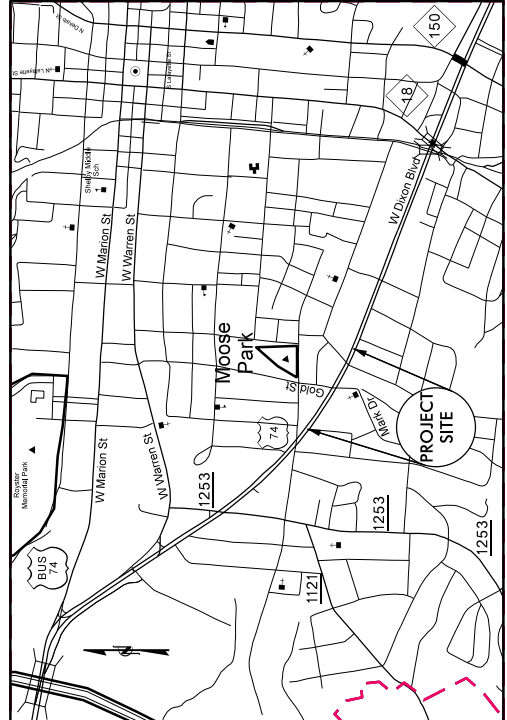


See Sheet 1-A For Index of Sheets



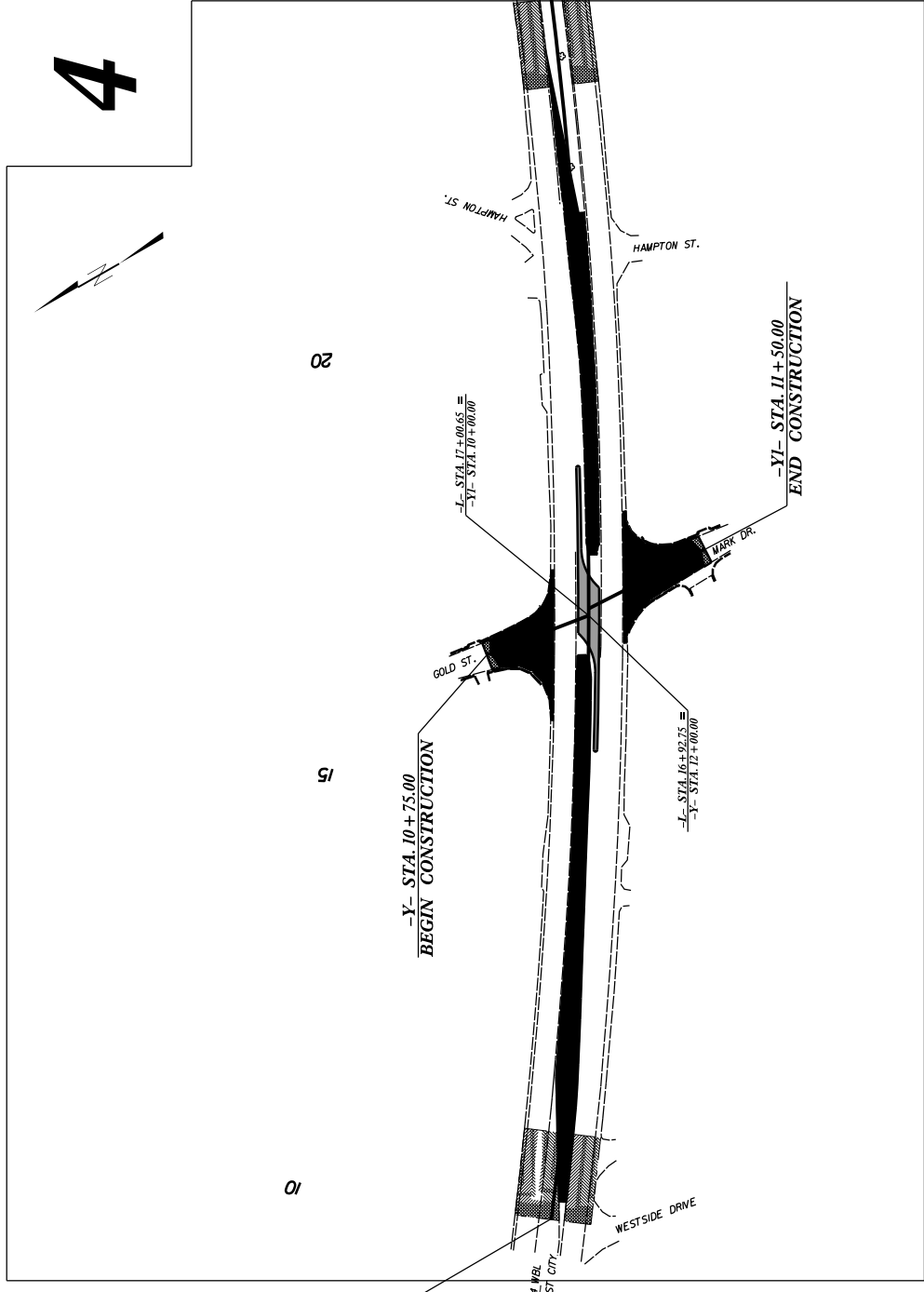
VICINITY MAP  
NOT TO SCALE

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
**CLEVELAND COUNTY**

LOCATION: US 74 AT THE INTERSECTIONS OF GOLD ST.  
AND MARK DR.

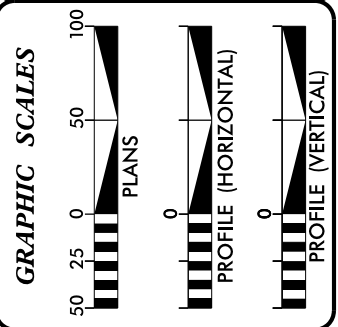
TYPE OF WORK: GRADING, PAVING, DRAINAGE, CONCRETE ISLANDS,  
PAVEMENT MARKINGS AND PAVEMENT MARKERS

STATE	N.C.	STATE PROJECT REFERENCE NO.	W-5212F	SHEET NO.	1	TOTAL SHEETS
STATE PROJ. NO.	45342.1.6	P.A. PROJ. NO.	HSP-007/4(139)	DESCRIPTION	PE	
	45342.3.6	HSP-007/4(139)			CONST	



BEGIN TIP PROJECT W-5212F  
-L- STA. 10+00.00

END TIP PROJECT W-5212F  
-L- STA. 24+00.00



**DESIGN DATA**

ADT 2010	=	21000
ADT	=	
DHV	=	%
D	=	%
T	=	% *
V	=	45 MPH
* TTST	=	DUAL
FUNC CLASS	=	

STATEWIDE TIER

**PROJECT LENGTH**

LENGTH ROADWAY PROJECT W-5212F = 0.317 MI  
TOTAL LENGTH OF PROJECT W-5212F = 0.317 MI

Prepared in the Office of:  
**DIVISION OF HIGHWAYS**  
1710 East Marion St., Shelby NC, 28152

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:	N / A
LETTING DATE:	AUGUST 28, 2012

M.E. STAFFORD, P.E.  
PROJECT ENGINEER

R.E. HUMPHRIES, PLS  
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

ROADWAY DESIGN ENGINEER

\_\_\_\_\_  
P.E.

\_\_\_\_\_  
P.E.



TIP PROJECT: W-5212F

CONTRACT: DL00027

SHEET NUMBER	SHEET	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS	2012 SPECIFICATIONS EFFECTIVE: 01-11-12 REVISED: 11/01/11	2012 ROADWAY ENGLISH STANDARD DRAWINGS
1	TITLE SHEET			
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS			
1-B	CONVENTIONAL SYMBOLS			
1-C	SURVEY CONTROL			
2	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND WEDGING DETAILS			
3	SUMMARY OF QUANTITIES			
3A-3B	SUMMARY OF DRAINAGE QUANTITIES, EARTHWORK SUMMARY, AND ASPHALT PAVEMENT REMOVAL SUMMARY			
4	PLAN SHEET			
TCP-1 THRU TCP-2	TRAFFIC CONTROL PLANS			
PW-1 THRU PW-2	PAVEMENT MARKING PLANS			
EC-1 THRU EC-4	EROSION CONTROL PLANS			
X-1 THRU X-5	CROSS-SECTIONS			

GENERAL NOTES:

2012 SPECIFICATIONS EFFECTIVE: 01-11-12  
 REVISED: 11/01/11

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 GRADE SHALL BE THE EXISTING GRADE. THE CENTER LINE OF SURVEY AND THE PROPOSED RESURFACING SHALL 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. 225-05 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.

TEMPORARY SHORING:

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

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

RIGHT-OF-WAY MARKERS:

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

2012 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	
220-02	Method of Clearing - Method 11
220-03	Method of Clearing - Subsoil Inlet - Interstate and Freeway
225-05	Method of Obtaining Superlevation - Divided Highways
DIVISION 3 - PIPE CULVERTS	
300-01	Method of Pipe Installation
310-02	Parallel Pipe End Section - Precast Concrete Section for 15" to 24" Pipe
DIVISION 8 - INCIDENTALS	
840-00	Concrete Base Pad for Drainage Structures
840-14	Concrete Drop Inlet - 12" thru 30" Pipe
840-15	Brick Drop Inlet - 12" thru 30" Pipe
840-21	Precast Concrete Drop Inlet for use with Std. Dwg. 840-14 and 840-15
840-22	Precast Concrete Drop Inlet for use with Std. Dwg. 840-14 and 840-15
840-34	Traffic Bearing Junction Box - for Use with Pipes 42" and Under
840-45	Precast Drainage Structure
840-46	Traffic Bearing Precast Drainage Structure
840-66	Drainage Structure Steps
852-01	Concrete Islands

