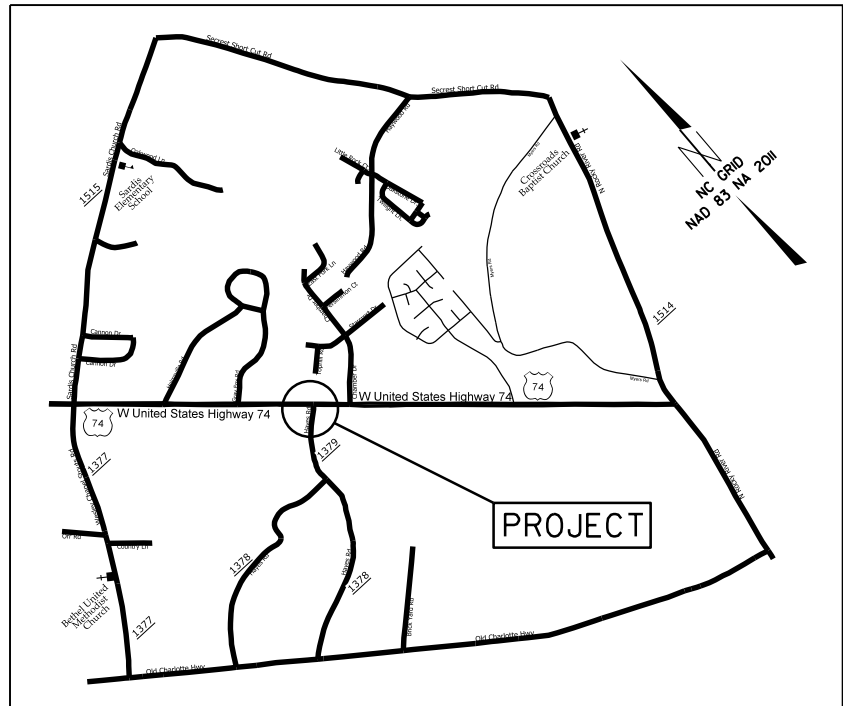


TIP:SM-6110F

51288

PROJECT:



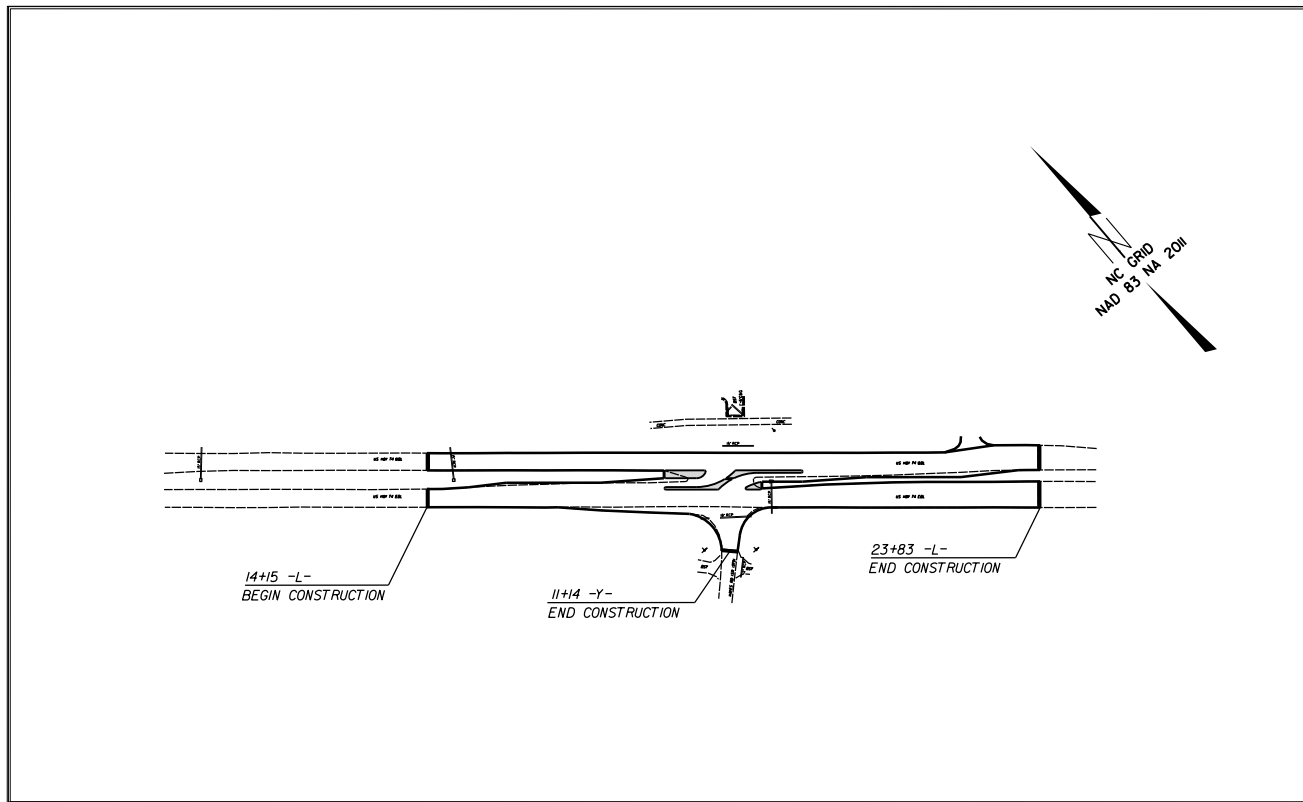
VICINITY MAP NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
UNION COUNTY

LOCATION: INTERSECTION OF US HWY. 74 AND HAYES RD. (SR-1379)

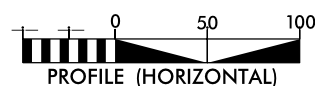
TYPE OF WORK: GRADING, DRAINAGE, PAVING, MILLING, MONOLITHIC CONCRETE ISLANDS,
THERMOPLASTIC PAVEMENT MARKINGS, SIGNALS, AND SIGNING

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	51288	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
51288		P.E.	
51288		R/W	
51288		CONST.	



**CLEARING ON THIS PROJECT
SHALL BE TO THE LIMITS ESTABLISHED
BY METHOD III AS DESCRIBED IN THE
NCDOT STANDARD DRAWINGS**

GRAPHIC SCALES



DESIGN DATA

ADT _____ = _____
ADT _____ = _____
DHV = ____ %
D = ____ %
T = ____ %
V = ____ MPH

PROJECT LENGTH

LENGTH OF ROADWAY PROJECT 51288 = 0.21 MILES
TOTAL LENGTH OF STATE PROJECT 51288 = 0.21 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
DIVISION TEN
DIVISION DESIGN / CONSTRUCT UNIT

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
N/A

LETTING DATE:
MAY 7, 2025

DONALD HARWARD
PROJECT ENGINEER

TRAVIS LOWDER
PROJECT DESIGN ENGINEER



DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
04/01/2025



APPROVED BY
DIVISION PROJECT TEAM LEAD
DATE

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

PROJECT REFERENCE NO.	SHEET NO.
51288	1A
F.A. PROJECT NO.	

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	-o-o-o-
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	-X-S-X-S-
Potential Contamination Area: Soil	-X-S-X-S-
Known Contamination Area: Water	-X-W-X-W-
Potential Contamination Area: Water	-X-W-X-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	-----E-----
Proposed Temporary Construction Easement	-----E-----
Proposed Temporary Drainage Easement	-----TDE-----
Proposed Permanent Drainage Easement	-----PDE-----
Proposed Permanent Drainage/Utility Easement	-----DUE-----
Proposed Permanent Utility Easement	-----PUE-----
Proposed Temporary Utility Easement	-----TUE-----
Proposed 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	○
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	⊙
Storm Sewer	-----S-----

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)*	-----P-----
U/G Power Line (SUE - LOS C)*	-----P-----
U/G Power Line (SUE - LOS D)*	-----P-----

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)*	-----T-----
U/G Telephone Cable (SUE - LOS C)*	-----T-----
U/G Telephone Cable (SUE - LOS D)*	-----T-----
U/G Telephone Conduit (SUE - LOS B)*	-----TC-----
U/G Telephone Conduit (SUE - LOS C)*	-----TC-----
U/G Telephone Conduit (SUE - LOS D)*	-----TC-----
U/G Fiber Optics Cable (SUE - LOS B)*	-----TF-----
U/G Fiber Optics Cable (SUE - LOS C)*	-----TF-----
U/G Fiber Optics Cable (SUE - LOS D)*	-----TF-----

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)*	-----W-----
U/G Water Line (SUE - LOS C)*	-----W-----
U/G Water Line (SUE - LOS D)*	-----W-----
Above Ground Water Line	A/G Water

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)*	-----TV-----
U/G TV Cable (SUE - LOS C)*	-----TV-----
U/G TV Cable (SUE - LOS D)*	-----TV-----
U/G Fiber Optic Cable (SUE - LOS B)*	-----TF-----
U/G Fiber Optic Cable (SUE - LOS C)*	-----TF-----
U/G Fiber Optic Cable (SUE - LOS D)*	-----TF-----

GAS:

Gas Valve	◇
Gas Meter	⊕
U/G Gas Line Test Hole (SUE - LOS A)*	⊙
U/G Gas Line (SUE - LOS B)*	-----G-----
U/G Gas Line (SUE - LOS C)*	-----G-----
U/G Gas Line (SUE - LOS D)*	-----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 Force Main Line Test Hole (SUE - LOS A)*	⊙
SS Force Main Line (SUE - LOS B)*	-----FSS-----
SS Force Main Line (SUE - LOS C)*	-----FSS-----
SS Force Main Line (SUE - LOS D)*	-----FSS-----

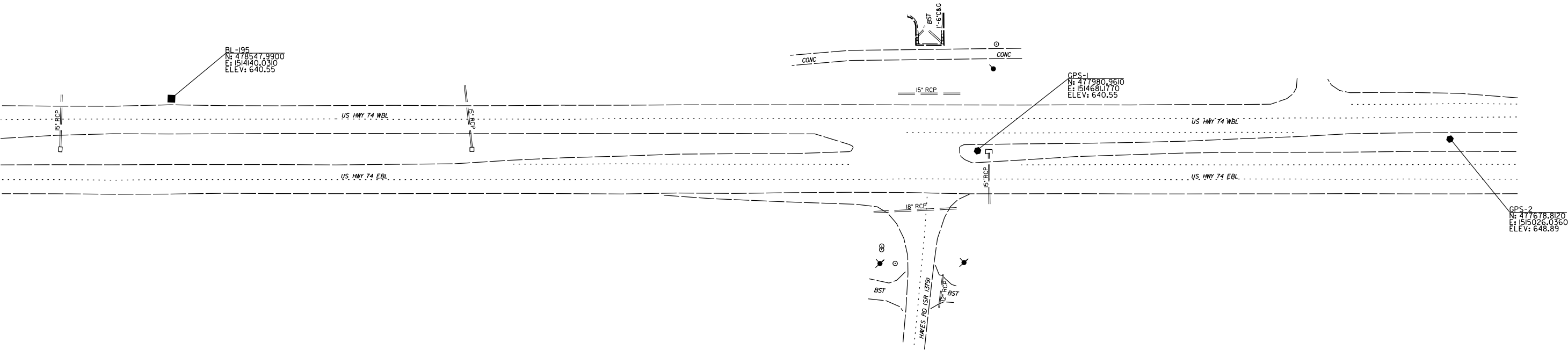
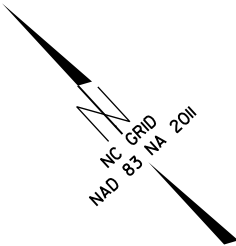
MISCELLANEOUS:

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

SURVEY CONTROL SHEET

PROJECT NO.	SHEET NO.
51288	1B
F.A. PROJECT NO.	

BL	POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
1			477980.9610	1514681.1770	640.55	19+47.90	2.09 RT
2			477678.8120	1515026.0360	648.89	24+06.27	8.77 LT
195			478547.9900	1514140.0310	625.19	11+65.77	49.28 LT



- NOTES:
- PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
 - THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED BY THE DIVISION IO DDC UNIT. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE DIVISION IO DDC UNIT.

DIRECTIONAL CROSSOVER AT THE INTERSECTION
OF US HWY.74 AND HAYES RD.(SR-1379)

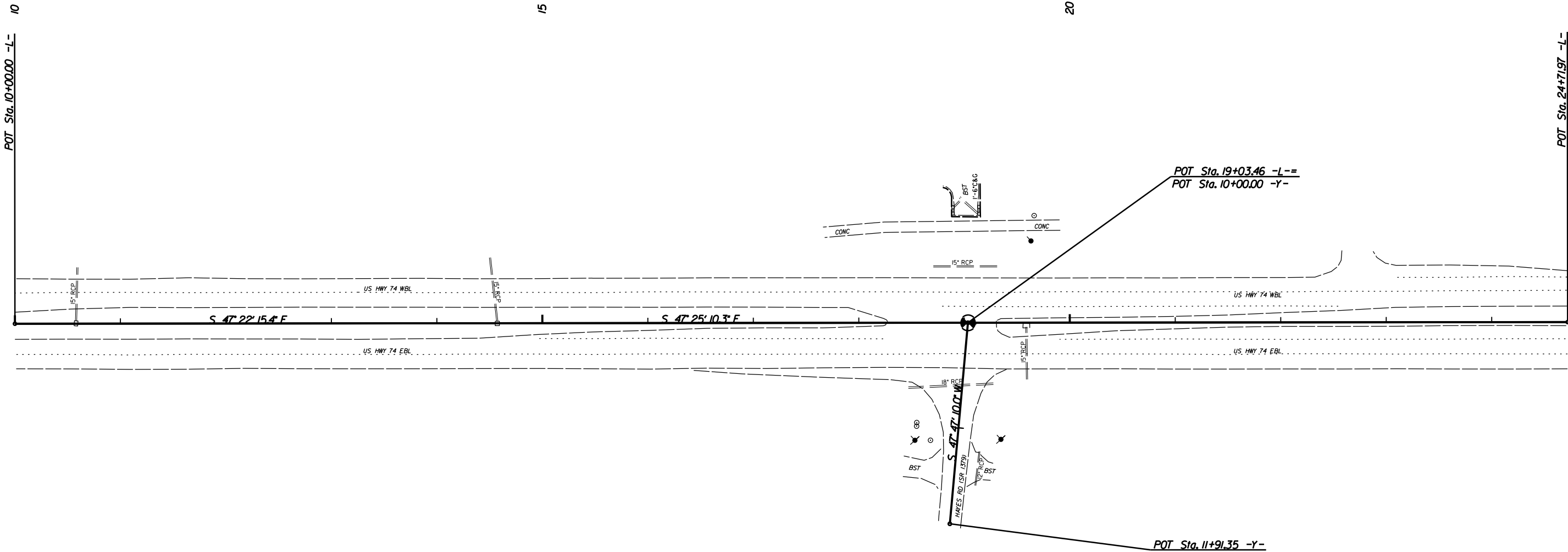
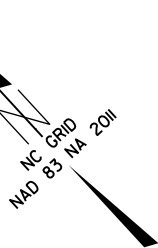
SCALE	1"=50'		REVISIONS	
DATE	02-2025			
DWG. BY	VSC			
DESIGN BY	TBL			
APPROVED	JDH			

PROPOSED ALIGNMENT SHEET

PROJECT NO.	SHEET NO.
51288	1C
F.A. PROJECT NO.	

TYPE	STATION	NORTH	EAST
POT	10+00.00	478623.8725	1513984.6245
POT	24+71.97	477627.9010	1515068.4765

TYPE	STATION	NORTH	EAST
POT	10+00.00	477885.2601	1514509.1611
POT	11+89.75	478012.5719	1514649.8638



- NOTES:
- 1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
 - 2. THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED BY THE DIVISION IO DDC UNIT. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE DIVISION IO DDC UNIT.

