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09/28/2019

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional plan Sheet Symbols

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

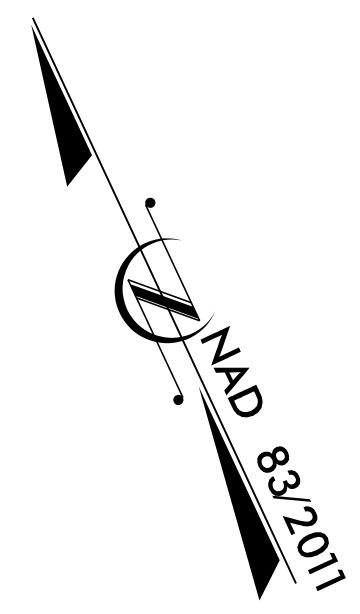
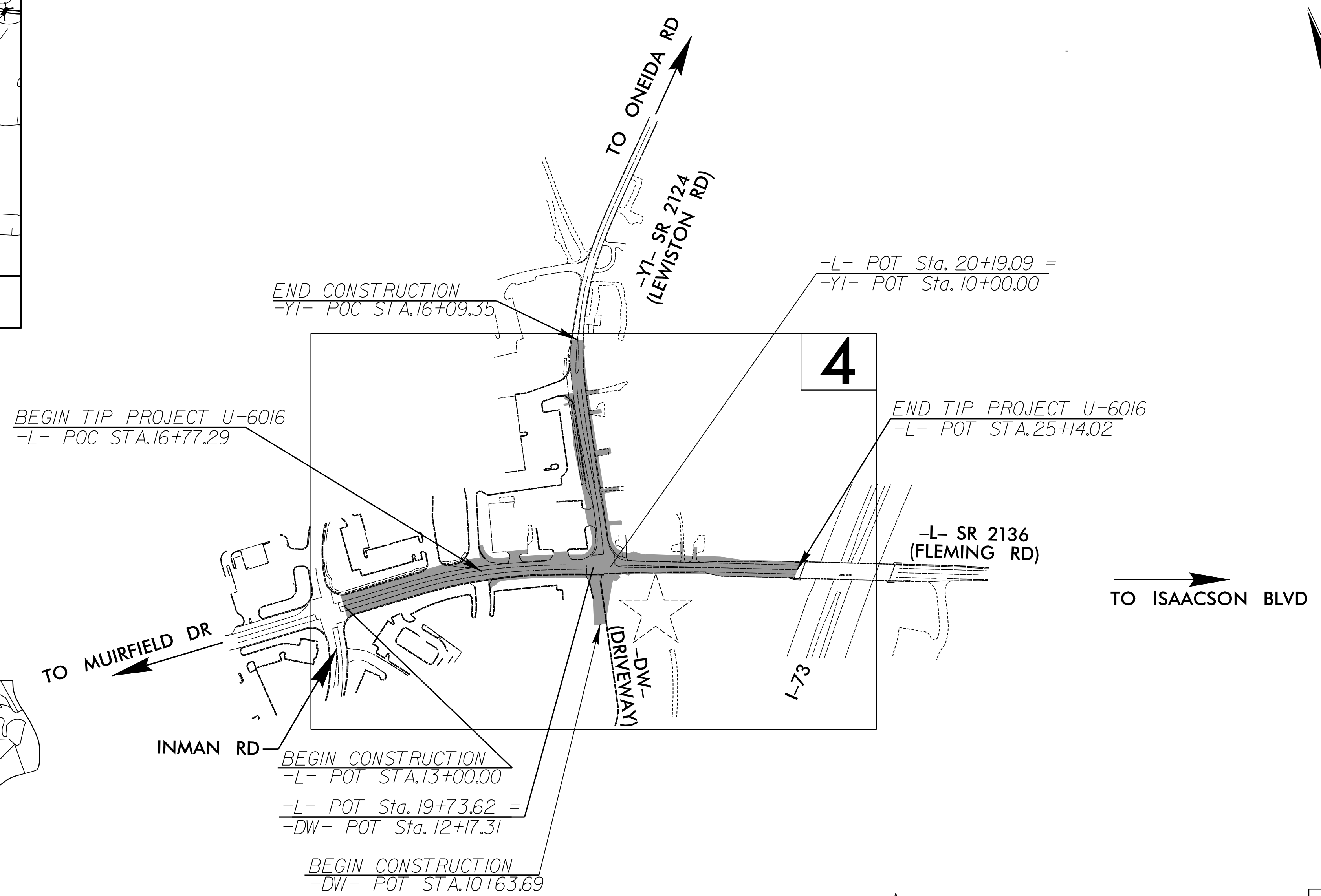
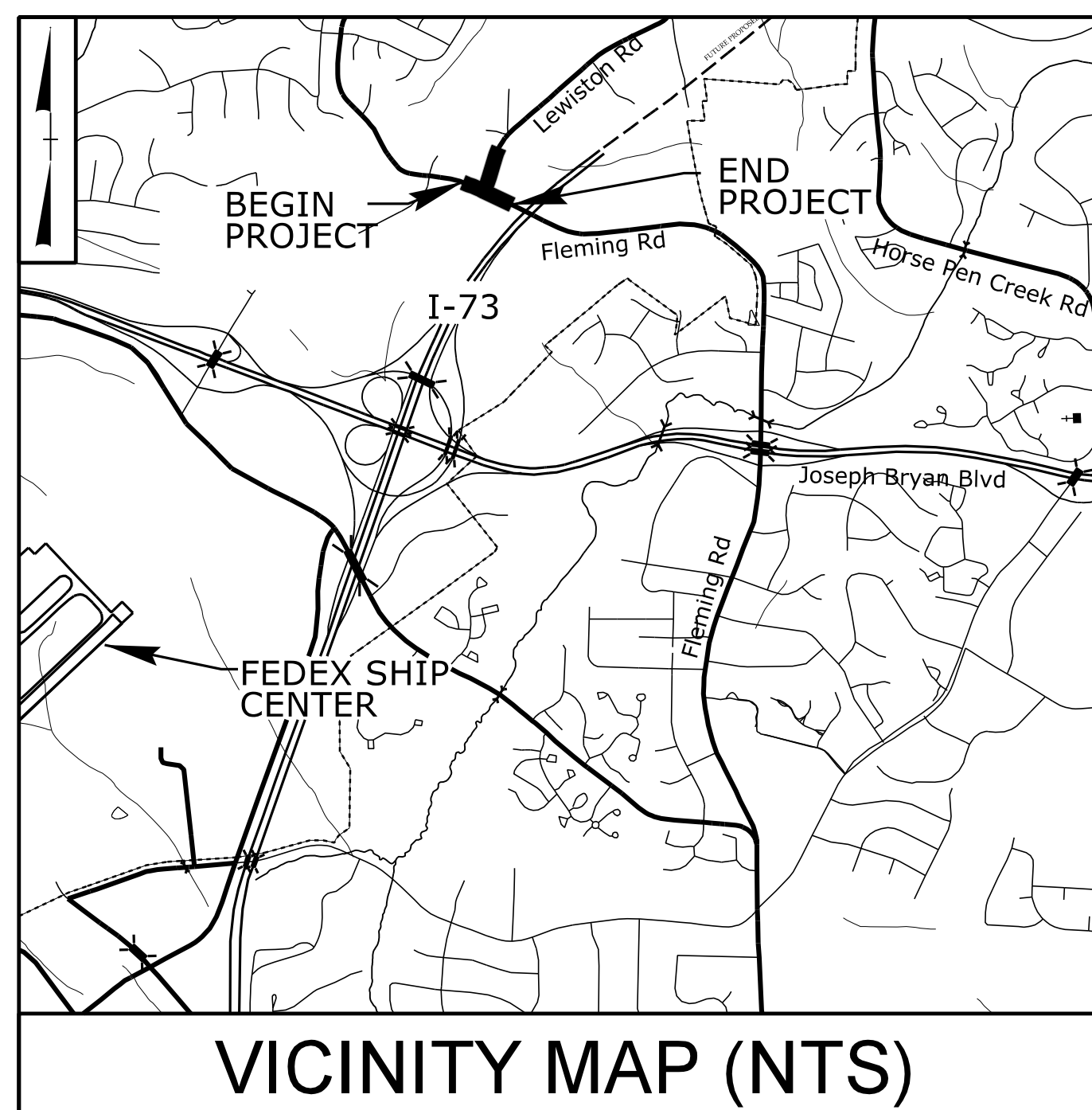
GUILFORD COUNTY

**LOCATION: SR 2124 (LEWISTON ROAD) /SR 2136 (FLEMING ROAD)
INTERSECTION IMPROVEMENTS IN GREENSBORO**
TYPE OF WORK: GRADING, PAVING, DRAINAGE & SIGNAL

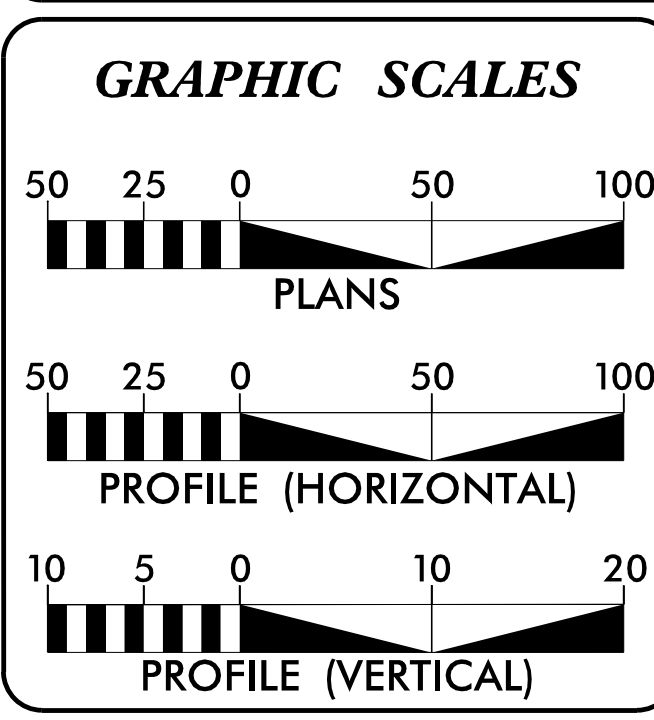
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-6016	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
47161.1.1		P.E.	
47161.2.1		ROW	
47161.2.2		UTIL.	
47161.3.1		CONST.	

TIP PROJECT: U-6016

CONTRACT: DG00583



- NOTES:**
1. THERE IS NO CONTROL OF ACCESS ON THIS PROJECT.
 2. THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF GREENSBORO.



DESIGN DATA

ADT 2015 =	13,000
ADT 2040 =	16,700
K =	N/A
D =	N/A
T =	N/A
V =	45 MPH

**FUNC CLASS=URBAN
MAJOR COLLECTOR**

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-6016	=	0.158 MILES
TOTAL LENGTH TIP PROJECT U-6016	=	0.158 MILES

Prepared In the Office of:

NIVIS
NIVS ENGINEERS & CONSULTANTS, INC. NC License # F-1333

FOR THE NORTH CAROLINA DEPT. OF TRANSPORTATION
2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JAN 29, 2022

LETTING DATE:
MAY 16, 2024

NCDOT CONTACT:

CHRIS ANDERSON, PE
PROJECT ENGINEER

DYLAN MCCANN
PROJECT DESIGN ENGINEER

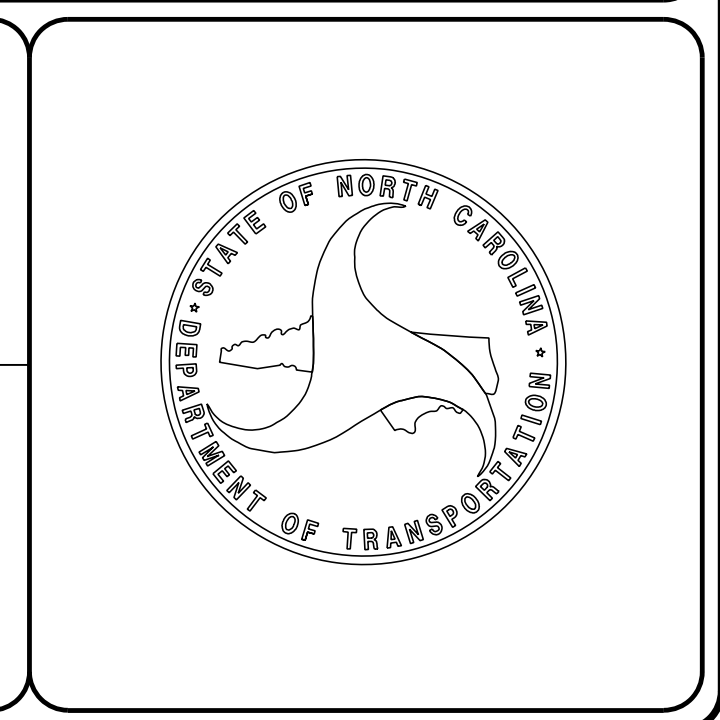
CHAD REIMAKOSKI
DIVISION PROJECT ENGINEER

HYDRAULICS ENGINEER

DocuSigned by:
Will Weatherman, P.E. 3/12/2024
SIGNATURE: ADB76FF2D0241C

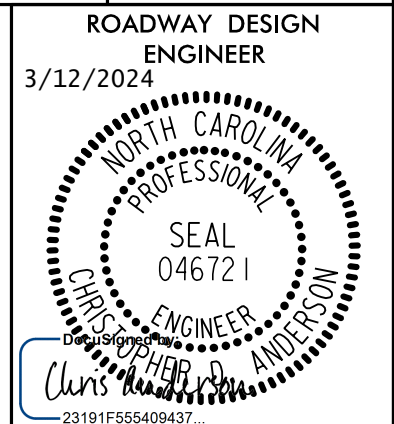
ROADWAY DESIGN ENGINEER

DocuSigned by:
Chris Anderson P.E. 3/12/2024
SIGNATURE: 23191F55409437...



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

5/9/2024



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INDEX OF SHEETS		EFF. 01-16-2024
SHEET NUMBER	DESCRIPTION	REV.
1	TITLE SHEET	2024 ROADWAY ENGLISH STANDARD DRAWINGS
1A	INDEX OF SHEET, STANDARD DRAWING AND GENERAL NOTES	The following Roadway Standards as appear in "Roadway Standard Drawings" Contracts Standards and Development Unit - N. C. Department of Transportation - Raleigh, N. C., Dated January 16, 2024 are applicable to this project and by reference hereby are considered a part of these plans:
1B	CONVENTIONAL SYMBOLS	
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS	
2B-1	INTERSECTION DETAIL SHEET	
3B-1	SUMMARY OF QUANTITIES	
3D	DRAINAGE SUMMARIES	
4	PLAN SHEET	
5	PROFILE SHEET	
RW01 THRU RW04	SURVEY CONTROL SHEETS	
TMP-1 THRU TMP-4	TRAFFIC MANAGEMENT PLANS	
PMP-1 THRU PMP-2	PAVEMENT MARKING PLANS	
EC-1 THRU EC-5	EROSION CONTROL PLANS	
SIGN-1 THRU SIGN-3	SIGNING PLANS	
Sig. 1.0 THRU Sig. 4.4	SIGNAL PLANS	
SCP-1 THRU SCP-5	ITS PLANS	
UC-1 THRU UC-5	UTILITY CONSTRUCTION PLANS	
X-0 THRU X-14	CROSS SECTION SHEETS	

GENERAL NOTES: 2024 SPECIFICATIONS
EFFECTIVE: 01-16-2024
REVISED:

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 11.

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 RADIUS OR RADIUS AS SHOWN ON THE PLANS. LOCATIONS OF DRIVES WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

STREET TURNOUT:
STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 848.04 USING THE RADIUS NOTED ON PLANS.

TEMPORARY SHORING:
SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC NOT SHOWN ON THE PLANS WILL BE PAID FOR AT THE CONTRACT PRICE FOR "TEMPORARY SHORING".

UTILITIES:
UTILITY OWNERS ON THIS PROJECT ARE DUKE ENERGY (POWER DIST.), MCI (TELECOM), AT&T (TELECOM), NORTH STATE COMMUNICATIONS (TELECOM), AND SPECTRUM/ CHARTER (TELECOM)
ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS, EXCEPT AS SHOWN ON THE PLANS.

RIGHT-OF-WAY MARKERS:
ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS.

CURB RAMPS
CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS. CONSTRUCT ALL CURB RAMPS ACCORDANCE WITH STD 848.06.

3/12/2024
Chris Anderson
RDY_PSH_1A.dgn

12/2/2016

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	□ 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	○ 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	----- R/W
New Right of Way Line with Pin and Cap	----- R/W
New Right of Way Line with Concrete or Granite R/W Marker	----- R/W
New Control of Access Line with Concrete C/A Marker	----- C/A
Existing Control of Access	----- C/A
New Control of Access	----- C/A
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	----- 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.*)	-----
U/G Water Line LOS C (S.U.E.*)	-----
U/G Water Line LOS D (S.U.E.*)	-----
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.*)	----- 7U/L
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.

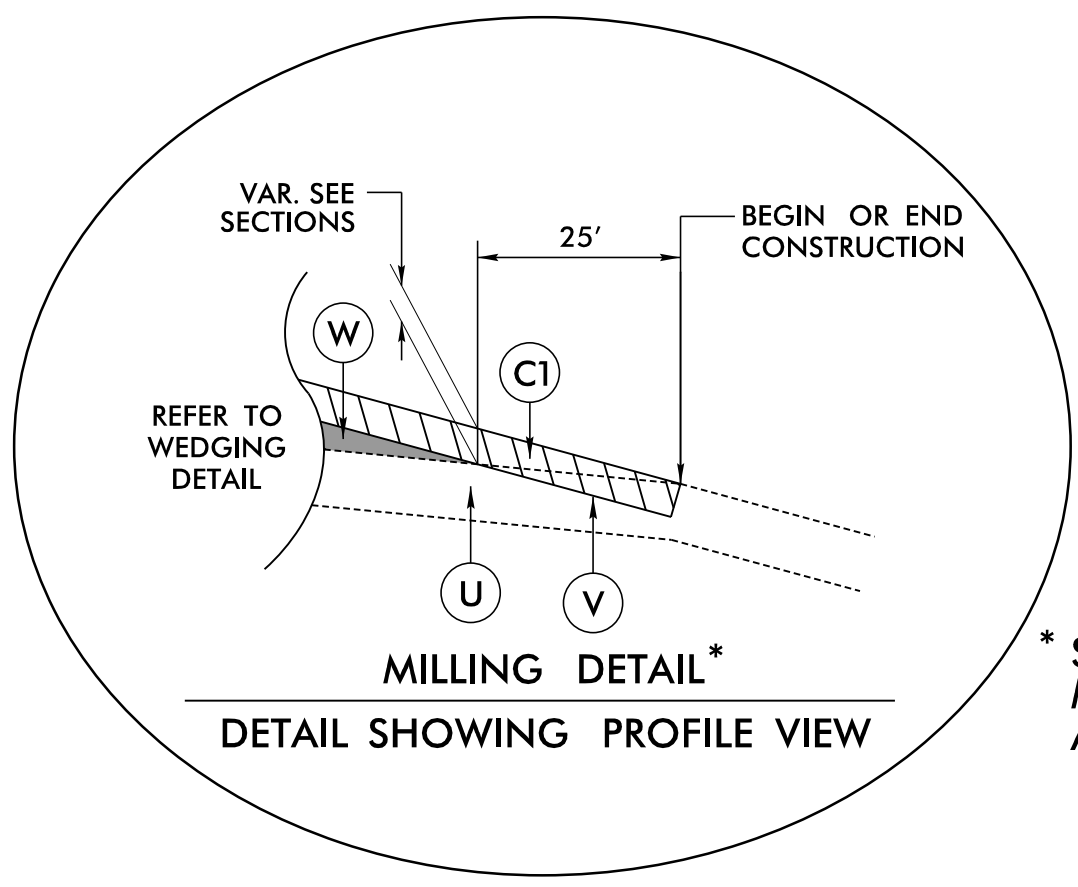
8/17/24

PAVEMENT SCHEDULE

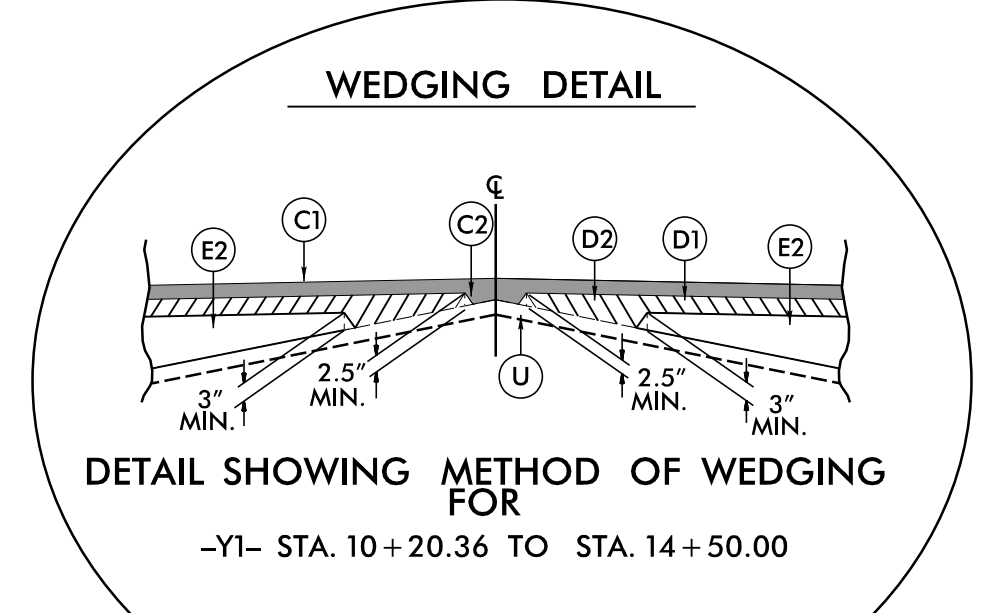
(FINAL PAVEMENT DESIGN - 02/20/2019)

C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1.5" IN DEPTH.
C3	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
D2	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 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E2	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 5½" IN DEPTH.
R1	2'-6" CONCRETE CURB AND GUTTER.
S	4" CONCRETE SIDEWALK.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	1.5" MILLING.
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL)

