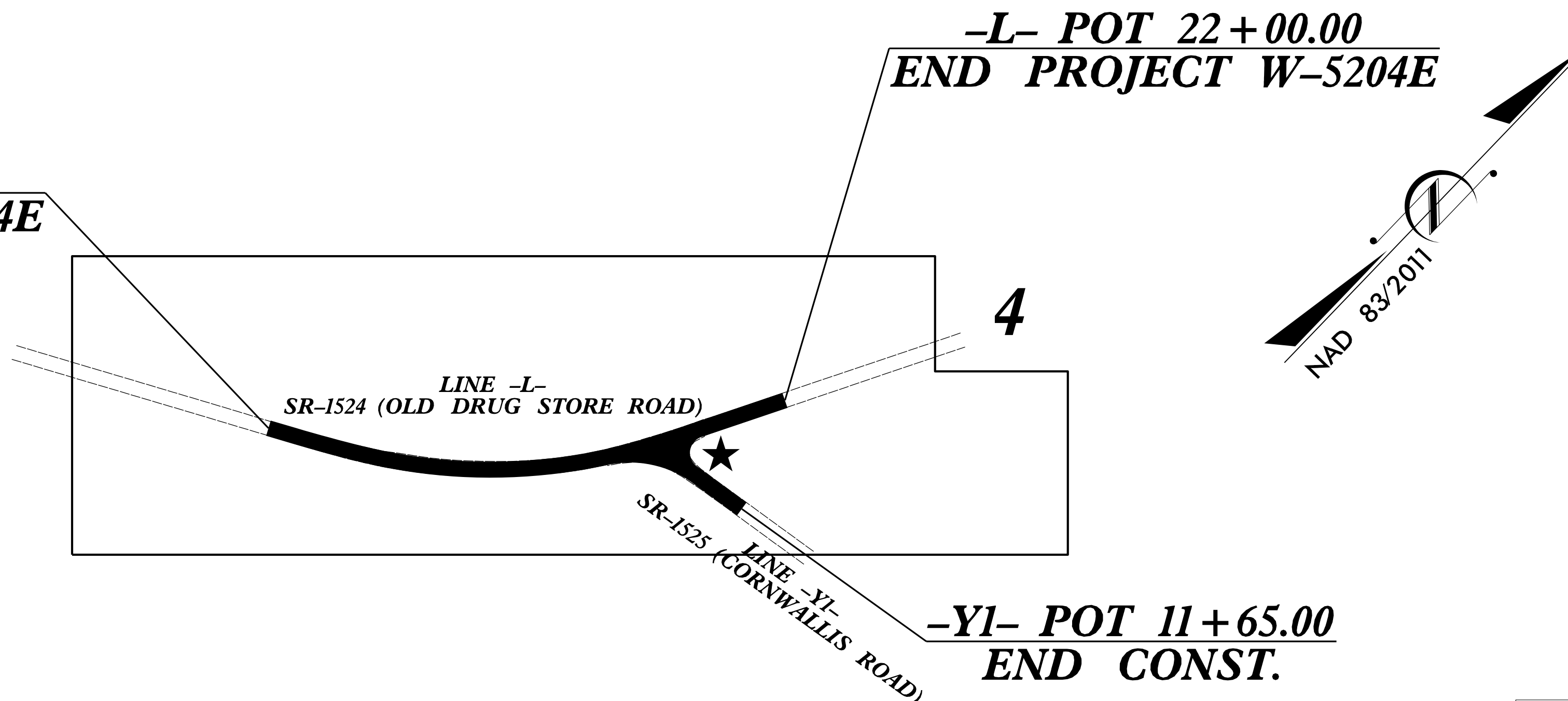
**LOCATION: SR-1524 (OLD DRUG STORE ROAD) AT
SR-1525 (CORNWALLIS ROAD)**

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND SIGNAL.

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5204E	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
45334.1.5	HSIP-1524(006)	PE	
45334.2.5	HSIP-1524(006)	RW	
45334.3.5	HSIP-1524(006)	CONST.	

**-L- POT 14 + 00.00
BEGIN PROJECT W-5204E**

**-L- POT 22 + 00.00
END PROJECT W-5204E**

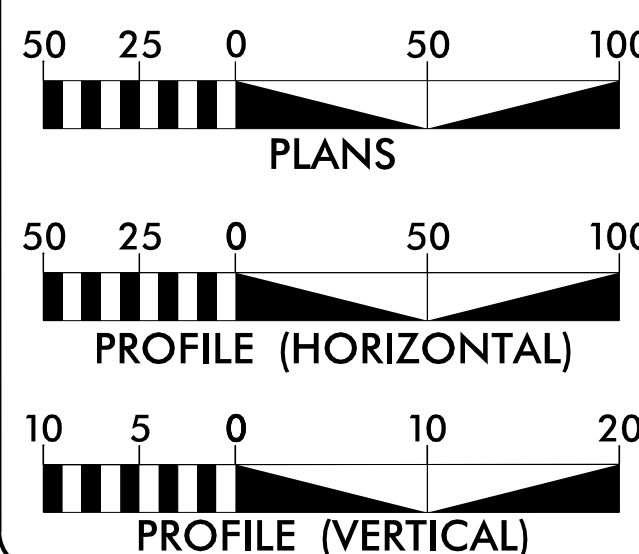


**-YI- POT 11 + 65.00
END CONST.**

★ PROPOSED SIGNAL

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

ADT 2020 = 8400
ADT =
K = %
D = %
T = % *
V = MPH
* TTST = DUAL
FUNCTIONAL CLASS
MAJOR COLLECTOR

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT W-5204E = 0.152 MILES
TOTAL LENGTH TIP PROJECT W-5204E = 0.152 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
Division 4 DDC
509 Ward Blvd., Wilson NC, 27895

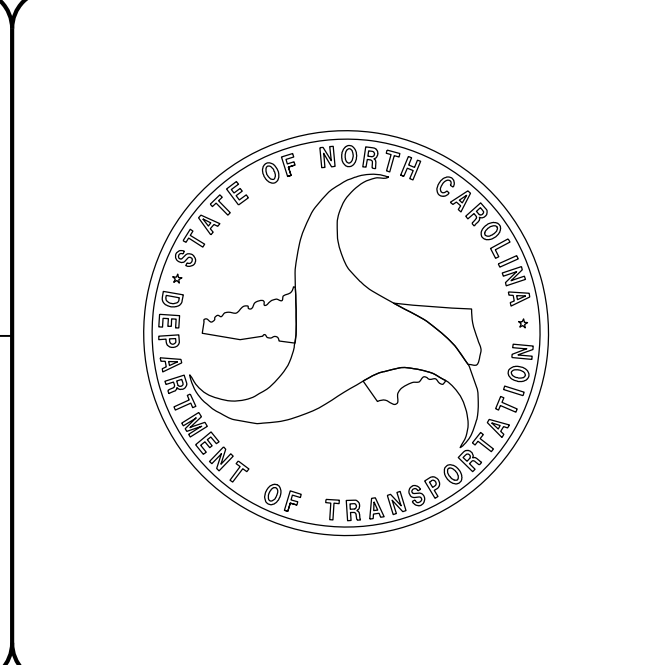
2018 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: JANUARY 5, 2023	KEITH EASON, PE PROJECT ENGINEER
LETTING DATE: DECEMBER 12, 2023	D. R. ETHRIDGE PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
11/06/2023

DocuSigned by:
Norwood A. Gaiway III
SIGNATURE:

ROADWAY DESIGN ENGINEER
11/06/2023

DocuSigned by:
Norwood A. Gaiway III
SIGNATURE:



STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PROJ. REFERENCE NO. W-5204E	SHEET NO. 1-A
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2018 ROADWAY ENGLISH STANDARD DRAWINGS

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:

- DIVISION 2 - EARTHWORK
 - 200.03 METHOD OF CLEARING - METHOD III
 - 225.02 GUIDE FOR GRADING SUBGRADE - SECONDARY AND LOCAL
 - 225.04 METHOD OF OBTAINING SUPERELEVATION - TWO LANE PAVEMENT
 - 225.06 METHOD OF GRADING SIGHT DISTANCE AT INTERSECTIONS
- DIVISION 3 - PIPE CULVERTS
 - 300.01 METHOD OF PIPE INSTALLATION
 - 310.10 DRIVEWAY PIPE CONSTRUCTION
- 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
 - 840.71 CONCRETE AND BRICK PIPE PLUG
 - 840.72 PIPE COLLAR

GENERAL NOTES: 2018 SPECIFICATIONS

- GRADE LINE:**
GRADING AND SURFACING OR RESURFACING AND WIDENING:
 THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED 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.
- TEMPORARY SHORING:**
 SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.
- SUBSURFACE PLANS:**
 NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.
- UTILITIES:**
 UTILITY OWNERS ON THIS PROJECT ARE:
 PIEDMONT NATURAL GAS, JOHNSTON CO. WATER, SPECTRUM, DUKE ENERGY, AT&T AND BRIGHTSPEED.

 ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.
- RIGHT-OF-WAY MARKERS:**
 ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS.

SHEET NUMBER	INDEX OF SHEETS SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
3B-1	ROADWAY SUMMARIES - DRAINAGE SUMMARY, EARTHWORK SUMMARY AND PARCEL INDEX
4	PLAN & PROFILE SHEETS
RW-1 THRU RW-4	SURVEY CONTROL, EXISTING CENTERLINES RIGHT OF WAY, EASEMENTS AND PROPERTY TIES
PMP-1 THRU PMP-2	PAVEMENT MARKING PLANS
EC-1 THRU EC-5	EROSION CONTROL PLANS
SGN-1 THRU SGN-2	SIGNING PLANS
SIG.1.0 THRU SIG.1.1	SIGNAL PLANS
UBO-1 THRU UBO-2	UTILITIES BY OTHERS PLANS
X-1	CROSS-SECTION INDEX & CROSS-SECTION SUMMARY
X-2 THRU X-7	CROSS-SECTIONS

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

Note: Not to Scale

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin (EIP)	○
Computed Property Corner	×
Existing Concrete Monument (ECM)	◻
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	----- WLB -----
Proposed Wetland Boundary	----- WLB -----
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	○
Well	○
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	○
Switch	SWITCH
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY & PROJECT CONTROL:

Primary Horiz Control Point	○
Primary Horiz and Vert Control Point	●
Secondary Horiz and Vert Control Point	◆
Vertical Benchmark	⊕
Existing Right of Way Monument	△
Proposed Right of Way Monument (Rebar and Cap)	▲
Proposed Right of Way Monument (Concrete)	⊙
Existing Permanent Easement Monument	◇
Proposed Permanent Easement Monument (Rebar and Cap)	◆
Existing C/A Monument	△
Proposed C/A Monument (Rebar and Cap)	▲
Proposed C/A Monument (Concrete)	⊙
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Existing Control of Access Line	-----
Proposed Control of Access Line	-----
Proposed ROW and CA Line	-----
Existing Easement Line	-----
Proposed Temporary Construction Easement	-----
Proposed Temporary Drainage Easement	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Drainage/Utility Easement	-----
Proposed Permanent Utility Easement	-----
Proposed Temporary Utility Easement	-----
Proposed Aerial Utility Easement	-----

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-----
Proposed Slope Stakes Fill	-----
Proposed Curb Ramp	-----
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	-----
VEGETATION:	
Single Tree	○
Single Shrub	○
Hedge	-----

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

EXISTING STRUCTURES:

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

UTILITIES:

* SUE - Subsurface Utility Engineering
LOS - Level of Service - A, B, C or D (Accuracy)

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 Test Hole (SUE - LOS A)*	⊕
U/G Power Line (SUE - LOS B)*	-----
U/G Power Line (SUE - LOS C)*	-----
U/G Power Line (SUE - LOS D)*	-----

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Pedestal	⊕
Telephone Cell Tower	⊕
U/G Telephone Cable Hand Hole	⊕
U/G Telephone Test Hole (SUE - LOS A)*	⊕
U/G Telephone Cable (SUE - LOS B)*	-----
U/G Telephone Cable (SUE - LOS C)*	-----
U/G Telephone Cable (SUE - LOS D)*	-----
U/G Telephone Conduit (SUE - LOS B)*	-----
U/G Telephone Conduit (SUE - LOS C)*	-----
U/G Telephone Conduit (SUE - LOS D)*	-----
U/G Fiber Optics Cable (SUE - LOS B)*	-----
U/G Fiber Optics Cable (SUE - LOS C)*	-----
U/G Fiber Optics Cable (SUE - LOS D)*	-----

WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
U/G Water Line Test Hole (SUE - LOS A)*	⊕
U/G Water Line (SUE - LOS B)*	-----
U/G Water Line (SUE - LOS C)*	-----
U/G Water Line (SUE - LOS D)*	-----
Above Ground Water Line	-----

TV:

TV Pedestal	⊕
TV Tower	⊗
U/G TV Cable Hand Hole	⊕
U/G TV Test Hole (SUE - LOS A)*	⊕
U/G TV Cable (SUE - LOS B)*	-----
U/G TV Cable (SUE - LOS C)*	-----
U/G TV Cable (SUE - LOS D)*	-----
U/G Fiber Optic Cable (SUE - LOS B)*	-----
U/G Fiber Optic Cable (SUE - LOS C)*	-----
U/G Fiber Optic Cable (SUE - LOS D)*	-----

GAS:

Gas Valve	◇
Gas Meter	⊕
U/G Gas Line Test Hole (SUE - LOS A)*	⊕
U/G Gas Line (SUE - LOS B)*	-----
U/G Gas Line (SUE - LOS C)*	-----
U/G Gas Line (SUE - LOS D)*	-----
Above Ground Gas Line	-----

SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
SS Force Main Line Test Hole (SUE - LOS A)*	⊕
SS Force Main Line (SUE - LOS B)*	-----
SS Force Main Line (SUE - LOS C)*	-----
SS Force Main Line (SUE - LOS D)*	-----

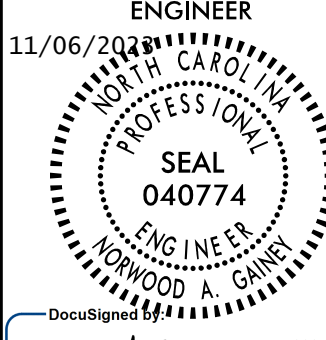
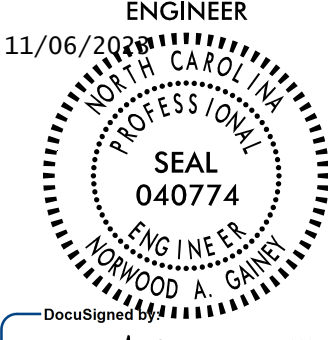
MISCELLANEOUS:

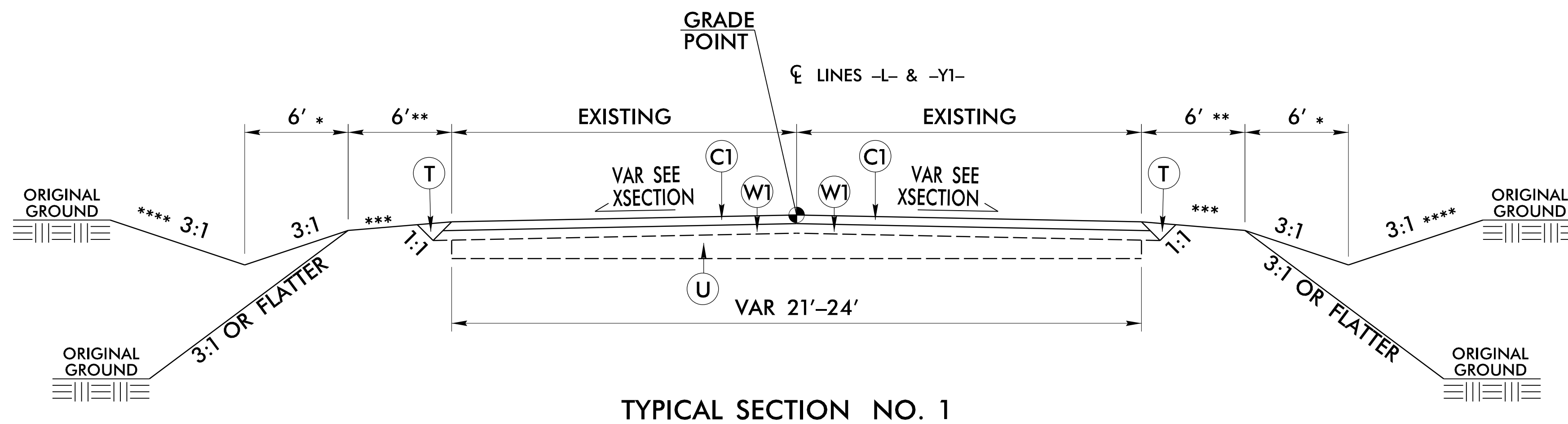
Utility Pole	●
Utility Pole with Base	⊕
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line (SUE - LOS B)*	-----
U/G Tank; Water, Gas, Oil	-----
Underground Storage Tank, Approx. Loc.	-----
A/G Tank; Water, Gas, Oil	-----
Geoenvironmental Boring	⊕
Abandoned According to Utility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

6/2/99

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YARD.	D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YARD PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4" IN DEPTH.	U	EXISTING PAVEMENT.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YARD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 2" DEPTH.	E1	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YARD PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" OR GREATER THAN 5.5" IN DEPTH.	W1	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL)
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YARD.	T	EARTH MATERIAL.	NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.	