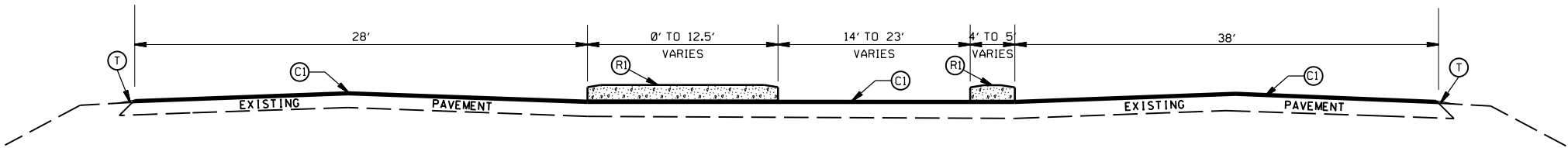
DIRECTIONAL CROSSOVER AT THE INTERSECTION
OF US HWY.74 AND HAYES RD.(SR-1379)

SCALE	1"=50'		REVISIONS	
DATE	02-2025			
DWG. BY	VSC			
DESIGN BY	TBL			
APPROVED	JDH			

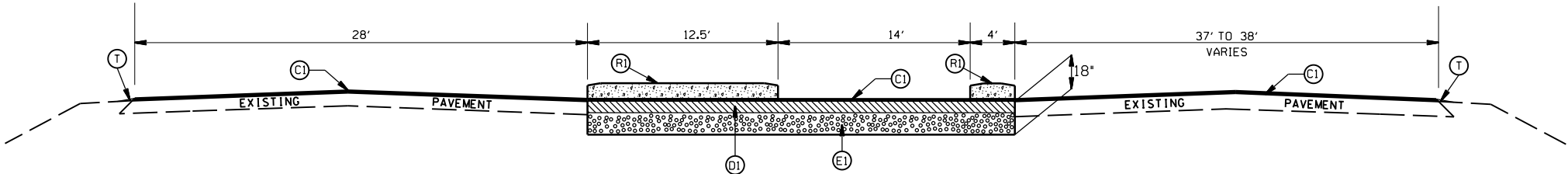
PROJECT NO.
51288
F.A. PROJECT NO.

SHEET NO.
2

ROADWAY DESIGN
ENGINEER
04/01/2025
PROFESSIONAL
SEAL
042673
TAMMIS PRESLEY
TAMMIS PRESLEY
TAMMIS PRESLEY

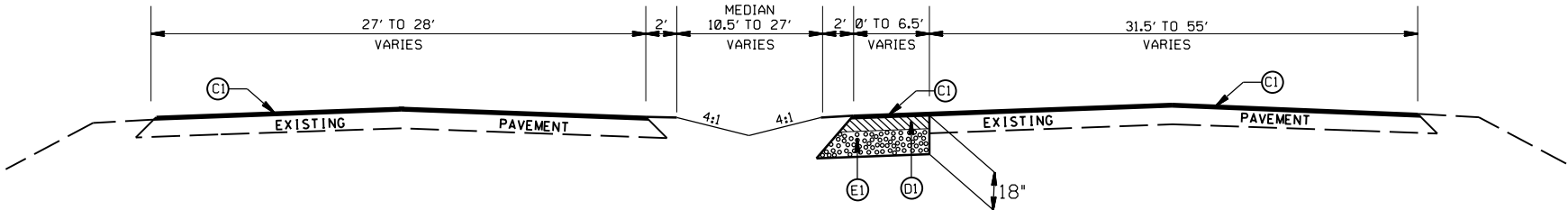


TYPICAL SECTION NO.4
STA. 18+27.36 TO 18+55.00 -L-

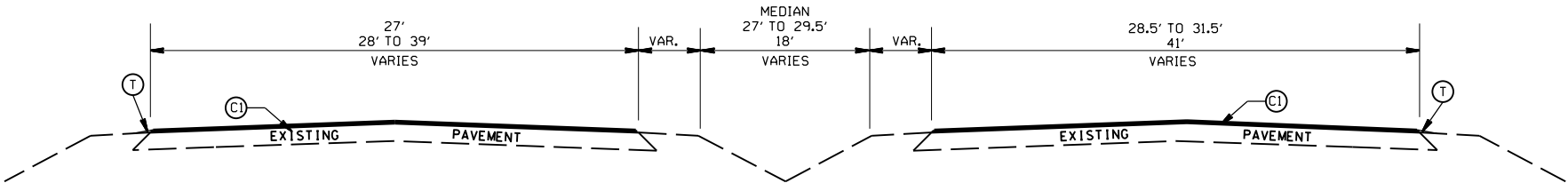


TYPICAL SECTION NO.3
STA. 17+90.00 TO 18+27.36 -L-

PAVEMENT SCHEDULE	
(C1)	PROP. APPROX. 3" ASPHALT CONC. SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD., IN EACH OF TWO LAYERS.
(D1)	PROP. APPROX. 4" ASPHALT CONC. INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
(E1)	PROP. APPROX. 11" ASPHALT CONC. BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD., IN EACH OF TWO LAYERS
(R1)	PROP. 5" MONOLITHIC CONC. ISLAND (SURFACE MOUNTED)
(T)	EARTH MATERIAL



TYPICAL SECTION NO.2
STA. 14+80.61 TO 17+90.00 -L-

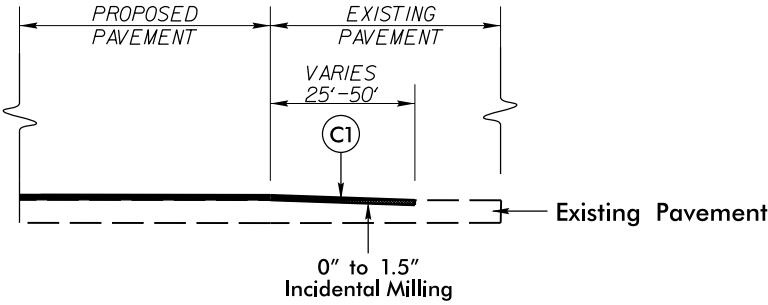
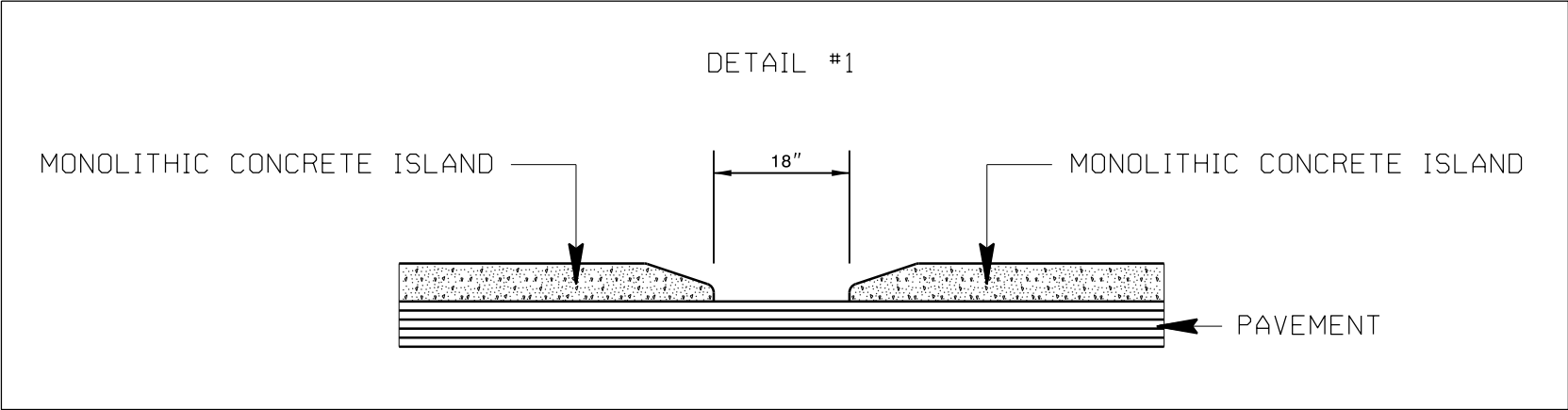


TYPICAL SECTION NO.1
14+15.00 TO 14+80.61 -L-
23+48.57 TO 23+83.00 -L-

DIRECTIONAL CROSSOVER AT THE INTERSECTION
OF US HWY.74 AND HAYES RD.(SR-1379)

SCALE	N/A		REVISIONS	
DATE	02-2025			
DWG. BY	VSC			
DESIGN BY	TBL			
APPROVED	JDH			

PROJECT NO.	SHEET NO.
51288	2C
F.A. PROJECT NO.	
ROADWAY DESIGN ENGINEER	
04/01/2025	
SEAL 042673	
TBL	
JDH	



INCIDENTAL MILLING DETAIL
EXISTING ROAD TIE-IN
PROJECT TIE-INS

DIRECTIONAL CROSSOVER AT THE INTERSECTION OF US HWY.74 AND HAYES RD.(SR-1379)		
SCALE	N/A	
DATE	02-2025	
DWG. BY	VSC	
DESIGN BY	TBL	
APPROVED	JDH	
REVISIONS		

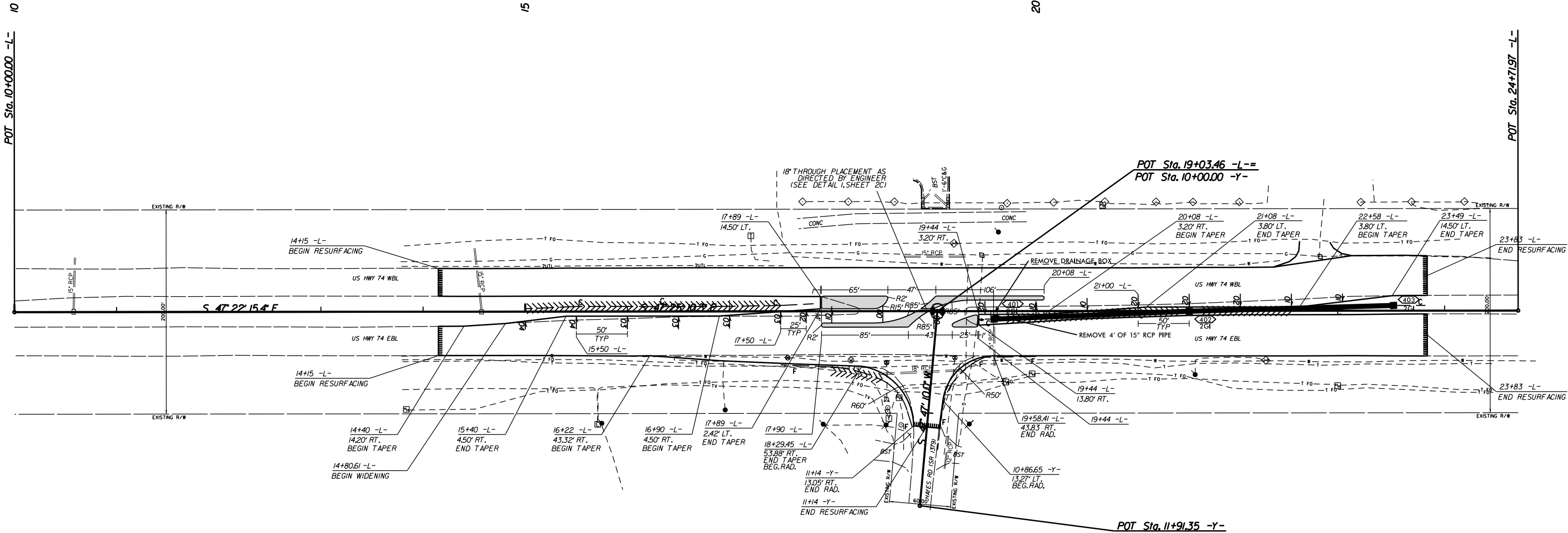
NOTE: Invert Elevations are for Bid Purposes only and shall not be used for project construction stakeout.
See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)

[illegible]

INSTALL STRAW MATTING FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

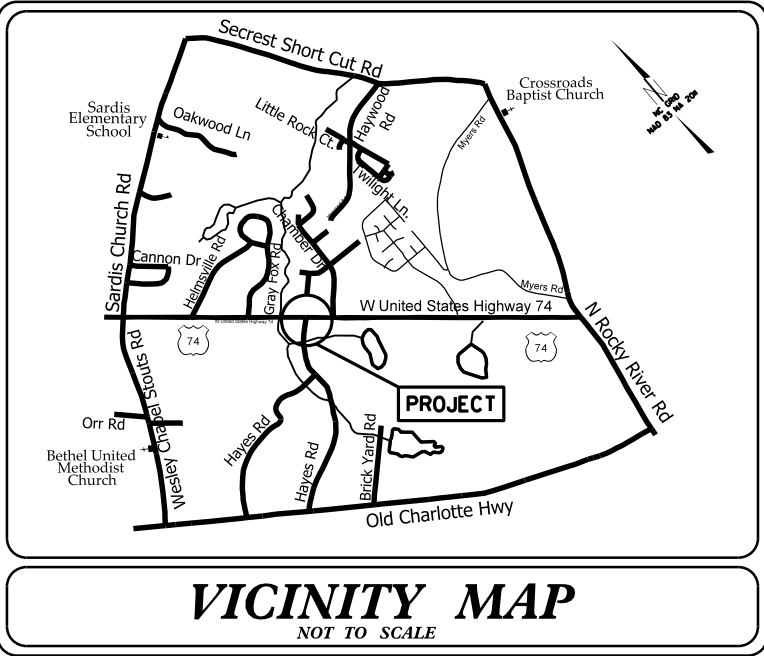
15+00 TO 17+50 -L- MEDIAN
19+50 TO 22+50 -L- MEDIAN



NOTE: INCIDENTAL MILL APPROX. 25' AT EACH
TIE IN TO PROVIDE A SMOOTH TRANSITION
TO THE EXISTING ASPHALT PAVEMENT.

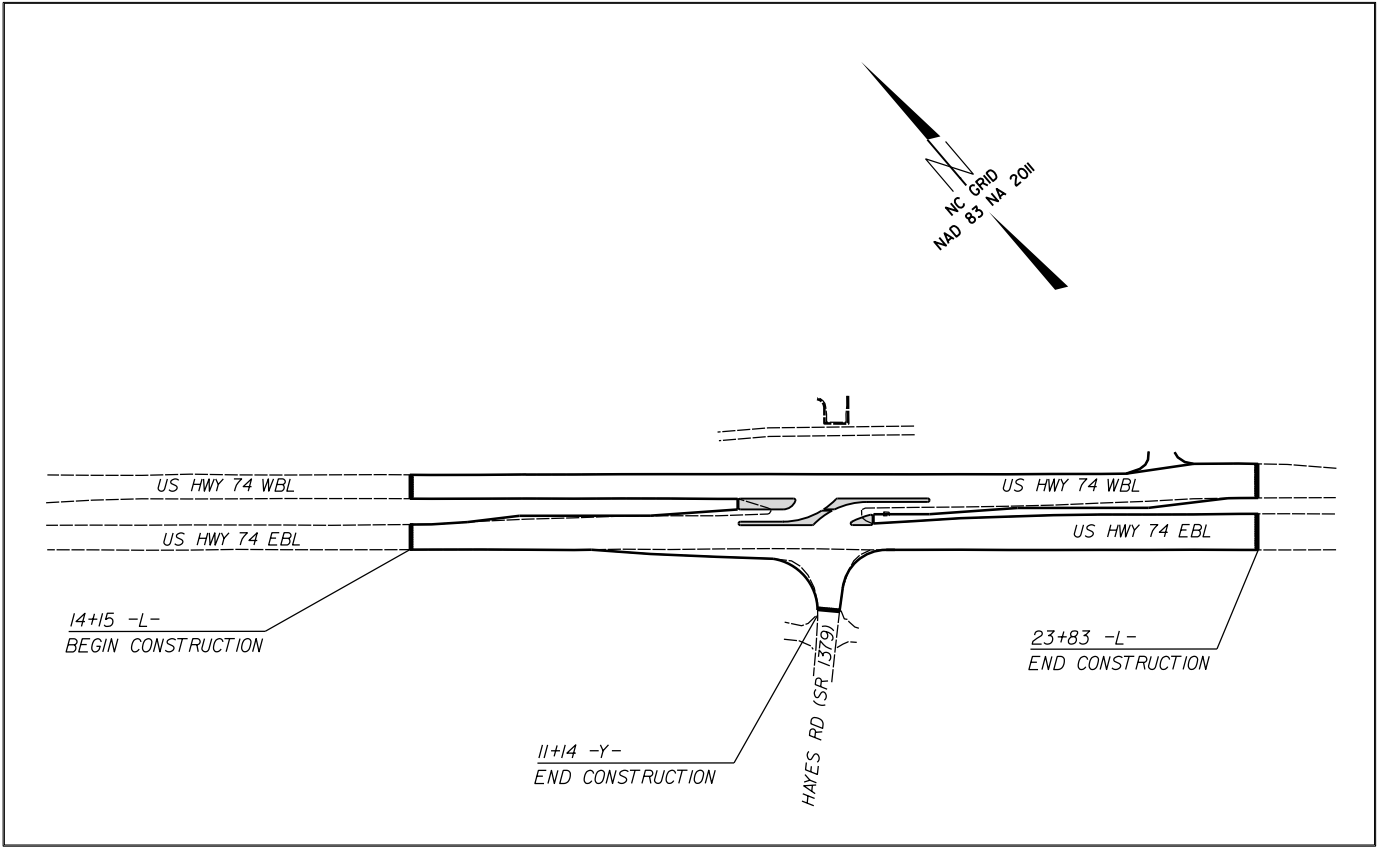
DIRECTIONAL CROSSOVER AT THE INTERSECTION OF US HWY.74 AND HAYES RD.(SR-1379)			REVISIONS	
SCALE	1"=50'			
DATE	02-2025			
DWG. BY	VSC			
DESIGN BY	TBL			
APPROVED	JDH			

TIP PROJECT: SM-6110F



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

LOCATION: INTERSECTION OF US HWY. 74 AND HAYES RD. (SR-1379)

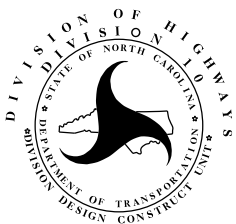


INSTALL PERIMETER EROSION CONTROL MEASURES DURING INTIAL CLEARING PHASE

GRAPHIC SCALE



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.



