

09/08/99

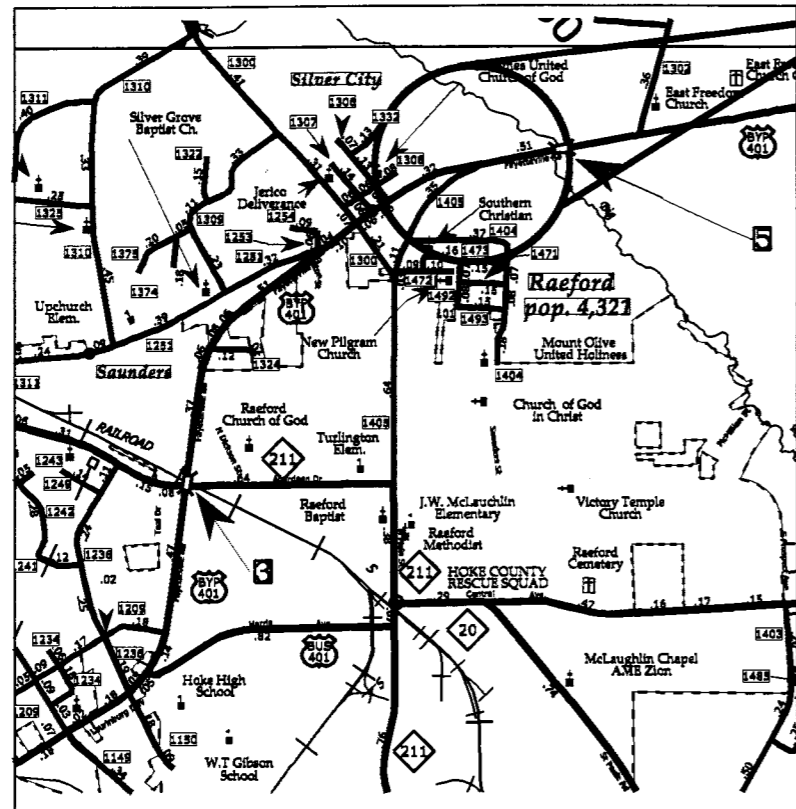
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-56011	1	
WBS ELEMENT	F.A. PROJ. NO.	DESCRIPTION	
50138.1.FS7		PE	
50138.3.FS7		CONST.	

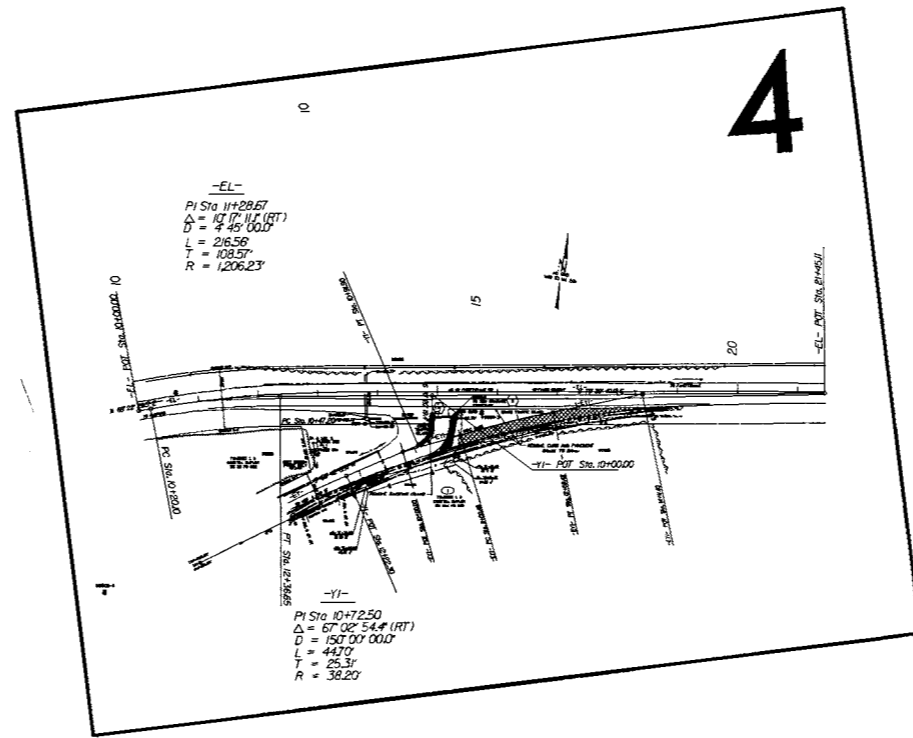
# HOKE COUNTY

LOCATION: US 401 AT INTERSECTION WITH SR 1405 (N. MAIN ST).

TYPE OF WORK: GRADING, PAVING, CONCRETE ISLAND AND PAVEMENT MARKINGS & MARKERS

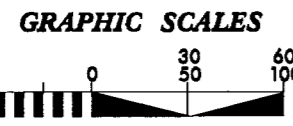


VICINITY MAP



TIP PROJECT: W-56011 PROJECT WBS: 50138.3.FS7

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gsdavis AT D8CAD-270410



Prepared in the Office of:  
**DIVISION OF HIGHWAYS**  
**DIVISION 8 DESIGN & CONSTRUCT UNIT**  
 902 N. SANDHILLS BLVD.  
 ABERDEEN NC 28315  
 PLANS PREPARED BY: DDC


**PROJECT LENGTH**  
 ROADWAY: 0.01 MILES  
 STRUCTURE: \_\_\_\_\_ MILES  
 TOTAL: 0.01 MILES

**DIVISION OF HIGHWAYS**

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: \_\_\_\_\_

LETTING DATE: \_\_\_\_\_




DIVISION DESIGN & CONSTRUCT ENGINEER

DIVISION DESIGN & CONSTRUCT ENGINEER

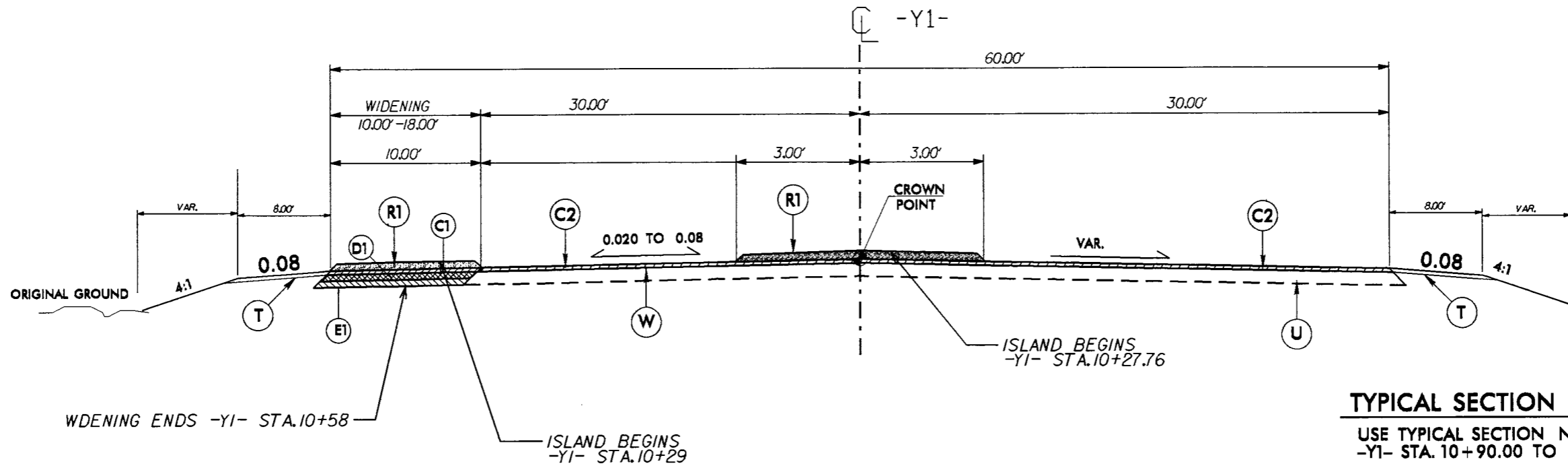
*G.S. Davis* 12-31-14  
 SIGNATURE P.E.

DIVISION DESIGN & CONSTRUCT ENGINEER



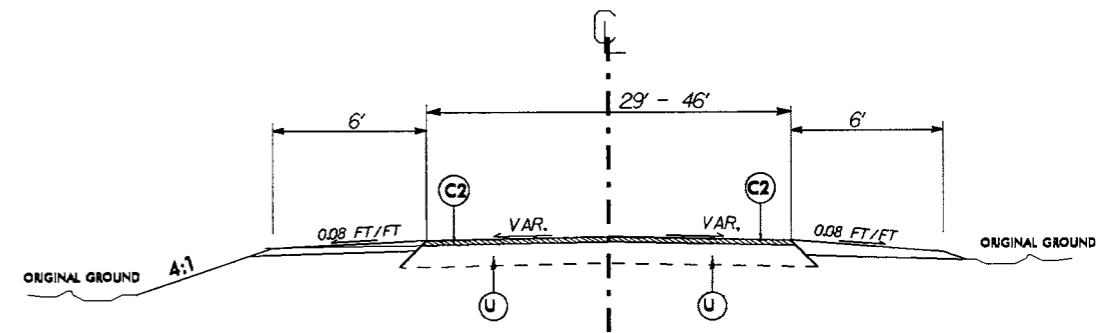
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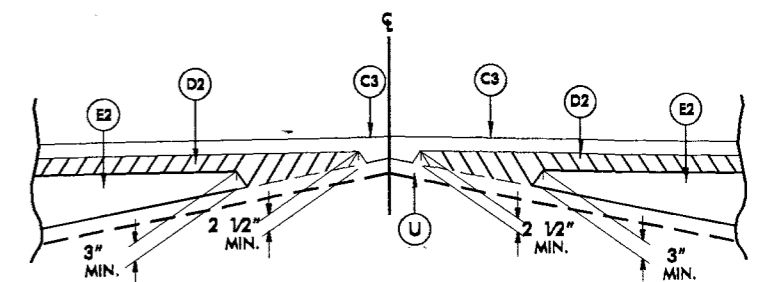
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USE TYPICAL SECTION NO. 2 FROM  
-Y1- STA. 10+90.00 TO -Y1- STA. 12+00.00



### PAVEMENT SCHEDULE

C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS OF 1½".	E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	R1	5" MONOLITHIC CONCRETE ISLAND. (SURFACED MOUNTED)
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 1" IN DEPTH OR GREATER THAN 2" IN DEPTH.	T	EARTH MATERIAL.
D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I10.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	U	EXISTING PAVEMENT.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I10.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.	W	WEDGING OF EXISTING PAVEMENT (SEE WEDGING DETAIL)
E1	PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 827 LBS. PER SQ. YD.		