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

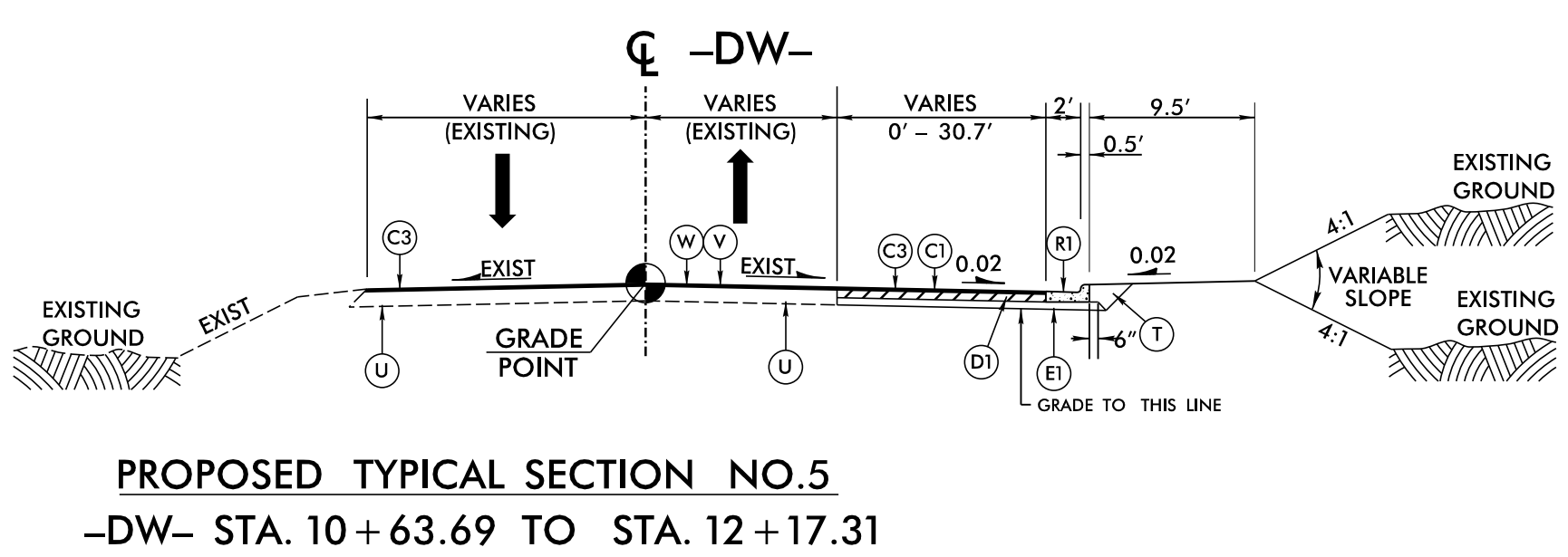
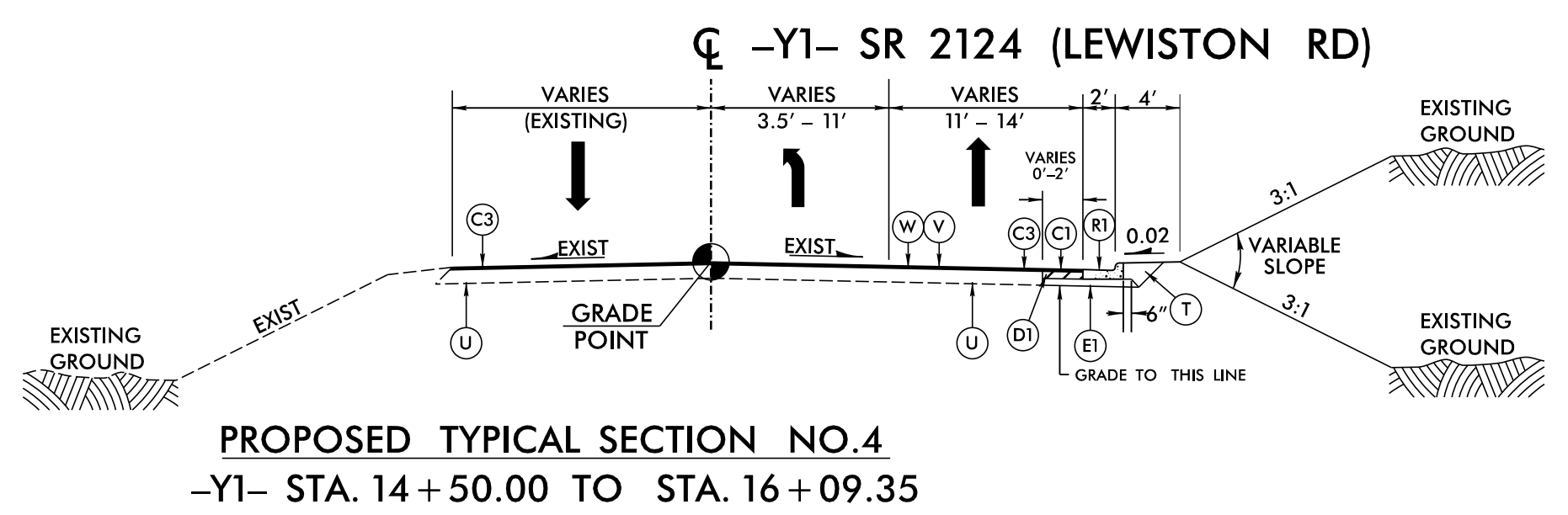
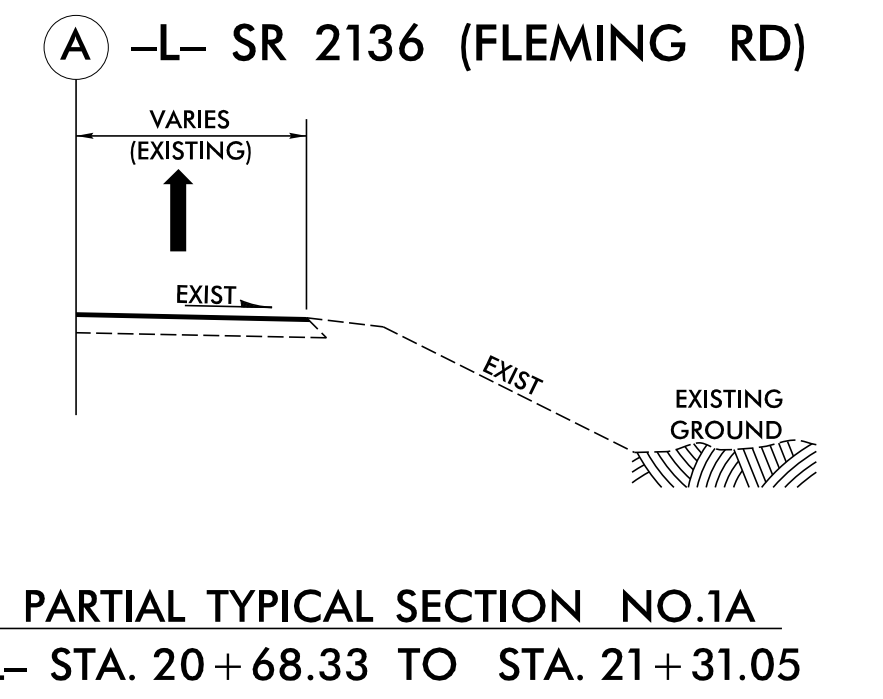
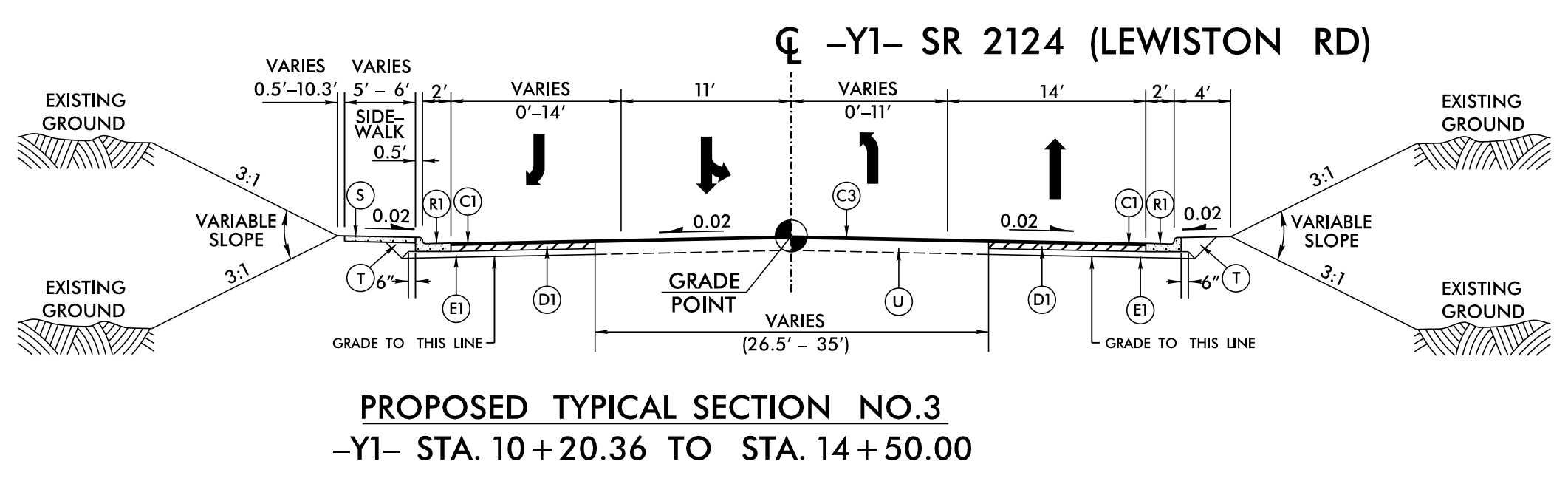
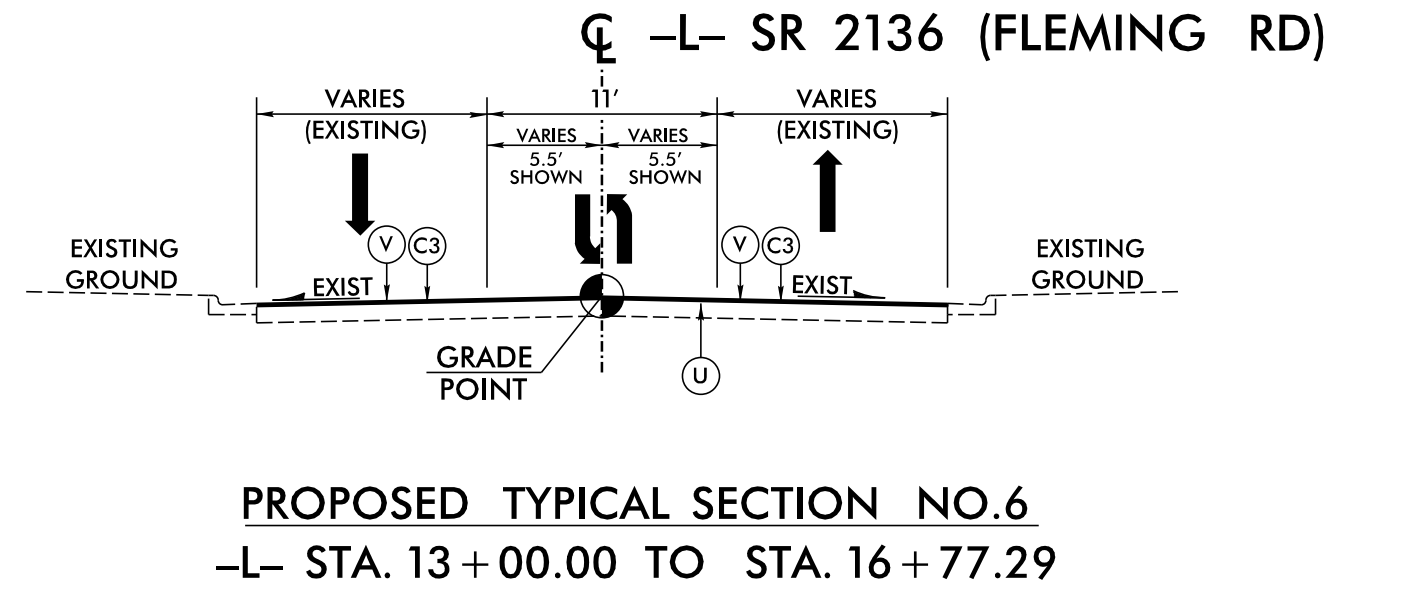
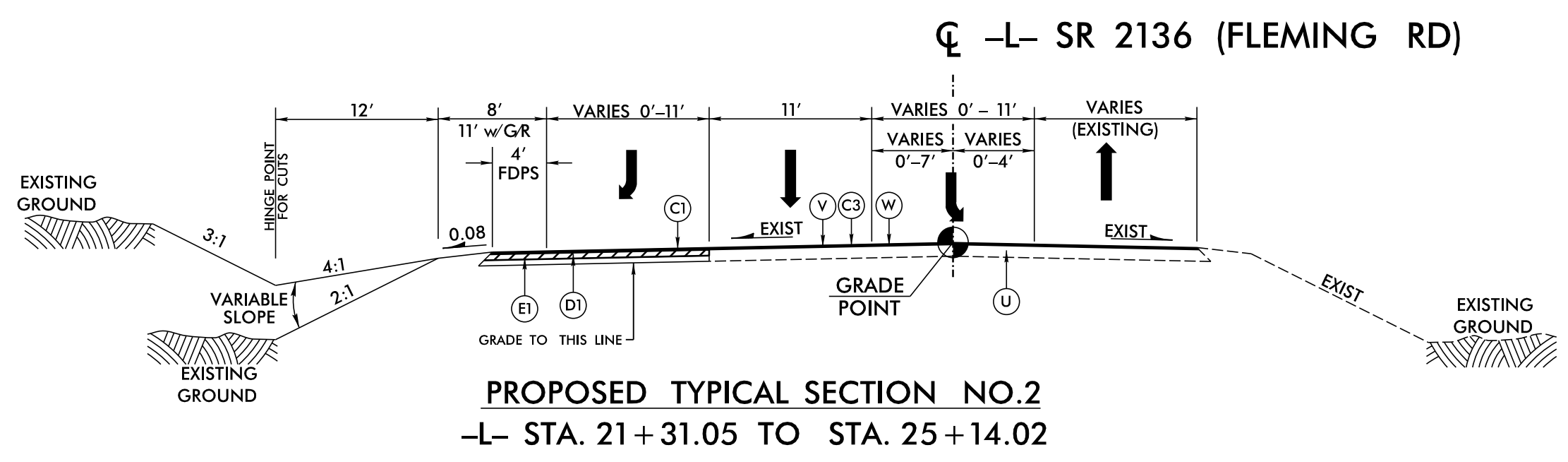
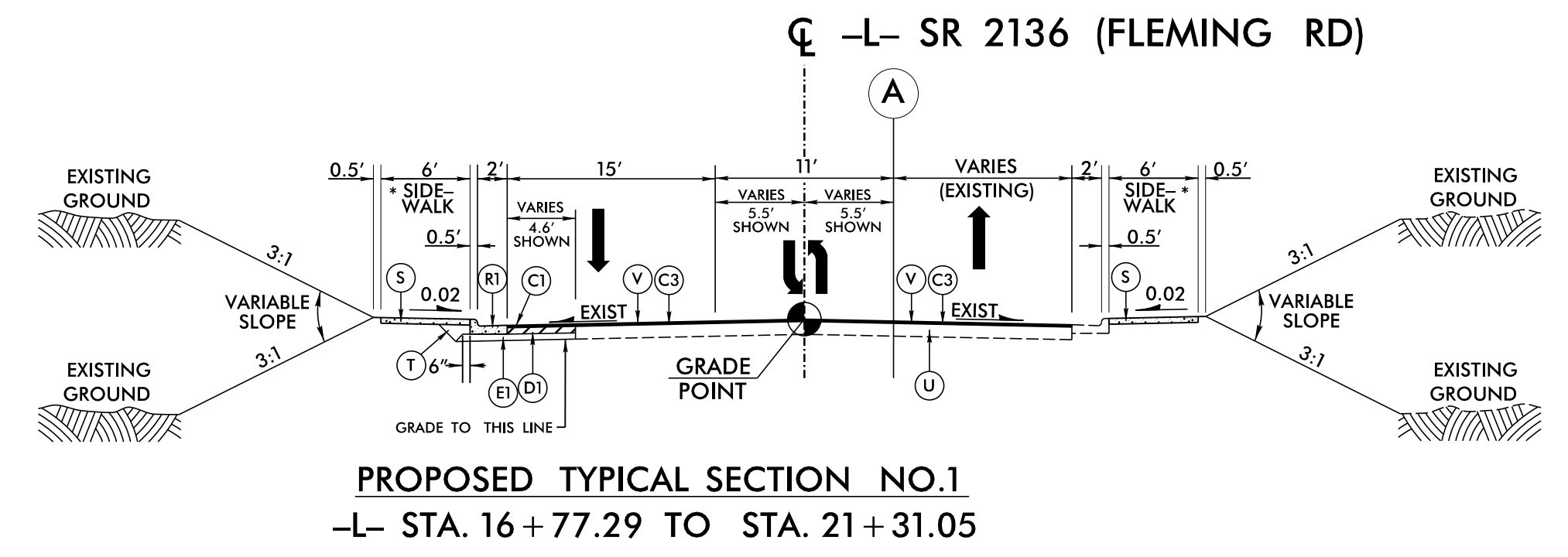


* SEE TYPICAL SECTIONS FOR DEPTHS OF MILLING, SURFACE COURSE THICKNESS AND WEDGING METHOD.



PROJECT REFERENCE NO. U-6016	SHEET NO. 2A-1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 3/14/2024	PAVEMENT DESIGN ENGINEER 3/14/2024
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

* LT SIDEWALK -L- STA 16+77.20 TO STA. 19+67.55
* RT SIDEWALK -L- STA 16+94.07 TO STA. 19+58.45



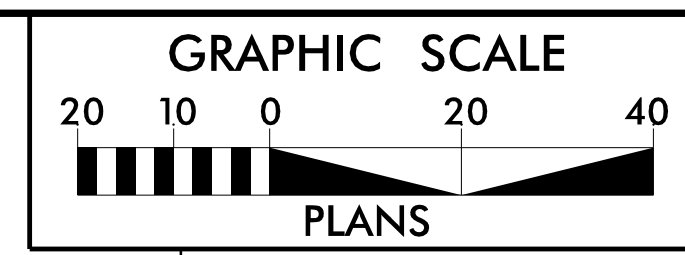
NOTES:
SEE PLANS FOR TURN LANES AND TAPERS.
MILL AS NEEDED.

3/12/2024
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Chris Anderson

8/17/99

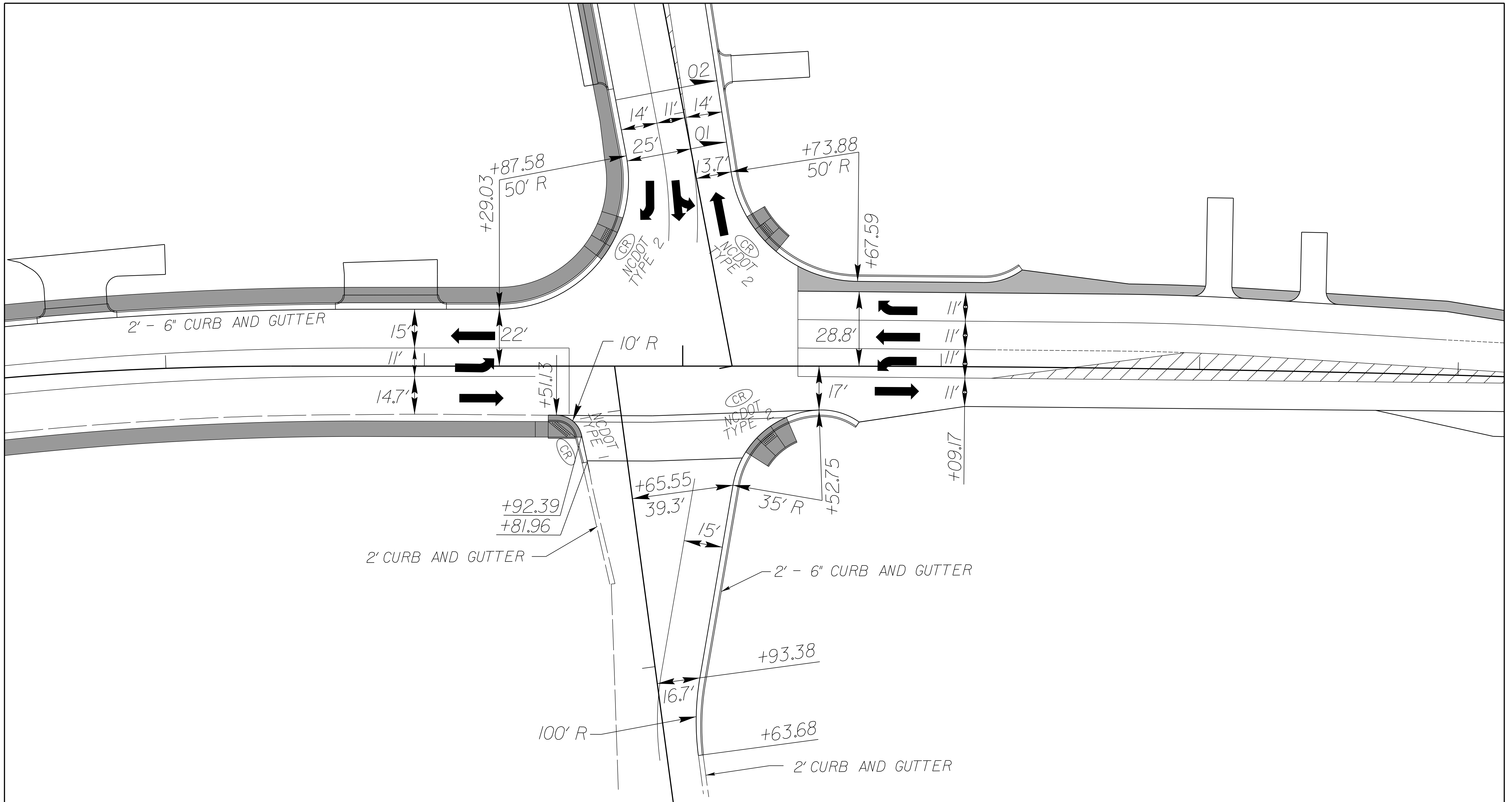
INTERSECTION DETAIL SHEET

-L-, -YI-



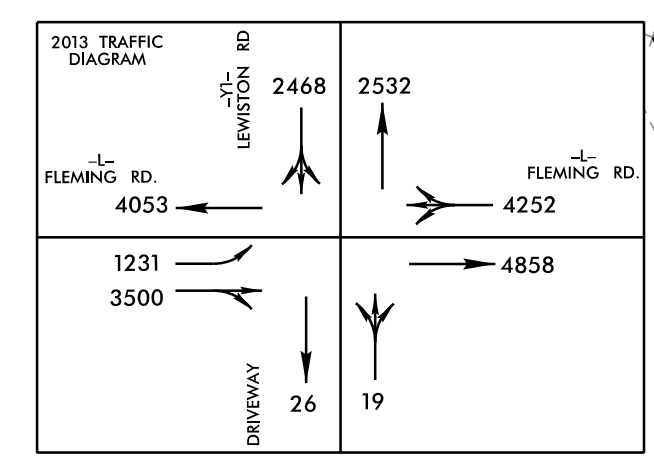
SEE SHEET 4 FOR ADDITIONAL INFORMATION

PROJECT REFERENCE NO. <i>U-6016</i>	SHEET NO. <i>2B-1</i>
RW SHEET NO.	
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NV5	NV5 ENGINEERS & CONSULTANTS, INC. 8514 McALPINE PARK DRIVE, STE. 135 CHARLOTTE, NC 28211 P: 704.537.7300 www.NV5.com NC License # F-1333



