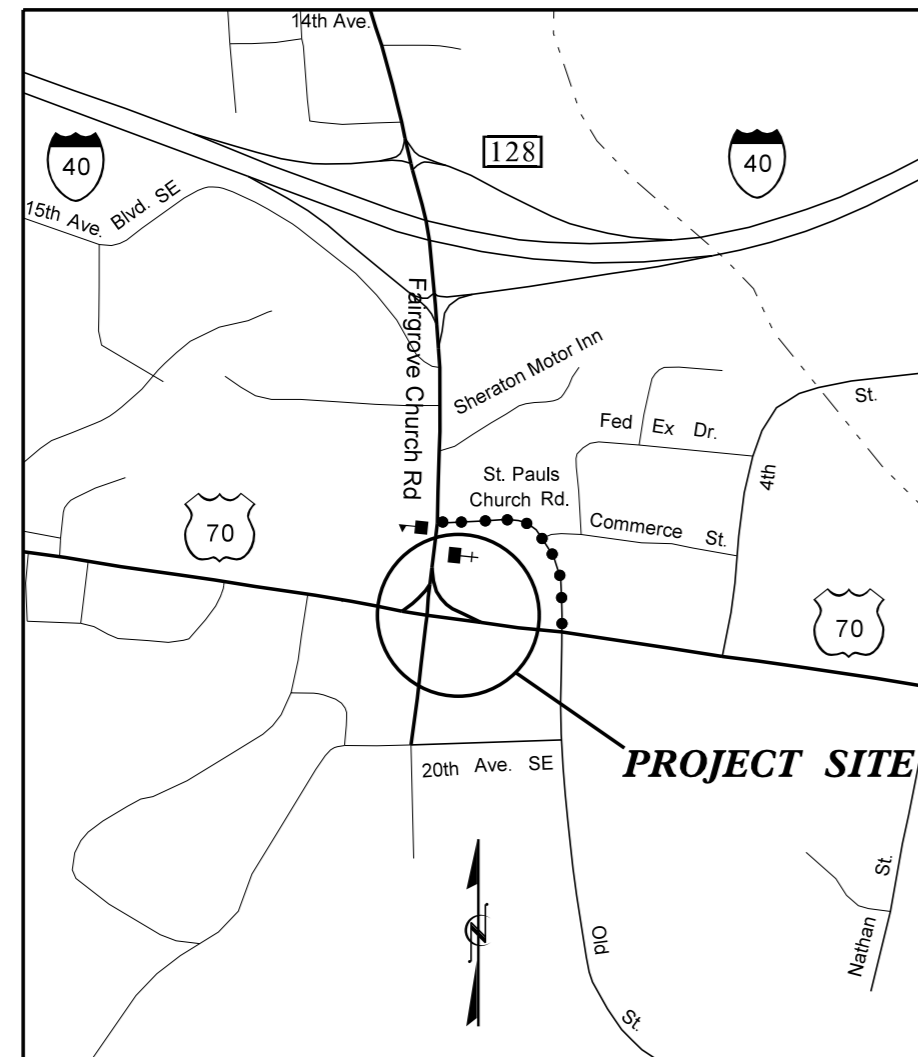


**TIP PROJECT: SS-4912BO**

**CONTRACT: DL00209**

See Sheet 1-A For Index of Sheets



**VICINITY MAP  
(NOT TO SCALE)**



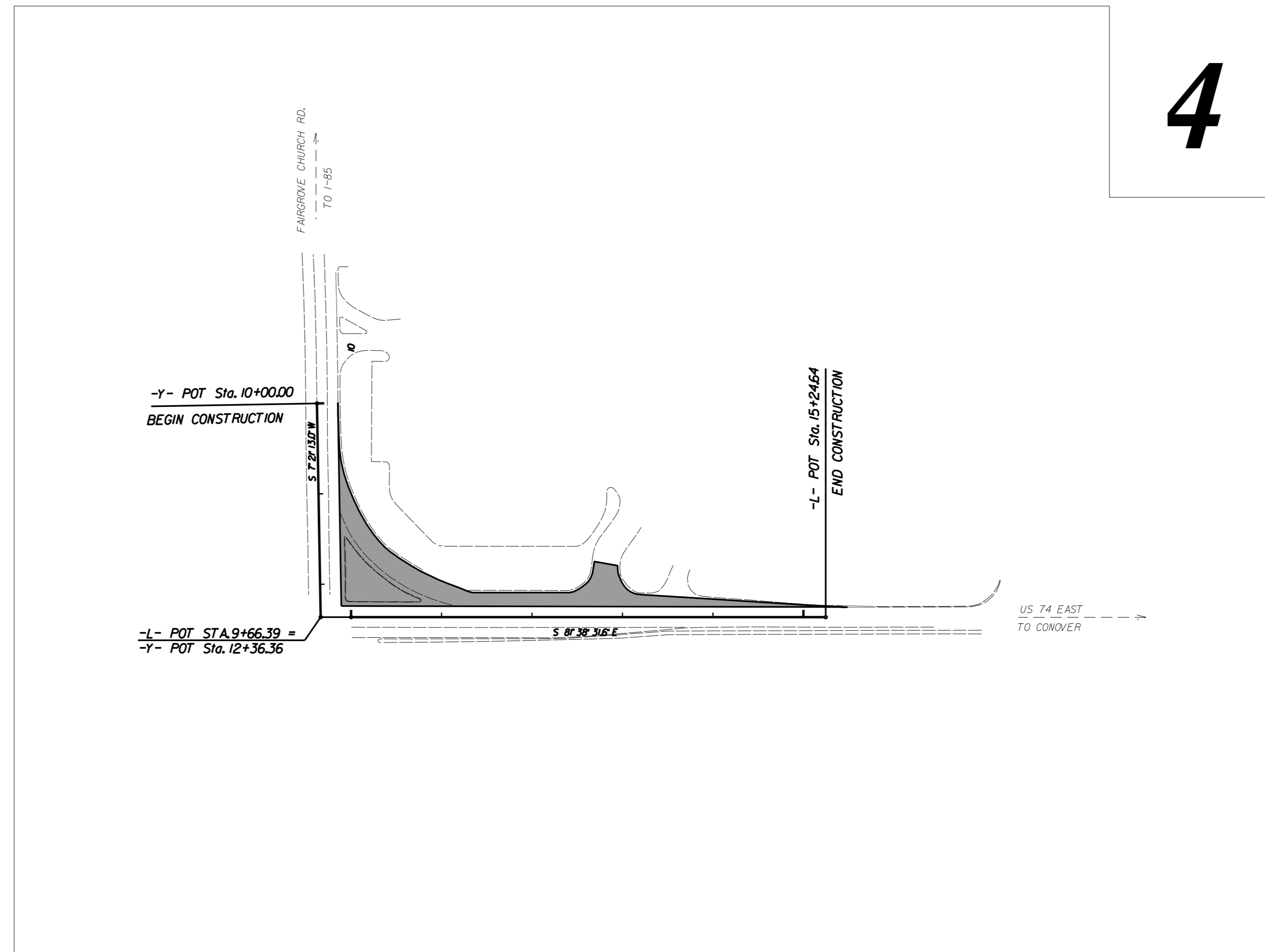
STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS

**CATAWBA COUNTY**

**LOCATION: US 70 AT FAIRGROVE CHURCH RD.**

**TYPE OF WORK: PAVING, GRADING, DRAINAGE AND SIGNALS**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SS-4912BO	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
44549.1.1	HSIP-0070 (193)	PE	
44549.3.1	N/A	CONST.	



DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

**GRAPHIC SCALES**

PLANS

**DESIGN DATA**

ADT 2013 = 15,000  
 V = 50 MPH

PRINCIPAL ARTERIAL  
 REGIONAL

**PROJECT LENGTH**

LENGTH TIP PROJ. SS-4912 BO = 0.15 MI  
 TOTAL LENGTH TIP PROJECT SS-4912 BO = 0.15 MI

Prepared in the Office of:  
**DIVISION OF HIGHWAYS**  
 1710 E. MARION ST, SHELBY, NC 28150

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
 N/A

LETTING DATE:  
 FEBRUARY 23, 2021

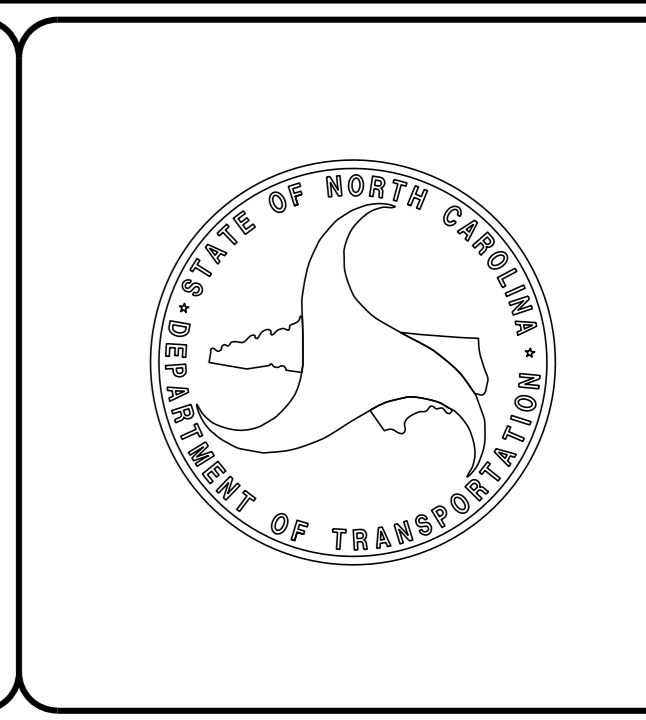
J.B. McSWAIN  
 PROJECT TEAM LEAD

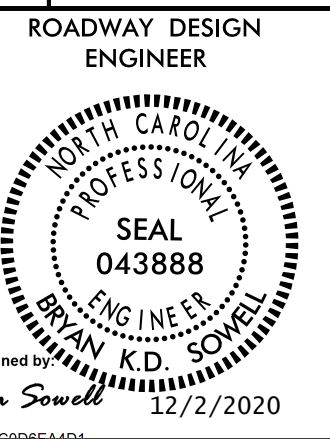
B.K. SOWELL, PE  
 PROJECT DESIGN ENGINEER

**ROADWAY DESIGN ENGINEER**

12/2/2020

DocuSigned by:  
 Bryan Sowell  
 SIGNATURE: \_\_\_\_\_ P.E.





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

SHEET NUMBER	INDEX OF SHEETS SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
1C-1	SURVEY CONTROL SHEETS
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2B-1	SHEAR POINT DIAGRAM
2B-2	3-CENTERED CURVE LAYOUT
3B-1	ROADWAY & DRAINAGE SUMMARIES
4	PLAN AND PROFILE SHEET
TMP-1 THRU TMP-2	TRAFFIC MANAGEMENT PLANS
PMP-1	PAVEMENT MARKING PLANS
EC-1	EROSION CONTROL PLAN
SIG-1 THRU SIG-2	SIGNAL PLANS
X-1 THRU X-6	CROSS-SECTIONS

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

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

CLEARING:  
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD 1L.

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

TEMPORARY SHORING:  
SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

SUBSURFACE PLANS:  
NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

UTILITIES:  
UTILITY OWNERS ON THIS PROJECT ARE AT&T, CHARTER, BROADPLEX, CITY OF CONOVER, CITY OF NEWTON, DUKE ENERGY, CITY OF HICKORY, PIEDMONT NATURAL GAS, NCDOT

2018 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD. NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Super-elevation - Two Lane Pavement
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Super-elevated Curve - Method I
DIVISION 8 - INCIDENTALS	
840.01	Brick Catch Basin - 12' thru 54' Pipe
840.02	Concrete Catch Basin - 12' thru 54' Pipe
840.03	Frame, Grates and Hood - for Use on Standard Catch Basin
840.04	Concrete Drop Inlet - 12' thru 30' Pipe
840.05	Brick Drop Inlet - 12' thru 30' Pipe
840.06	Drop Inlet Frame and Grates - for use with Std. Dwg 840.04 and 840.05
840.45	Precast Drainage Structure
840.72	Pipe Collar
846.01	Concrete Curb, Gutter and Curb & Gutter

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

## BOUNDARIES AND PROPERTY:

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

## BUILDINGS AND OTHER CULTURE:

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

## HYDROLOGY:

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

## RAILROADS:

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

## RIGHT OF WAY & PROJECT CONTROL:

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

## ROADS AND RELATED FEATURES:

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

## VEGETATION:

Single Tree	☼
Single Shrub	☼

Note: Not to Scale

\*S.U.E. = Subsurface Utility Engineering

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

## EXISTING STRUCTURES:

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

## UTILITIES:

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.*)	-----
U/G Power Line LOS C (S.U.E.*)	-----
U/G Power Line LOS D (S.U.E.*)	-----

## 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.*)	-----
U/G Telephone Cable LOS C (S.U.E.*)	-----
U/G Telephone Cable LOS D (S.U.E.*)	-----
U/G Telephone Conduit LOS B (S.U.E.*)	-----
U/G Telephone Conduit LOS C (S.U.E.*)	-----
U/G Telephone Conduit LOS D (S.U.E.*)	-----
U/G Fiber Optics Cable LOS B (S.U.E.*)	-----
U/G Fiber Optics Cable LOS C (S.U.E.*)	-----
U/G Fiber Optics Cable LOS D (S.U.E.*)	-----

## 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.*)	-----
U/G TV Cable LOS C (S.U.E.*)	-----
U/G TV Cable LOS D (S.U.E.*)	-----
U/G Fiber Optic Cable LOS B (S.U.E.*)	-----
U/G Fiber Optic Cable LOS C (S.U.E.*)	-----
U/G Fiber Optic Cable LOS D (S.U.E.*)	-----

## GAS:

Gas Valve	◇
Gas Meter	⊕
U/G Gas Line LOS B (S.U.E.*)	-----
U/G Gas Line LOS C (S.U.E.*)	-----
U/G Gas Line LOS D (S.U.E.*)	-----
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.*)	-----
SS Forced Main Line LOS C (S.U.E.*)	-----
SS Forced Main Line LOS D (S.U.E.*)	-----