Note: Not to Scale

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

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.  
W-5212F

SHEET NO.  
7-B

# CONVENTIONAL PLAN SHEET SYMBOLS

## BOUNDARIES AND PROPERTY:

- State Line \_\_\_\_\_
- County Line \_\_\_\_\_
- Township Line \_\_\_\_\_
- City Line \_\_\_\_\_
- Reservation Line \_\_\_\_\_
- Property Line \_\_\_\_\_
- Existing Iron Pin \_\_\_\_\_
- Property Corner \_\_\_\_\_
- Property Monument \_\_\_\_\_
- Parcel/Sequence Number \_\_\_\_\_
- Existing Fence Line \_\_\_\_\_
- Proposed Woven Wire Fence \_\_\_\_\_
- Proposed Chain Link Fence \_\_\_\_\_
- Proposed Barbed Wire Fence \_\_\_\_\_
- Existing Wetland Boundary \_\_\_\_\_
- Proposed Wetland Boundary \_\_\_\_\_
- Existing Endangered Animal Boundary \_\_\_\_\_
- Existing Endangered Plant Boundary \_\_\_\_\_
- Known Soil Contamination: Area or Site \_\_\_\_\_
- Potential Soil Contamination: Area or Site \_\_\_\_\_

## BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or UG 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 \_\_\_\_\_
- Buffer Zone 1 \_\_\_\_\_
- Buffer Zone 2 \_\_\_\_\_
- Flow Arrow \_\_\_\_\_
- Disappearing Stream \_\_\_\_\_
- Spring \_\_\_\_\_
- Wetland \_\_\_\_\_
- Proposed Lateral, Tail, Head Ditch \_\_\_\_\_
- False Sump \_\_\_\_\_

## RAILROADS:

- Standard Gauge \_\_\_\_\_
- RR Signal Milepost \_\_\_\_\_
- Switch \_\_\_\_\_
- RR Abandoned \_\_\_\_\_
- RR Dismantled \_\_\_\_\_

## RIGHT OF WAY:

- Baseline Control Point \_\_\_\_\_
- Existing Right of Way Marker \_\_\_\_\_
- Existing Right of Way Line \_\_\_\_\_
- Proposed Right of Way Line \_\_\_\_\_
- Proposed Right of Way Line with Iron Pin and Cap Marker \_\_\_\_\_
- Proposed Right of Way Line with Concrete or Granite RW Marker \_\_\_\_\_
- Proposed Control of Access Line with Concrete CA Marker \_\_\_\_\_
- Existing Control of Access \_\_\_\_\_
- Proposed Control of Access \_\_\_\_\_
- Existing Easement Line \_\_\_\_\_
- Proposed Temporary Construction Easement - \_\_\_\_\_
- Proposed Temporary Drainage Easement \_\_\_\_\_
- Proposed Permanent Drainage Easement \_\_\_\_\_
- Proposed Permanent Drainage / Utility Easement \_\_\_\_\_
- Proposed Permanent Utility Easement \_\_\_\_\_
- Proposed Temporary Utility Easement \_\_\_\_\_
- Proposed Aerial Utility Easement \_\_\_\_\_
- Proposed Permanent Easement with Iron Pin and Cap Marker \_\_\_\_\_

## ROADS AND RELATED FEATURES:

- Existing Edge of Pavement \_\_\_\_\_
- Existing Curb \_\_\_\_\_
- Proposed Slope Stakes Cut \_\_\_\_\_
- Proposed Slope Stakes Fill \_\_\_\_\_
- Proposed Curb Ramp \_\_\_\_\_
- Existing Metal Guardrail \_\_\_\_\_
- Proposed Guardrail \_\_\_\_\_
- Existing Cable Guidrail \_\_\_\_\_
- Proposed Cable Guidrail \_\_\_\_\_
- Equality Symbol \_\_\_\_\_
- Pavement Removal \_\_\_\_\_

## VEGETATION:

- Single Tree \_\_\_\_\_
- Single Shrub \_\_\_\_\_
- Hedge \_\_\_\_\_
- Woods Line \_\_\_\_\_

## WATER:

- Water Manhole \_\_\_\_\_
- Water Meter \_\_\_\_\_
- Water Valve \_\_\_\_\_
- Water Hydrant \_\_\_\_\_
- Recorded UG Water Line \_\_\_\_\_
- Designated UG Water Line (S.U.E.\*) \_\_\_\_\_
- Above Ground Water Line \_\_\_\_\_

## TV:

- TV Satellite Dish \_\_\_\_\_
- TV Pedestal \_\_\_\_\_
- TV Tower \_\_\_\_\_
- UG TV Cable Hand Hole \_\_\_\_\_
- Recorded UG TV Cable \_\_\_\_\_
- Designated UG TV Cable (S.U.E.\*) \_\_\_\_\_
- Recorded UG Fiber Optic Cable \_\_\_\_\_
- Designated UG Fiber Optic Cable (S.U.E.\*) \_\_\_\_\_

## GAS:

- Gas Valve \_\_\_\_\_
- Gas Meter \_\_\_\_\_
- Recorded UG Gas Line \_\_\_\_\_
- Designated UG Gas Line (S.U.E.\*) \_\_\_\_\_
- Above Ground Gas Line \_\_\_\_\_

## SANITARY SEWER:

- Sanitary Sewer Manhole \_\_\_\_\_
- Sanitary Sewer Cleanout \_\_\_\_\_
- UG Sanitary Sewer Line \_\_\_\_\_
- Above Ground Sanitary Sewer \_\_\_\_\_
- Recorded SS Forced Main Line \_\_\_\_\_
- Designated SS Forced Main Line (S.U.E.\*) \_\_\_\_\_

## MISCELLANEOUS:

- Utility Pole \_\_\_\_\_
- Utility Pole with Base \_\_\_\_\_
- Utility Located Object \_\_\_\_\_
- Utility Traffic Signal Box \_\_\_\_\_
- Utility Unknown UG Line \_\_\_\_\_
- UG Tank; Water, Gas, Oil \_\_\_\_\_
- Underground Storage Tank, Approx. Loc. \_\_\_\_\_
- A/G Tank; Water, Gas, Oil \_\_\_\_\_
- Geoenvironmental Boring \_\_\_\_\_
- UG Test Hole (S.U.E.\*) \_\_\_\_\_
- Abandoned According to Utility Records \_\_\_\_\_
- End of Information \_\_\_\_\_

## TELEPHONE:

- Existing Telephone Pole \_\_\_\_\_
- Proposed Telephone Pole \_\_\_\_\_
- Telephone Manhole \_\_\_\_\_
- Telephone Booth \_\_\_\_\_
- Telephone Pedestal \_\_\_\_\_
- Telephone Cell Tower \_\_\_\_\_
- UG Telephone Cable Hand Hole \_\_\_\_\_
- Recorded UG Telephone Cable \_\_\_\_\_
- Designated UG Telephone Cable (S.U.E.\*) \_\_\_\_\_
- Recorded UG Telephone Conduit \_\_\_\_\_
- Designated UG Telephone Conduit (S.U.E.\*) \_\_\_\_\_
- Recorded UG Fiber Optics Cable \_\_\_\_\_
- Designated UG Fiber Optics Cable (S.U.E.\*) \_\_\_\_\_

## 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 \_\_\_\_\_
  - UG Power Cable Hand Hole \_\_\_\_\_
  - H-Frame Pole \_\_\_\_\_
  - Recorded UG Power Line \_\_\_\_\_
  - Designated UG Power Line (S.U.E.\*) \_\_\_\_\_

PROJECT REFERENCE NO. <b>W-5212F</b>	SHEET NO. <b>1C</b>
R/W SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

### CONTROL DATA

POINT	NORTH	EAST	ELEVATION	STATION	OFFSET
4	568525.6722	1236342.2761	840.72	OUTSIDE PROJECT LIMITS	
5	567795.4230	1237179.3080	822.05	13+51.20	52.61
215	567752.8710	1237443.8390	814.99	15+98.02	-51.66
536	567605.8669	1237504.0536		17+24.03	45.17
432	567387.4820	1237920.0800	817.08	21+90.16	49.2

### CENTERLINE COORDINATE DATA

STATION	ALIGNMENT	NORTH	EAST
10+00	-L-	568040.9789	1236920.6380
10+00	-Y-	567858.3364	1237529.5927
10+00	-Y1-	567656.7370	1237506.0029



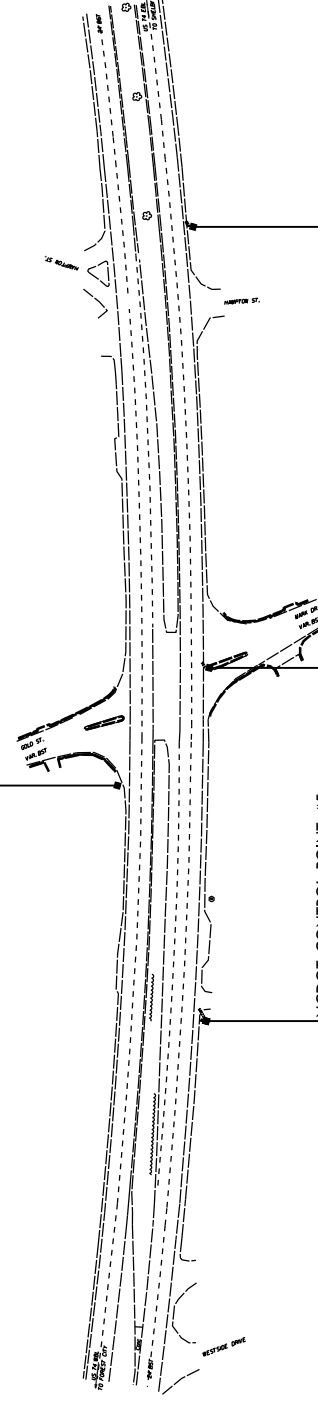
NCDOT CONTROL POINT #4  
 N:=568525.6722  
 E:=1236342.2761

