

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

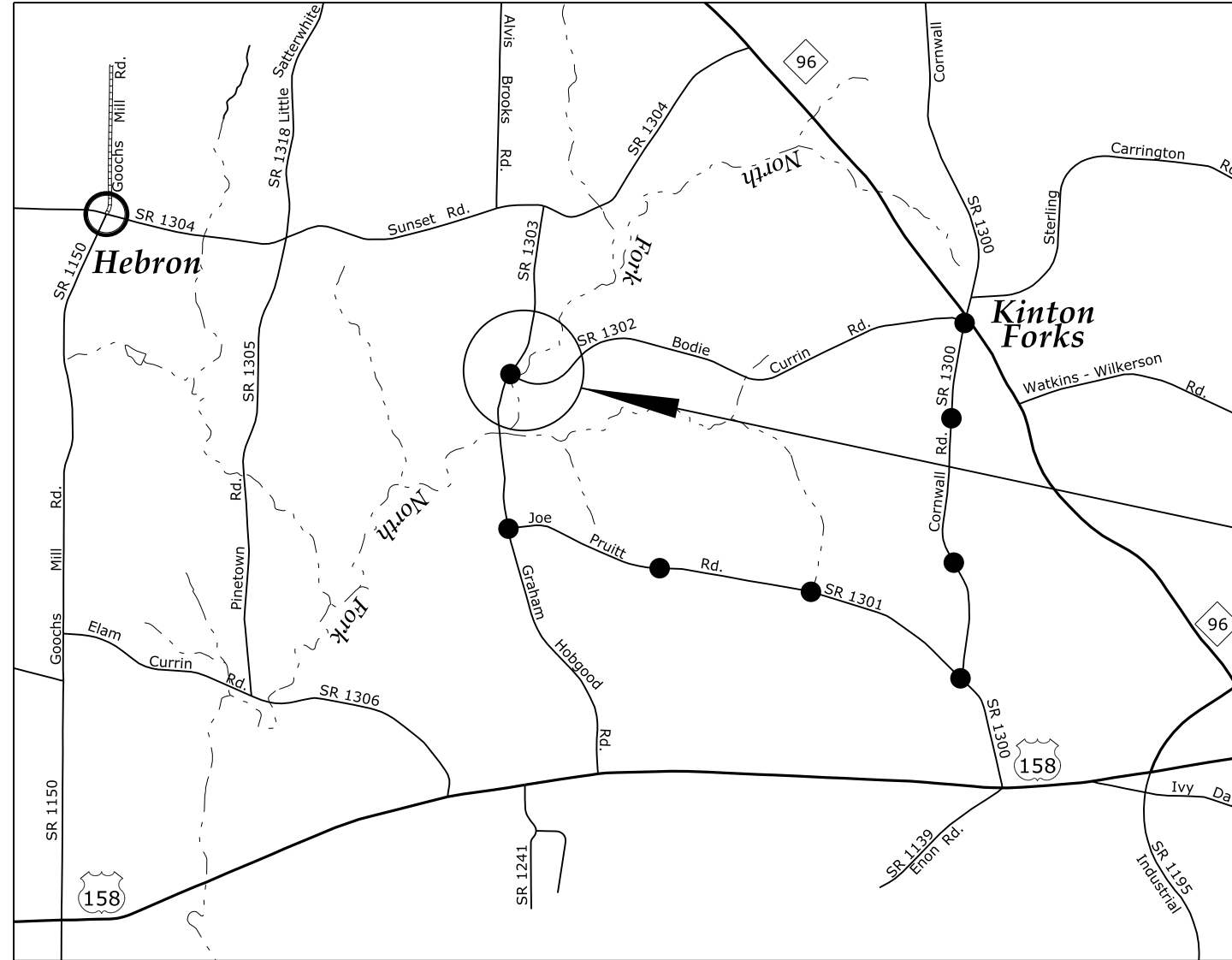
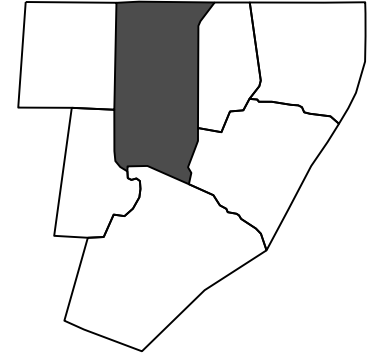
STATE PROJECT REFERENCE NO.  
N.C. DF15405.2039018

**GRANVILLE COUNTY**

**LOCATION: SR 1302 (BODIE CURRIN ROAD)**

**TYPE OF WORK: EMERGENCY PIPE REPLACEMENT**

**DIV. 5**



**PROJECT LOCATION**

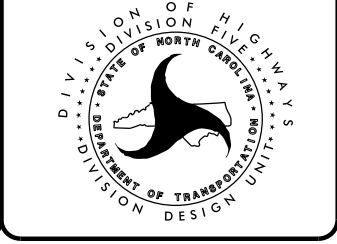
● ● ● **OFFSITE DETOUR**

Prepared in the Office of:  
**DIVISION 5 DDC**  
815 Stadium Dr., Durham NC, 27704

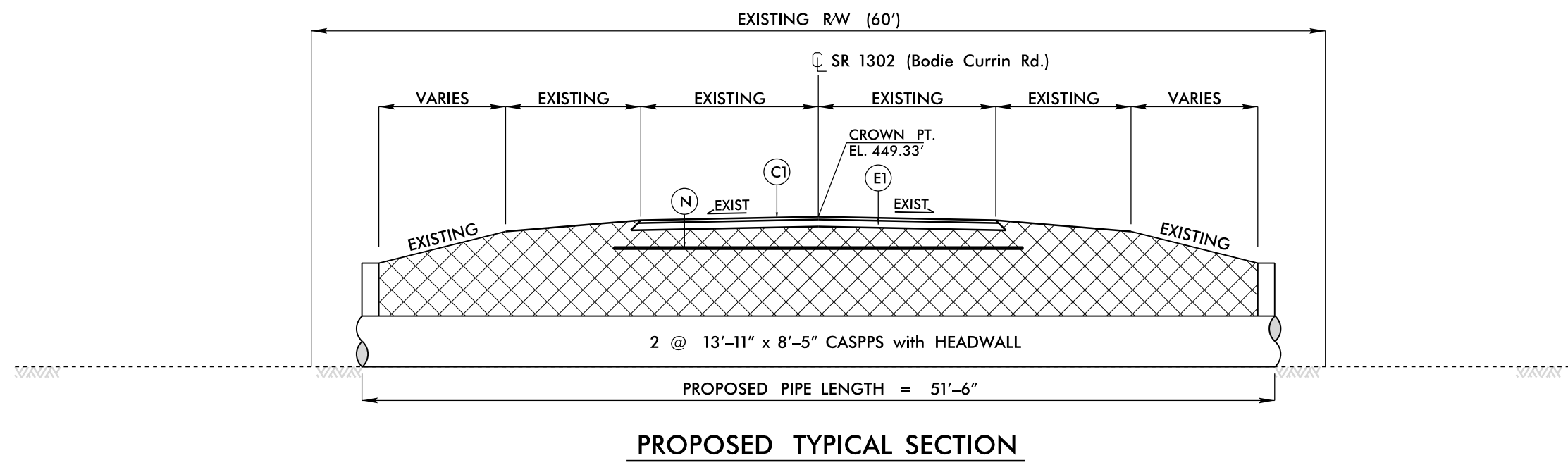
DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA  
FIFTH DIVISION  
J. R. HOPKINS, P.E.  
DIVISION ENGINEER

2018 STANDARD SPECIFICATIONS

SHEET NUMBER	SHEET
1	TITLE SHEET
2	TYPICAL SECTION SHEET
3	PLAN & PROFILE SHEET
4	EC DETAIL FOR PUMP-AROUND OPERATION FOR PIPE REPLACEMENT IN JURISDICTIONAL STREAMS
TMP-1 to TMP-3	TRAFFIC CONTROL PLANS
X-1 to X-4	CROSS SECTIONS
C-1 to C-2	PIPE CULVERT SHEETS



PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 221 LBS. PER SQ. YD.
E1	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
N	GEOGRID FOR STABILIZATION. TO BE PLACE 1' BELOW SUBGRADE OR AS DIRECTED BY ENGINEER.