Prepared in the Office of:
DDC UNIT DIVISION 10
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Designed by:
VITALIY CHEPEL **4658**
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 2024 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1633.03 Temporary Rock Silt Check Type C
1630.02 Silt Basin Type A	1634.01 Temporary Rock Sediment Dam Type A
1630.03 Temporary Silt Ditch	1634.02 Temporary Rock Sediment Dam Type B
1630.04 Stilling Basin	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.05 Temporary Diversion	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.06 Special Stilling Basin	1640.01 Coir Fiber Jaffle
1631.01 Matting Installation	1645.01 Temporary Stream Crossing

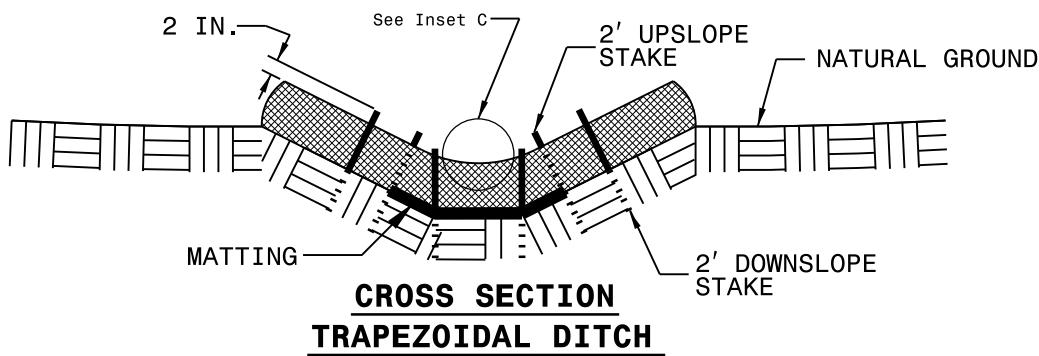
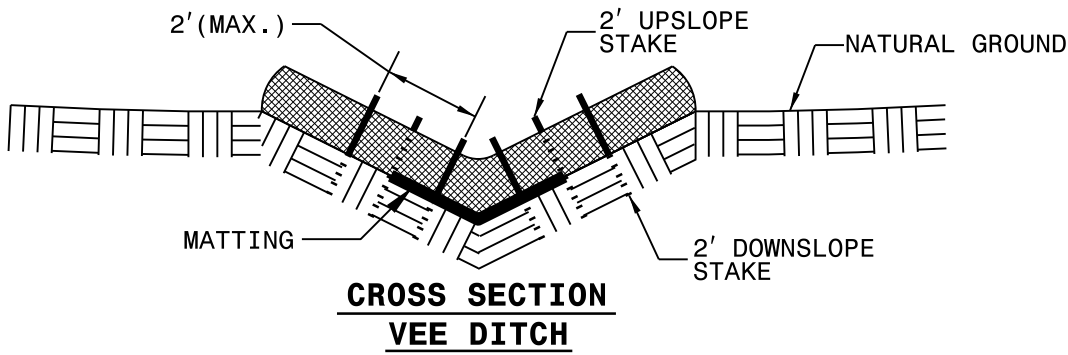
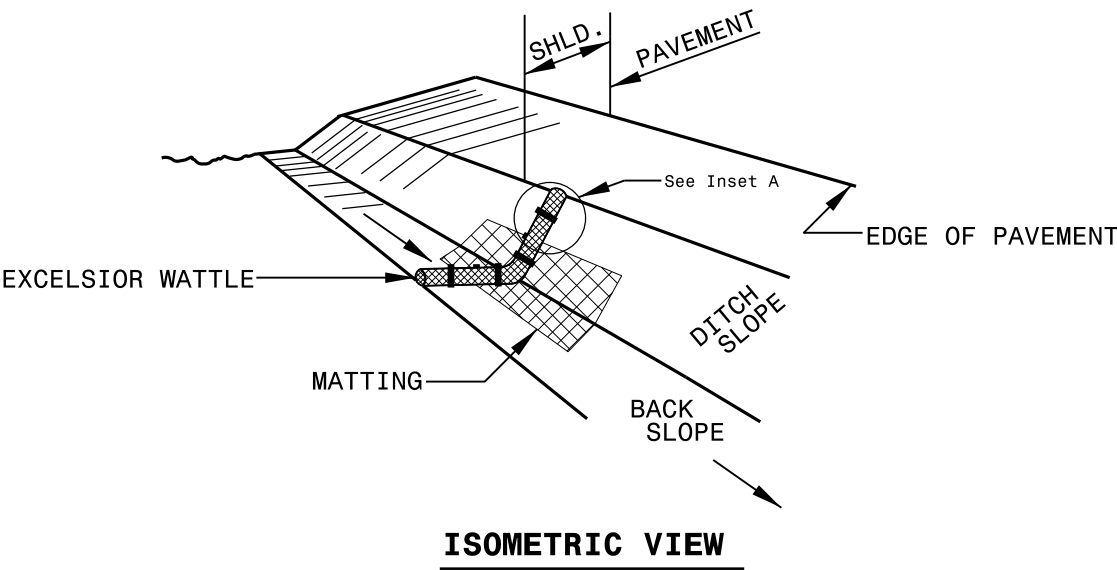
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	51288	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
51288		P.E.	
51288		R/W	
51288		CONST.	

EROSION AND SEDIMENT CONTROL MEASURES

Sid. #	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	III III III
1622.01	Temporary Berms and Slope Drains	TD
1630.02	Silt Basin Type B	TD
1633.01	Temporary Rock Silt Check Type-A	TD
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	TD
1633.02	Temporary Rock Silt Check Type-B	TD
	Wattle/Coir Fiber Wattle	TD
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	TD
1634.01	Temporary Rock Sediment Dam Type-A	TD
1634.02	Temporary Rock Sediment Dam Type-B	TD
1635.01	Rock Pipe Inlet Sediment Trap Type-A	TD
1635.02	Rock Pipe Inlet Sediment Trap Type-B	TD
1630.04	Stilling Basin	TD
1630.06	Special Stilling Basin	TD
	Rock Inlet Sediment Trap:	TD
1632.01	Type A	TD
1632.02	Type B	TD
1632.03	Type C	TD
	Skimmer Basin	TD
	Tiered Skimmer Basin	TD
	Infiltration Basin	TD

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

WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

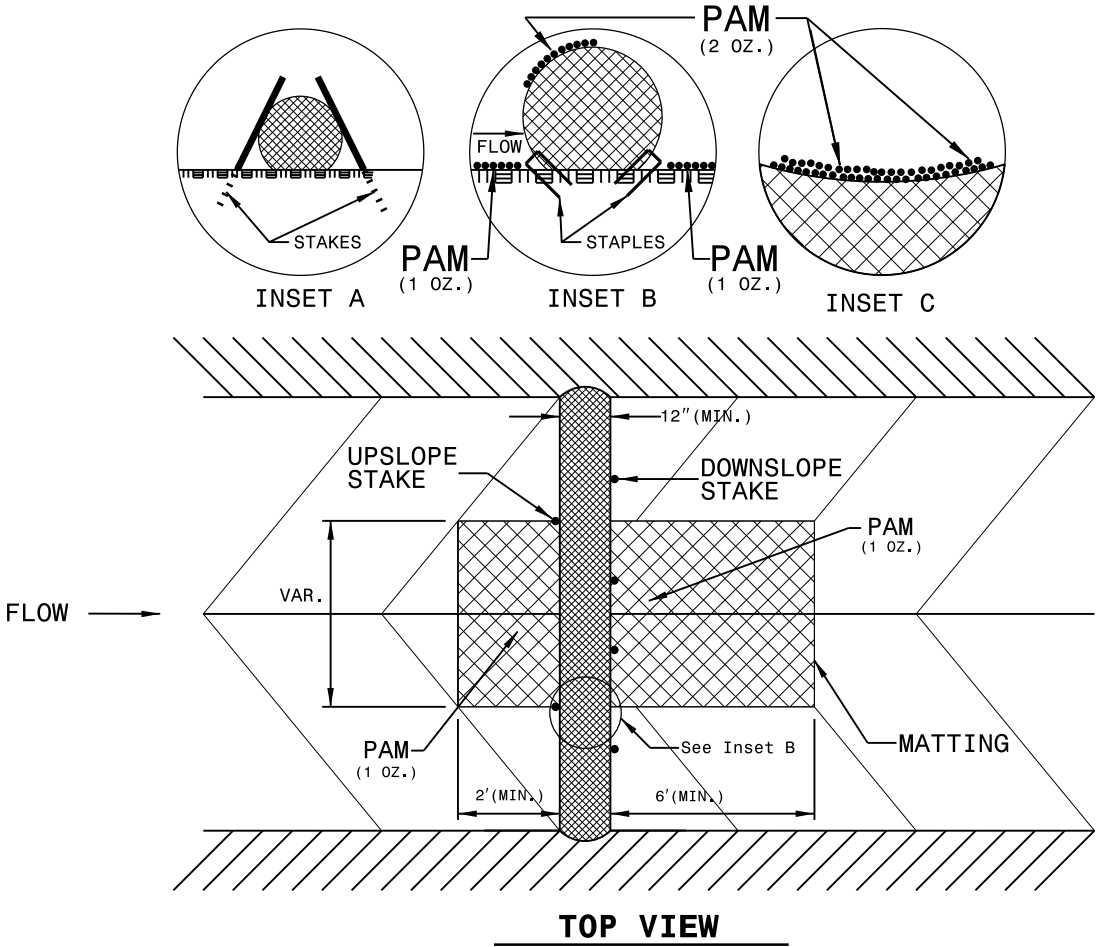
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

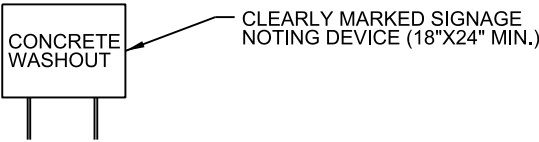
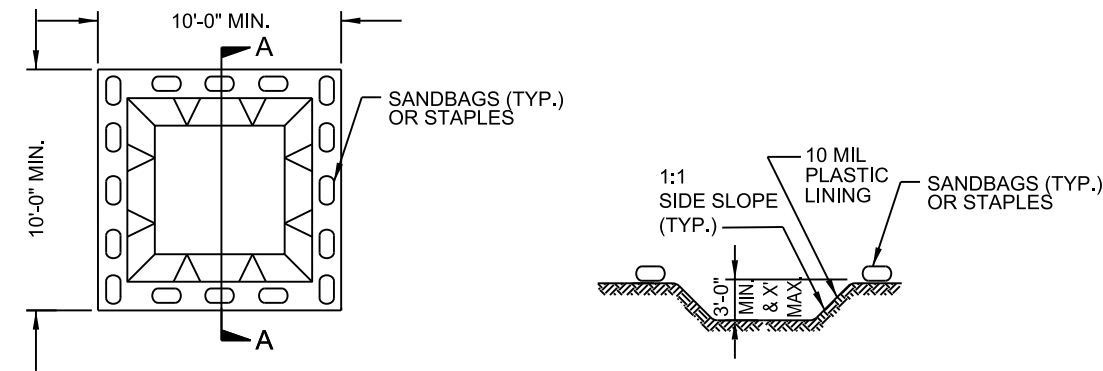
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

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 WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



ONSITE CONCRETE WASHOUT
STRUCTURE WITH LINER

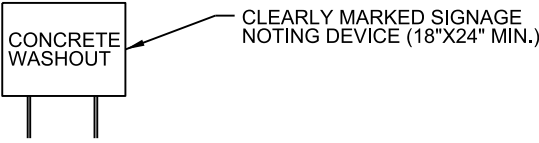
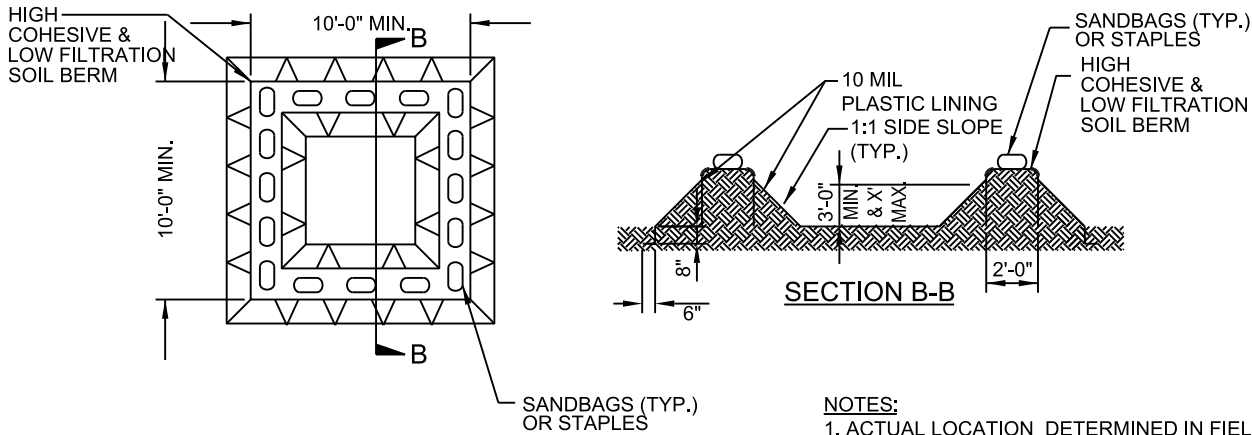


SECTION A-A

- 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.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

PLAN

BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE



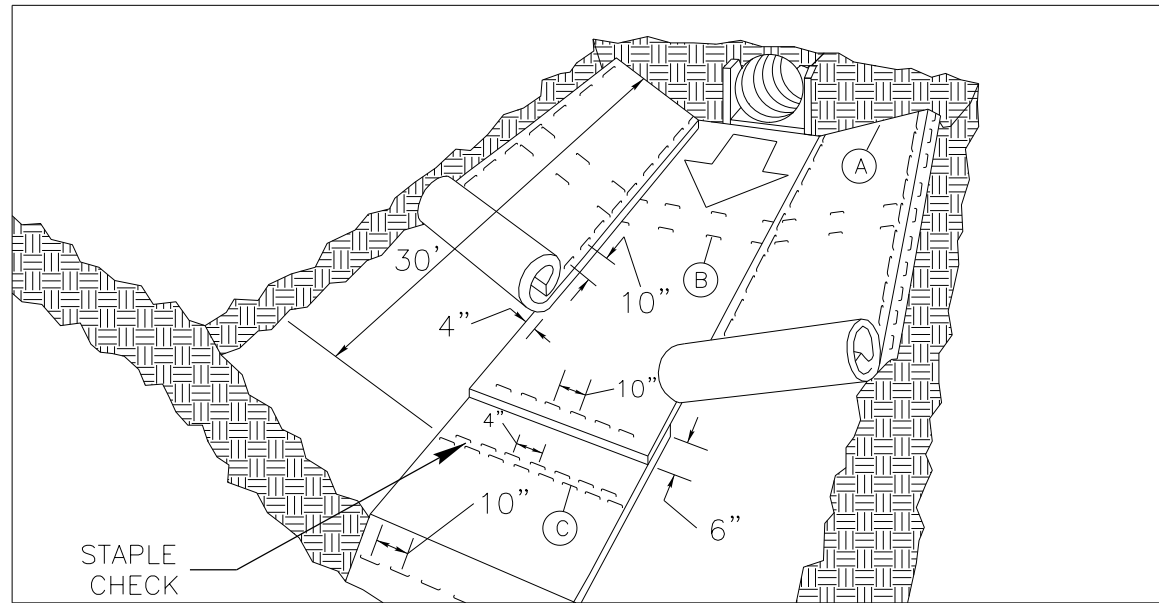
- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED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

PLAN

ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

MATting INSTALLATION DETAIL

PROJECT NO.	SHEET NO.
51288	EC-2B
F.A. PROJECT NO.	