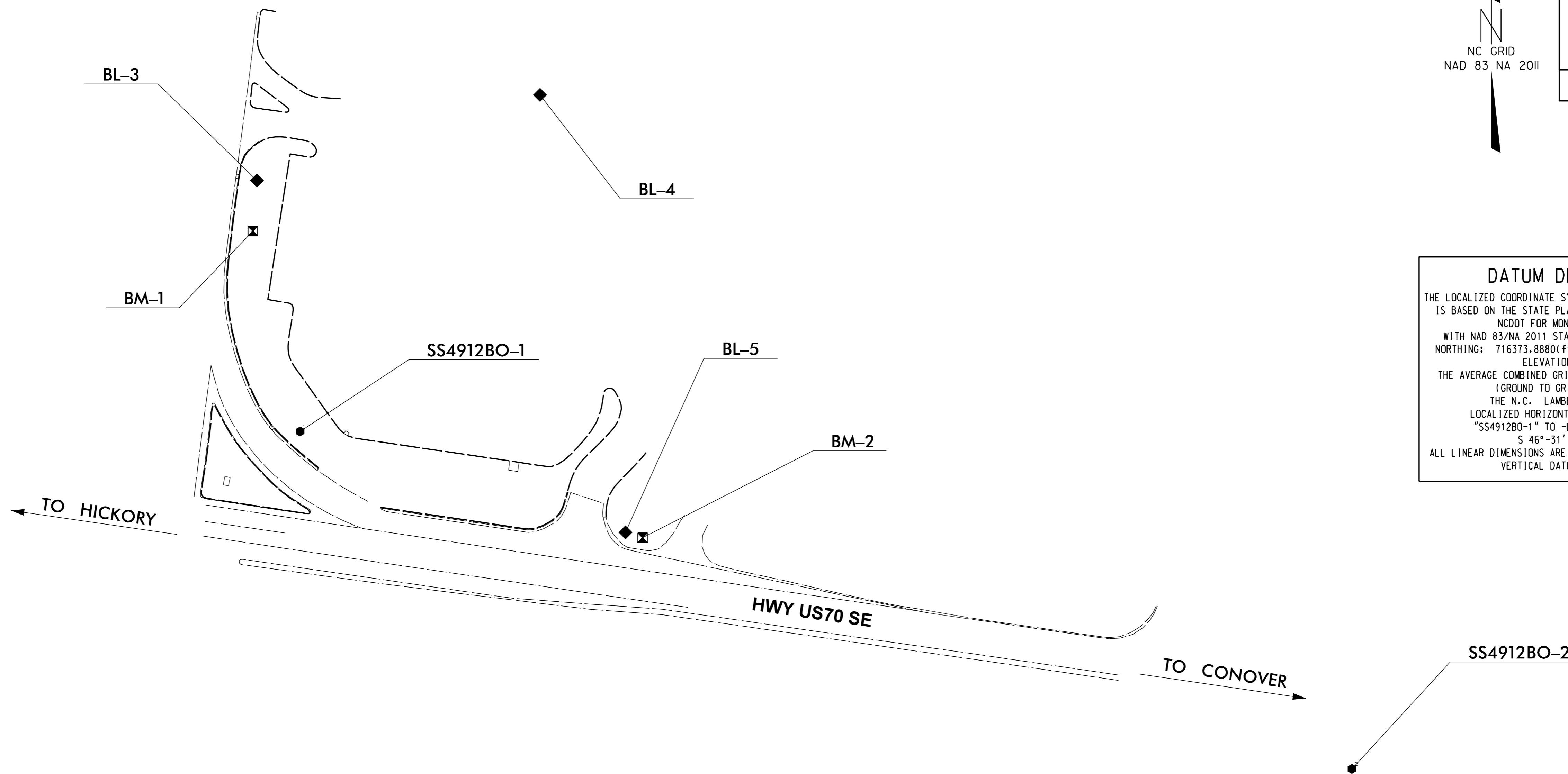
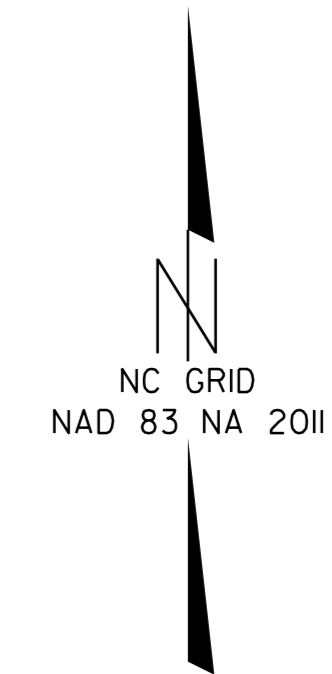
## MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	⊠
Utility Located Object	○
Utility Traffic Signal Box	⊠
Utility Unknown U/G Line LOS B (S.U.E.*)	-----
U/G Tank; Water, Gas, Oil	-----
Underground Storage Tank, Approx. Loc.	⊕
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.

5/14/99

PROJECT REFERENCE NO.		SHEET NO.	
SS-4912B0		1C-1	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			

# SURVEY CONTROL SHEET



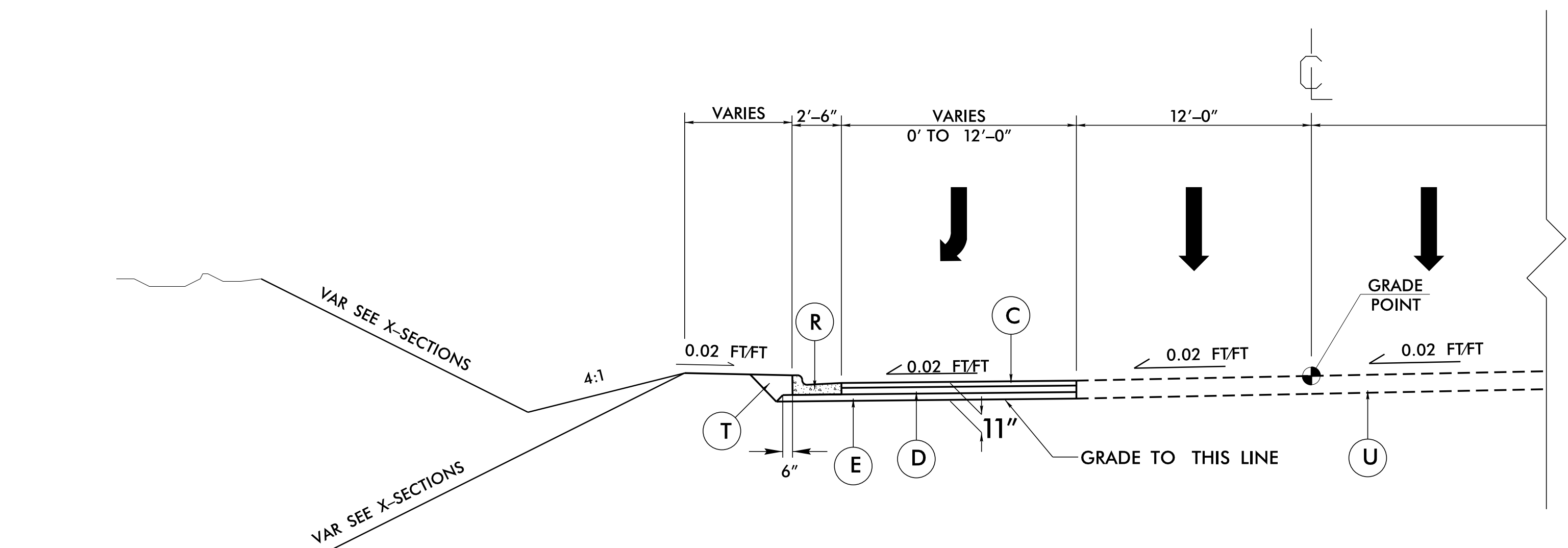
**DATUM DESCRIPTION**  
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "SS4912BO-1" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 716373.8880(ft) EASTING: 1328543.6900(ft) ELEVATION: 696.90(ft)  
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: .999861305  
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "SS4912BO-1" TO -L- STATION 10+00.00 IS S 46°-31'-38" W 98.43'  
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES  
 VERTICAL DATUM USED IS NAVD 88

Point	Northing	Easting	Elevation	Station	Offset
SS4912BO-1	716373.8880	1328543.6900	969.9000	10+60.83	77.38'
SS4912BO-2	716119.8866	1329334.8509	975.3700	OUTSIDE PROJECT LIMITS	
BL-3	716562.7813	1328511.2299	977.7750	10+01.25	259.55'
BL-4	716627.2353	1328724.1380	982.9000	12+02.53	354.27'
BL-5	716297.8924	1328788.4170	971.4650	13+14.00	37.77'

\*\*\*\*\*  
**BM#1**  
 N: 716525 E: 1328508 ELEV. = 979.51'  
 -L- STATION 10+03.75 221.42' LT.  
 BENCH TIE IN POWER POLE  
 \*\*\*\*\*

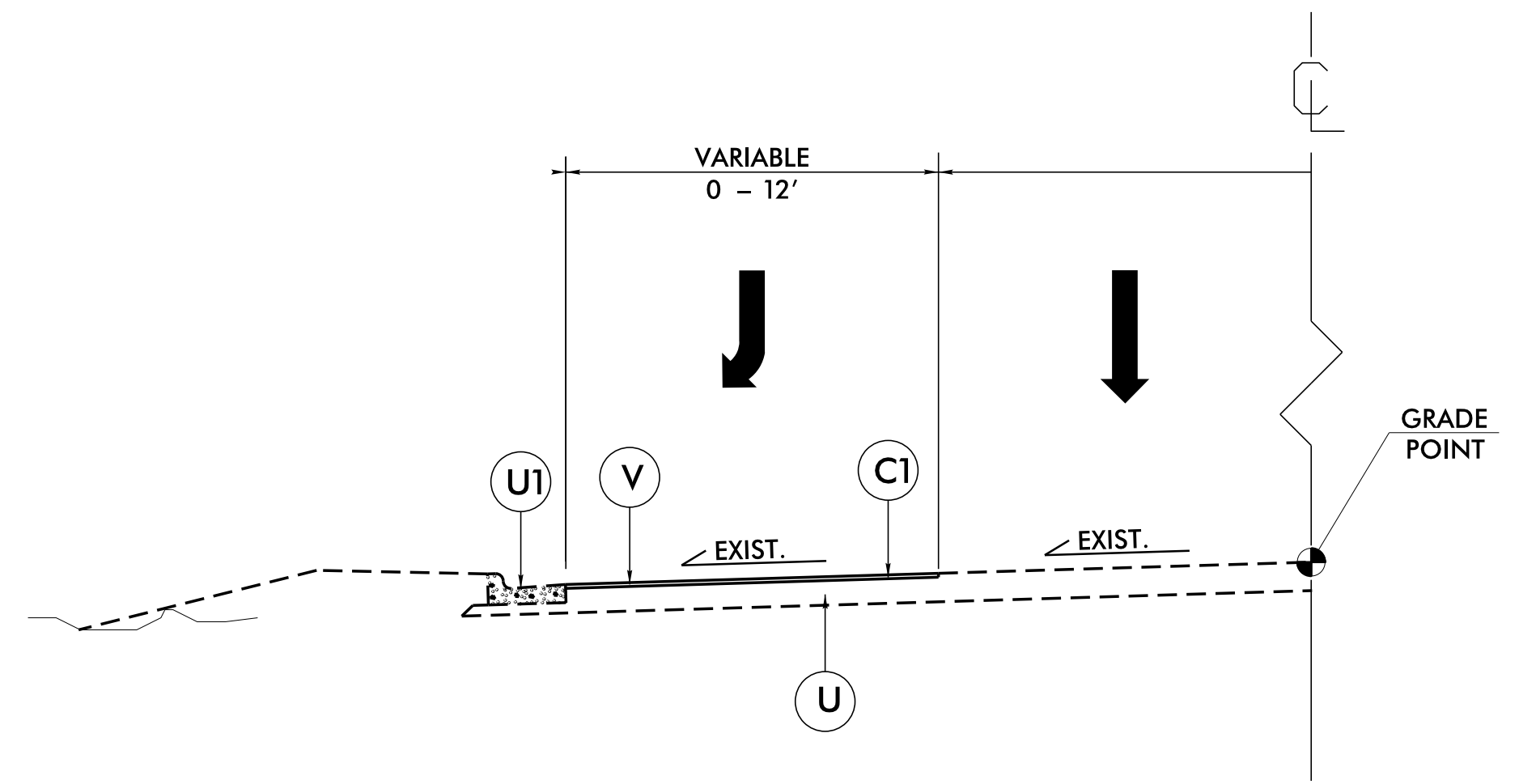
\*\*\*\*\*  
**BM#2**  
 N: 716294 E: 1328801 ELEV. = 973.69'  
 -L- STATION 13+27.34 35.70' LT.  
 BENCH TIE IN POWER POLE  
 \*\*\*\*\*