Detail Showing Method of Wedging

8/17/99

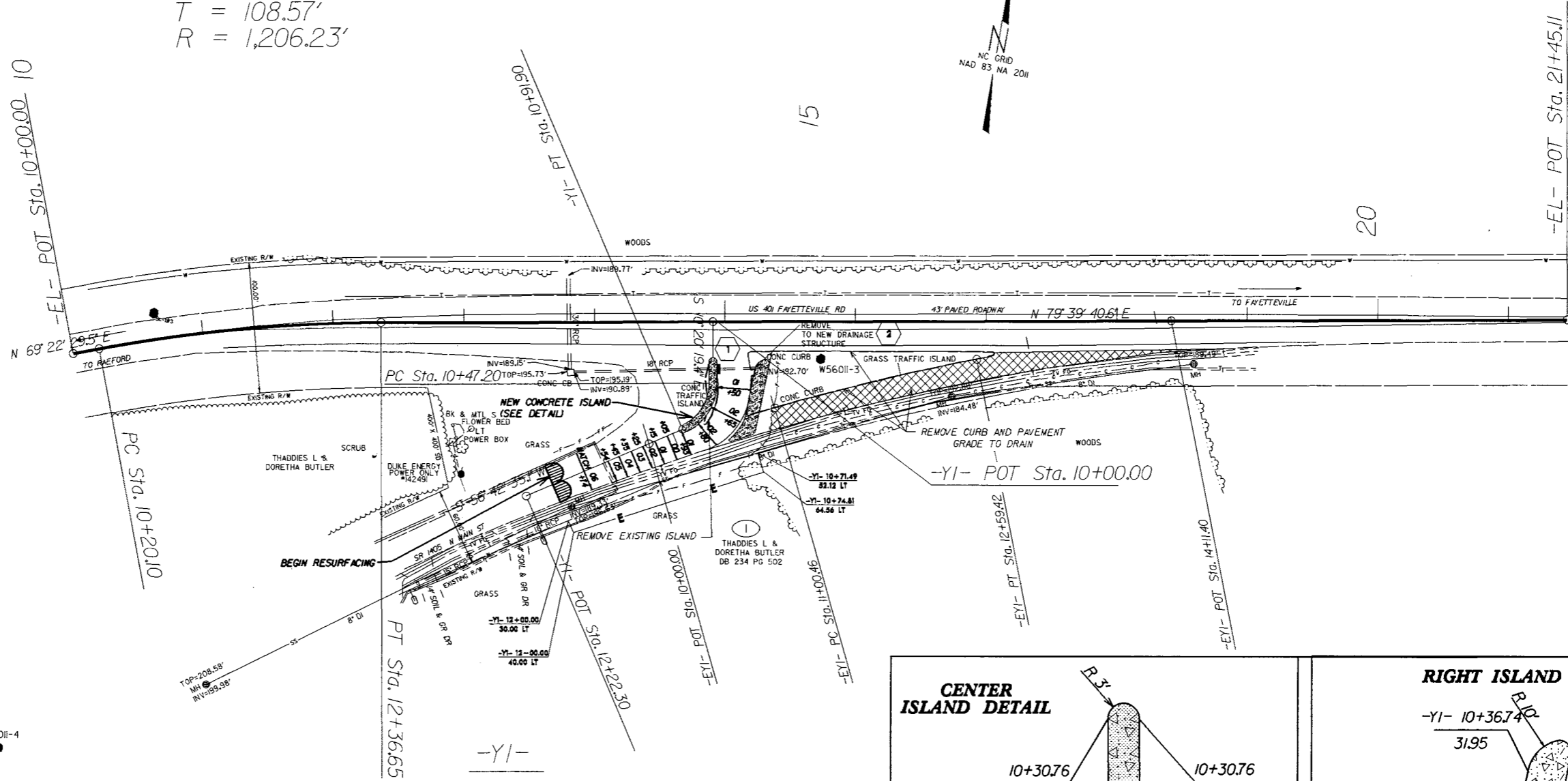
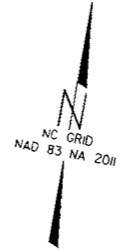
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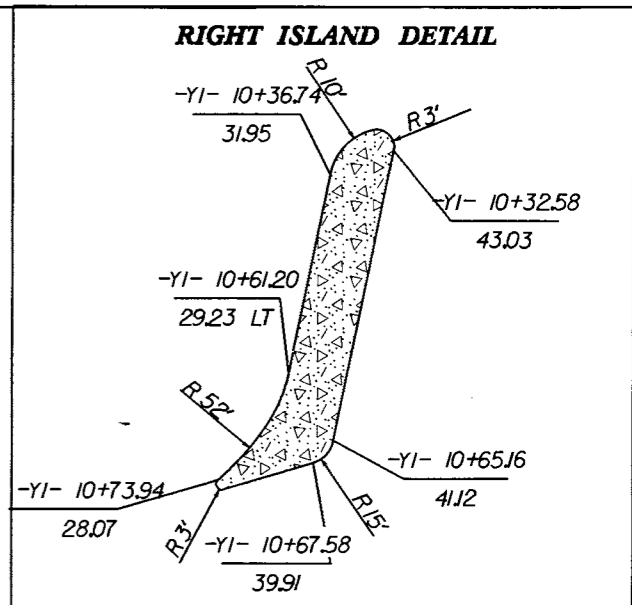
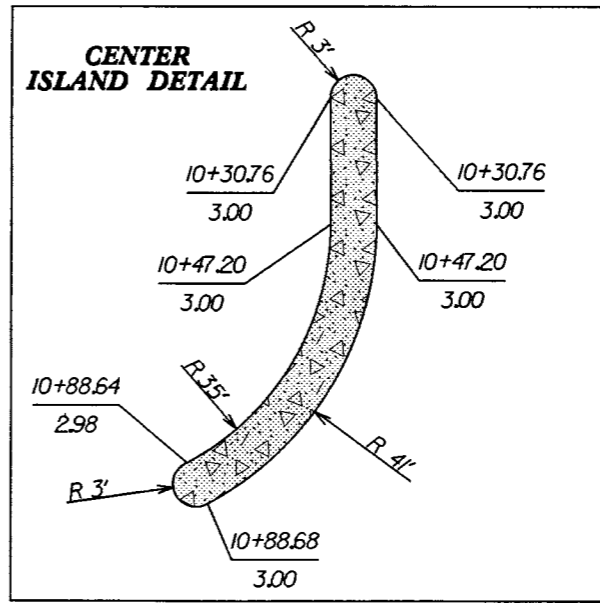


-EL-  
 PI Sta 11+28.67  
 $\Delta = 10^\circ 17' 11.1''$  (RT)  
 $D = 4^\circ 45' 00.0''$   
 $L = 216.56'$   
 $T = 108.57'$   
 $R = 1,206.23'$







**DATUM DESCRIPTION**  
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCOS FOR MONUMENT "W56011-3" WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF NORTHING: 454506.0320(ft) EASTING: 1934131.41901(ft) ELEVATION: 195.4210(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9998780861 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "W56011-3" TO -Y1- STATION 10+00.00 IS N 80° 11' 0.53" W 87.33' ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

-Y1-  
 PI Sta 10+72.50  
 $\Delta = 67^\circ 02' 54.4''$  (RT)  
 $D = 150^\circ 00' 00.0''$   
 $L = 44.70'$   
 $T = 25.31'$   
 $R = 38.20'$



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 2:Vady Khokhlov

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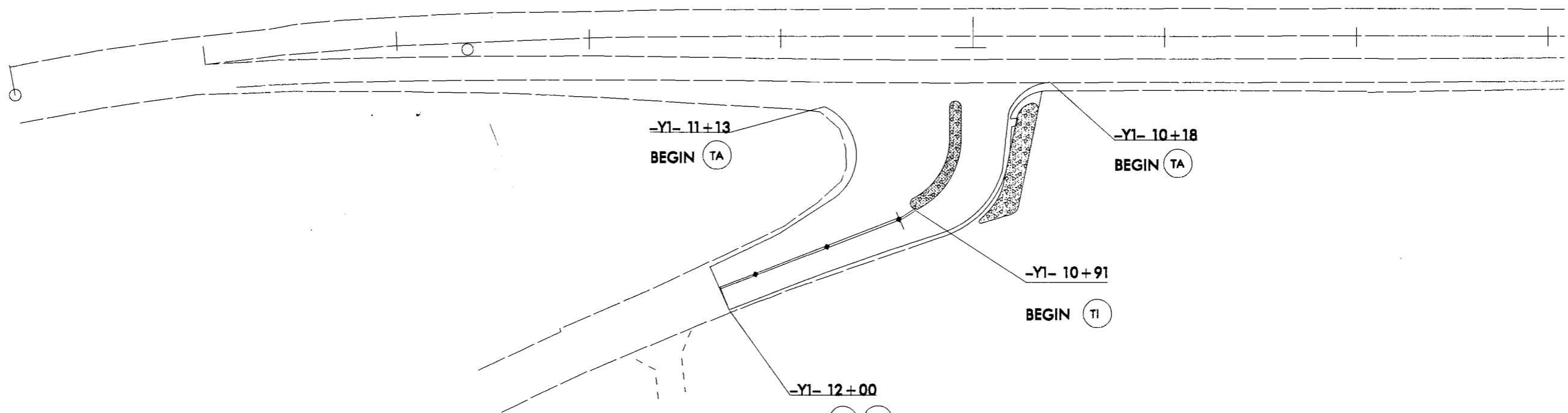
PROJECT REFERENCE NO. W-56011	SHEET NO. PMP-1
RW SHEET NO.	
	