PROJECT REFERENCE NO. <i>W-5204E</i>	SHEET NO. <i>2A-1</i>
ROADWAY DESIGN ENGINEER 11/06/2023 	PAVEMENT DESIGN ENGINEER 11/06/2023 
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>	



USE TYPICAL SECTION NO. 1

-L- STA 14+00.00 TO -L- STA 22+00.00
 -Y1- STA 10+15 TO -L- STA 11+65.00

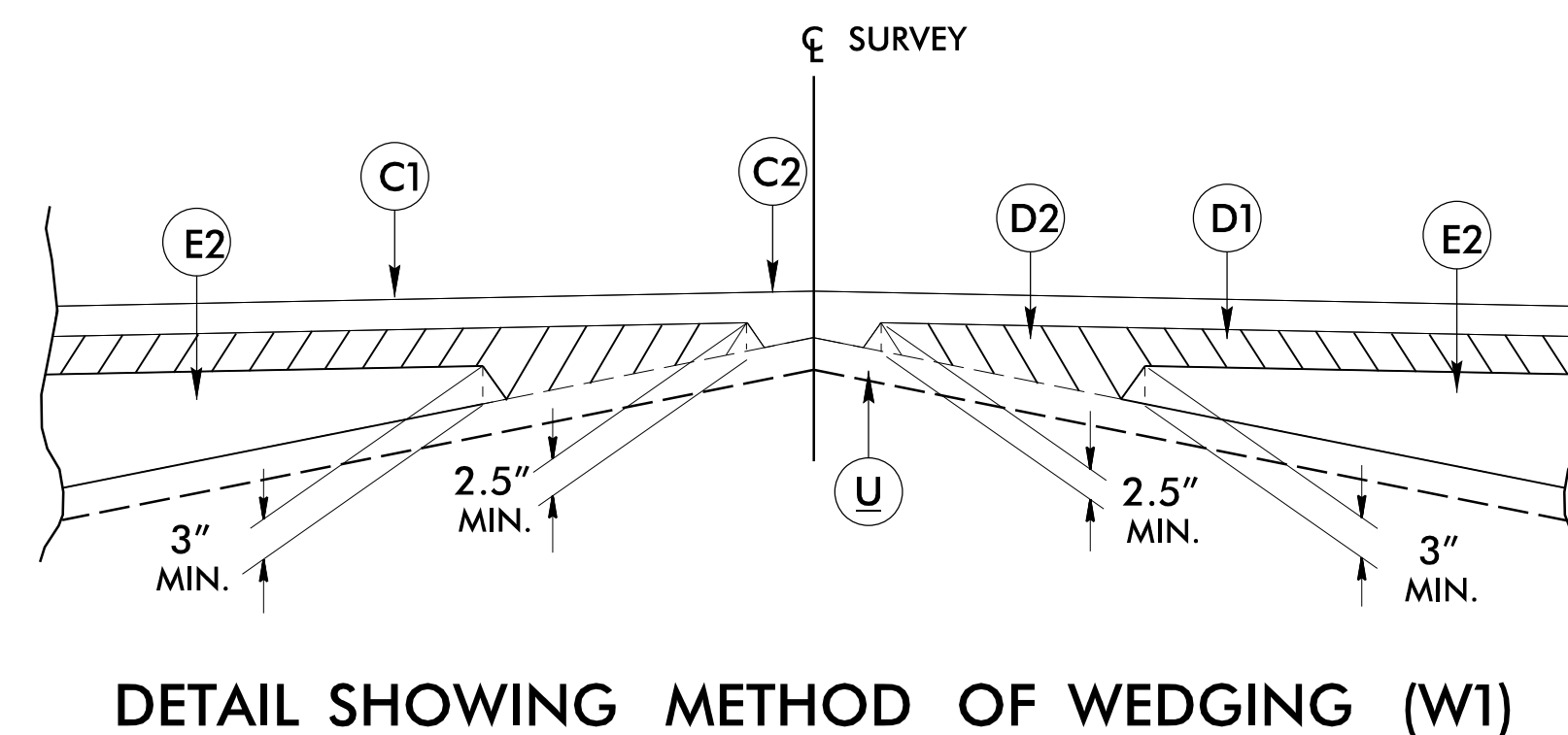
* 4.5' -L- STA 20+40 TO 22+00 RT
 4.5' -Y1- STA 10+15 TO -L- STA 11+65 LT & RT

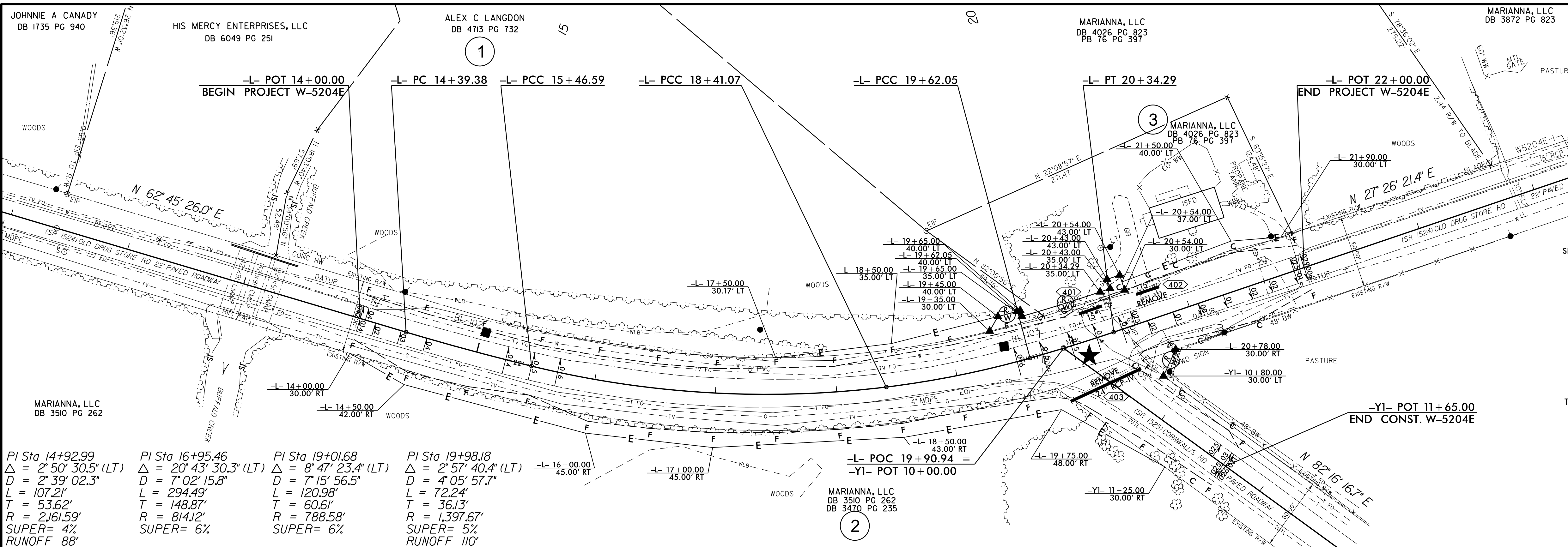
** 5' -L- STA 20+40 TO 22+00 RT
 3' -Y1- STA 10+15 TO -L- STA 11+65 LT & RT
 VAR AT BEGINNING AND ENDING OF -L- & -Y1-

*** SEE ROADWAY STANDARD DRAWING 560.01

**** 2:1 -L- STA 20+40 TO 22+00 RT
 2:1 -Y1- STA 10+15 TO -L- STA 11+65 LT & RT

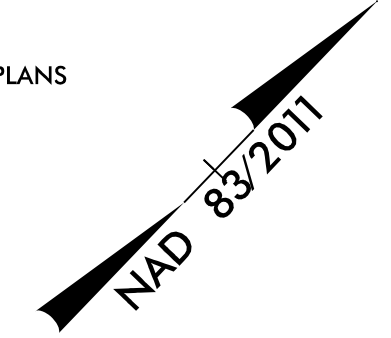
NOTE USE INCIDENTAL MILLING
 -L- STA 14+00 TO -L- STA 14+50
 -L- STA 21+00 TO -L- STA 22+00
 -Y1- STA 11+25 TO -Y1- STA 11+65



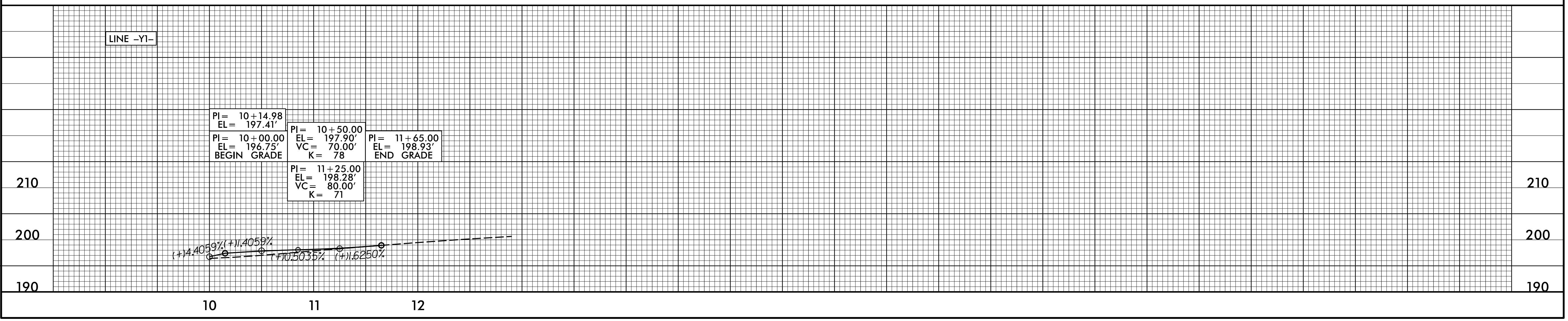
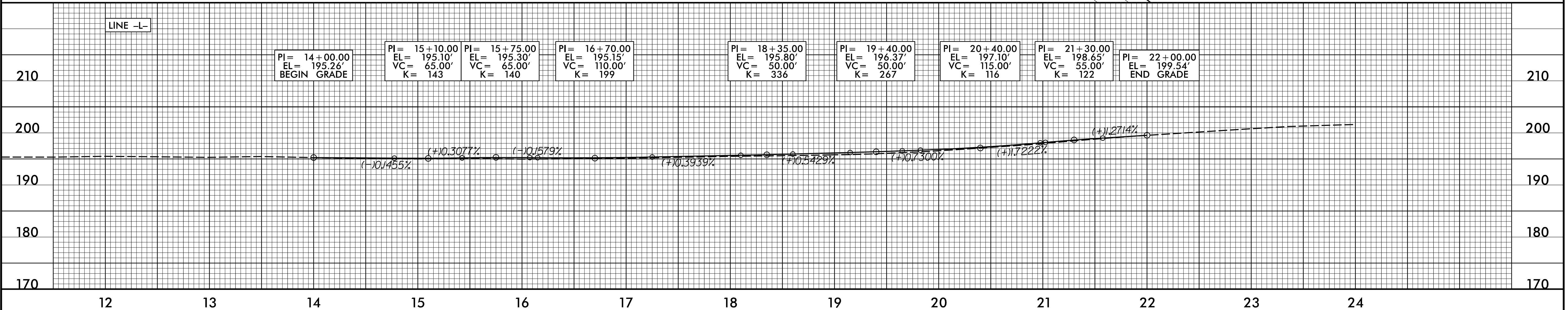


PROJECT REFERENCE NO.	SHEET NO.
W-5204E	04
R/W SHEET NO.	04
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
11/06/2011	11/06/2011
SEAL 040774	SEAL 040774
NORWOOD A. GAINEY III	NORWOOD A. GAINEY III
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

★ PROPOSED SIGNAL
SEE SHEET SIG.1.0 FOR SIGNAL PLANS



PI Sta 14+92.99 Δ = 2° 50' 30.5" (LT) D = 2° 39' 02.3" L = 107.21' T = 53.62' R = 2,161.59' SUPER = 4% RUNOFF 88'	PI Sta 16+95.46 Δ = 20° 43' 30.3" (LT) D = 7° 02' 15.8" L = 294.49' T = 148.87' R = 814.12' SUPER = 6%	PI Sta 19+01.68 Δ = 8° 47' 23.4" (LT) D = 7° 15' 56.5" L = 120.98' T = 60.61' R = 788.58' SUPER = 6%	PI Sta 19+98.18 Δ = 2° 57' 40.4" (LT) D = 4° 05' 57.7" L = 72.24' T = 36.13' R = 1,397.67' SUPER = 5% RUNOFF 110'
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REVISIONS

06-NOV-2013 08:11
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Division 4 DDC

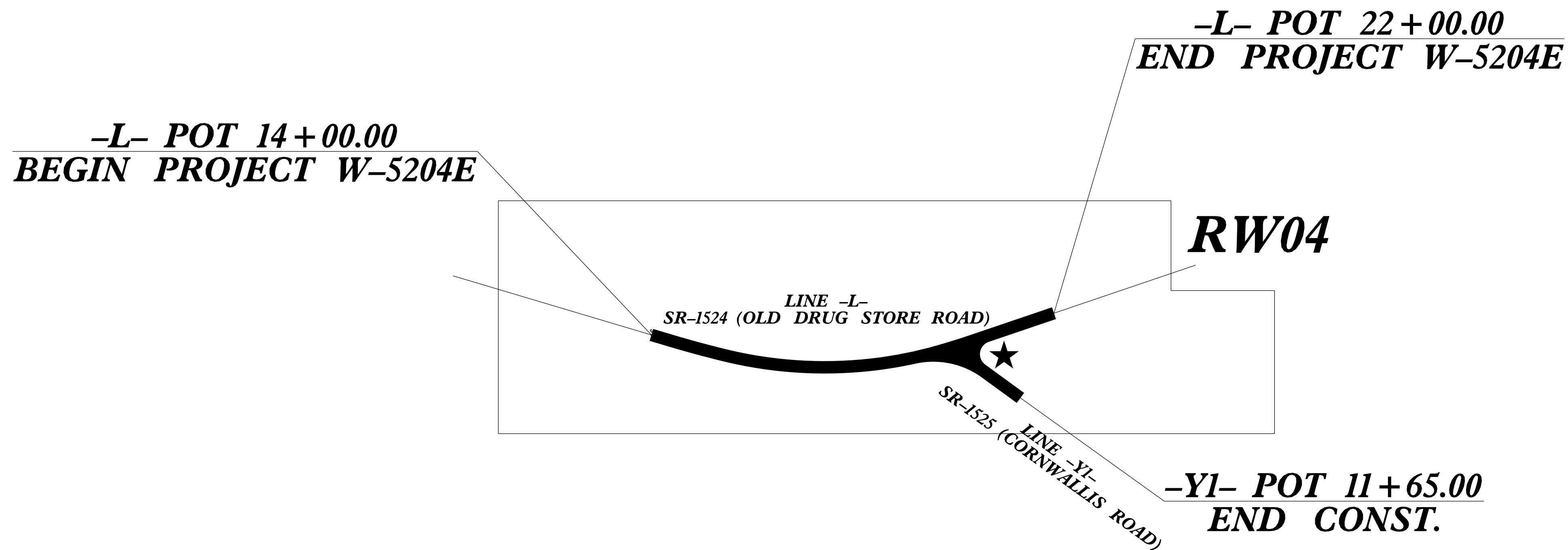
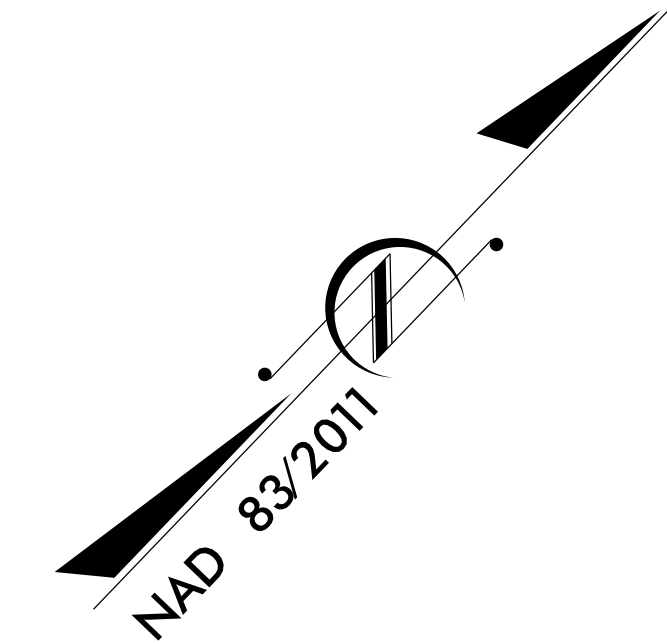
TIP PROJECT: W-5204E

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5204E	RW01	07

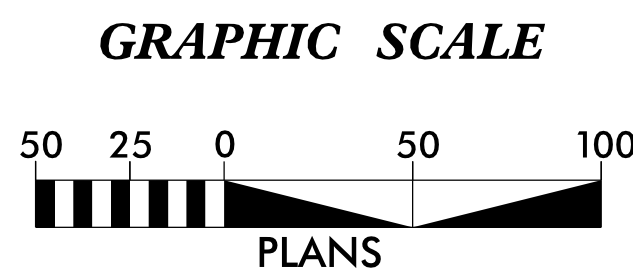
STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

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

JOHNSTON COUNTY



13-FEB-2023 15:52
G:\Project\2023\04\13\SUR\ROW Sheets\w5204e_ls_rw01.dgn
andy.heath AT NCCAR-CRANSIOV



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "W5204E-2" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 664,948.836'(ft) EASTING: 2,123,550.681'(ft) ELEVATION: 207.823'(ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999889148

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "W-5204E-2" TO -L- STATION 14+00.00 IS S 34-02'14.4" - 1,649.23'(ft)

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88 (GEOID 12B)

Prepared in the Office of:

N|V|5

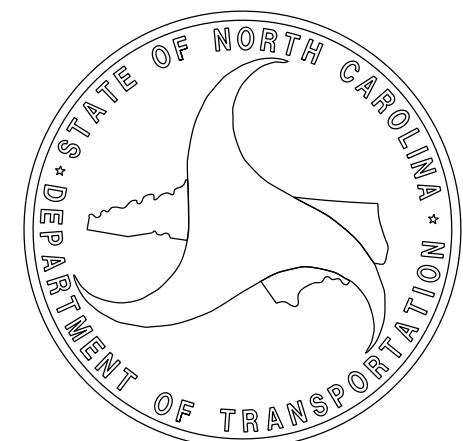
NV5 ENGINEERS & CONSULTANTS, INC.
 3300 REGENCY PARKWAY, SUITE 100
 CARY, NC 27518
 P: 919.851.1912 www.NV5.com
 NC License # F-1333
 formerly CALYX Engineers & Consultants

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
 01/05/2023

LETTING DATE:
 07/25/2023


PROFESSIONAL LAND SURVEYOR



DocuSigned by:
 C. Andrew Heath Jr. 2/14/2023
 2CC014B3929747F...
 SIGNATURE: Date:

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
W5204E	RW02C-1
Location and Surveys	
NV5	
<small>NVS ENGINEERS & CONSULTANTS, INC. 3300 REGENCY PARKWAY, SUITE 100 CARY, NC 27518 P: 919.851.1912 www.NV5.com NC License # F 1333 Formerly C.A.R. Engineers & Consultants</small>	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

I, C. ANDREW HEATH, JR., 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: 10-28-2021
 Datum/Epoch: NAD 83 NA 2011
 Published/Fixed-control use: N/A
 Localized around: W5204E-2
 Northing: 664948.836
 Easting: 2123550.681
 Combined grid factor: 0.999889148
 Geoid model: GEOID 12B
 Units: US SURVEY FEET