28 JUN-2019 08:26 SS4912BO-LS-1C.dgn



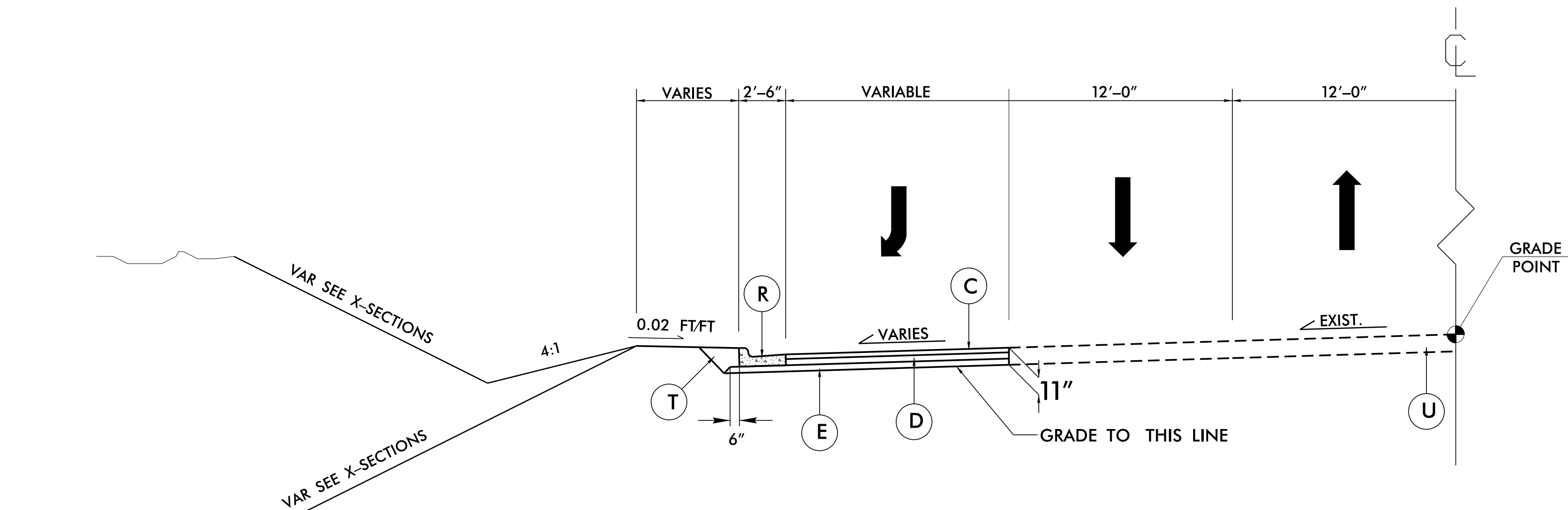
**TYPICAL SECTION NO. 1**

USE TYPICAL SECTION NO. 1  
-L- STA. 10+00 TO STA. ±11+35



**TYPICAL SECTION NO. 3**

USE TYPICAL SECTION NO. 3  
-L- STA. 11+35 TO STA. ±15+24.64



**TYPICAL SECTION NO. 2**

USE TYPICAL SECTION NO. 2  
-Y- STA. 10+50 TO STA. ±12+36

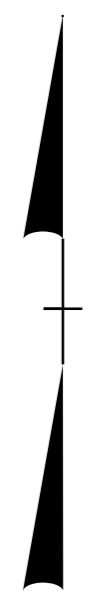
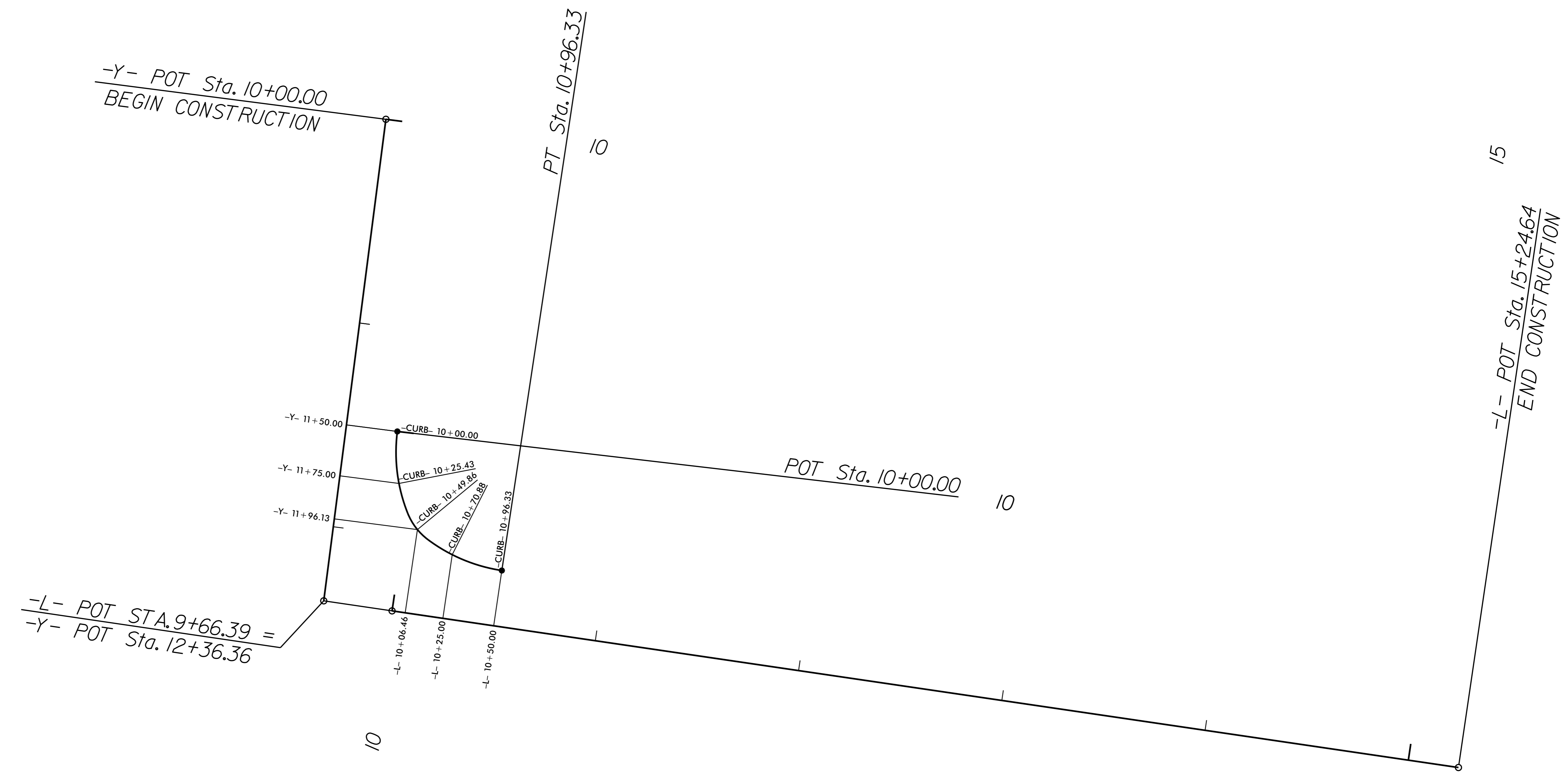
PAVEMENT SCHEDULE	
FINAL PAVEMENT DESIGN	
C	PROP. APPROX. 3.0" ASPHALT CONCRETE SURFACE COURSE. TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD IN EACH OF TWO LAYERS
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE. TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD.
D	PROP. APPROX. 4.0" ASPHALT CONCRETE INTERMEDIATE COURSE. TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YARD.
E	PROP. APPROX. 4.0" CONCRETE BASE COURSE. TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YARD.
R	2'-6" CONCRETE CURB AND GUTTER.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
U1	EXISTING CONCRETE CURB & GUTTER.
V	MILLING BITUMINOUS PAVEMENT. 1.5" DEPTH.

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

5/14/99

27-JUN-2018 15:50  
R:\PROJECTS\2018\152B0-Rdy-psh-2B-1.CRD.dgn

# SHEAR POINT DIAGRAM

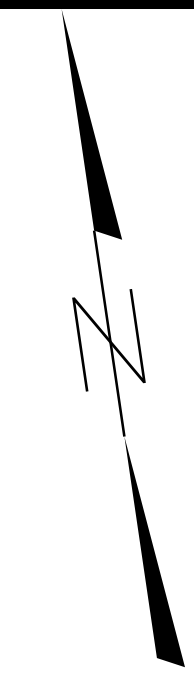


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R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
		12/2/2020	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			

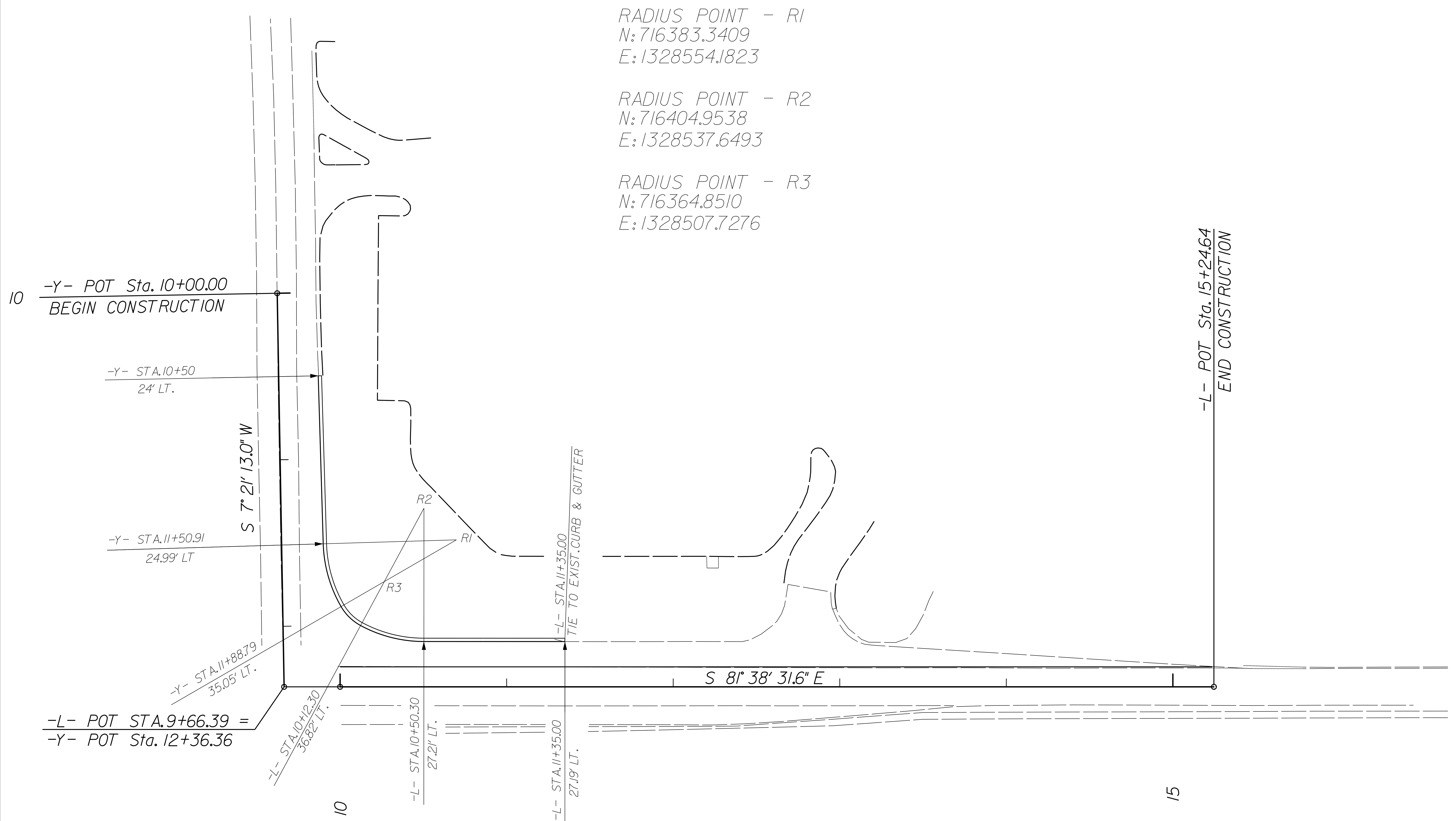
8/17/99

10 JUL 2019 07:59 SS-4912B0.Rdy-ph-2B-2.CRD.dgn

# 3 CENTERED CURVE LAYOUT INFO 80-30-80



PROJECT REFERENCE NO. SS-4912B0	SHEET NO. 2B-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DocuSigned by: <b>Bryan Sowell</b> 12/2/2020	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



RADIUS POINT - R1  
 N: 716383.3409  
 E: 1328554.1823

RADIUS POINT - R2  
 N: 716404.9538  
 E: 1328537.6493

RADIUS POINT - R3  
 N: 716364.8510  
 E: 1328507.7276

10 -Y- POT Sta. 10+00.00  
BEGIN CONSTRUCTION

-Y- STA. 10+50  
24' LT.

-Y- STA. 11+50.91  
24.99' LT

-Y- STA. 11+88.79  
35.05' LT.

-L- POT STA. 9+66.39 =  
-Y- POT Sta. 12+36.36

-L- STA. 10+12.30  
36.82' LT.

-L- STA. 10+50.30  
27.21' LT.

-L- STA. 11+35.00  
27.19' LT.

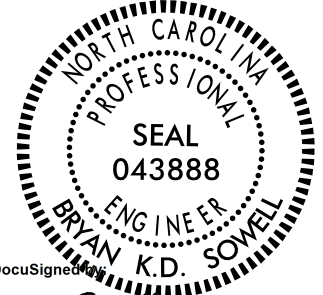
-L- STA. 11+35.00  
TIE TO EXIST. CURB & GUTTER

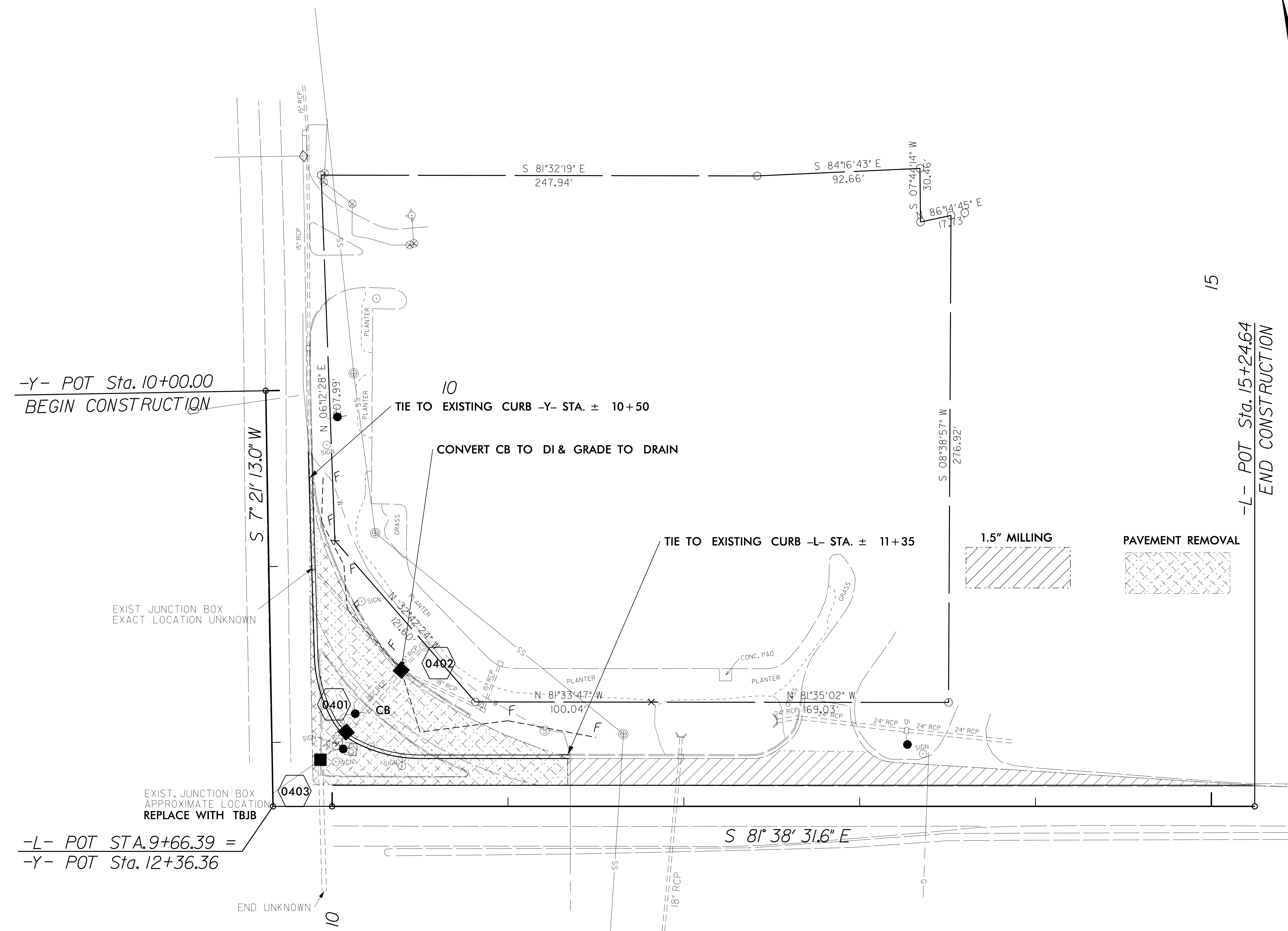
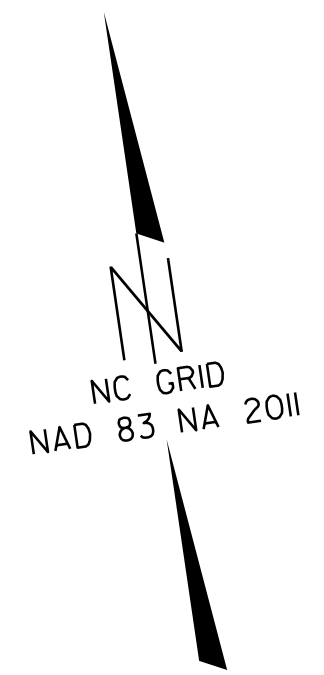
-L- POT Sta. 15+24.64  
END CONSTRUCTION

15





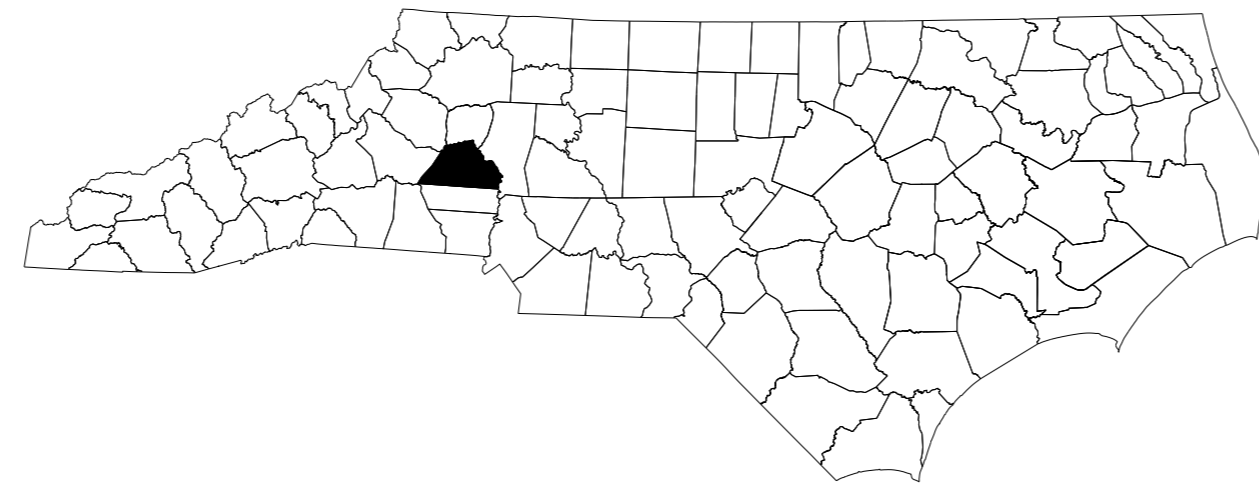
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SS-4912B0	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	
12/2/2020	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