## ***SUMMARY OF EARTHWORK***

LOCATION	UNCLASSIFIED EXCAVATION	EMBT	WASTE
BODIE CURRIN RD	2,103	0	2,103
PROJECT TOTALS	2,103	0	2,103
SAY	2,200		2,200

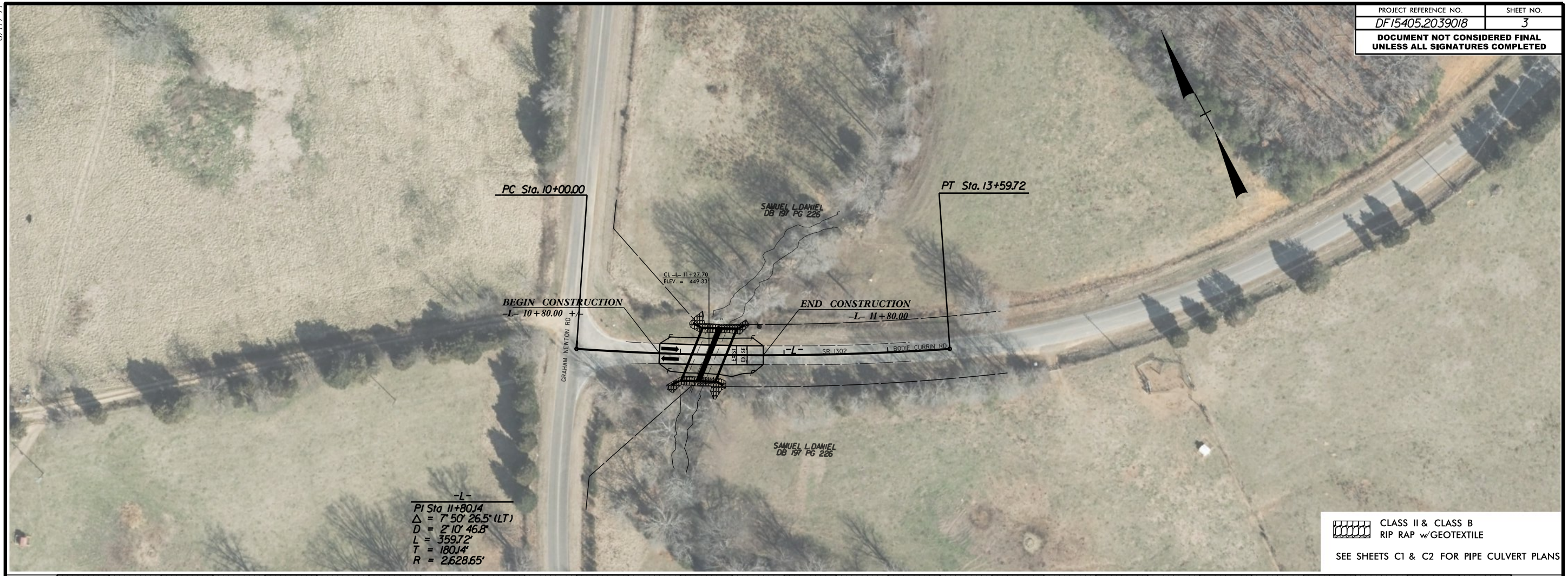
Note: Approximate quantities only. Unclassified Excavation, Fine Grading, Breaking of Existing Pavement, Removal of Existing Pavement and Class IV Select Material will be paid for at the contract lump sum price for "Grading."

8/17/99


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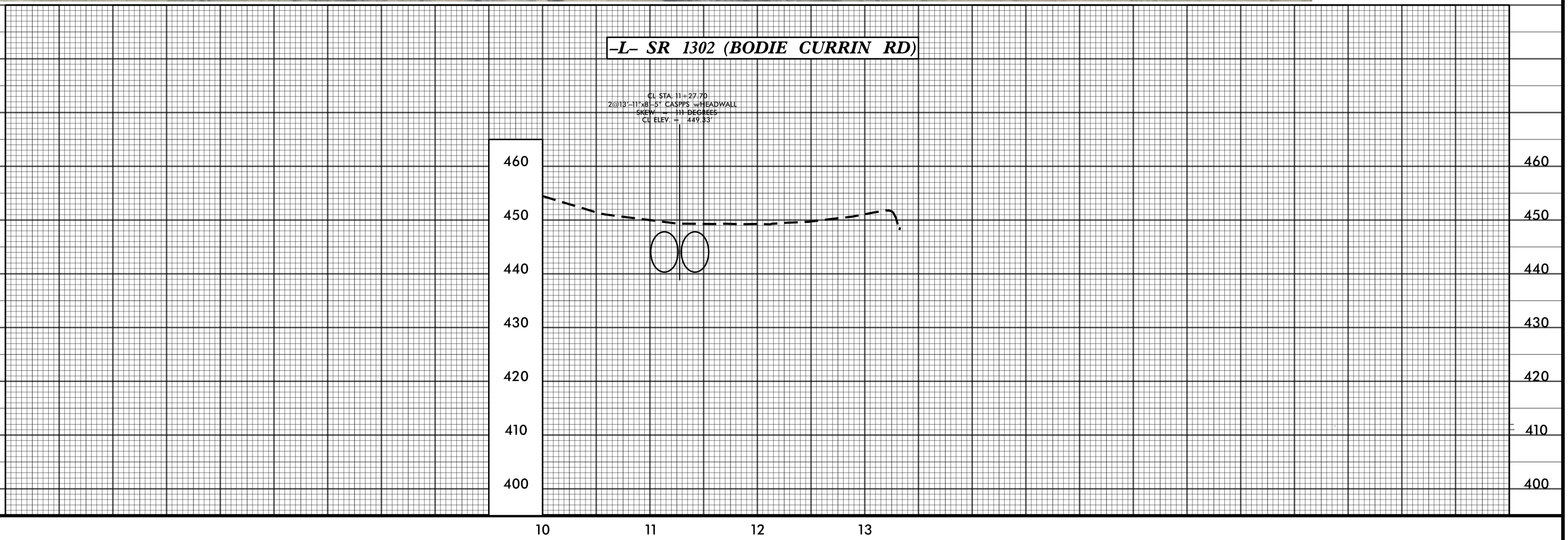
8/17/99



-L-  
 PI Sta 11+80.14  
 $\Delta = 7' 50'' 26.5''$  (LT)  
 $D = 2' 10'' 46.8''$   
 $L = 359.72'$   
 $T = 180.14'$   
 $R = 2628.65'$

 CLASS II & CLASS B  
 RIP RAP w/GEOTEXTILE  
 SEE SHEETS C1 & C2 FOR PIPE CULVERT PLANS

**-L- SR 1302 (BODIE CURRIN RD)**



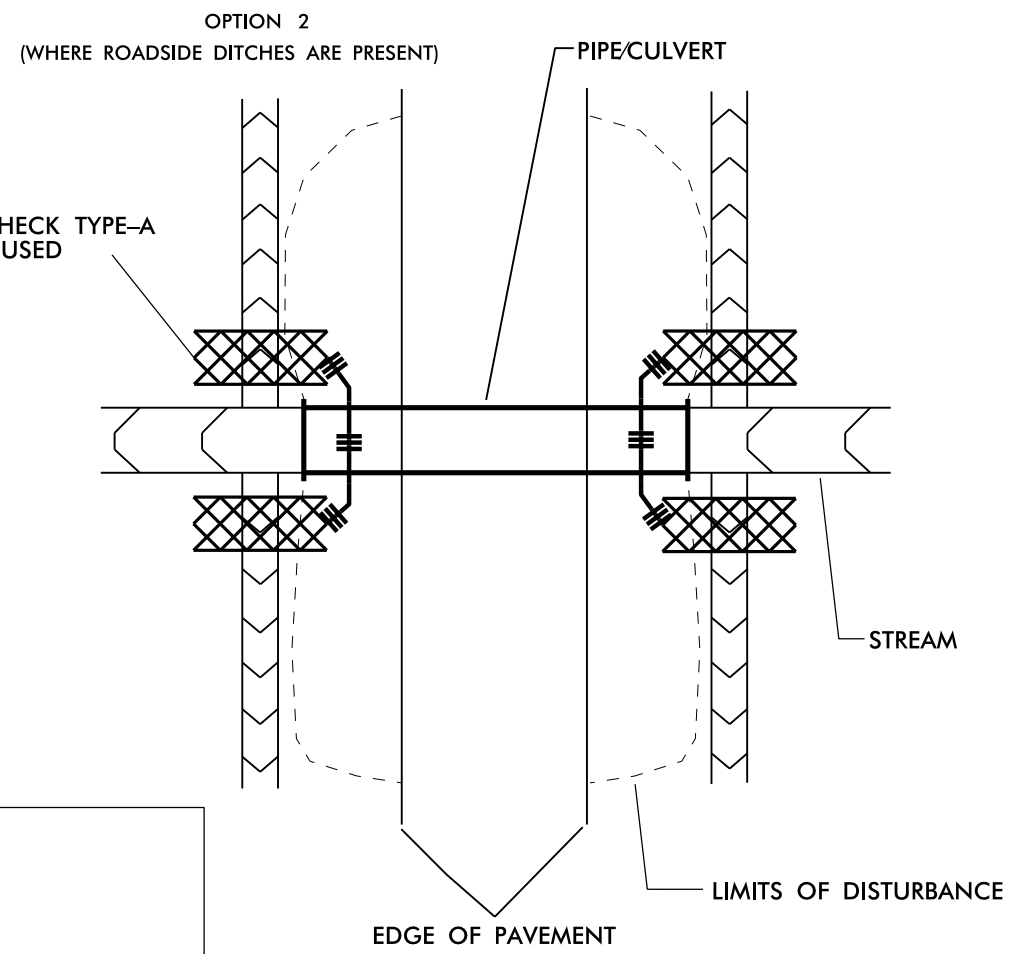
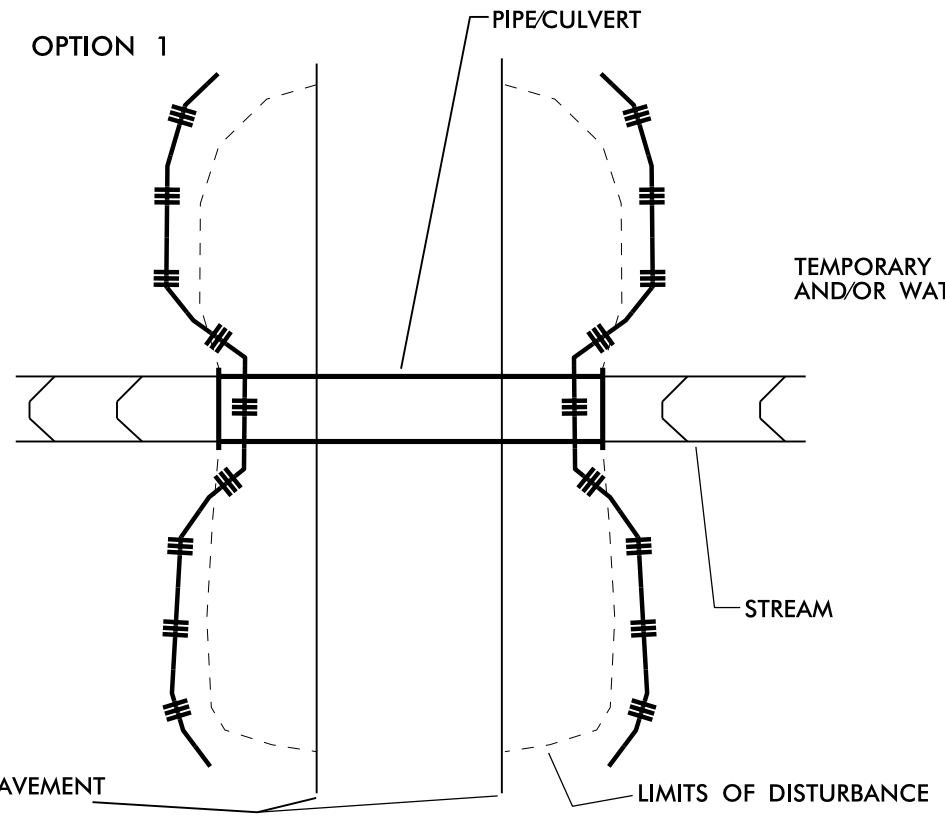
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ROADSIDE ENVIRONMENTAL UNIT  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.  
2018 STANDARD SPECIFICATIONS  
DRAWINGS NOT DRAWN TO SCALE