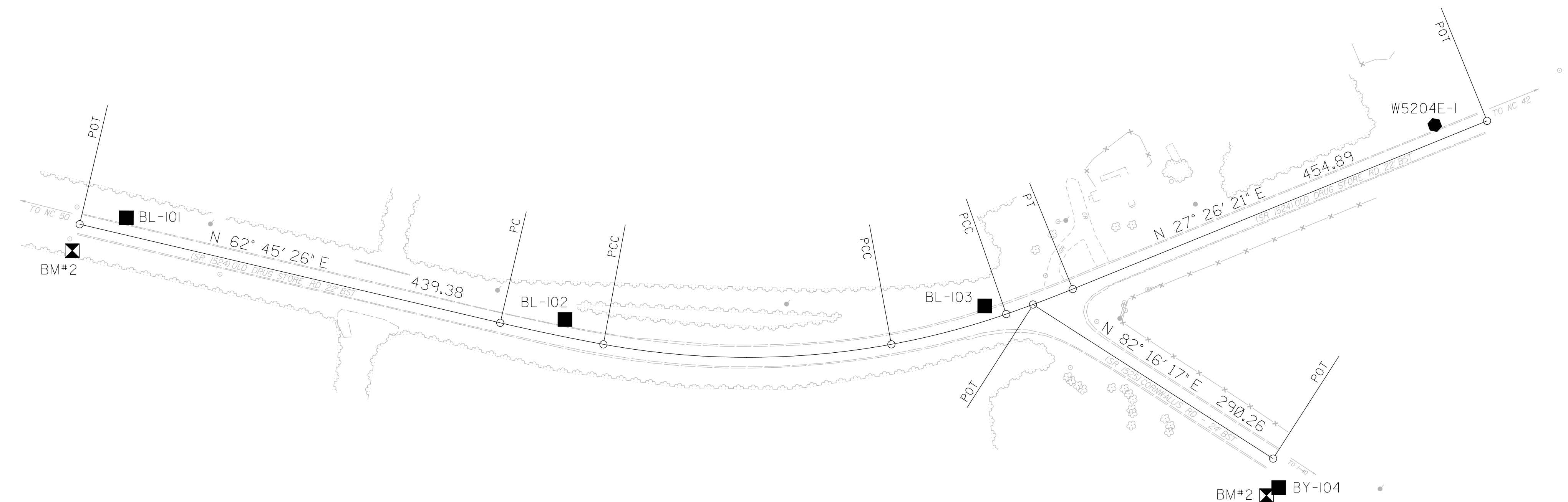
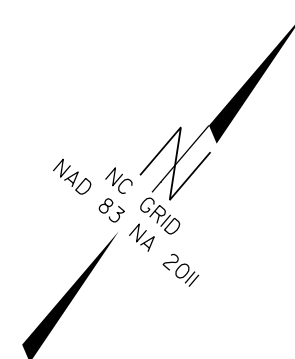
I also certify that the Baseline Control for this project was completed under my direct and responsible charge from an actual survey made under my supervision; that all horizontal closures had a minimum ratio of precision of 1:20,000 (Class AA) and Vertical accuracy to Class A. Field work was performed from 10-28-2021 to 10-29-2021. . 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 day of 11/16/2021

DocuSigned by:

 C. Andrew Heath, Jr.
 20001483929247E
 Professional Land Surveyor L-3281

W5204E-2



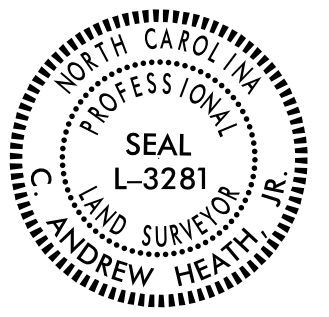
SEE SHEET RW02C-3 FOR FURTHER ALIGNMENT DETAILS

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. W-5204E	SHEET NO. RW02C-2
Location and Surveys	
NV5	
NV5 ENGINEERS & CONSULTANTS, INC. 3300 REGENCY PARKWAY, SUITE 100 CARY, NC 27513 P: 919.851.1912 www.NV5.com NC License # F-1337 Formerly C&V Engineers & Consultants	
PROJECT SURVEYOR 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

I, C. ANDREW HEATH, JR., 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: 10-28-2021
 Datum/Epoch: NAD 83 NA 2011
 Published/Fixed-control use: N/A
 Localized around: W5204E-2
 Northing: 664948.836
 Easting: 2123550.681
 Combined grid factor: 0.999889148
 Geoid model: GEOID 12B
 Units: US SURVEY FEET

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 10-28-2021 to 10-29-2021, 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 day of 11/16/2021

DocuSigned by:

 Professional Land Surveyor L-3281

BL	POINT	DESC.	NORTH	EAST	ELEVATION
101	BL-101	BL-101	663434.8060	2122303.7930	194.83
102	BL-102	BL-102	663645.4640	2122710.3890	193.82
103	BL-103	BL-103	663932.9490	2123026.3910	194.83
1		W5204E-1	664370.0410	2123255.2550	201.27
2		W5204E-2	664948.8360	2123550.6810	207.82

BY	POINT	DESC.	NORTH	EAST	ELEVATION
103	BL-103	BL-103	663932.9490	2123026.3910	194.83
104	BY-104	BY-104	663986.2350	2123373.8650	199.46

.....
 BM1 ELEVATION = 201.63
 N 663972 E 2123370
 BY STATION 8+45.00 14 RIGHT
 RRS IN 44° OAK

.....
 BM2 ELEVATION = 193.25
 N 663374 E 2122284
 BL STATION 5+00.00
 S 18°08'27.9" W DIST 64.37
 RRS IN 10° MAPLE


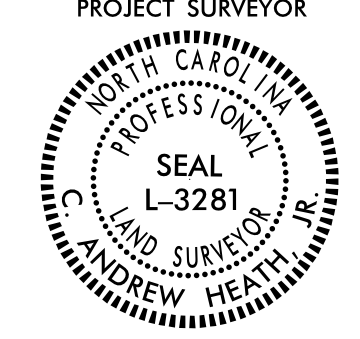
REVISIONS

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.
W-5204E	RW02C-3
Location and Surveys	
 NV5 ENGINEERS & CONSULTANTS, INC. 3300 REGENCY PARKWAY, SUITE 100 CARY, NC 27513 P: 919.851.1912 www.NV5.com <small>NC License # F-1337 Formerly CIVIL Engineers & Consultants</small>	
PROJECT SURVEYOR 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

EL POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	663399.059	2122271.922							
LINE			N 62°45'26.0" E	439.38					
PC	663600.188	2122662.560							
CURVE			N 61°20'10.8" E	107.20	02°50'30.5"(L T)	02°39'02.3"	107.21	53.62	2161.59
PCC	663651.609	2122756.624							
CURVE			N 49°33'10.4" E	292.88	20°43'30.3"(L T)	07°02'15.8"	294.49	148.87	814.12
PCC	663841.615	2122979.509							
CURVE			N 34°47'43.5" E	120.86	08°47'23.4"(L T)	07°15'56.5"	120.98	60.61	788.58
PCC	663940.864	2123048.477							
CURVE			N 28°55'11.6" E	72.23	02°57'40.4"(L T)	04°05'57.7"	72.24	36.13	1397.67
PT	664004.085	2123083.405							
LINE			N 27°26'21.4" E	454.89					
POT	664407.797	2123293.021							

EY POINT	N	E	BEARING	DIST
POT	663965.928	2123062.836		
LINE			N 82°16'16.7" E	290.26
POT	664004.963	2123350.460		

I, C. ANDREW HEATH, JR., 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: 10-28-2021
 Datum/Epoch: NAD 83 NA 2011
 Published/Fixed-control use: N/A
 Localized around: W5204E-2
 Northing: 664948.836
 Easting: 2123550.681
 Combined grid factor: 0.999889148
 Geoid model: GEOID 12B
 Units: US SURVEY FEET

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 10-28-2021 to 10-29-2021, 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 day of 11/16/2021

DocuSigned by:

 2020148382974FF
 Professional Land Surveyor L-3281


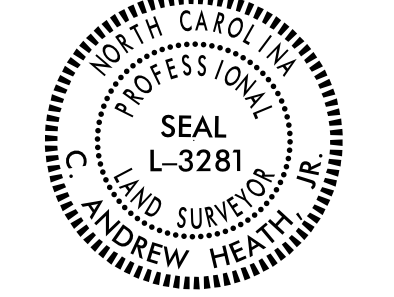
REVISIONS

I6-NOV-2021 10:00
 G:\Project\2021\2021014_70\SUR\control_sheets\5204e_1s_r_w02c-3.dgn
 At NCCAR-CRANS10V
 andjheath

NOTES:

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

PROPOSED ALIGNMENT CONTROL SHEET

PROJECT REFERENCE NO.	SHEET NO.
W-5204E	RW02D-1
Location and Surveys	
 <small>NV5 ENGINEERS & CONSULTANTS, INC. 3300 REGENCY PARKWAY, SUITE 100 DARY, NC 27518 P: 919.851.1512 www.NV5.com NC License # F-1333 formerly C&H Engineers & Consultants</small>	
PROJECT SURVEYOR 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

L

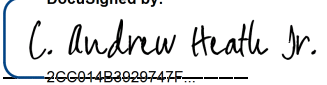
TYPE	STATION	NORTH	EAST
POT	10+00.00	663399.0585	2122271.9220
PC	14+39.38	663600.1878	2122662.5597
PCC	15+46.59	663651.6088	2122756.6238
PCC	18+41.07	663841.6153	2122979.5090
PCC	19+62.05	663940.8637	2123048.4767
PT	20+34.29	664004.0845	2123083.4051
POT	24+89.17	664407.7970	2123293.0210

Y1

TYPE	STATION	NORTH	EAST
POT	10+00.00	663965.9280	2123062.8360
POT	12+90.26	664004.9630	2123350.4600

I, C. ANDREW HEATH, JR., PLS, certify that the data compiled came from available surveys/mapping performed by others and provided to me by NCDOT and do not certify to the accuracy or quality of the individual data sources.

This 14th day of February, 2023.

DocuSigned by:

 Professional Land Surveyor L-3281



REVISIONS

I:\FEB-2023\10253\2023014\13\SURVROW_Sheets\w5204e_1s_rw02d-1.dgn
 C:\FEB-2023\10253\2023014\13\NCCAR-CHANS\OV
 andy.heath

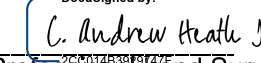
NOTES:

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.	SHEET NO.
W-5204E	RW03E-1
Location and Surveys	
 <small>N V S ENGINEERS & CONSULTANTS, INC. 3300 REGENCY PARKWAY, SUITE 100 DARY, NC 27516 P: 919.853.1512 www.NVS.com NC License # F-1333 formerly C&H Engineers & Consultants</small>	
PROJECT SURVEYOR	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

I, C. ANDREW HEATH, JR., PLS. 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 02/02/2023 to 02/03/2023, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 14th day of February, 2023.
 Designed by:

 Professional Land Surveyor L-3281

ROW MARKER IRON PIN AND CAP-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	19+35.00	-30.00	663933.8313	2123009.0510
L	19+45.00	-40.00	663947.2346	2123005.6353
L	19+62.05	-40.00	663961.1054	2123013.9763
L	19+65.00	-40.00	663963.5779	2123015.4234
L	19+65.00	-35.00	663961.0568	2123019.7413
L	20+34.29	-35.00	664020.2128	2123052.3426
L	20+43.00	-35.00	664027.9460	2123056.3578
L	20+43.00	-43.00	664031.6324	2123049.2578
L	20+54.00	-43.00	664041.3949	2123054.3267
L	20+54.00	-30.00	664035.4044	2123065.8642
L	20+78.00	30.00	664029.0559	2123130.1735

ROW MARKER IRON PIN AND CAP-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y1	10+80.00	-30.00	664006.4141	2123138.0748

REVISIONS

I:\FEB-2023\15455_20230413\SURVROW Sheets\5204e_1s_rw03e-1.dgn
 C:\Users\andy.heath\Documents\2023\02\23\NCCAR-CHANSTOV
 andy.heath

NOTES:

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. RIGHT OF WAY MONUMENTATION ESTABLISHED 2/2/2023 TO 2/3/2023 .

Location and Surveys

NIV5

NIV ENGINEERS & CONSULTANTS, INC.
3300 REGENCY PARKWAY, SUITE 100
CARY, NC 27518
P: 919.851.1912 www.NIV.com
NC License # 5393 formerly CIVIL Engineers & Consultants

PROJECT SURVEYOR



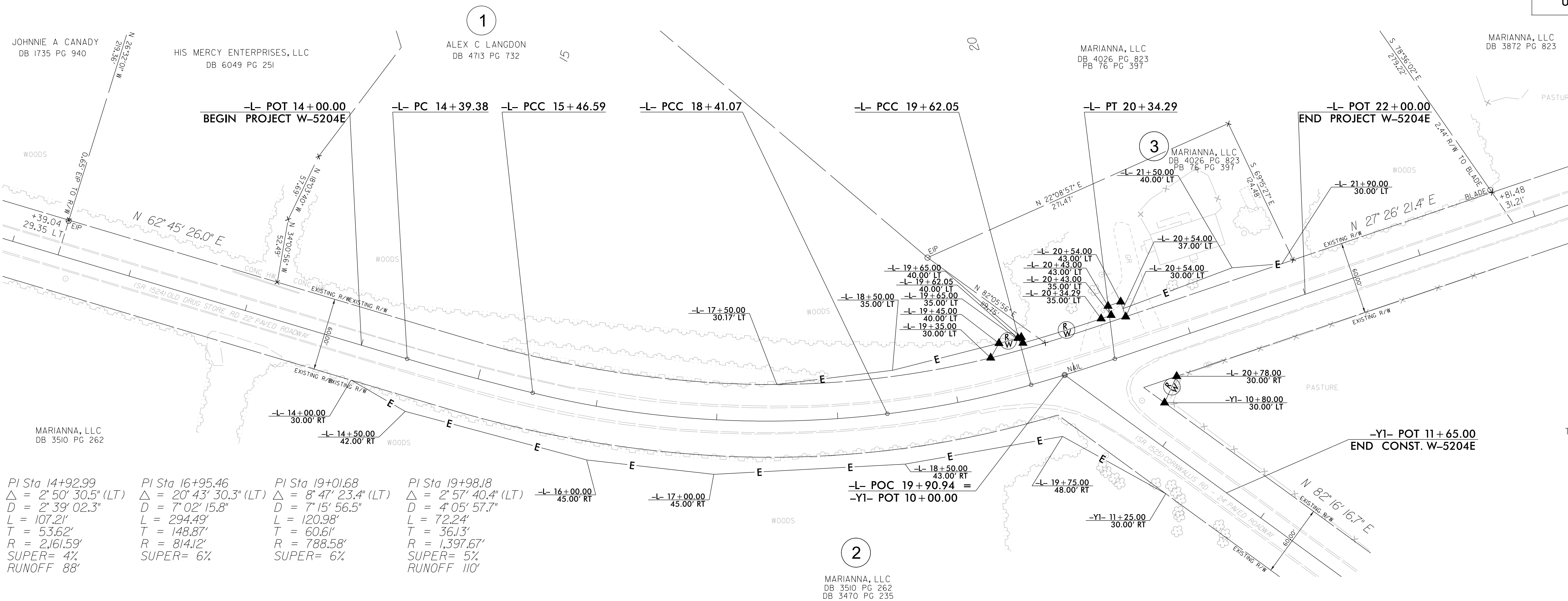
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

I, C. ANDREW HEATH, JR., PLS. 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 2/2/2023 to 2/3/2023, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 14th day of February, 2023.

DocuSigned by:
C. Andrew Heath, Jr.
2023.02.02 09:24:24
Professional Land Surveyor L-3281

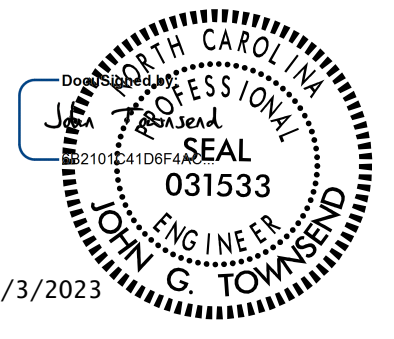
REVISIONS



PI Sta 14+92.99 Δ = 2° 50' 30.5" (LT) D = 2° 39' 02.3" L = 107.21' T = 53.62' R = 2,161.59' SUPER = 4% RUNOFF 88'	PI Sta 16+95.46 Δ = 20° 43' 30.3" (LT) D = 7° 02' 15.8" L = 294.49' T = 148.87' R = 814.12' SUPER = 6%	PI Sta 19+01.68 Δ = 8° 47' 23.4" (LT) D = 7° 15' 56.5" L = 120.98' T = 60.61' R = 788.58' SUPER = 6%	PI Sta 19+98.18 Δ = 2° 57' 40.4" (LT) D = 4° 05' 57.7" L = 72.24' T = 36.13' R = 1,397.67' SUPER = 5% RUNOFF 110'
--	--	--	--

NOTES:

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. RIGHT OF WAY MONUMENTATION ESTABLISHED 2/2/2023 TO 2/3/2023 .

TIP NO.	SHEET NO.
W-5204E	PMP-1
APPROVED: _____	
DATE: _____	
SEAL	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
JOHNSTON COUNTY**

**LOCATION: SR-1524 (OLD DRUG STORE ROAD) AT
SR-1525 (CORNWALLIS ROAD)**

T.I.P.: W-5204E

CONTRACT: DD00444

INDEX

SHEET NO.	DESCRIPTION
PMP-1	PAVEMENT MARKING PLAN TITLE SHEET
PMP-2	PAVEMENT MARKING DETAIL

GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

- A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME	MARKING	MARKERS
ALL ROADS	THERMOPLASTIC	NONE
- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

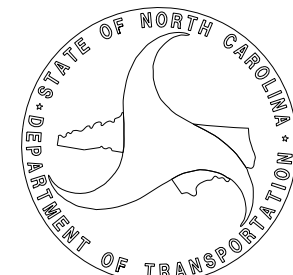
STD. NO.	TITLE
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS

PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION
	THERMOPLASTIC
T20	WHITE EDGELINE (6", 90 MIL)
T24	2 FT.- 6 FT./SP WHITE MINISKIP (6", 90 MIL)
T33	YELLOW DOUBLE CENTER (6", 90 MIL)
T61	WHITE STOPBAR (24", 90 MIL)

PLAN SUBMITTED TO:

Dennis R. Ethridge; Project Engineer



PLAN PREPARED BY: VHB Engineering NC, P.C.

