

REGION ONE  
NORTHERN REGION

PROJECT NAME  
**NFSR 150 REALIGNMENT**  
KOOTENAI NATIONAL FOREST  
CABINET RANGER DISTRICT

DRAWING TITLE

PLAN

DATE  
03/01/2024

DESIGNER  
J. KOSKELA

CHECKED  
K. WICKWARD

NO.	REVISION DESCRIPTION	BY	DATE
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OF  
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## GENERAL NOTES:

### SPECIFICATIONS:

SPECIFICATIONS ARE ATTACHED IN THE CONTRACT.

### ROAD CLOSURE:

THE CONTRACTOR WILL NOT BE ALLOWED TO CLOSE NFSR 150 FOR THE DURATION OF CONSTRUCTION OR UNTIL THE NEW ROUTE IS SAFE FOR PUBLIC TRAVEL.

### MATERIAL SOURCES:

PIT RUN AGGREGATE MAY BE OBTAINED FROM THE PIT ON NFSR 150M SHOWN ON THE PROJECT AREA MAP.

### SURVEYING:

THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION STAKING. THE OWNER WILL STAKE THE REMAINING ITEMS. THE PROPOSED ROUTE IS FLAGGED ON THE GROUND IN ORANGE.

### CLEARING AND GRUBBING:

CLEARING AND GRUBBING SHALL CONSIST OF REMOVING VEGETATION FROM THE CONSTRUCTION LIMITS AND DISPOSING THEM IN ACCORDANCE WITH THE CONTRACT.

### SOIL EROSION AND POLLUTION CONTROL:

CONTRACTOR SHALL PROTECT THE STREAM FROM SEDIMENT DEPOSIT FROM CONSTRUCTION ACTIVITIES. PROTECTION SHALL INCLUDE BUT NOT LIMITED TO SILT FENCING, STRAW WADDLES OR STAKED HAY BALES ON THE ENTIRE LENGTH OF THE AFFECTED STREAM CHANNEL. CONTRACTOR SHALL SUBMIT A PLAN FOR APPROVAL, INCIDENTAL TO OTHER ITEMS.

### WORK:

PRIOR TO BORROW SURFACING THE CONTRACTOR SHALL PREPARE THE SUBGRADE SURFACE IN ACCORDANCE WITH SPECIFICATIONS AND APPROVED IN WRITING BY THE OWNER.

### SITE CLEANUP:

PRIOR TO THE FINAL INSPECTION, THE CONTRACTOR SHALL CLEAN THE SITE. THIS WORK IS INCIDENTAL AND NO ADDITIONAL PAYMENT SHALL BE MADE.

### UTILITIES:

INDIVIDUAL ELECTRIC, NATURAL GAS, TELEPHONE, PROPANE, ETC. HAVE NOT BEEN INDICATED ON THESE DRAWINGS. THE CONTRACTOR SHALL CONTACT THE UTILITIES UNDERGROUND LOCATION CENTER AT 1-800-424-5555 PRIOR TO PERFORMING ANY OF THE WORK. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COORDINATE WITH THE UTILITY COMPANIES FOR COMPLETION OF THE PROJECT AS DESCRIBED HEREIN. THIS WORK IS INCIDENTAL TO THE PROJECT.