MATting IN DITCHES

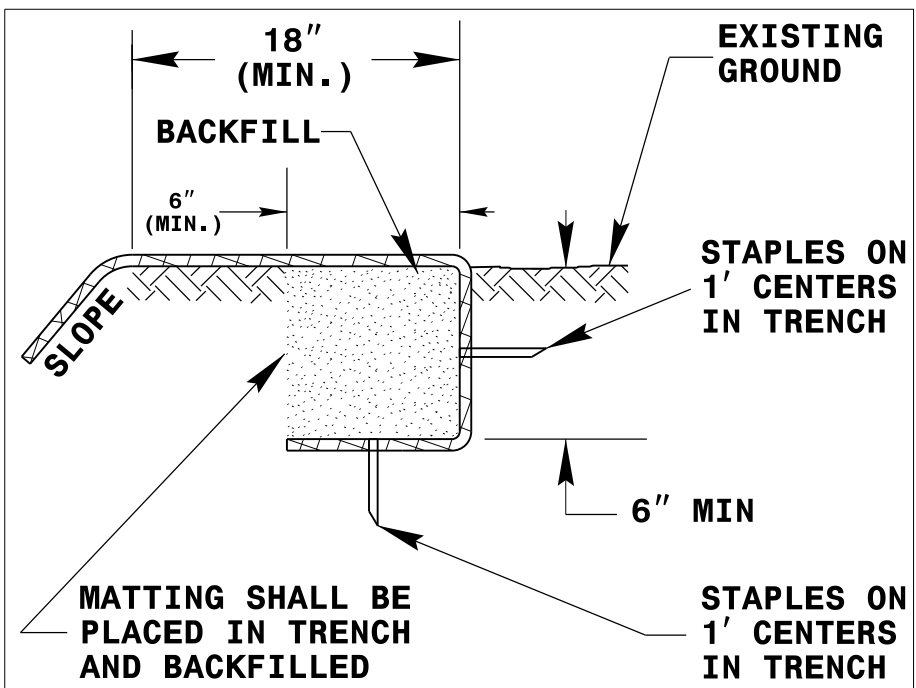
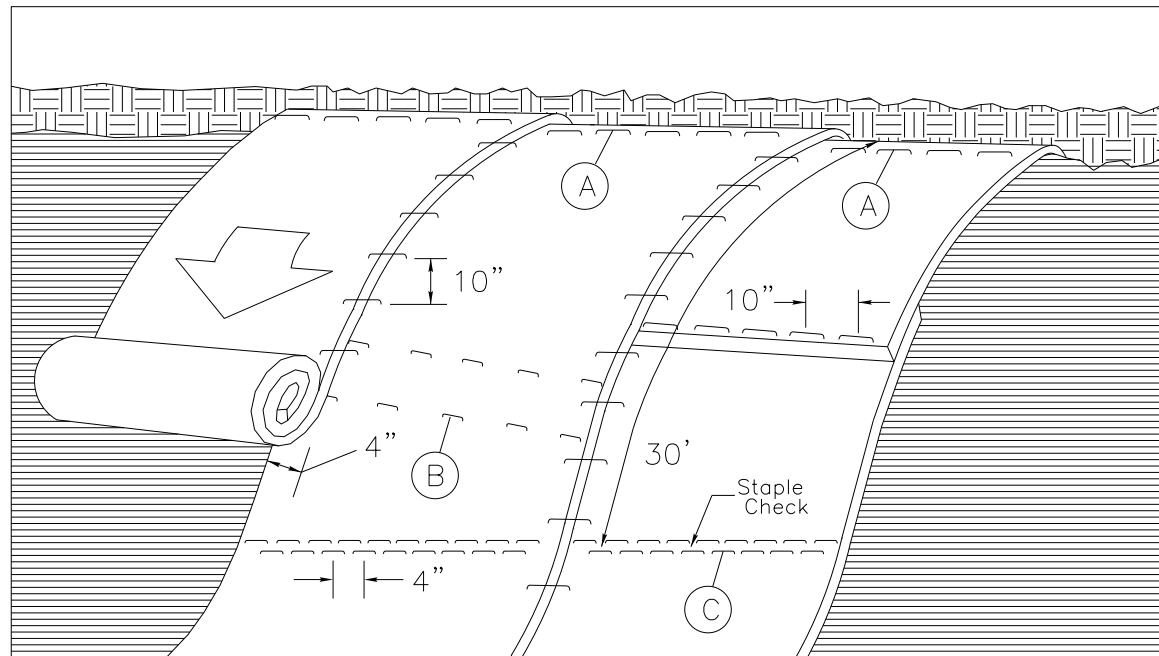


DIAGRAM (A)



MATting ON SLOPES

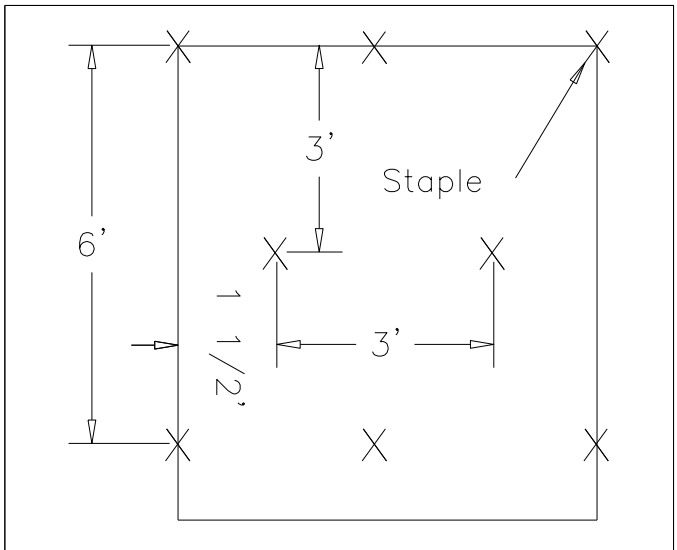


DIAGRAM (B)

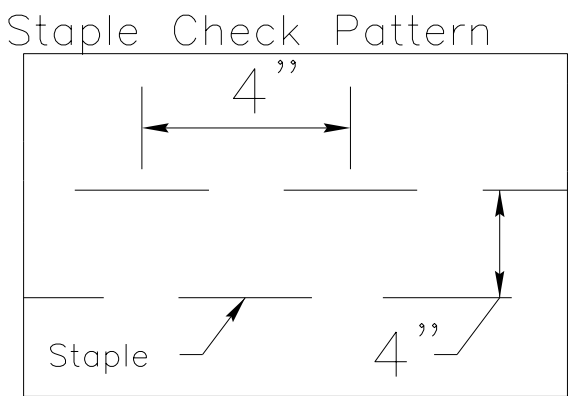


DIAGRAM (C)

NOTES:

THIS DETAIL APPLIES TO STRAW, EXCELSIOR, AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION.

STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.

NOT TO SCALE

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
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 NO.	SHEET NO.
5I288	EC-4
F.A. PROJECT NO.	



SCALE	<i>1"=50'</i>
DATE	<i>02-2025</i>
DWG. BY	<i>VSC</i>
DESIGN BY	<i>TBL</i>
APPROVED	<i>JDH</i>



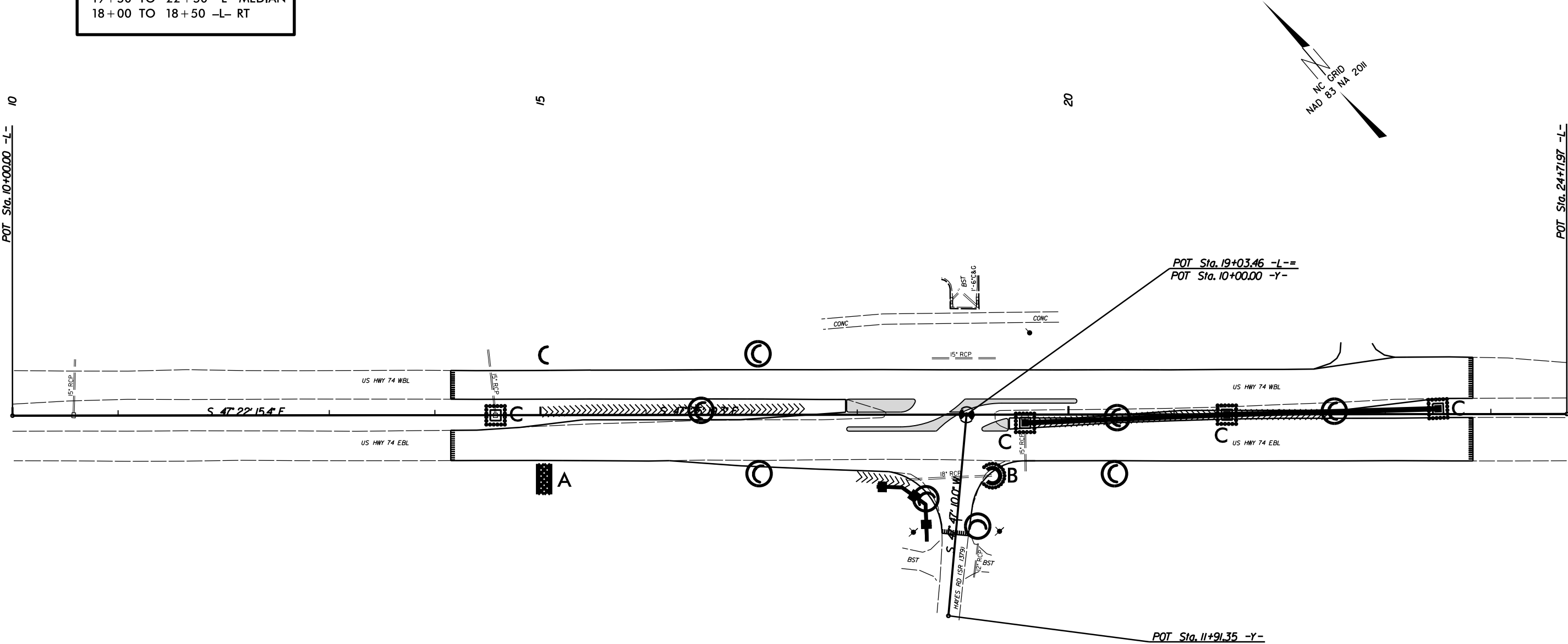
REVISIONS	

CONSTRUCTION PHASE

PROJECT NO.	SHEET NO.
51288	EC-5
F.A. PROJECT NO.	

INSTALL STRAW MATTING FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

15+00 TO 17+50 -L- MEDIAN
19+50 TO 22+50 -L- MEDIAN
18+00 TO 18+50 -L- RT



EROSION CONTROL MEASURES MAY BE CHANGED
IN FIELD AS DIRECTED BY THE ENGINEER

DIRECTIONAL CROSSOVER AT THE INTERSECTION OF US HWY.74 AND HAYES RD.(SR-1379)		
SCALE	1"=50'	REVISIONS
DATE	02-2025	
DWG. BY	VSC	
DESIGN BY	TBL	
APPROVED	JDH	



PAVEMENT MARKING SCHEDULE

THERMOPLASTIC MARKING LINES

- TA - WHITE EDGELINE (4",90 MIL)

TB - YELLOW EDGELINE (4",90 MIL)

TC - 10FT.WHYTE SKIP (4",90 MIL)

TD - 3FT.-9FT./SP WHITE MINISKIP (4",90 MIL)

TE - WHITE SOLID LANE LINE (4",90 MIL)

TF - 10FT.YELLOW SKIP (4",90 MIL)

TH - YELLOW SINGLE CENTER (4",90 MIL)

TI - YELLOW DOUBLE CENTER (4",90 MIL)

TJ - 10FT.WHYTE SKIP (16",90 MIL)

TK - 3FT.-9FT./SP WHITE MINISKIP (16",90 MIL)

TL - WHITE SOLID LANE LINE (16",90 MIL)

TM - 10FT.YELLOW SKIP (16",90 MIL)

TN - WHITE GORELINE (8",90 MIL)

TO - WHITE DIAGONAL (8",90 MIL)

TP - YELLOW DIAGONAL (8",90 MIL)

TQ - WHITE CROSSWALK LINE (8",90 MIL)

TR - WHITE SOLID LANE LINE (8",90 MIL)

TS - WHITE GORELINE (12",90 MIL)

TT - WHITE SOLID LANE LINE (12",90 MIL)
- TU - WHITE DIAGONAL (12",90 MIL)

TV - YELLOW DIAGONAL (12",90 MIL)

T1 - WHITE LINE,RR X (16",90 MIL)

T2 - WHITE STOPBAR (24",90 MIL)

T3 - WHITE CROSSWALK LINE (24",90 MIL)

T4 - WHITE RUMBLE STRIP (4",240 MIL)

T5 - YELLOW RUMBLE STRIP (4",240 MIL)

T6 - WHITE EDGELINE (16",90 MIL)

T7 - YELLOW EDGELINE (16",90 MIL)

T8 - 2FT.-6FT./SP WHITE MINISKIP (4",90 MIL)

T9 - 2FT.-6FT./SP YELLOW MINISKIP (4",90 MIL)

T10 - 3FT.-3FT./SP WHITE MINISKIP (12",90 MIL)

T11 - 2FT.-6FT./SP WHITE MINISKIP (16",90 MIL)

T12 - 2FT.-6FT./SP YELLOW MINISKIP (16",90 MIL)

T13 - 3FT.-9FT./SP WHITE MINISKIP (8",90 MIL)

T14 - 3FT.-9FT./SP WHITE MINISKIP (12",90 MIL)

T15 - YELLOW SINGLE CENTER (6",90 MIL)

T16 - YELLOW DOUBLE CENTER (6",90 MIL)

T17 - 3FT.-3FT./SP WHITE MINISKIP ENTRANCE LINE (8",90 MIL)

THERMOPLASTIC MARKING SYMBOLS

- UA -LEFT TURN ARROW (90 MIL)

UB - RIGHT TURN ARROW (90 MIL)

UC - STRAIGHT ARROW (90 MIL)

UD - COMBO.LEFT/STRAIGHT ARROW (90 MIL)

UE - COMBO.RIGHT/STRAIGHT ARROW (90 MIL)

UF - COMBO.LEFT/RIGHT ARROW (90 MIL)

UG - COMBO.LEFT/RIGHT/STRAIGHT ARROW (90 MIL)

UH - HANDICAP PARKING (90 MIL)

UI - ALPHANUMERIC CHAR. (90 MIL)

UJ - BICYCLE SYMBOL (90 MIL)

UK - BICYCLE STRAIGHT ARROW (90 MIL)

UL - BICYCLE CHAR. (90 MIL)

UM - 12"YIELD LINE TRIANGLE (90 MIL)

UN - 24"YIELD LINE TRIANGLE (90 MIL)

UO - BICYCLE LEFT ARROW (90 MIL)

UP - MERGE ARROW (90 MIL)

UQ - RAMP ARROW SYMBOL (90 MIL)

UR - SHARROW (90 MIL)

US - BICYCLE LOOP DETECTOR (90 MIL)

UT - U-TURN ARROW (90 MIL)
- UU - FISH-HOOK STRAIGHT ARROW (90 MIL)

UV - FISH-HOOK LEFT/STRAIGHT ARROW (90 MIL)

UW - FISH-HOOK RIGHT/STRAIGHT ARROW (90 MIL)

UX - FISH-HOOK LEFT/RIGHT ARROW (90 MIL)

UY - FISH-HOOK LEFT/RIGHT/STRAIGHT ARROW (90 MIL)

UZ - FISH-HOOK W/CIRCLE STRAIGHT ARROW (90 MIL)

YA - FISH-HOOK W/CIRCLE LEFT ARROW (90 MIL)

YB - FISH-HOOK W/CIRCLE LEFT/STRAIGHT ARROW (90 MIL)

YC - FISH-HOOK W/CIRCLE LEFT/RIGHT/STRAIGHT ARROW (90 MIL)

YD - COMBO.LEFT/U-TURN ARROW (90 MIL)

MA - PERMANENT RAISED MARKER (YELLOW & YELLOW)

MB - PERMANENT RAISED MARKER (CRYSTAL & RED)

MC - PERMANENT RAISED MARKER (YELLOW & RED)

MD - PERMANENT RAISED MARKER (YELLOW)