LEGEND:

- IMPERVIOUS DIKE
- PUMP
- SPECIAL STILLING BASIN
- STABILIZED DISCHARGE PAD (GEOTEXTILE)
- EOP
- ETF
- TEMPORARY ROCK SILT CHECK TYPE-A AND/OR WATTLE
- TEMPORARY SILT FENCE



**SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA:**

1. INSTALL SPECIAL STILLING BASIN.
2. INSTALL UPSTREAM PUMP, TEMPORARY FLEXIBLE HOSE, AND STABILIZED DISCHARGE PAD.
3. PLACE UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION DISCHARGING ONTO STABILIZED OUTLET PAD.
4. PLACE DOWNSTREAM IMPERVIOUS DIKE AND PUMPING APPARATUS. DEWATER WORK ZONE. AREA TO BE DEWATERED SHALL BE EQUAL TO ONE DAY'S WORK.
5. INSTALL PIPE(S), STREAM BED STABILIZATION, AND SLOPE STABILIZATION AS DIRECTED.
6. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES. REMOVE IMPERVIOUS DIKES, PUMPS, TEMPORARY FLEXIBLE HOSE, AND STABILIZED DISCHARGE PAD. (DOWNSTREAM IMPERVIOUS DIKES FIRST).
7. REMOVE SPECIAL STILLING BASIN AND RESTORE AREA TO ORIGINAL CONDITIONS.
8. STABILIZE ALL DISTURBED AREAS THROUGHOUT PROJECT WITH SEED AND MATTING FOR EROSION CONTROL.

**NOTES:**

INSTALL EROSION CONTROL MEASURES PRIOR TO ANY EARTH DISTURBING ACTIVITIES. INSTALL SPECIAL SEDIMENT CONTROL FENCE BREAKS OR TEMPORARY ROCK SILT CHECKS. TYPE-A AT LOW POINTS IN SILT FENCE.

FOR OPTION 1 INSTALL SILT FENCE SUCH THAT ALL EARTH DISTURBANCE IS CONTAINED. FOR CULVERT CONSTRUCTION SEQUENCING SEE THE PUMP AROUND DETAIL OR CONSULT "BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES".

ALL EXCAVATION IN JURISDICTIONAL STREAMS SHALL BE PERFORMED IN ONLY DRY OR ISOLATED SECTIONS OF THE WORK ZONE.

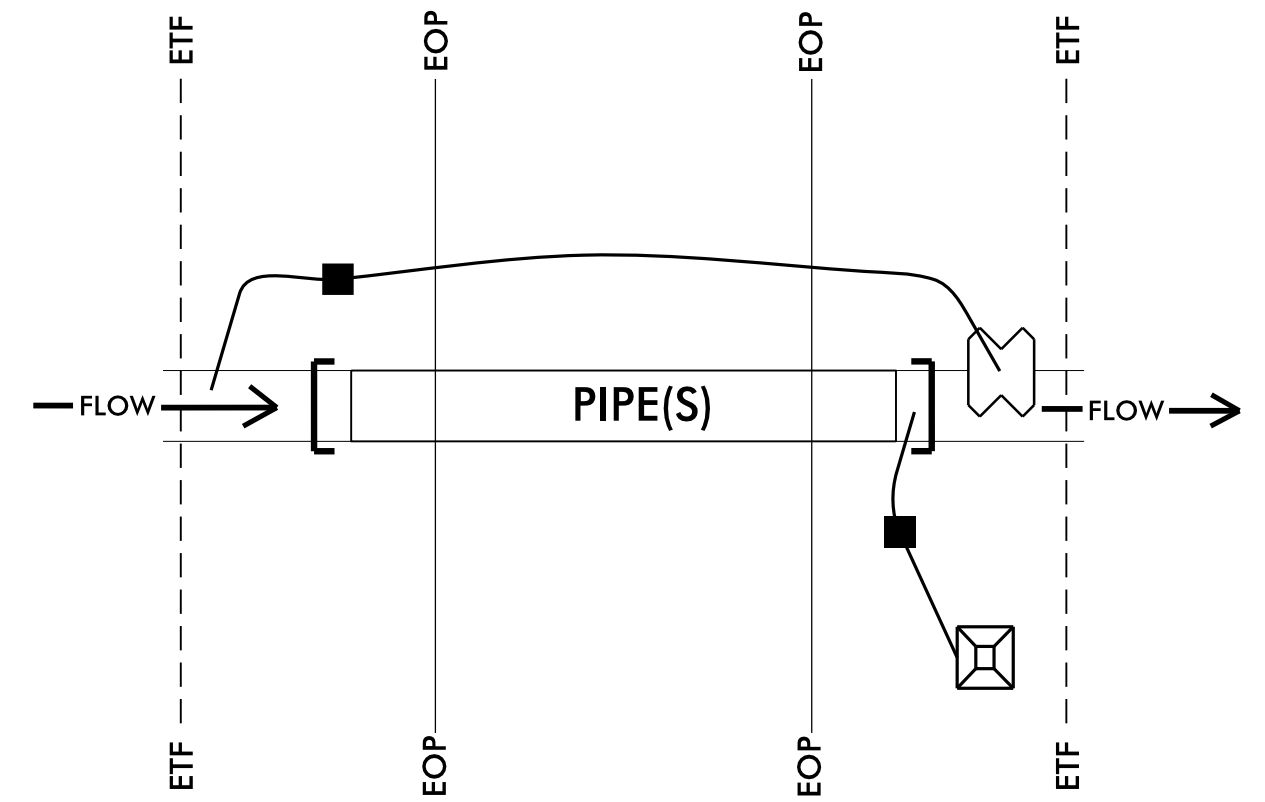
IMPERVIOUS DIKES ARE TO BE USED TO ISOLATE WORK FROM STREAM FLOW WHEN NECESSARY. MAINTENANCE OF STREAM FLOW OPERATIONS SHALL BE INCIDENTAL TO THE WORK. THIS INCLUDES THE DISCHARGE PAD, DIVERSION PIPES, PUMPS, AND HOSES.

PUMPS AND HOSES SHALL BE OF SUFFICIENT SIZE TO MAINTAIN STREAM FLOW AND TO DEWATER THE WORK AREA.

INSTALL SPECIAL STILLING BASIN IN VEGETATED AREA WITHIN RIGHT OF WAY. DISCHARGE SHOULD BE DIRECTED THROUGH VEGETATED BUFFER AWAY FROM WORK SITE.

INSTALL SILT FENCE AS DIRECTED TO CONTAIN DISTURBED AREAS AND/OR EXCAVATED STOCKPILES. BORROW MATERIAL FROM OR DISPOSAL OF MATERIAL TO ANY UNPERMITTED SITE WILL REQUIRE A RECLAMATION PLAN.