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Chris Anderson

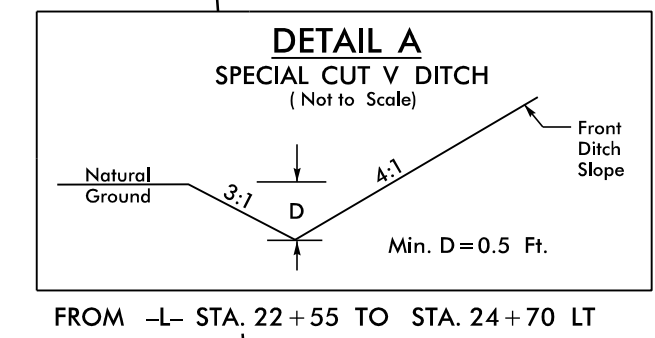
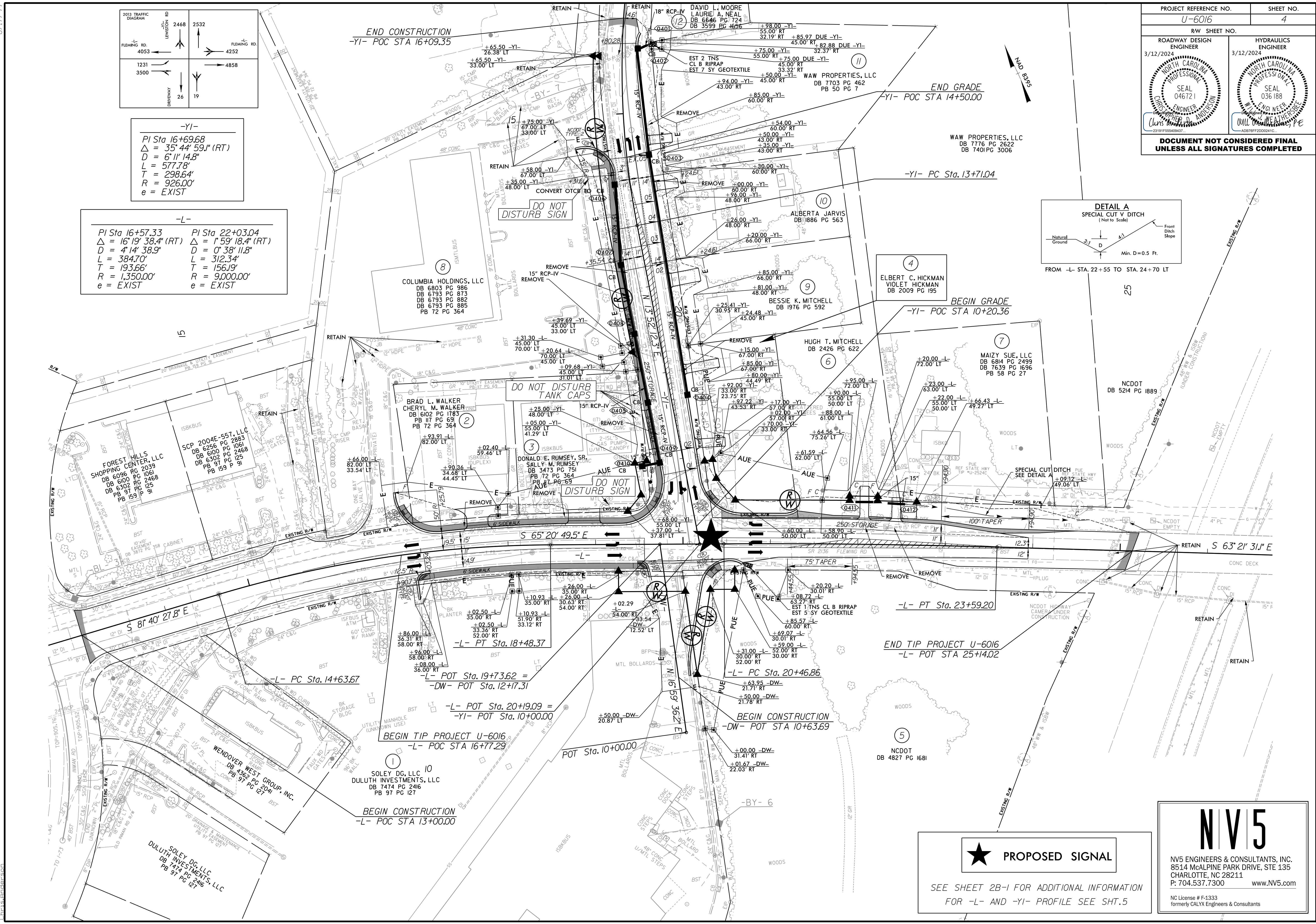
PROJECT REFERENCE NO. U-6016	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 3/12/2024	HYDRAULICS ENGINEER 3/12/2024
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



-YI-
 PI Sta 16+69.68
 $\Delta = 35^{\circ} 44' 59.1''$ (RT)
 $D = 6^{\circ} 11' 14.8''$
 $L = 577.78'$
 $T = 298.64'$
 $R = 926.00'$
 $e = \text{EXIST}$

-L-

PI Sta 16+57.33 $\Delta = 16^{\circ} 19' 38.4''$ (RT) $D = 4^{\circ} 14' 38.9''$ $L = 384.70'$ $T = 193.66'$ $R = 1,350.00'$ $e = \text{EXIST}$	PI Sta 22+03.04 $\Delta = 1^{\circ} 59' 18.4''$ (RT) $D = 0^{\circ} 38' 11.8''$ $L = 312.34'$ $T = 156.19'$ $R = 9,000.00'$ $e = \text{EXIST}$
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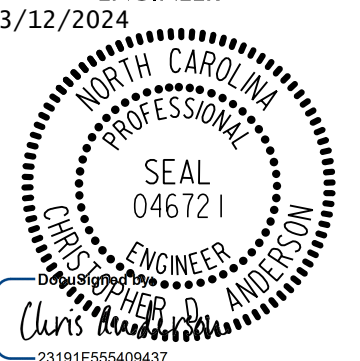
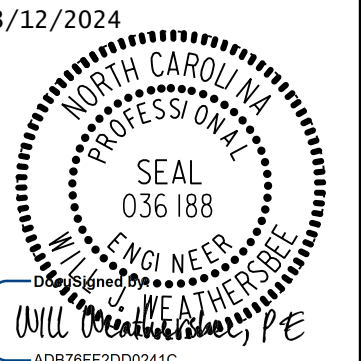
PROPOSED SIGNAL

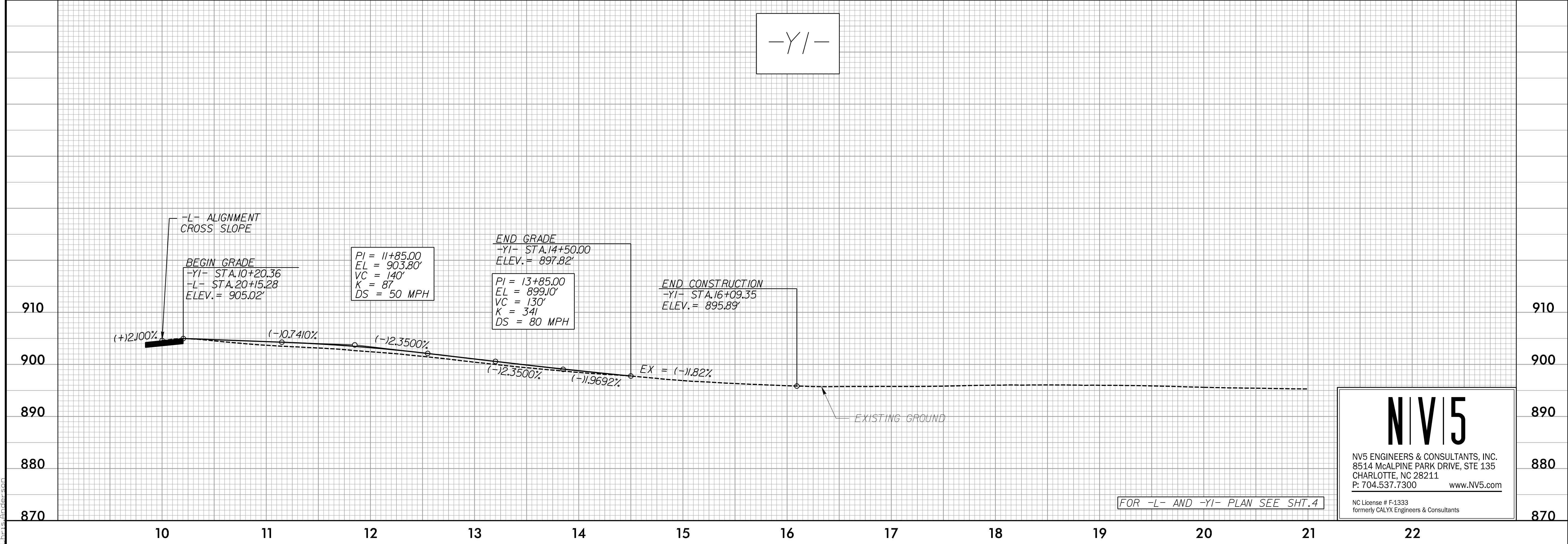
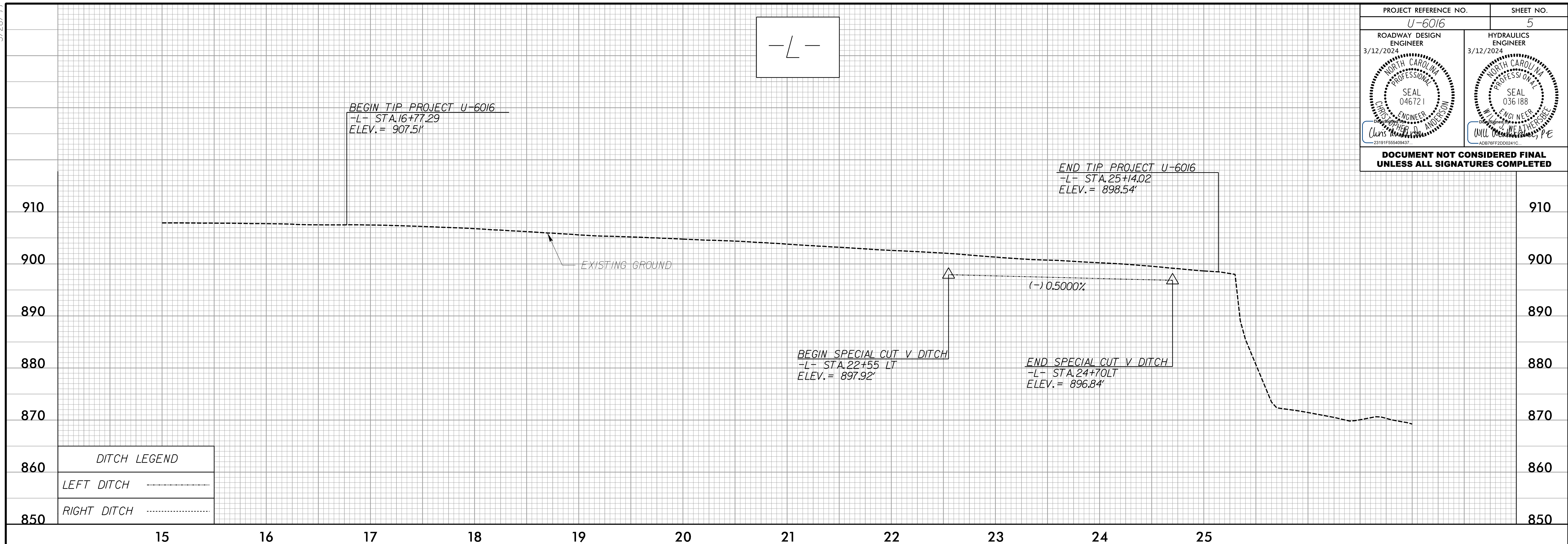
SEE SHEET 2B-1 FOR ADDITIONAL INFORMATION
 FOR -L- AND -YI- PROFILE SEE SHT. 5

N|V|5
 NV5 ENGINEERS & CONSULTANTS, INC.
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 CHARLOTTE, NC 28211
 P: 704.537.7300 www.NV5.com
 NC License # F-1333
 formerly CALYX Engineers & Consultants

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 3/12/2024
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 Chris Anderson

5/28/24

PROJECT REFERENCE NO. U-6016	SHEET NO. 5
ROADWAY DESIGN ENGINEER 3/12/2024 	HYDRAULICS ENGINEER 3/12/2024 
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N|V|5

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CHARLOTTE, NC 28211
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NC License # F-1333
formerly CALYX Engineers & Consultants

3/12/2024
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Chris Anderson

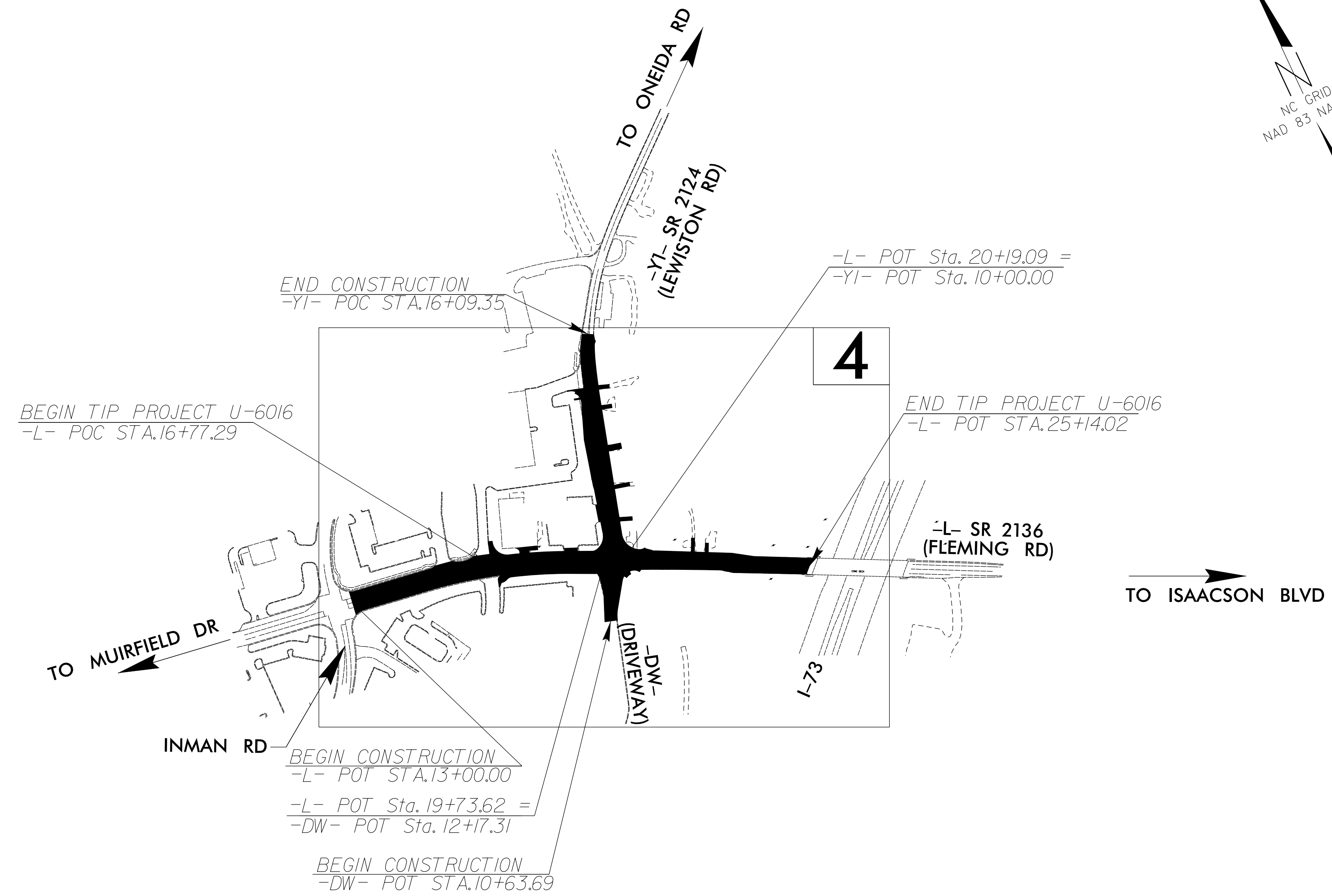
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-6016	RW01	04

TIP PROJECT: U-6016

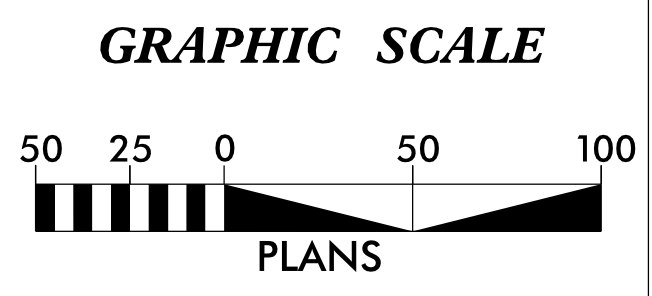
STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

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

GUILFORD COUNTY



15-APR-2024 08:52
 V:\2343\business\development\Proposals\Survey\2024\041524_u6016_RW_revision\u6016_ls_rw01.dgn
 cosborne AT OSBORNE-LL



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "KEVIN (U6016-2)" WITH NAD 83/NSRS 2011 STATE PLANE GRID COORDINATES OF NORTHING: 865,905.720(ft) EASTING: 1,732,953.770(ft) ELEVATION: 905.37(ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9999505000

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "KEVIN (U6016-2)" TO -L- STATION 10+00.00 IS N 80°04'14.6" W, 972.36(ft)

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

Prepared in the Office of:

ALLIED ASSOCIATES, P.A.
 4720 KESTER MILL ROAD
 WINSTON SALEM, NC 27103
 WWW.ALLIEDAPA.COM C-2198
 (336)765-2377

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: 01/29/2022

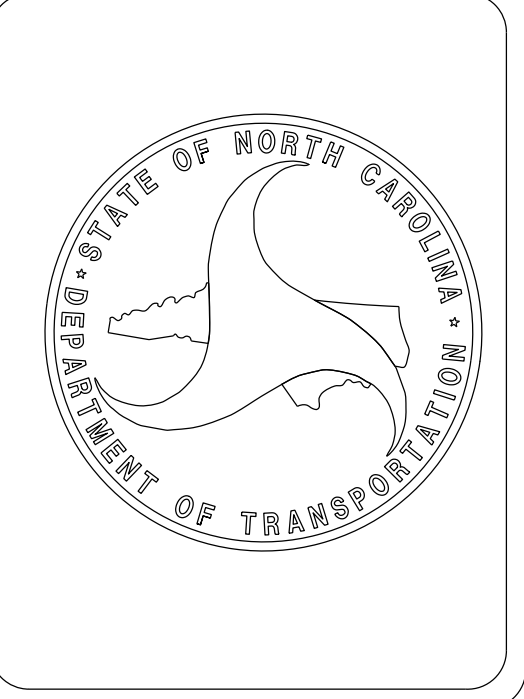
LETTING DATE: 5/16/2024

PROFESSIONAL LAND SURVEYOR

DocuSigned by:
 Clinton B. Osborne
 046F6D05F6446B

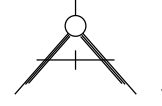

9/7/2022

SIGNATURE: Date:



SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO. U-6016	SHEET NO. RW02C-1
Location and Surveys	
 ALLIED ASSOCIATES, P.A. 4720 KESTER MILL ROAD WINSTON SALEM, NC 27103 WWW.ALLIEDAPA.COM C-2198 (336)765-2377	
PROJECT SURVEYOR	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

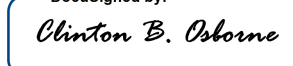


I, Clinton B. Osborne, PLS, certify that the Horizontal Control established for this Project was from control monuments published by the North Carolina Geodetic Survey as shown herein; and certify that the Project Vertical Control was performed under my supervision from an actual GPS survey made under 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: 2/12/2018
 Datum/Epoch: NAD83-NA2011
 Published/Fixed-control use: N/A
 Localized around: NCGS "Kevin"
 Northing: 865905.72'
 Easting: 1732953.77'
 Combined grid factor: 0.99995050
 Geoid model: 12
 Units: US Survey Foot

I also certify that the Baseline Control for this project was completed under my direct and responsible charge from an actual survey made under my supervision; that all horizontal closures had a minimum ratio of precision of 1:20,000 (Class AA) and Vertical accuracy to Class A. Field work was performed from 1/23/2018 to 2/1/2018, 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 7th day of September, 2022.