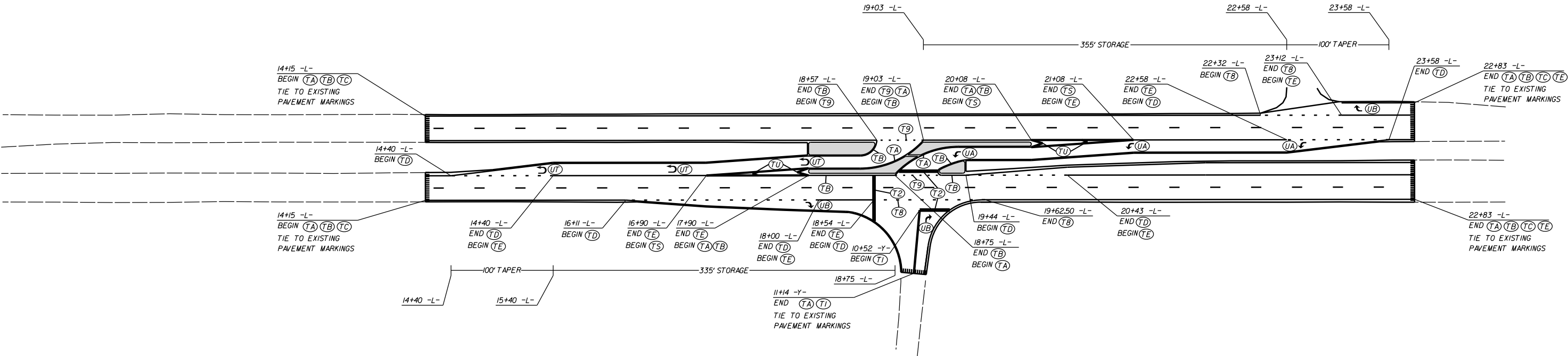
ME - SNOWFLOWABLE MARKER (YELLOW & YELLOW)

MF - SNOWFLOWABLE MARKER (CRYSTAL & RED)

MG - SNOWFLOWABLE MARKER (YELLOW & RED)

ML - PERMANENT RAISED MARKER (CRYSTAL & CRYSTAL)

MO - SNOWFLOWABLE MARKER (CRYSTAL & CRYSTAL)



DIRECTIONAL CROSSOVER AT THE INTERSECTION
OF US HWY.74 AND HAYES RD.(SR-1379)

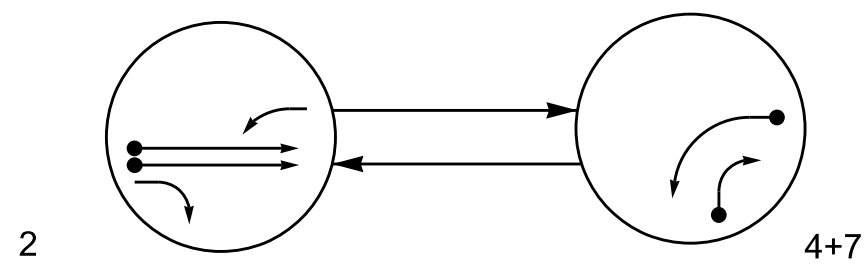
SCALE	1"=50'
DATE	02-2025
DWG. BY	VSC
DESIGN BY	TBL
APPROVED	JDH



REVISIONS	

PROJECT NO.	SHEET NO.
51288	PMP-1
F.A. PROJECT NO.	
ROADWAY DESIGN ENGINEER	
04/01/2025	
SEAL 042673	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
DIVISION OF HIGHWAYS	
ASSISTANT ENGINEER	

PHASING DIAGRAM



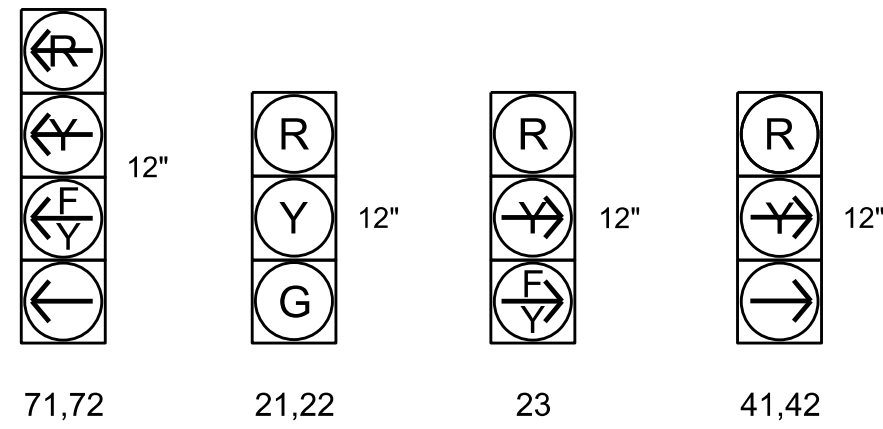
PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE		
	2	4	7
21,22	G	R	R
23	F	R	R
41,42	R	→	R
71,72	F	←	R

SIGNAL FACE I.D.

All Heads L.E.D.



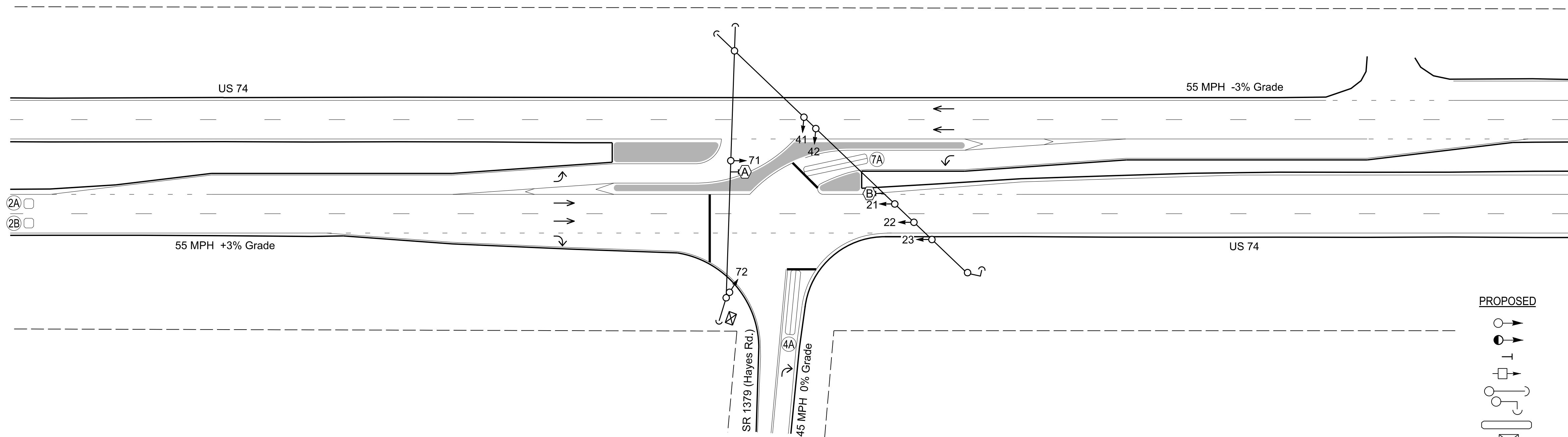
MAXTIME DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	PROGRAMMING						
					CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DELAY DURING GREEN	NEW CARD
2A	6X6	420	6	X	2	-	-	X	X	X	-
2B	6X6	420	6	X	2	-	-	X	X	X	-
4A	6X40	0	2-4-2	X	4	15.0	-	X	-	X	-
7A	6X40	0	2-4-2	X	7	15.0	-	X	-	X	-

2 Phase
Fully Actuated
Isolated

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Remove Existing "STOP" sign (R1-1) along SR 1379 (Hayes Rd.).



LEGEND

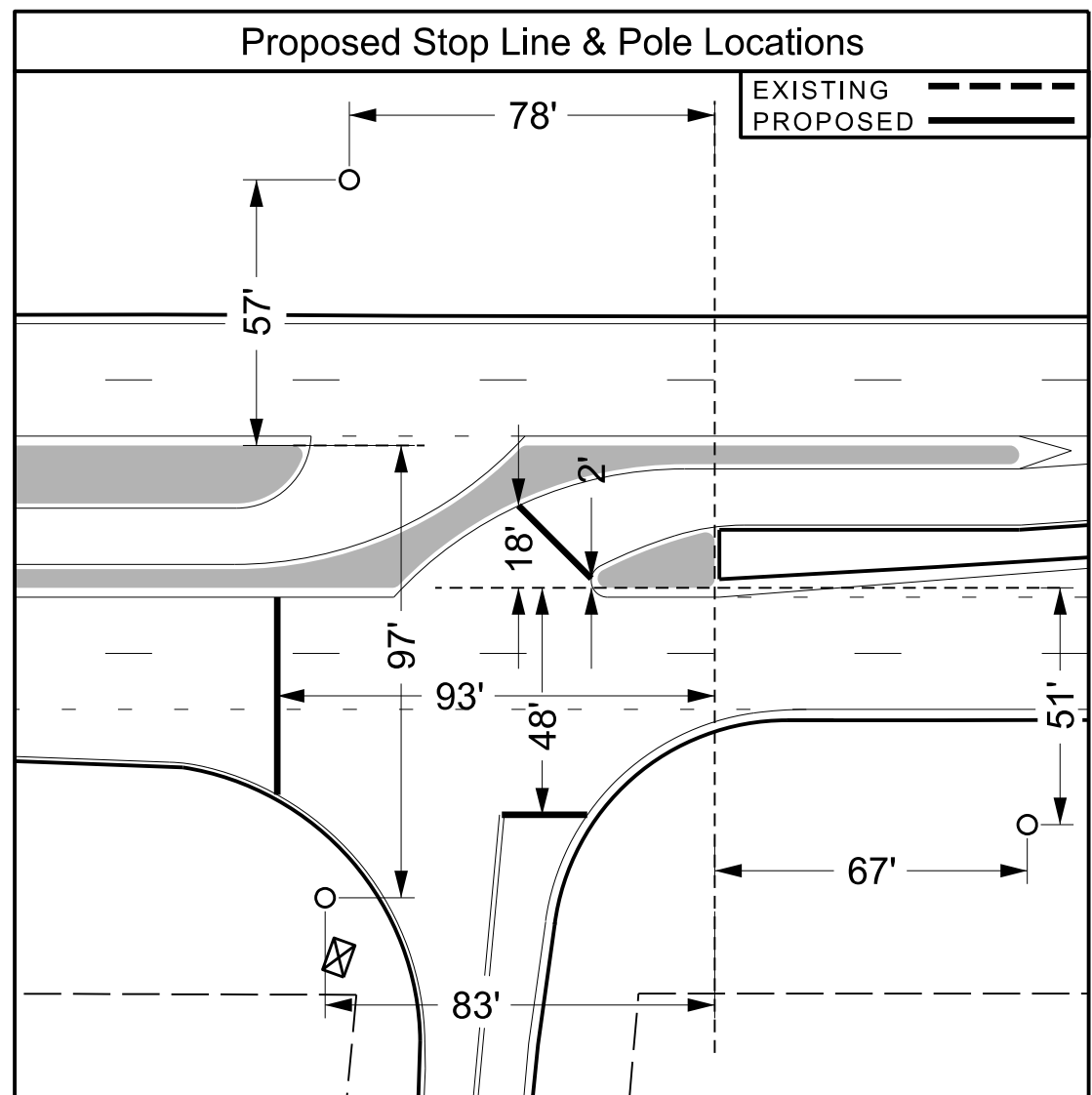
- | PROPOSED | EXISTING |
|--|----------|
| Traffic Signal Head | N/A |
| Modified Signal Head | N/A |
| Sign | N/A |
| Pedestrian Signal Head | N/A |
| Signal Pole with Guy | N/A |
| Signal Pole with Sidewalk Guy | N/A |
| Inductive Loop Detector | N/A |
| Controller & Cabinet | N/A |
| Junction Box | N/A |
| 2-in Underground Conduit | N/A |
| Right of Way | N/A |
| Directional Arrow | N/A |
| "U-TURN YIELD TO RIGHT TURN" Sign (R10-16) | N/A |
| No Left Turn Sign (R3-2) | N/A |

MAXTIME TIMING CHART

FEATURE	PHASE		
	2	4	7
Walk *	-	-	-
Ped Clear	-	-	-
Min Green *	14	7	7
Passage *	6.0	2.0	2.0
Max 1 *	90	25	25
Yellow Change	4.9	3.0	3.0
Red Clear	1.0	3.0	3.0
Added Initial *	1.5	-	-
Maximum Initial *	46	-	-
Time Before Reduction *	15	-	-
Time To Reduce *	30	-	-
Minimum Gap	3.4	-	-
Advance Walk	-	-	-
Non Lock Detector	-	X	X
Vehicle Recall	MIN RECALL	-	-
Dual Entry	-	X	X

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Proposed Stop Line & Pole Locations



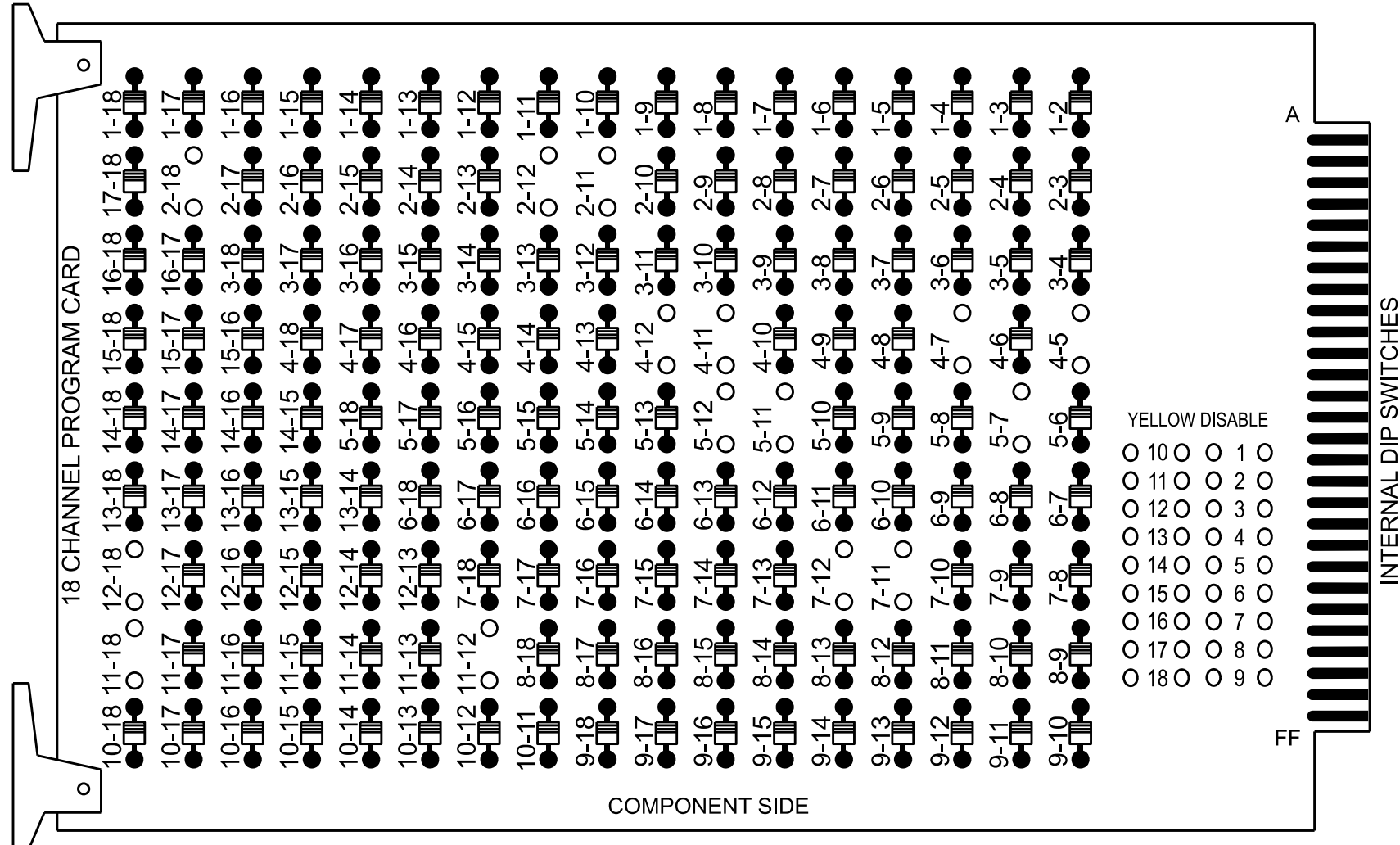
New Installation

Prepared in the Offices of: Signal Design Section	US 74 at SR 1379 (Hayes Rd.)	Division 10 Union County Indian Trail
750 N. Greenfield Pkwy, Garner, NC 27529	PLAN DATE: November 2024 PREPARED BY: T.A. Kenion	REVIEWED BY: R.N. Zinser
SCALE 0 40 1"=40'	REVISIONS	INIT. DATE
	SIG. INVENTORY NO. 10-2546	

18 CHANNEL CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

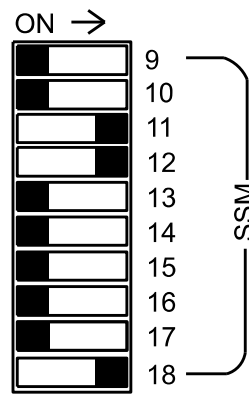
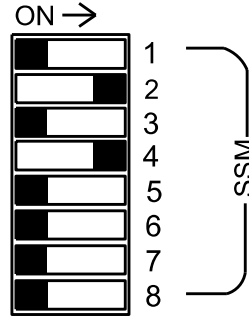
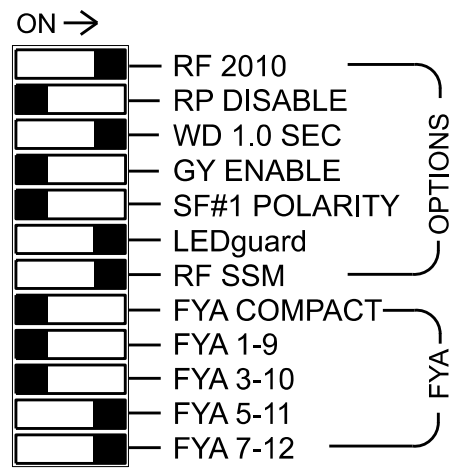
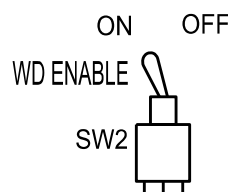
REMOVE DIODE JUMPERS 2-11, 2-12, 2-18, 4-5, 4-7, 4-11, 4-12, 5-7, 5-11, 5-12, 7-11, 7-12, 11-12, 11-18 and 12-18.