John Townsend, PE Project Design Engineer
____ Project Engineer



940 Main Campus Drive, Suite 500 Raleigh, NC 27606
NC License No. C-3705

APPROVED: _____
 DATE: _____

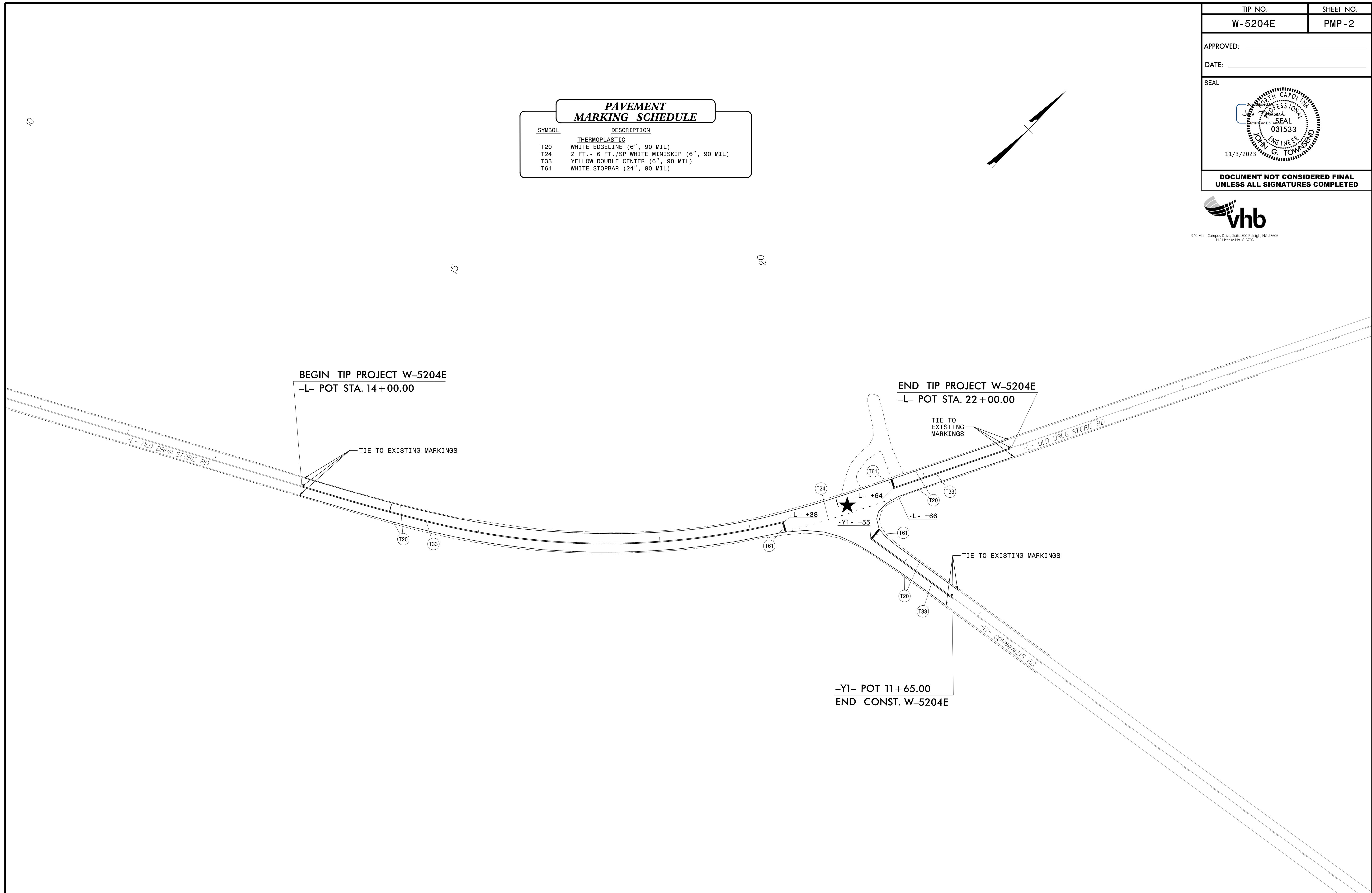
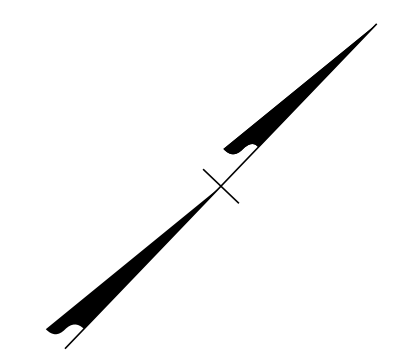
SEAL

11/3/2023

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



PAVEMENT MARKING SCHEDULE	
SYMBOL	DESCRIPTION
	THERMOPLASTIC
T20	WHITE EDGELINE (6", 90 MIL)
T24	2 FT. - 6 FT./SP WHITE MINISKIP (6", 90 MIL)
T33	YELLOW DOUBLE CENTER (6", 90 MIL)
T61	WHITE STOPBAR (24", 90 MIL)



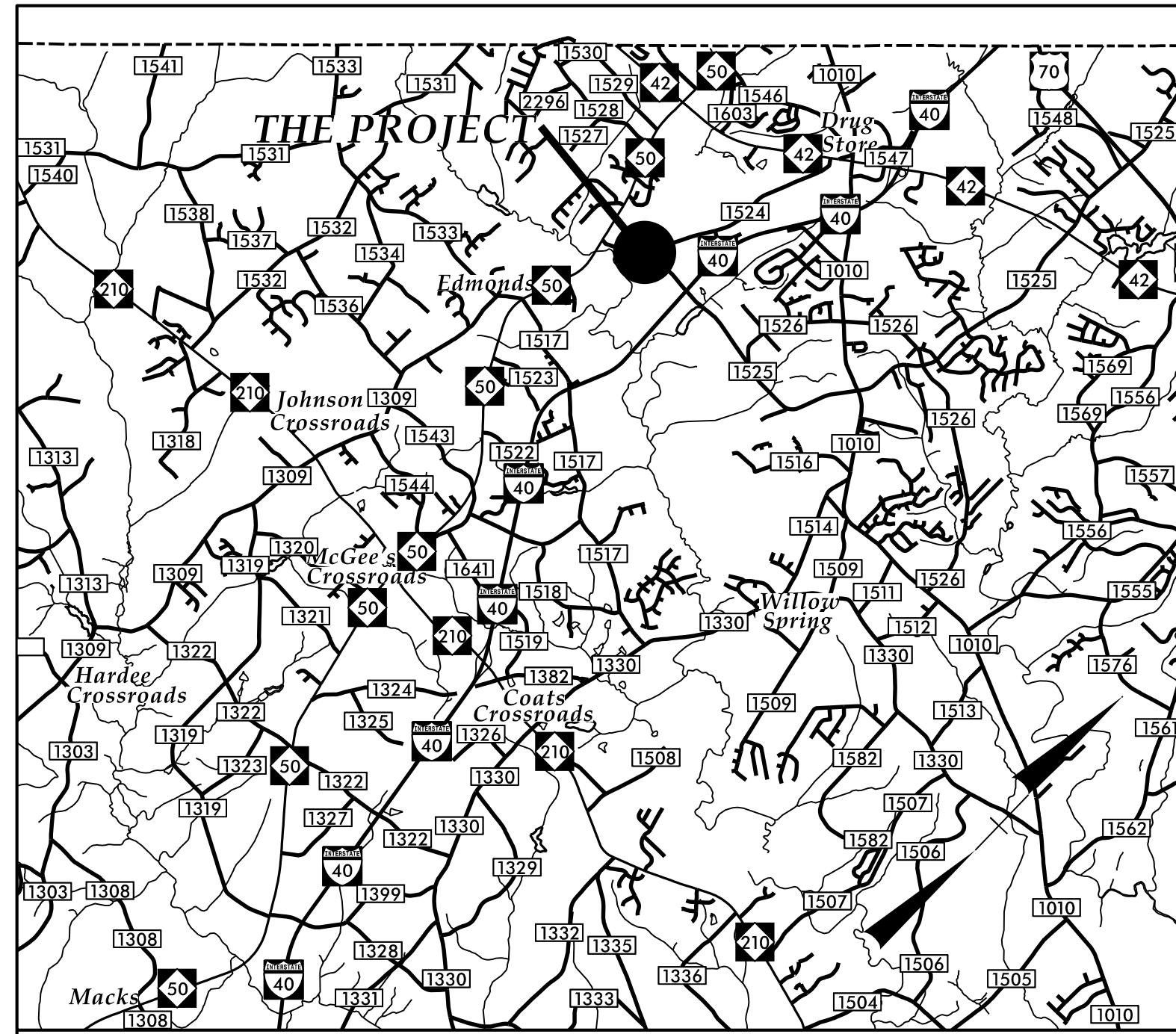
★ PROPOSED SIGNAL

PAVEMENT MARKING DETAIL

11/3/2023
 R:\Traffic\PavementMarkings\W5204E_pmp_psh_02.dgn
 User:jtownsend

TIP PROJECT: W-5204E

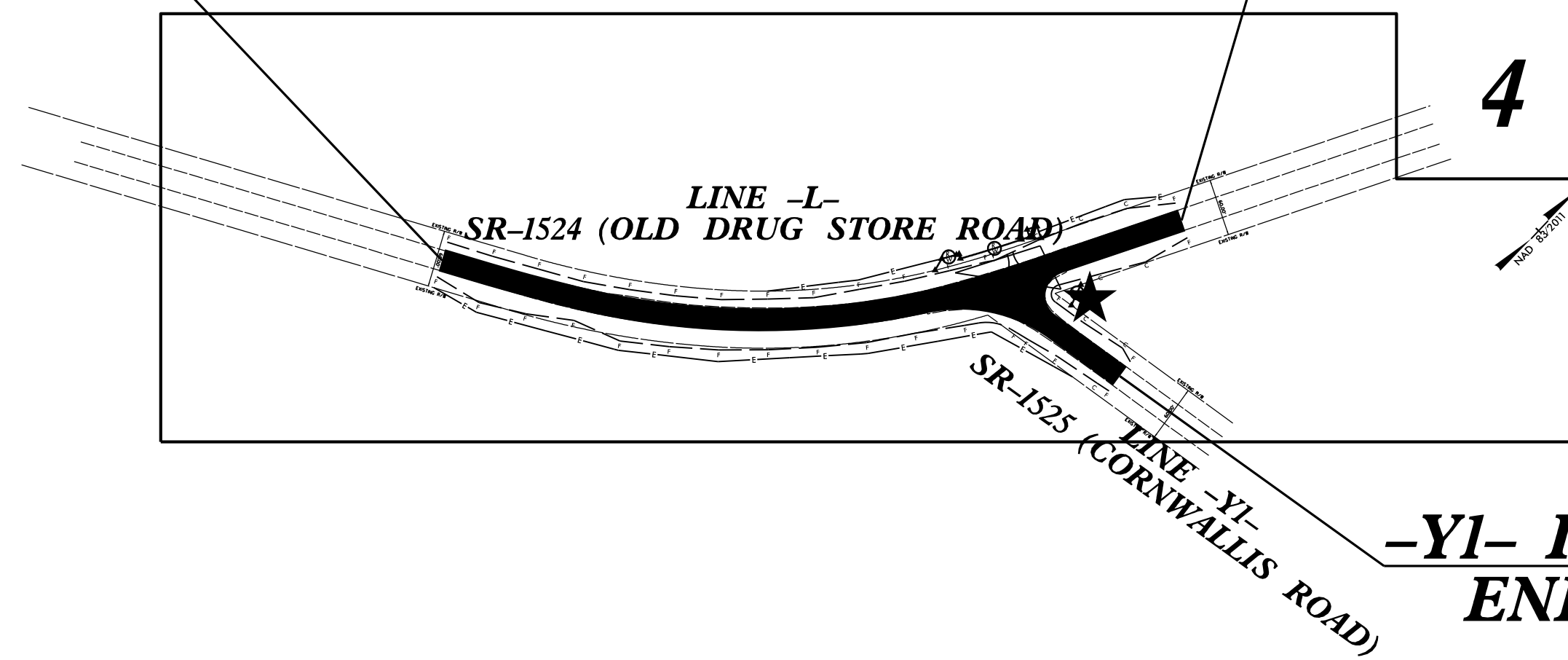
See Sheet 1-A For Index of Sheets



VICINITY MAP

**-L- POT 14+00.00
BEGIN PROJECT W-5204E**

**-L- POT 22+00.00
END PROJECT W-5204E**



**-Y1- POT 11+65.00
END CONST.**

★ PROPOSED SIGNAL

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL
JOHNSTON COUNTY

**LOCATION: SR-1524 (OLD DRUG STORE ROAD) AT
SR-1525 (CORNWALLIS ROAD)**

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND SIGNAL.

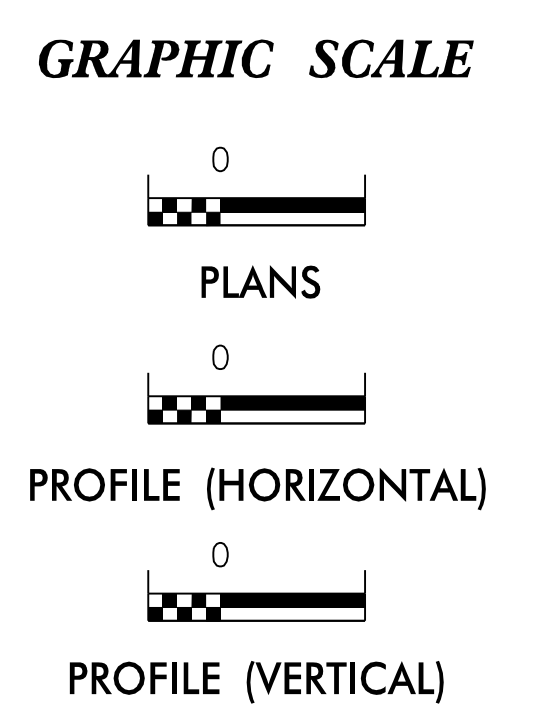
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-2504E	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	▲▲▲▲▲
1622.01	Temporary Berms and Slope Drains	—▲—▲—▲—▲—
1630.02	Silt Basin Type B	▨
1633.01	Temporary Rock Silt Check Type-A	▨
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	▨
1633.02	Temporary Rock Silt Check Type-B	▶
	Wattle/Coir Fiber Wattle	—▲—▲—▲—▲—
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	—▲—▲—▲—▲—
1634.01	Temporary Rock Sediment Dam Type-A	▨
1634.02	Temporary Rock Sediment Dam Type-B	▨
1635.01	Rock Pipe Inlet Sediment Trap Type-A	▨
1635.02	Rock Pipe Inlet Sediment Trap Type-B	▨
1630.04	Stilling Basin	▨
1630.06	Special Stilling Basin	▨
	Rock Inlet Sediment Trap:	
	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	▨
	Tiered Skimmer Basin	▨
	Infiltration Basin	▨

**THIS PROJECT CONTAINS
EROSION CONTROL PLANS
FOR CLEARING AND
GRUBBING PHASE OF
CONSTRUCTION.**

**THIS PROJECT HAS
BEEN DESIGNED TO
SENSITIVE WATERSHED
STANDARDS.**



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 APRIL 1, 2019
ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND
NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared in the Office of:
ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611

2018 STANDARD SPECIFICATIONS

Designed by:
Meghan Quick 4457
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

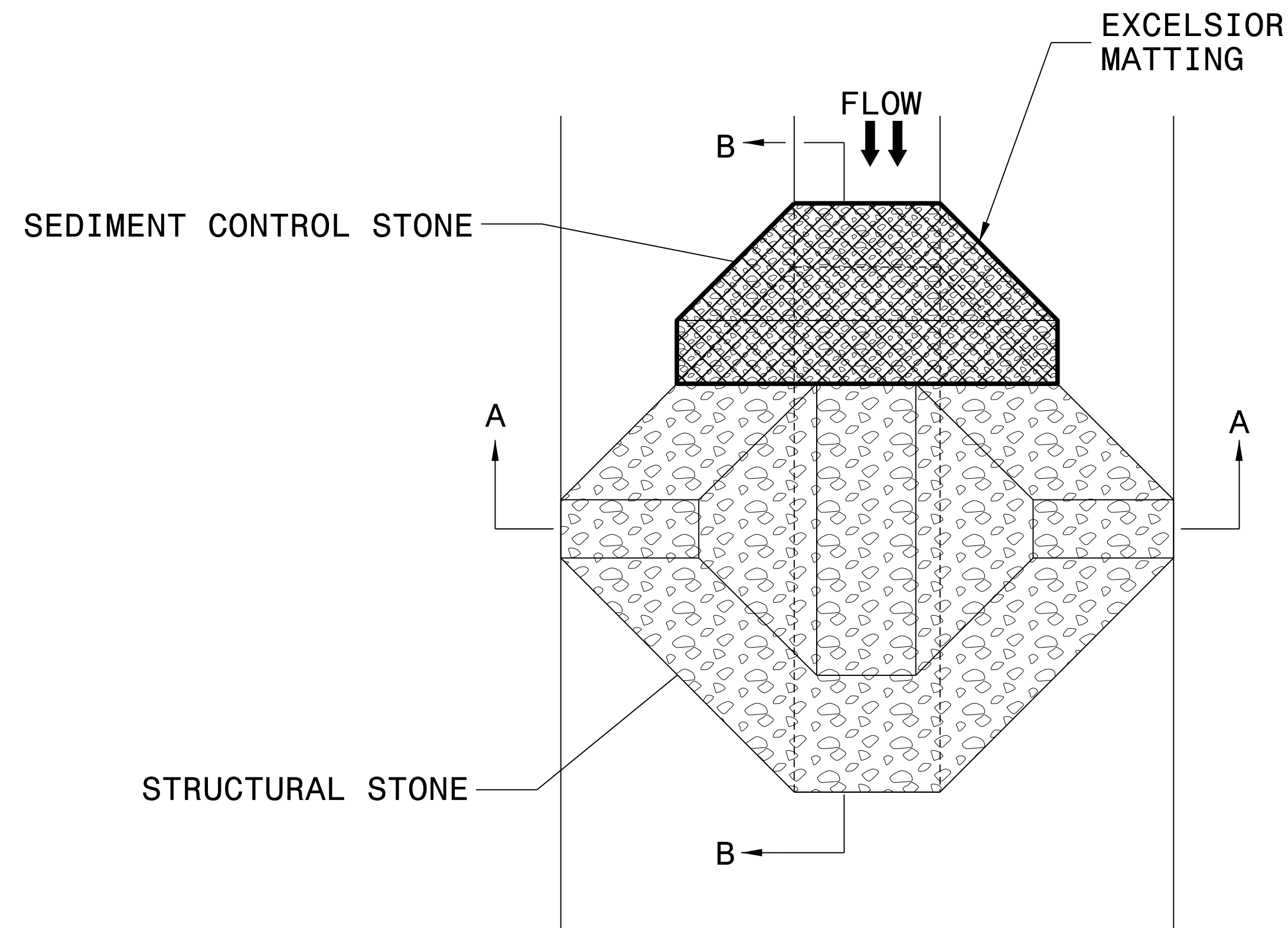
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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 J
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 J
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type J	1634.02 Temporary Rock Sediment Dam Type J
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type J
1630.05 Temporary Diversion	1640.01 Coir Fiber Jaffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

06-APR-2023 08:27 W-5204E-W-5204E-d6c4-TSH-EC.dgn

PROJECT REFERENCE NO.	SHEET NO.
W-5204E	EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)



PLAN

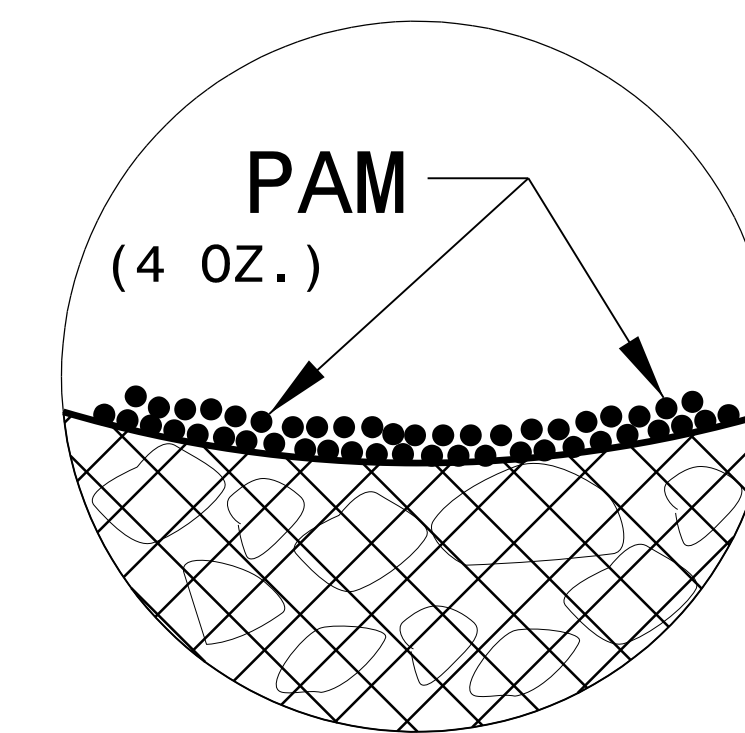
NOTES:

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

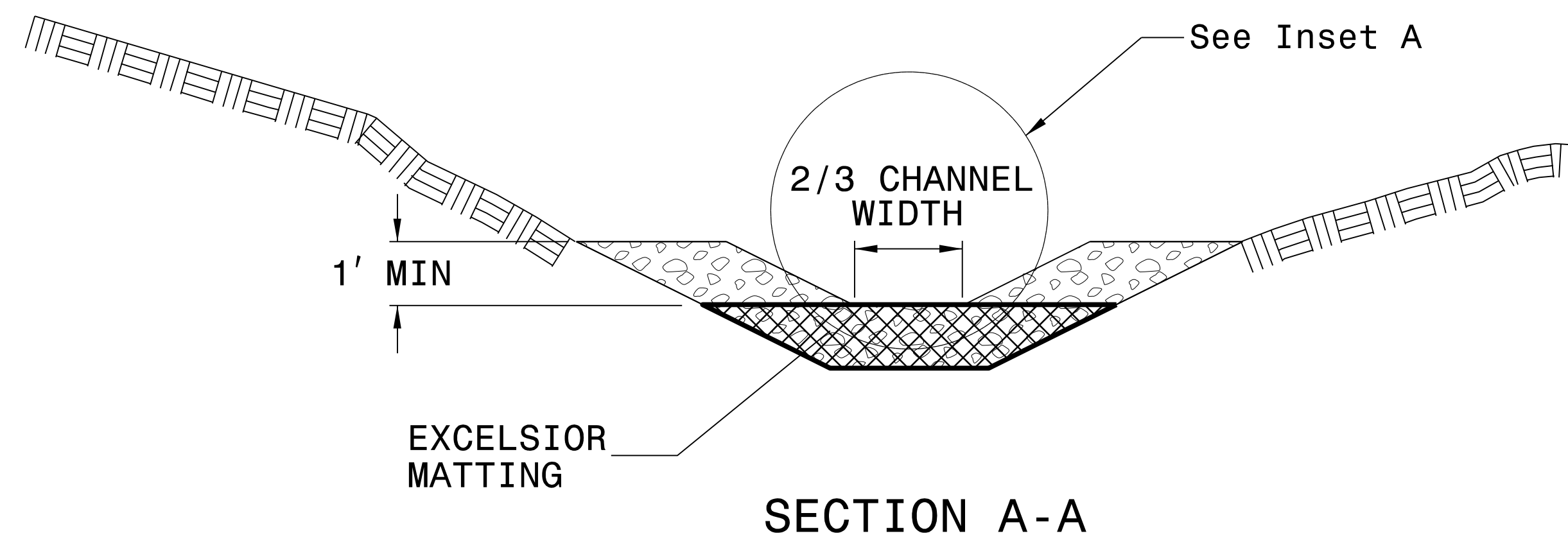
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

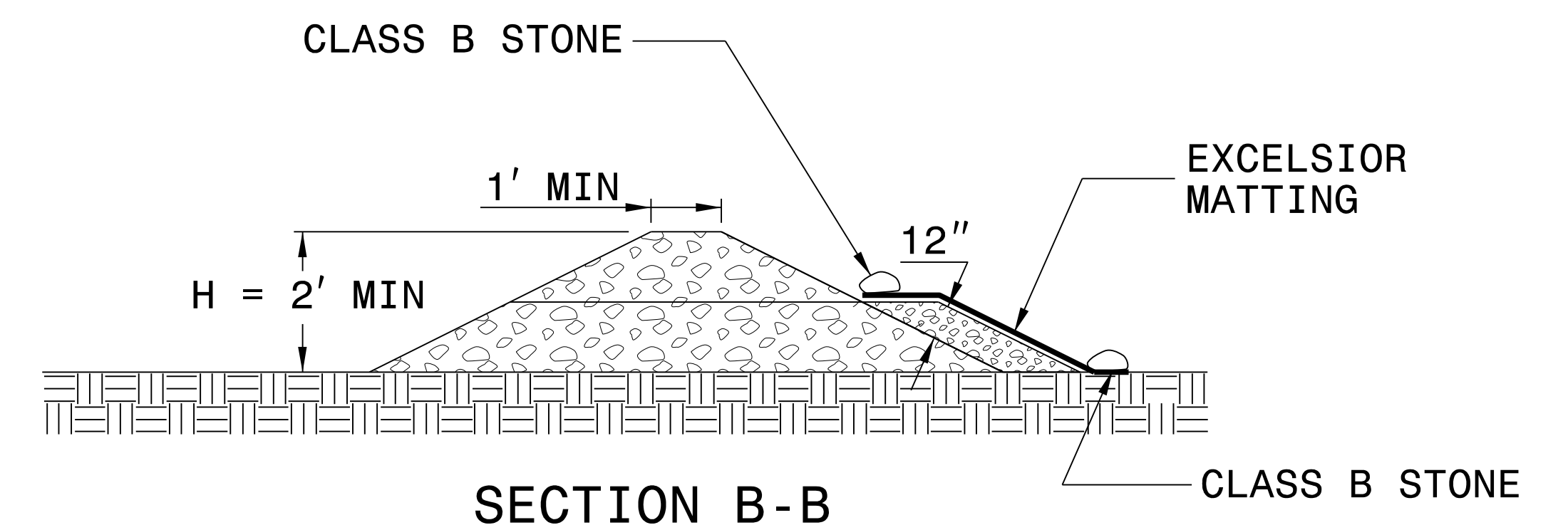
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

NOT TO SCALE

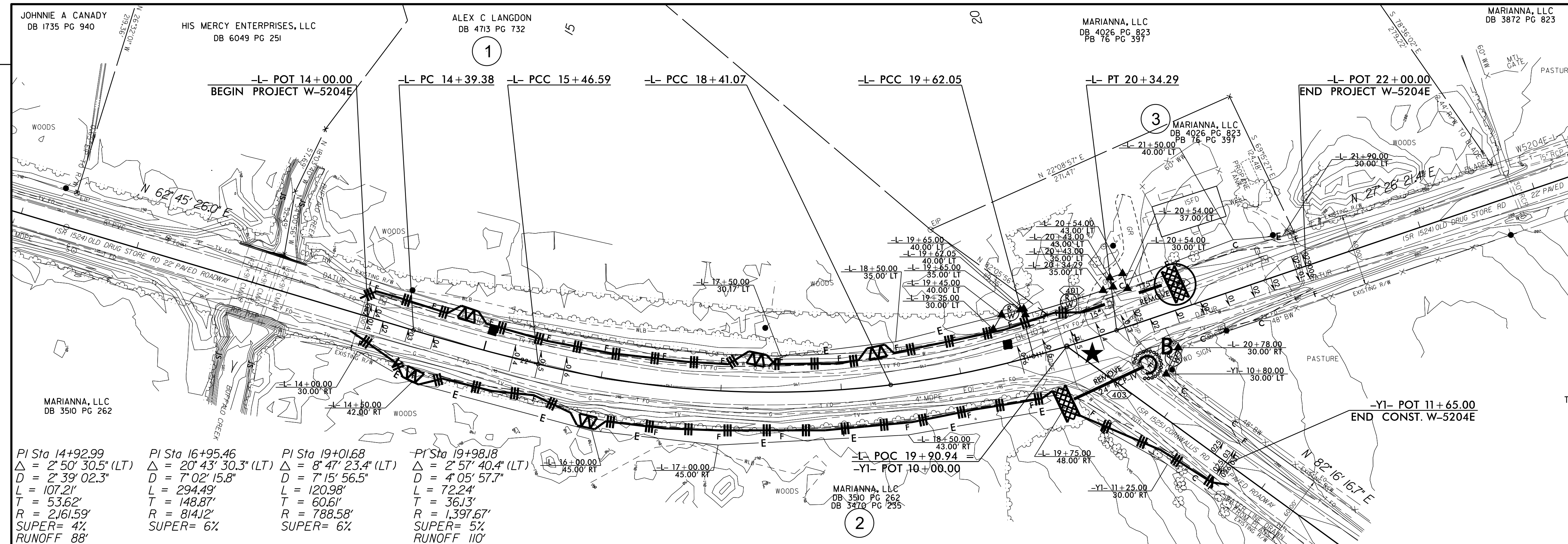
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>W-5204E</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

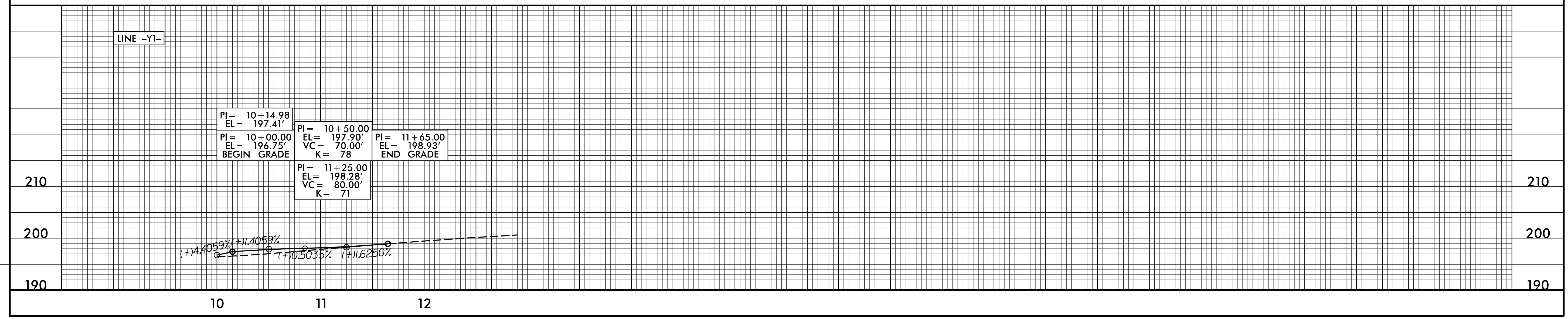
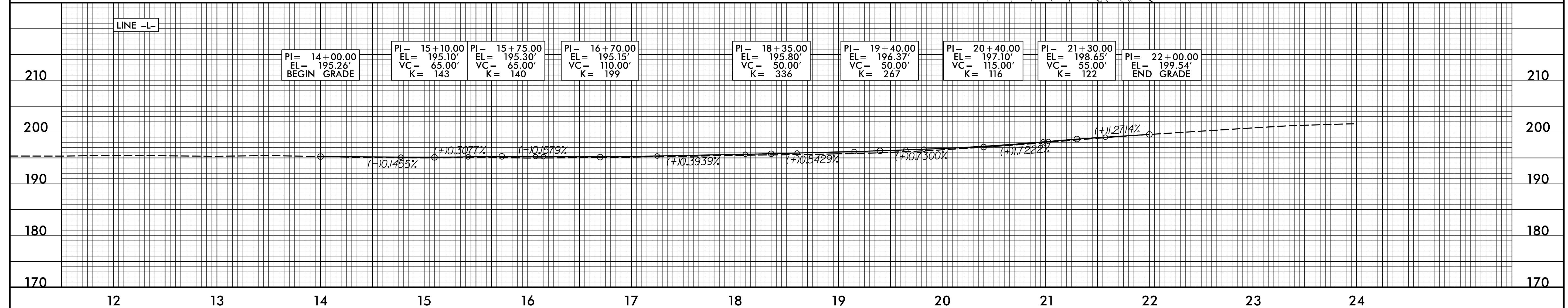
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

PROJECT REFERENCE NO.	SHEET NO.
W-5204E	EC-04/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



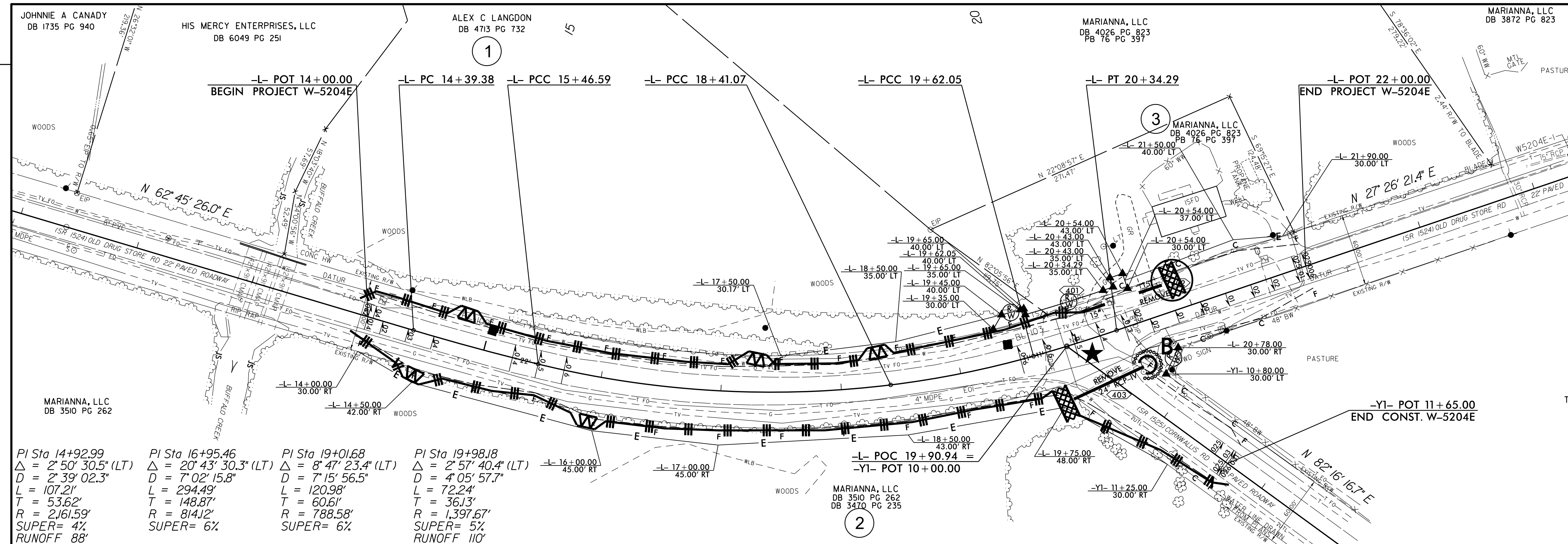
PI Sta 14+92.99 $\Delta = 2^\circ 50' 30.5" (LT)$ $D = 2^\circ 39' 02.3"$ $L = 107.21'$ $T = 53.62'$ $R = 2,161.59'$ $SUPER = 4\%$ $RUNOFF = 88'$	PI Sta 16+95.46 $\Delta = 20^\circ 43' 30.3" (LT)$ $D = 7^\circ 02' 15.8"$ $L = 294.49'$ $T = 148.87'$ $R = 814.12'$ $SUPER = 6\%$	PI Sta 19+01.68 $\Delta = 8^\circ 47' 23.4" (LT)$ $D = 7^\circ 15' 56.5"$ $L = 120.98'$ $T = 60.61'$ $R = 788.58'$ $SUPER = 6\%$	PI Sta 19+98.18 $\Delta = 2^\circ 57' 40.4" (LT)$ $D = 4^\circ 05' 57.7"$ $L = 72.24'$ $T = 36.13'$ $R = 1,397.67'$ $SUPER = 5\%$ $RUNOFF = 110'$
--	--	--	--

REVISIONS

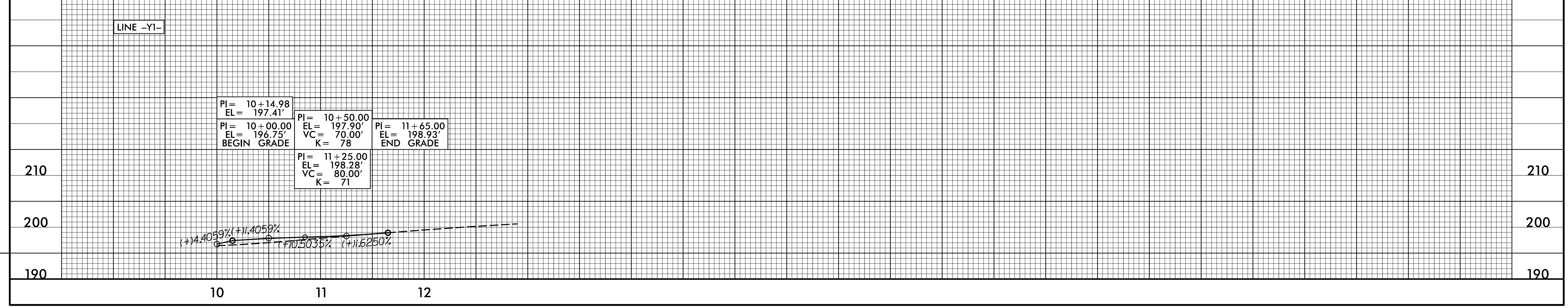
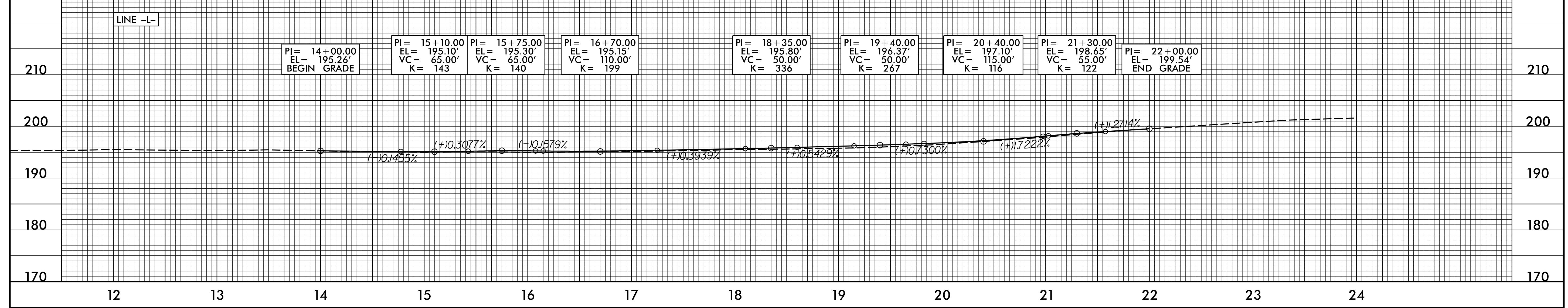


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PROJECT REFERENCE NO.	SHEET NO.
W-5204E	EC-05/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



PI Sta 14+92.99 $\Delta = 2^\circ 50' 30.5''$ (LT) $D = 2^\circ 39' 02.3''$ $L = 107.21'$ $T = 53.62'$ $R = 2,161.59'$ SUPER= 4% RUNOFF 88'	PI Sta 16+95.46 $\Delta = 20^\circ 43' 30.3''$ (LT) $D = 7^\circ 02' 15.8''$ $L = 294.49'$ $T = 148.87'$ $R = 814.12'$ SUPER= 6%	PI Sta 19+01.68 $\Delta = 8^\circ 47' 23.4''$ (LT) $D = 7^\circ 15' 56.5''$ $L = 120.98'$ $T = 60.61'$ $R = 788.58'$ SUPER= 6%	PI Sta 19+98.18 $\Delta = 2^\circ 57' 40.4''$ (LT) $D = 4^\circ 05' 57.7''$ $L = 72.24'$ $T = 36.13'$ $R = 1,397.67'$ SUPER= 5% RUNOFF 110'
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REVISIONS

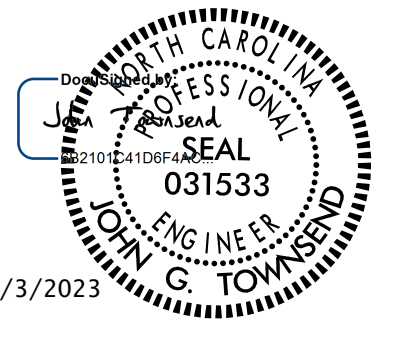
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C:\Users\jld\Desktop\W5204E_EC_dun_Design.dgn
SSSLSUSER\JAMESSSS



**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**SIGNING PLAN
JOHNSTON COUNTY**

LOCATION: SR-1524 (OLD DRUG STORE ROAD) AT SR-1525 (CORNWALLIS ROAD)

TIP NO. W-5204E	SHEET NO. SGN-1
APPROVED: _____	
DATE: _____	
SEAL 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

T.I.P.: W-5204E

CONTRACT: DD00444

SUMMARY OF QUANTITIES

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4025000000	901	CONTRACTOR FURNISHED, TYPE E SIGN	18.75	S.F.
4072000000	902	SUPPORTS, 3 LB STEEL U-CHANNEL	39	L.F.
4102000000	904	SIGN ERECTION, TYPE E	3	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	2	EA.