### MOBILIZATION:

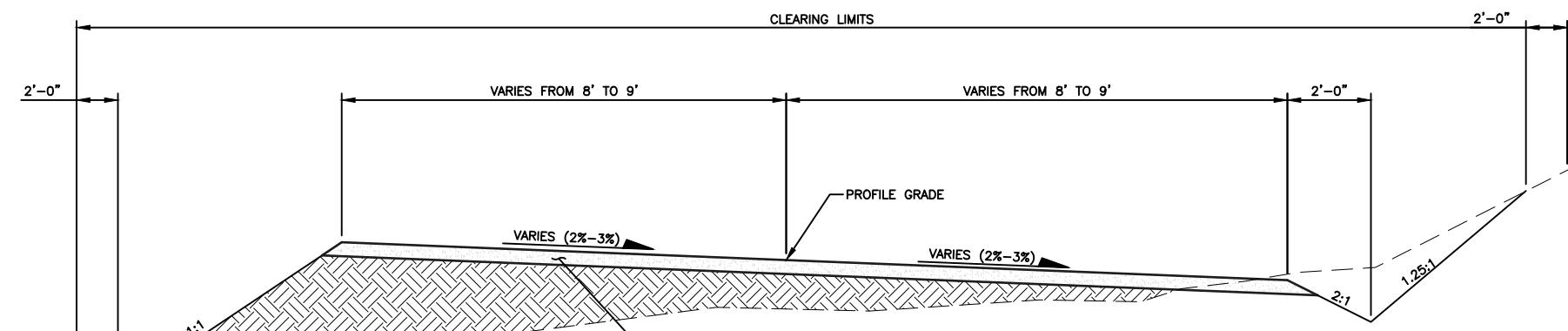
ALL CONSTRUCTION EQUIPMENT SHALL BE WASHED AND INSPECTED PRIOR TO ENTERING THE PROJECT AREA.

### QUANTITIES:

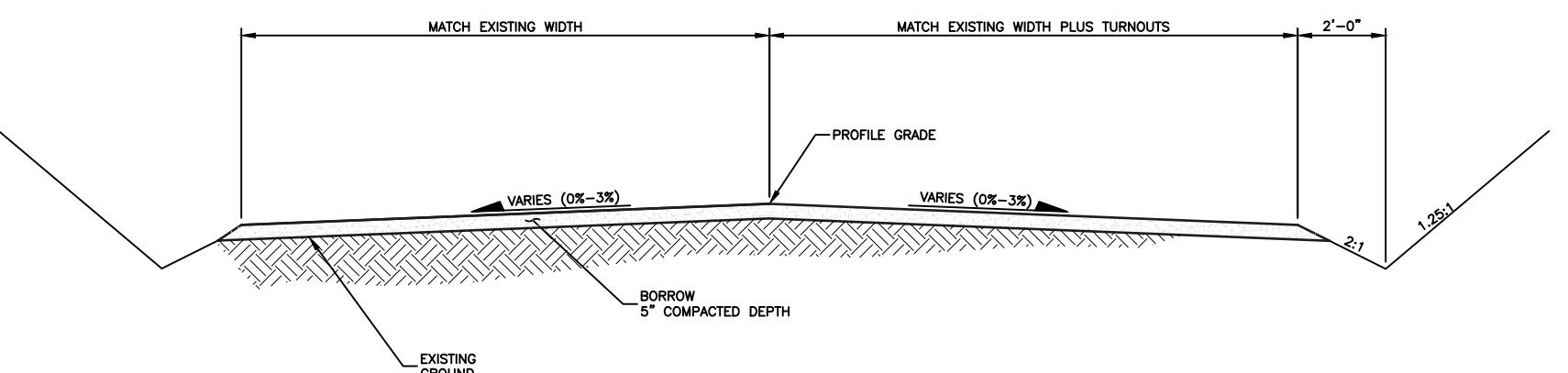
EXCAVATION QUANTITIES ARE REPRESENTED AS CUBIC YARDS IN PLACE. BORROW AND EXCAVATION QUANTITIES ARE REPRESENTED AS COMPACTED CUBIC YARDS IN PLACE. CONTRACTOR SHALL ADJUST QUANTITIES FOR LOOSE YARDS ENCOUNTERED.

### EQUIPMENT RENTAL:

HOURLY EQUIPMENT RENTAL SHALL BE ORDERED AND DIRECTED BY THE OWNER. EQUIPMENT HOURS WILL BE PAID FOR AS THE ACTUAL AMOUNT OF WORK PERFORMED AND AGREED IN WRITING.