REMOVE JUMPERS AS SHOWN

NOTES:

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
- Ensure that the Red Enable is active at all times during normal operation.
- Connect serial cable from conflict monitor to comm. port 1 of 2070 controller. Ensure conflict monitor communicates with 2070.



■ = DENOTES POSITION OF SWITCH

NOTES

- To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.
- Program phases 4 and 7 for Dual Entry.
- Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.
- If this signal will be managed by an ATMS software, enable controller and detector logging for all detectors used at this location.

EQUIPMENT INFORMATION

Controller.....2070LX
Cabinet.....332 w/ Aux
Software.....Q-Free MAXTIME
Cabinet Mount.....Base
Output File Positions.....18 With Aux. Output File
Load Switches Used.....S2, S5, S7, S10, AUX S4, AUX S5, AUX S6
Phases Used.....2, 4, 7
Overlap "1".....Not Used
Overlap "2".....Not Used
Overlap "3".....*
Overlap "4".....*
Overlap "5".....Not Used
Overlap "6".....*
Overlap "7".....*

*See overlap programming detail on sheet 2

SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	OL7	6	6 PED	7	8	8 PED	OL1	OL2	SPARE	OL3	OL4	OL6
SIGNAL HEAD NO.	NU	21,22	NU	NU	41,42	NU	72★	NU	NU	71★	NU	NU	NU	NU	NU	72★	71★	23★
RED		128			101													A104
YELLOW		129					*			*								
GREEN		130																
RED ARROW																A114	A101	
YELLOW ARROW					102											A115	A102	A105
FLASHING YELLOW ARROW																A116	A103	A106
GREEN ARROW					103		133			124								
Hand icon																		
Walking person icon																		

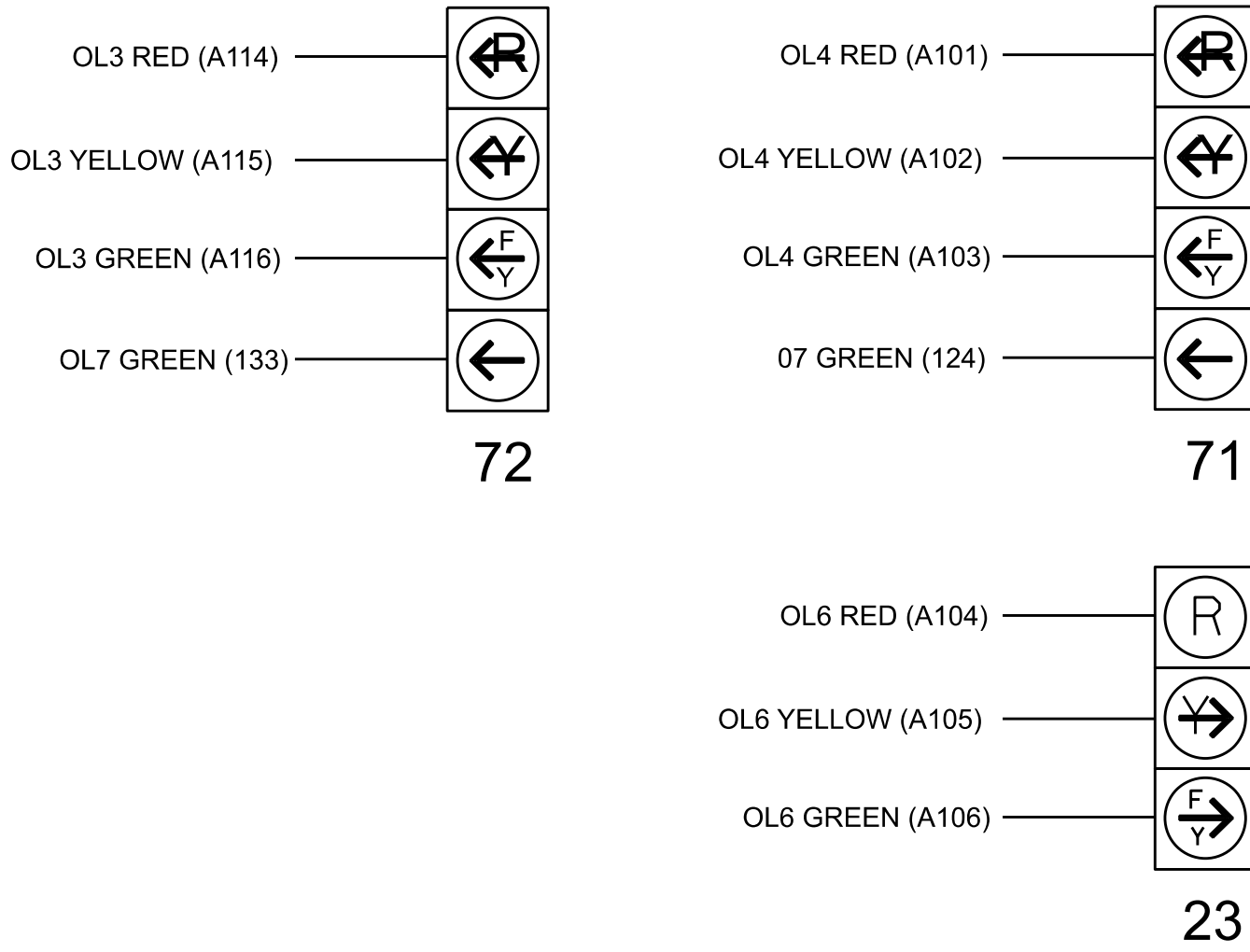
NU = Not Used

* Denotes install load resistor. See load resistor installation detail this sheet.

★ See pictorial of head wiring in detail this sheet.

FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



INPUT FILE POSITION LAYOUT

(front view)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
FILE "I" U	S O T	∅ 2 2A	S O T	S O T	S O T	∅ 4 4A	S O T	S O T	S O T	S O T	S O T	S O T	S O T	FS DC ISOLATOR
FILE "I" L	E M P T Y	∅ 2 2B	E M P T Y	E M P T Y	E M P T Y	NOT USED	E M P T Y	E M P T Y	E M P T Y	E M P T Y	E M P T Y	E M P T Y	E M P T Y	ST DC ISOLATOR
FILE "J" U	S O T	S O T	S O T	S O T	∅ 7 7A	S O T	S O T	S O T	S O T	S O T	S O T	S O T	S O T	S O T
FILE "J" L	E M P T Y	E M P T Y	E M P T Y	E M P T Y	NOT USED	E M P T Y	E M P T Y	E M P T Y	E M P T Y	E M P T Y	E M P T Y	E M P T Y	E M P T Y	E M P T Y

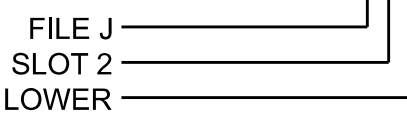
EX : 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
ST = STOP TIME

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
2A	TB2-5,6	I2U	39	1	2	2			X	X	X	
2B	TB2-7,8	I2L	43	5	3	2			X	X	X	
4A	TB4-9,10	I6U	41	3	8	4	15		X		X	
7A	TB5-5,6	J5U	57	19	21	7	15		X		X	

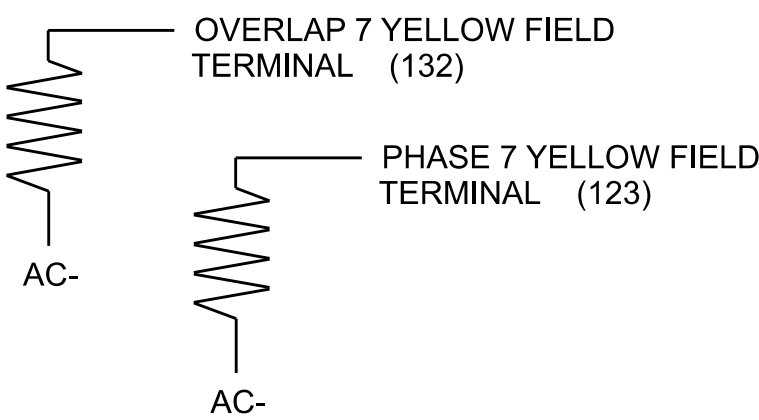
INPUT FILE POSITION LEGEND: J2L



LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown below)

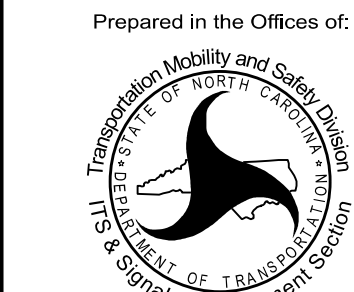
VALUE (ohms)	WATTAGE
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)



THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 10-2546
DESIGNED: November 2024
SEALED: 1/3/2025
REVISED: N/A

Electrical Detail - Sheet 1 of 2

ELECTRICAL AND PROGRAMMING
DETAILS FOR:



750 N. Greenfield Pkwy, Garner, NC 27526

US 74
at
SR 1379 (Hayes Rd.)

Division 10 Union County Indian Trail

PLAN DATE: January 2025

REVIEWED BY:

PREPARED BY: Zarrar Zafar

REVIEWED BY:

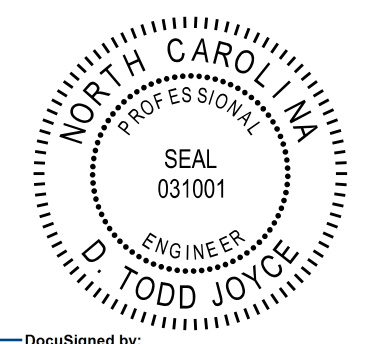
REVISIONS

INIT.

DATE

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL



DocuSigned by:
D. Todd Joyce 01/07/2025

SIG. INVENTORY NO. 10-2546

OVERLAP PROGRAMMING

Front Panel
Main Menu >Controller >Overlap >Overlap Parameters/Overlap Timings

Web Interface
Home >Controller >Overlap Configuration >Overlaps

Overlap Plan 1

Overlap	3	4	6	7
Type	FYA 4 - Section	FYA 4 - Section	FYA 4 - Section	Normal
Included Phases	2	2	2	7
Modifier Phases	7	7	-	-
Modifier Overlaps	-	-	-	-
Trail Green	0	0	0	0
Trail Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0

OUTPUT CHANNEL CONFIGURATION

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Overlap	7		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

NOTE: CHANNEL 5
CHANGED TO OVERLAP 7



MAXTIME STARTUP AND SOFTWARE FLASH
PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Unit

Web Interface
Home >Controller >Unit

Modify parameters as shown below and save changes.

Start Up Parameters

StartUp Clearance Hold
6

Unit Flash Parameters

All Red Flash Exit Time
6

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 10-2546
DESIGNED: November 2024
SEALED: 1/3/2025
REVISED: N/A

Electrical Detail - Sheet 2 of 2

750 N. Greenfield Pkwy, Garner, NC 27526

Prepared in the Offices of:

TRANSPORTATION MOBILITY AND SAFETY DIVISION
SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION
SIGNALS MANAGEMENT SECTION

ELECTRICAL AND PROGRAMMING
DETAILS FOR:

US 74
at
SR 1379 (Hayes Rd.)

Division 10Union CountyIndian Trail

PLAN DATE:January 2025REVIEWED BY:

PREPARED BY:Zarrar ZafarREVIEWED BY:

REVISIONS

INIT.

DATE

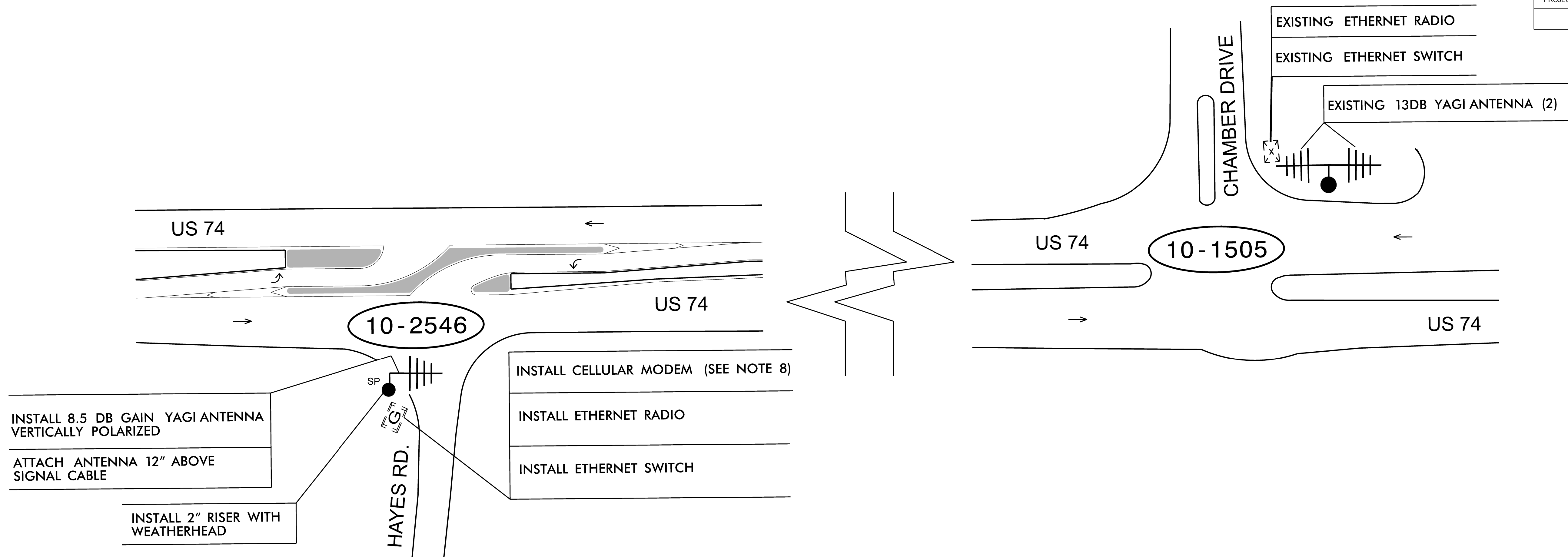
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FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
D. TODD JOYCE
031001

DocuSigned by:
D. Todd Joyce01/07/2025

SIG. INVENTORY NO.10-2546

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pwr\pwr\pwr\pwr\benriley\comm\pwr\pwr\1\Documents\NCDOT\TSMO\Signal Design_Section\Division_10\10-2546\Signal Management\102546_sm_ele_2025mmd.dgn
zzafar



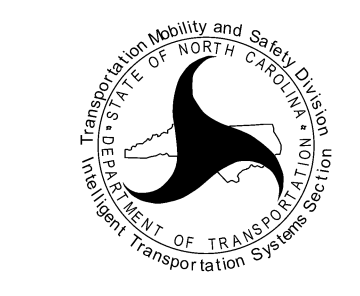
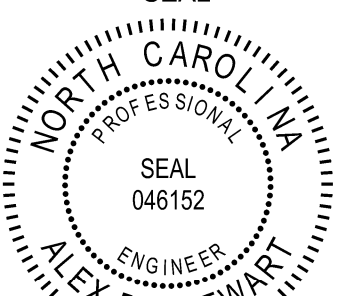
GENERAL NOTE:

1. THIS PROJECT ESTABLISHES A NEW SIGNAL SYSTEM ALONG US 74, D10-52_INDIAN TRIAL, INCORPORATING THE NEW SIGNAL AT HAYES RD AND US 74 (SIN# 10-2546) AND SIGNALS FROM EXISTING SIGNAL SYSTEM D10-33_INDIAN TRAILS.