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
903.10	GROUND MOUNTED SIGN SUPPORTS
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS

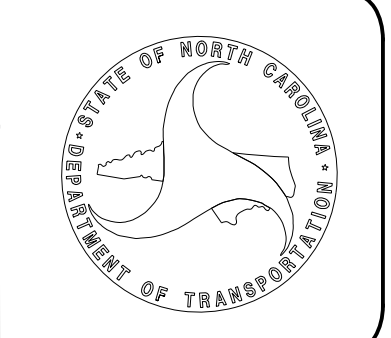
GENERAL NOTES

- . SIGNS FURNISHED BY CONTRACTOR.
- . IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.
- . WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' AND 'F' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER
- . ALL EXISTING SIGNS ON "U" CHANNEL POST WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED ON PLANS.
- . THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.
- . SEE ROADWAY PLANS FOR GUARD/GUIDE RAIL DETAILS.

INDEX

SHEET NO.	DESCRIPTION
SGN-1	TITLE SHEET
SGN-2	EXISTING AND PROPOSED SIGNS

PLAN SUBMITTED TO:
Dennis R. Etheridge; Project Engineer



PLAN PREPARED BY: VHB Engineering NC, P.C.
John Townsend, PE Project Engineer



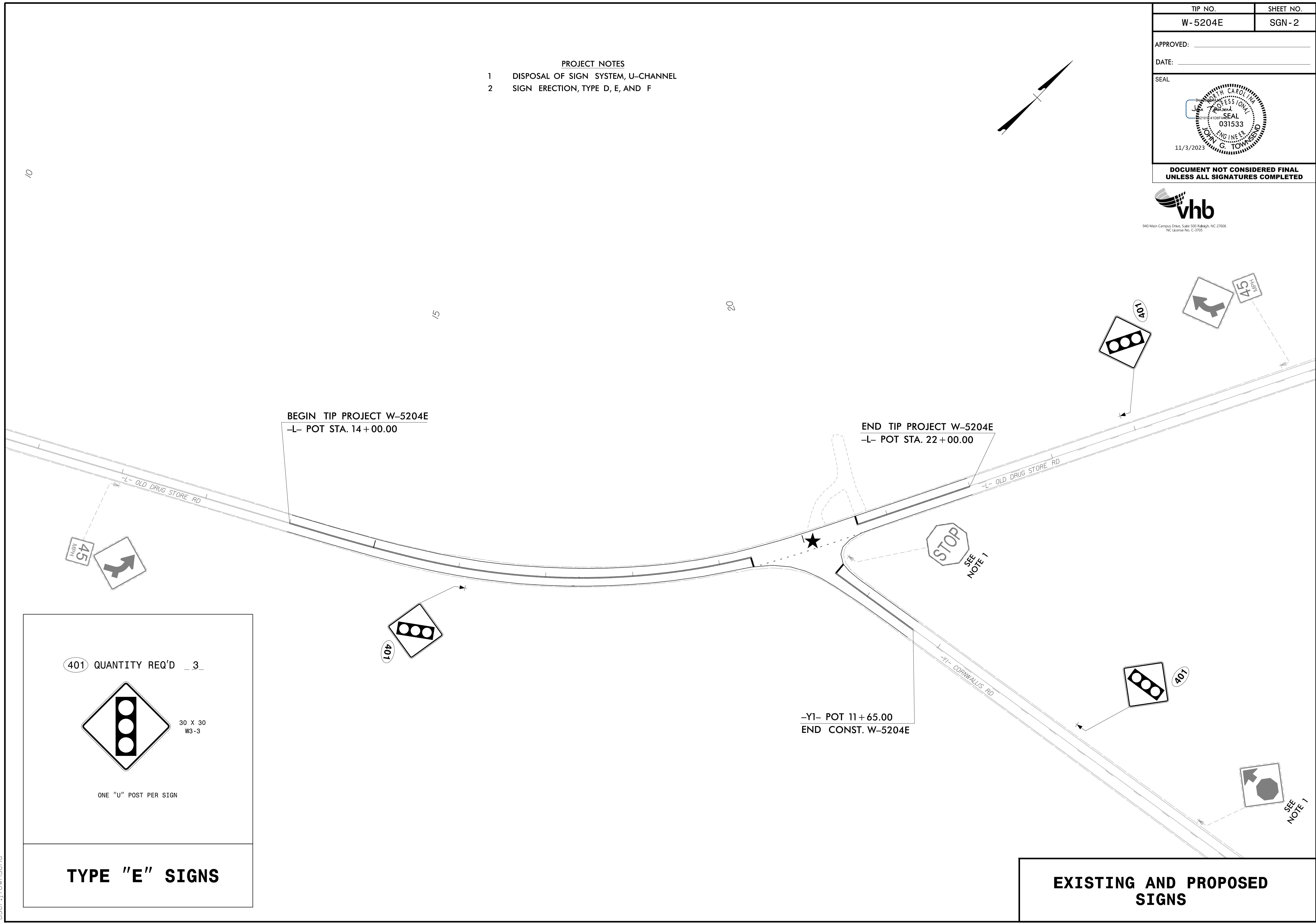
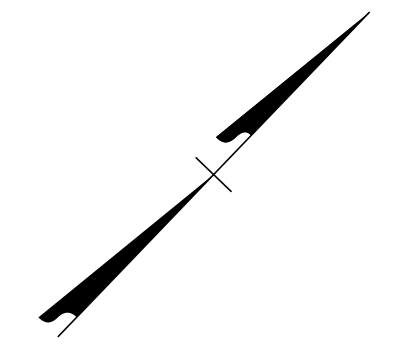
APPROVED: _____
 DATE: _____

SEAL

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



- PROJECT NOTES**
- 1 DISPOSAL OF SIGN SYSTEM, U-CHANNEL
 - 2 SIGN ERECTION, TYPE D, E, AND F



401 QUANTITY REQ'D 3

30 X 30
W3-3

ONE "U" POST PER SIGN

TYPE "E" SIGNS

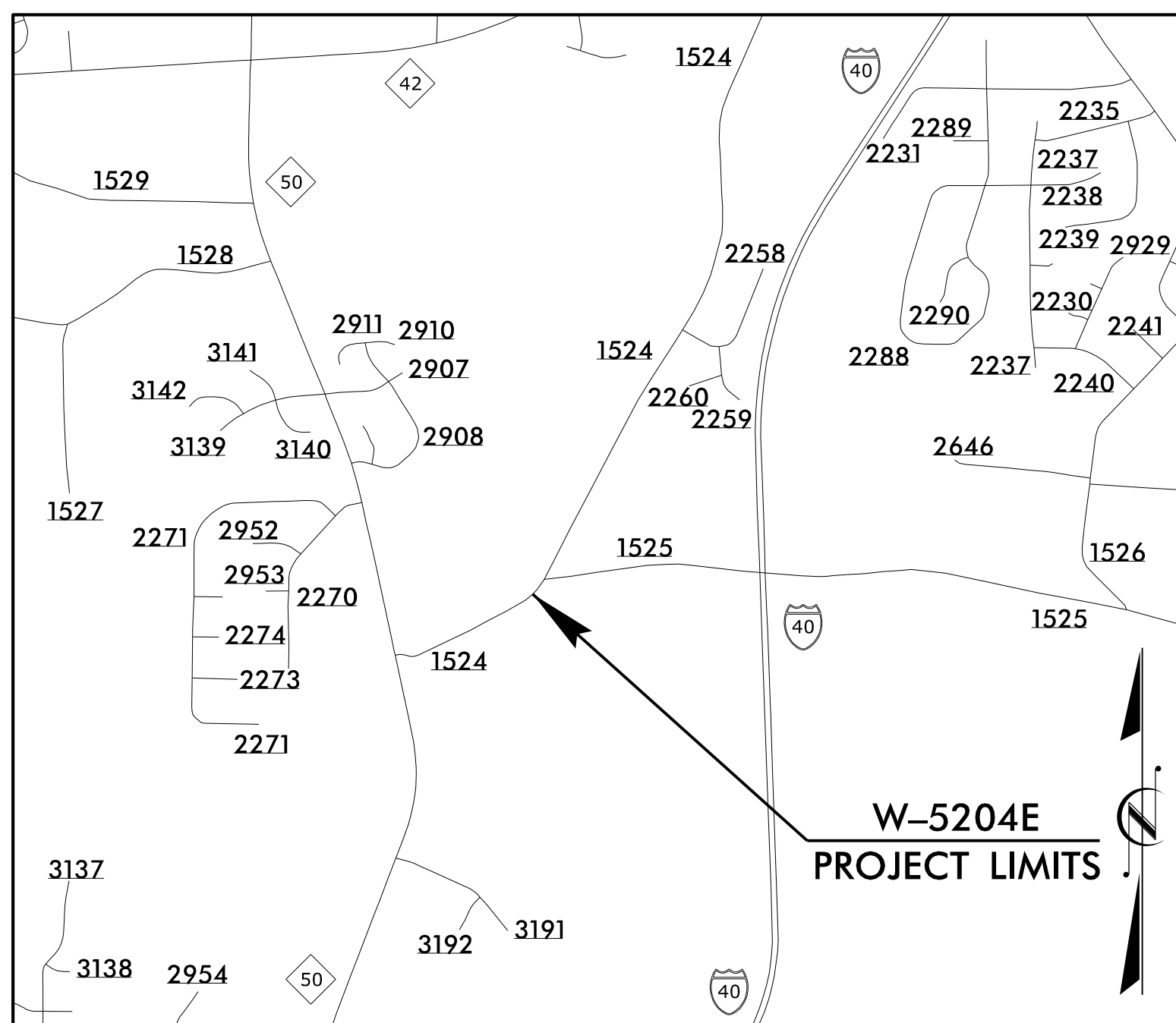
EXISTING AND PROPOSED SIGNS

11/03/23
R:\Traffic\Signing\CADD\Signing_Layout_Plan\W5204E_sgn_psh_02.dgn
User:jtownsend

TIP PROJECT: W-5204E

CONTRACT: DD00444

See Sheet 1-A For Index of Sheets



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

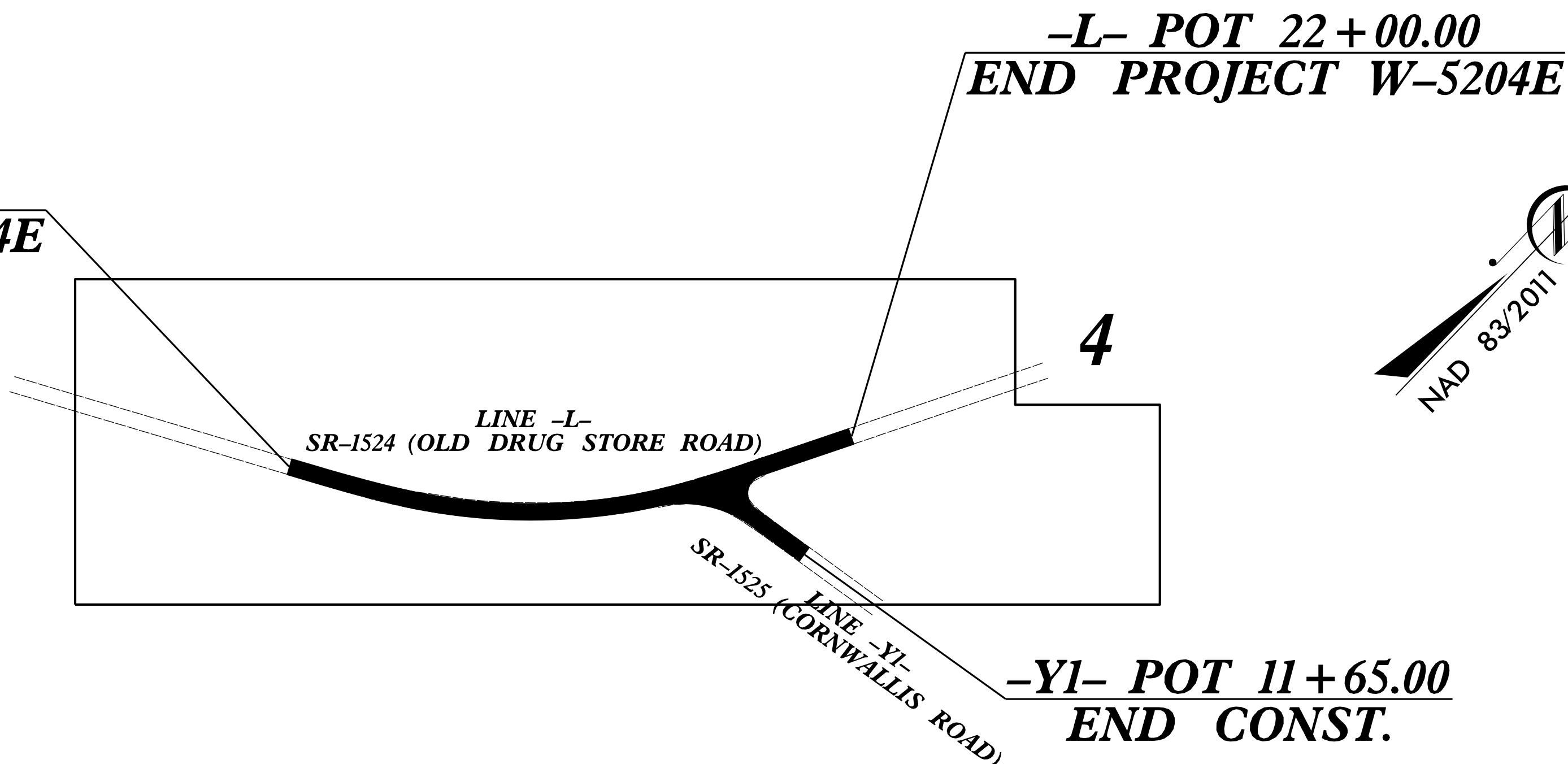
**UTILITIES BY OTHERS PLANS
JOHNSTON COUNTY**

**LOCATION: SR-1524 (OLD DRUG STORE ROAD) AT
SR-1525 (CORNWALLIS ROAD)**

TYPE OF WORK: UTILITIES BY OTHERS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5204E	UO-1	2
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
45334.1.5	HSIP-1524(006)	PE	
45334.2.5	HSIP-1524(006)	RW	
45334.3.5	HSIP-1524(006)	CONST.	