<b>PAVEMENT MARKING LEGEND</b>	
	--CRYSTAL / RED PAVEMENT MARKER
	--YELLOW / YELLOW PAVEMENT MARKER
	--CRYSTAL / CRYSTAL PAVEMENT MARKER

PAVEMENT MARKING LINES

TA - THERMOPLASTIC (4" WHITE, 90 MILS) EDGE LINE  
 TI - THERMOPLASTIC (4" YELLOW, 120 MILS) DOUBLE CENTER LINE

10

15



NOTE:  
 CONTRACTOR SHALL PAINT CURB PERIMETER OF CENTER ISLAND AND ATTACH PAVEMENT MARKERS AT 20' SPACING.



REVISIONS

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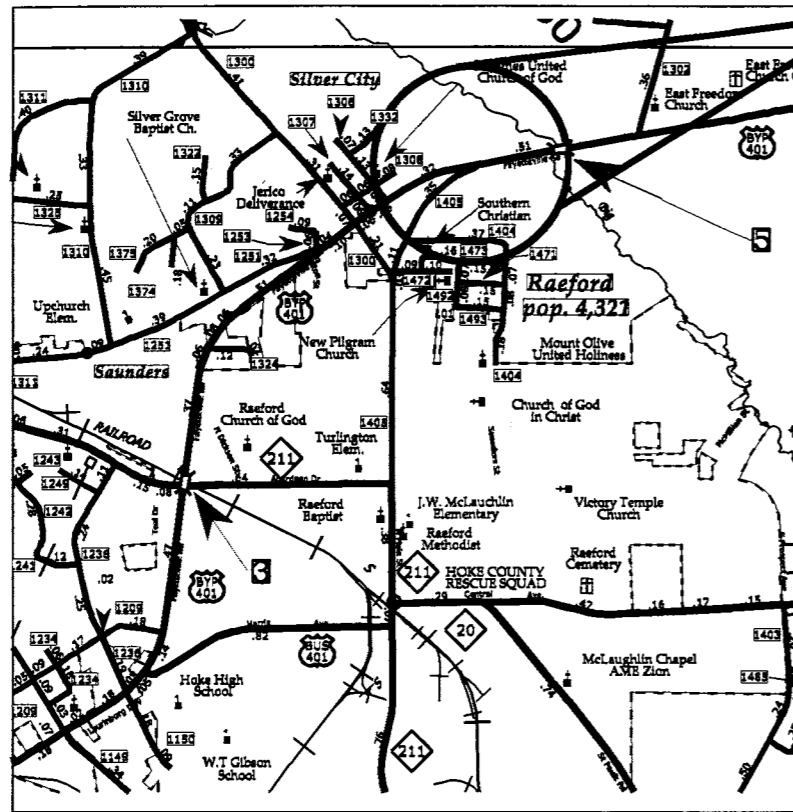
See Sheet 1-A For Index of Sheets  
See Sheet 1-B For Conventional Symbols

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
PROJECT LOCATION  
PLAN FOR PROPOSED  
HIGHWAY EROSION CONTROL  
**HOKE COUNTY**

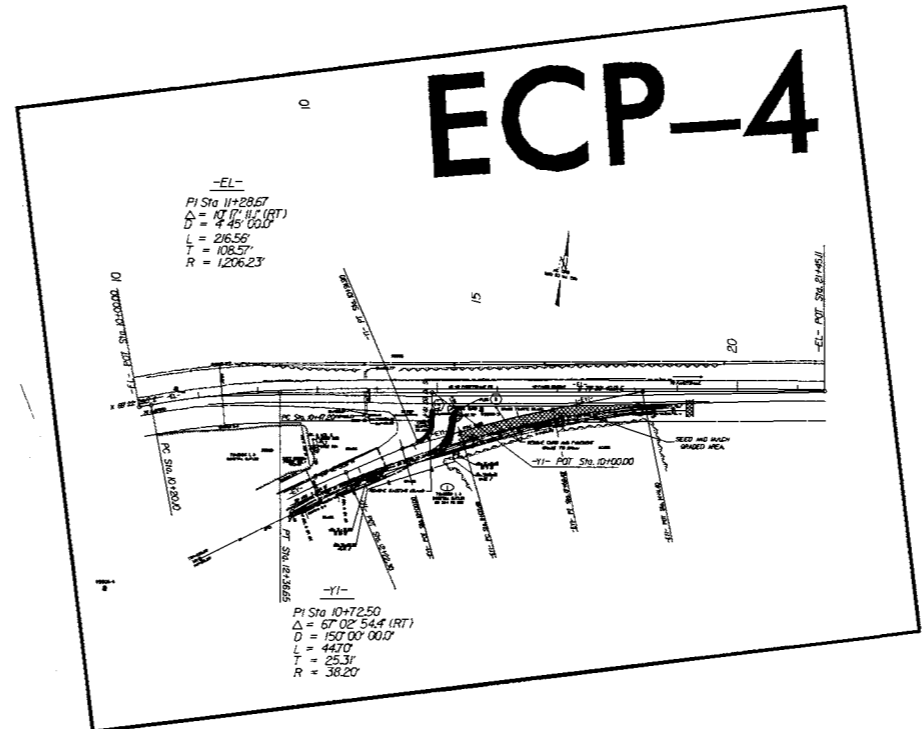
LOCATION: US 401 AT INTERSECTION WITH SR 1405 (N. MAIN ST).

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-56011	ECP-1	
WBS ELEMENT	P.A. PROJECT NO.	DESCRIPTION	
50138.1.FS7		PE	
50138.3.FS7		CONST.	



VICINITY MAP



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
	Streambank Reforestation	
1630.05	Temporary Silt Ditch	
1630.06	Temporary Diversion	
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1632.01	Temporary Berms and Slope Drains	
1630.01	Riser Basin	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
1633.02	Temporary Rock Silt Check Type-B	
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	
1636.01	Rock Silt Screen	
1630.04	Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	OR - A)
1632.02	Type B	OR - B)
1632.03	Type C	OR - C)
	Wattle	

TIP PROJECT: W-56011 PROJECT WBS: 50138.3.FS7

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Prepared By:  
Greg S. Davis, PE  
Level III A #3088  
December 31, 2017  
PROJECT CONTACTS:  
District Engineer Marly Tillman  
Design & Construct Engineer Greg S. Davis, PE  
Resident Engineer Travis Morgan, PE

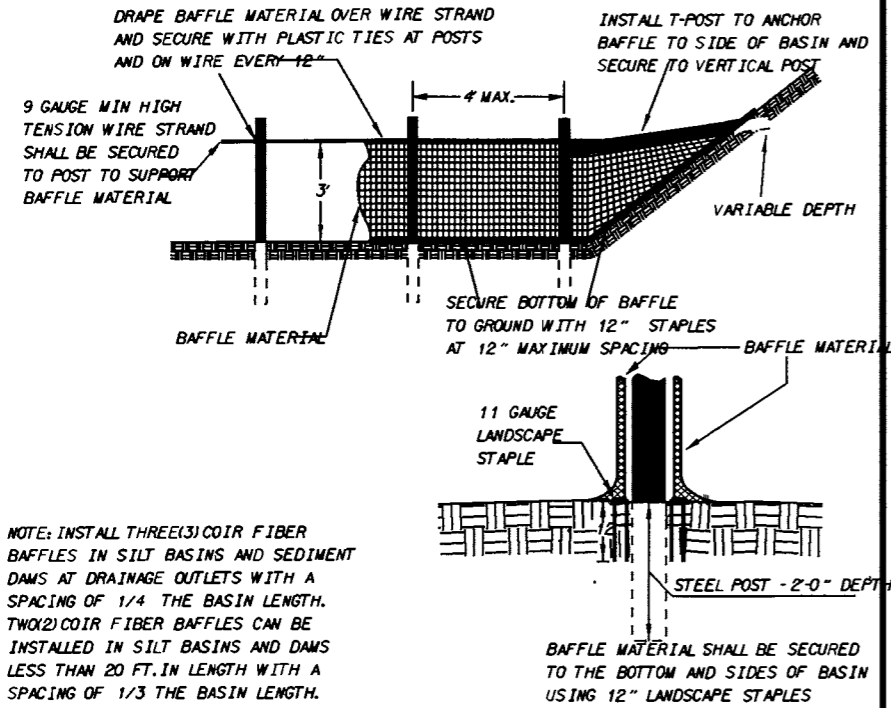
PROJECT LENGTH  
0.01 mi.

Prepared in the Office of:  
**DIVISION EIGHT**  
**DIVISION DESIGN & CONSTRUCT UNIT**  
902 N Sandhills Blvd.  
PO Box 1067  
Aberdeen, 28315  
**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 17, 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01 Temporary Silt Fence	1632.01 Rock Inlet Sediment Trap Type A
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1622.01 Temporary Berms and Slope Drains	1633.01 Temporary Rock Silt Check Type A
1630.01 Riser Basin	1633.02 Temporary Rock Silt Check Type B
1630.02 Silt Basin Type B	1634.01 Temporary Rock Sediment Dam Type A
1630.03 Temporary Silt Ditch	1634.02 Temporary Rock Sediment Dam Type B
1630.04 Stilling Basin	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.05 Temporary Diversion	1636.01 Rock Silt Screen

COIR FIBER BAFFLE DETAIL



NOTE: INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF 1/4 THE BASIN LENGTH. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF 1/3 THE BASIN LENGTH.