NCDOT CONTROL POINT #215  
 N:=567752.8710  
 E:=1237443.8390

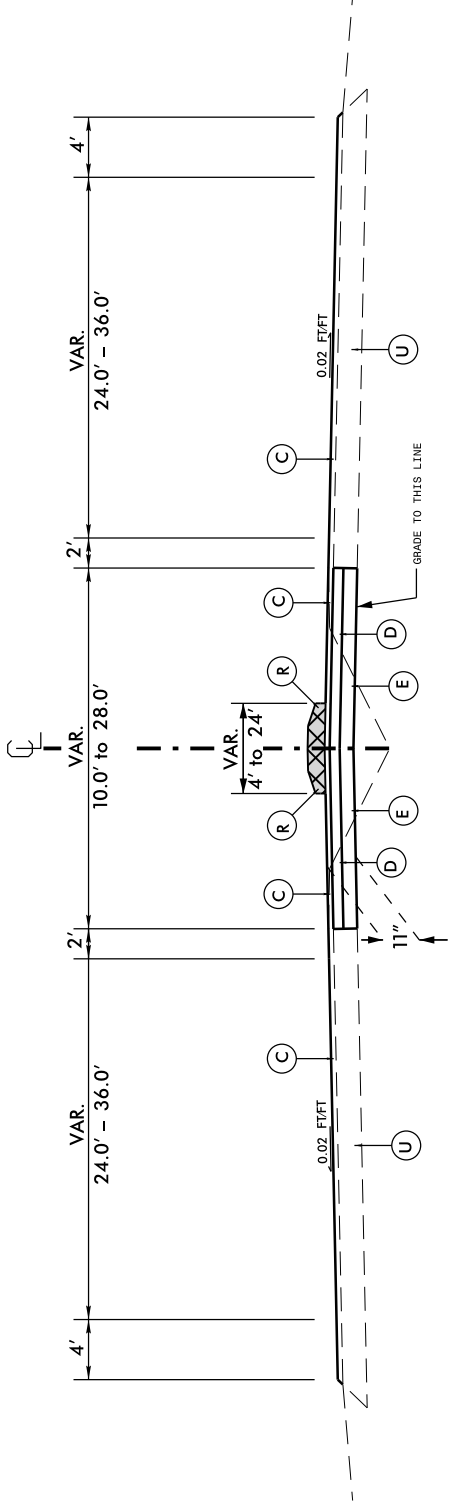
NCDOT CONTROL POINT #5  
 N:=567795.4230  
 E:=1237179.3080

NCDOT CONTROL POINT #536  
 N:=567605.8669  
 E:=1237504.0536

NCDOT CONTROL POINT #432  
 N:=567387.4820  
 E:=1237920.0800

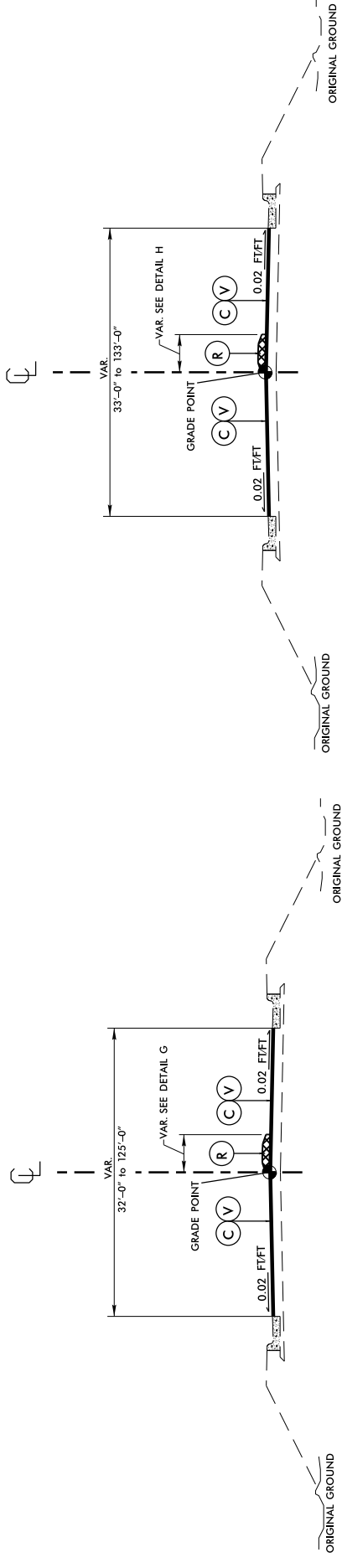


PROJECT REFERENCE NO. <b>W-5212F</b>	SHEET NO. <b>2</b>
RW- SHEET NO. <b>HYDRAULICS ENGINEER</b>	
<b>ROADWAY DESIGN ENGINEER</b>	



**USE TYPICAL SECTION NO. 1**

-L STA. 10+00.00 TO 24+50.00



**USE TYPICAL SECTION NO. 2**

-Y1- STA. 10+75.00 to 11+55.00

**USE TYPICAL SECTION NO. 3**

-Y1- STA. 10+50.00 to 11+50.00

PAVEMENT SCHEDULE	
C	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD.
D	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I119.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E	PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
R	5" MONOLITHIC CONCRETE ISLAND (SURFACE MOUNTED)
T	EARTH MATERIAL.
U	EXISTING ASPHALT PAVEMENT.
V	MILLING 1.5" DEPTH

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



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	SECTION	QUANTITY
0000100000-N	MOBILIZATION	LS	800	1
0000400000-N	CONSTRUCTION SURVEYING	LS	801	1
0043000000-N	GRADING	LS	226	1
0050000000-E	SUPPLEMENTARY CLEARING & GRUBBING	ACR	226	1
0318000000-E	FOUNDATION CONDITIONING MATERIAL, MINOR STRS	TON	300	50
0320000000-E	FOUNDATION CONDITIONING FABRIC	SY	300	150
0372000000-E	18" RC PIPE CULVERTS, CLASS III	LF	310	440
1297000000-E	MILLING ASPHALT PAVEMENT, 1.5"DEPTH	SY	607	1035
1308000000-E	MILLING ASPHALT PAVEMENT, 0"TO 1.5" DEPTH	SY	607	1520
1489000000-E	ASPHALT CONC BASE COURSE, TYPE B25.0B	TON	610	700
1498000000-E	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0B	TON	610	510
1519000000-E	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	TON	610	1210
1575000000-E	ASPHALT BINDER FOR PLANT MIX	TON	620	130
2286000000-N	MASONRY DRAINAGE STRUCTURES	EA	840	9
2308000000-E	MASONRY DRAINAGE STRUCTURES	LF	840	19.6
2364000000-N	FRAME WITH TWO GRATES, STD 840.16	EA	840	1
2365000000-N	FRAME WITH TWO GRATES, STD 840.22	EA	840	7
2451000000-N	CONC TRANS SECT FOR DROP INLETS	EA	852	1
2647000000-E	5" MONOLITHIC CONCRETE ISLANDS(SURFACE MOUNTED)	SY	852	1040
2830000000-N	ADJUSTMENT OF MANHOLES	EA	858	2
2845000000-N	ADJUSTMENT OF METER BOXES OR VALVE BOXES	EA	858	3
2995000000-N	CONVERT OPEN THROAT CATCH BASIN TO 2 GRATE INLET	EA	SP	3
4025000000-E	CONTRACTOR FURNISHED, TYPE E SIGN	SF	901	35
4072000000-E	SUPPORTS, 3-LB STEEL U-CHANNEL	LF	903	78
4102000000-N	SIGN ERECTION, TYPE E	EA	904	6
4400000000-E	WORK ZONE SIGNS (STATIONARY)	SF	1110	200
4405000000-E	WORK ZONE SIGNS (PORTABLE)	SF	1110	192
4415000000-N	FLASHING ARROW BOARD	EA	1115	1
4420000000-N	PORTABLE CHANGEABLE MESSAGE SIGN	EA	1120	1
4430000000-N	DRUMS	EA	1130	200
4455000000-N	FLAGGER	MD	1150	10
4480000000-N	TMA	EA	1165	1
4685000000-E	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)	LF	1205	5714
4686000000-E	THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS)	LF	1205	933
4695000000-E	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)	LF	1205	1154
4725000000-E	THERMOPLASTIC PAVEMENT MARKINGSYMBOL (90 MILS)	EA	1205	4
4905000000-N	SNOWPLOWABLE PAVEMENT MARKERS	EA	1253	94
5255000000-N	PORTABLE LIGHTING	LS	1413	1
6012000000-E	SEDIMENT CONTROL STONE	TON	1610	50
6030000000-E	SILT EXCAVATION	CY	1630	14
6036000000-E	MATTING FOR EROSION CONTROL	SY	1631	500
6042000000-E	1/4" HARDWARE CLOTH	LF	1632	220
6084000000-E	SEEDING & MULCHING	ACR	1660	0.3

<b>COMPUTED BY:</b> _____ <b>BKS</b>	<b>PROJECT NO.</b> W-5212F
<b>CHECKED BY:</b> _____ <b>REH</b>	<b>SHEET NO.</b> 3-A

RD248621

## STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

### SUMMARY OF EARTHWORK

Station	Station	Uncl. Excav.	Embank. +/-	Borrow	Waste
10+00	24+00	157	351	194	
<b>SUBTOTALS:</b>		157	351	194	
<b>SUBTOTALS:</b>					
<b>SUBTOTALS:</b>					
<b>SUBTOTALS:</b>					
<b>SUBTOTALS:</b>					
<b>SUBTOTALS:</b>					
<b>PROJECT TOTALS:</b>		157	351	194	
MAT FOR SHOULDER CONSTR.			100	100	
<b>PROJECT TOTALS:</b>					
<b>PROJECT TOTALS:</b>		157	451	294	
EST. 5% TO REPLACE TOPSOIL IN BORROW PITS				15	
<b>GRAND TOTALS:</b>				308	
<b>SAY:</b>				<b>400</b>	