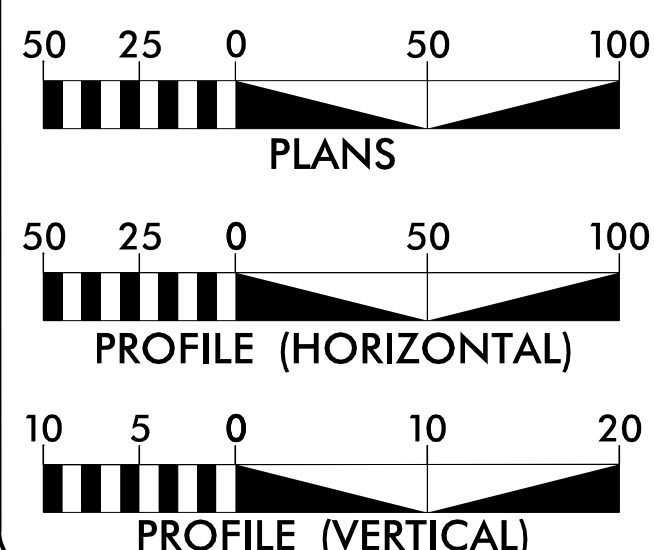
**-L- POT 14+00.00
BEGIN PROJECT W-5204E**



**-L- POT 22+00.00
END PROJECT W-5204E**

**-Y1- POT 11+65.00
END CONST.**

GRAPHIC SCALES



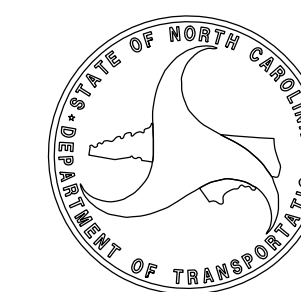
INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2	PLAN SHEET

UTILITY OWNERS WITH CONFLICTS:

- A. AT&T - TELECOMMUNICATION
- B. CHARTERSPECTRUM - TELECOMMUNICATION
- C. BRIGHTSPEED - TELECOMMUNICATION
- D. PNG - NATURAL GAS

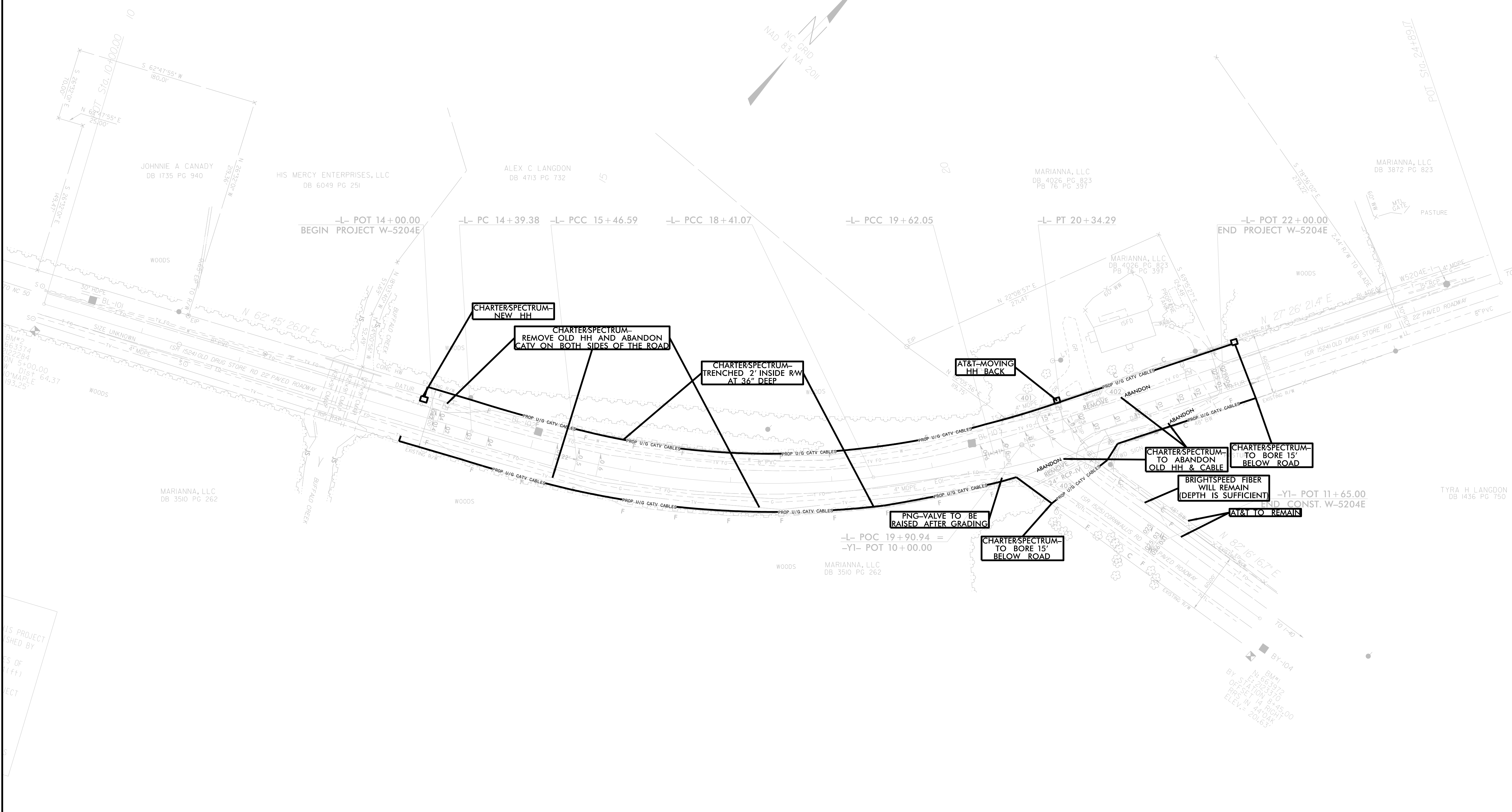
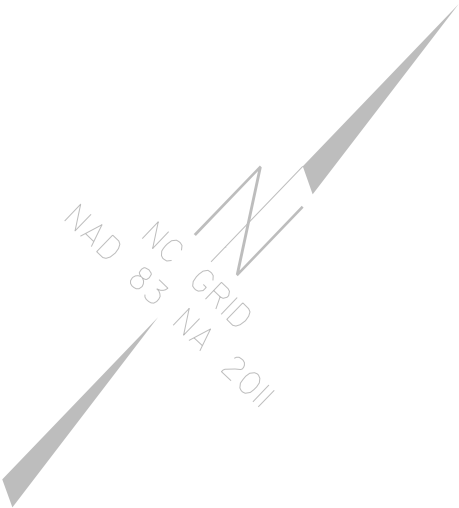
Prepared in the Office of:
DIVISION OF HIGHWAYS
Division 4 DDC
509 Ward Blvd., Wilson NC, 27895



DIVISION OF HIGHWAYS
DIVISION 4
509 Ward Blvd., Wilson NC, 27895

KYLE PLEASANT ROADWAY DESIGN ENGINEER

ADDISON GAINEY, PE PROJECT CONTACT #1



THIS PROJECT
SHED BY
OF
(111)
ECT

BY-104
BY: [Signature]
DATE: 12/23/20
PROJECT: W-5204E
ELEV.: 201.63

TYRA H LANGDON
DB 1436 PG 750

MARIANNA, LLC
DB 3510 PG 262

MARIANNA, LLC
DB 3510 PG 262

MARIANNA, LLC
DB 4026 PG 823
PB 76 PG 397

MARIANNA, LLC
DB 3872 PG 823

ALEX C LANGDON
DB 4713 PG 732

HIS MERCY ENTERPRISES, LLC
DB 6049 PG 251

JOHNNIE A CANADY
DB 1735 PG 940

PNG-VALVE TO BE
RAISED AFTER GRADING

CHARTERSPECTRUM-
TO BORE 15'
BELOW ROAD

CHARTERSPECTRUM-
TO ABANDON
OLD HH & CABLE

BRIGHTSPEED FIBER
WILL REMAIN
(DEPTH IS SUFFICIENT)

CHARTERSPECTRUM-
TO BORE 15'
BELOW ROAD

AT&T-MOVING
HH BACK

CHARTERSPECTRUM-
TRENCHED 2' INSIDE RW
AT 36" DEEP

CHARTERSPECTRUM-
REMOVE OLD HH AND ABANDON
CATV ON BOTH SIDES OF THE ROAD

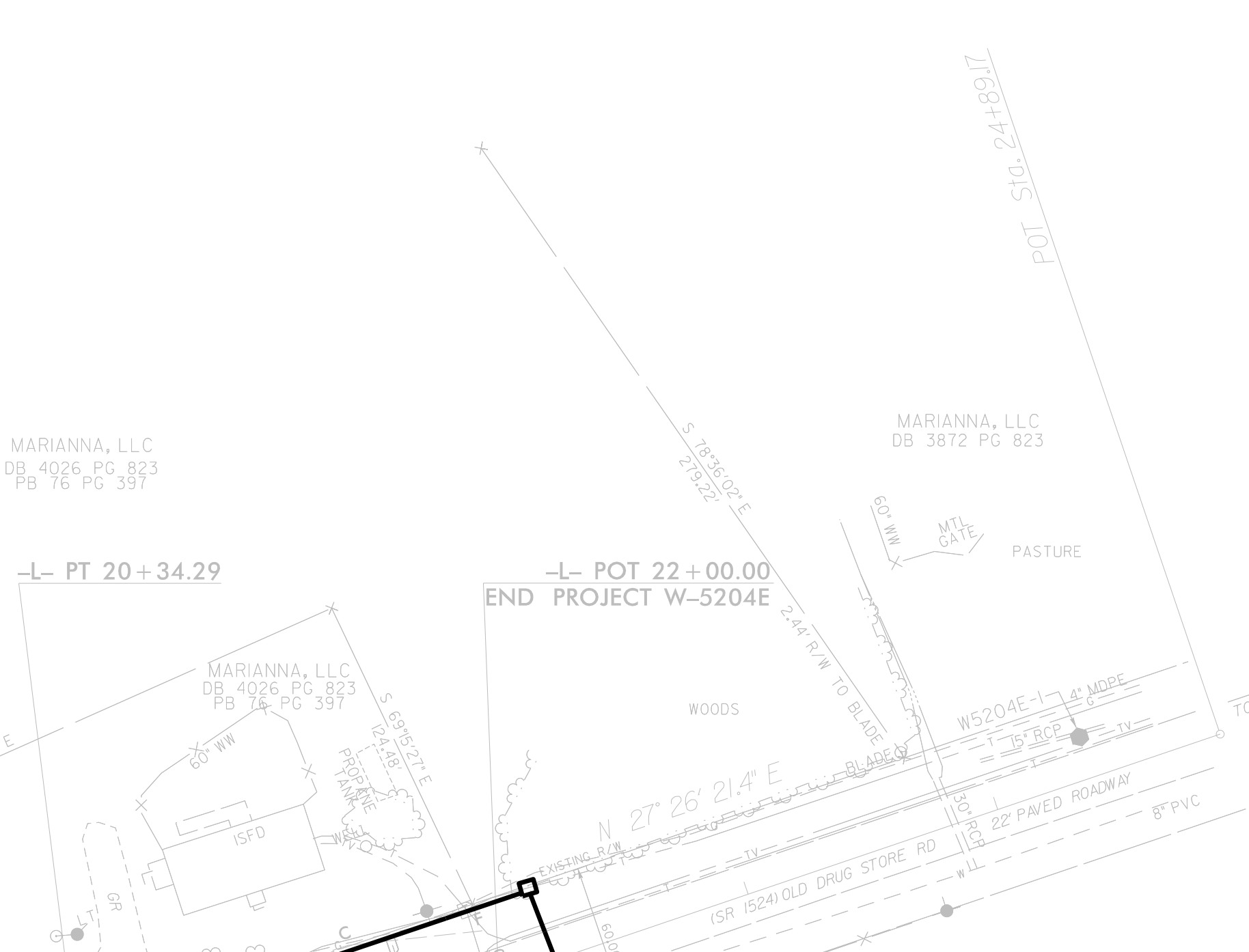
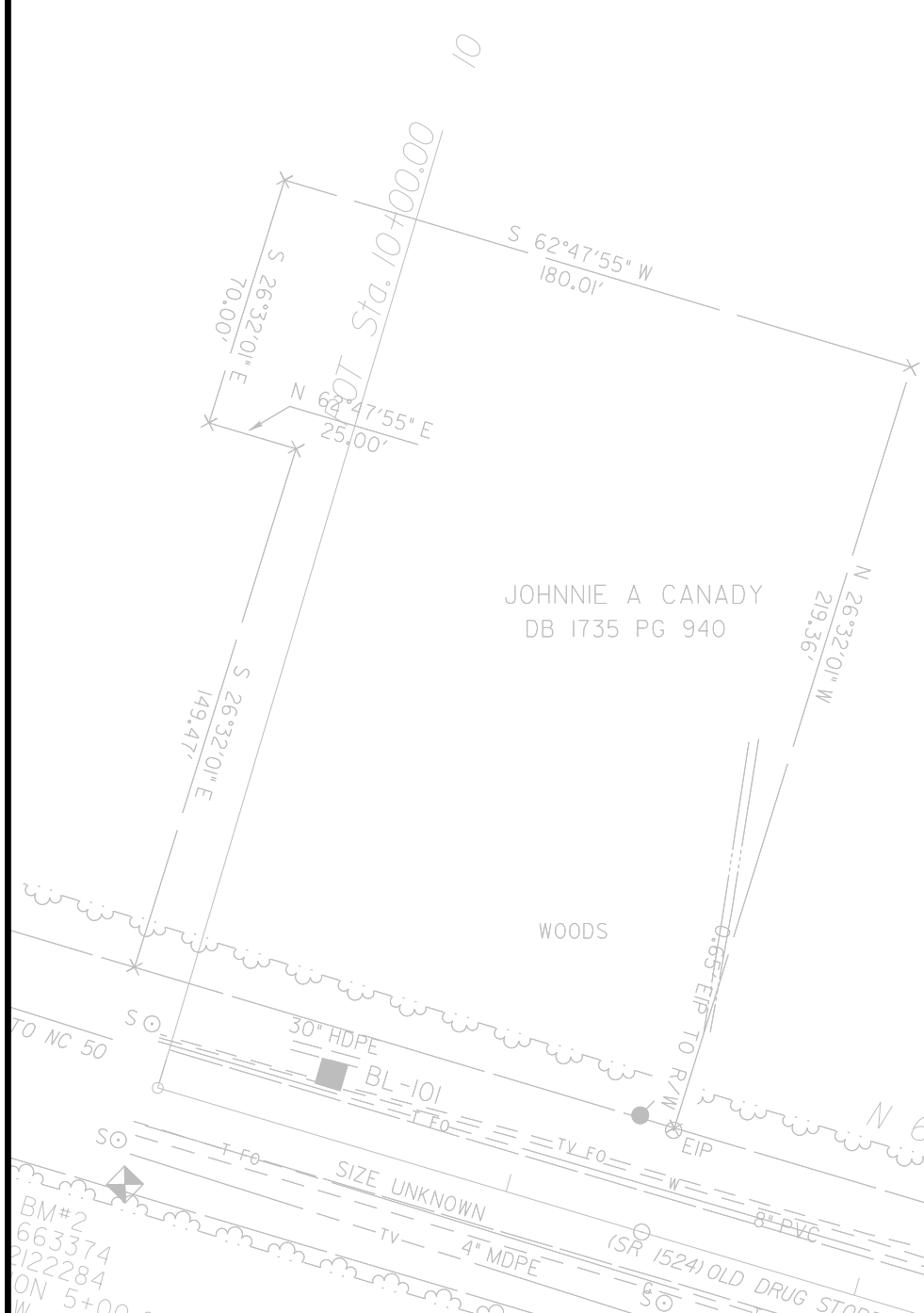
CHARTERSPECTRUM-
NEW HH

-L- POT 14+00.00
BEGIN PROJECT W-5204E

-L- POT 22+00.00
END PROJECT W-5204E

-L- POC 19+90.94 =
-Y1- POT 10+00.00

-Y1- POT 11+65.00
END CONST. W-5204E



STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

CROSS-SECTION INDEX

PROJ. REFERENCE NO. W-5204E	SHEET NO. X-1
--------------------------------	------------------

Approximate quantities only. Unclassified excavation, shoulder borrow, fine grading, clearing and grubbing, breaking of existing pavement and removal of existing pavement will be paid for at the contract lump sum price

CROSS SECTION INDEX
CROSS SECTION SUMMARY
LINE -L- (14+00 - 22+00)
LINE -Y1- (10+15 - 11+65)

SHEET NUMBERS
X-1
X-1
X-2 THRU X-5
X-6 THRU X-7

**NOTE: EMBANKMENT COLUMN DOES NOT INCLUDE
 BACKFILL FOR UNDERCUT**

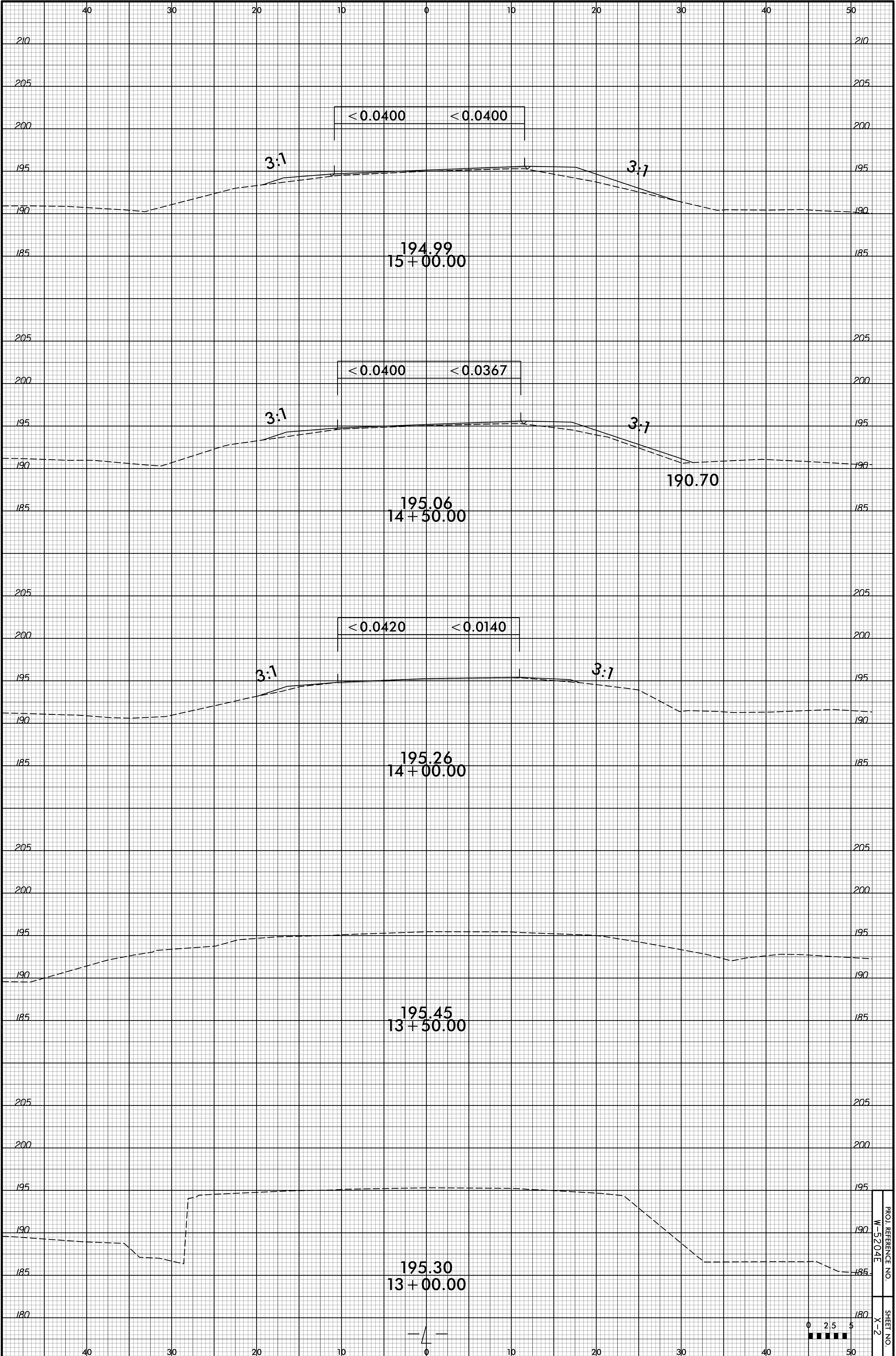
CROSS-SECTION SUMMARY

STATION	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)	
L			
14+00.00			
14+50.00		15	
15+00.00		26	
15+50.00		22	
16+00.00		32	
16+50.00		46	
17+00.00		54	
17+50.00		59	
18+00.00		64	
18+50.00		76	
19+00.00		71	
19+50.00		61	
20+00.00		33	
20+50.00	7	6	
21+00.00	21	8	
21+50.00	34	10	
22+00.00	20	10	