DocuSigned by:

 Clinton B. Osborne
 046F80585F64498
 Professional Land Surveyor L-3834

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

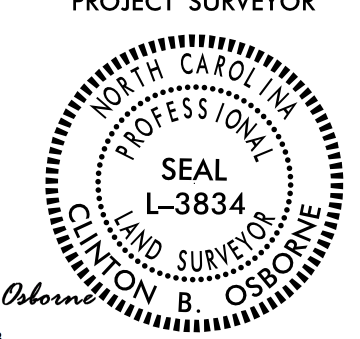
W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
U-6016	RW02C-2

Location and Surveys


 ALLIED ASSOCIATES, P.A.
 4720 KESTER MILL ROAD
 WINSTON SALEM, NC 27103
 WWW.ALLIEDAPA.COM C-2198
 (336)765-2377

PROJECT SURVEYOR



Digitally signed by: *Clinton B. Osborn* 9/7/2022
DN: cn=Clinton B. Osborn, o=Allied Associates, P.A., ou=Surveying, email=Osborn@alliedapa.com

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

BL	POINT	DESC.	NORTH	EAST	ELEVATION
1	BL-1	NCGS *CARD	866097.0295	1731819.7739	905.69
3		BL-3	866071.1516	1732303.0569	906.68
2	BL-2	NCGS *KEVI	865905.7200	1732953.7700	905.37
4		BL-4	865504.2676	1733691.5467	893.60
5		BL-5	865300.6589	1734015.4197	886.02

BY2	POINT	DESC.	NORTH	EAST	ELEVATION
6		BY-6	865527.2970	1732862.8667	896.15
EQ2			865905.7200	1732953.7700	905.37
7		BY-7	866354.6810	1733098.4022	897.68
8		BY-8	866843.4093	1733544.0906	893.47

.....
 BM1 ELEVATION = 909.90
 N 866085 E 1731855
 BL STATION 5+36.00 10' RIGHT
 SCRIBED "X" IN CONCRETE SIDEWALK

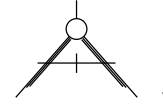

.....
 BM2 ELEVATION = 899.42
 N 866851 E 1733729
 BY2 STATION 20+22.00
 N 87+43'09.0" E DIST 184.59
 RAILROAD SPIKE SET IN 18" MAPLE TREE

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. U-6016	SHEET NO. RW02C-2
Location and Surveys	
 ALLIED ASSOCIATES, P.A. 4720 KESTER MILL ROAD WINSTON SALEM, NC 27103 WWW.ALLIEDAPA.COM C-2198 (336)765-2377	
PROJECT SURVEYOR	
	
DocuSigned by: <i>Winston B. Osborn</i> 9/7/2022	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

EL

POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	866073.386	1731995.978							
LINE			S 81°40'27.8" E	463.67					
PC	866006.248	1732454.758							
CURVE			S 73°30'38.6" E	383.40	16°19'38.4"(RT)	04°14'38.9"	384.70	193.66	1350.00
PT	865897.424	1732022.393							
LINE			S 65°20'49.5" E	196.28					
PC	865815.552	1733000.781							
CURVE			S 64°21'10.3" E	316.74	01°59'18.4"(RT)	00°37'39.9"	316.76	158.40	9127.23
PT	865678.457	1733286.318							
LINE			S 63°21'31.1" E	676.35					
PC	865375.180	1733890.857							
CURVE			S 80°08'31.2" E	556.86	33°34'00.2"(LT)	05°56'31.2"	564.91	290.82	964.25
PT	865279.842	1734439.496							
LINE			N 83°04'28.7" E	296.70					
POT	865315.616	1734734.030							

EY

POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	866037.127	1732243.747							
LINE			N 08°13'18.1" E	42.24					
PC	866078.935	1732249.788							
CURVE			N 26°41'26.0" E	254.89	36°56'15.8"(RT)	14°14'30.1"	259.36	134.37	402.31
PT	866306.670	1732364.280							

EY1

POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
PC	865826.621	1732173.862							
CURVE			N 22°41'15.3" E	179.78	29°05'01.3"(LT)	16°00'15.9"	181.72	92.86	358.00
PT	865992.489	1732243.203							
LINE			N 08°08'44.6" E	44.25					
POT	866036.289	1732249.473							

EY2

POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	865830.947	1732967.238							
LINE			N 16°57'34.0" E	477.98					
PC	866288.136	1733106.661							
CURVE			N 25°32'19.1" E	223.33	17°09'30.3"(RT)	07°39'15.2"	224.17	112.93	748.55
PCC	866489.647	1733202.944							
CURVE			N 39°30'05.1" E	147.30	10°46'01.7"(RT)	07°17'55.8"	147.52	73.98	785.00
PCC	866603.306	1733296.642							
CURVE			N 47°05'31.6" E	138.64	04°24'51.3"(RT)	03°10'59.2"	138.68	69.37	1800.00
PT	866697.698	1733398.191							
LINE			N 49°17'57.2" E	30.38					
PC	866717.511	1733421.225							
CURVE			N 49°31'48.0" E	56.39	00°27'41.5"(RT)	00°49'06.6"	56.39	28.19	7000.00
PT	866754.108	1733464.120							
LINE			N 49°45'38.7" E	142.71					
POT	866846.297	1733573.060							

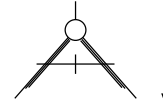
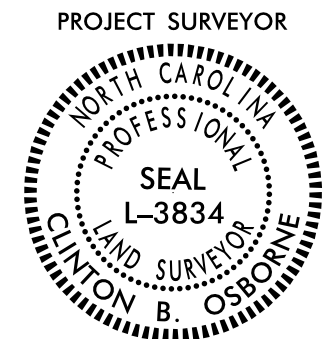
EY3

POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	866613.841	1733137.719							
LINE			S 74°21'59.7" E	54.57					
PC	866599.135	1733190.272							
CURVE			S 63°06'29.5" E	78.09	22°31'00.6"(RT)	28°38'52.4"	78.60	39.81	200.00
PT	866563.812	1733259.920							

NOTES:


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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. U-6016	SHEET NO. RW02D-1
Location and Surveys	
 ALLIED ASSOCIATES, P.A. 4720 KESTER MILL ROAD WINSTON SALEM, NC 27103 WWW.ALLIEDAPA.COM C-2198 (336)765-2377	
PROJECT SURVEYOR 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

I, Clinton B. Osborne, 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 7th day of September, 2022.

DocuSigned by:

 CLINTON B. OSBORNE
 Professional Land Surveyor L-3834

L

TYPE	STATION	NORTH	EAST
POT	10+00.00	866073.3858	1731995.9781
PC	14+63.67	866006.2477	1732454.7577
PT	18+48.37	865897.4241	1732822.3926
PC	20+46.86	865814.6311	1733002.7878
PT	23+59.20	865679.4469	1733284.3442
PC	30+39.04	865374.6055	1733892.0022
PT	36+01.45	865279.6870	1734438.2237
POT	38+99.43	865315.6163	1734734.0300

Y1

TYPE	STATION	NORTH	EAST
POT	10+00.00	865826.2128	1732977.5529
PC	13+71.04	866186.4348	1733066.4994
PT	19+48.82	866669.8453	1733365.5842
POT	22+21.18	866846.2972	1733573.0601

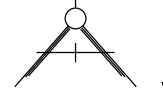

DW

TYPE	STATION	NORTH	EAST
POT	10+00.00	865637.3598	1732872.7125
POT	12+17.31	865845.1810	1732936.2235

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. U-6016	SHEET NO. RW02E-1
Location and Surveys	
 ALLIED ASSOCIATES, P.A. 4720 KESTER MILL ROAD WINSTON SALEM, NC 27103 WWW.ALLIEDAPA.COM C-2198 (336)765-2377	
PROJECT SURVEYOR 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

I, Clinton B. Osborne, 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 07-28-2022 to 08-29-2022, 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 September, 2022.

DocuSigned by:

 Clinton B. Osborne
 0A6F6B085F6440B
 Professional Land Surveyor L-3834

ROW MARKER IRON PIN AND CAP-E

ALIGN	STATION	OFFSET	NORTH	EAST
DW	10+63.95	21.71	865692.1732	1732912.1639

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
DW	9+98.52	31.41	865626.7622	1732902.3208
DW	10+01.67	22.03	865632.5147	1732894.2645

ROW MARKER IRON PIN AND CAP-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	19+26.00	54.00	865815.9649	1732870.4226
** L	19+26.00	30.63	865837.2041	1732880.1704
L	19+37.00	-37.81	865894.8213	1732918.7172
L	20+02.29	54.00	865784.1434	1732939.7577
L	20+31.00	52.00	865773.9850	1732966.6862
L	20+59.00	30.00	865782.3098	1733001.2705
L	20+59.00	52.00	865762.3275	1732992.0669
* L	20+60.00	-50.00	865854.5521	1733035.6515
L	21+90.00	-55.00	865803.5067	1733156.1373
L	21+90.00	-50.00	865798.9961	1733153.9797
L	22+22.00	-50.00	865785.0591	1733182.9826
L	22+22.00	-55.00	865789.5620	1733185.1562
*** L	22+66.43	-49.27	865764.8840	1733222.8440

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	17+90.36	-34.68	865952.5971	1732782.2663
* L	17+90.36	-44.45	865961.6378	1732785.9541
L	18+02.40	-59.46	865970.7378	1732803.2394
L	18+02.50	33.36	865885.0697	1732767.5120
L	18+02.50	52.00	865867.8747	1732760.3170
L	18+10.93	51.90	865864.8151	1732767.8244
L	18+10.93	33.12	865882.0899	1732775.1799
L	20+69.07	30.01	865778.1011	1733010.3824
L	20+85.57	60.00	865743.9883	1733012.6767
L	21+08.72	63.27	865731.3164	1733032.1375
L	21+20.20	30.01	865756.5929	1733056.5766
L	21+58.90	-50.00	865812.4432	1733125.7431
L	21+64.56	-75.26	865832.8218	1733141.7263

MARKER EXCEPTIONS:
 * = SET MAG NAIL
 ** = SET REBAR, NO CAP
 *** = FOUND EXISTING MONUMENT

MARKER EXCEPTIONS:
 * = SET MAG NAIL

ROW MARKER IRON PIN AND CAP-E

ALIGN	STATION	OFFSET	NORTH	EAST
* Y1	10+68.00	-55.00	865905.4147	1732940.4577
Y1	10+70.00	33.00	865886.2609	1733026.3712
Y1	10+92.00	23.75	865909.8379	1733022.6602
Y1	10+92.00	33.00	865907.6194	1733031.6451
Y1	11+05.00	-41.29	865938.0482	1732962.6416
* Y1	11+05.00	-55.00	865941.3358	1732949.3274
* Y1	12+30.11	-33.00	866057.5239	1733000.6774
Y1	15+65.50	-26.38	866380.4876	1733108.7907
Δ Y1	13+71.04	-33.00	866194.3456	1733034.4616
Y1	15+65.50	-33.00	866383.3781	1733102.8386

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
* Y1	10+97.22	43.53	865910.1672	1733043.1211
Y1	12+09.39	-31.01	866036.9325	1732997.6404
Y1	12+09.68	-45.00	866040.5677	1732984.1302
Y1	12+20.64	-45.00	866051.2098	1732986.7579
Y1	12+20.64	-70.00	866057.2029	1732962.4869
Y1	12+24.48	45.00	866033.3601	1733075.0535
Y1	12+25.41	30.95	866037.6304	1733061.6314
Y1	12+31.30	-70.00	866067.5472	1732965.0411
Y1	12+31.30	-45.00	866061.5542	1732989.3122
* Y1	12+39.44	-33.00	866066.5806	1733002.9137
Y1	12+39.69	-45.00	866069.6993	1732991.3234
Y1	15+75.00	33.32	866362.6229	1733166.5425
Y1	15+75.00	45.00	866357.4149	1733176.9927
Y1	15+82.89	32.37	866369.8458	1733169.1169
Y1	15+85.97	45.00	866366.7294	1733181.7038

MARKER EXCEPTIONS:
 * = SET MAG NAIL
 Δ = NO POINT SET

MARKER EXCEPTIONS:
 * = SET MAG NAIL

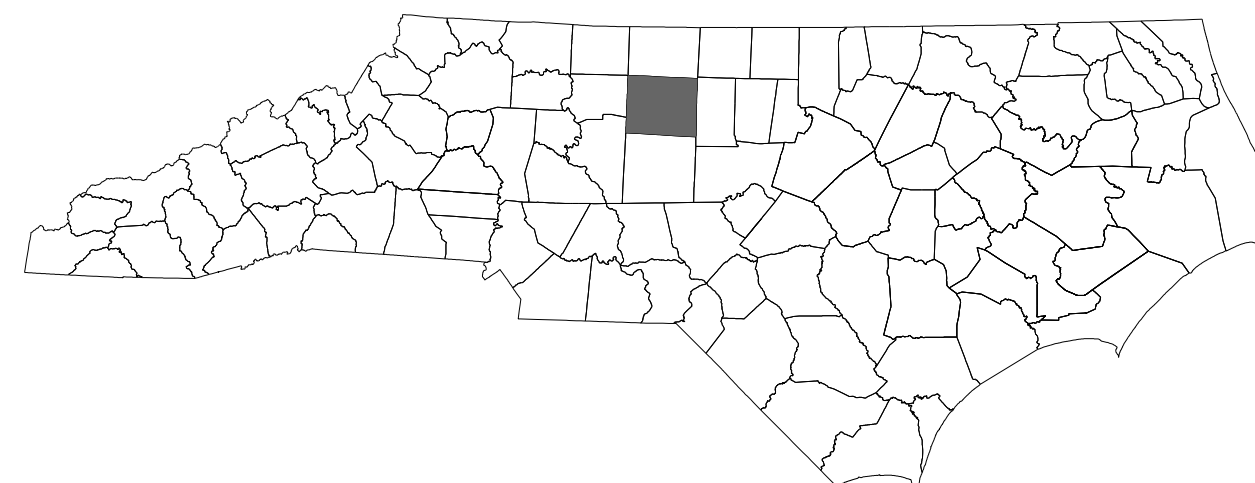
NOTES:

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 07-28-2022 TO 08-29-2022 .

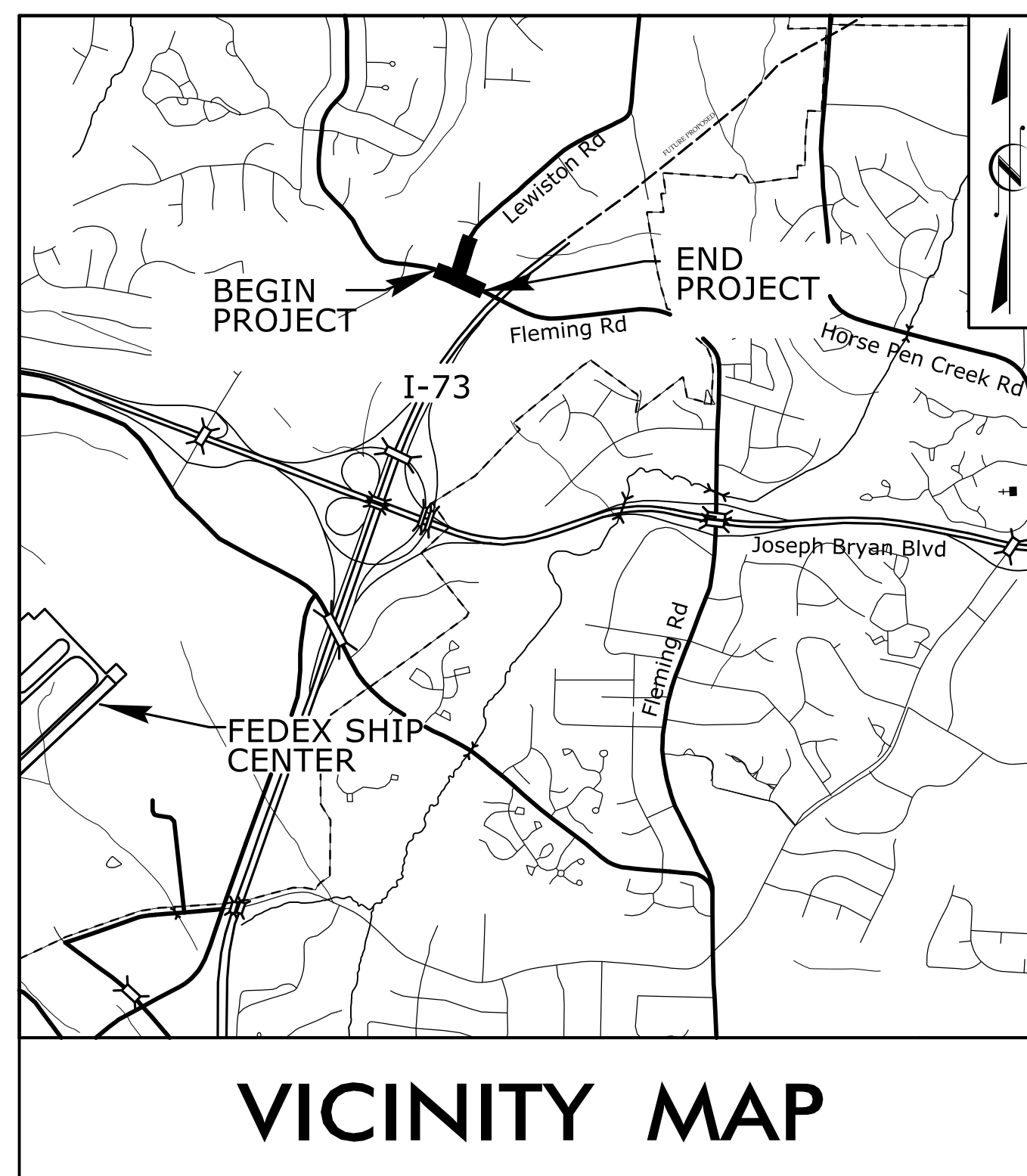
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

GUILFORD COUNTY



**LOCATION: SR 2136 (FLEMING ROAD) AND SR 2124 (LEWISTON RD)
IN GREENSBORO**



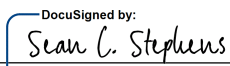
VICINITY MAP

INDEX OF SHEETS

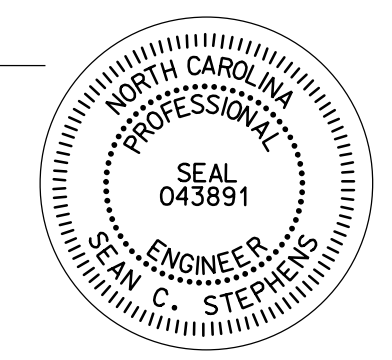
SHEET NO.	TITLE
TMP-1	TITLE SHEET AND INDEX OF SHEETS
TMP-1A	ROADWAY STANDARD DRAWINGS AND LEGEND
TMP-1B	TRANSPORTATION OPERATIONS PLAN
TMP-2	TEMPORARY TRAFFIC CONTROL PHASING NOTES
TMP-3	TEMPORARY TRAFFIC CONTROL PHASE I DETAILS
TMP-4	TEMPORARY TRAFFIC CONTROL PHASE II DETAILS

SHEET NO.
TMP-1

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

APPROVED: 
DATE: 03-07-2024

SEAL

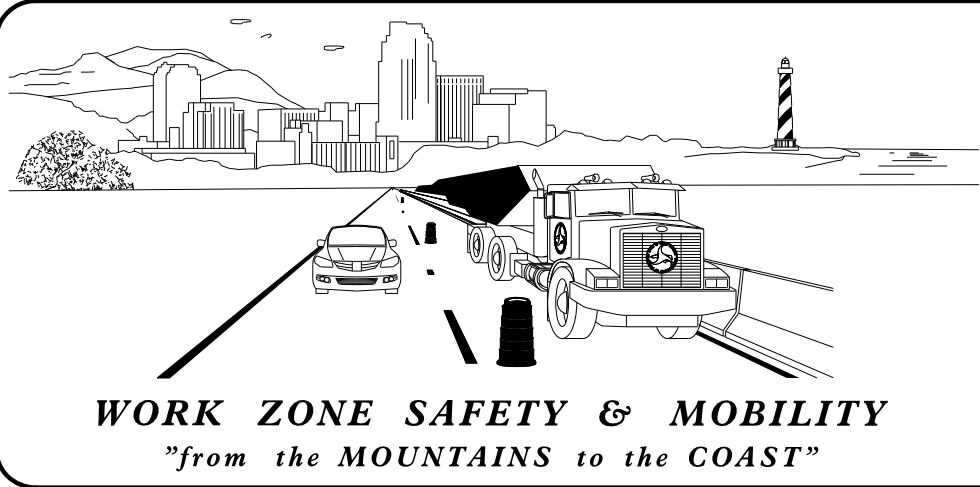


NCDOT CONTACTS:

BRIAN K. KETNER, PE
PROJECT ENGINEER
KEN THORNEWELL JR, PE, PTOE
PROJECT DESIGN ENGINEER

PLANS PREPARED BY:

SEAN C. STEPHENS, PE
TRAFFIC ENGINEER
ASHLEY BOUCHARD, PE
TRANSPORTATION DESIGNER



3/7/2024 R:\TMP\SHEETS\U-6016_RDY_TMP-1.dgn

TIP PROJECT: U-6016



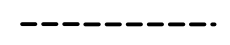
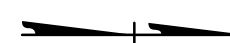



ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - 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
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMPS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS

LEGEND

GENERAL

-  DIRECTION OF TRAFFIC FLOW
-  DIRECTION OF PEDESTRIAN TRAFFIC FLOW
-  EXIST. PVMT.
-  NORTH ARROW
-  PROPOSED PVMT.
-  WORK AREA
-  REMOVAL









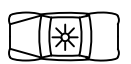

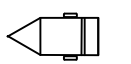
SIGNALS

-  EXISTING
-  PROPOSED


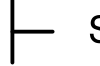

PAVEMENT MARKINGS

-  EXISTING LINES
-  TEMPORARY LINES

TRAFFIC CONTROL DEVICES

-  BARRICADE (TYPE III)
-  CONE
-  DRUM
-  SKINNY DRUM
-  TUBULAR MARKER
-  TEMPORARY CRASH CUSHION
-  FLASHING ARROW BOARD
-  FLAGGER
-  LAW ENFORCEMENT
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING


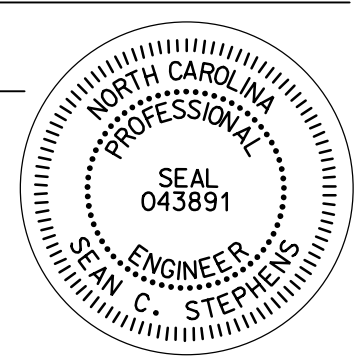
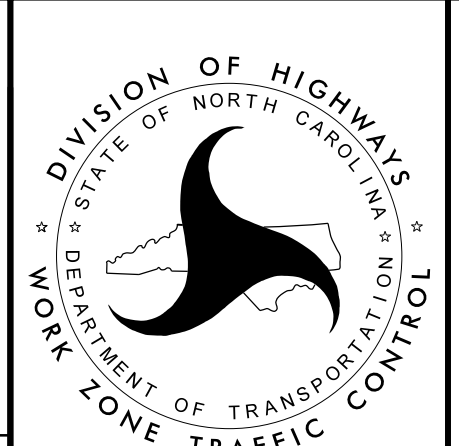
-  PORTABLE SIGN
-  STATIONARY SIGN
-  STATIONARY OR PORTABLE SIGN

PAVEMENT MARKING SYMBOLS

-  PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

- PAINT (4")
- P1 WHITE SOLID EDGE LINE
- P13 YELLOW DOUBLE CENTERLINE
- PAINT (24")
- P61 WHITE STOPBAR

APPROVED:  DATE: 03-07-2024 SEAL 		ROADWAY STANDARD DRAWINGS & LEGEND
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

MANAGEMENT STRATEGIES

WHERE TRAFFIC IS AFFECTED, A COMBINATION OF LANE CLOSURES AND FLAGGERS WILL BE NECESSARY.

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRE OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

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.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
ALL ROADS	MONDAY 6:00 A.M. THRU FRIDAY 9:00 A.M. MONDAY 4:00 P.M. THRU FRIDAY 6:00 P.M.

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME

ALL ROADS

HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 6:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 6:00 P.M. THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 6:00 P.M. MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 6:00 P.M. TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 6:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 6:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 6:00 P.M. TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 6:00 P.M. MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

C) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

D) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

H) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

PAVEMENT EDGE DROP OFF REQUIREMENTS

I) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

J) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 350 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

K) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

L) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

M) PROVIDE SIGNING AND DEVICES REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONRTOL PLANS.

N) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

PROJ. REFERENCE NO.	SHEET NO.
U-6016	TMP-1B



TRAFFIC CONTROL DEVICES

O) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130.01 (DRUMS), 1135.01 (CONES) AND 1180.01 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

PAVEMENT MARKINGS AND MARKERS

P) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
ALL ROADS	PAINT	NONE

MISCELLANEOUS

Q) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

R) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 200 FT AND 400 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

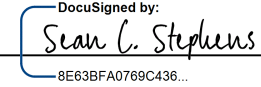
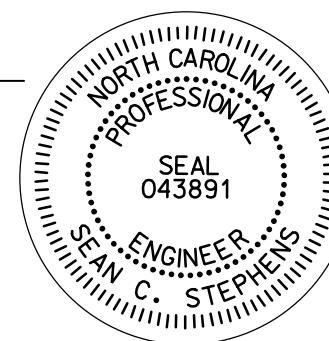
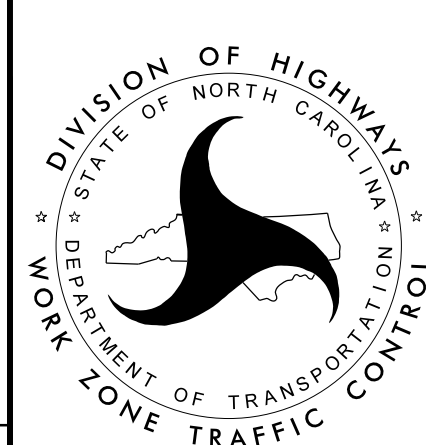
S) ALL CURB RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE SIGNING AND DELINEATION UNIT.

T) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY SIDEWALKS (CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER) AT ALL LOCATIONS WHERE THE OPEN PEDESTRIAN TRAVELWAY HAS BEEN REMOVED FOR CONSTRUCTION OPERATIONS (UTILITIES, DRAINAGE, ETC.).

LOCAL NOTES

U) NOTIFY GUILFORD COUNTY EMERGENCY SERVICES AT (336)641-7565 TO MAKE NECESSARY REASSIGNMENTS TO PRIMARY RESPONSE UNITS AND GUILFORD COUNTY PUBLIC SCHOOLS AT (336) 370-8100 TO REROUTE SCHOOL BUSES AT LEAST THIRTY DAYS PRIOR TO ROAD CLOSURE.

4/16/2024
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APPROVED:  4/17/2024 DATE: 04-17-2024 SEAL 		PROJECT NOTES
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

PROJ. REFERENCE NO.	SHEET NO.
U-6016	TMP-2



PHASING NOTES

NOTE:

CONTRACTOR SHALL MAINTAIN ACCESS TO DRIVEWAYS FOR ALL PHASES WITHIN THE PROJECT LIMITS AND COORDINATE AS NECESSARY WITH PROPERTY OWNERS.

THE CONTRACTOR MUST RETURN TRAFFIC TO THE EXISTING TRAFFIC PATTERN AT THE END OF EACH DAY UNLESS OTHERWISE NOTED IN THE PHASING BELOW OR DIRECTED BY THE ENGINEER

CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE ENGINEER.

COMPLETE ANY PROPOSED WIDENING IN SUCH A MANNER THAT PONDING OF THE WATER WILL NOT OCCUR IN THE TRAVEL LANE. THIS MAY REQUIRE INSTALLATION OF PROPOSED PIPES, TEMPORARY PIPES, STEEL PLATES, AND TEMPORARY DITCHES.

PHASE I

REFER TO TMP-3

STEP 1

INSTALL WORK ZONE ADVANCE WARNING SIGNS ON ALL ROADWAYS WITHIN THE PROJECT LIMITS IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 1101.01, SHEET 1 THRU 3.

STEP 2

USING TEMPORARY LANE CLOSURES AND FLAGGERS AS NECESSARY TO MAINTAIN TRAFFIC IN ACCORDANCE WITH RSD 1101.02 CONSTRUCT ALL ROADWAY WIDENING AND DRAINAGE STRUCTURES ALONG THE LEFT SIDE OF -Y1- (LEWISTON RD) AND -L- (FLEMING RD) UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE.

STEP 3

CONSTRUCT THE REALIGNED DRIVEWAY ACCESS (-DW-) NEAR THE INTERSECTION AS SHOWN IN TMP-4. MAINTAIN INGRESS/EGRESS FOR DELIVERIES AT ALL TIMES.

PHASE II

REFER TO TMP-4

STEP 1

USING TEMPORARY LANE CLOSURES AND FLAGGERS AS NECESSARY TO MAINTAIN TRAFFIC IN ACCORDANCE WITH RSD 1101.02 CONSTRUCT PAVEMENT WEDGING ALONG -Y1- (LEWISTON RD) UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE. PLACE TEMP PAVEMENT MARKING IN ORDER TO SHIFT TRAFFIC TO THE NEWLY CONSTRUCTED ROADWAY WIDENING SECTION.

STEP 2

UTILIZING THE LEFT TURN LANE INTO THE DOLLAR GENERAL PARKING LOT ALONG -Y1- (LEWISTON RD.) USING RSD 1101.02 SHEET 1 OF 19 AND DRUMS TEMPORARILY SHIFT TRAFFIC TO CLOSE THE NORTHBOUND LANE -Y1- (LEWISTON RD). CONSTRUCT ALL ROADWAY WIDENING AND DRAINAGE STRUCTURES ALONG THE RIGHT SIDE UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE.

STEP 3

UTILIZING THE LEFT TURN LANES ALONG -L- (FLEMING RD.) USING RSD 1101.02 SHEET 1 OF 19 AND TEMPORARILY SHIFT TRAFFIC TO CLOSE THE WESTBOUND THRU LANE OF -L- (FLEMING RD.). CONSTRUCT ALL ROADWAY WIDENING AND DRAINAGE STRUCTURES ALONG THE LEFT SIDE UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE. INSTALL THE TRAFFIC SIGNAL UPGRADE AT INTERSECTION OF -L- / -Y1-.

PHASE III

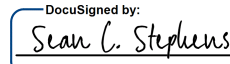
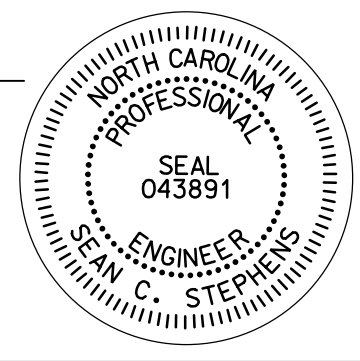
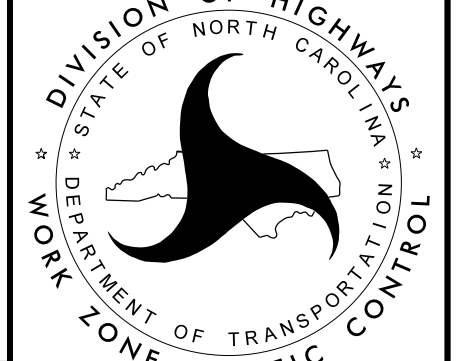
STEP 1

USING TEMPORARY LANE CLOSURES, FLAGGERS AND LAW ENFORCEMENT AS NECESSARY TO MAINTAIN TRAFFIC IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 1101.02 SHEET 1 AND 2 OF 19 PLACE THE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS ALONG BOTH -L- (FLEMING RD.) AND -Y1- (LEWISTON RD.), THEN ACTIVATE THE TRAFFIC SIGNAL UPGRADE AT INTERSECTION OF -L- AND -Y1-. SHIFT TRAFFIC INTO FINAL PATTERN.

STEP 2

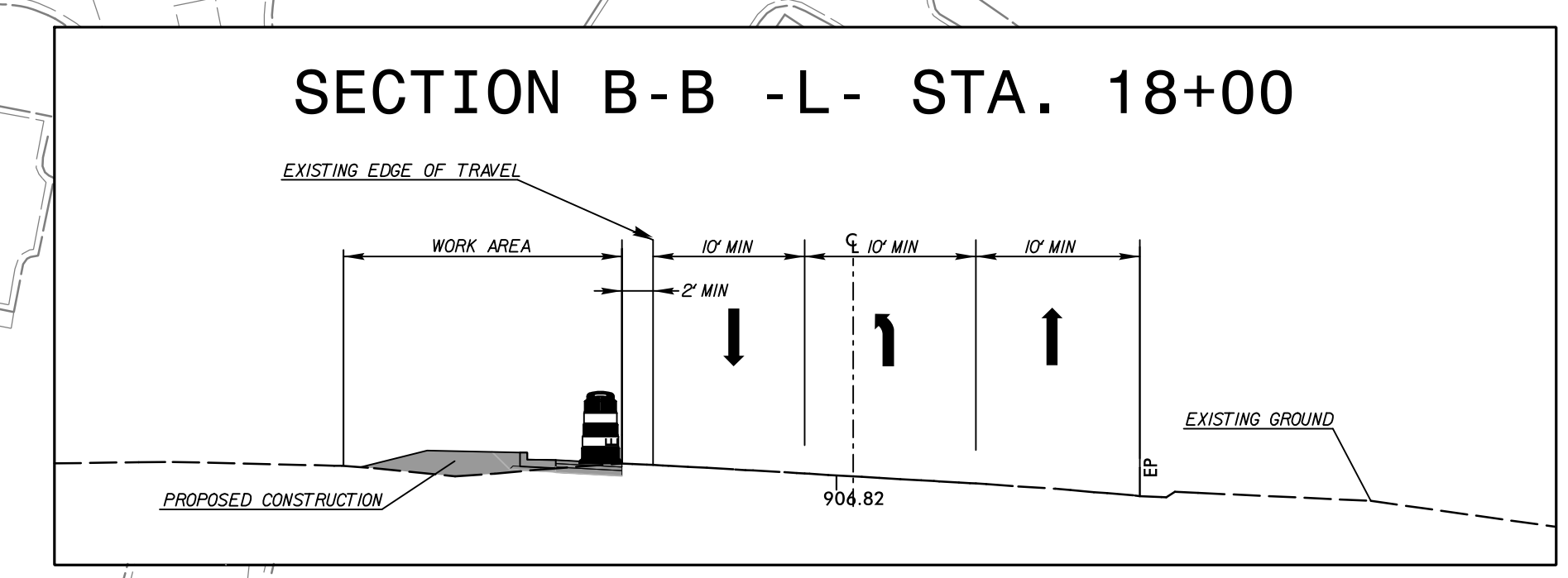
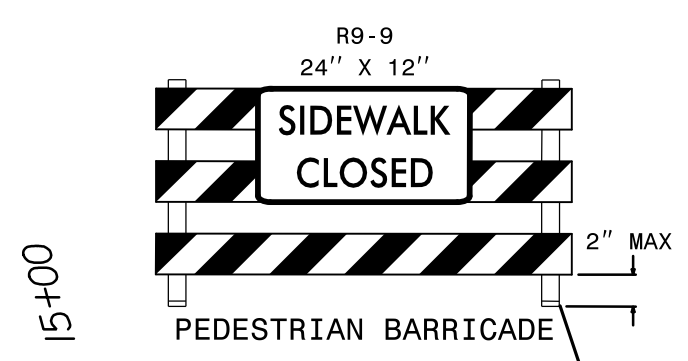
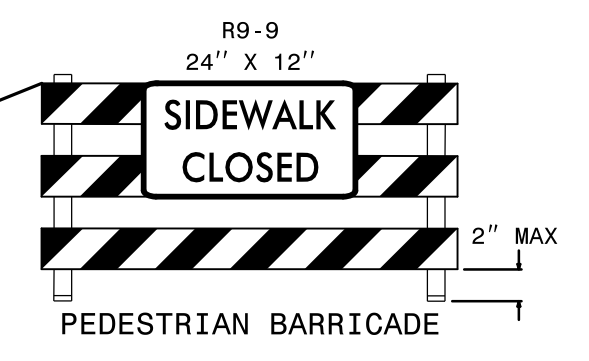
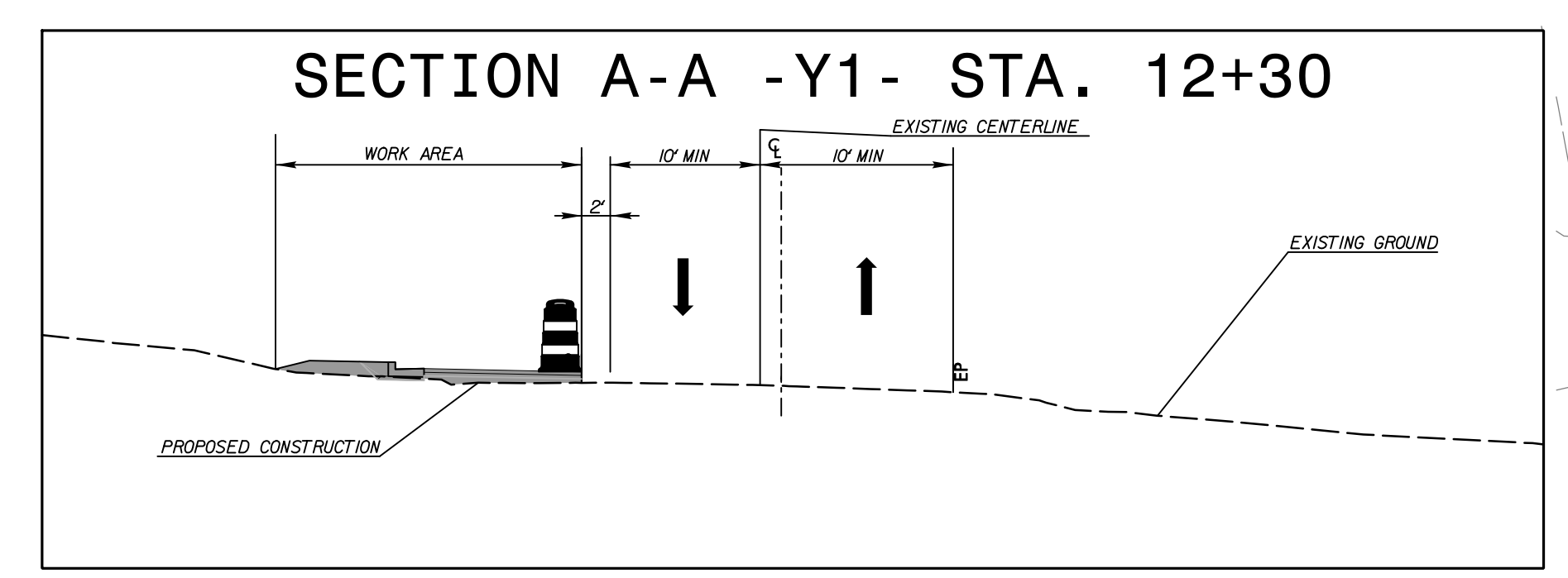
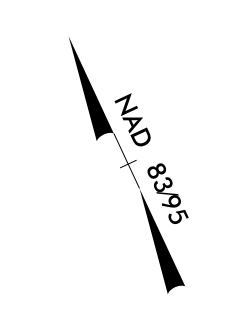
REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES.

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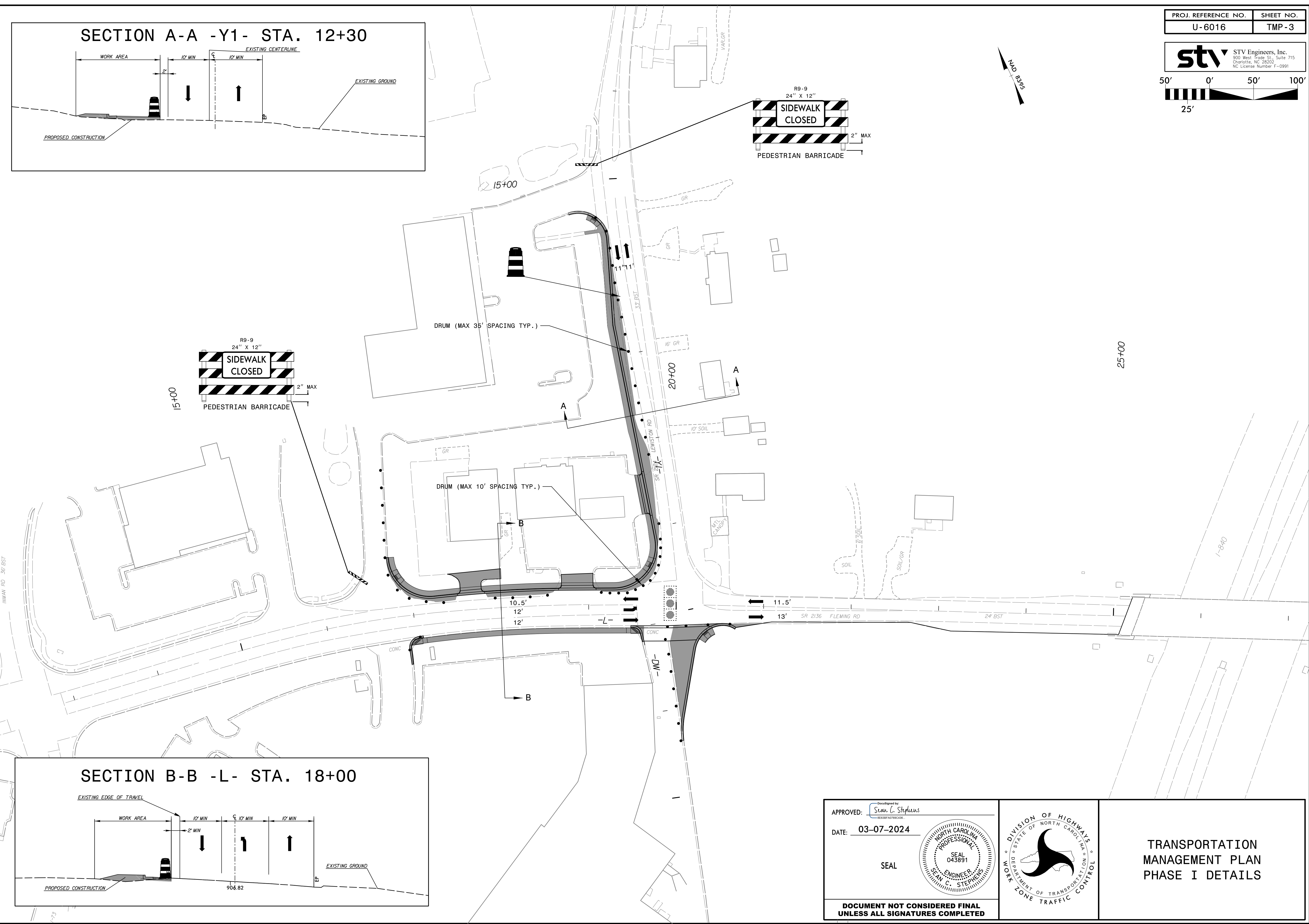
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PROJ. REFERENCE NO.	SHEET NO.
U-6016	TMP-3

stv STV Engineers, Inc.
 900 West Trade St., Suite 715
 Charlotte, NC 28202
 NC License Number F-0991

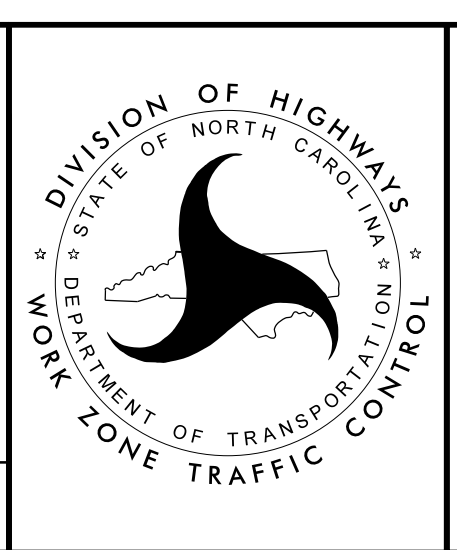


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 STV ENGINEERS, INC.