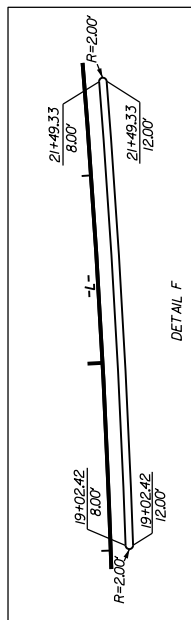
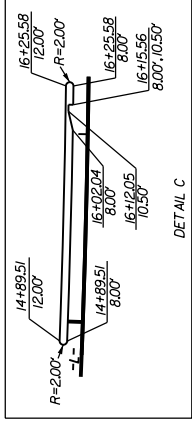
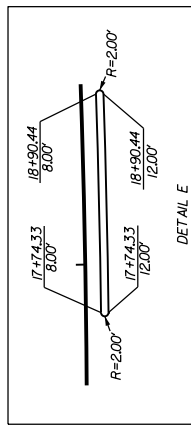
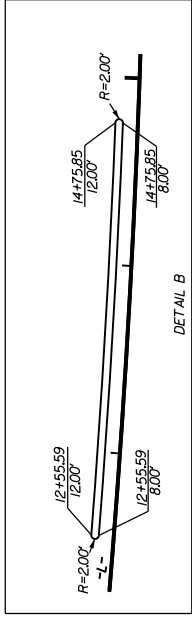
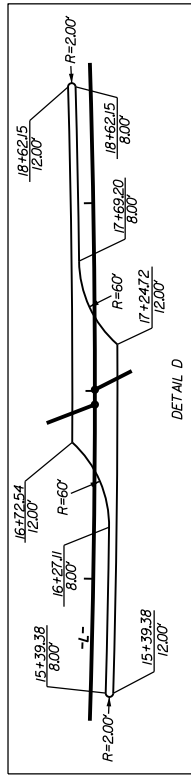
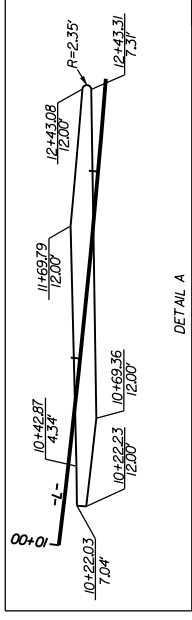
Note: Earthwork quantities are calculated by the Roadway Design Unit. These earthwork quantities are based in part on subsurface data provided by the Geotechnical Engineering Unit.

### SUMMARY OF EXISTING CONCRETE PAVEMENT REMOVAL

LINE	Station	Station	LOC L/T/RT/CL	YD <sup>2</sup>
L	CONCRETE APRONS AT DJ's		CL	79
Y	CONCRETE ISLAND		CL	25
Y1	CONCRETE ISLAND		CL	25
<b>TOTAL:</b>				129.00
<b>SAY:</b>				130







DETAIL I  
 FALSE SWAMP  
 (Not To Scale)

Ditch Grade	L	Ditch Grade	Q	Proposed Ditch
0.0% To 2.0%	20	Over 4.0% To 6.0%	40'	L
Over 2.0% To 4.0%	30	Over 6.0%	50'	L

FROM STA. 22+54 TO STA. 22+96

PI Sta 17+03.28  
 $\Delta = 14'00''53.4''$  (LT)  
 $D = 1'00''05.0''$   
 $L = 1399.54'$   
 $T = 703.28'$   
 $R = 572164'$

20

15

S 53°12'38" E  
 -L- POC 10+00.00  
 BEGIN CONSTRUCTION 10

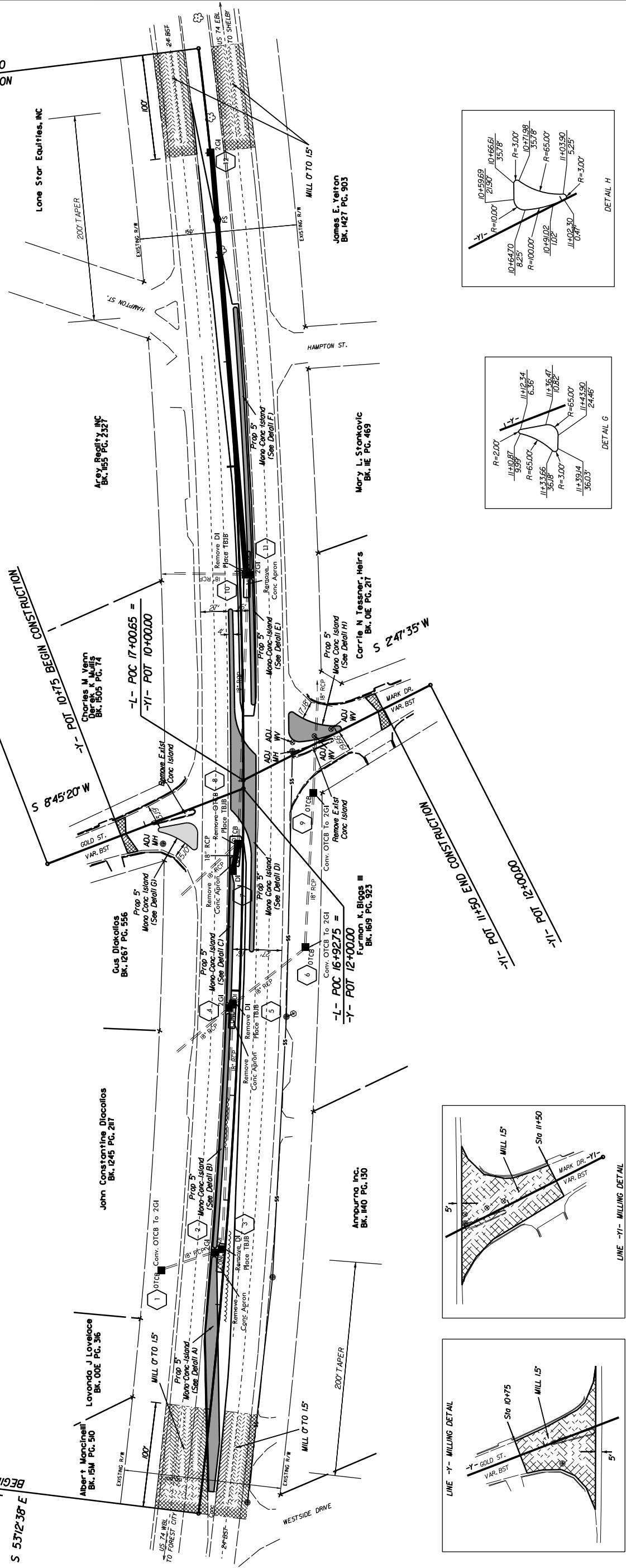
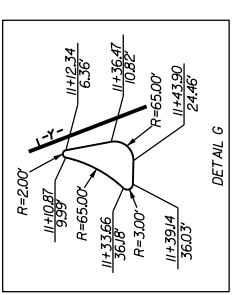
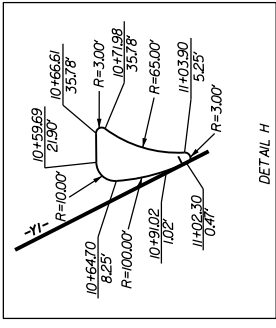
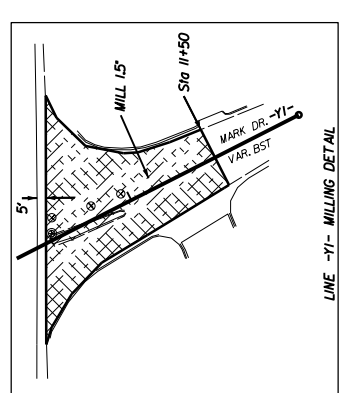
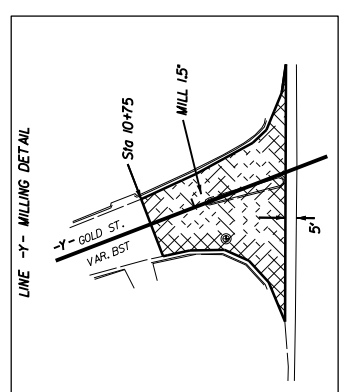
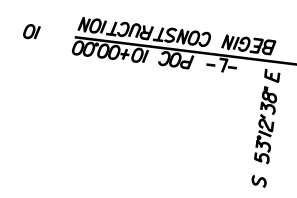
-X- POT 10+00.00

-Y- POT 10+47.5  
 BEGIN CONSTRUCTION

-L- POC 17+00.65 =  
 -Y- POT 10+00.00

-L- POC 16+92.75 =  
 -Y- POT 12+00.00

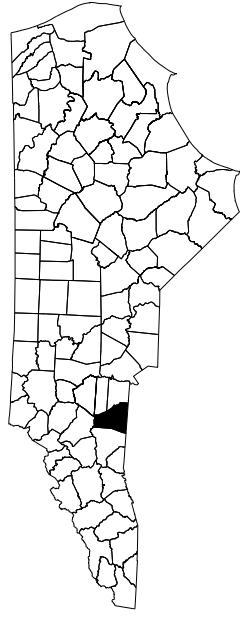
-X- POT 12+00.00  
 -Y- POT 12+00.00



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**TRANSPORTATION MANAGEMENT PLAN**

**CLEVELAND COUNTY**



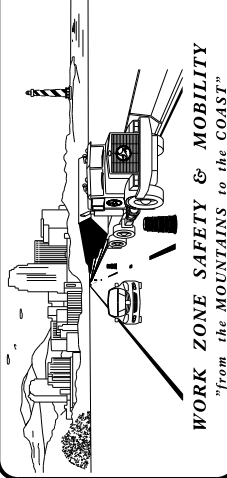
SHEET NO.  
TCP-1

**W-5212F**

**PROJECT:**

**INDEX OF SHEETS**

SHEET NO.	TITLE
TCP-1	TITLE SHEET, AND INDEX OF SHEETS
TCP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKING
TCP-2	GENERAL NOTES



APPROVED: \_\_\_\_\_  
DATE: \_\_\_\_\_




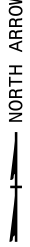

SEAL

# 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 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:









<u>STD. NO.</u>	<u>TITLE</u>
1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD 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	DRUMS
1135.01	CONES
1150.01	FLAGGING DEVICES
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1180.01	SKINNY - DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - (PERMANENT AND TEMPORARY)

# LEGEND




- GENERAL**
-  DIRECTION OF TRAFFIC FLOW
  -  DIRECTION OF PEDESTRIAN TRAFFIC FLOW
  -  EXIST. PVMT.
  -  NORTH ARROW
  -  PROPOSED PVMT.