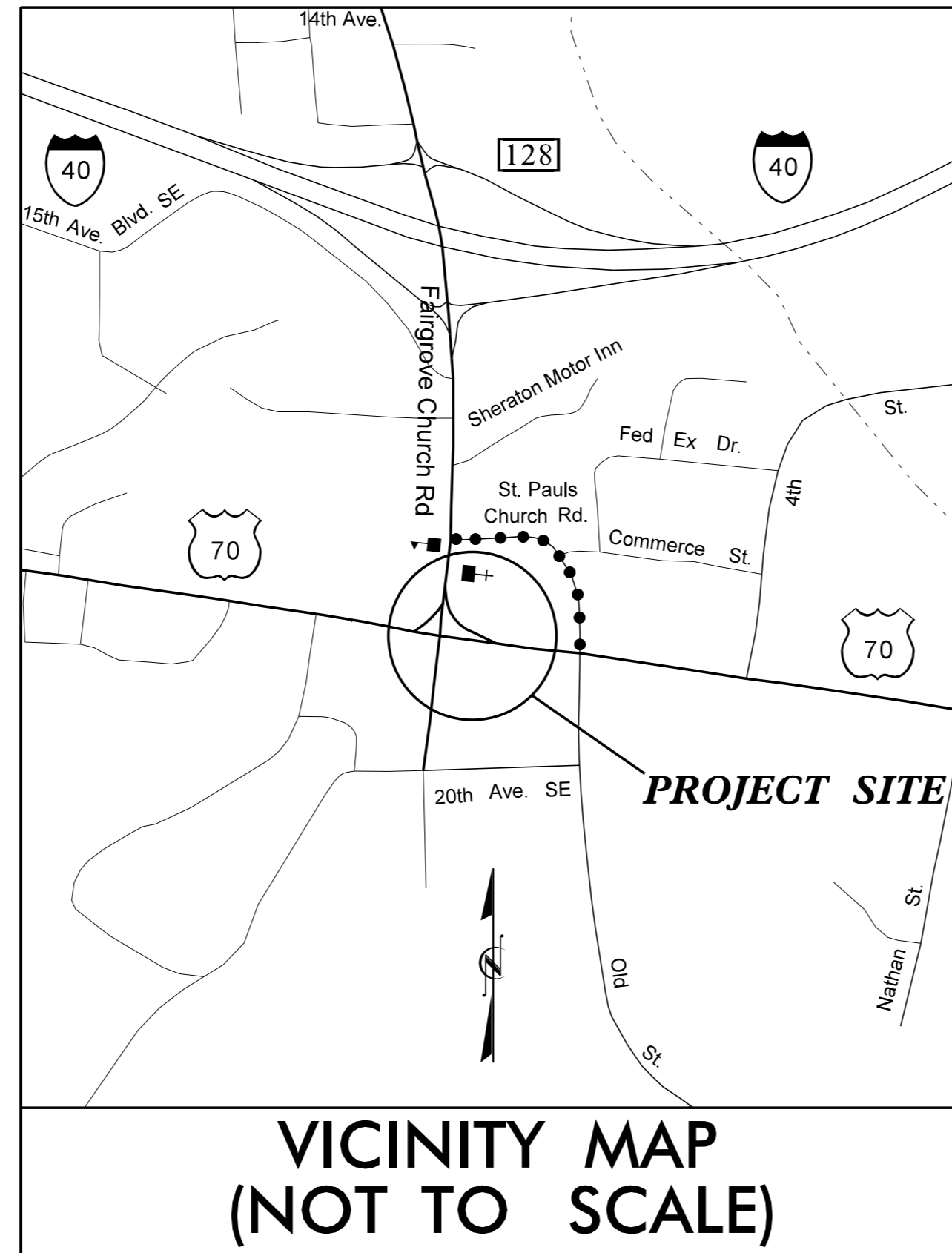
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**TRANSPORTATION MANAGEMENT PLAN**

**CATAWBA COUNTY**



See Sheet 1-A For Index of Sheets



VICINITY MAP  
(NOT TO SCALE)



SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND
TMP-1B	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES, AND LOCAL NOTES)
TMP-2	RIGHT TURN DETOUR PLAN
PMP-1	PAVEMENT MARKING PLAN

SHEET NO.  
TMP-1

**SS-4219B**

**TIP PROJECT:**

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

APPROVED: *Bryan Sowell*  
DATE: 12/2/2020

SEAL



PLANS PREPARED BY:

DIVISION 12

DDC

NCDOT CONTACTS:

J. B. McSWAIN  
PROJECT ENGINEER

B. K. SOWELL, PE  
PROJECT DESIGN ENGINEER



10-JUL-2019 09:04  
R:\PROJECTS\CATAWBA\CONTRACTOR\CPASS-4912B0\_TC\_TMP.tsh.dgn  
\$\$\$\$\$USERNAM\$\$\$\$\$

# ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
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
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1180.01	SKINNY-DRUM
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
1205.06	PAVEMENT MARKINGS - LANE DROPS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING

# LEGEND

## GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- TEMP. SHORING (LOCATION PURPOSES ONLY)
- WORK AREA
- REMOVAL

## SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

## 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 MARKERS

- CRYSTAL/CRYSTAL
- CRYSTAL/RED
- YELLOW/YELLOW

## PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

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APPROVED: DATE: 12/2/2020 SEAL			ROADWAY STANDARD DRAWINGS & LEGEND
<b>DOCUMENT NOT CONSIDERED FINAL          UNLESS ALL SIGNATURES COMPLETED</b>			

## 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
	MONDAY-FRIDAY
US 70 & FAIRGROVE CHURCH RD.	7:00 A.M. UNTIL 9:00 A.M. & 4:00 P.M. UNTIL 7:00 P.M.

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

ROAD NAME	HOLIDAY
US 70 & FAIRGROVE CHURCH RD.	
	<ol style="list-style-type: none"> <li>FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.</li> <li>FOR NEW YEAR'S, BETWEEN THE HOURS OF 7:00 A.M. DECEMBER 31st TO 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.</li> <li>FOR EASTER, BETWEEN THE HOURS OF 7:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.</li> <li>FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.</li> <li>FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY.  IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 7:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.</li> <li>FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.</li> <li>FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.</li> <li>FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.</li> </ol>

**LANE AND SHOULDER CLOSURE REQUIREMENTS**

- C) 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.
- D) 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.
- E) 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.

## LOCAL NOTES

MAINTAIN DRIVEWAY ACCESS TO ALL PARCELS DURING CONSTRUCTION.

TRAFFIC SHALL BE MAINTAINED DURING OPEN CUTTING OPERATIONS FOR UTILITY CONSTRUCTION. ONLY ONE LANE MAY BE CLOSED AT ANY GIVEN TIME.

## MANAGEMENT STRATEGIES

FAIR GROVE CHURCH RD. (-Y-) WILL BE CONSTRUCTED USING TEMPORARY LANE CLOSURES AS NEEDED.

US 70 (-L-) RT TURN LANE WILL BE CONSTRUCTED USING A DETOUR.

**PAVEMENT EDGE DROP OFF REQUIREMENTS**

- F) 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.

**TRAFFIC PATTERN ALTERATIONS**

- G) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

**SIGNING**

- H) 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.
- I) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS. AND TRAFFIC CONTROL PLANS.

PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS, EXCEPT THE FAIRGROVE CHURCH RD. DETOUR SIGN

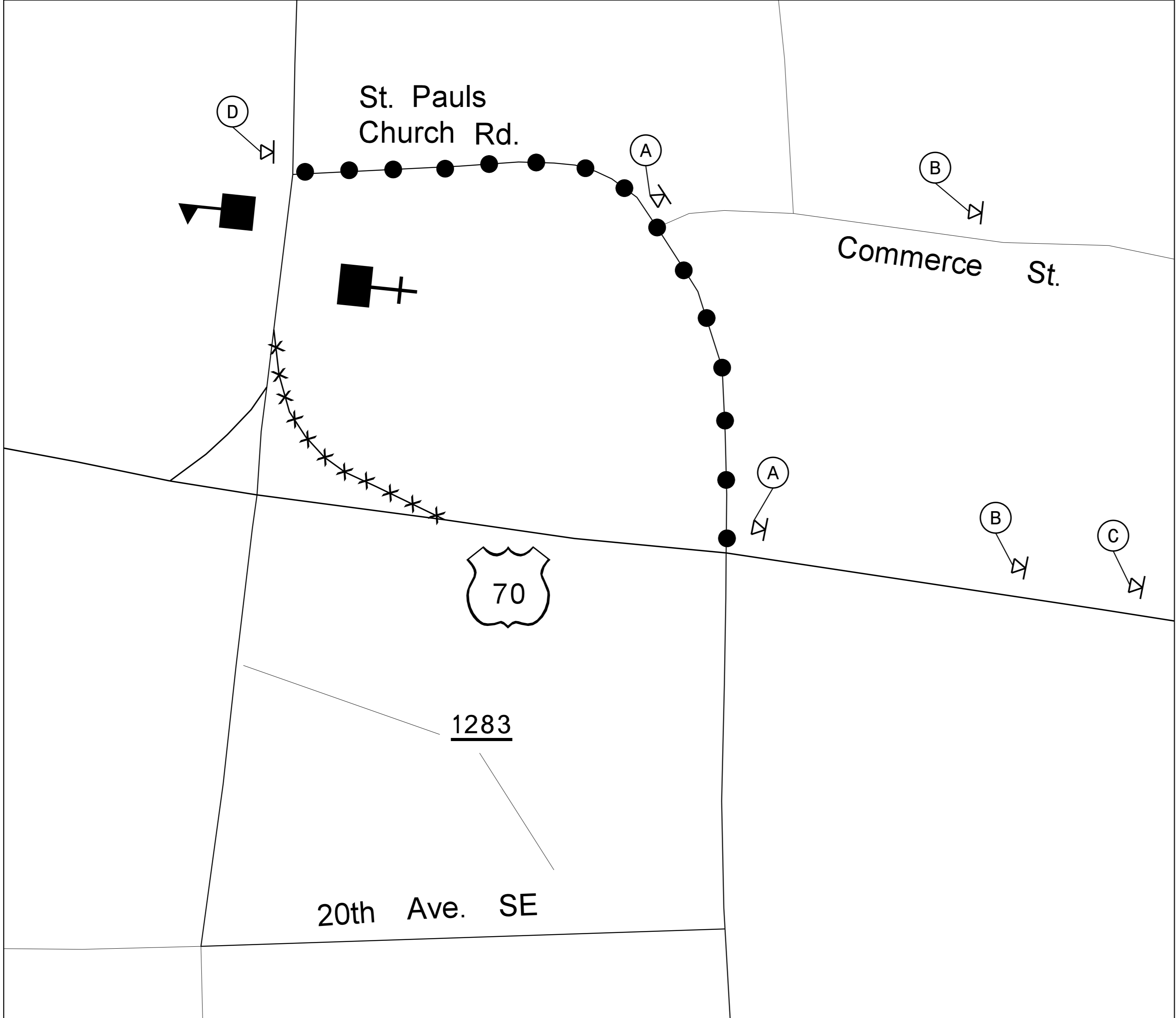
**PAVEMENT MARKINGS AND MARKERS**

- J) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- K) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

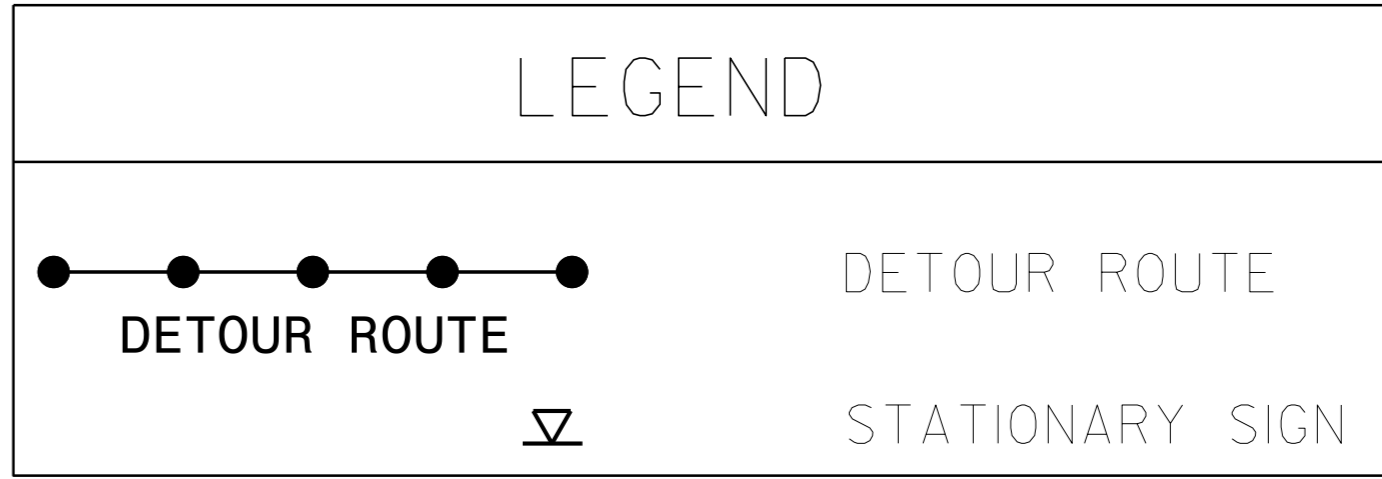
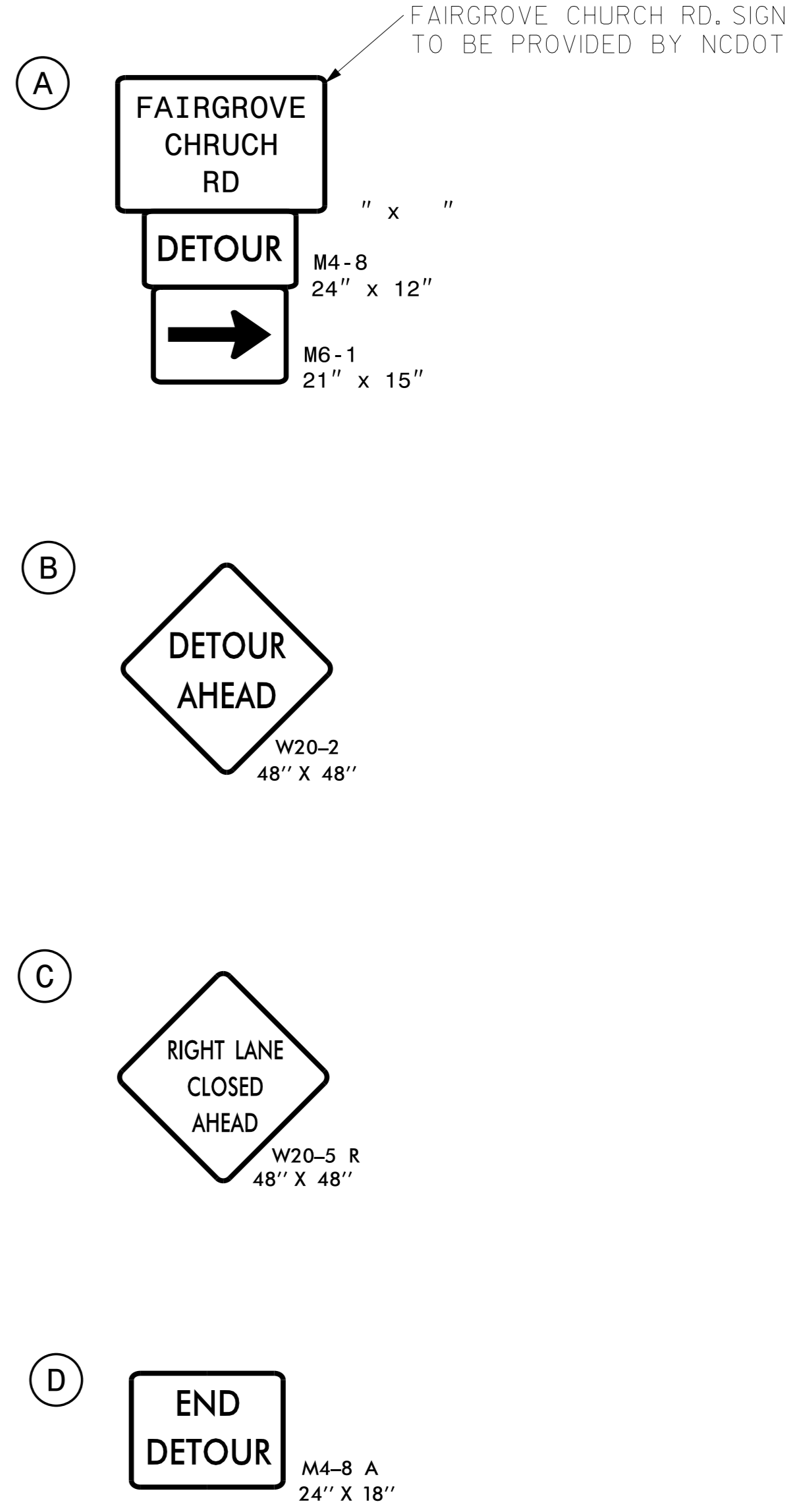
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APPROVED: <small>(B)R5ND000000000001</small> DATE: 12/2/2020			<h3>TRANSPORTATION OPERATIONS PLAN</h3>
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			