APPROVED: *Sean C. Stephens*
 DATE: 03-07-2024

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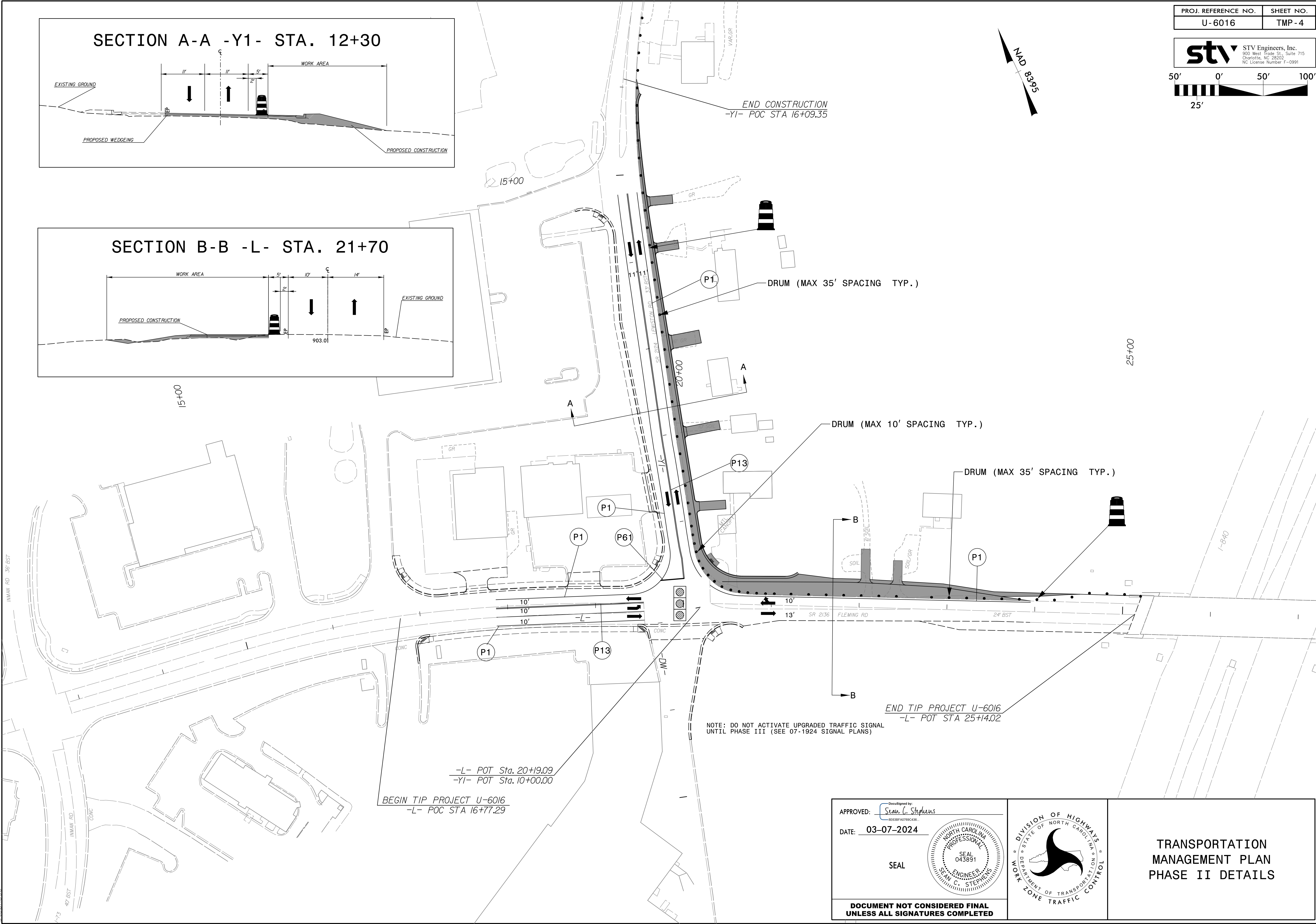
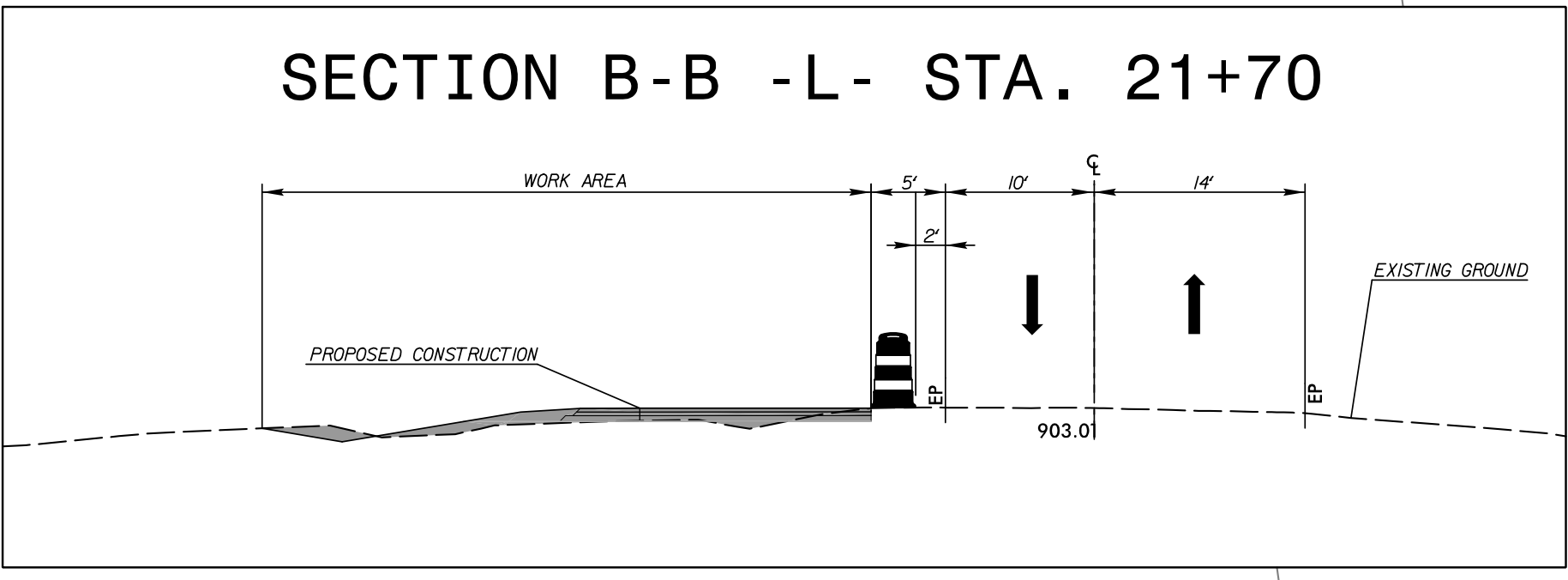
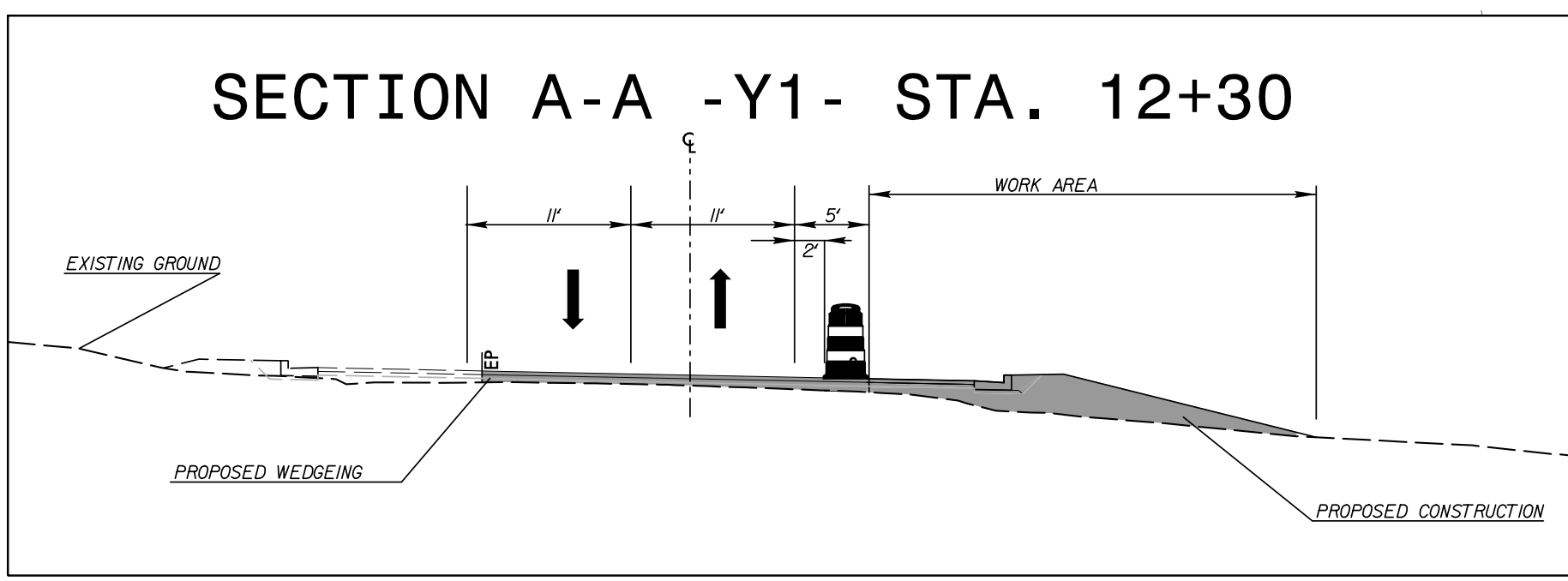
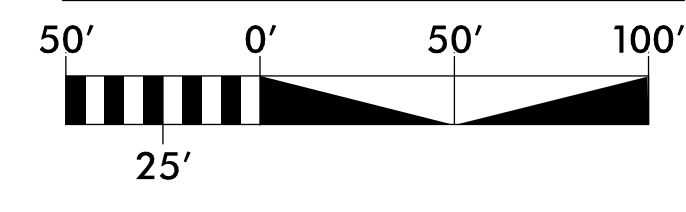


**TRANSPORTATION
 MANAGEMENT PLAN
 PHASE I DETAILS**

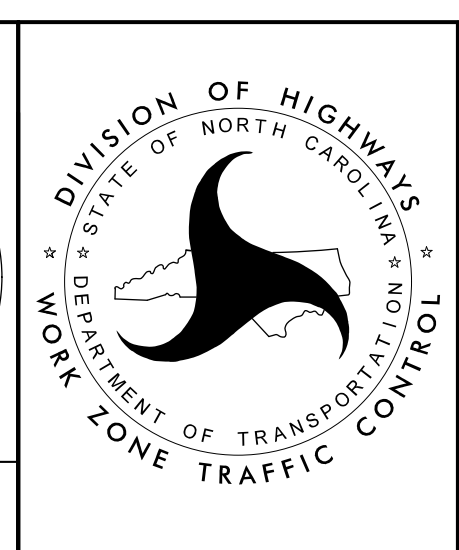
**DOCUMENT NOT CONSIDERED FINAL
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PROJ. REFERENCE NO.	SHEET NO.
U-6016	TMP-4

stv STV Engineers, Inc.
 900 West Trade St., Suite 715
 Charlotte, NC 28202
 NC License Number F-0991



APPROVED: *Sean C. Stephens*
 DATE: 03-07-2024
 SEAL



**TRANSPORTATION
 MANAGEMENT PLAN
 PHASE II DETAILS**

3/11/2024
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TIP PROJECT: U-6016

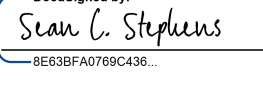
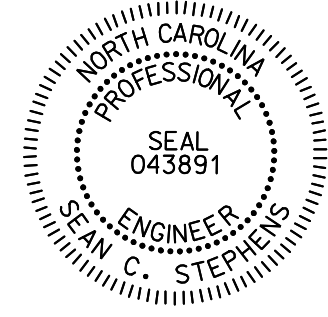
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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
GUILFORD COUNTY

LOCATION: SR 2136 (FLEMING ROAD) AND SR 2124 (LEWISTON ROAD) IN GREENSBORO

TIP NO.	SHEET NO.
U-6016	PMP-1
APPROVED: 	
DATE: 03-07-2024	
SEAL	
	
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INDEX

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

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
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1253.01	RAISED PAVEMENT MARKERS - SNOWPLOWABLE

PAVEMENT MARKING SCHEDULE

PAVEMENT MARKINGS		PAVEMENT MARKINGS	
THERMOPLASTIC (4", 90 MILS)		THERMOPLASTIC PAVEMENT MARKING SYMBOLS (90 MILS)	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
T1	WHITE EDGE LINE	T70	LEFT TURN ARROW
T2	WHITE SOLID LANE LINE	T71	RIGHT TURN ARROW
T4	3 FT. - 9 FT. / SP WHITE MINISKIP	T72	STRAIGHT ARROW
T11	YELLOW SINGLE CENTER	T73	COMBO. LEFT/STRAIGHT ARROW
T12	10FT. YELLOW SKIP		
T13	YELLOW DOUBLE CENTER	THERMOPLASTIC (24", 90 MILS)	
THERMOPLASTIC (8", 90 MILS)		SYMBOL	DESCRIPTION
T42	YELLOW DIAGONAL	T61	WHITE STOPBAR
T46	WHITE CROSSWALK LINE		

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	MARKER
SR 2136 (FLEMING RD)	THERMOPLASTIC	SNOWPLOWABLE
SR 2124 (LEWISTON RD)	THERMOPLASTIC	SNOWPLOWABLE
- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.
- D) PASSING ZONES WILL BE DETERMINED IN THE FIELD AND MUST BE APPROVED BY THE ENGINEER.
- E) STOP BAR LOCATION AT NON-SIGNALIZED INTERSECTIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
- F) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.

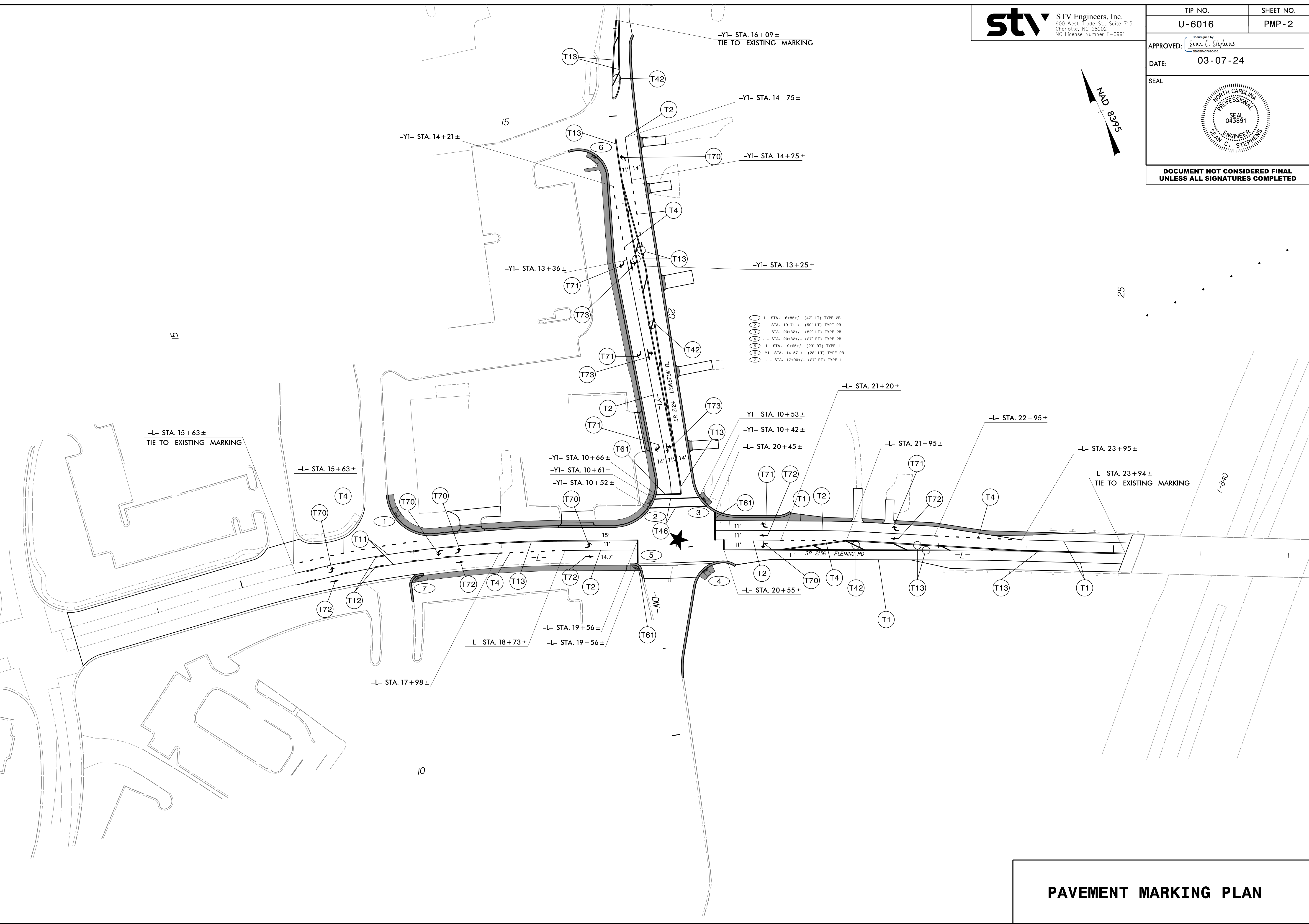
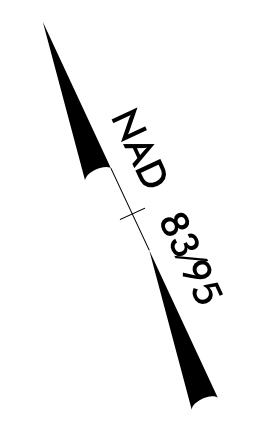
PLAN PREPARED BY:
STV Engineers, Inc.

<u>SEAN C. STEPHENS, PE</u>	TRAFFIC ENGINEER
<u>ASHLEY BOUCHARD, PE</u>	TRANSPORTATION DESIGNER



STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

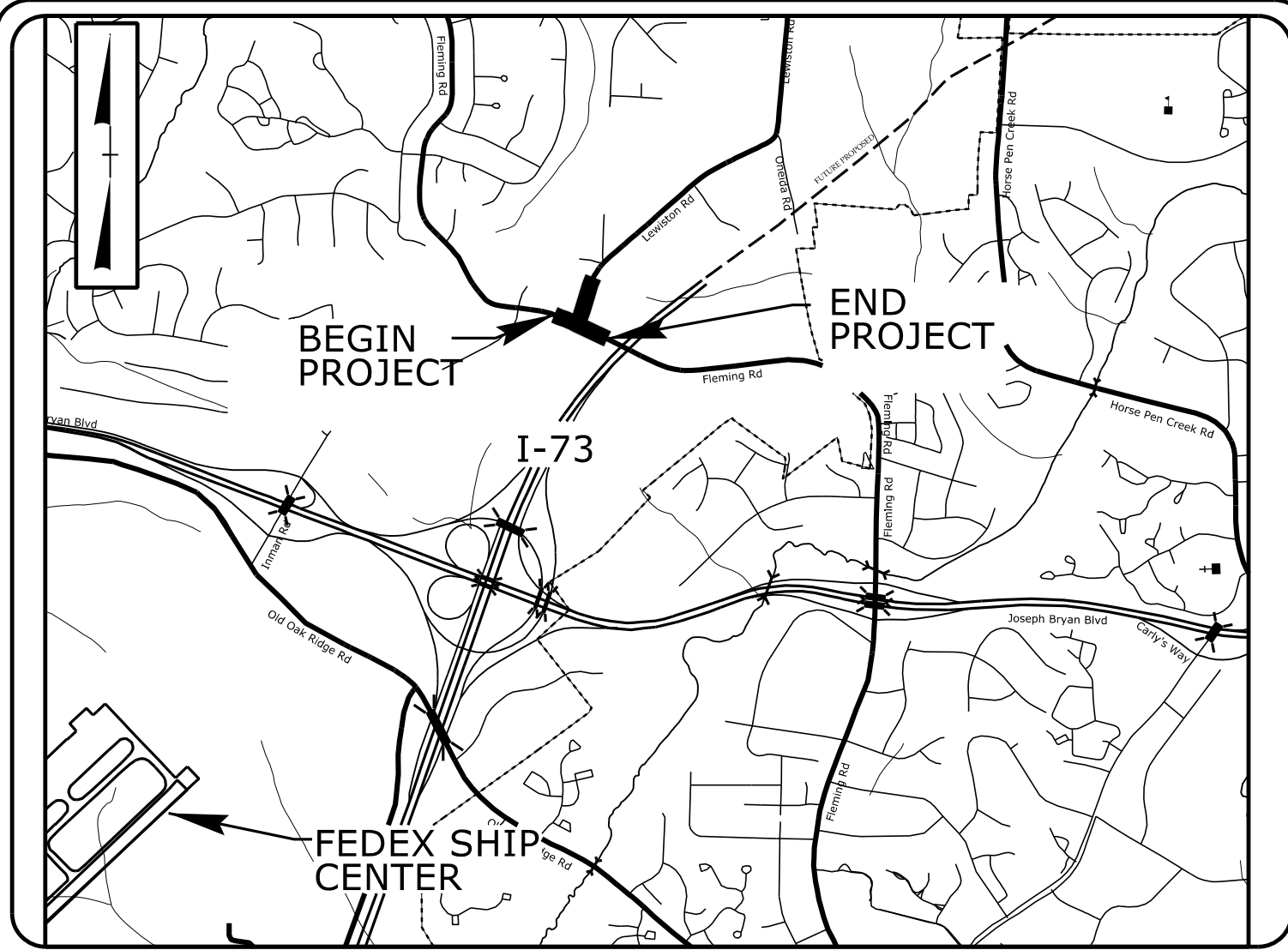
TIP NO. U-6016	SHEET NO. PMP-2
APPROVED: <i>Sean C. Stephens</i> <small>REGISTERED PROFESSIONAL ENGINEER</small>	
DATE: 03-07-24	
SEAL 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



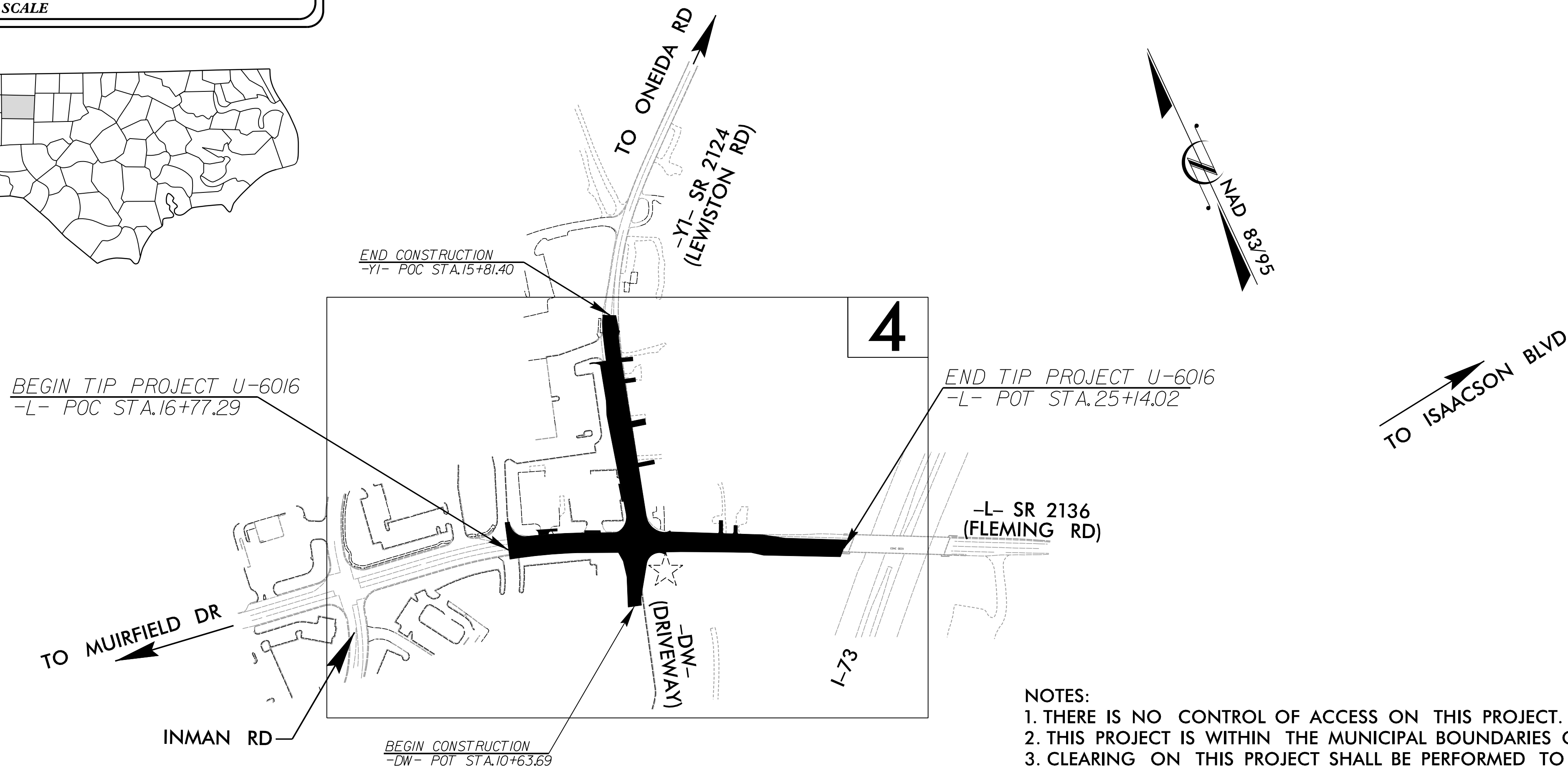
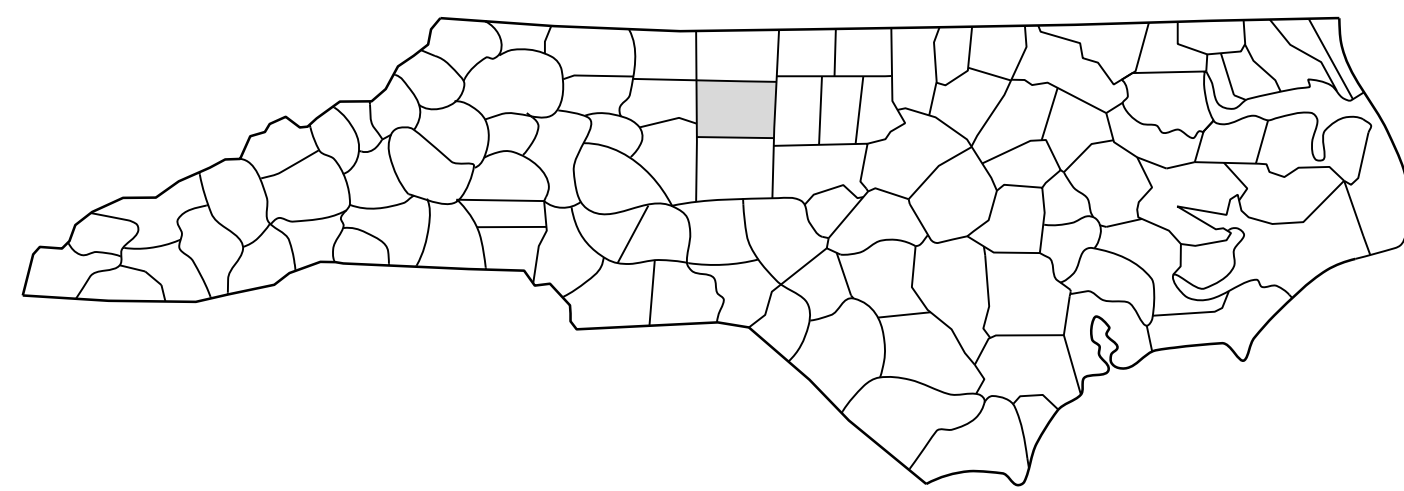
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Stephesc

PAVEMENT MARKING PLAN

TIP PROJECT: U-6016



VICINITY MAP
NOT TO SCALE



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

- NOTES:
1. THERE IS NO CONTROL OF ACCESS ON THIS PROJECT.
 2. THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF GREENSBORO.
 3. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

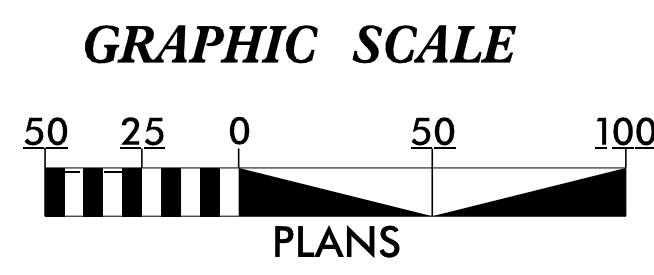
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

GUILFORD COUNTY

**LOCATION: SR 2136 (FLEMING RD) AND SR 2124 (LEWISTON RD)
IN GREENSBORO**

TYPE OF WORK: GRADING, PAVING, & DRAINAGE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-6016	EC-1	7
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
47161.1.1		P.E.	