## TRAFFIC CONTROL DEVICES

-  CONE
-  DRUM
-  SKINNY DRUM
-  FLASHING ARROW BOARD
-  FLAGGER
-  TUBULAR MARKER
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  CHANGEABLE MESSAGE SIGN


## TEMPORARY SIGNING

-  PORTABLE SIGN
-  STATIONARY SIGN
-  STATIONARY OR PORTABLE SIGN

## PAVEMENT MARKINGS

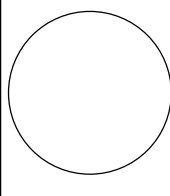
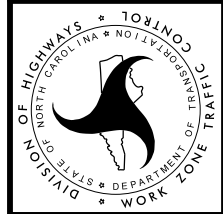
-  EXISTING LINES
-  TEMPORARY LINES

## PAVEMENT MARKING SYMBOLS

-  PAVEMENT MARKING SYMBOLS

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

SEAL

ROADWAY STANDARD  
DRAWINGS & LEGEND

# PROJECT NOTES

## 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 UNDESIRABLE 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
US 74	MONDAY THRU SUNDAY 6:00 AM THRU 8:00 PM
GOLD STREET	MONDAY THRU SUNDAY 6:00 AM THRU 8:00 PM
MARK DRIVE	MONDAY THRU SUNDAY 6:00 AM THRU 8:00 PM

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

ROAD NAME	HOLIDAY
US 74	FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
GOLD STREET	FOR NEW YEAR'S, BETWEEN THE HOURS OF 7:00 P.M. DECEMBER 31st TO 6:00 A.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 6:00 A.M. THE FOLLOWING TUESDAY.
MARK DRIVE	FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
	FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
	FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 P.M. THE DAY BEFORE INDEPENDENCE DAY AND 6:00 A.M. THE DAY AFTER INDEPENDENCE DAY.
	IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 7:00 P.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 6:00 A.M. THE TUESDAY AFTER INDEPENDENCE DAY.
	FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 P.M. FRIDAY AND 6:00 A.M. TUESDAY.
	FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 P.M. TUESDAY TO 6:00 A.M. MONDAY.
	FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 P.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 5:00 A.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

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.

- F) 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.
- G) 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.
- H) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON US 74.

**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.

**TRAFFIC PATTERN ALTERATIONS**

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

**SIGNING**

K) 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.

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

M) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500 IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

**TRAFFIC CONTROL DEVICES**

N) 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 RADIUS, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

O) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

P) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

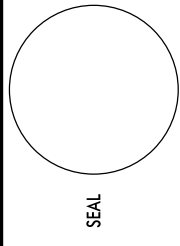
**FINAL PAVT MARKING SCHEDULE**

Pavement Marking Schedule  
 TIP Project # W-5212F

SYMBOL	DESCRIPTION	FINAL PAVEMENT MARKINGS
T8	2 FT. - 6 FT./SP WHITE MINISKIP	THERMOPLASTIC(4", 120 MILS)
T9	2 FT. - 6 FT./SP YELLOW MINISKIP	
TC	10 FT. WHITE SKIP	
TD	3 FT. - 9 FT./SP WHITE MINISKIP	
TA	WHITE EDGELINE	THERMOPLASTIC(4", 90 MILS)
TB	YELLOW EDGELINE	
TN	WHITE GORELINE	THERMOPLASTIC(8", 90 MILS)
UA	LEFT TURN ARROW	THERMOPLASTICPAVEMENT MARKING SYMBOLS (90 MILS)
MB	CRYSTAL & RED	PERMANENT RAISED PAVEMENT MARKERS

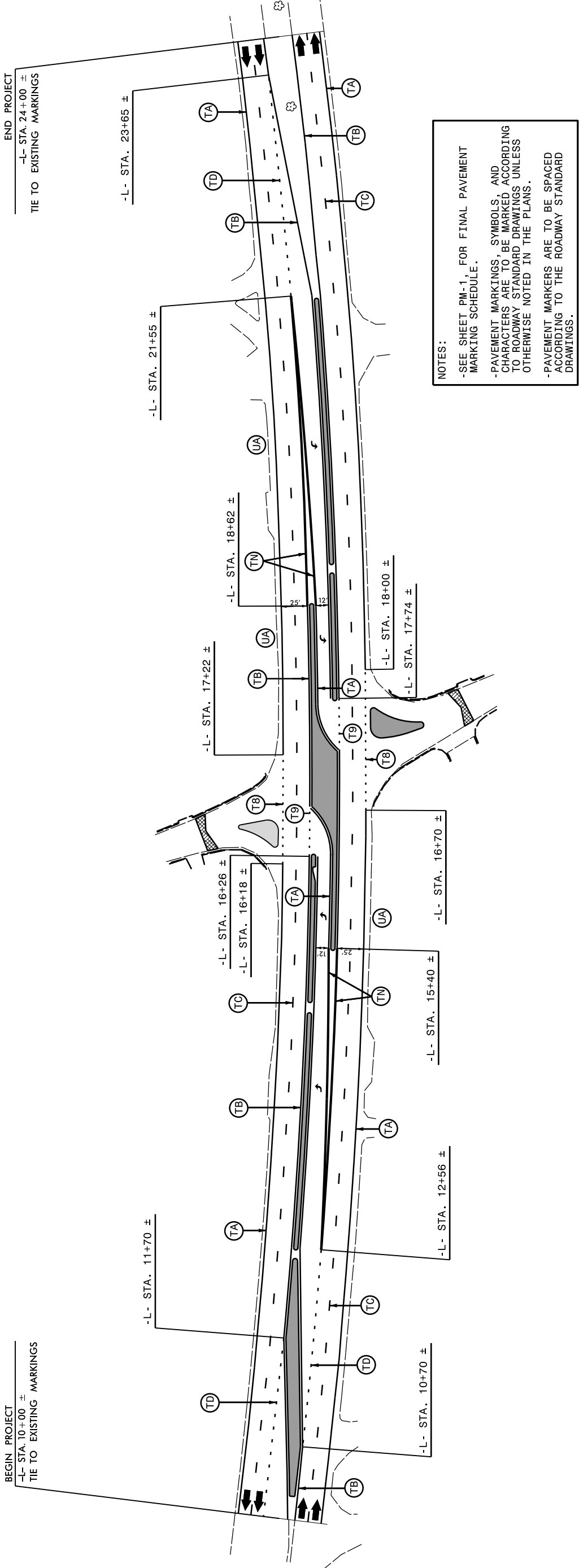
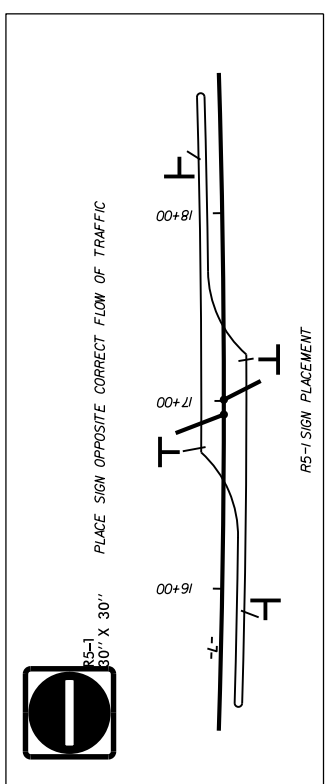
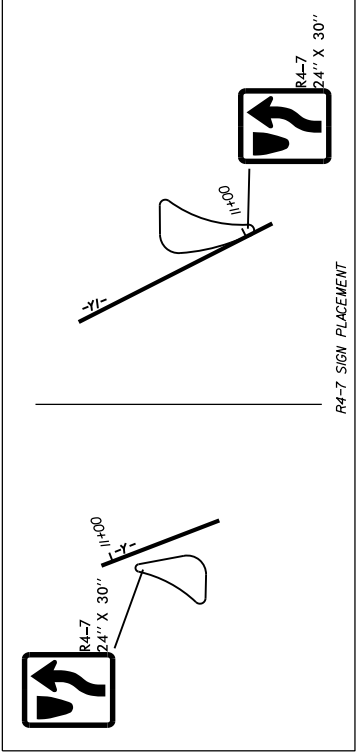
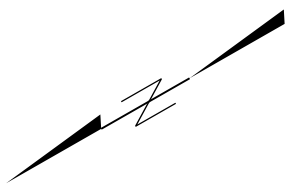
SEE ROADWAY STANDARD DRAWING NUMBERS 1205.01, 1205.02, 1205.04, 1205.05, 1205.06, 1205.08, 1205.09, 1250.01 AND 1253.01

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_



**FINAL PAVEMENT MARKING PLAN**

SCALE: NONE	REVISIONS
DATE: 06-11	
DWG. BY: BKS	
DESIGN BY:	
REVIEWED BY:	



NOTES:

- SEE SHEET PM-1, FOR FINAL PAVEMENT MARKING SCHEDULE.
- PAVEMENT MARKINGS, SYMBOLS, AND CHARACTERS ARE TO BE MARKED, ACCORDING TO ROADWAY STANDARD DRAWINGS UNLESS OTHERWISE NOTED IN THE PLANS.
- PAVEMENT MARKERS ARE TO BE SPACED ACCORDING TO THE ROADWAY STANDARD DRAWINGS.