## ROADWAY EXCAVATION (RE-ROUTE)



## ROADWAY EMBANKMENT (BORROW LIFT)

NFSR 150 (MP 2.63 to 4.87 AS STAKED)  
NOT TO SCALE

### NOTES:

1. COMPACT EXCAVATED SUBGRADE TO AN UNYIELDING CONDITION PRIOR TO THE PLACEMENT OF BASE MATERIAL.
2. COMPACT AGGREGATE SURFACE COURSE UNTIL NO VISUAL DEFLECTION IS PRESENT.
3. ROADWAY EXCAVATION AND EMBANKMENT ARE ASSUMED TO BALANCE. EXCESS MATERIAL (WASTE) REMAINS, THE CONTRACTOR SHALL REMOVE THE REMAINING MATERIAL USING HOURLY EQUIPMENT RENTAL ITEMS. LIKEWISE, IF ADDITIONAL MATERIAL IS NEEDED THE CONTRACTOR SHALL IMPORT MATERIAL USING HOURLY EQUIPMENT RENTAL.

### SCOPE OF WORK:

ROADWAY EXCAVATION (ITEM 20401) OF THE PROPOSED RE-ROUTE (3,952 LF). EXCAVATE RESTORATION PORTION BELOW THE EXISTING GRAVEL PIT (ITEM 20402) (DETAILS ON SHEET 4) AND HAUL EXCESS TO LIFT EXISTING NFSR 150 FROM MP 2.63 to MP 4.87. INCLUDES SHAPING AND COMPACTING. RESHAPE & ROUGHEN EXISTING NFSR 150 (ITEM 20403) FROM STA 21+60 TO STA 34+60 PER TYPICAL SHOWN ON SHEET 4. PLACE CLEARING AND GRUBBING WASTE FROM RE-ROUTE EXCAVATION IN PILES ON THE RESHAPED 8:1 SLOPE ON NFSR 150 FROM STA 21+60 TO STA 34+60. DETAILS SHOWN ON SHEET 4. INCIDENTAL TO ITEM 20103. WORK ALSO INCLUDES BUT IS NOT LIMITED TO INSTALLING CORRUGATED METAL PIPES AT STAKED LOCATIONS (ITEM 60201), HOURLY EQUIPMENT RENTAL (ITEM 62201) TO RIP AND STORE THE CURRENT ACCESS ROUTE TO THE EXISTING BORROW PIT AND REHAB EXISTING STREAM AND STREAM BANKS UNDER DIRECTION OF THE OWNER AND SEEDING ALL DISTURBED AREAS (ITEM 62550).

ESTIMATED QUANTITIES*				
ITEM	DESCRIPTION	METHOD OF MEASUREMENT	UNIT	QUANTITY
15101	MOBILIZATION	LSQ	LS	1
15211	CONSTRUCTION SURVEY AND STAKING, METHOD I	LSQ	LS	1
20103	CLEARING & GRUBBING, HAUL AND PILE WASTE	LSQ	LS	1
20401	ROADWAY EXCAVATION (RE-ROUTE), COMPACTION METHOD 2	CQ	CY	20,800
20402	EXCAVATION AND EMBANKMENT OF NFSR 150 (MP 2.63 TO 4.87), COMPACTION METHOD 2	CQ	CY	3,240
20403	RESHAPE & ROUGHEN NFSR 150 TO 8:1 TEMPLATE (STATION 21+60 TO 34+60)	CQ	LF	1,300
25101	PLACED RIPRAP, CLASS II	AQ	CY	6
60201	24 INCH CORRUGATED STEEL CULVERT	AQ	LF	120
62201D	EQUIPMENT RENTAL, LARGE DUMP TRUCK	AQ	HR	4
62201E	EQUIPMENT RENTAL, HYDRAULIC EXCAVATOR WITH THUMB	AQ	HR	32
62550	TURF ESTABLISHMENT	CQ	LS	1