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:
NVS
8514 MCALPINE PARK DRIVE, SUITE 135
CHARLOTTE, NC 28211

2024 STANDARD SPECIFICATIONS

Designed by:
Will J. Weathersbee, P.E. **3161**
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

The "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2024 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

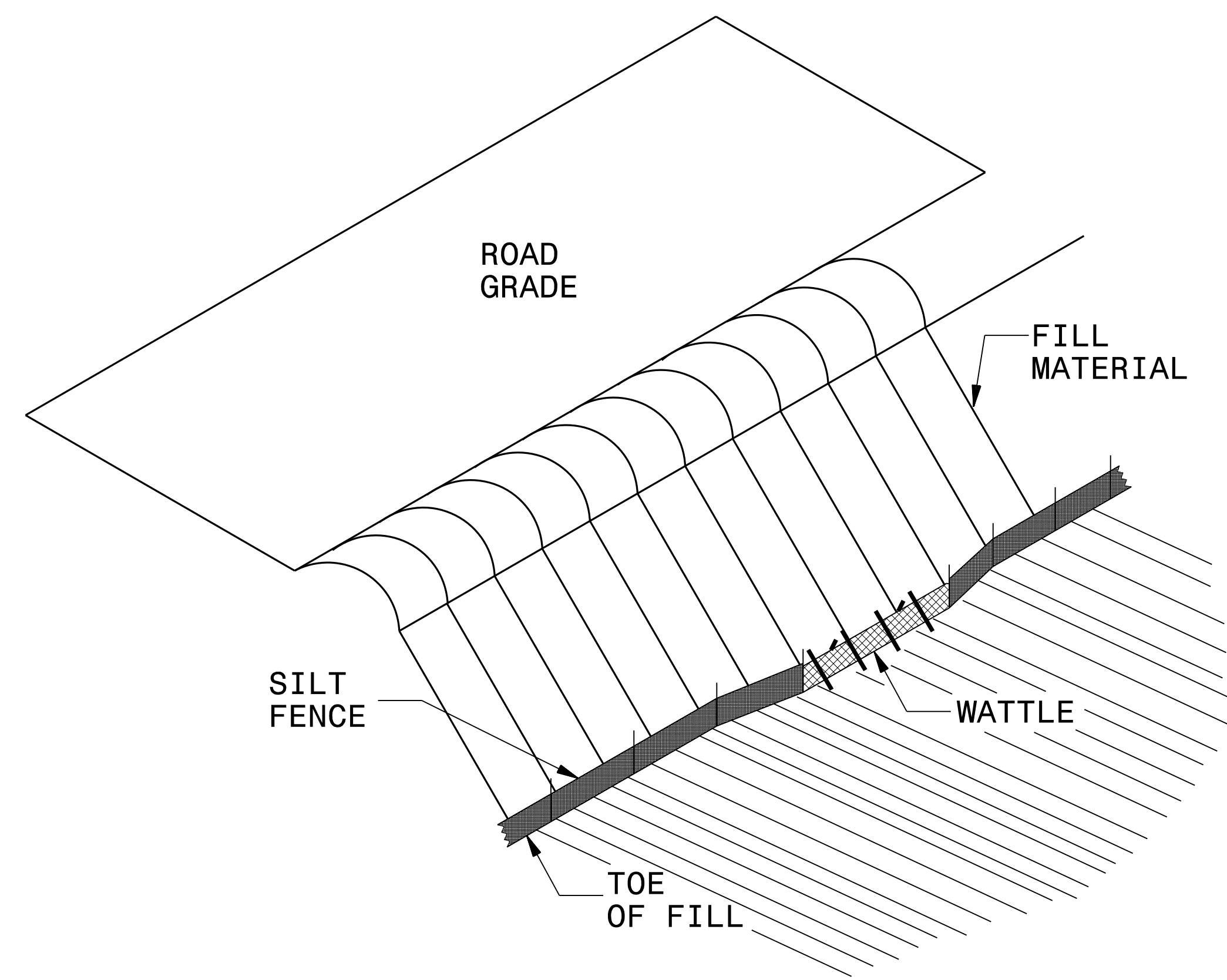
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DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

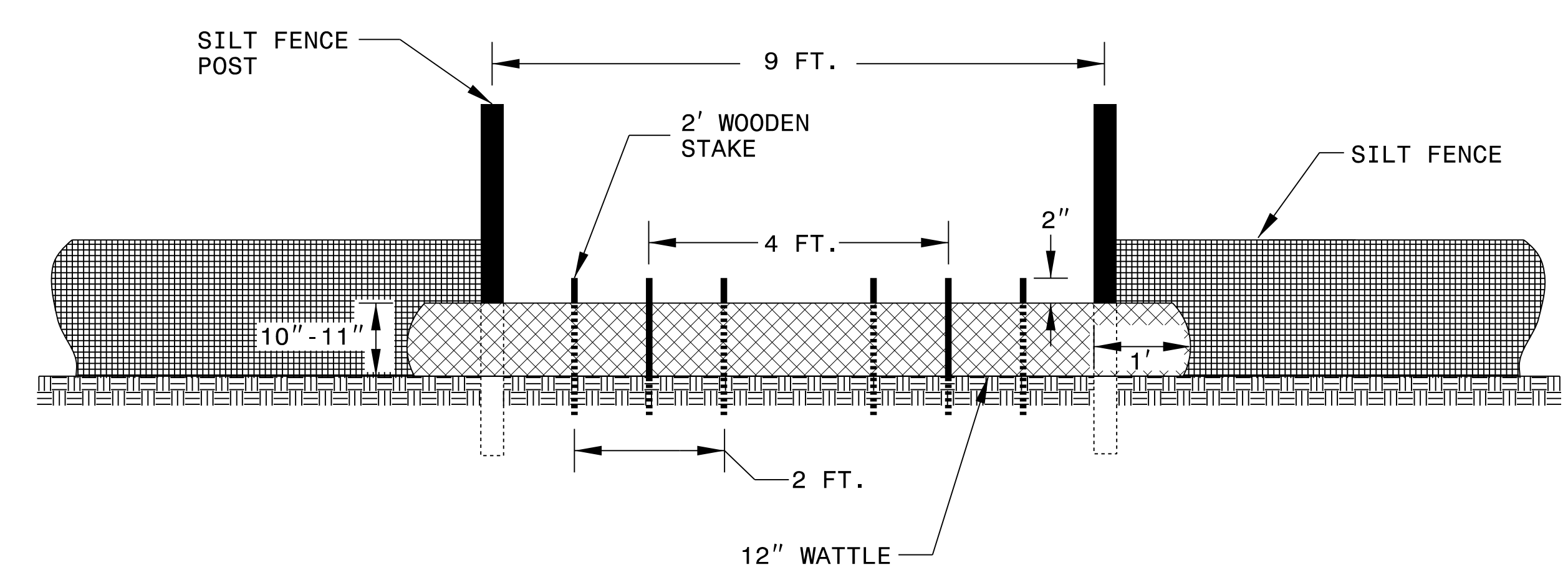
EROSION & SEDIMENT CONTROL LEGEND

<u>Std. #</u>	<u>Description</u>	<u>Symbol</u>	<u>Std. #</u>	<u>Description</u>	<u>Symbol</u>
1605.01	Temporary Silt Fence		1633.01	Temporary Rock Silt Check Type A	
1606.01	Special Sediment Control Fence		1633.02	Temporary Rock Silt Check Type B	
1622.01	Temporary Berms and Slope Drains		1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
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		1636.01	Excelsior Wattle Check	
1630.07	Skimmer Basin		1636.01	Excelsior Wattle Check with Flocculant	
1630.08	Tiered Skimmer Basin		1636.01	Coir Fiber Wattle Check	
1630.09	Earthen Dam with Skimmer		1636.01	Coir Fiber Wattle Check with Flocculant	
	Infiltration Basin		1636.02	Silt Fence Excelsior Wattle Break	
	Rock Inlet Sediment Trap:			Silt Fence Coir Fiber Wattle Break	
1632.01	Type A		1636.02	Silt Fence Excelsior Wattle Break	
1632.02	Type B		1636.03	Excelsior Wattle Barrier	
1632.03	Type C		1636.03	Coir Fiber Wattle Barrier	

SILT FENCE COIR FIBER WATTLE BREAK DETAIL



ISOMETRIC VIEW

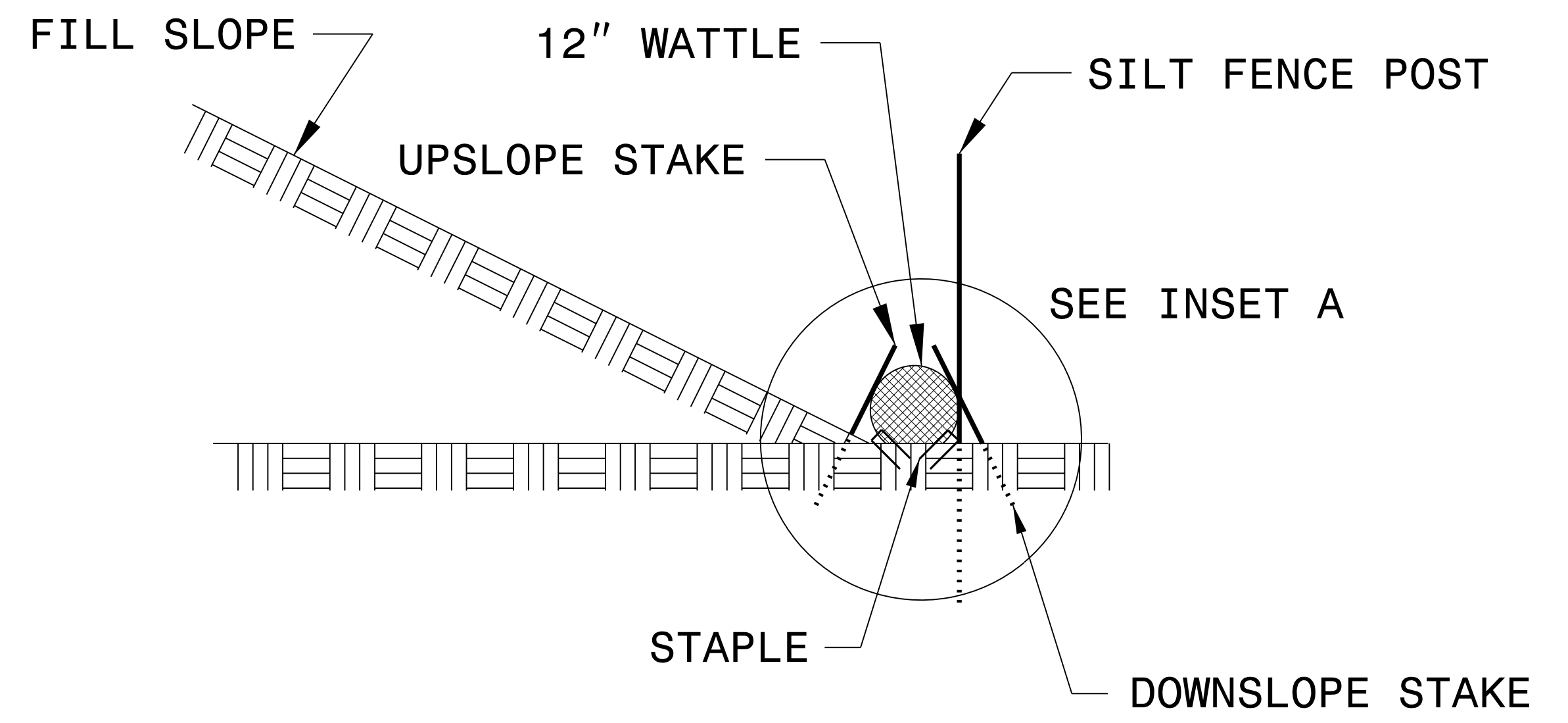
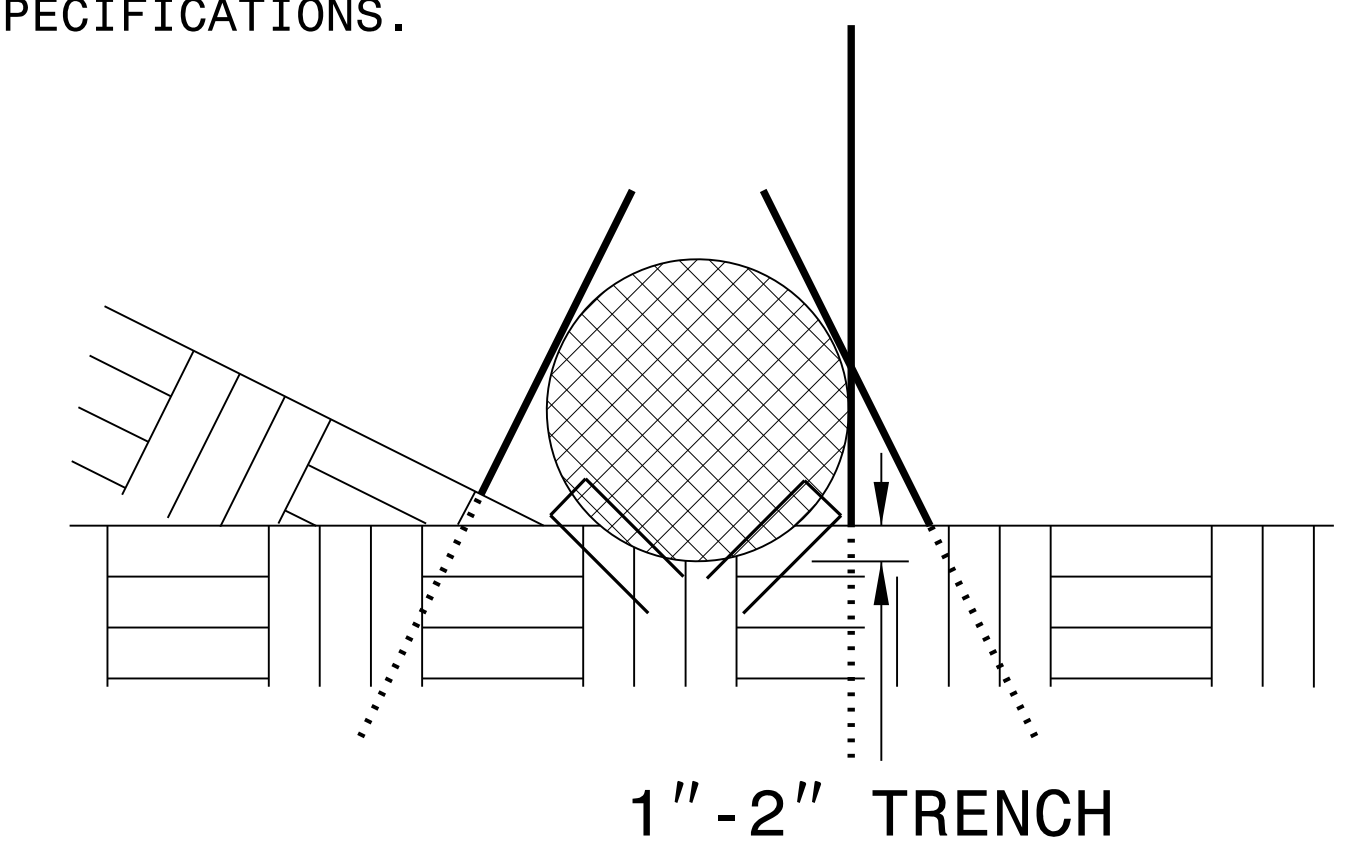


VIEW FROM SLOPE

NOTES:

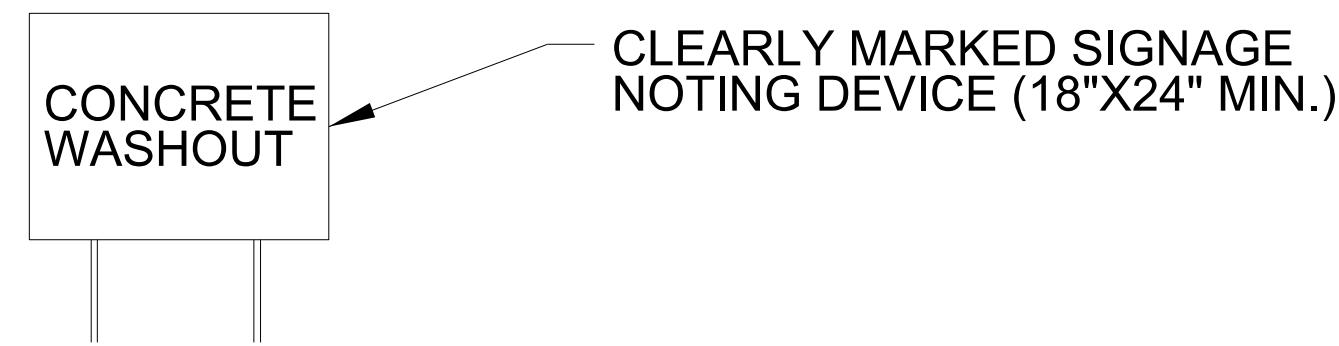
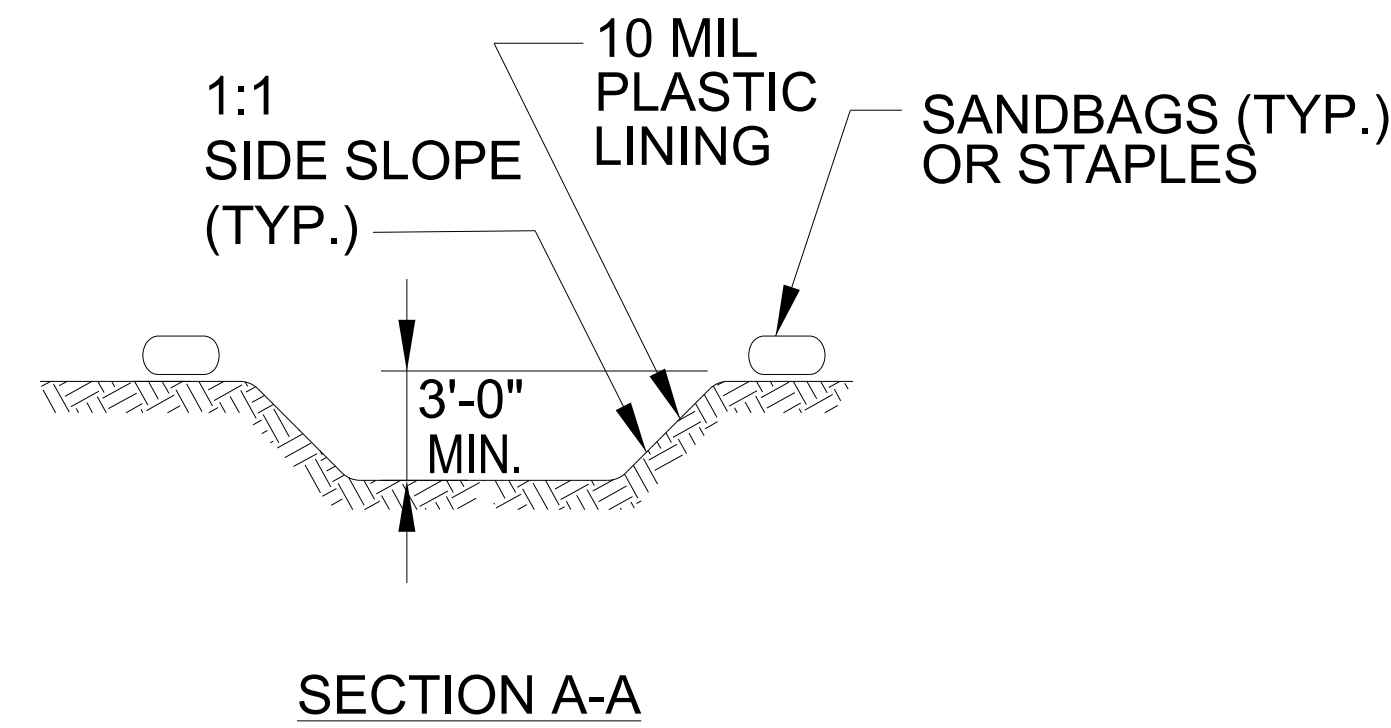
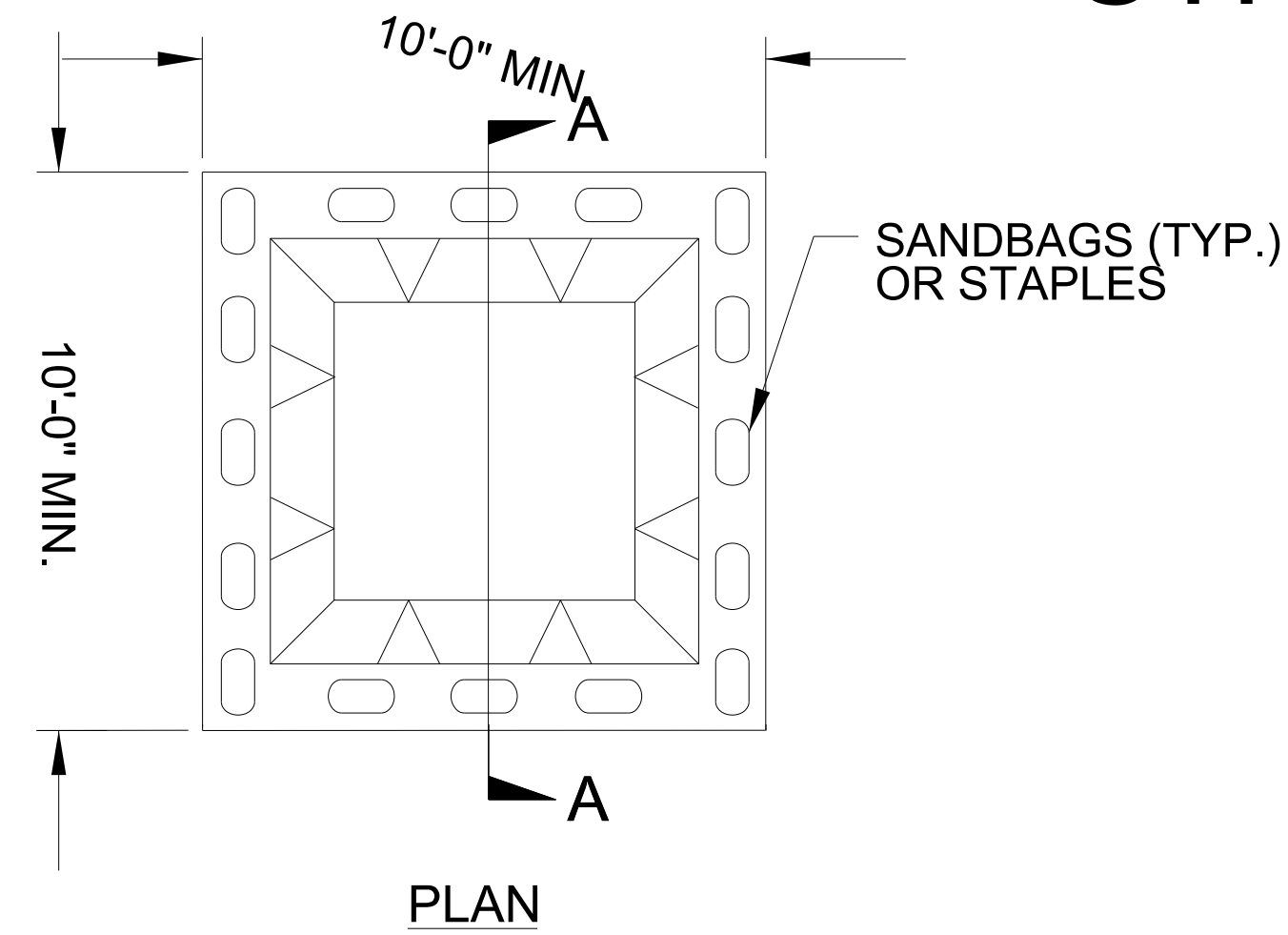
- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.
- EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.
- DO NOT PLACE WATTLE ON TOE OF SLOPE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.
- INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