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

SEAL

**FINAL PAVEMENT MARKING PLAN**

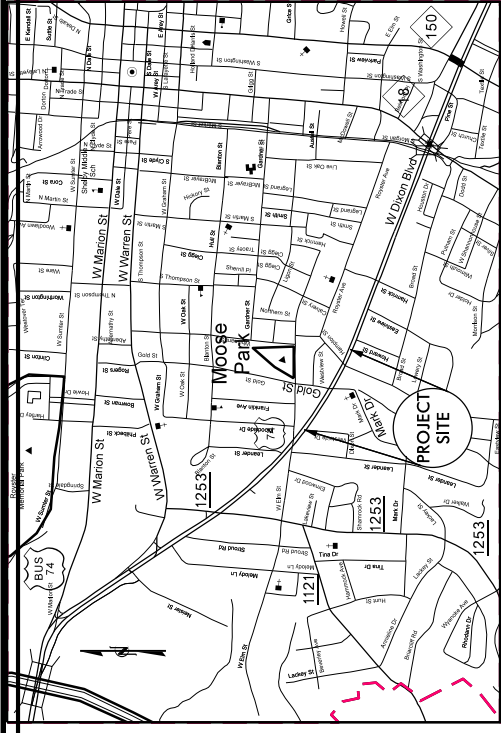
SCALE: NONE  
 DATE: 07-12  
 DWG. BY: BKS  
 DESIGN BY:  
 REVIEWED BY:

REVISIONS


CRD FILE



# TIP PROJECT: W-5212F

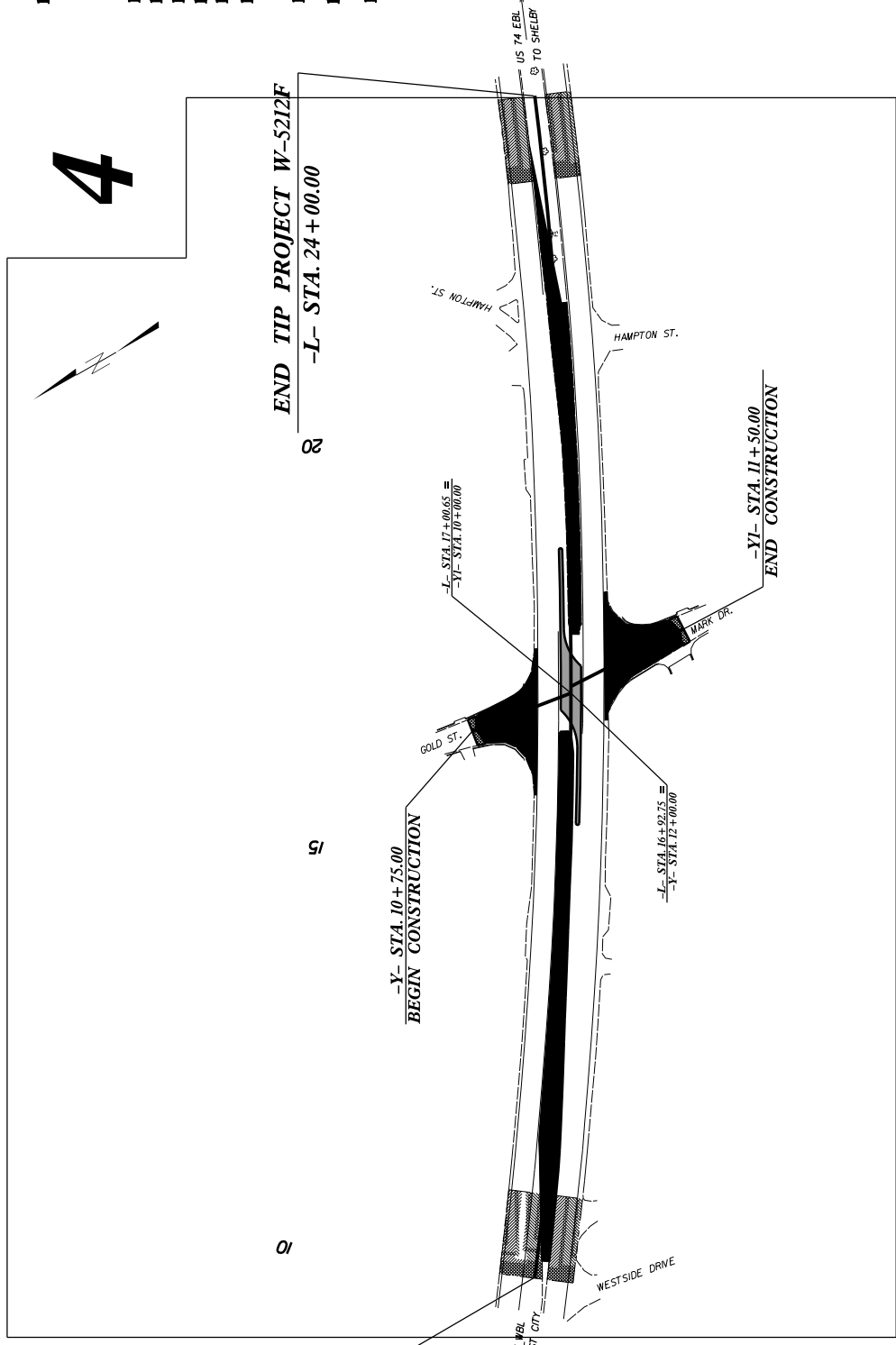


VICINITY MAP  
NOT TO SCALE

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5212F	EC-1	
STATE PROJECT REFERENCE NO.		SHEET NO.	
DESCRIPTION		DESCRIPTION	

Sta. #	Description	Symbol
1630.03	Temporary Silt Ditch	--- ---
1630.05	Temporary Diversion	--- --- ---
1605.01	Temporary Silt Fence	--- --- --- ---
1606.01	Special Sediment Control Fence	--- --- --- --- ---
1622.01	Temporary Berms and Slope Drains	--- --- --- --- ---
1630.02	Silt Basin Type B	--- --- --- --- ---
1633.01	Temporary Rock Silt Check Type-A	--- --- --- --- ---
	Temporary Rock Silt Check Type-A with Matting and Polycrylamide (PAM)	--- --- --- --- ---
1633.02	Temporary Rock Silt Check Type-B	--- --- --- --- ---
	Wattle/Coir Fiber Wattle	--- --- --- --- ---
	Wattle/Coir Fiber Wattle with Polycrylamide (PAM)	--- --- --- --- ---
1634.01	Temporary Rock Sediment Dam Type-A	--- --- --- --- ---
1634.02	Temporary Rock Sediment Dam Type-B	--- --- --- --- ---
1635.01	Rock Pipe Inlet Sediment Trap Type-A	--- --- --- --- ---
1635.02	Rock Pipe Inlet Sediment Trap Type-B	--- --- --- --- ---
1630.04	Stilling Basin	--- --- --- --- ---
1630.06	Special Stilling Basin	--- --- --- --- ---
1632.01	Rock Inlet Sediment Trap Type A	--- --- --- --- ---
1632.02	Type B	--- --- --- --- ---
1632.03	Type C	--- --- --- --- ---
	Skimmer Basin	--- --- --- --- ---
	Tiered Skimmer Basin	--- --- --- --- ---
	Infiltration Basin	--- --- --- --- ---



BEGIN TIP PROJECT W-5212F  
-L- STA. 10+00.00

END TIP PROJECT W-5212F  
-L- STA. 24+00.00

GRAPHIC SCALE



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.

ROADSIDE ENVIRONMENTAL UNIT  
DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

Prepared in the Office of:  
**ROADSIDE ENVIRONMENTAL UNIT**  
1710 East Marion St.  
Shelby, NC 28150  
**2012 STANDARD SPECIFICATIONS**

Roadway Standard Drawings

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

1631.01 Matting Installation  
1632.03 Rock Inlet Sediment Trap Type C

# EROSION CONTROL & PIPE INSTALLATION SCHEDULE

## GENERAL E&SC NOTES

### GROUND STABILIZATION CHART

#### Erosion Control Schedule and Notes

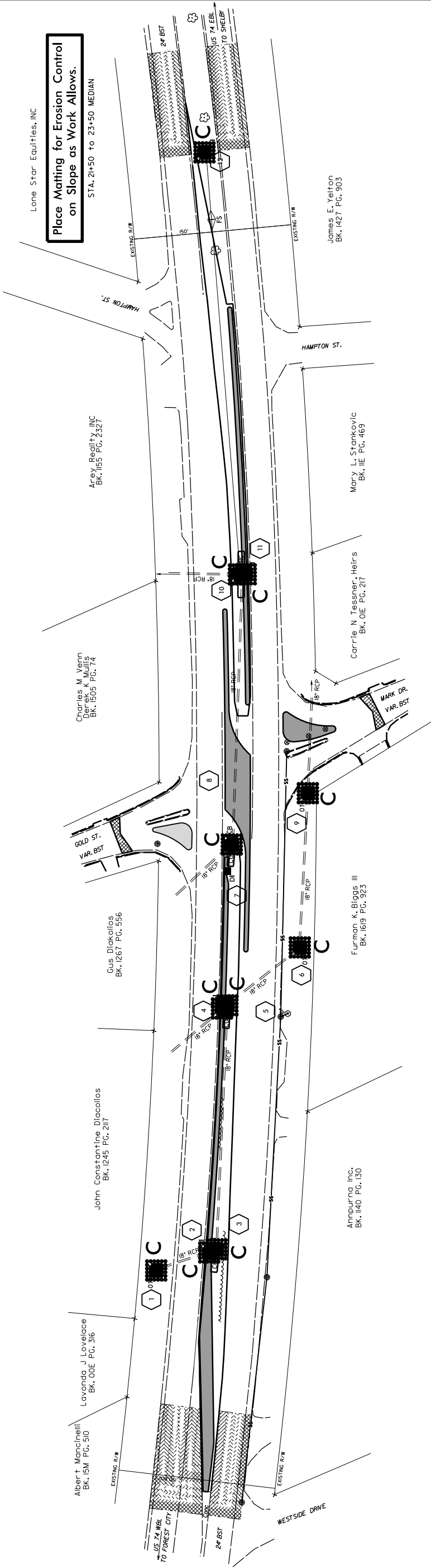
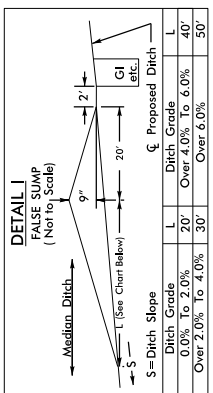
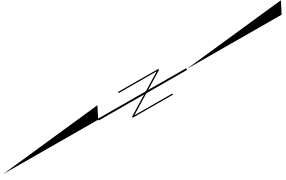
1. Generally, the order of installation of the erosion control measures will be as follows:
  - A. Rock Inlet Sediment Traps Type C shall be installed around existing drainage structures during the Clearing and Grubbing Phase.
  - B. Rock Inlet Sediment Traps Type C shall be installed around proposed drainage structures as their construction allows.
  - C. Rock Inlet Sediment Traps Type C shall remain in place until the area around the drainage structure has been stabilized.
  - D. Place Matting for Erosion Control as soon as ditchline has been established in areas shown on plans.
  - E. Establish permanent vegetation per ground stabilization chart.
  