\*INFORMATIONAL ONLY - NOT FOR BIDDING PURPOSES - REFER TO BID SCHEDULE



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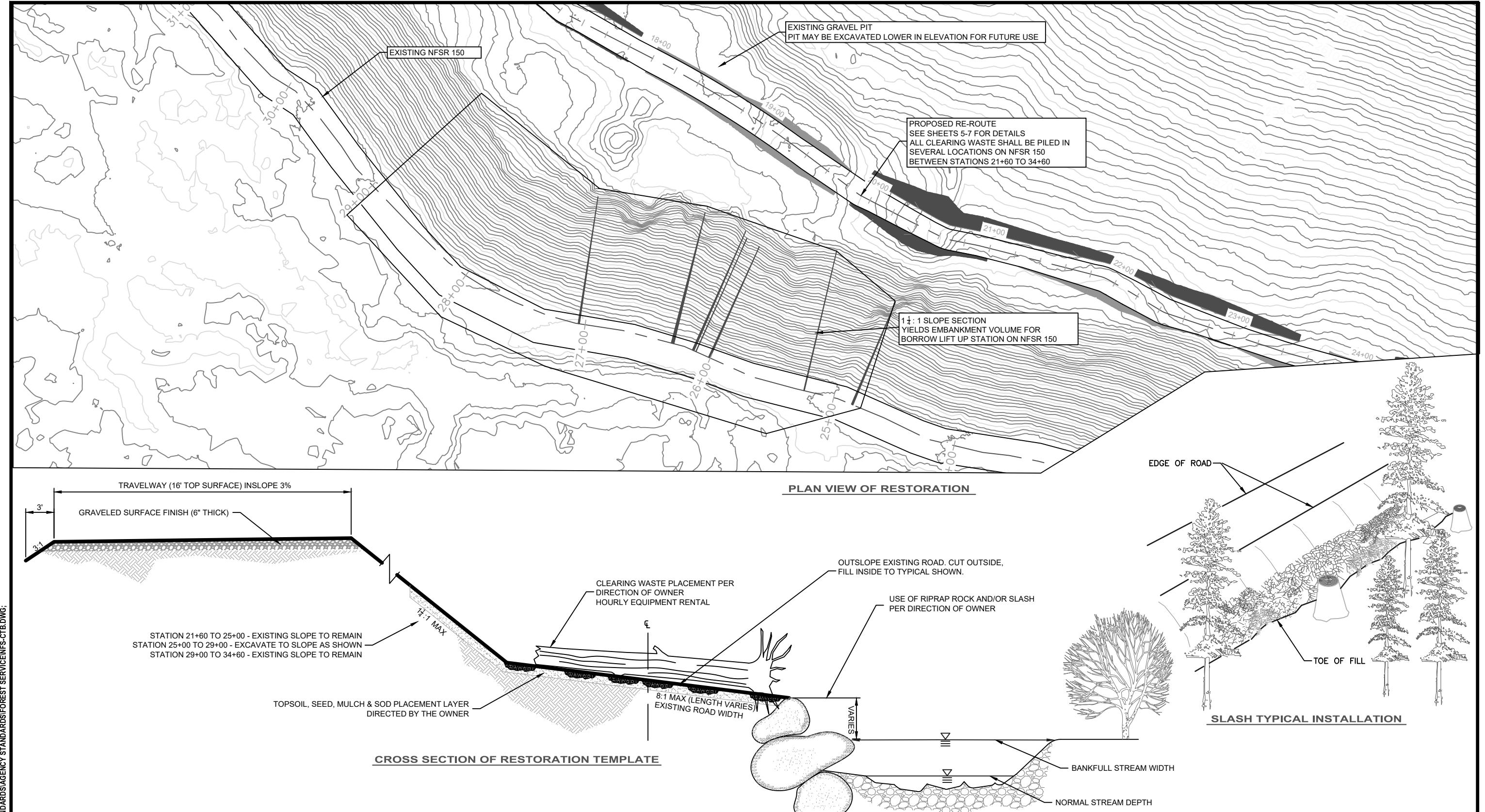
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SUMMARY &  
TYPICALS