NARRATIVE

1. SOIL TYPE: CLAY SAND X
2. IS THE PROJECT LOCATED IN A HIGH QUALITY WATER ZONE?  
YES X NO
3. ARE THERE ANY WETLANDS ADJOINING THIS PROJECT?  
YES X NO

SITE DESCRIPTION

This project is located on US 401 on the Eastern side of Raeford. The area surrounding this project primarily consists of wooded areas, commercial development, and agricultural fields. The drainage consists of roadway ditches that lead to existing ditches.

PROJECT DESCRIPTION

The project will consist of clearing, grubbing, draining, setting up the base and paving. The major land disturbing activities will consist of clearing and grading within the right of way. Temporary and permanent erosion control measures will be installed.

GENERAL CONSIDERATIONS

1. THE LAW REQUIRES INSTALLATION AND MAINTENANCE OF SUFFICIENT EROSION CONTROL PRACTICES TO RETAIN SEDIMENT WITHIN THE BOUNDARIES OF THE SITE. IT ALSO REQUIRES THAT SURFACES BE NON EROSION AND STABLE WITHIN 14 DAYS CALENDAR DAYS AFTER THE COMPLETION OF ANY PHASE OF GRADING.
2. FIT THE DEVELOPMENT TO THE SITE - FOLLOW THE NATURAL CONTOURS AS MUCH AS POSSIBLE. PRESERVE AND USE NATURAL DRAINAGE SYSTEMS.
3. LIMIT CLEARING AND GRUBBING - CLEARLY DEFINE WORK LIMIT LINES. GRADE TO MINIMIZE CUT-AND-FILL SLOPES, PRESERVE NATURAL BUFFER AREAS, AND LIMIT THE TIME THAT BARE SOIL IS EXPOSED.
4. PROTECT THE SOIL SURFACE - LIMIT THE EXTENT OF DISTURBANCE AND STABILIZE THE SOIL SURFACE IMMEDIATELY. ONCE THE SURFACE HAS BEEN DISTURBED, IT IS SUBJECT TO ACCELERATED EROSION AND SHOULD BE PROTECTED WITH APPROPRIATE COVER, SUCH AS MULCH OR VEGETATION IN AN EXPEDIENT MANNER.
5. SEDIMENT BASINS AND TRAPS - SELECT SITES AND INSTALL SEDIMENT BASINS AND TRAPS BEFORE OTHER CONSTRUCTION ACTIVITIES ARE STARTED. ALSO CONSIDER LOCATIONS FOR DIVERSIONS, OPEN CHANNELS, AND STORM DRAINS AT THIS TIME SO THAT ALL SEDIMENT-LOADED RUN OFF CAN BE DIRECTED TO AN IMPOUNDMENT STRUCTURE BEFORE LEAVING THE CONSTRUCTION SITE. INSTALL ALL MEASURES AND RELEASE POINTS PRIOR TO CLEARING AND GRUBBING.
6. ONCE AN AREA IS DISTURBED, IT IS SUBJECT TO ACCELERATED EROSION. EROSION CONTROL CAN BE ACHIEVED BY:
  - \* LIMITING THE SIZE OF THE CLEARING AND TIME OF EXPOSURE BY PROPER SCHEDULING,
  - \* REDUCING THE AMOUNT OF RUNOFF OVER THE DISTURBED SURFACE,
  - \* LIMITING GRADES AND LENGTHS OF SLOPES, AND
  - \* RE-ESTABLISHING PROTECTIVE COVER IMMEDIATELY AFTER LAND DISTURBING ACTIVITIES ARE COMPLETED OR WHEN CONSTRUCTION ACTIVITIES ARE DELAYED FOR THIRTY (30) OR MORE WORKING DAYS

MAINTENANCE SCHEDULE

1. INSPECT WEEKLY AND AFTER EACH RAINFALL. USE THE DEPARTMENT OF TRANSPORTATION'S EROSION CONTROL INSPECTION REPORT.
2. MAINTAIN EROSION CONTROL DEVICES AS FOLLOWS:
  - A. SILT DITCH - REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE - CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED.
  - B. SILT FENCE - REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE - AVOID UNDERMINING THE FENCE.
  - C. SLOPE DRAINS - INSPECT THE SLOPE DRAINS AND SUPPORTING DIVERSIONS.
  - D. SEDIMENT BASIN - REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE DESIGN DEPTH - CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT - REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA.
  - E. CHECK DAM - REMOVE SETTLEMENT ACCUMULATED BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO CHANNEL VEGETATION - ADD STONE TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.
  - F. ROCK DAM - REMOVE SEDIMENT AND RESTORE ORIGINAL VOLUME WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE DESIGN VOLUME - CHECK THE STRUCTURE FOR EROSION, PIPING, AND ROCK DISPLACEMENT AFTER EACH SIGNIFICANT RAINSTORM AND REPAIR IMMEDIATELY.
  - G. DROP INLET PROTECTION (TYPE C) - REMOVE SEDIMENT FROM THE POOL AREAS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN.
  - H. SEDIMENT TRAP - REMOVE SEDIMENT AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS WHEN SETTLEMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP - CHECK THE STRUCTURE FOR DAMAGE FROM EROSION OR PIPING TO ENSURE IT IS A MINIMUM OF 1.5 FT. BELOW THE LOW POINT OF THE EMBANKMENT.

NOTE: SEDIMENT SHOULD BE PLACED IN DESIGNATED DISPOSAL AREAS AND NOT ALLOWED TO FLOW INTO STREAMS OR DRAINAGE WAYS DURING STRUCTURE REMOVAL.  
NOTE: ALL SEDIMENT TRAPS/BASINS SHALL HAVE COIR FIBER BAFFLES.  
BASINS/TRAPS OVER 10 FT IN LENGTH SHALL HAVE TWO ROWS.  
NOTE: NO PAM TO USED WITH THE LAST BMT (WATTLE)  
AT OUTLET OF THE PROJECT