2. Make any adjustments to plan as directed by the engineer.

#### GROUND STABILIZATION CHART

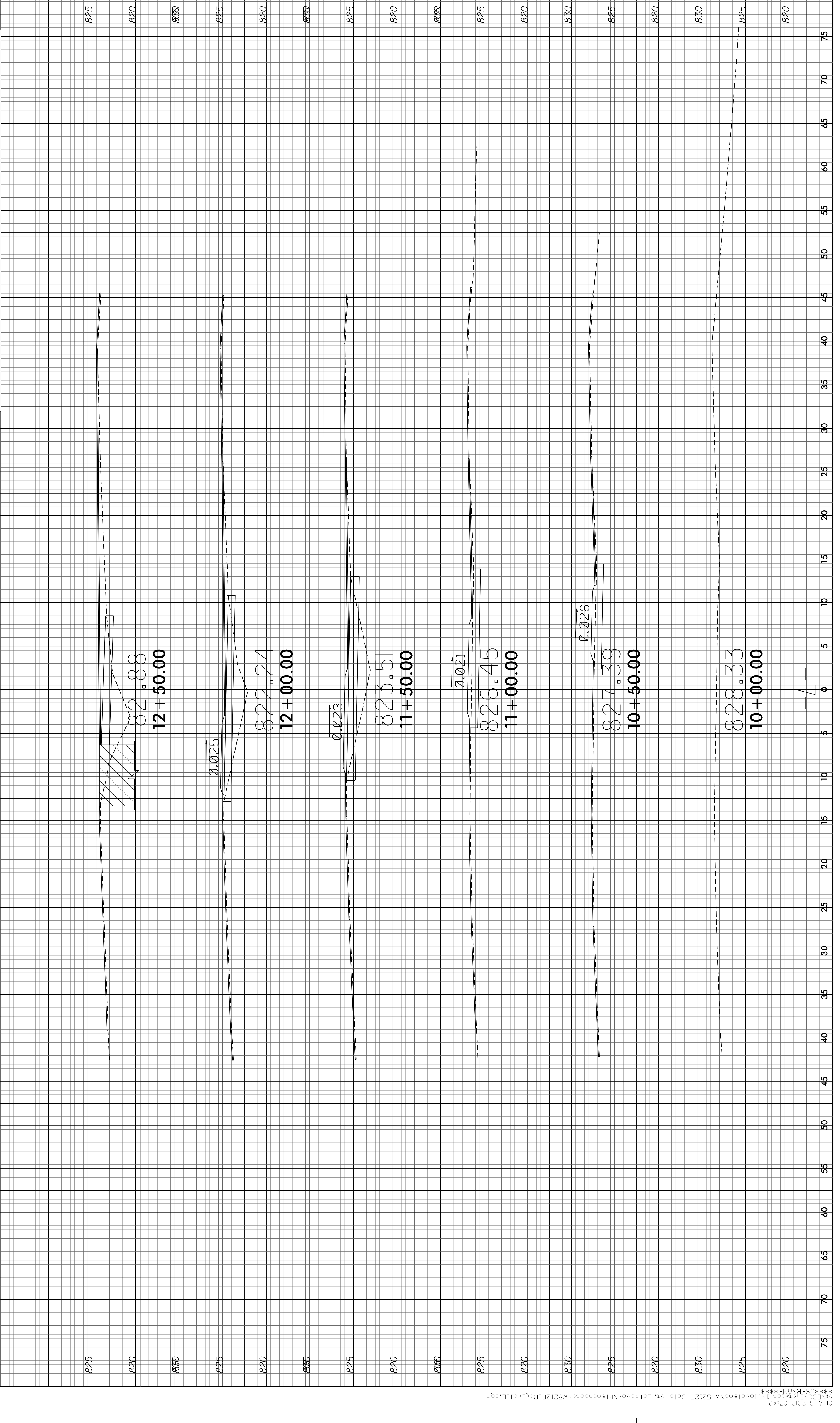
Site Area Description	Stabilization Time Frame	Stabilization Time Frame Exceptions
Perimeter dikes, swales, ditches and slopes	7 days	None
High Quality Water Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10 ft. or less in length and are not steeper than 2:1, 14 days are allowed
Slopes 3:1 or flatter	14 days	7 days for slopes greater than 50' in length
All other areas flatter than 4:1	14 days	None (except for perimeters and HQW zones)

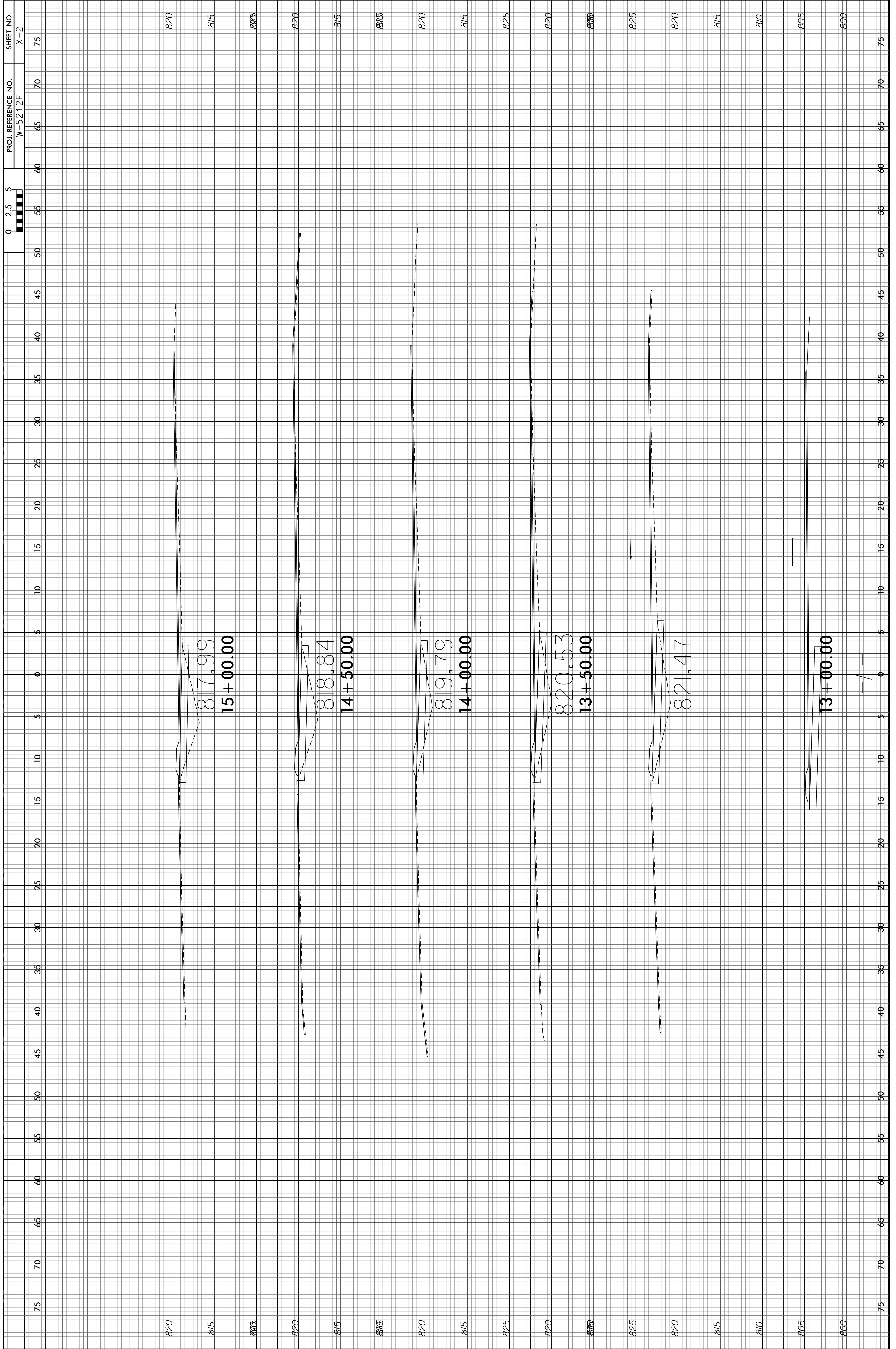


PROJECT REFERENCE NO. <b>W-5212F</b>	SHEET NO. <b>EC-4/COMST.4</b>
RDW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