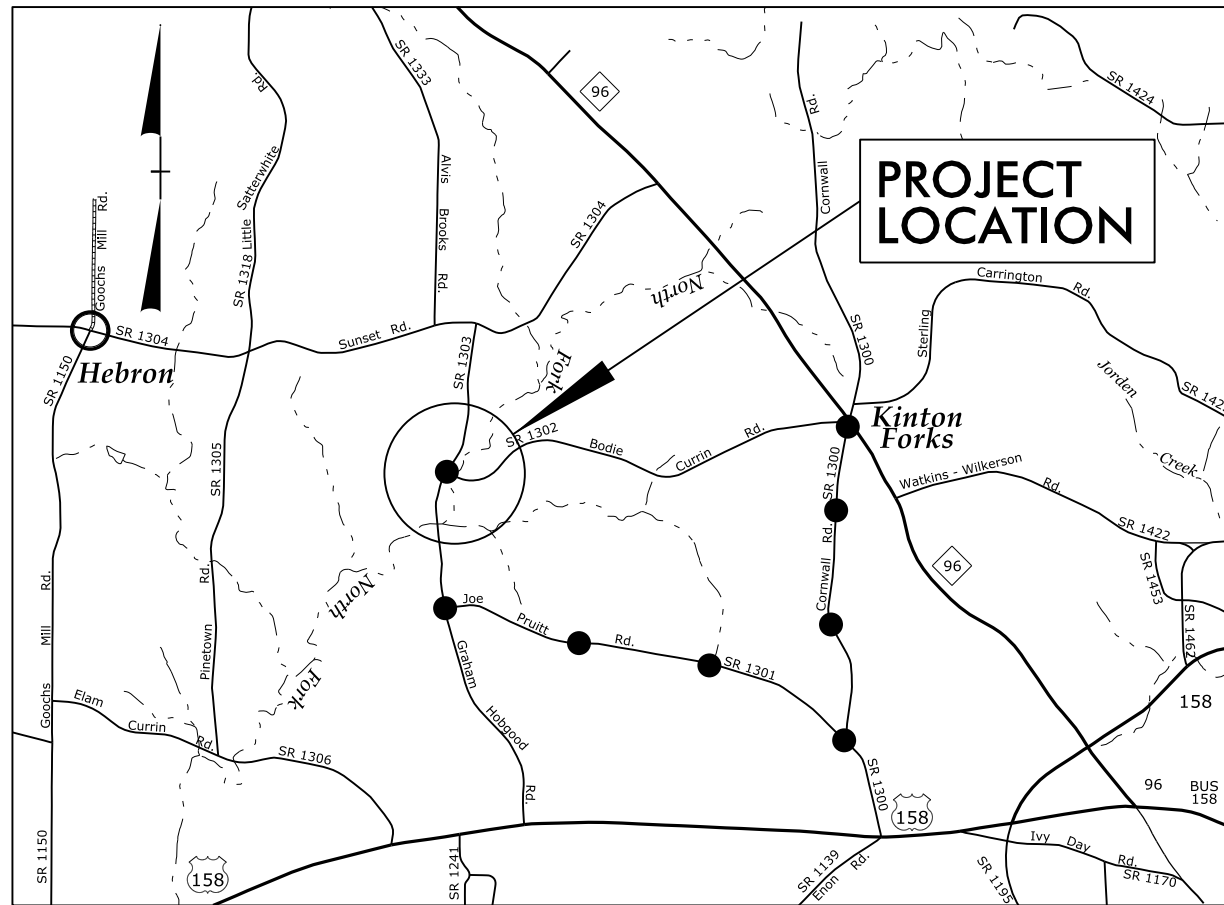
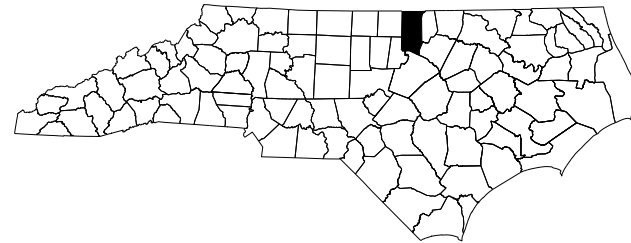
INSTALL PIPE(S) IN JURISDICTIONAL AREAS IN ACCORDANCE WITH NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.



**PUMP-AROUND OPERATION FOR PIPE REPLACEMENT IN JURISDICTIONAL STREAMS EROSION CONTROL DETAIL**

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**TRANSPORTATION MANAGEMENT PLAN**  
**GRANVILLE COUNTY**



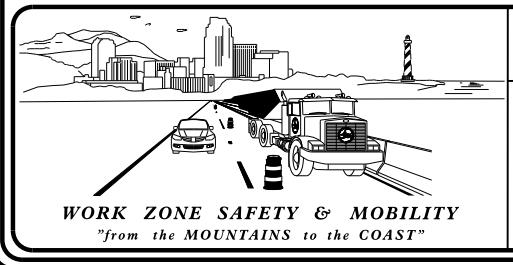
<b>INDEX OF SHEETS</b>	
SHEET NO.	TITLE
TMP-1	TITLE SHEET, INDEX OF SHEETS, LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS AND LEGEND
TMP-1A	TRANSPORTATION OPERATIONS PLAN: MANAGEMENT STRATEGIES AND GENERAL NOTES
TMP-2	TEMPORARY TRAFFIC CONTROL DETAIL AND PHASING

<b>ROADWAY STANDARD DRAWINGS</b>	
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 SIGNS
1101.03	TEMPORARY ROAD CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1145.01	BARRICADES
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS

<b>LEGEND</b>	
<b>GENERAL</b>	
	NORTH ARROW
<b>TRAFFIC CONTROL DEVICES</b>	
	BARRICADE (TYPE III)
<b>TEMPORARY SIGNING</b>	
	PORTABLE SIGN
	STATIONARY SIGN

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

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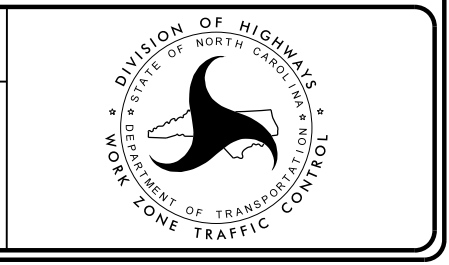
N.C.D.O.T. WORK ZONE TRAFFIC CONTROL  
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561  
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)  
PHONE: (919) 814-5000 FAX: (919) 771-2745

\_\_\_\_\_  
STATE TRAFFIC MANAGEMENT ENGINEER

\_\_\_\_\_  
TRAFFIC CONTROL PROJECT ENGINEER

\_\_\_\_\_  
TRAFFIC CONTROL PROJECT DESIGN ENGINEER

\_\_\_\_\_  
TRAFFIC CONTROL DESIGN ENGINEER



DF15405.2039018  
TIP PROJECT:

## MANAGEMENT STRATEGIES

TRAFFIC WILL BE MAINTAINED OFFSITE DURING CONSTRUCTION. TRAFFIC WILL FOLLOW SR 1303, SR 1300, AND SR 1301.

## 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 UNDESIRED 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.

### TRAFFIC PATTERN ALTERATIONS

- A) NOTIFY THE ENGINEER THIRTY (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

### SIGNING

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

PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

- D) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

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


### TRAFFIC CONTROL DEVICES

- F) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

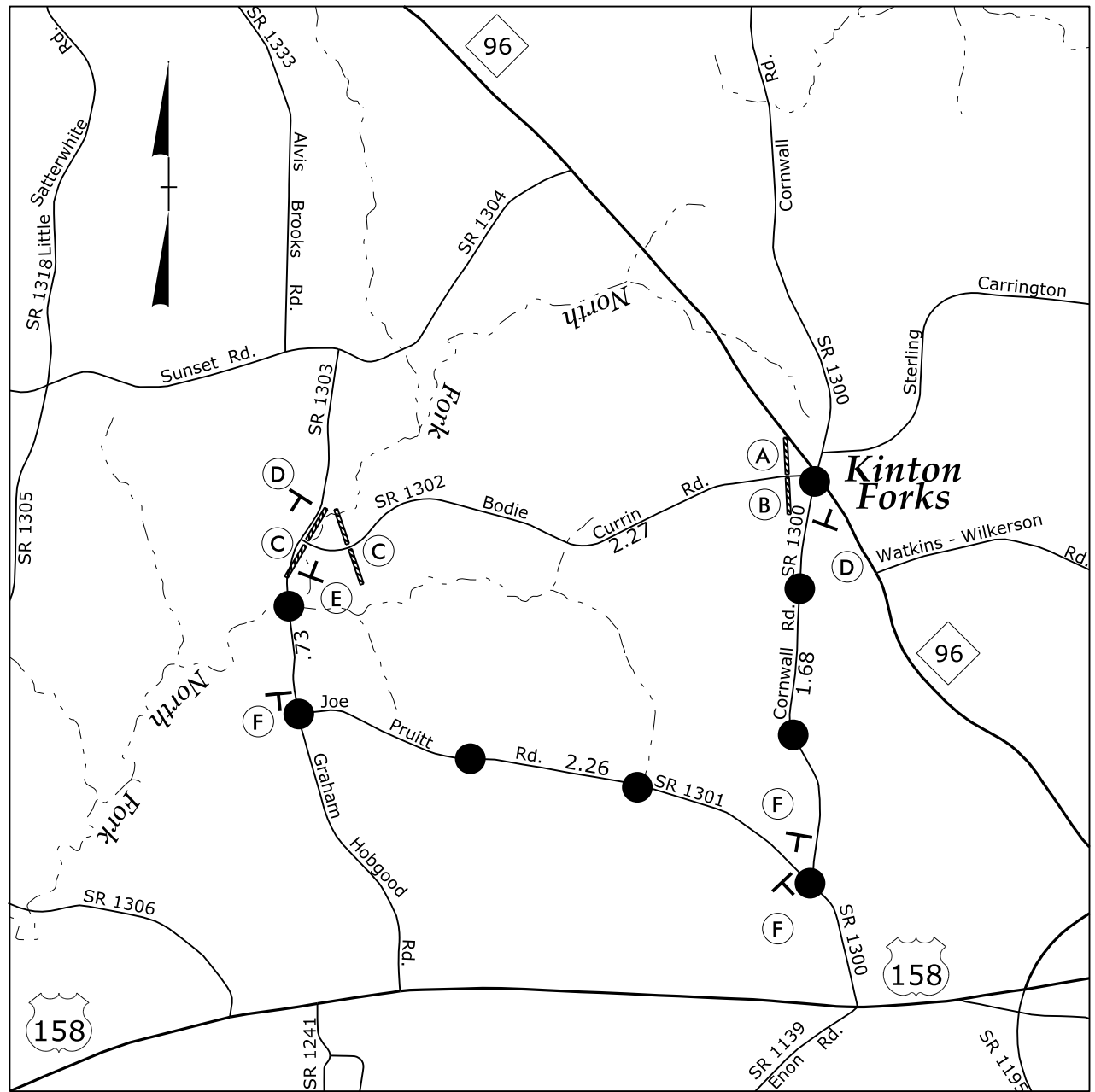
### PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
BODIE CURRIN RD	PAINT	NONE
- H) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