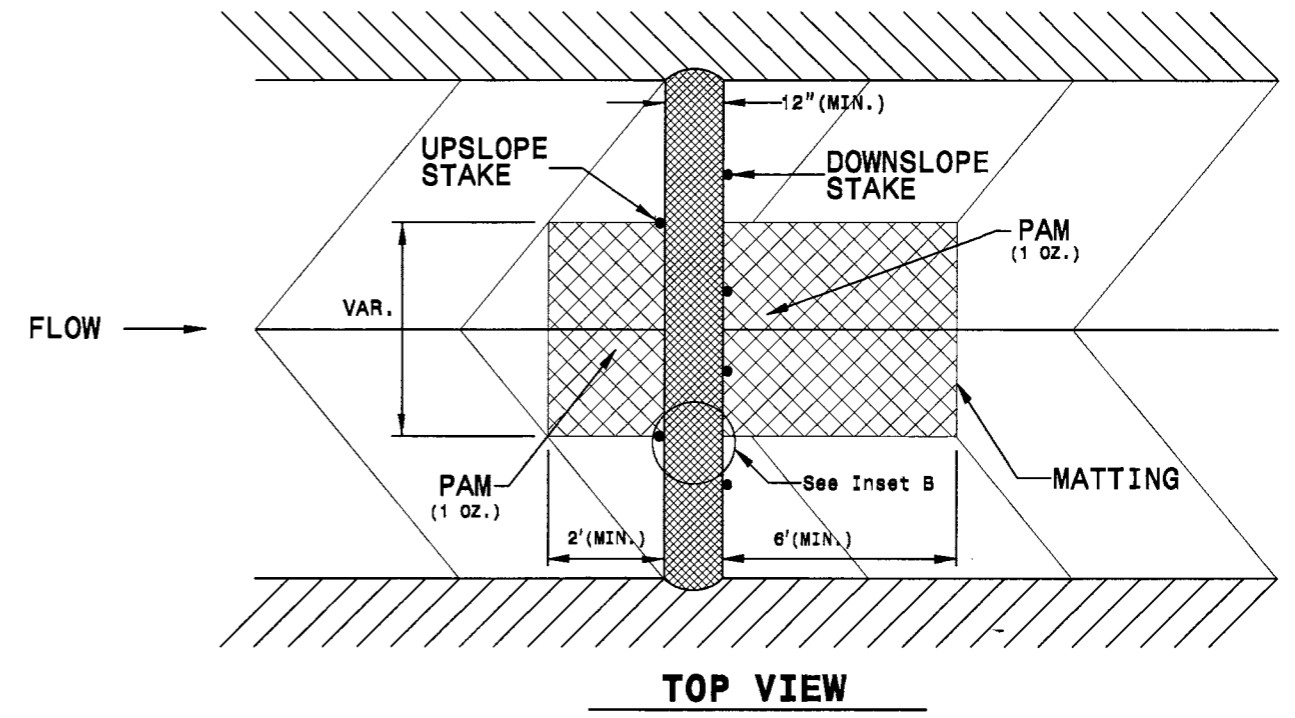
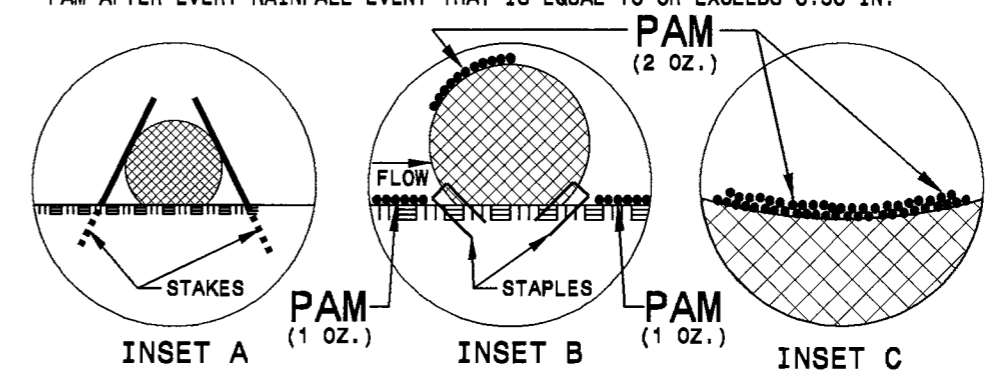
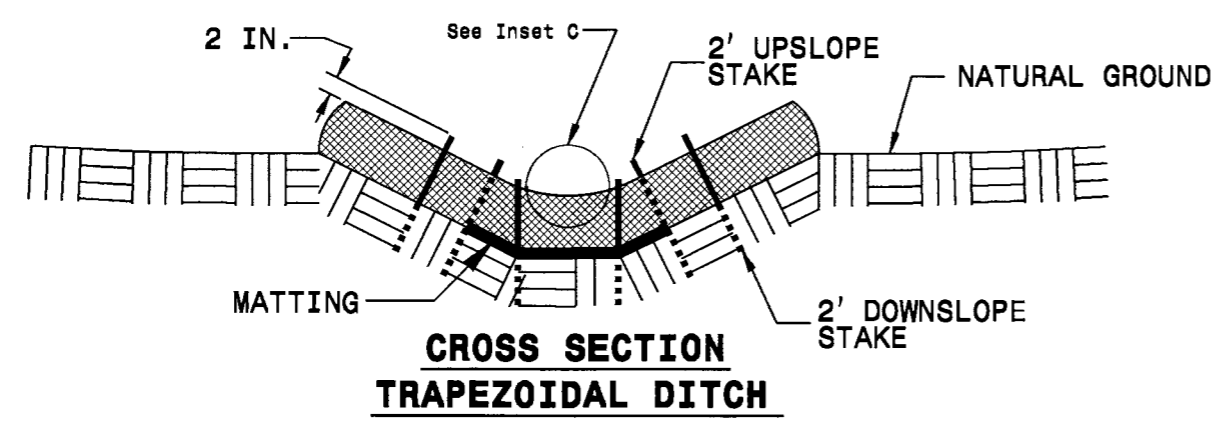
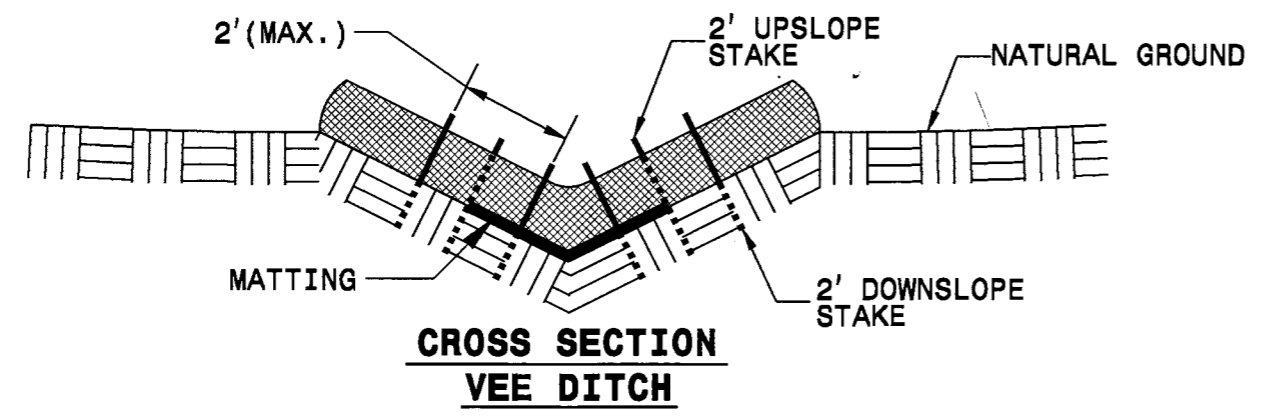
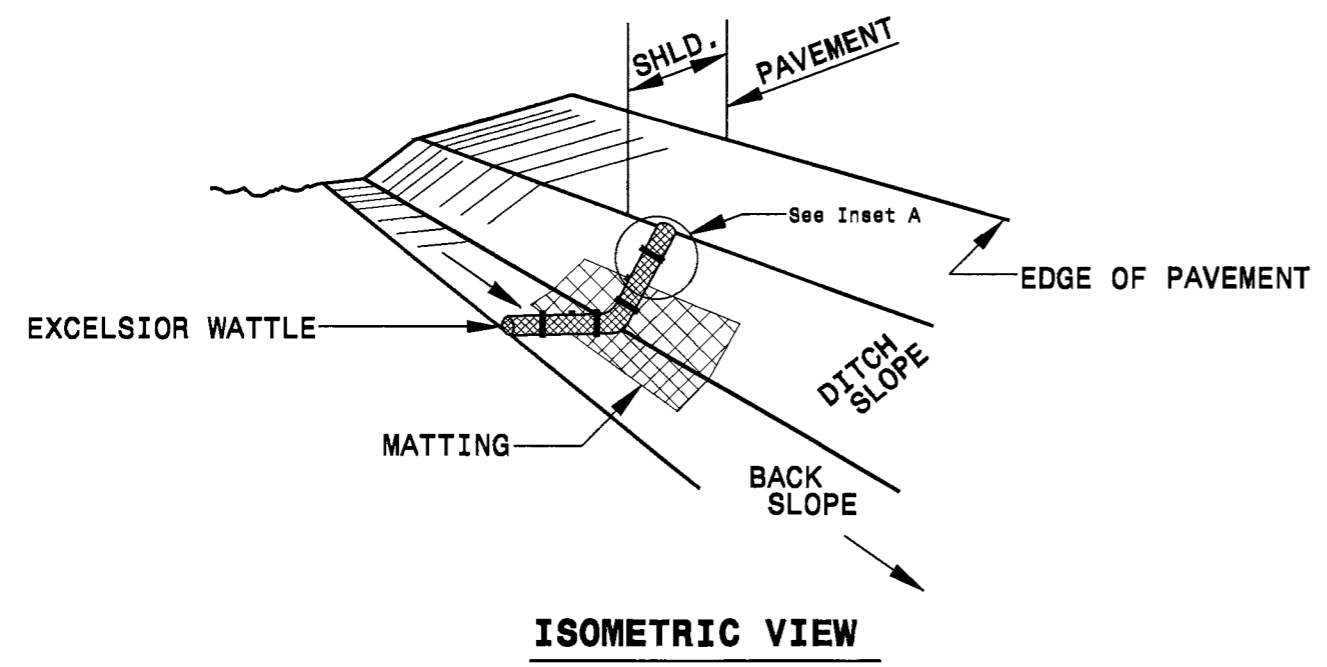
EROSION CONTROL DETAILS AND SPECIFICATIONS

STD. #	DESCRIPTION	SYMBOL
1630.03	TEMPORARY SILT DITCH	-----TSD-----
1630.05	TEMPORARY DIVERSION	-----TD-----
1605.01	TEMPORARY SILT FENCE	
1622.01	GUIDE FOR TEMPORARY BERMS & SLOPE DRAINS	-----
1630.01	Riser Basin	
1630.02	SILT BASIN TYPE-B	
1633.01	TEMPORARY ROCK SILT CHECK TYPE-A	
	Wattle	
1633.02	TEMPORARY ROCK SILT CHECK TYPE-B	
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	
1636.01	ROCK SILT SCREEN	
1630.04	STILLING BASIN FOR PUMPED EFFLUENT	
ROCK INLET SEDIMENT PROTECTION		
1632.01	TRAP TYPE-A	A  OR A
1632.02	TRAP TYPE-B	B  OR B
1632.03	TRAP TYPE-C	C  OR C