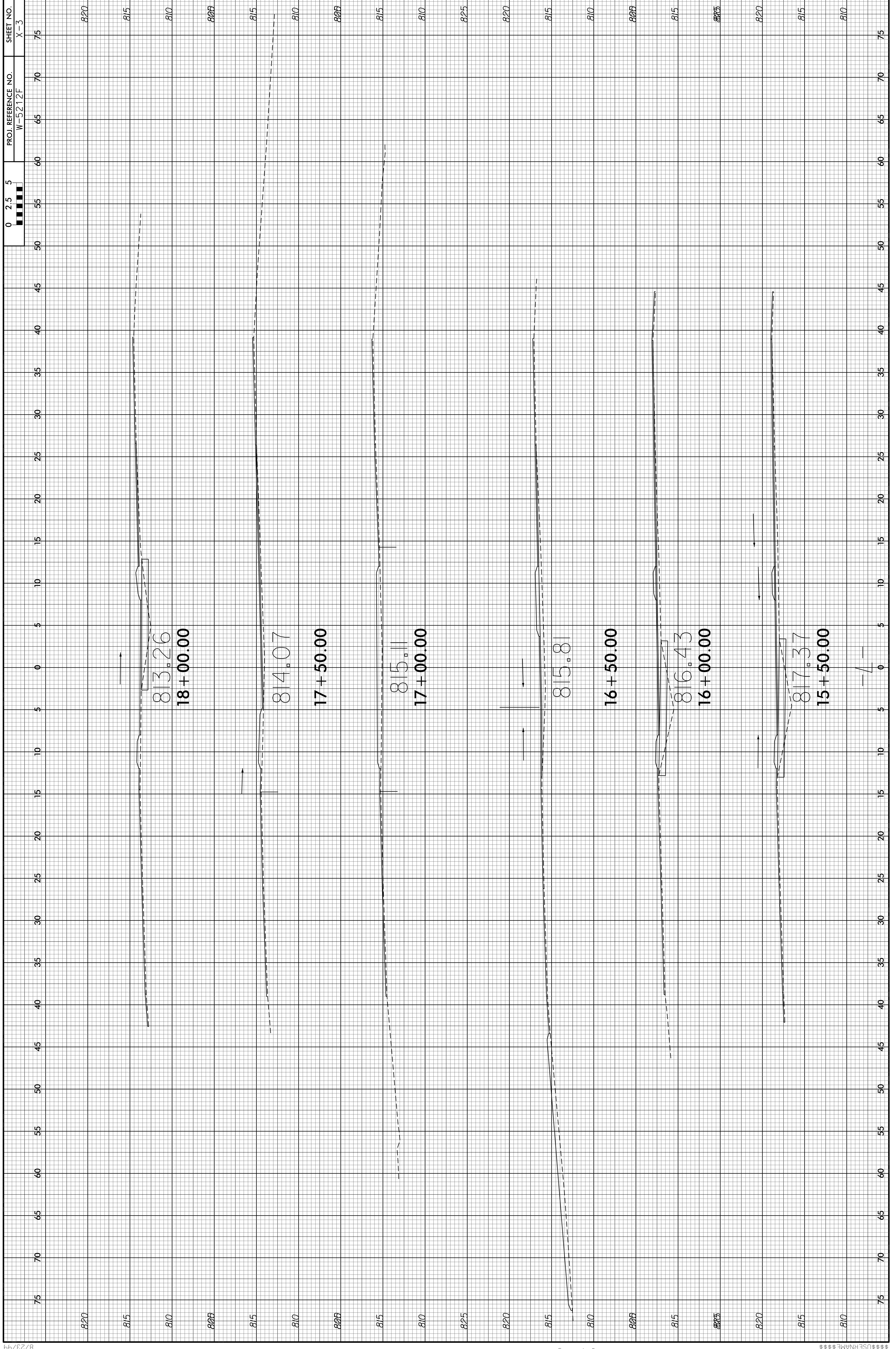


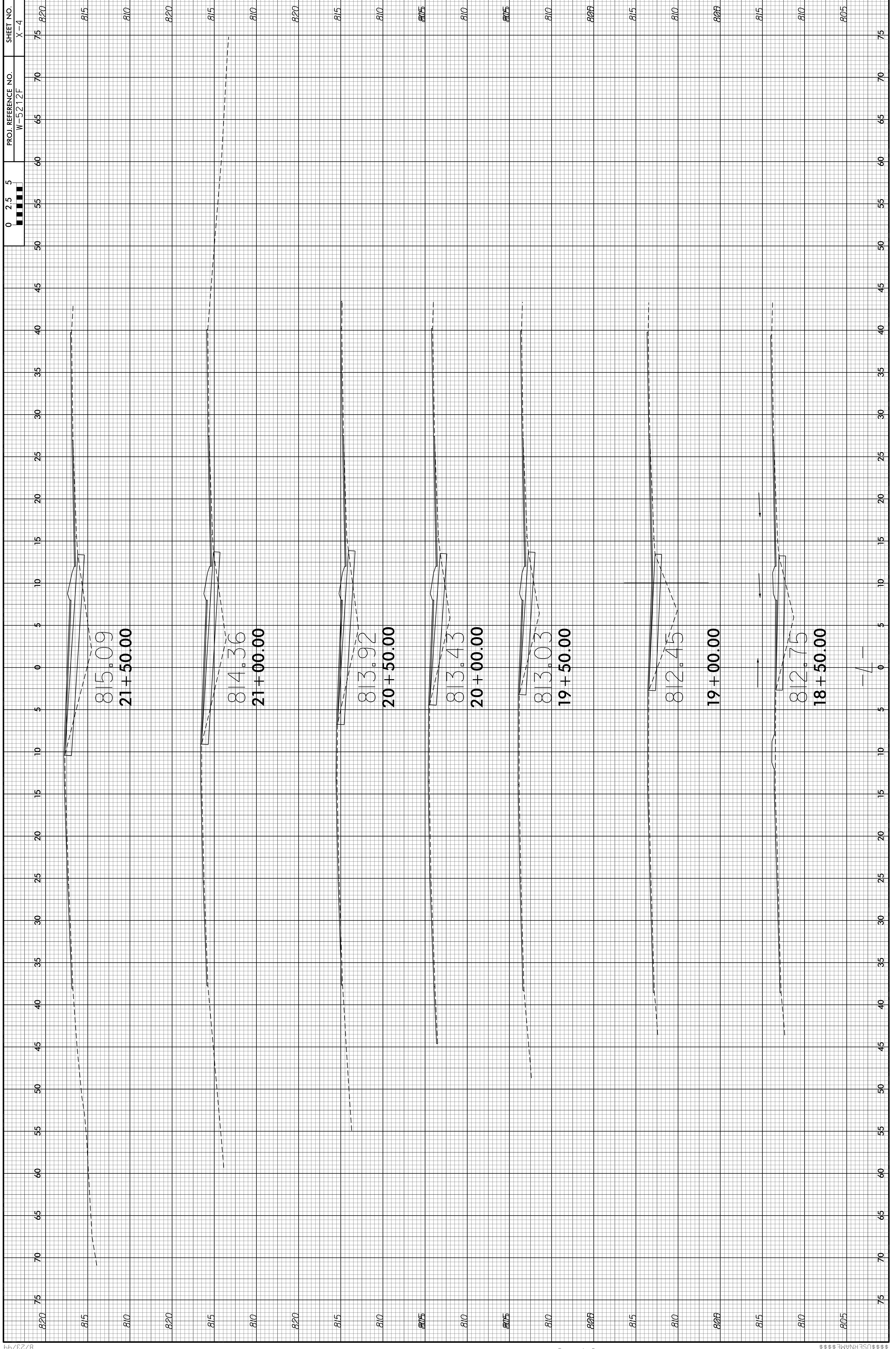
**Place Matting for Erosion Control on Slope as Work Allows.**

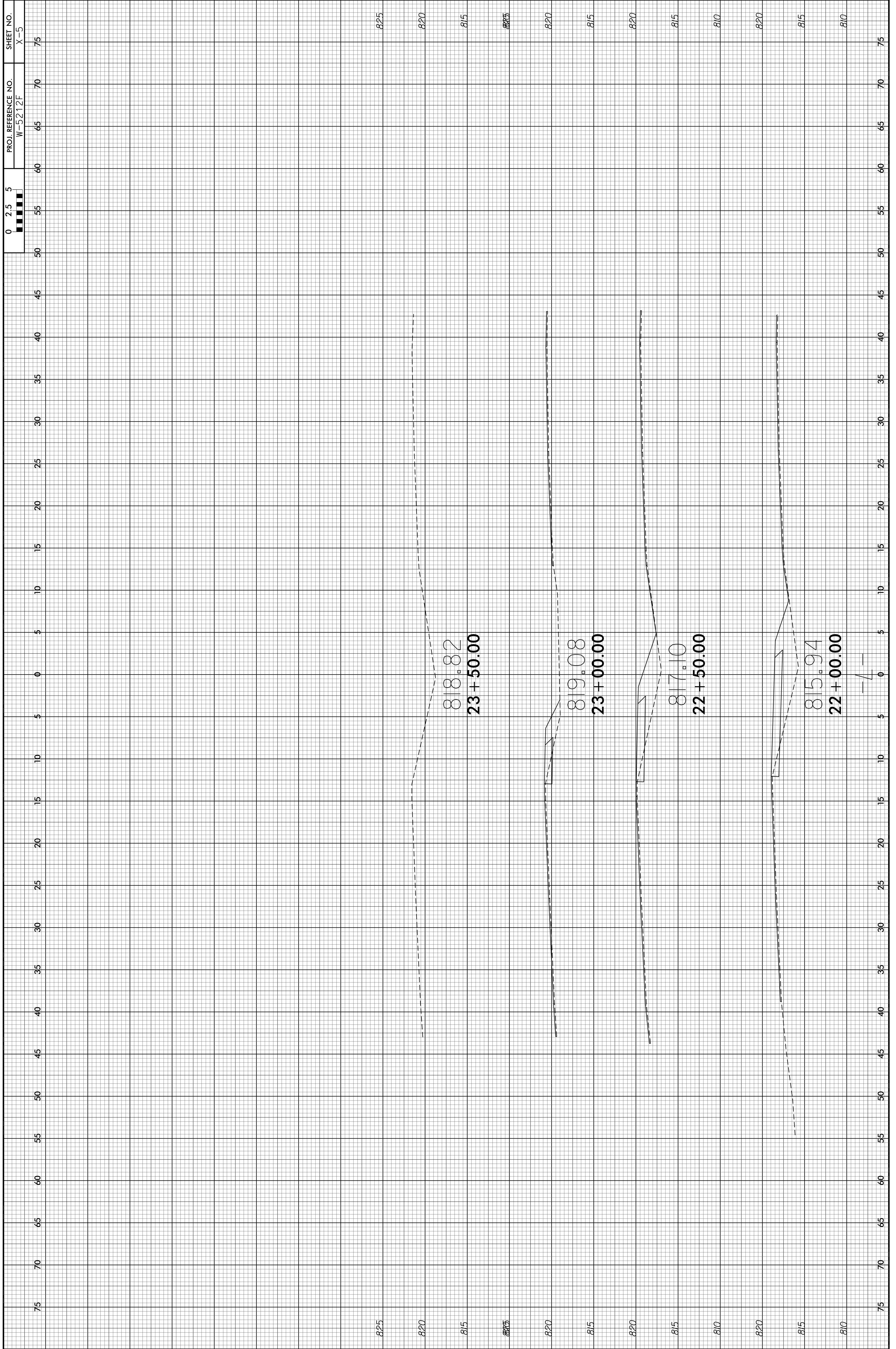












0 2.5 5  
PROJ. REFERENCE NO.  
W-5212F

SHEET NO.  
X-5

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

825 820 815 810 825 820 815 810 820 815 810 820 815 810