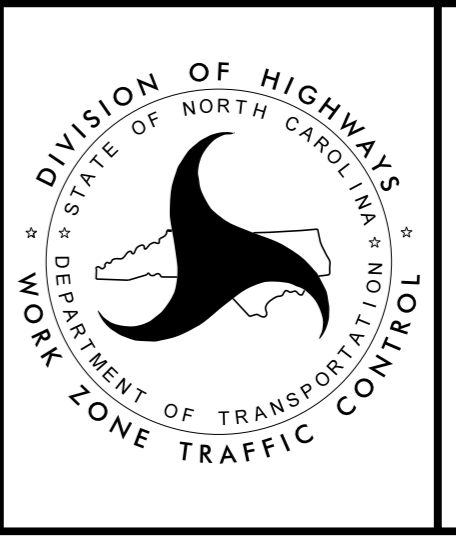
DETOUR FOR RIGHT TURN LANE OFF OF  
US 70 ONTO FAIRGROVE CHURCH RD



NOTE: REFER TO STANDARD ROADWAY DRAWING NO. 1101.03 SHEET 1 OF 9, FOR ADDITIONAL SIGN SPACING REQUIREMENTS.

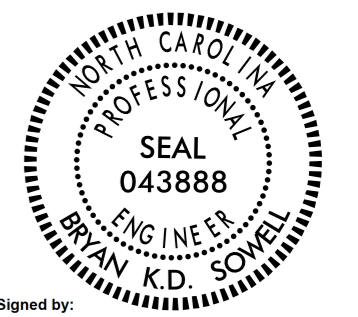


APPROVED: *Bryan Sowell*  
DATE: 12/2/2020  
SEAL  
NORTH CAROLINA PROFESSIONAL ENGINEER  
BRYAN K.D. SOWELL  
043888



RIGHT TURN LANE DETOUR  
FROM US 70 TO  
FAIRGROVE CHURCH RD

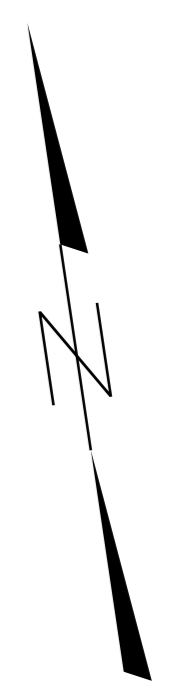
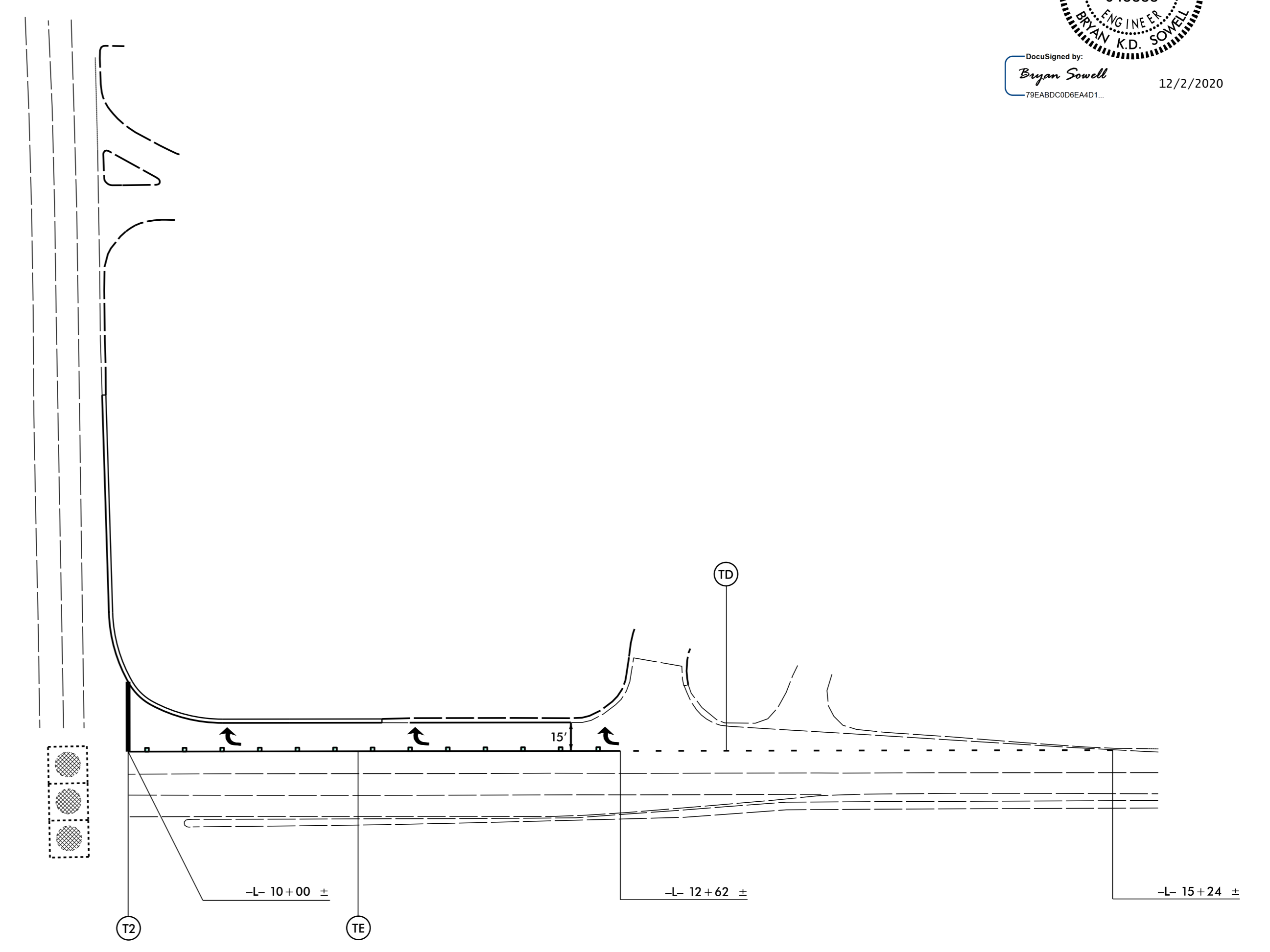
29-SEP-2017 07:11 R:\PROJECTS\CGA\FcfcControl\TOPASS-4912 B0\_TC\_TMP\_2.dgn \$\$\$USERNAME\$\$\$



Designed by  
*Bryan Sowell*  
 12/2/2020  
 7REAB000BEA4D1

PAVEMENT MARKING SCHEDULE  
 TIP PROJECT # SS-4912B0

SYMB	DESCRIPTION	FINAL PAVEMENT MARKINGS
T2	WHITE STOPBAR	THERMOPLASTIC(24", 120 MILS)
VD VE	3 FT. - 9 FT./SP WHITE MINISKIP WHITE SOLID LANE LINE	POLYUREA (4") Highly Reflective Elements
UB	RIGHT TURN ARROW	THERMOPLASTICPAVEMENT MARKING SYMBOLS (90 MILS)
MF	CRYSTAL & RED	MARKERS SNOWPLOWABLE RAISED PAVEMENT MARKERS



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<p>DIVISION OF HIGHWAYS        STATE OF NORTH CAROLINA        DEPARTMENT OF TRANSPORTATION        WORK ZONE TRAFFIC CONTROL</p>	<h1>PAVEMENT MARKING PLAN</h1>
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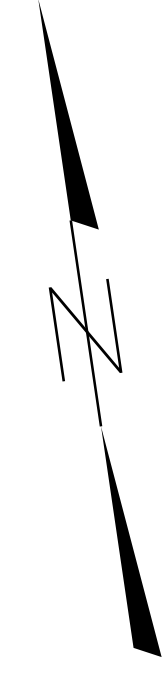
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

- 1606.01 Special Sediment Control Fence
- 1631.01 Matting Installation
- 1632.03 Rock Inlet Sediment Trap Type C

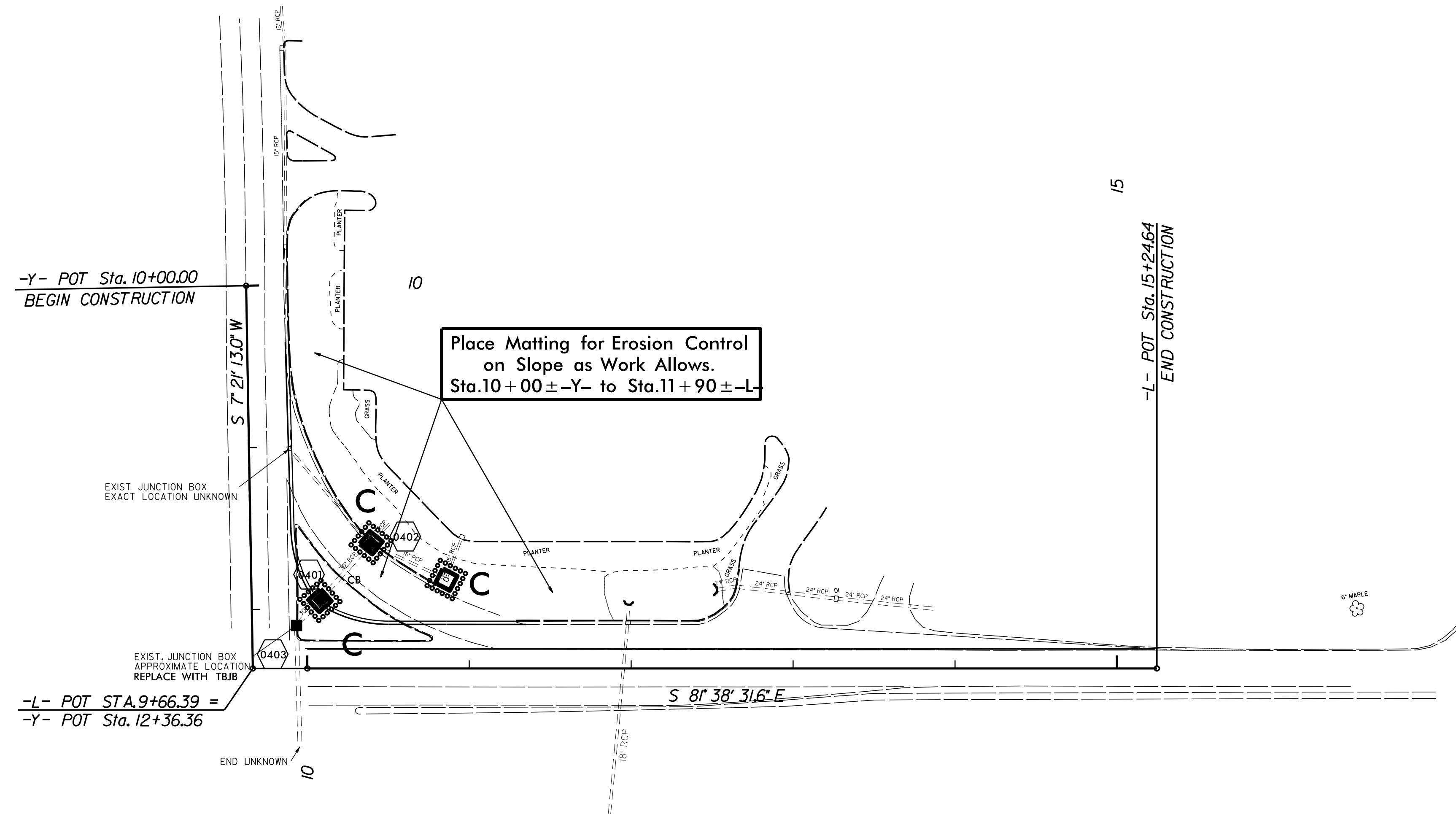
# PLAN FOR PROPOSED HIGHWAY EROSION CONTROL

PROJECT REFERENCE NO. <i>SS-4912B0</i>	SHEET NO. <i>EC-1/CONST.4</i>
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



## EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1632.03	Type C.....	



### MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
EC-1	-L-	10+18	11+90	LT	660
	-L-	10+00	10+82	LT	635
SUBTOTAL					1295
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					1295
TOTAL					1295
SAY					1300