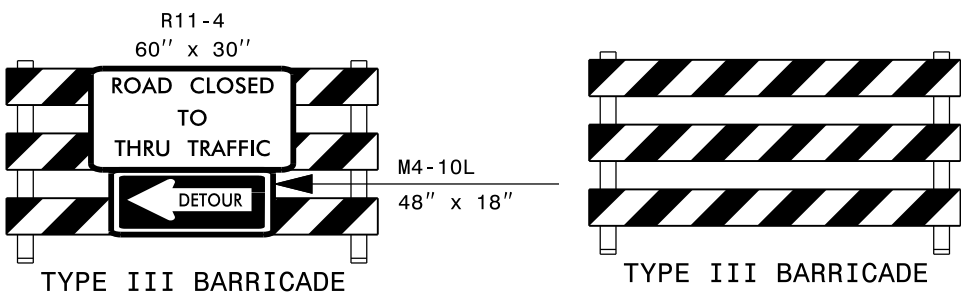
APPROVED: _____ DATE: _____		<b>TRANSPORTATION OPERATIONS PLAN</b>
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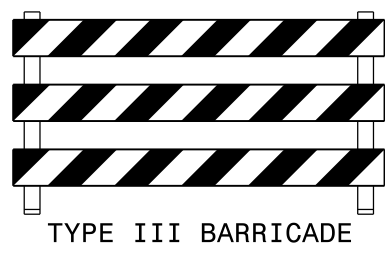


**PHASING**

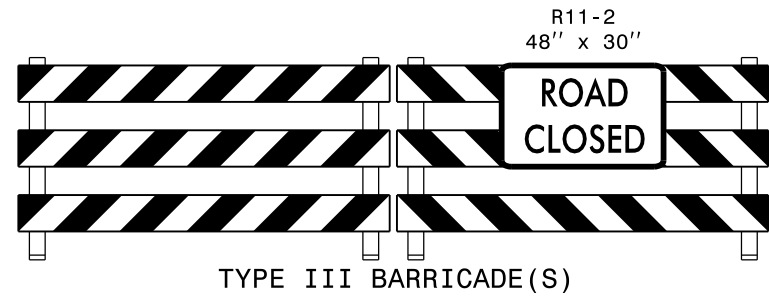
- STEP 1) INSTALL ALL OFFSITE DETOUR SIGNS AS SHOWN AND ROAD CLOSURE SIGNING AS SHOWN NO MORE THAN 3 DAYS PRIOR TO ROAD CLOSURE. IF ROAD IS NOT CLOSED WITHIN THE SAME WORKING PERIOD AS SIGN INSTALLATION, COVER ALL SIGNING.
- STEP 2) UNCOVER SIGNING IF NEEDED. DETOUR TRAFFIC OFFSITE AND CLOSE -L- (SR 1302 BODIE CURRING RD). BEHIND ROAD CLOSURE, CONSTRUCT -L- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE.
- STEP 3) PLACE THE FINAL PAVEMENT LAYER AND PAVEMENT MARKINGS
- STEP 4) REMOVE ALL TRAFFIC CONTROL DEVICES, ROAD CLOSURE SIGNING, AND OPEN -L- TO TRAFFIC. REMOVE ALL OFFSITE DETOUR SIGNING.



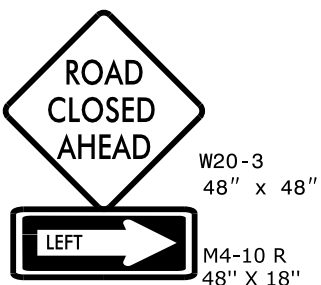
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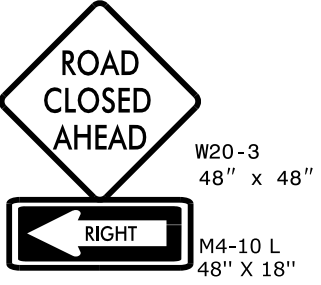
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D