# 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.



DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

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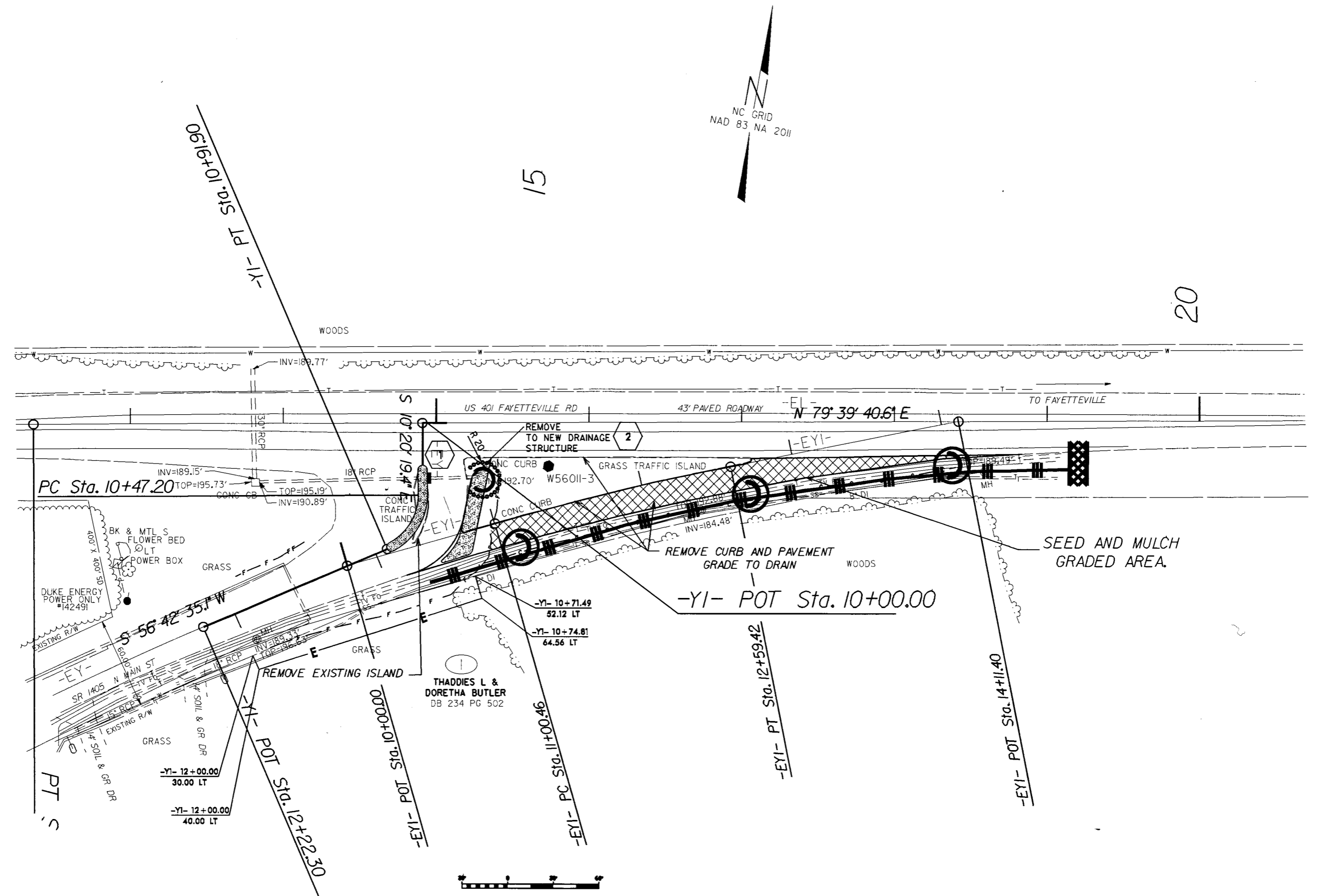
# *SOIL STABILIZATION TIMEFRAMES*

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) 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 HOW ZONES.

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REVISIONS

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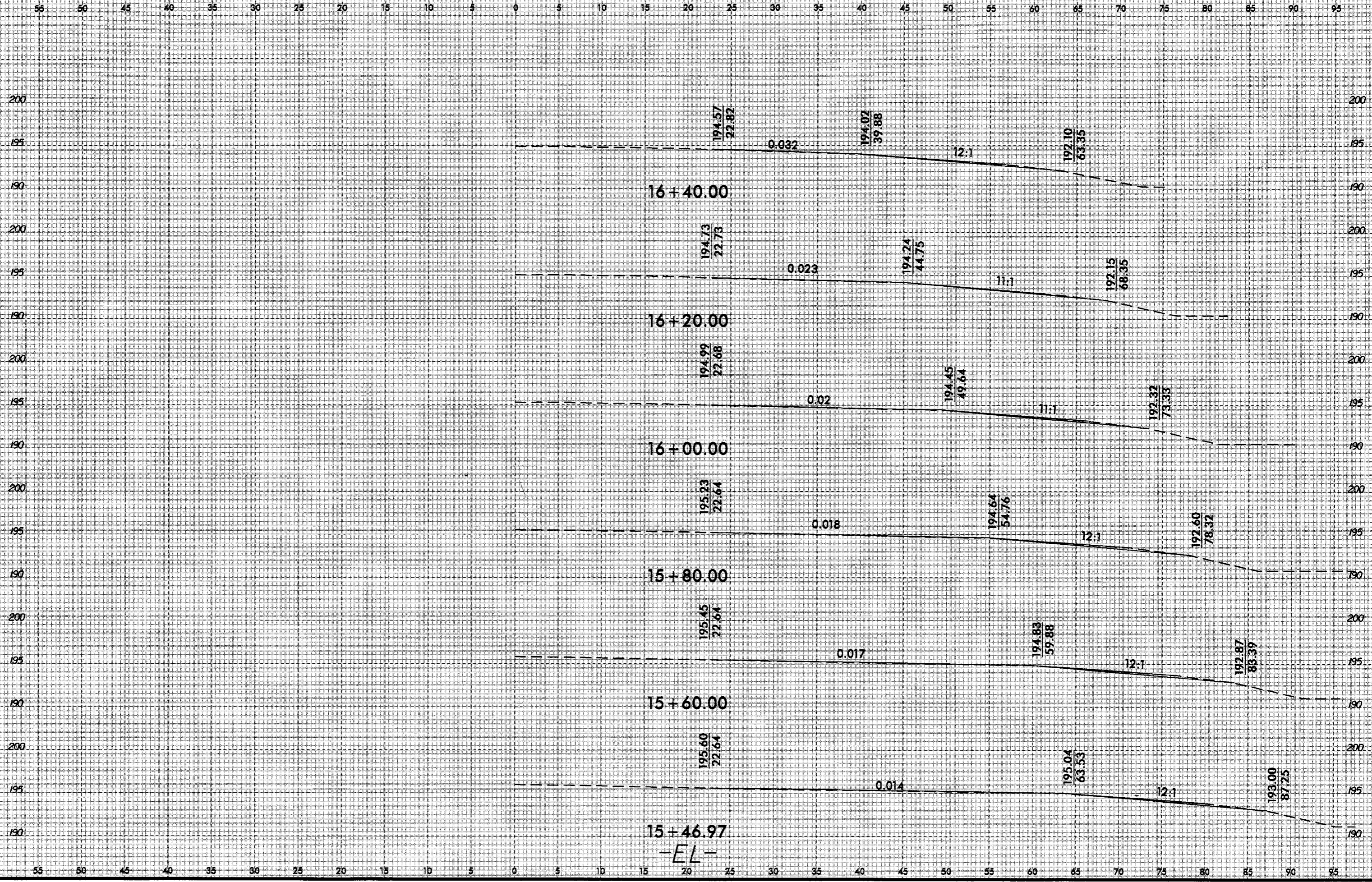
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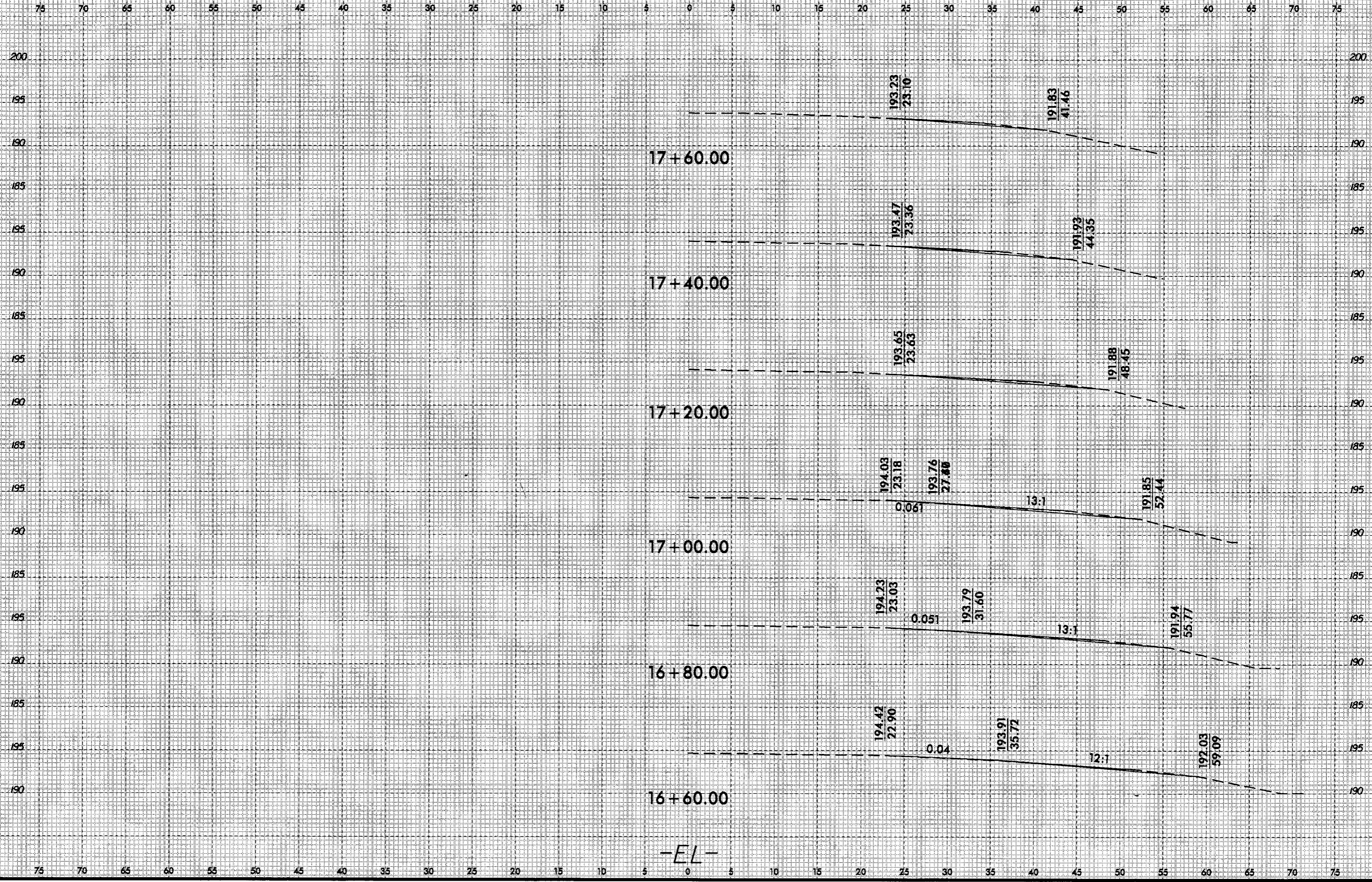
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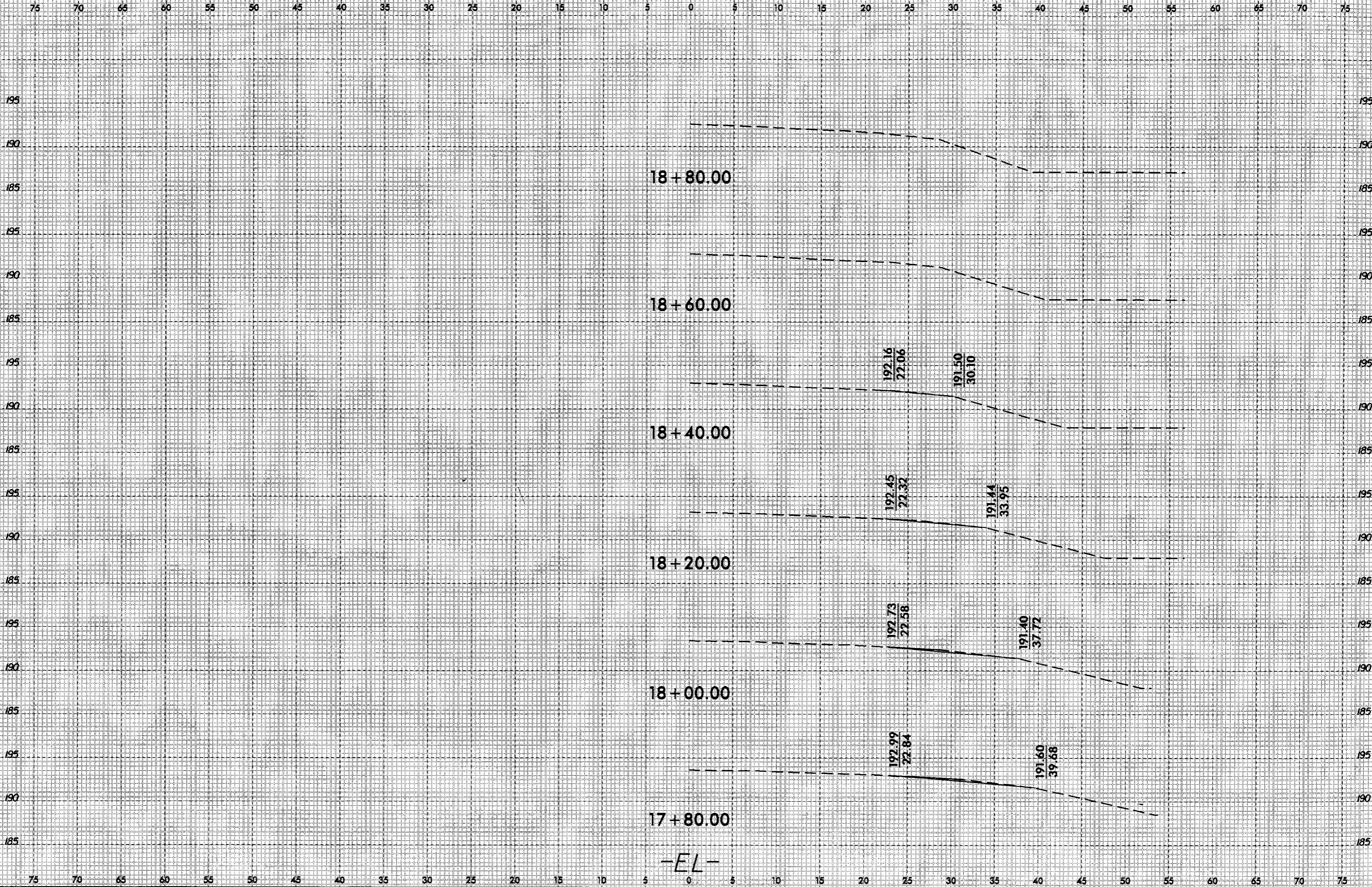