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

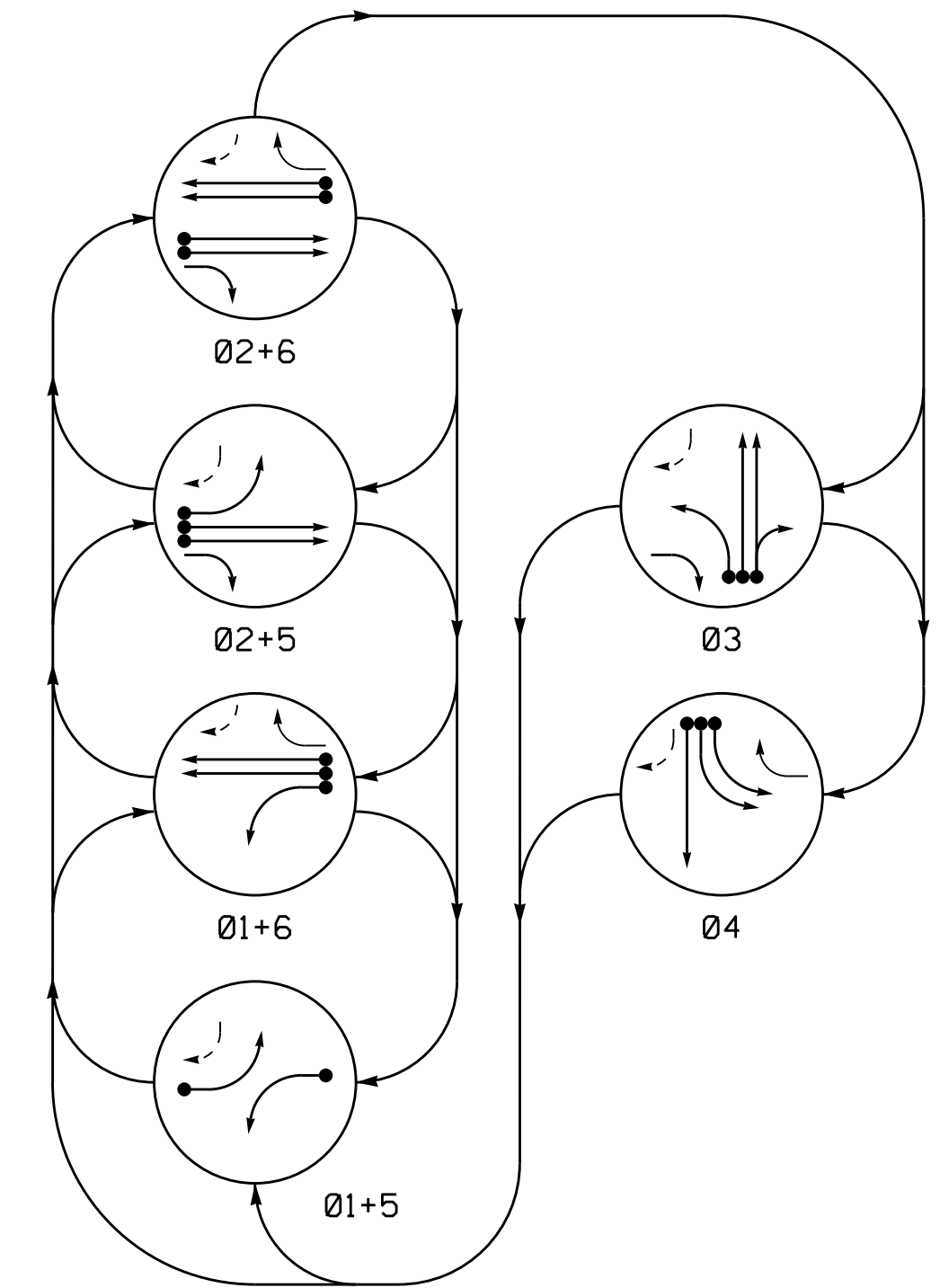
Designed by:

**J.S.CARPENTER**  
NAME

3877  
LEVEL III CERTIFICATION NO.



**PHASING DIAGRAM**



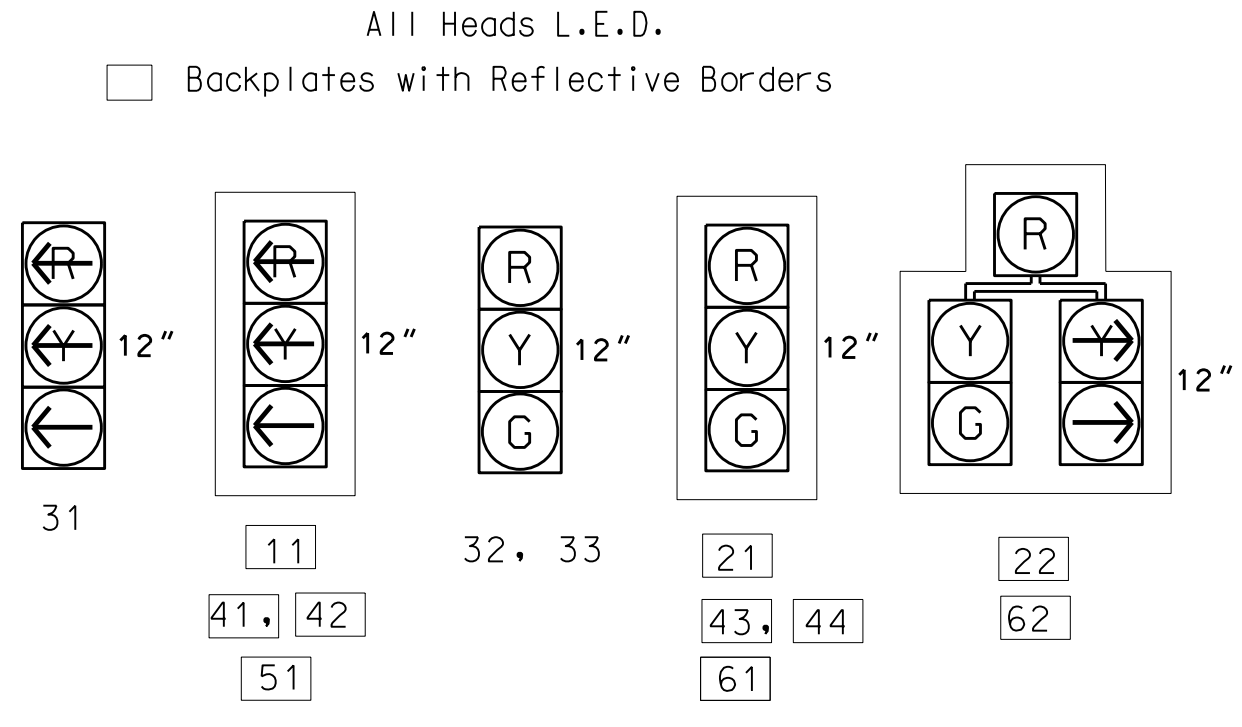
**PHASING DIAGRAM DETECTION LEGEND**

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

**TABLE OF OPERATION**

SIGNAL FACE	PHASE						F
	01+5	01+6	02+5	02+6	03	04	
11	—	—	→	→	→	→	→
21	R	R	G	G	R	R	Y
22	R	R	G	G	→	→	Y
31	→	→	→	→	→	→	→
32, 33	R	R	R	R	G	R	R
41, 42	→	→	→	→	→	→	→
43, 44	R	R	R	R	R	G	R
51	→	→	→	→	→	→	→
61	R	G	R	G	R	R	Y
62	R	G	R	G	→	→	Y

**SIGNAL FACE I.D.**



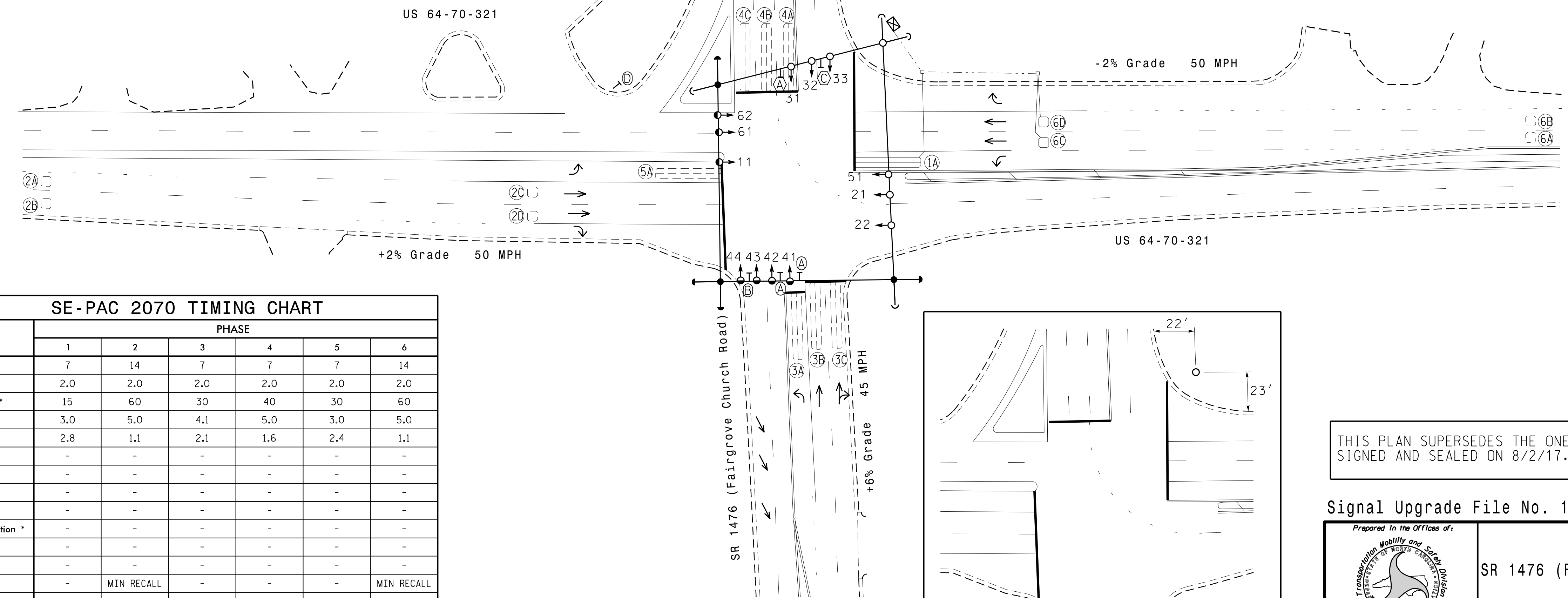
**SE-PAC 2070 LOOP & DETECTOR UNIT INSTALLATION CHART**

LOOP NO.	SIZE (ft)	TURNS	DIST. FROM STOPBAR (ft)	NEW	EXISTING	ASSIGNED PHASE	DETECTOR PROGRAMMING										STATUS			
							TIMING		OPERATION MODE							SWITCH		SYSTEM LOOPS	NEW	EXISTING
							DELAY	EXTEND (STRETCH)	VEHICLE	PEDESTRIAN	1 CALL	STOP A	STOP B	PROTECTOR LEFT	PROTECTOR THROUGH					
1A	6X40	2-4-2	0	X	-	1	3 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-	
2A	6X6	EXIST	400	-	X	2	- SEC.	2.0 SEC.	X	-	-	-	-	-	-	-	-	X	-	
2B	6X6	EXIST	400	-	X	2	- SEC.	2.0 SEC.	X	-	-	-	-	-	-	-	-	X	-	
2C	6X6	EXIST	110	-	X	2	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-	
2D	6X6	EXIST	110	-	X	2	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-	
3A	6X40	2-4-2	0	-	X	3	3 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-	
3B	6X40	2-4-2	0	-	X	3	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-	
3C	6X40	2-4-2	0	-	X	3	10 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-	
4A	6X40	2-4-2	0	-	X	4	3 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-	
4B	6X40	2-4-2	0	-	X	4	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-	
4C	6X40	2-4-2	0	-	X	4	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-	
5A	6X40	2-4-2	0	-	X	5	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-	
6A	6X6	EXIST	400	-	X	6	- SEC.	2.0 SEC.	X	-	-	-	-	-	-	-	-	X	-	
6B	6X6	EXIST	400	-	X	6	- SEC.	2.0 SEC.	X	-	-	-	-	-	-	-	-	X	-	
6C	6X6	EXIST	110	X	-	6	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-	
6D	6X6	EXIST	110	X	-	6	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	X	-	

**6 Phase Fully Actuated Hickory City System**

**NOTES**

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- The order of phase 3 and phase 4 may be reversed.
- Set all detector units to presence mode.
- Install backplates with reflective borders on signal heads 11, 21, 22, 41, 42, 43, 44, 51, 61 and 62.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Hickory System No. : 1501.



**SE-PAC 2070 TIMING CHART**

FEATURE	PHASE					
	1	2	3	4	5	6
Min Green *	7	14	7	7	7	14
Passage Gap *	2.0	2.0	2.0	2.0	2.0	2.0
Maximum Green *	15	60	30	40	30	60
Yellow Change	3.0	5.0	4.1	5.0	3.0	5.0
Red Clear	2.8	1.1	2.1	1.6	2.4	1.1
Walk *	-	-	-	-	-	-
Pedestrian Clear	-	-	-	-	-	-
Added Initial *	-	-	-	-	-	-
Maximum Initial *	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL
Vehicle Call Memory	NON-LOCK	LOCK	NON-LOCK	NON-LOCK	NON-LOCK	LOCK
Dual Entry	-	-	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON	ON	ON

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

**LEGEND**

	PROPOSED Traffic Signal Head		EXISTING Traffic Signal Head
	PROPOSED Modified Signal Head		EXISTING N/A
	PROPOSED Pedestrian Signal Head With Push Button & Sign		EXISTING N/A
	PROPOSED Signal Pole with Guy		EXISTING Signal Pole with Guy
	PROPOSED Signal Pole with Sidewalk Guy		EXISTING Signal Pole with Sidewalk Guy
	PROPOSED Inductive Loop Detector		EXISTING Inductive Loop Detector
	PROPOSED Controller & Cabinet		EXISTING Controller & Cabinet
	PROPOSED Junction Box		EXISTING Junction Box
	PROPOSED 2-in Underground Conduit		EXISTING 2-in Underground Conduit
	PROPOSED Right of Way		EXISTING Right of Way
	PROPOSED Directional Arrow		EXISTING Directional Arrow
	PROPOSED Left Arrow "ONLY" Sign (R3-5L)		EXISTING Left Arrow "ONLY" Sign (R3-5L)
	PROPOSED Through Arrow "ONLY" Sign (R3-5A)		EXISTING Through Arrow "ONLY" Sign (R3-5A)
	PROPOSED Combined Through and Right Arrow Sign (R3-6R)		EXISTING Combined Through and Right Arrow Sign (R3-6R)
	PROPOSED "YIELD" Sign (R1-2)		EXISTING "YIELD" Sign (R1-2)

THIS PLAN SUPERSEDES THE ONE SIGNED AND SEALED ON 8/2/17.

Signal Upgrade File No. 12-14-216

US 64-70-321 at SR 1476 (Fairgrove Church Road)

Division 12 Catawba County Hickory

PLAN DATE: July 2019 REVIEWED BY: R. N. Zinser

PREPARED BY: C. Pierce REVIEWED BY:

750 N. Greenfield Pkwy, Garner, NC 27529

SCALE 0 40 1"=40'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

THOMAS J. WILLIAMS ENGINEER 24393

J. J. Williams 7/25/2019

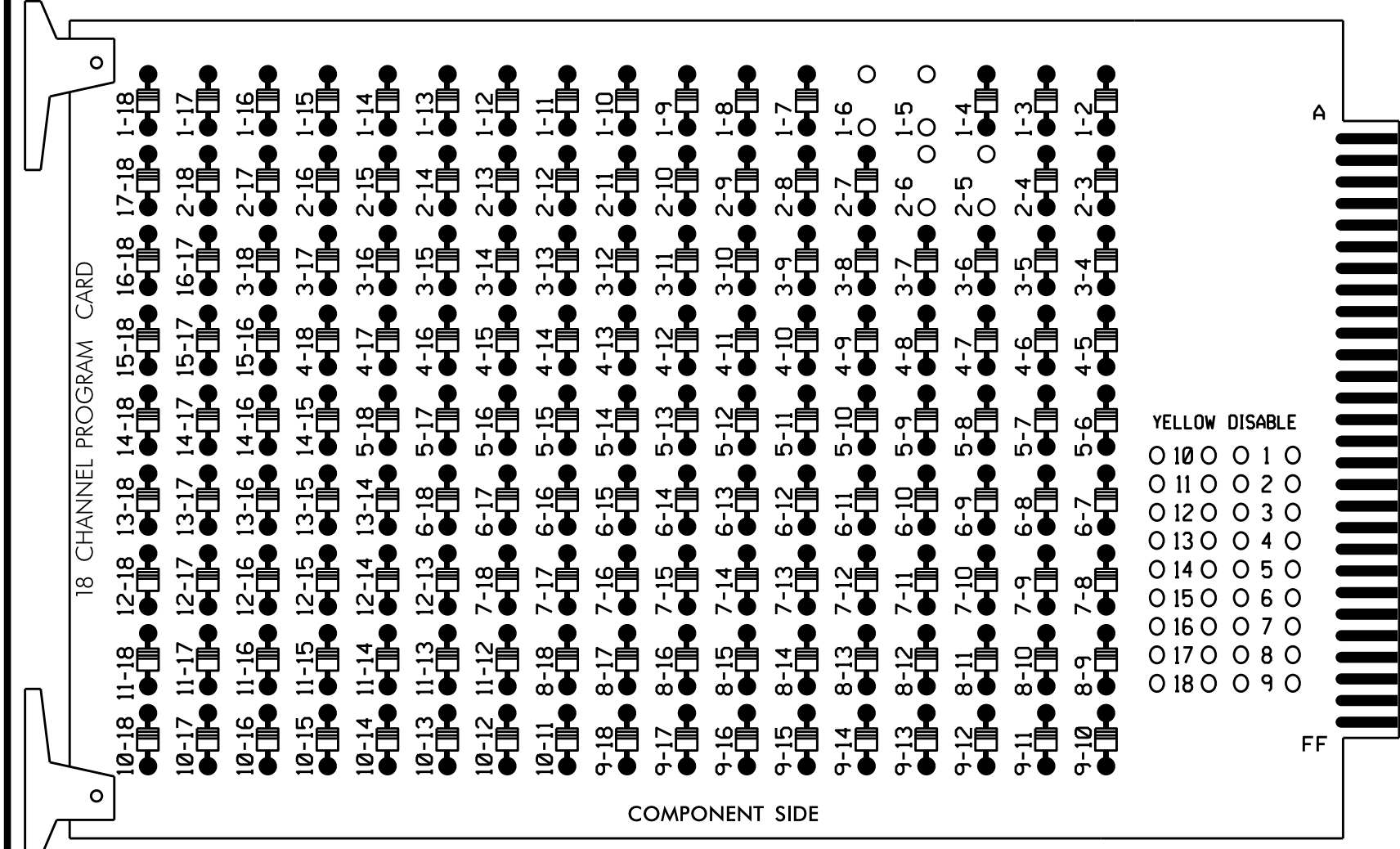
SIG. INVENTORY NO. 12-0647



**EDI MODEL 2018ECLip-NC CONFLICT MONITOR PROGRAMMING DETAIL**

(remove jumpers and set switches as shown)

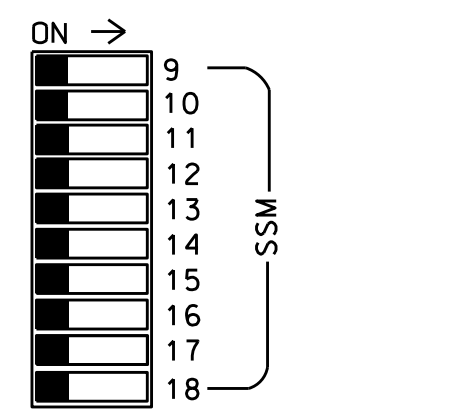
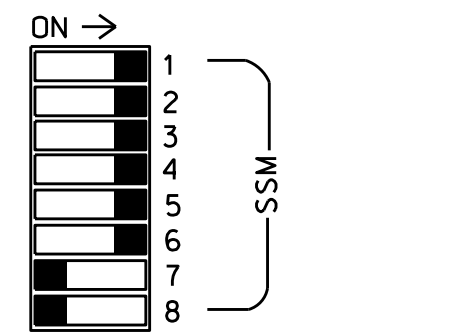
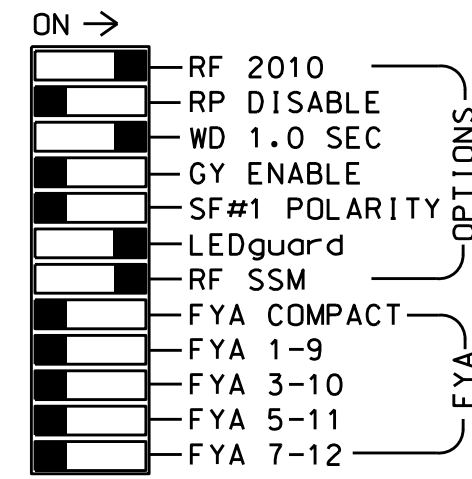
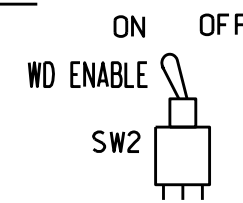
REMOVE DIODE JUMPERS 1-5, 1-6, 2-5 and 2-6.



REMOVE JUMPERS AS SHOWN

**NOTES:**

1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
3. Ensure that Red Enable is active at all times during normal operation.
4. Integrate monitor with Ethernet network in cabinet.



■ = DENOTES POSITION OF SWITCH

**NOTES**

1. To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the Signal Plans.
2. Program controller to start up in phases 2 and 6 Green.
3. Enable Simultaneous Gap-Out, on controller unit, for all phases.
4. The cabinet and controller are part of the Hickory Signal System.

**EQUIPMENT INFORMATION**

CONTROLLER.....2070  
 CABINET.....332 W/ AUX  
 SOFTWARE.....SE-PAC 2070  
 CABINET MOUNT.....BASE  
 OUTPUT FILE POSITIONS...16  
 LOAD SWITCHES USED.....S1,S2,S4,S5,S7,S8  
 PHASES USED.....1,2,3,4,5,6  
 OVERLAPS.....NONE

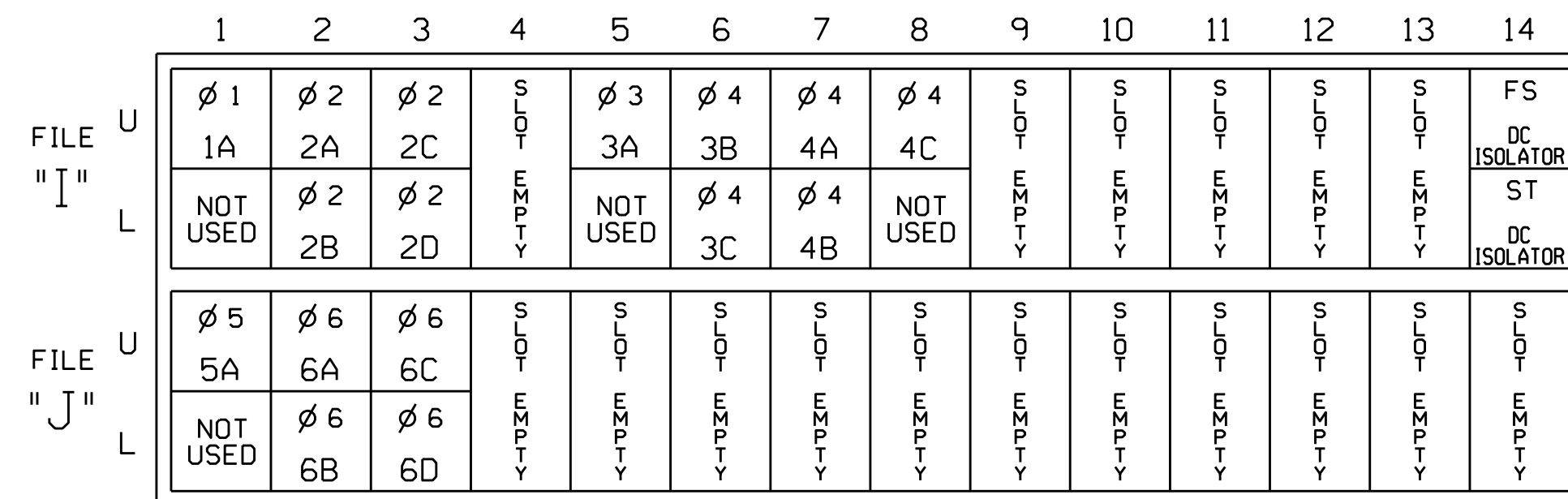
**SIGNAL HEAD HOOK-UP CHART**

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
GMU 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	5	6	6 PED	7	8	8 PED	OLA	OLB	SPARE	OLC	OLD	SPARE
SIGNAL HEAD NO.	11	21,22	NU	31	32,33	22	41,42	43,44	62	NU	51	61,62	NU	NU	NU	NU	NU	NU
RED	128			116		101						134						
YELLOW	129			117		102						135						
GREEN	130			118		103						136						
RED ARROW	125			116		101						131						
YELLOW ARROW	126			117		102						132						
GREEN ARROW	127			118		103						133						

NU = Not Used

**INPUT FILE POSITION LAYOUT**

(front view)



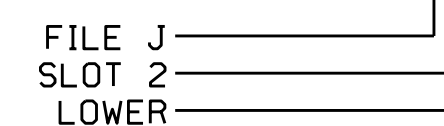
EX.: 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE  
ST = STOP TIME

**INPUT FILE CONNECTION & PROGRAMMING CHART**

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	DETECTOR NO.	NEMA PHASE	DELAY TIME	EXTEND (STRETCH) TIME
1A	TB2-1,2	11U	56	1	1	3	
2A	TB2-5,6	12U	39	3	2		2.0
2B	TB2-7,8	12L	43	4	2		2.0
2C	TB2-9,10	13U	63	5	2		
2D	TB2-11,12	13L	76	6	2		
3A	TB4-5,6	15U	58	9	3	3	
3B	TB4-9,10	16U	41	11	3		
3C	TB4-11,12	16L	45	12	3	10	
4A	TB6-1,2	17U	65	13	4	3	
4B	TB6-3,4	17L	78	14	4		
4C	TB6-5,6	18U	49	15	4		
5A	TB3-1,2	J1U	55	19	5		
6A	TB3-5,6	J2U	40	21	6		2.0
6B	TB3-7,8	J2L	44	22	6		2.0
6C	TB3-9,10	J3U	64	23	6		
6D	TB3-11,12	J3L	77	24	6		

INPUT FILE POSITION LEGEND: J2L



THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 12-0647  
 DESIGNED: July 2019  
 SEALED: 7/25/2019  
 REVISED:

THIS ELECTRICAL DETAIL SUPERSEDES THE DETAIL SEALED ON 08/03/17

Electrical Detail

Prepared In the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

US 64-70-321 at SR 1476 (Fairgrove Church Road)

Division 12 Catawba County Hickory

PLAN DATE: July 2019 REVIEWED BY:

PREPARED BY: C. Strickland REVIEWED BY:

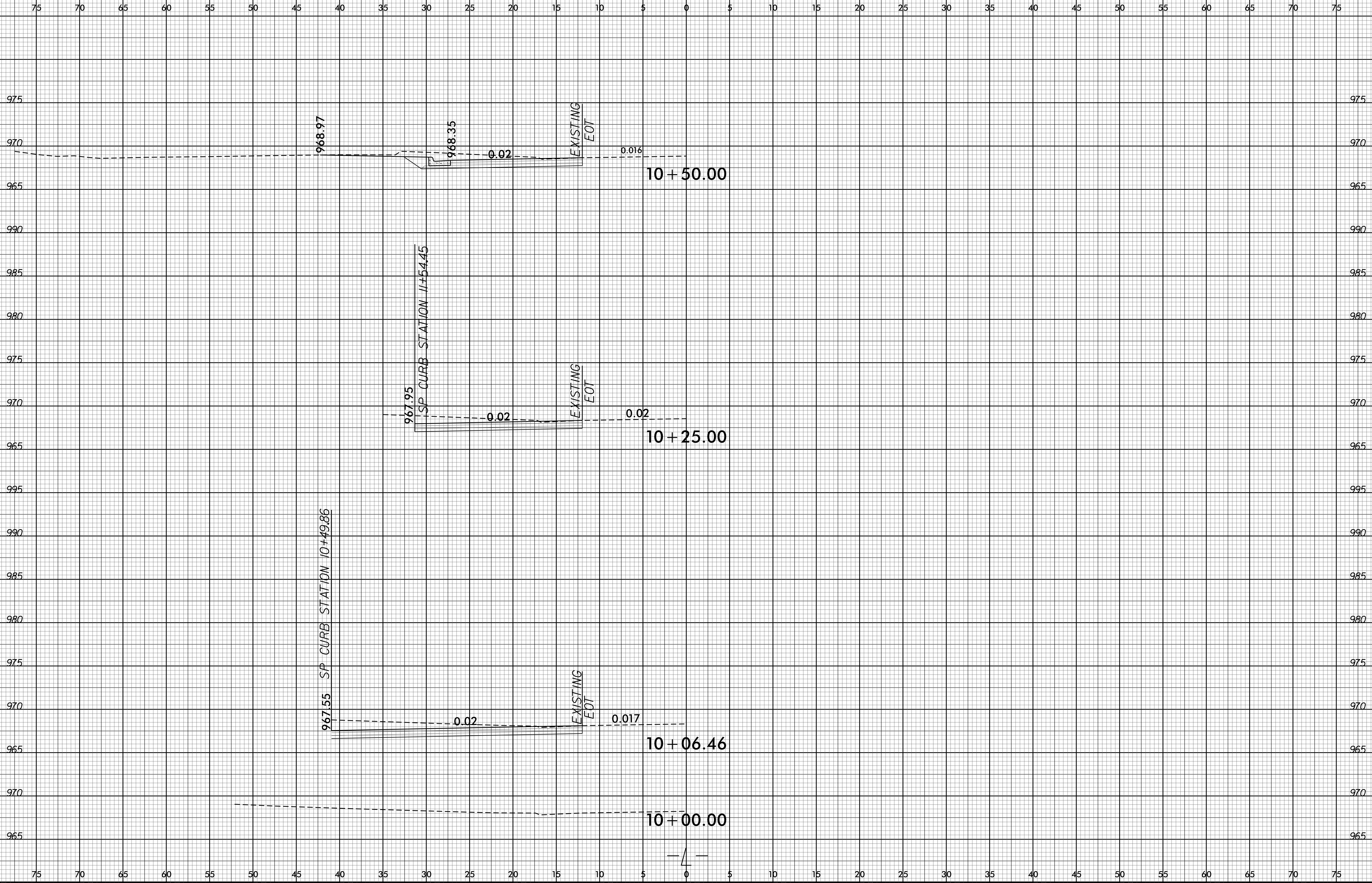
REVISIONS INIT. DATE

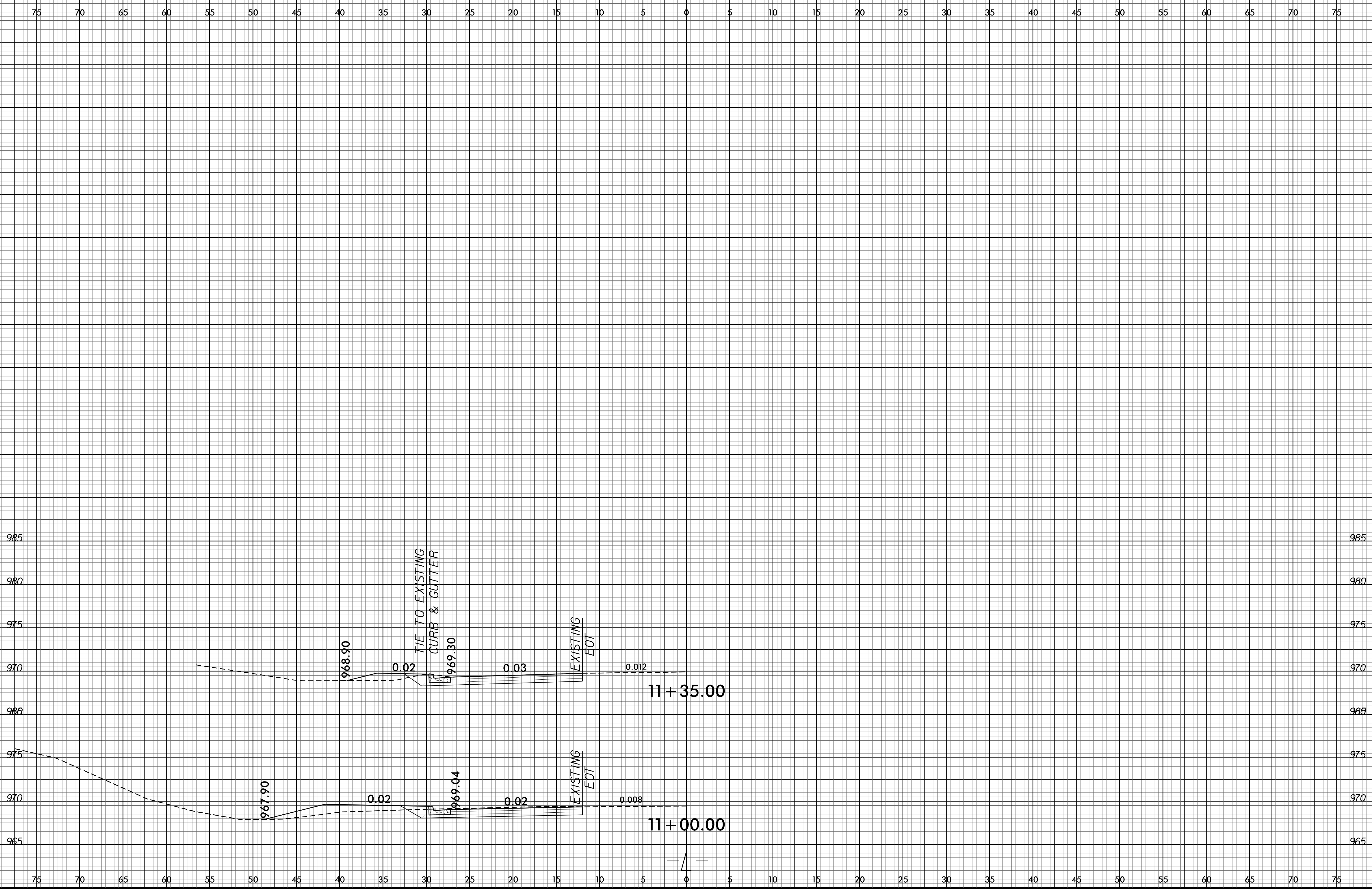
DocuSigned by: D. Todd Joyce 7/29/2019

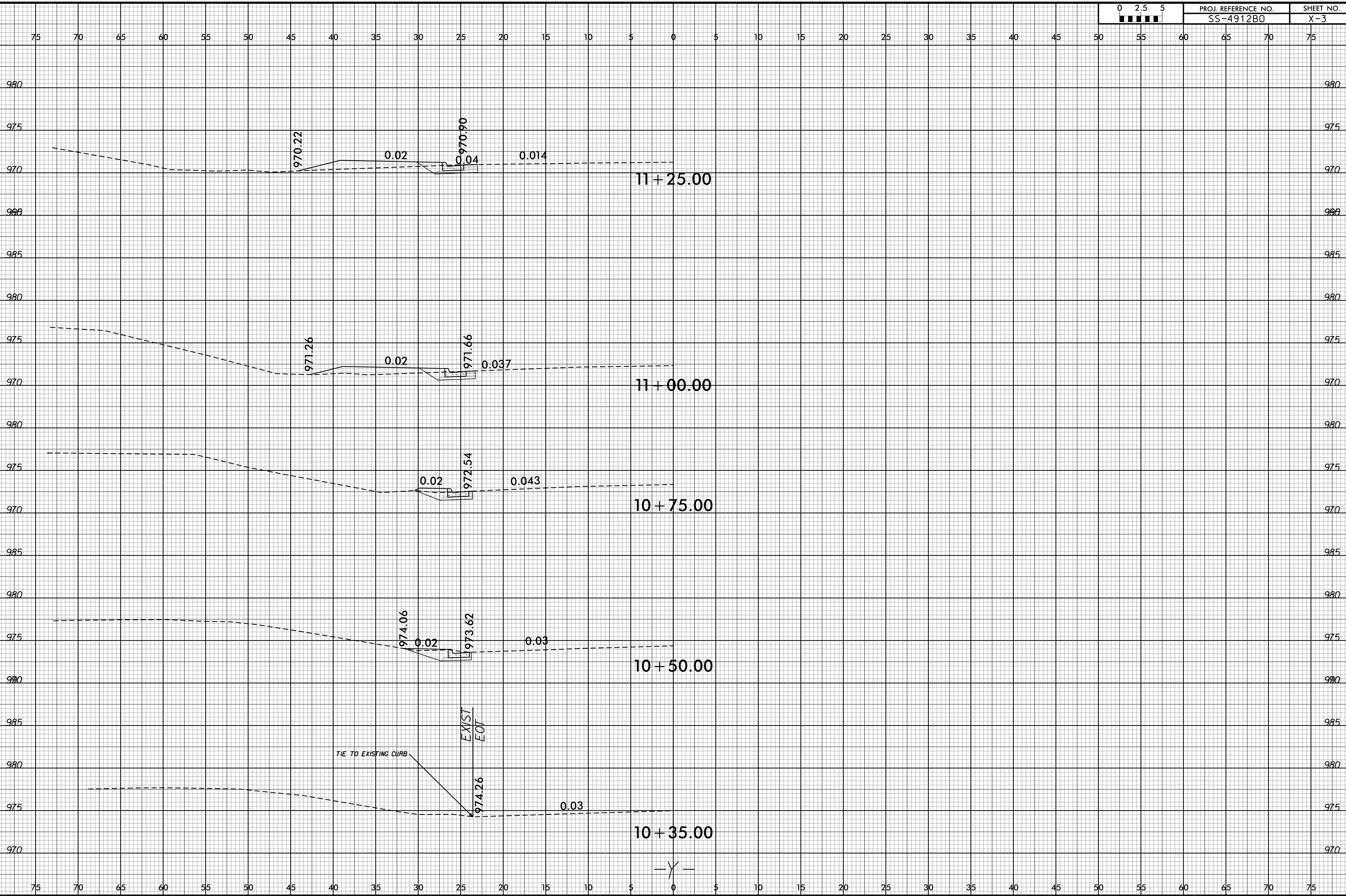
SEAL AND BY CAROL M. JOYCE PROFESSIONAL ENGINEER SEAL 031001

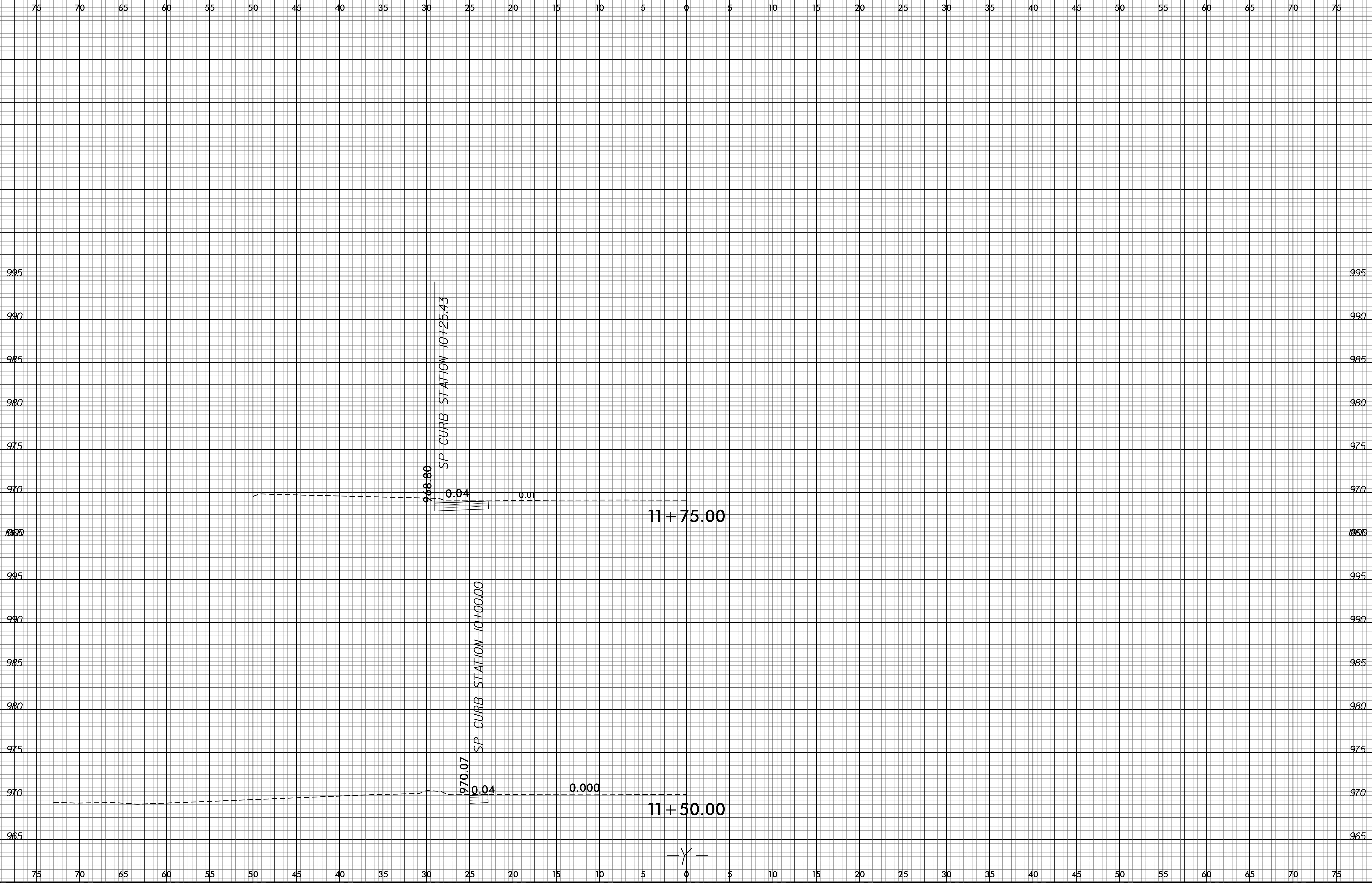
SIG. INVENTORY NO. 12-0647

20-1111-2019\_07-158  
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 cbsr:ckland



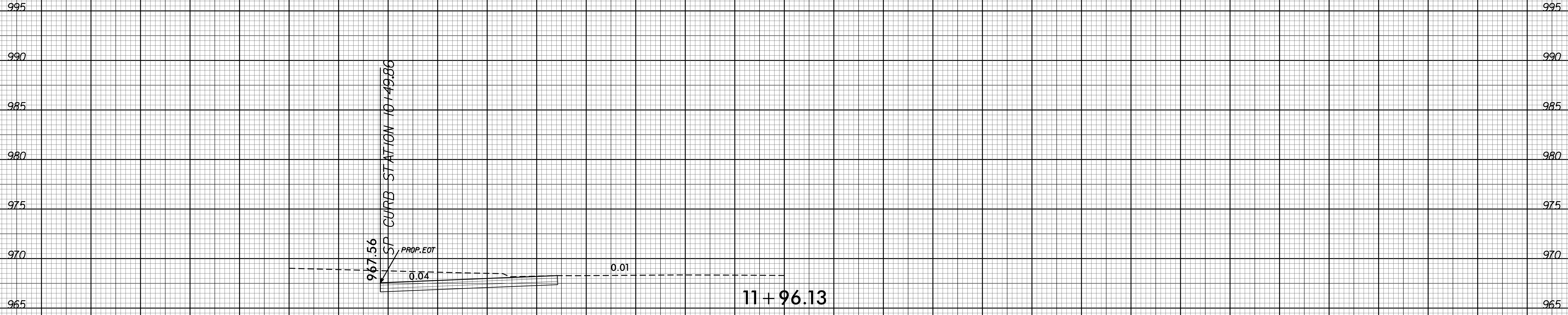






6/23/16

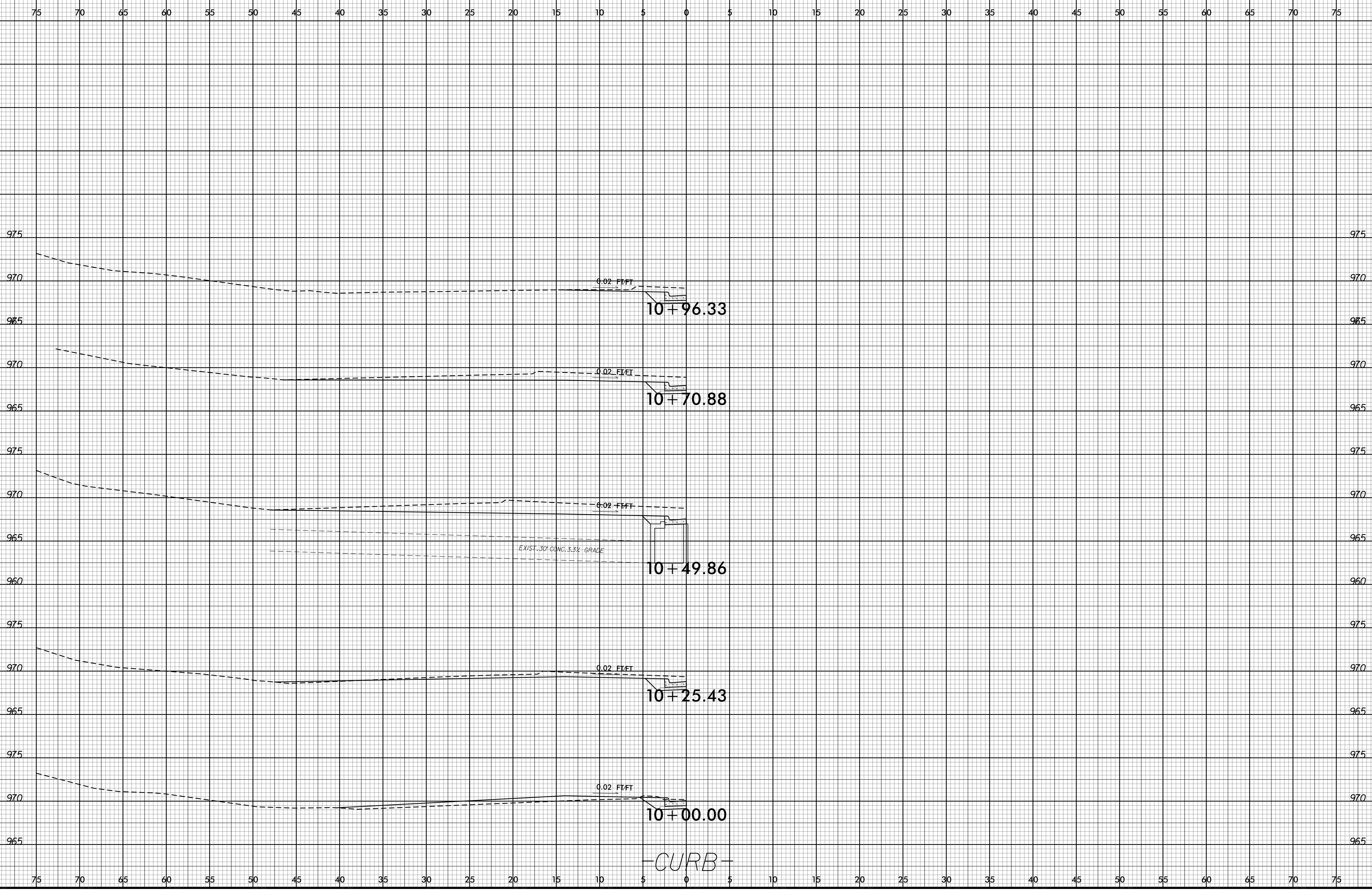
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28-JUN-2019 08:08  
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 \$\$\$\$USERNAME\$\$\$\$

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6/23/16



28-JUN-2019 08:45  
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