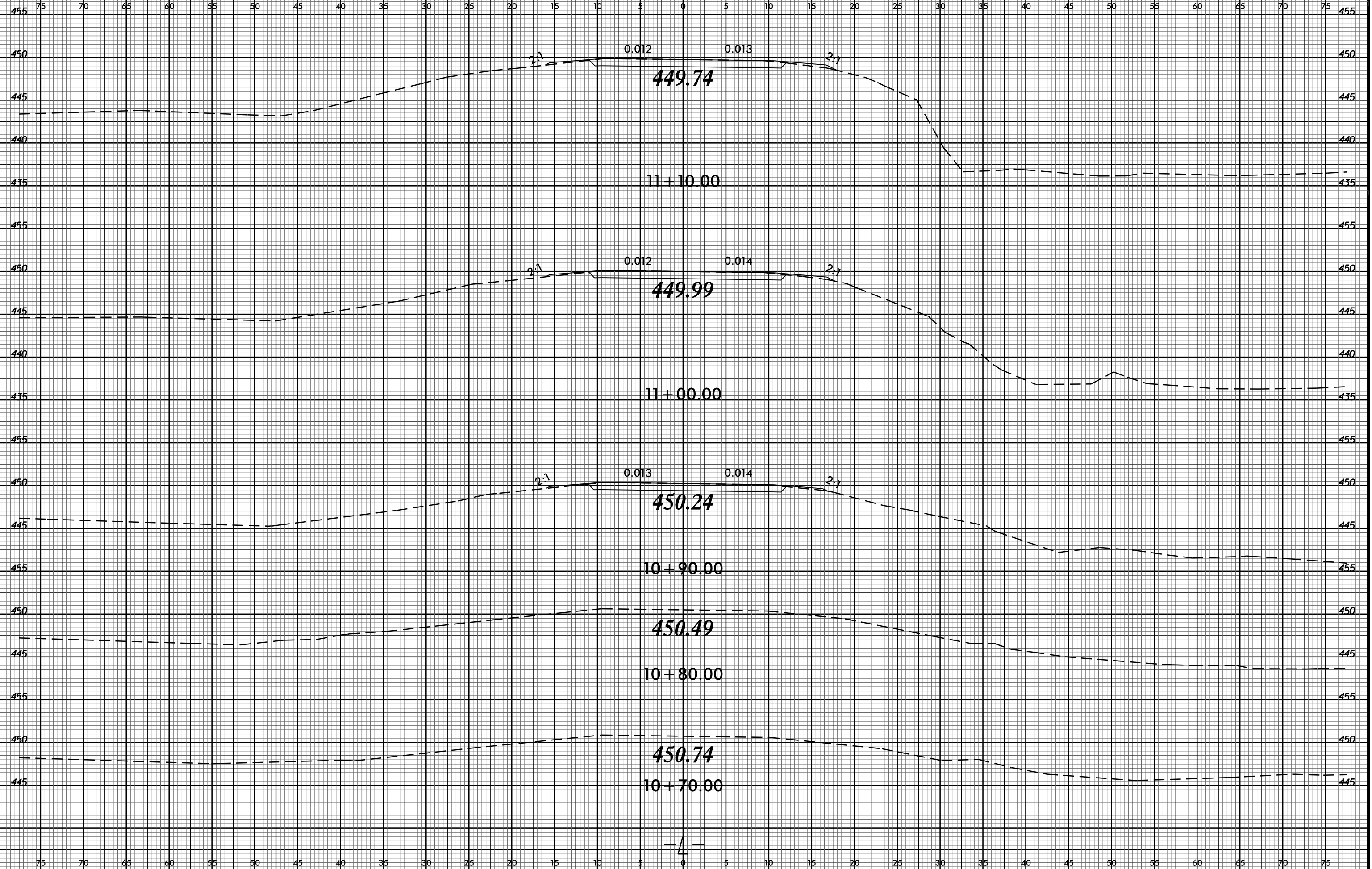
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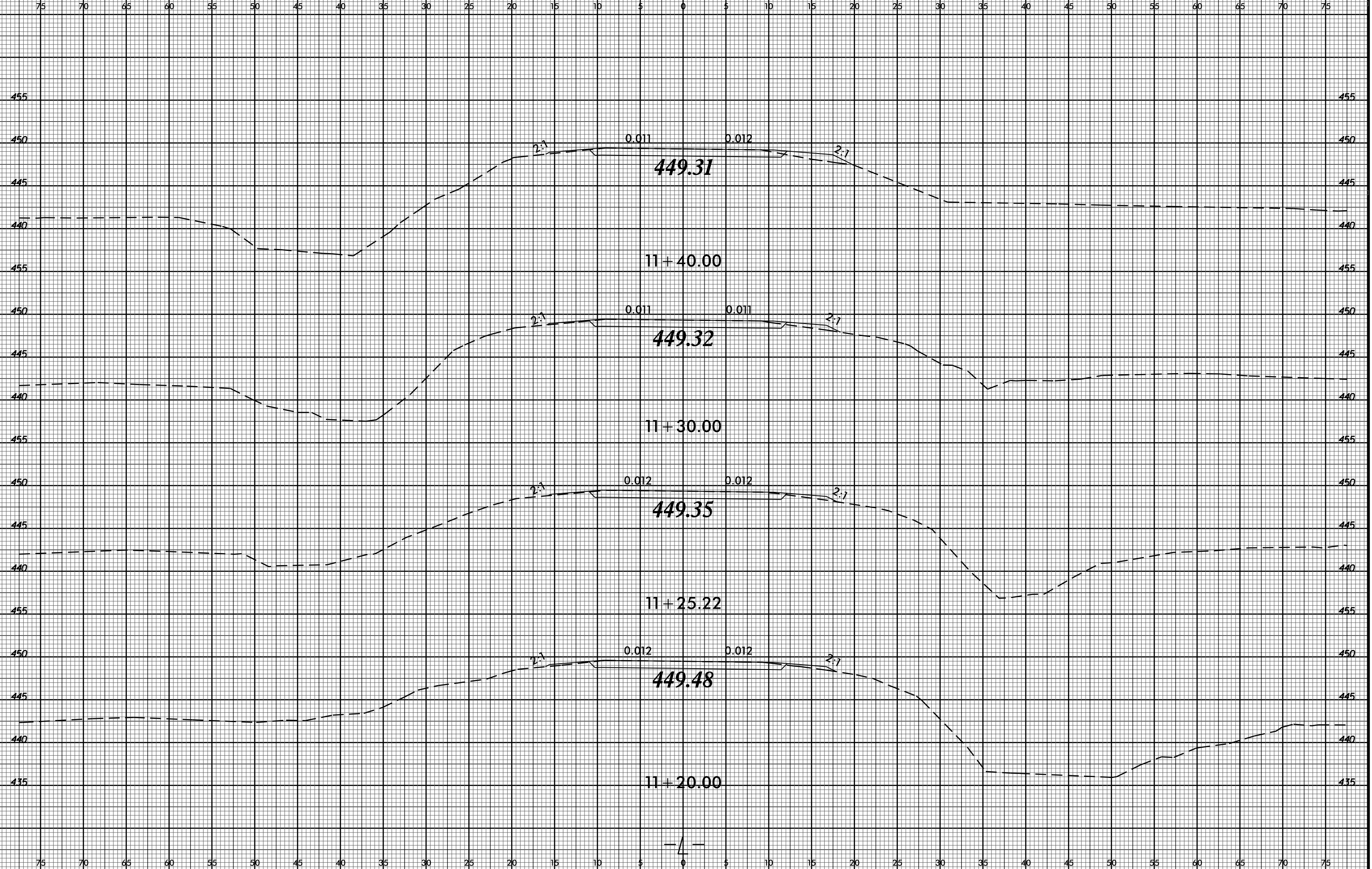
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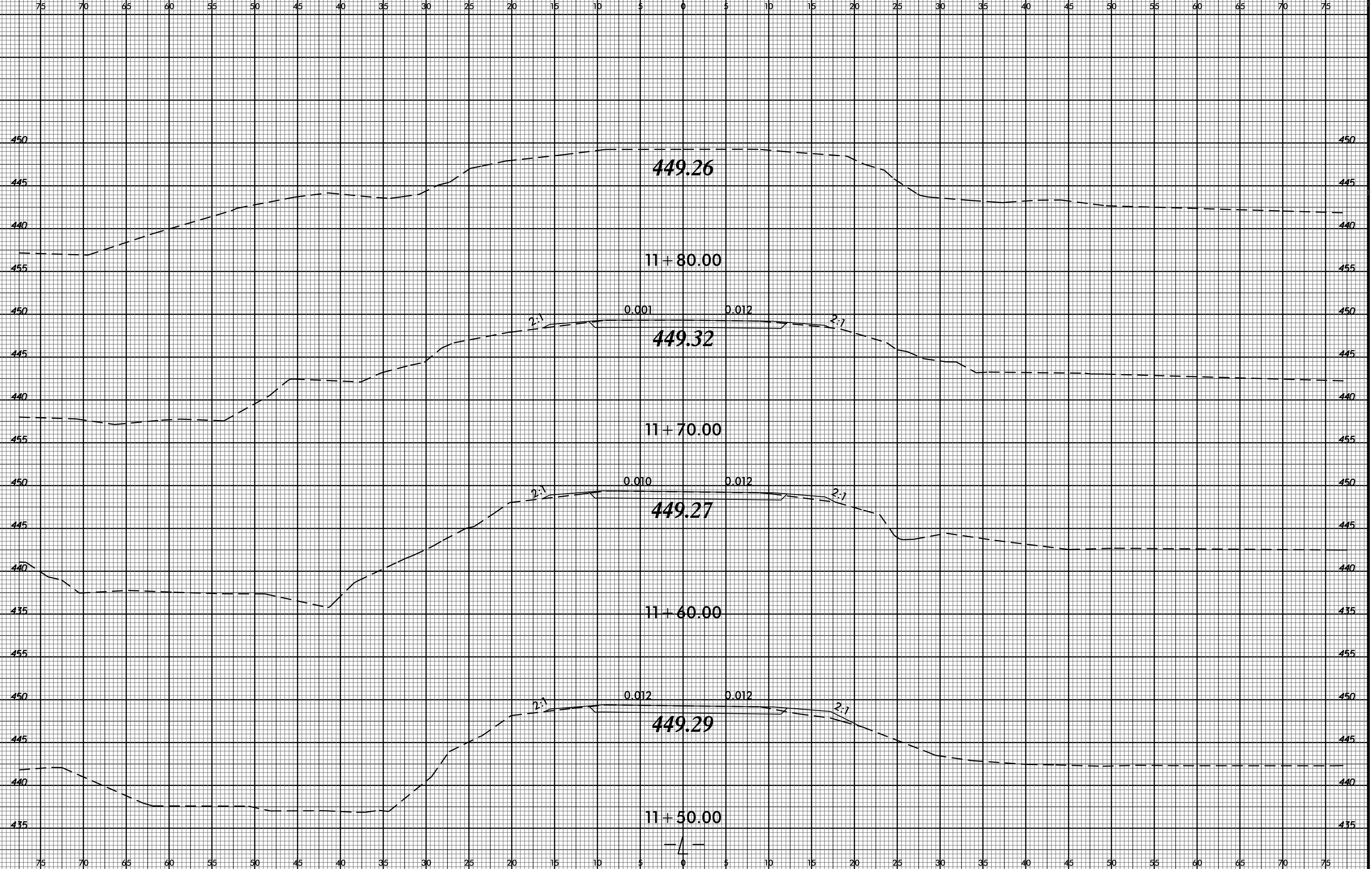
APPROVED: _____ DATE: _____		OFFSITE DETOUR AND PHASING