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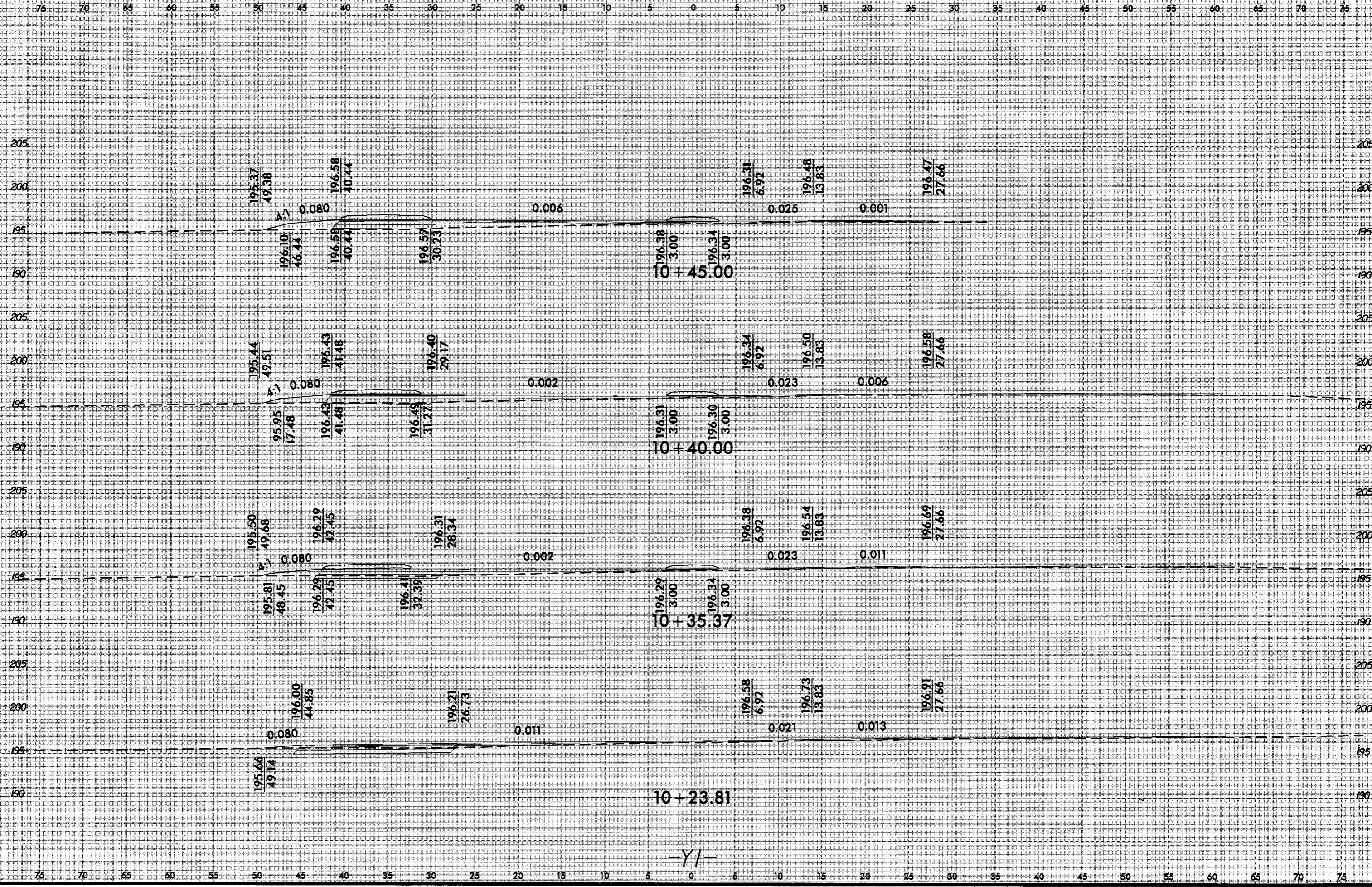
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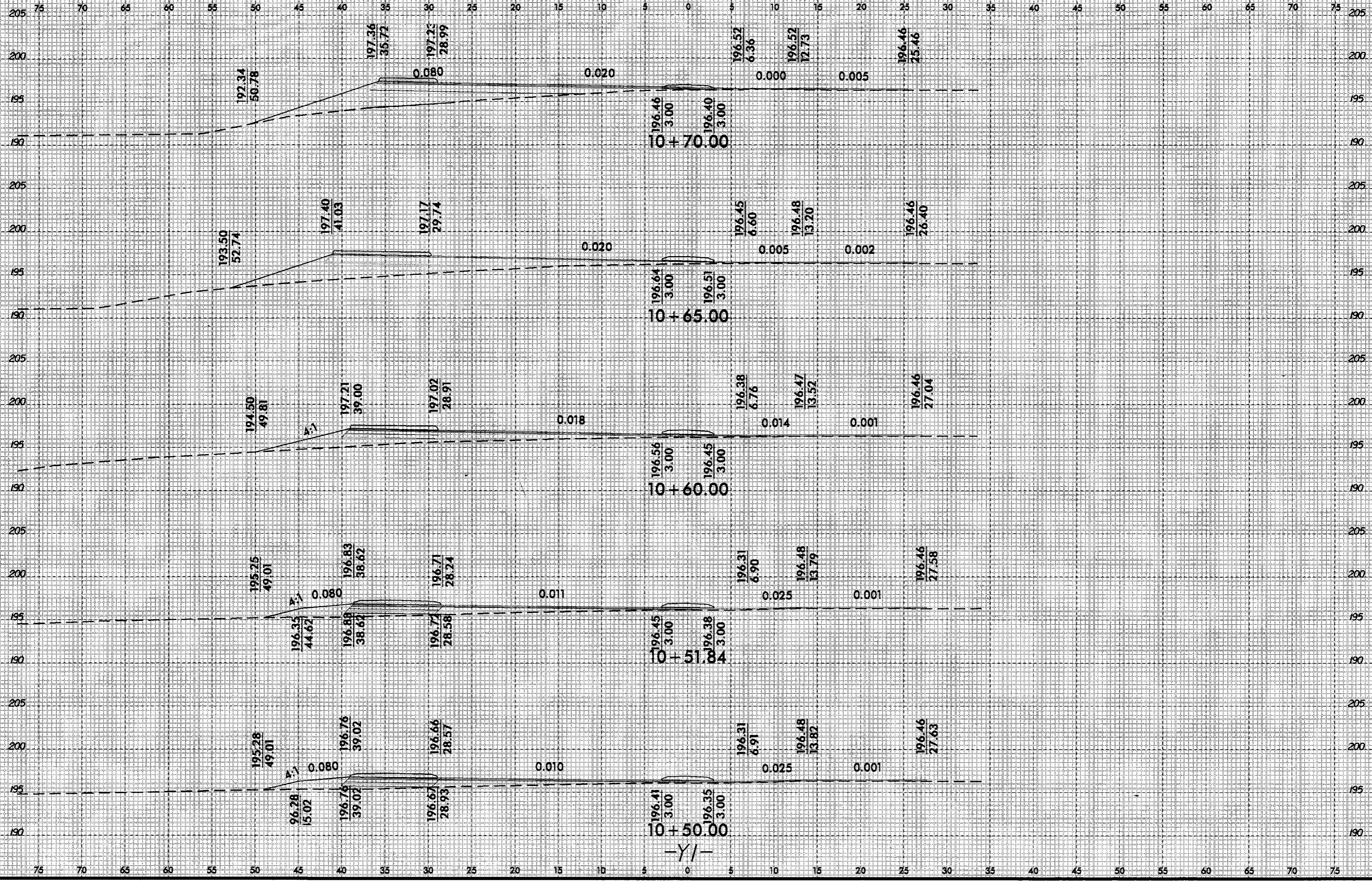