INSET A



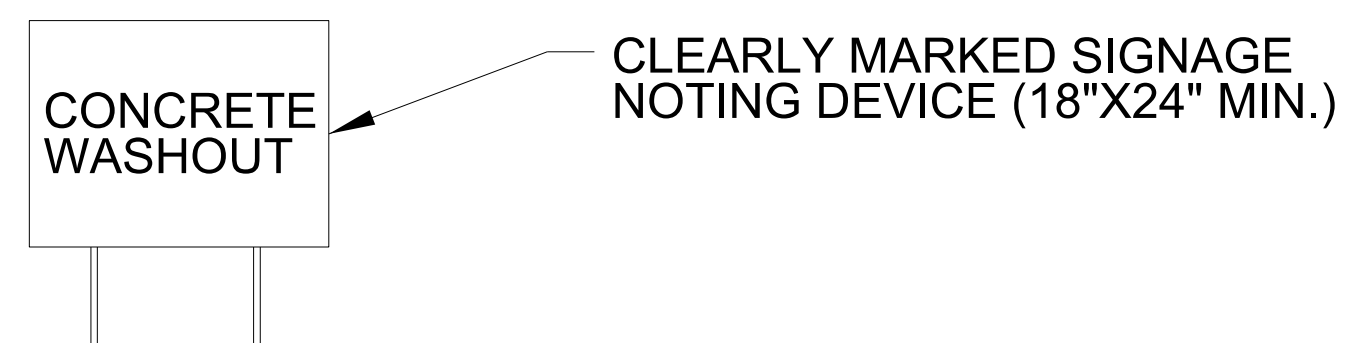
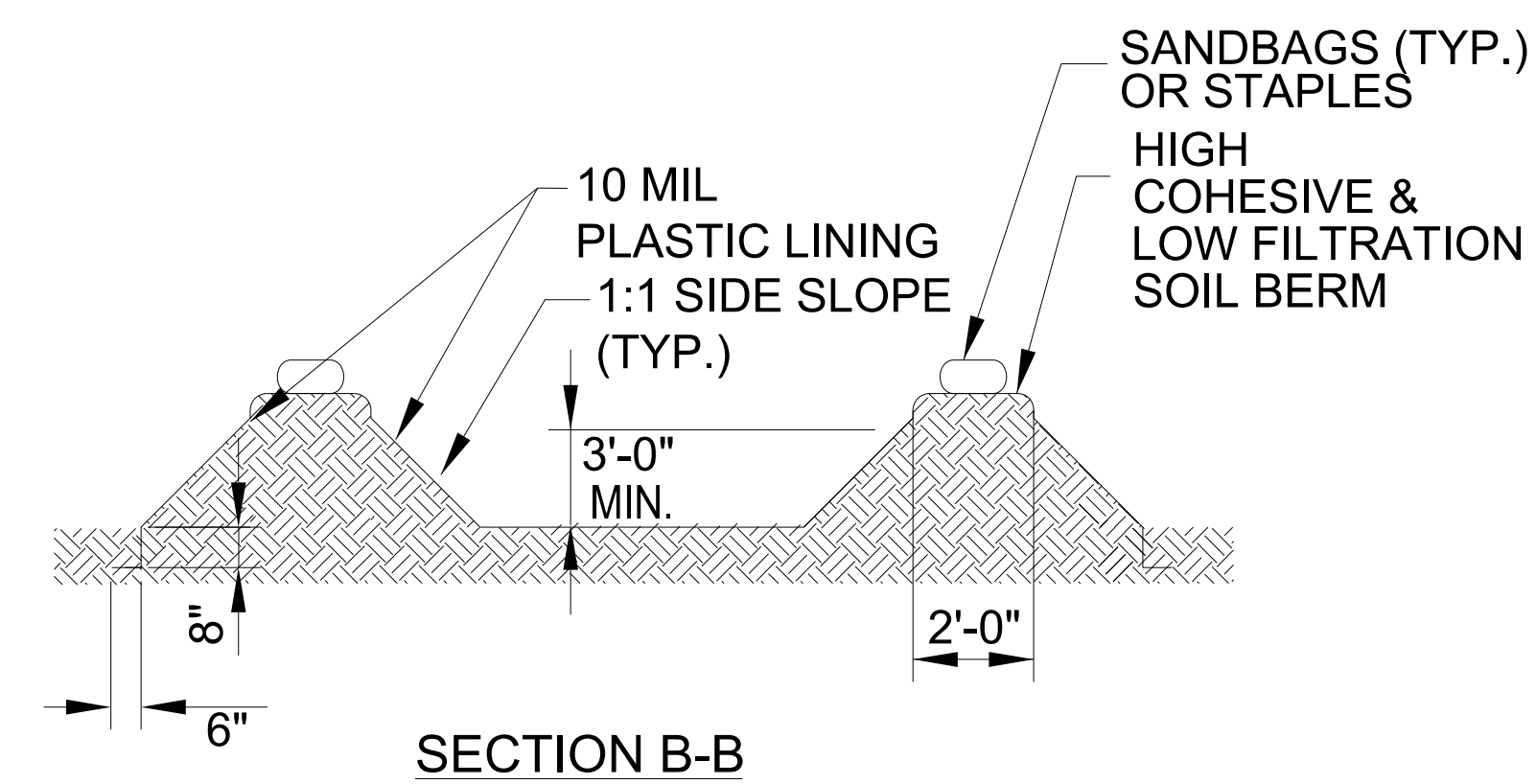
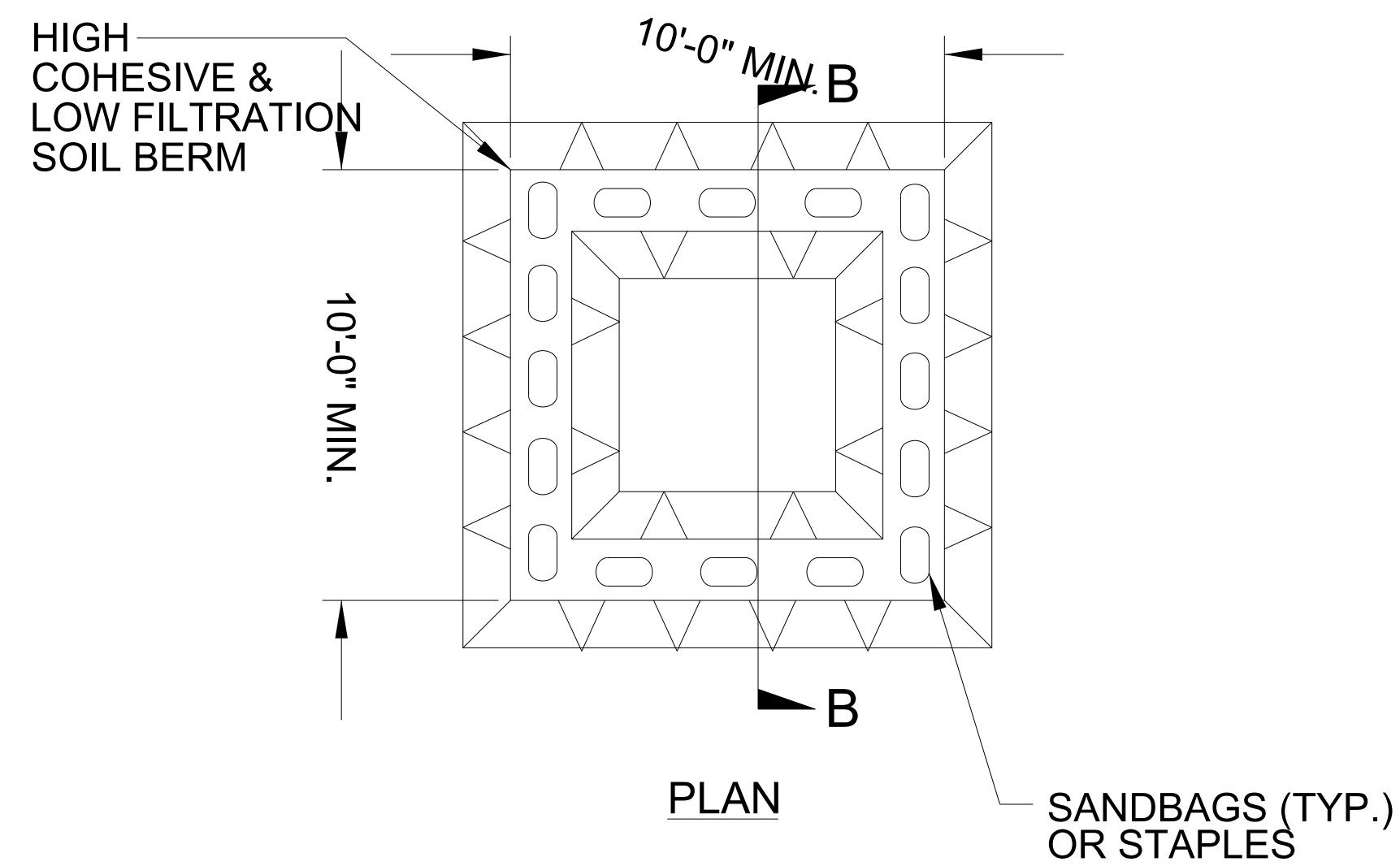
SIDE VIEW

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:**
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.



ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:**
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

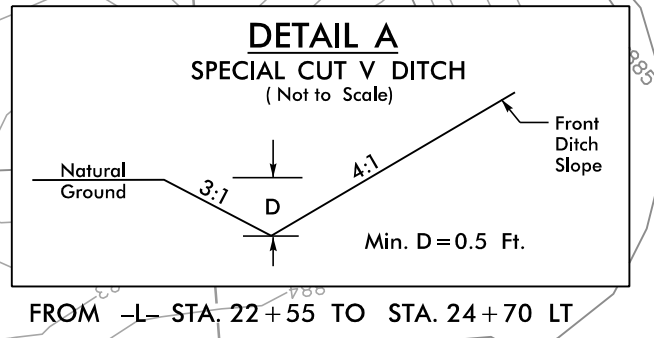
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES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

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

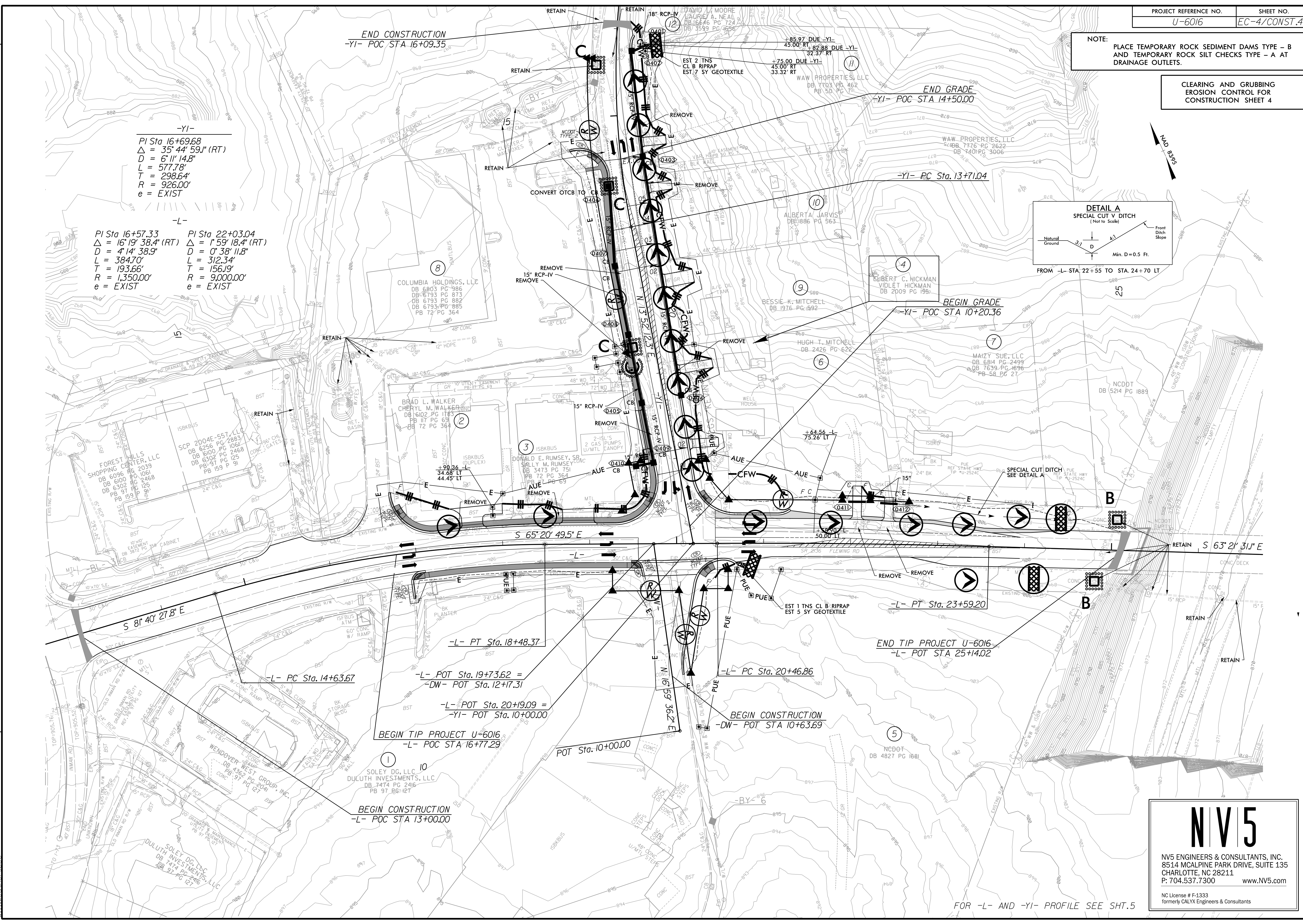
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4

-YI-
 PI Sta 16+69.68
 $\Delta = 35^{\circ} 44' 59.1''$ (RT)
 D = 6' 11" 14.8"
 L = 577.78'
 T = 298.64'
 R = 926.00'
 e = EXIST

-L-
 PI Sta 16+57.33 PI Sta 22+03.04
 $\Delta = 16^{\circ} 19' 38.4''$ (RT) $\Delta = 1^{\circ} 59' 18.4''$ (RT)
 D = 4' 14" 38.9" D = 0' 38" 11.8"
 L = 384.70' L = 312.34'
 T = 193.66' T = 156.19'
 R = 1,350.00' R = 9,000.00'
 e = EXIST e = EXIST



REVISIONS
 3/5/2024 R:\Environmental\Design\U-6016-EC-4-C&G.dgn
 8/17/99
 M:\weather\ba



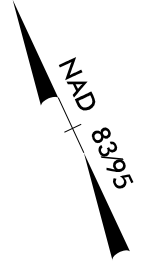
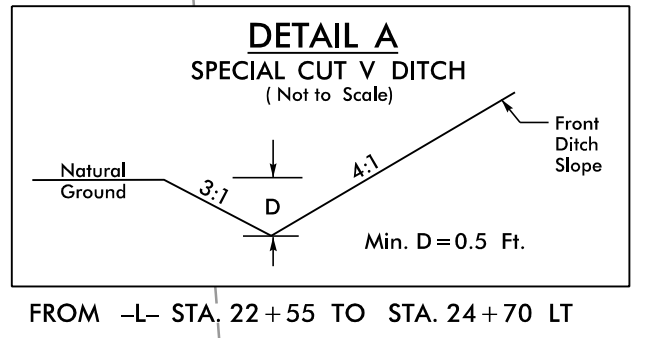
NV5
 NV5 ENGINEERS & CONSULTANTS, INC.
 8514 MCALPINE PARK DRIVE, SUITE 135
 CHARLOTTE, NC 28211
 P: 704.537.7300 www.NV5.com
 NC License # F-1333
 formerly CALYX Engineers & Consultants

FOR -L- AND -YI- PROFILE SEE SHT.5

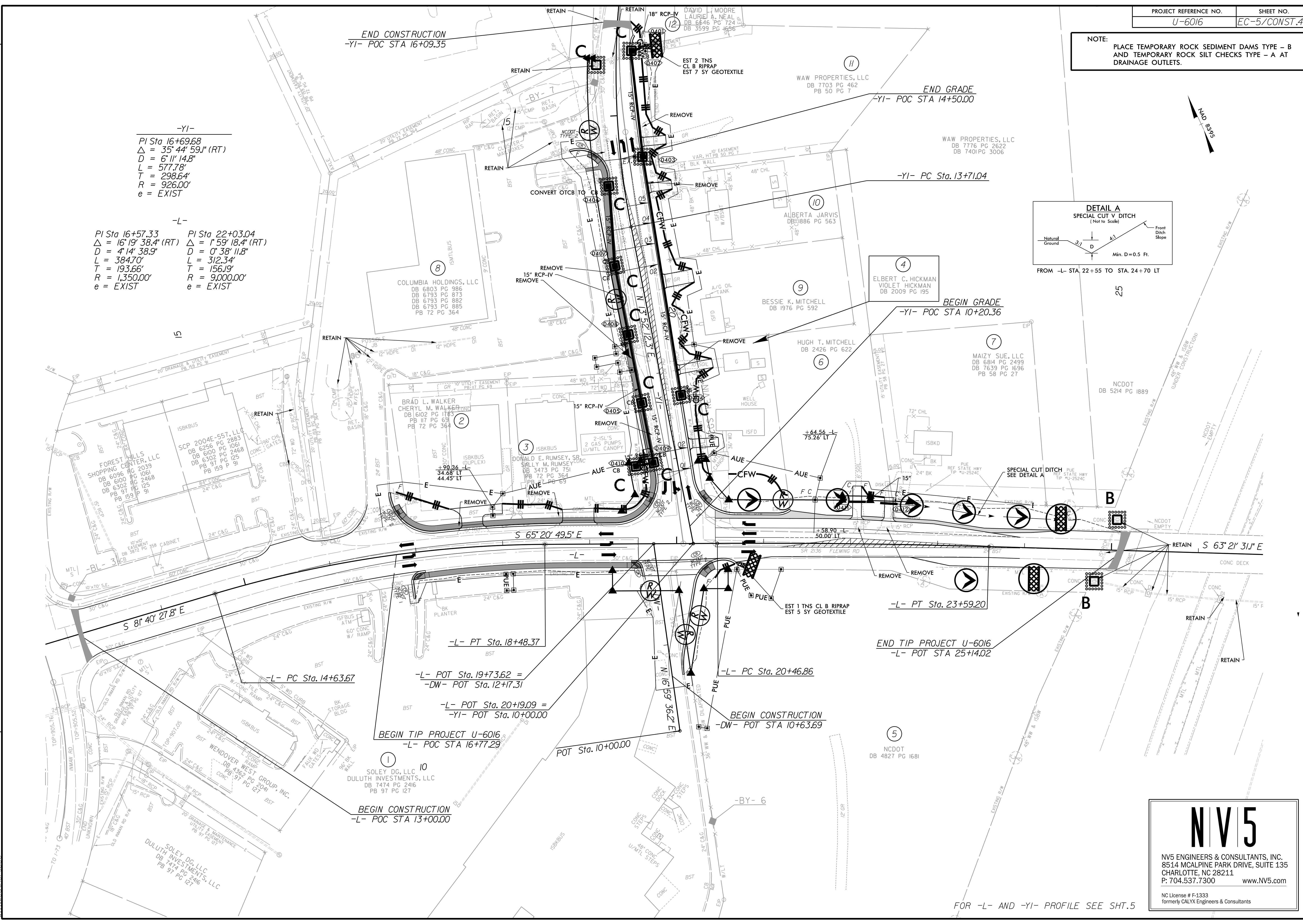
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

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 R = 1,350.00' R = 9,000.00'
 e = EXIST e = EXIST



REVISIONS



3/5/2024
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 Allw@nv5.com

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 NV5 ENGINEERS & CONSULTANTS, INC.
 8514 MCALPINE PARK DRIVE, SUITE 135
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FOR -L- AND -YI- PROFILE SEE SHT.5