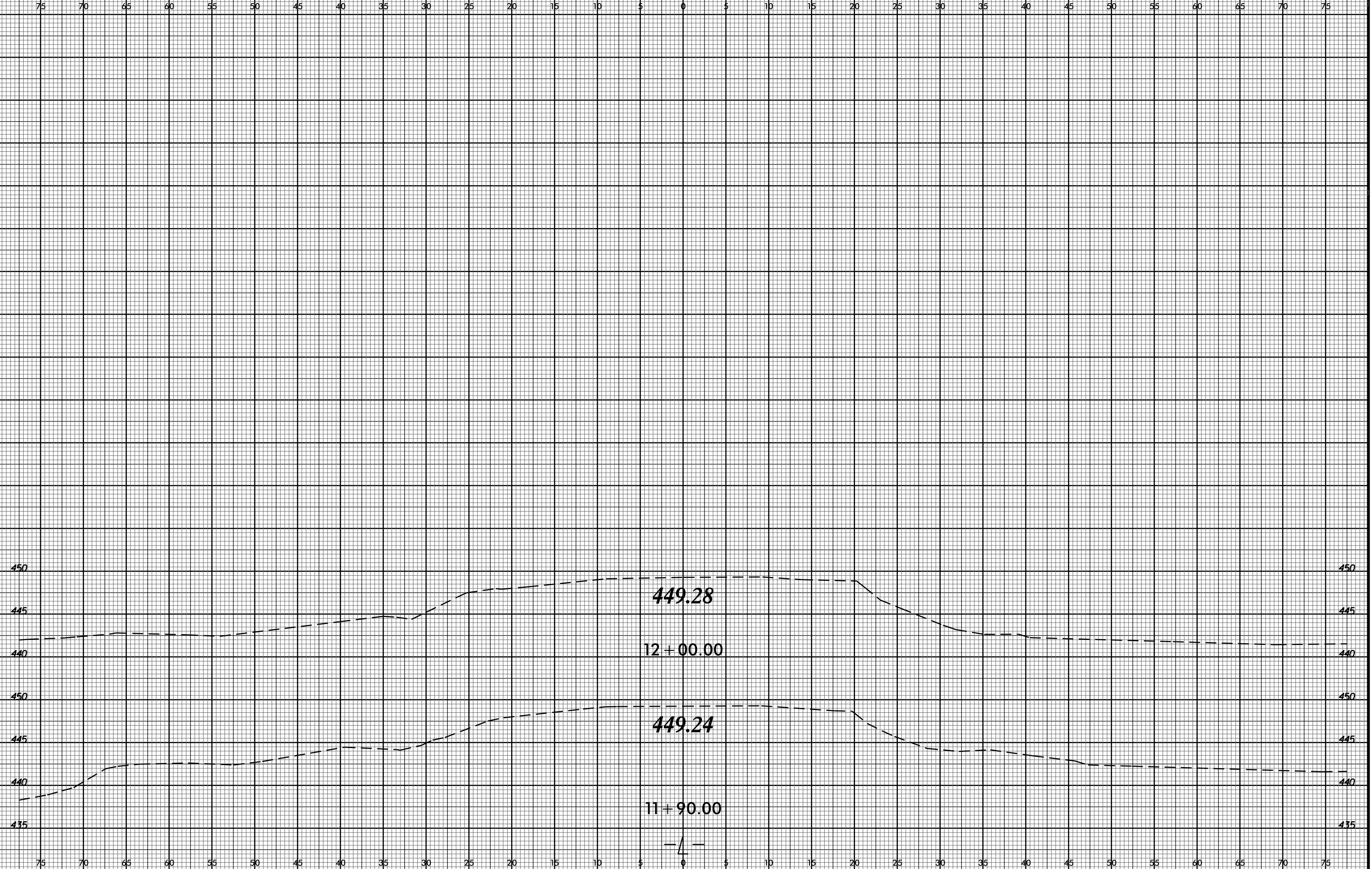
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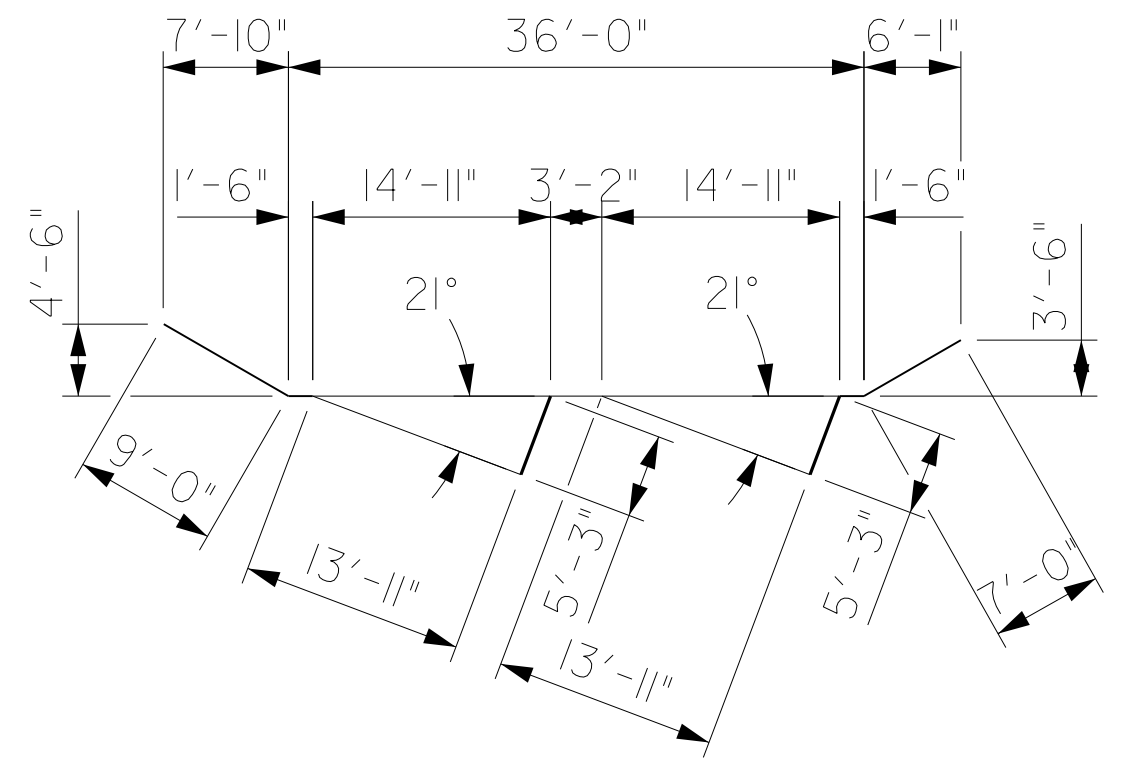