THE FOLLOWING SIGNALS WILL NO LONGER BE PART OF THE EXISTING SIGNAL SYSTEM, D10-33_INDIAN TRAILS, AND WILL BE INCORPORATED INTO THE NEW SIGNAL SYSTEM, D10-52_INDIAN TRIAL: US 74 at CHAMBERS DR (SIN# 10-1505), US 74 EASTBOUND AT N ROCKY RIVER RD WB U-TURN (SIN# 10-2255), AND US 74 WESTBOUND AT N ROCKY RIVER RD EB U-TURN (SIN# 10-2256), N ROCKY RIVER RD AT MYERS RD / JAMES HAMILTON RD (SIN# 10-2460) US 74 at N ROCKY RIVER RD (SIN# 0-0656) AND N ROCKY RIVER RD AT MYERS RD / JAMES HAMILTON RD (SIN# 10-2460).

NOTES FOR WIRELESS COMMUNICATIONS:

- FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE DIVISION 10 TRAFFIC ENGINEER AT (704)-983-4400. NOTIFY THE DIVISON 10 TRAFFIC ENGINEER AFTER ALL WORK IS PERFORMED TO ENSURE THAT THE SYSTEM IS FUNCTIONING PROPERLY. WORK IS NOT COMPLETE UNTIL THE SIGNAL SYSTEM IS UP AND OPERATIONAL AND THE SIGNALS ARE COMMUNICATING WITH THE CENTRAL SYSTEM.
- INSTALL COAXIAL CABLE:
A. ON WOOD POLES, REQUIRING A NEW RIGID GALVANIZED STEEL RISER, INSTALL A 2" RISER WITH WEATHERHEAD
B. ON METAL POLES WITH MAST ARMS, RUN COAXIAL CABLE UP THROUGH THE POLE AND OUT THE MAST ARM; FIELD DRILL A 1/2" HOLE UP THROUGH THE BOTTOM OF MAST ARM FOR INSTALLATION OF THE COAXIAL CABLE TO THE ANTENNA.
C. ON METAL STRAIN POLES, RUN COAXIAL CABLE UP THROUGH THE POLE AND OUT THE WEATHERHEAD AND ROUTE THE COAXIAL CABLE TO THE ANTENNA.
D. BETWEEN THE POINT OF EXITING THE RISER, METAL POLE OR MAST ARMS AND THE ANTENNA, SECURE THE COAXIAL CABLE TO THE STRUCTURE USING 3/4" STAINLESS STEEL STRAPS EVERY 12".
- IF AN EXISTING 2" SPARE RIGID GALVANIZED STEEL RISER IS AVAILABLE, INSTALL THE COAXIAL CABLE IN THE SPARE RISER WITH 2" WEATHERHEAD.
- INSTALL WIRELESS ANTENNA ON POLE WITH RF WARNING SIGN.
(NOTE: RF WARNING SIGN NOT REQUIRED WHEN ANTENNA IS INSTALLED ON AN NCDOT-OWNED POLE.)
- INSTALL WIRELESS RADIO WITH EXTERIOR DISCONNECT SWITCH LOCATED ON CABINET.
(NOTE: RF ANTENNA DISCONNECT SWITCH AND DECAL ARE NOT REQUIRED WHEN THE ANTENNA IS INSTALLED ON AN NCDOT-OWNED POLE.)
- MAINTAIN PROPER CLEARANCE FROM ALL UTILITIES PER THE NATIONAL ELECTRICAL SAFETY CODE.
- REFERENCE "WIRELESS RADIO ANTENNA TYPICAL DETAILS."
- CELL MODEMS TO BE SUPPLIED BY THE DEPARTMENT, CONTACT THE DIVISION TRAFFIC ENGINEER AT (704)-983-4400 TO REQUEST THE CELL MODEM. ALLOW 8 WEEKS LEAD TIME BEFORE ANTICIPATED DEPLOYMENT.

Prepared in the Offices of:		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
			
750 N. Greenfield Pkwy., Garner, NC 27529		02/03/2025	
SCALE: 0 N/A		N/A	
D10-52_INDIAN TRIAL WIRELESS COMMUNICATIONS PLAN		DIVISION 10 UNION CO. INDIAN TRIAL	
PLAN DATE: JANUARY 2025		REVIEWED BY: <i>Gary Grun</i>	
PREPARED BY: H.T.BERGREN, EI		99FBBBF70BA4F.A.	
REVISIONS		INIT. DATE	

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

SIGNING PLAN
UNION COUNTY

LOCATION: INTERSECTION OF US 74 AND HAYES RD.(SR 1379)

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:

<u>STD. NO.</u>	<u>TITLE</u>
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS
910.30	SIGNING SIGNALIZED AND UNSIGNALIZED SUPERSTREET

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.
- . WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.
- . THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.
- . SEE ROADWAY PLANS FOR GUARD/GUIDE RAIL DETAILS.

SUMMARY OF QUANTITIES

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4025000000	901	CONTRACTOR FURNISHED, TYPE E SIGN SUPPORTS, 3 LB STEEL U-CHANNEL	127	S.F.
4072000000	903		360	L.F.
4102000000	904	SIGN ERECTION, TYPE E	16	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	11	EA.

PROJECT NOTES

1 DISPOSAL OF SIGN SYSTEM, U-CHANNEL

INDEX

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
SIGN-1	TITLE SHEET
SIGN-2	TYPE E SIGNS
SIGN-3-4	SIGNING PLAN SHEETS

PLAN PREPARED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

K. L. JORDAN SIGNING & DELINEATION REGIONAL ENGINEER
J. G. MARTINEZ, PE SIGNING & DELINEATION PROJECT DESIGN ENGINEER

SM-6110F

SIGN

001

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

DocuSigned by:
Jose G. Martinez
APPROVED: 4A7DB418C886461...

DATE: 02/19/2025

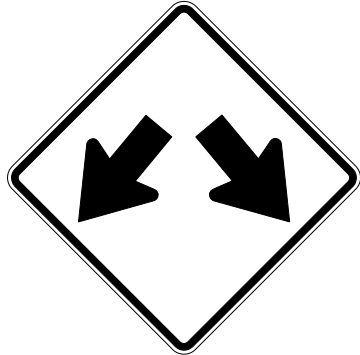
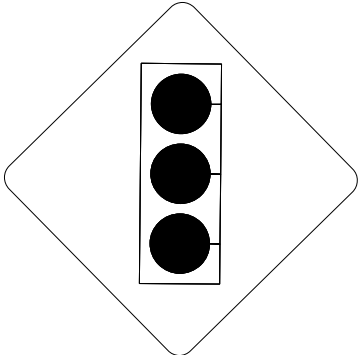
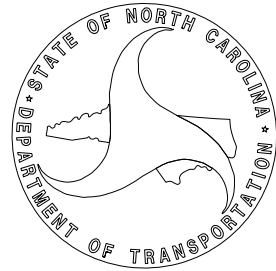
SEAL:

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
SEAL
046786
ENGINEER
JOSE G. MARTINEZ

INCOMPLETE PLANS
(DO NOT BE FOR E & F SIGNIFICATION)
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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DEPARTMENT OF TRANSPORTATION

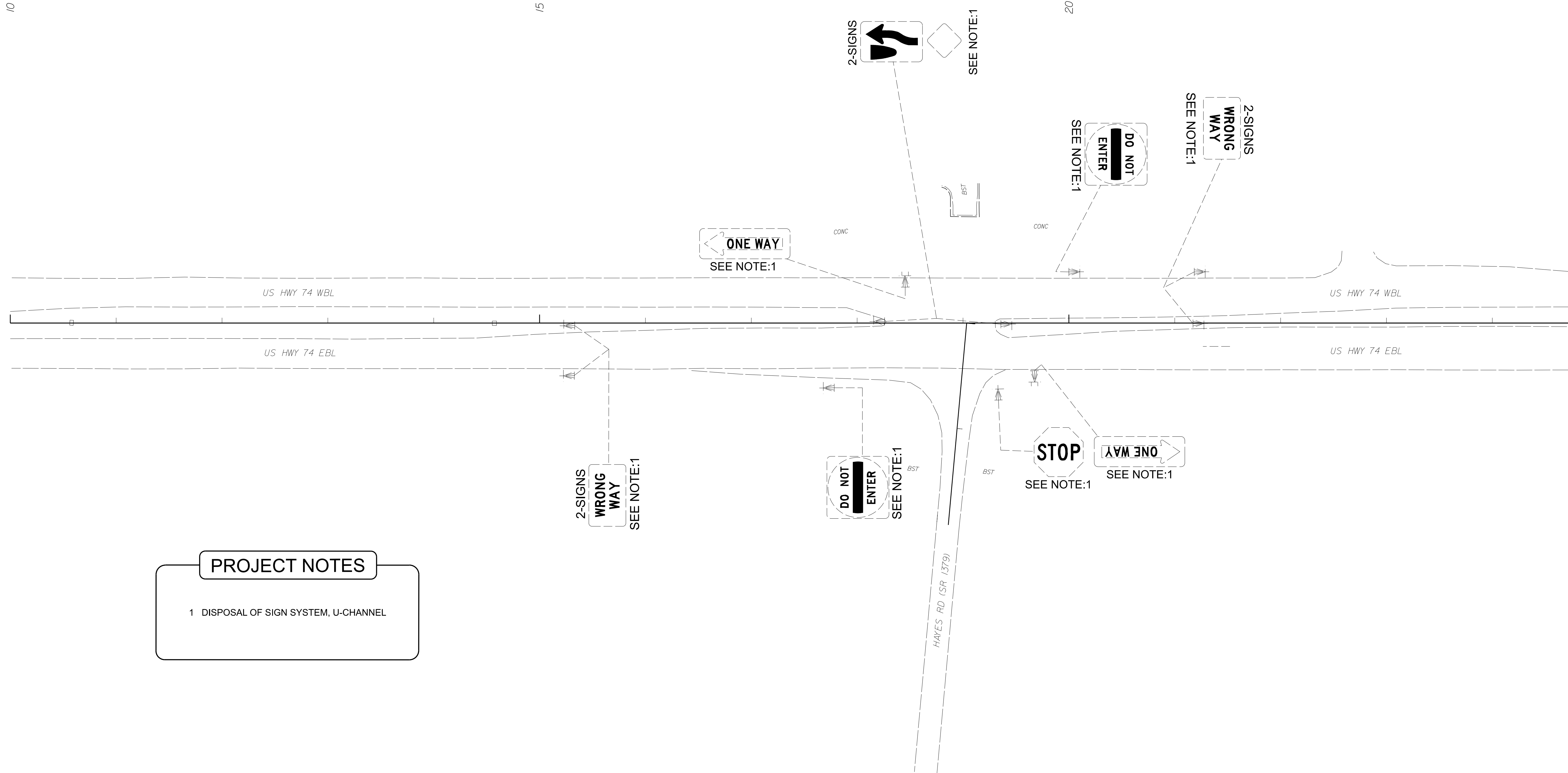
SM-6110F

5/26/20	401 QUANTITY REQ'D 2  36" X 36" R5-1 ONE "U" POST PER SIGN	402 QUANTITY REQ'D 2  48" X 18" R6-1(L) TWO "U" POSTS PER SIGN	403 QUANTITY REQ'D 2  48" X 18" R6-1(R) MOUNTED BACK TO BACK WITH SIGN 402 IN 1 INSTALLATION TWO "U" POSTS PER SIGN	404 QUANTITY REQ'D 4  42" X 30" R5-1a TWO "U" POSTS PER SIGN	405 QUANTITY REQ'D 2  36" X 36" W12-1 ONE "U" POST PER SIGN	406 QUANTITY REQ'D 2  30" X 30" W3-3 ONE "U" POST PER SIGN	407 QUANTITY REQ'D 2  24" X 42" R3-1C ONE "U" POST PER SIGN	SM-6110F SIGN 002 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DocuSigned by: Jose G. Martinez APPROVED: 447DB418C886451... DATE: 02/19/2025 SEAL:  INCOMPLETE PLANS DO NOT BE FOR CONSTRUCTION DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED  TYPE E SIGNS

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PROJECT NOTES

1 DISPOSAL OF SIGN SYSTEM, U-CHANNEL

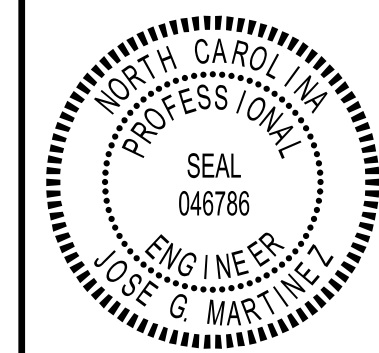
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SIGN	003
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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

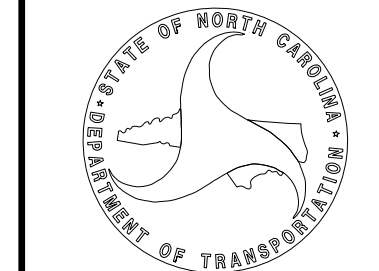
APPROVED:  DocuSigned by:

DATE: 02/19/2025

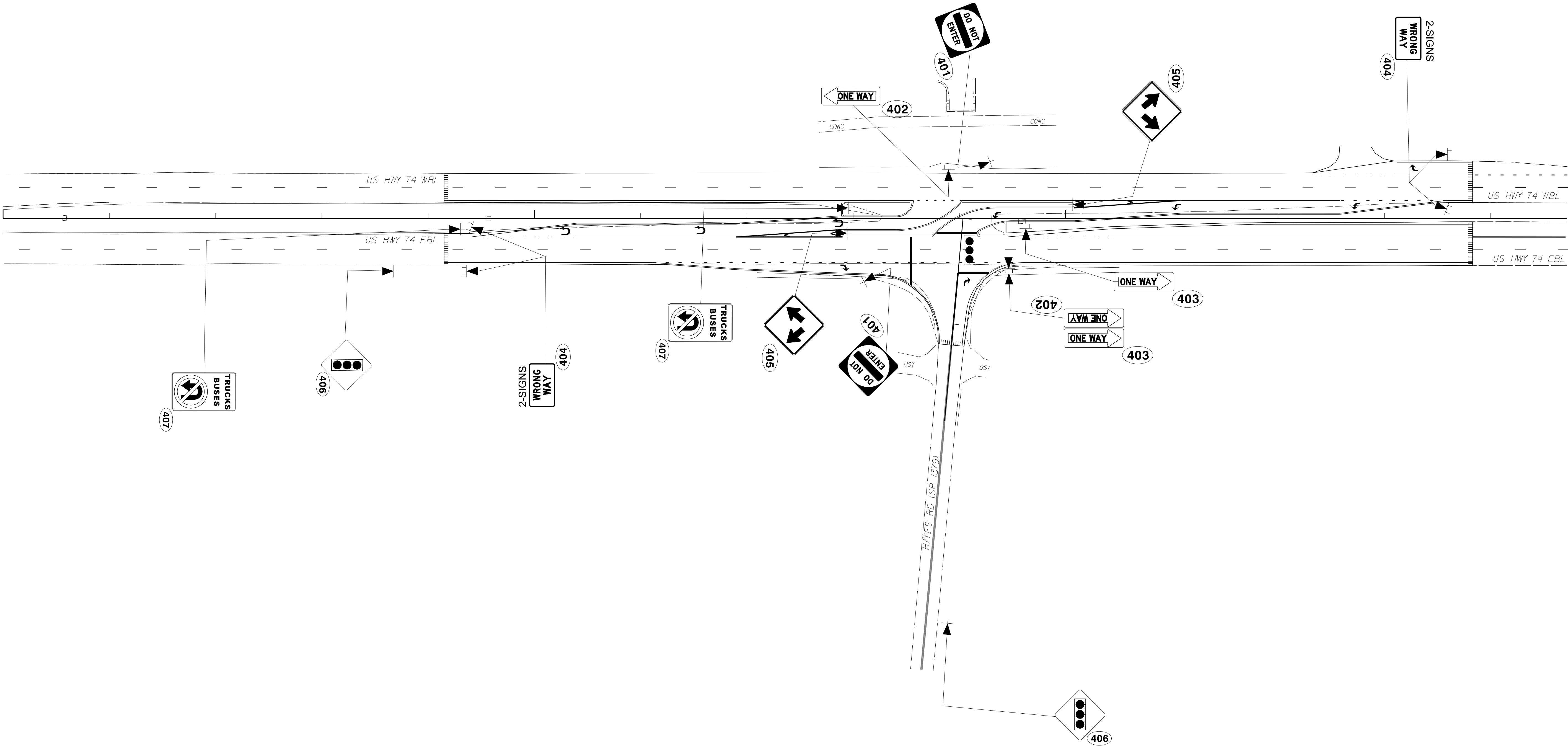
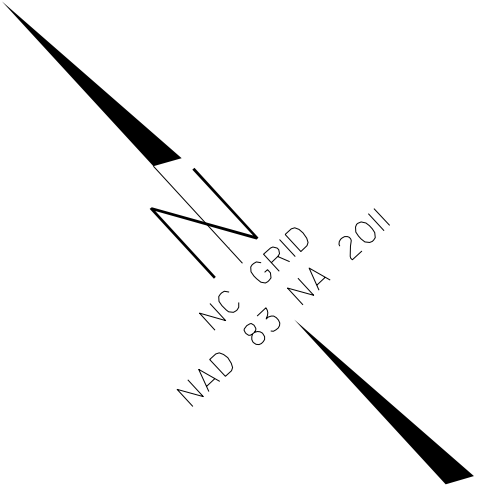


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EXISTING SIGNS



SM-6110F

SIGN004

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

DocuSigned by:
Jose G. Martinez
APPROVED:4A7DB418C886461...