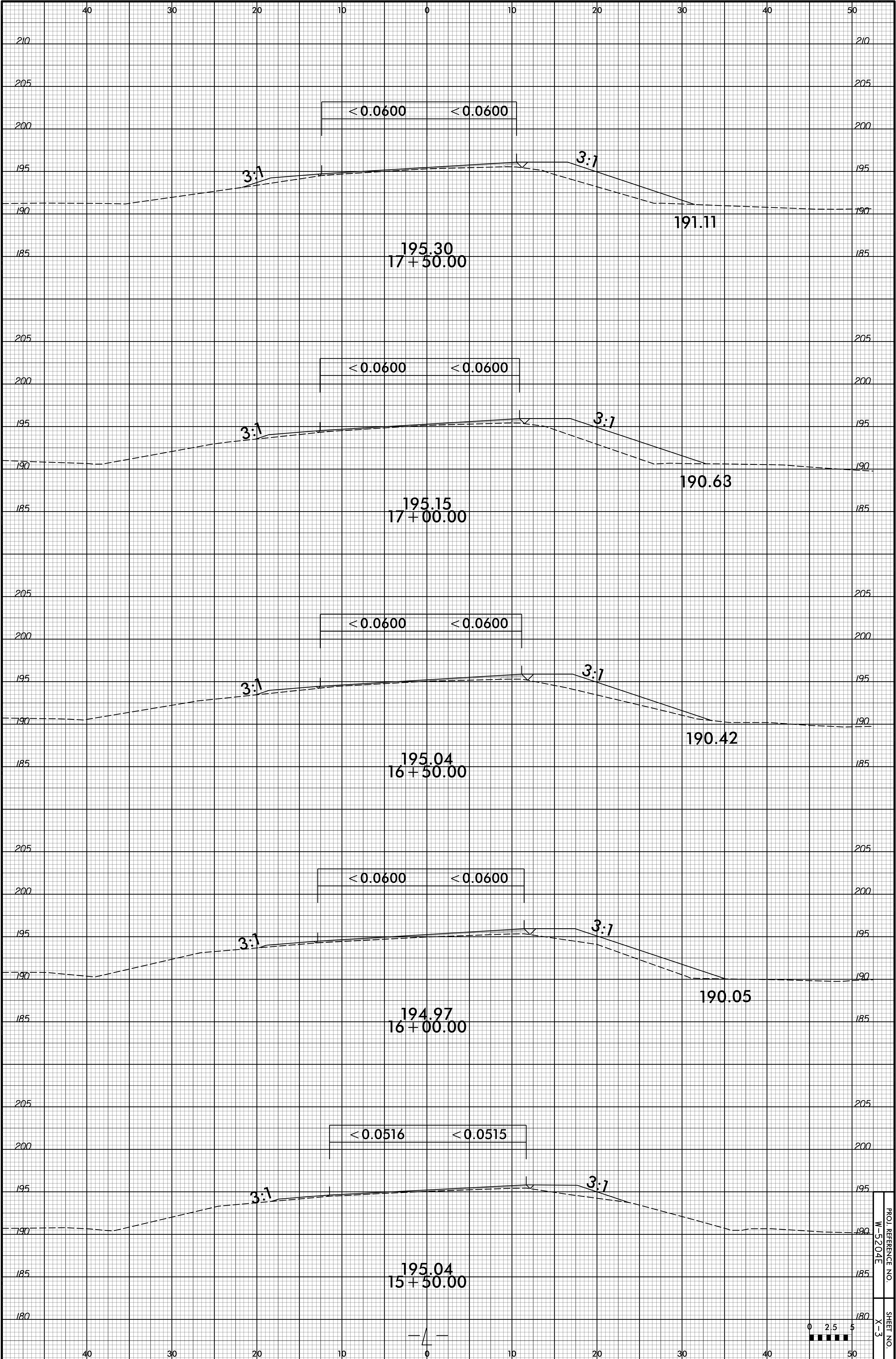
STATION	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)	
Y1			
10+15.00			
10+50.00		9	
11+00.00	2	20	
11+50.00	6	12	
11+65.00	1	2	

STATION	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)	

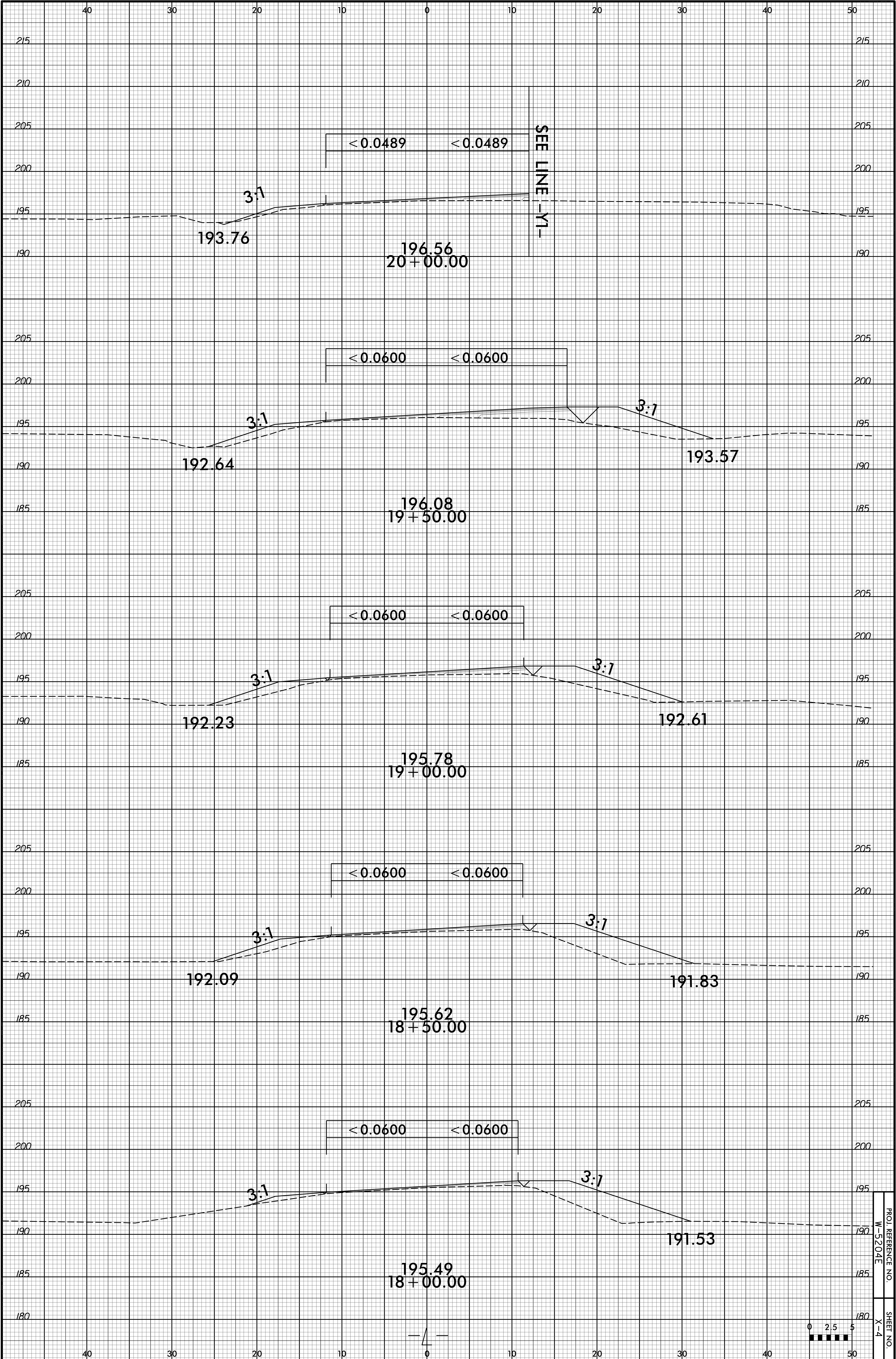
STATION	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)	



PROJ. REFERENCE NO. W-5204E
SHEET NO. X-2

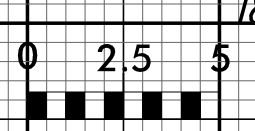


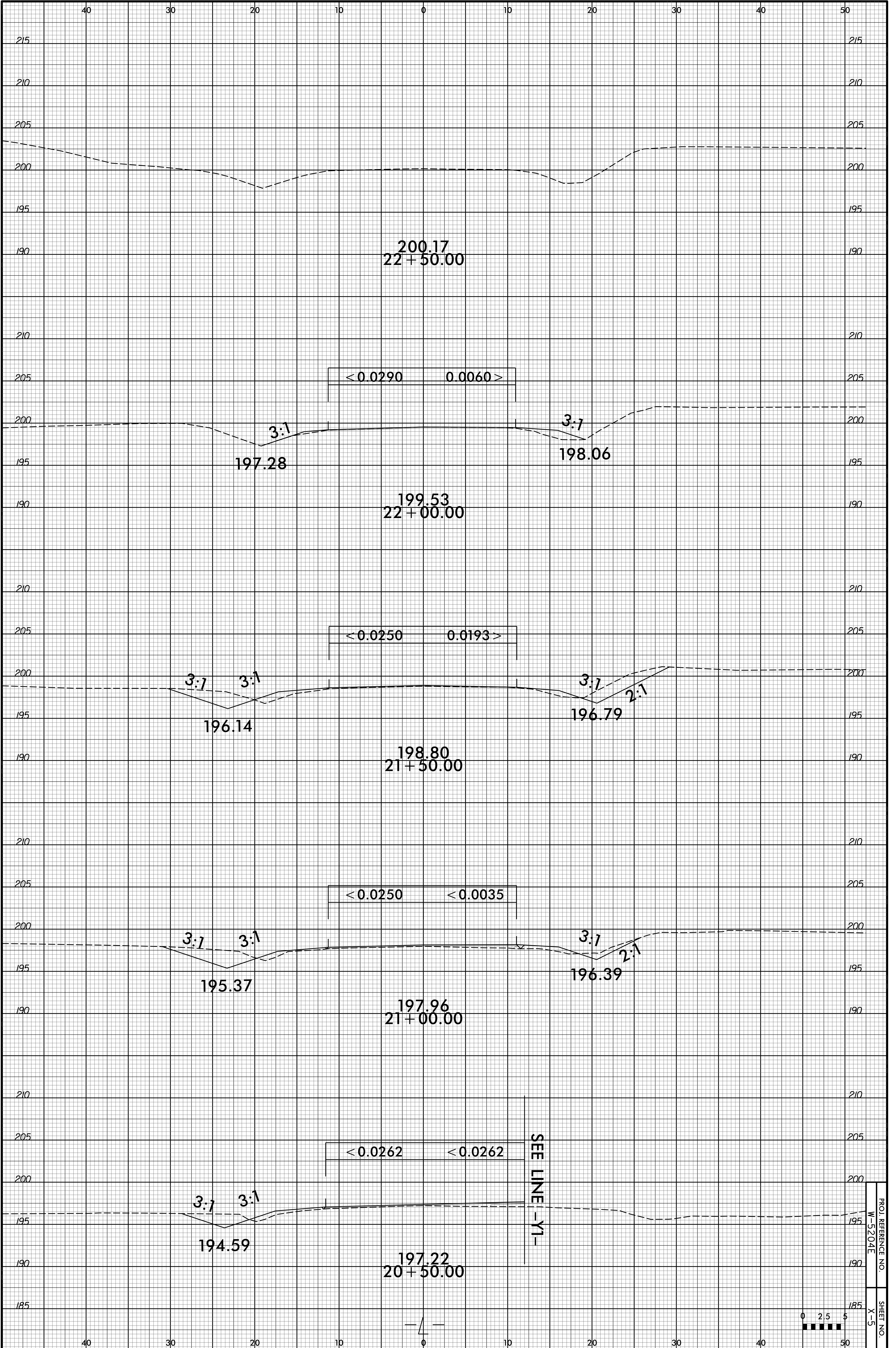
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SHEET NO. X-3

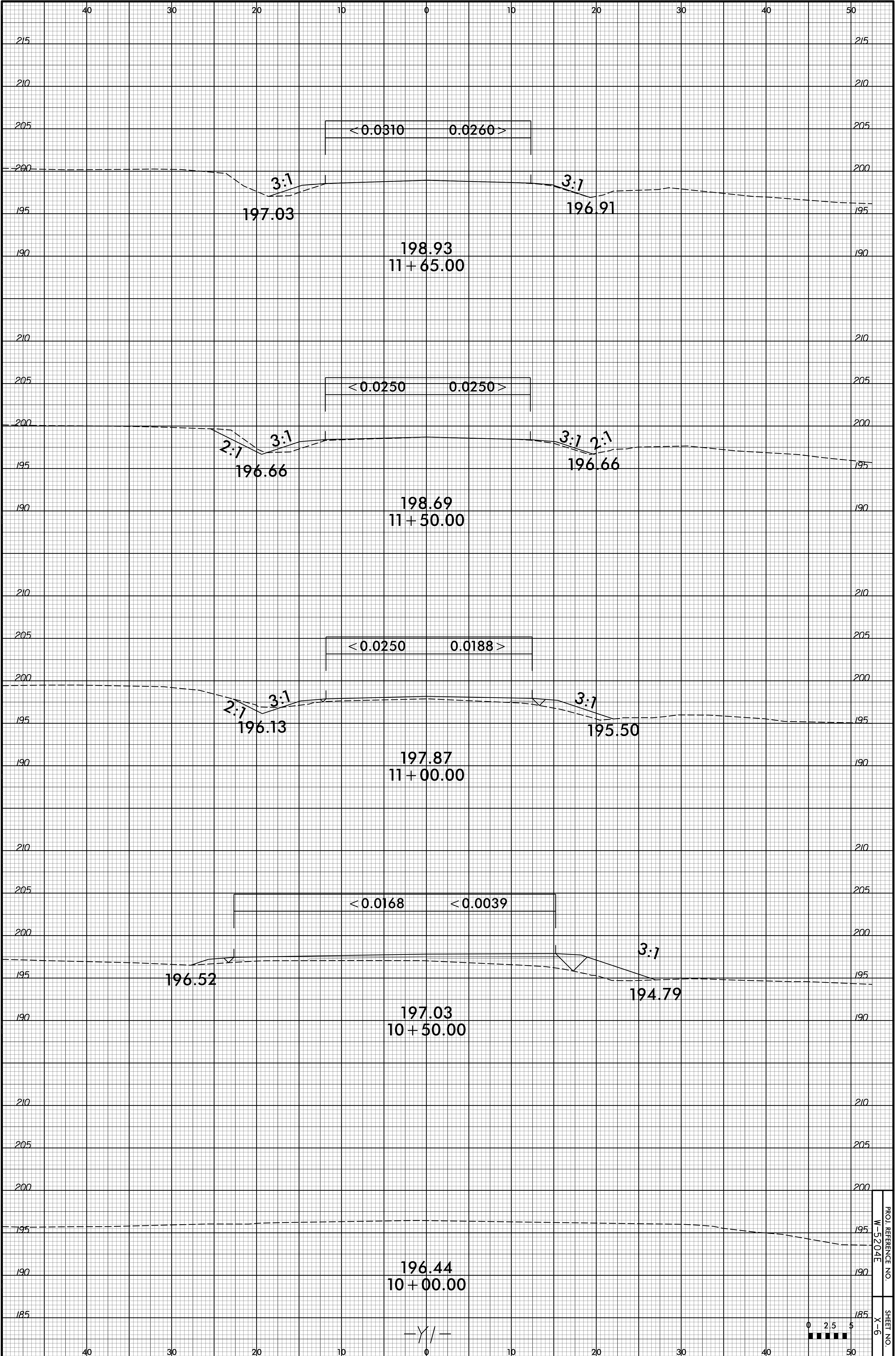


SEE LINE -Y1-

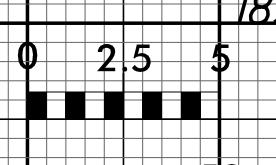
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SHEET NO. X-4



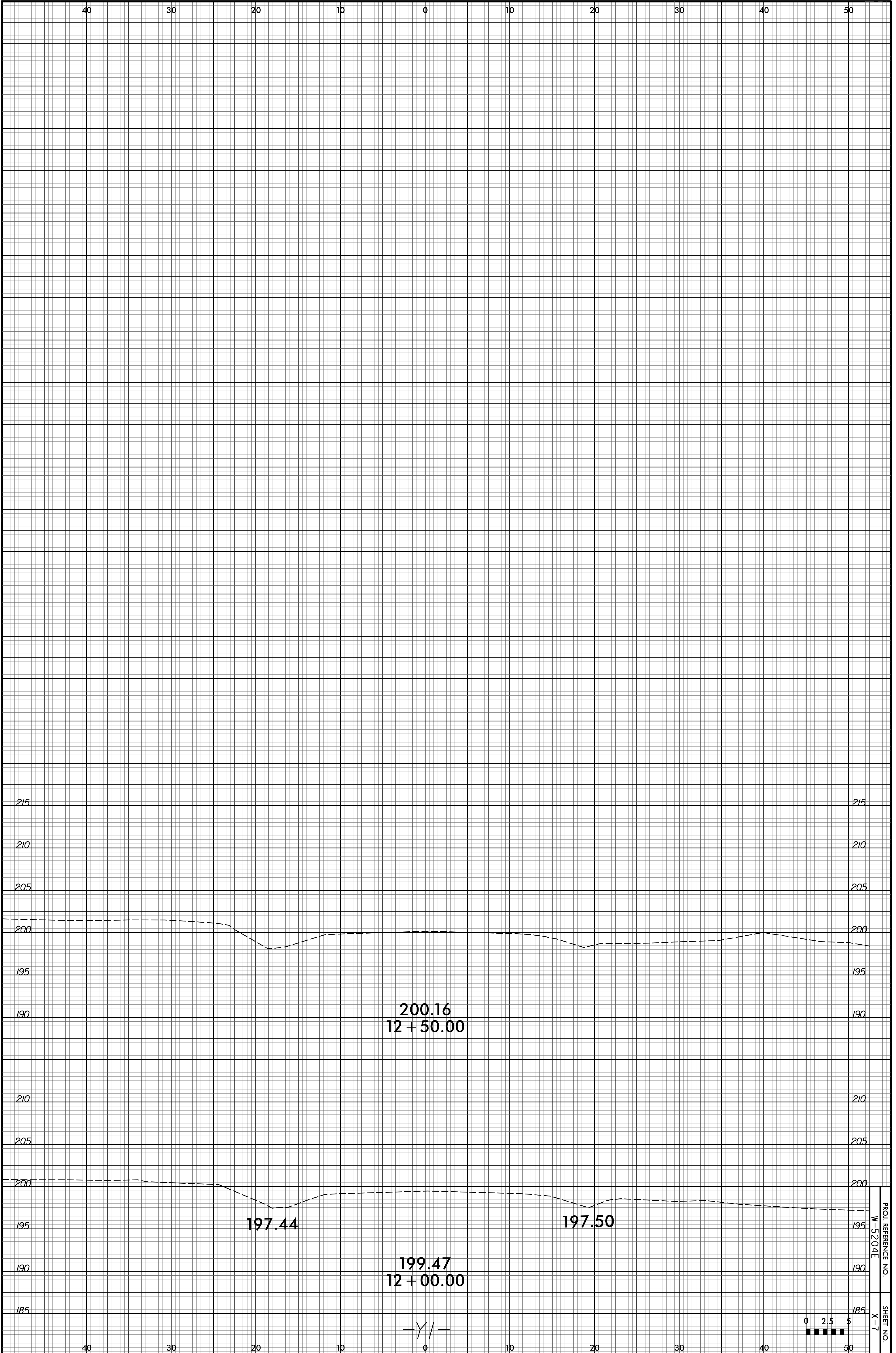




-Y/-



PROJ. REFERENCE NO. W-5204E
SHEET NO. X-6



PROJ. REFERENCE NO. W-5204E
SHEET NO. X-7

-Y/-