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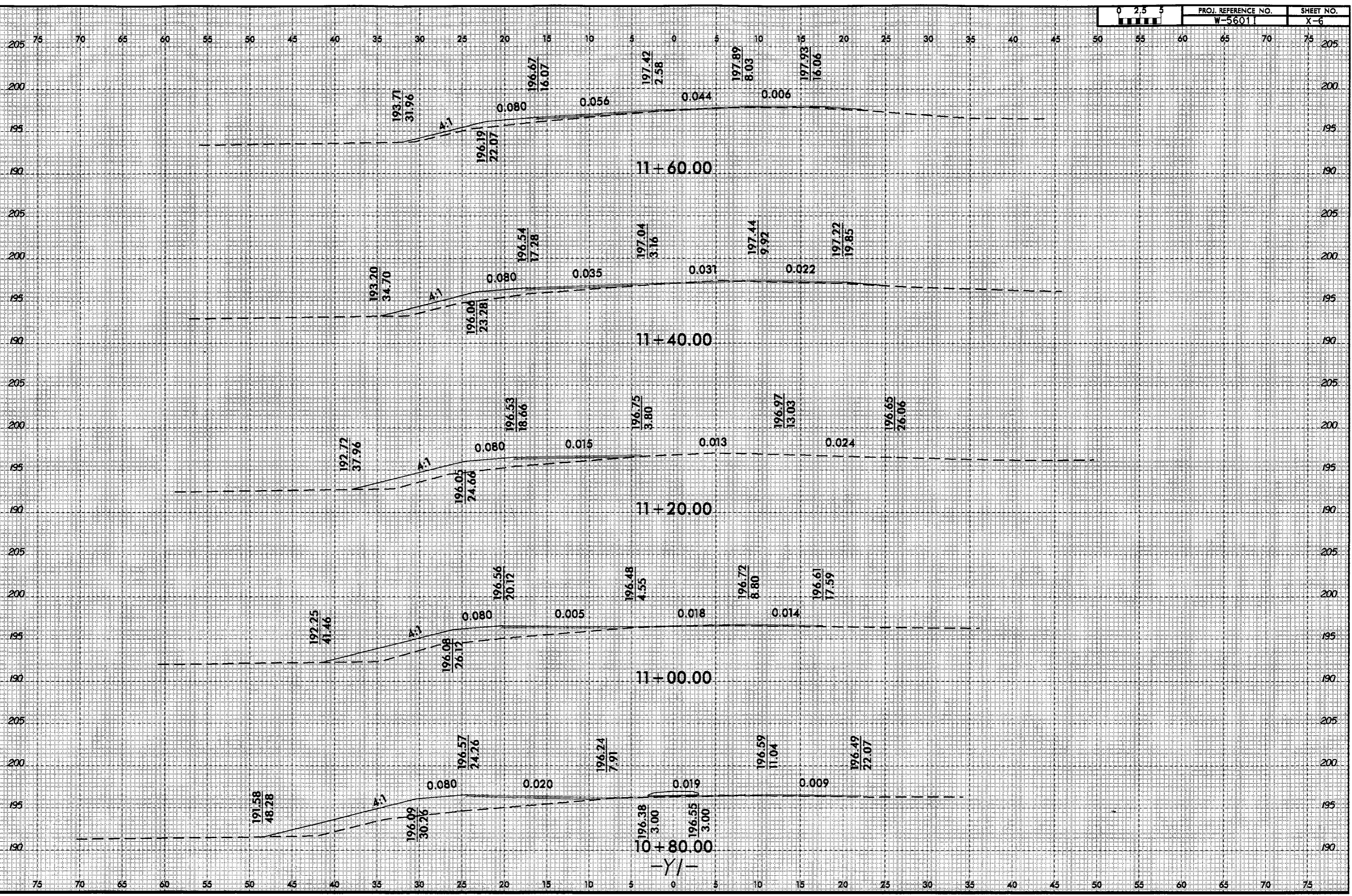


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 gsdavis

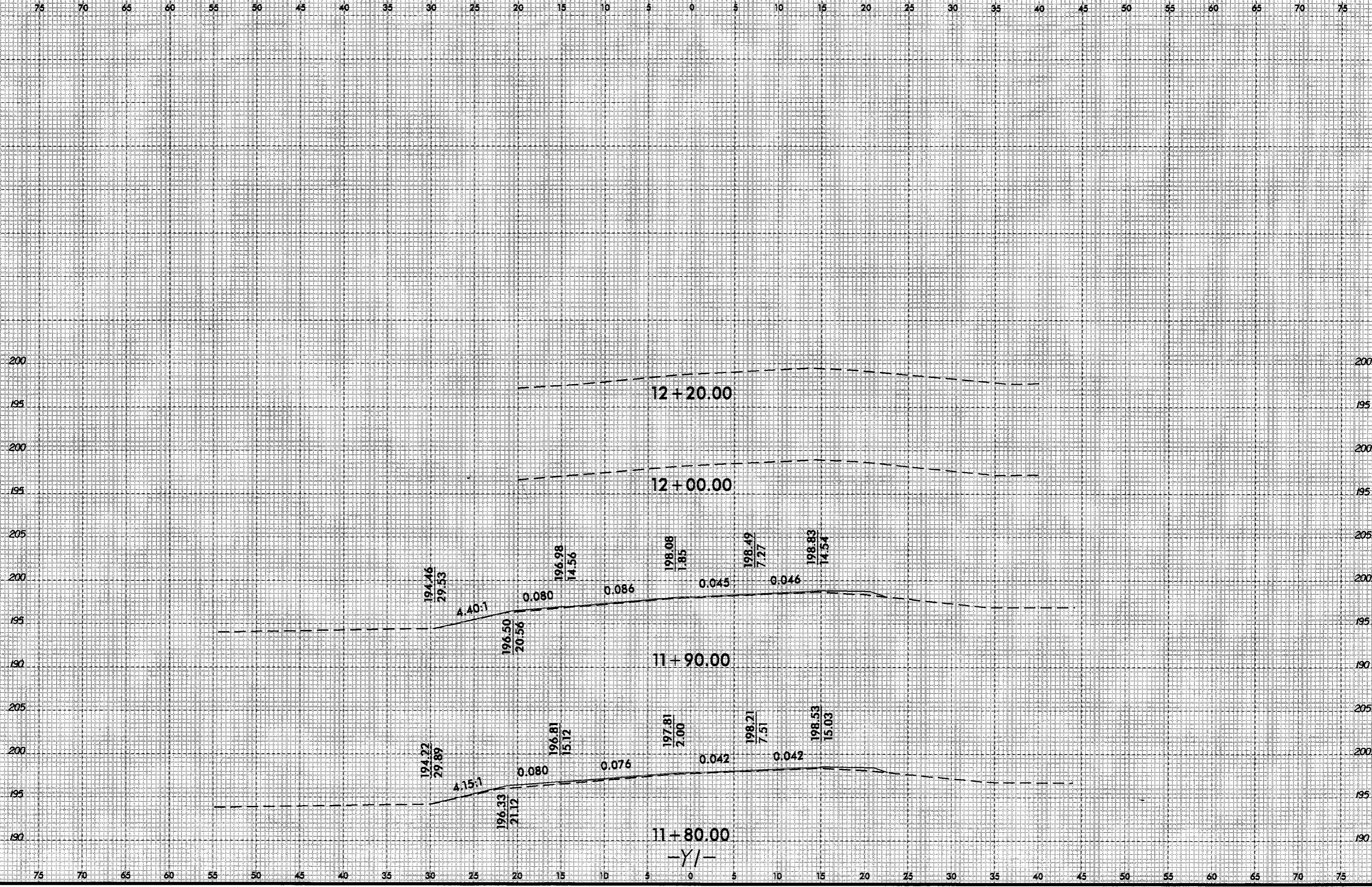




30-DEC-2014 14:33 Z:\rdr\hoke\w-56011\p1\w56011.cad\_uj\_xpl.dgn



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