DATE:02/19/2025

SEAL:

NORTH CAROLINA
PROFESSIONAL
SEAL
046786
ENGINEER
JOSE G. MARTINEZ

INCOMPLETE PLANS
(DO NOT BE USED FOR CONSTRUCTION)

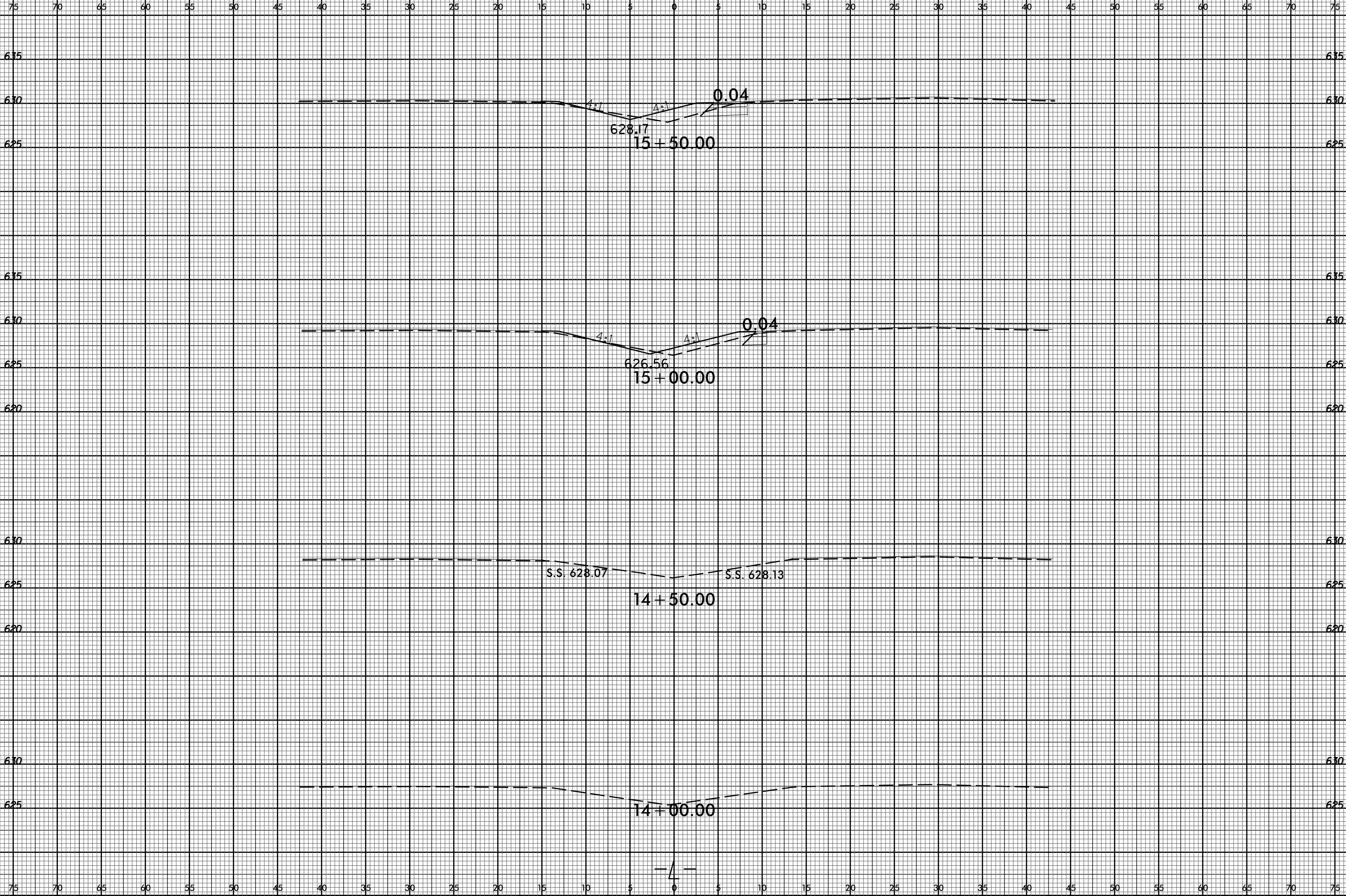
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UNLESS ALL SIGNATURES COMPLETED

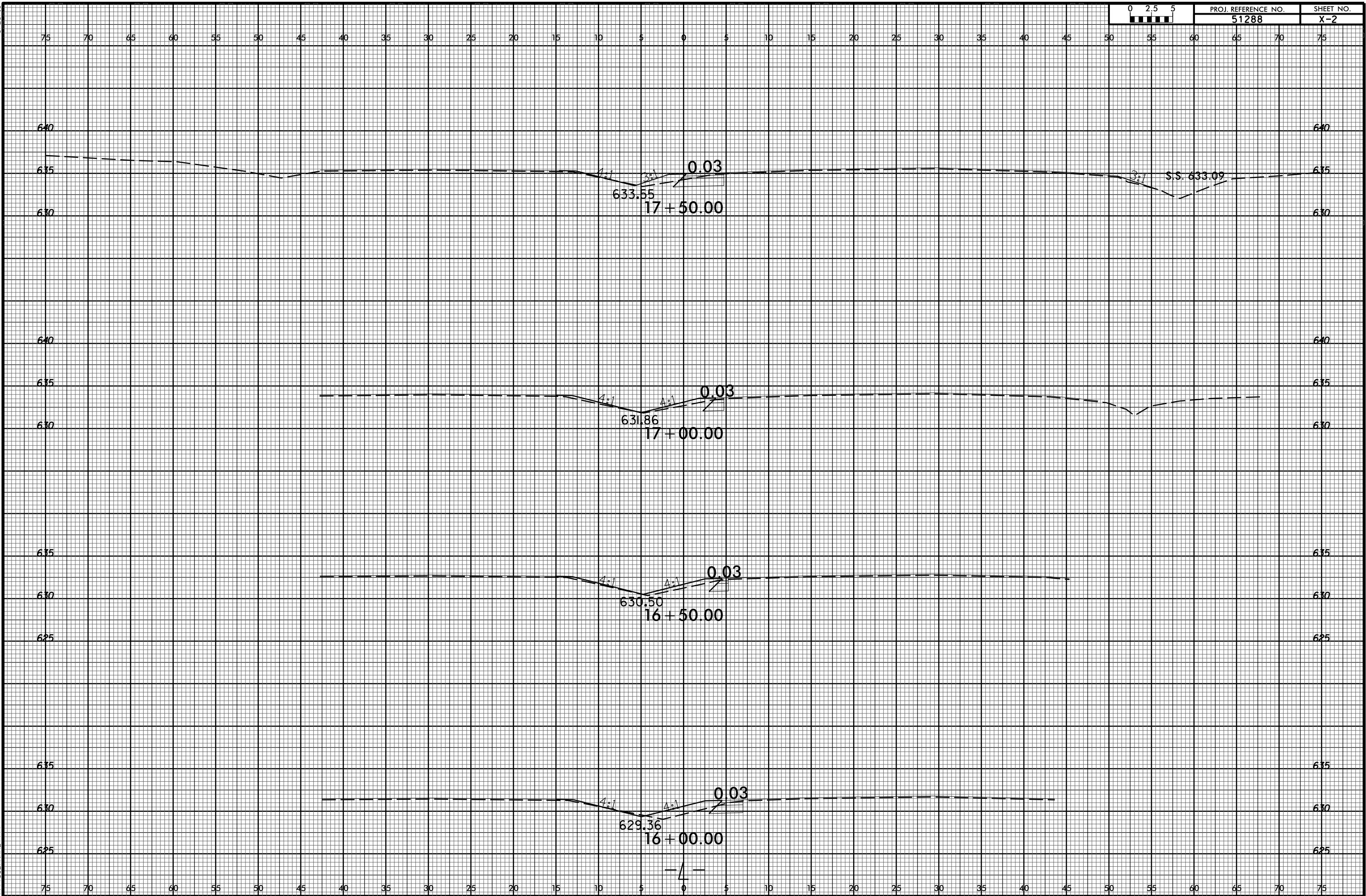
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNS

6/23/16

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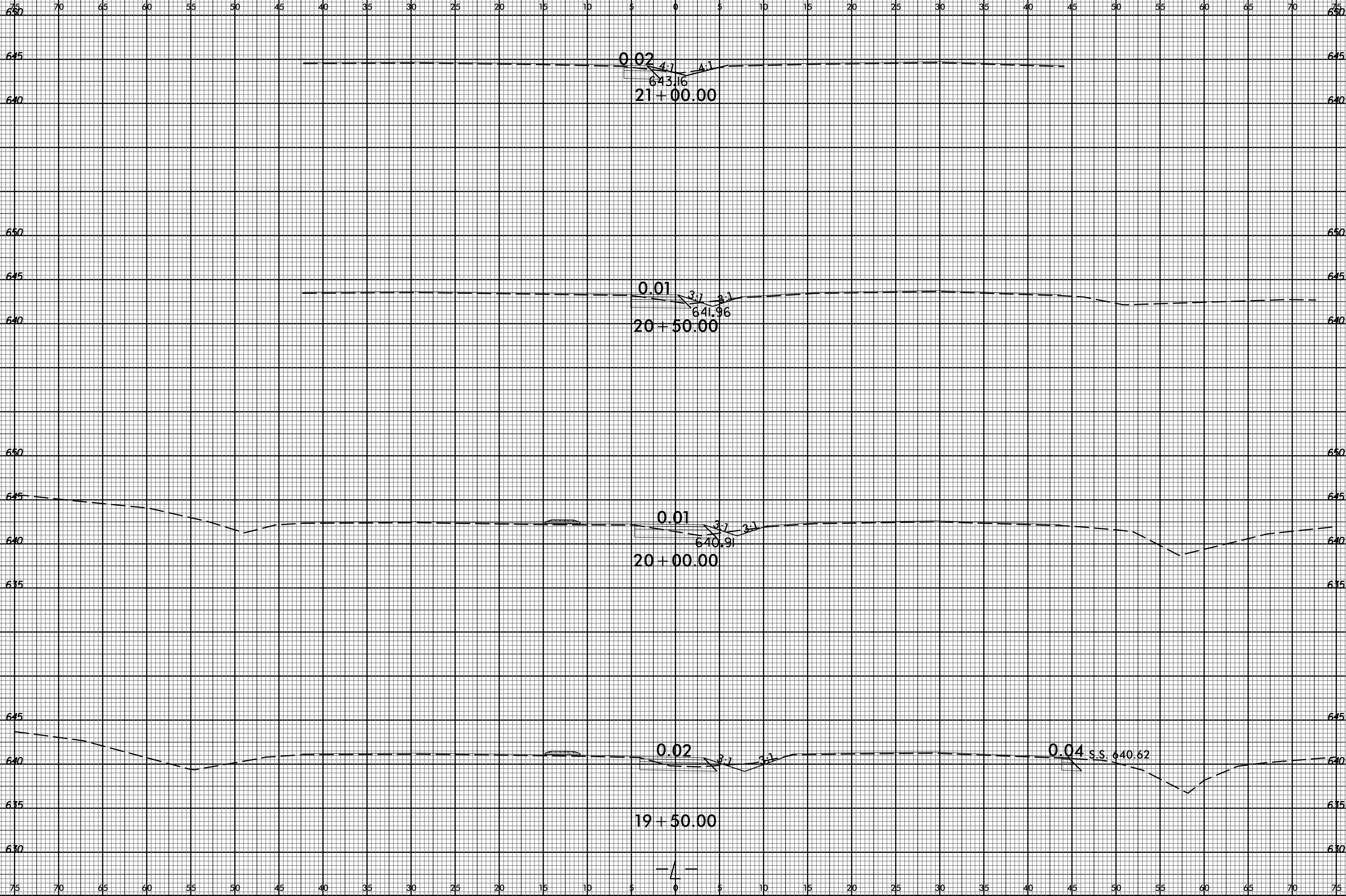


6/23/16



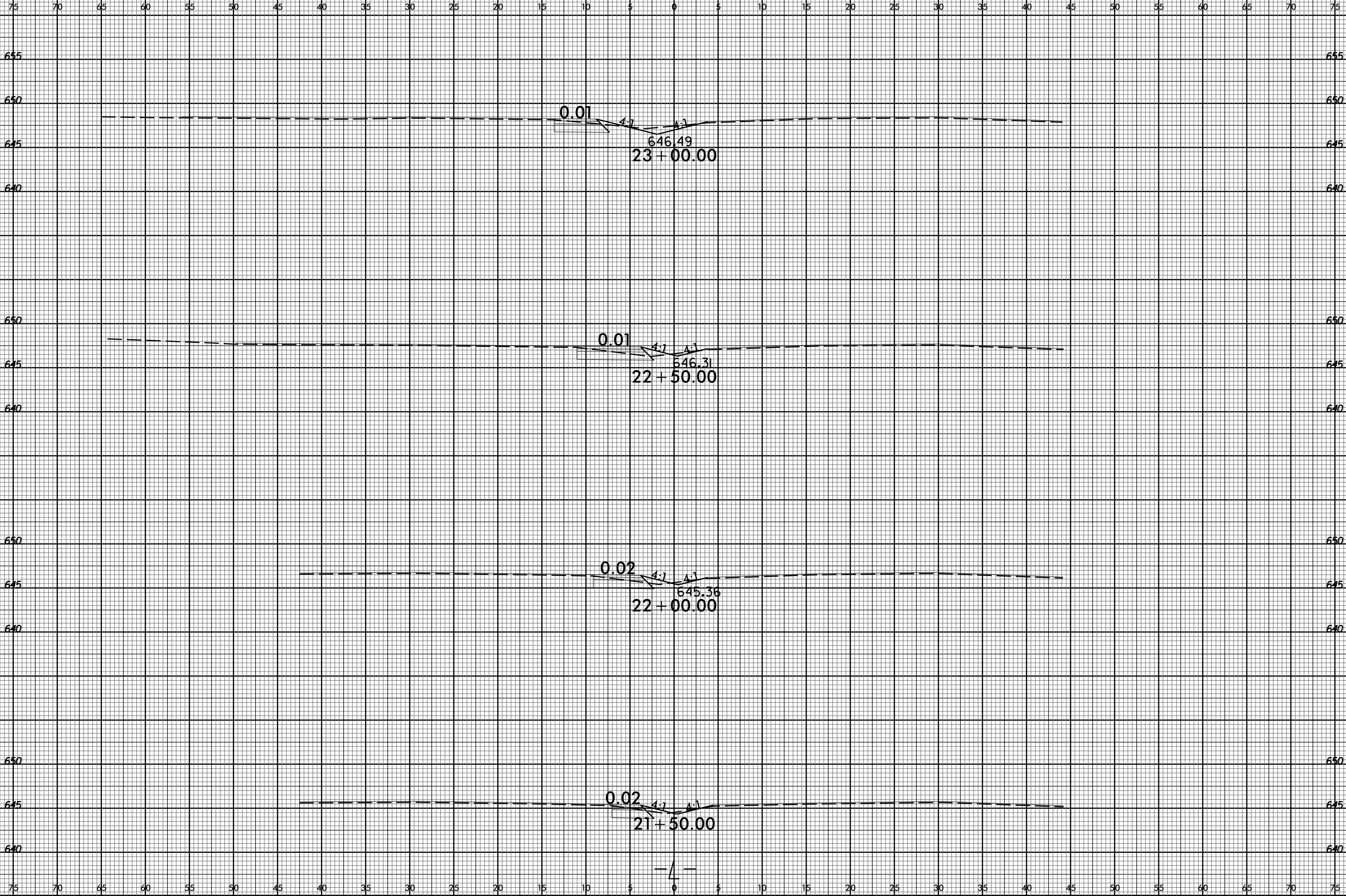
PROJ. REFERENCE NO.
51288

SHEET NO.
X-4



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6/23/16



6/23/16

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6/23/16

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