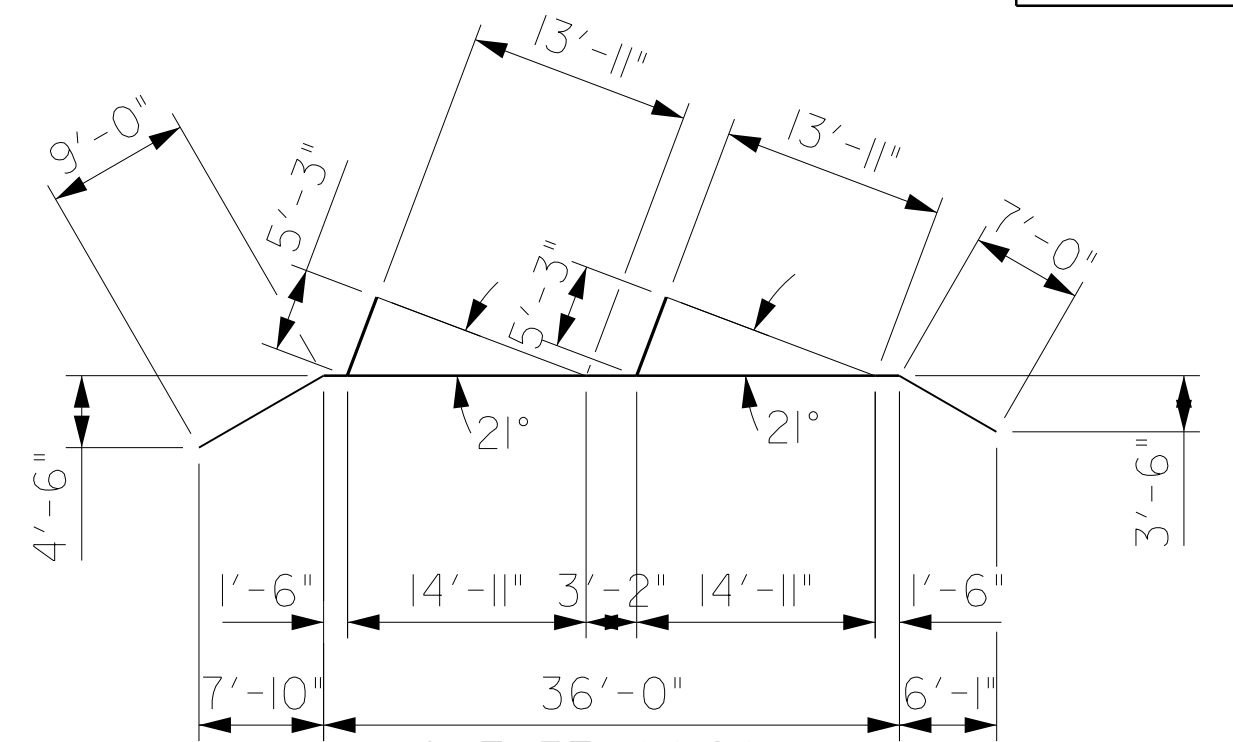




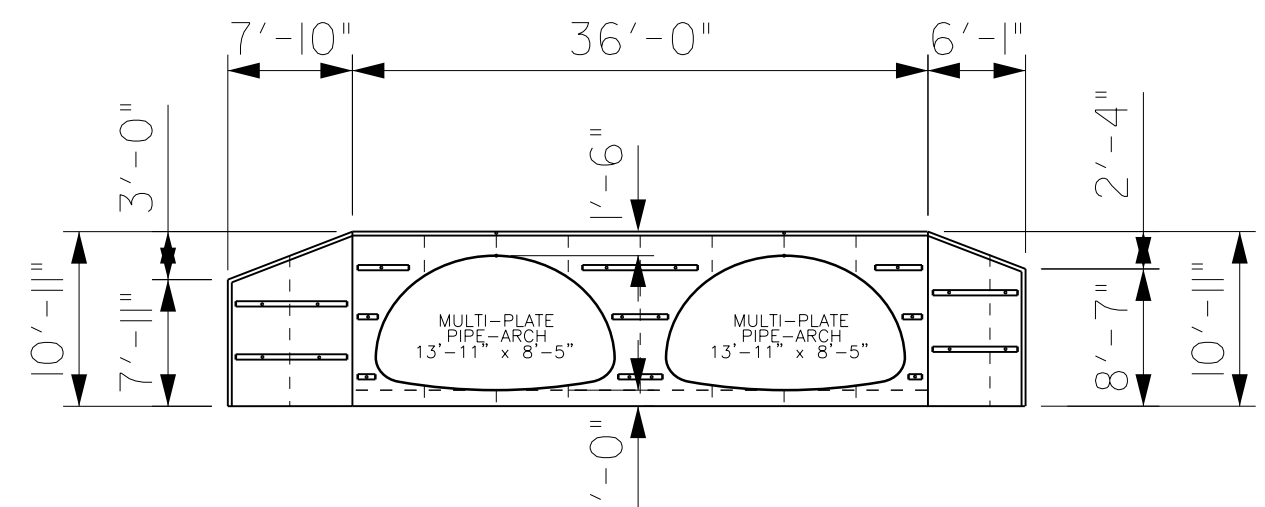




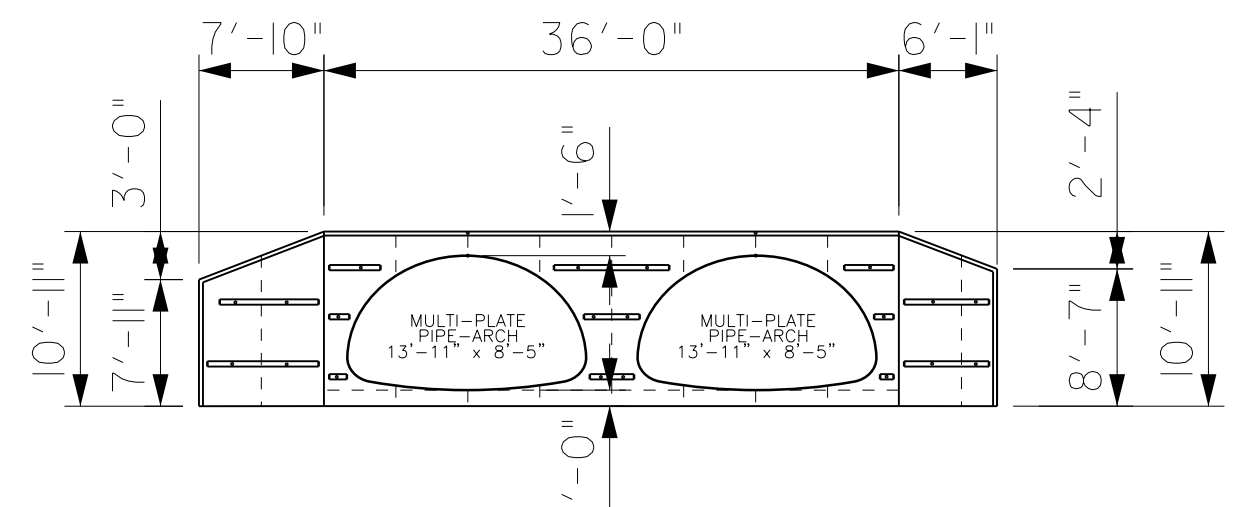
INLET WINGWALL  
PLAN VIEW



OUTLET WINGWALL  
PLAN VIEW



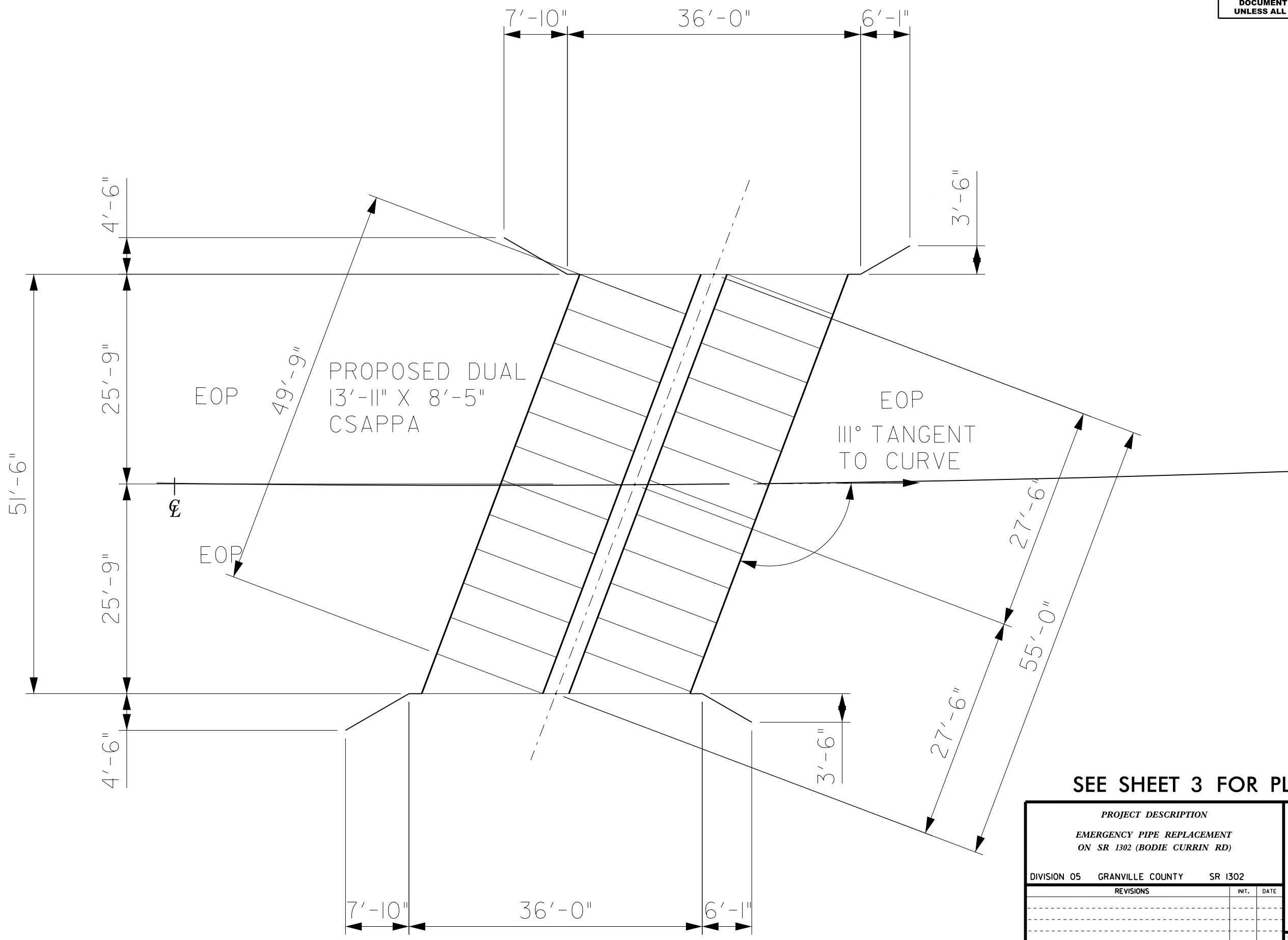
INLET WINGWALL  
ELEVATION VIEW



OUTLET WINGWALL  
ELEVATION VIEW

SEE SHEET 3 FOR PLAN VIEW

<p><b>PROJECT DESCRIPTION</b></p> <p>EMERGENCY PIPE REPLACEMENT ON SR 1302 (BODIE CURRIN RD)</p>											
<p>DIVISION 05 GRANVILLE COUNTY SR 1302</p>											
<table border="1"> <thead> <tr> <th>REVISIONS</th> <th>INT.</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REVISIONS	INT.	DATE							<p>SCALE: NA DATE: _____</p> <p>PREPARED BY: WRB</p> <p>REVIEWED BY: _____</p> <p>REVIEWED BY: _____</p>	
REVISIONS	INT.	DATE									
<p>N.C. DEPARTMENT of TRANSPORTATION DIVISION of HIGHWAYS DIVISION FIVE DESIGN UNIT</p>											



SEE SHEET 3 FOR PLAN VIEW

PROJECT DESCRIPTION		
EMERGENCY PIPE REPLACEMENT ON SR 1302 (BODIE CURRIN RD)		
DIVISION 05	GRANVILLE COUNTY	SR 1302
REVISIONS	INIT.	DATE
N.C. DEPARTMENT of TRANSPORTATION DIVISION of HIGHWAYS DIVISION FIVE DESIGN UNIT		

SCALE: NA DATE: \_\_\_\_\_

PREPARED BY: WRB

REVIEWED BY: \_\_\_\_\_

REVIEWED BY: \_\_\_\_\_

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6/2/99