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03/01/2024	J. KOSKELA	K. WICKWARD		
NO.	REVISION DESCRIPTION	BY	DATE	
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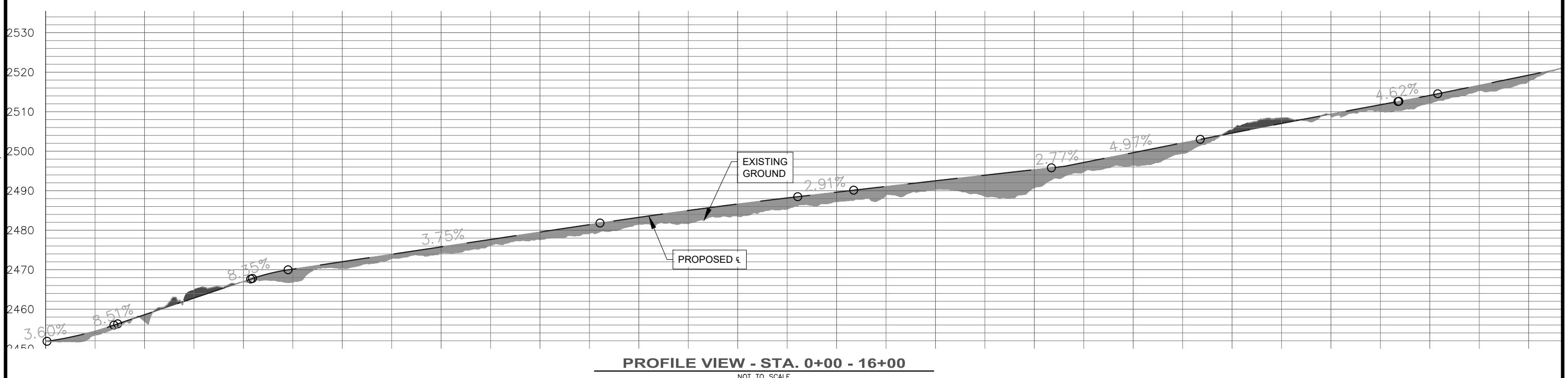
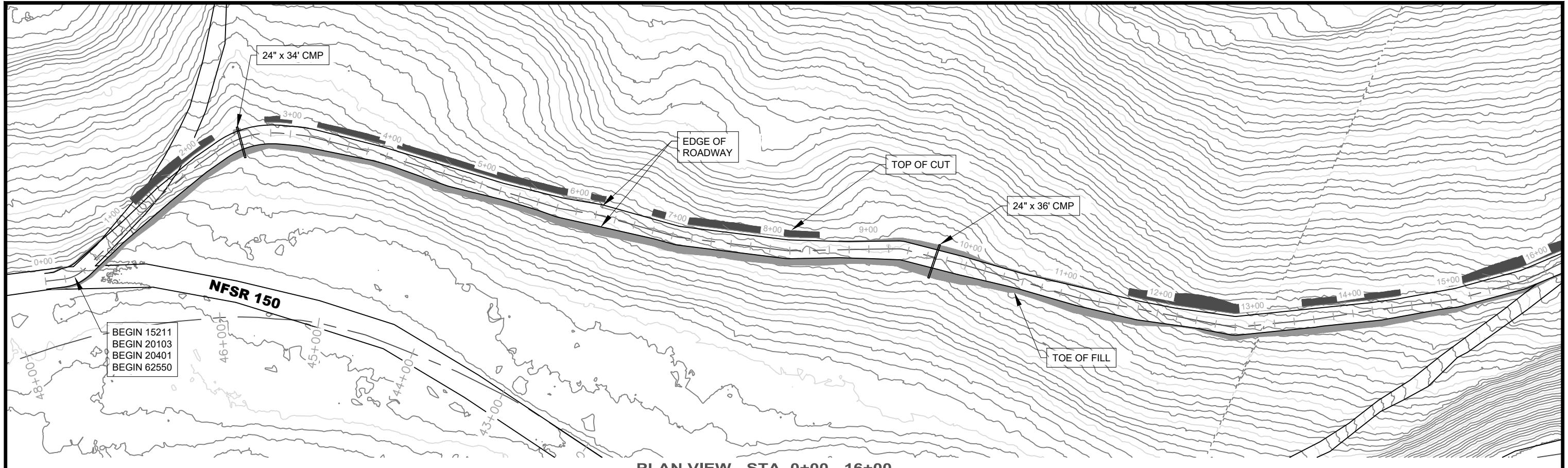


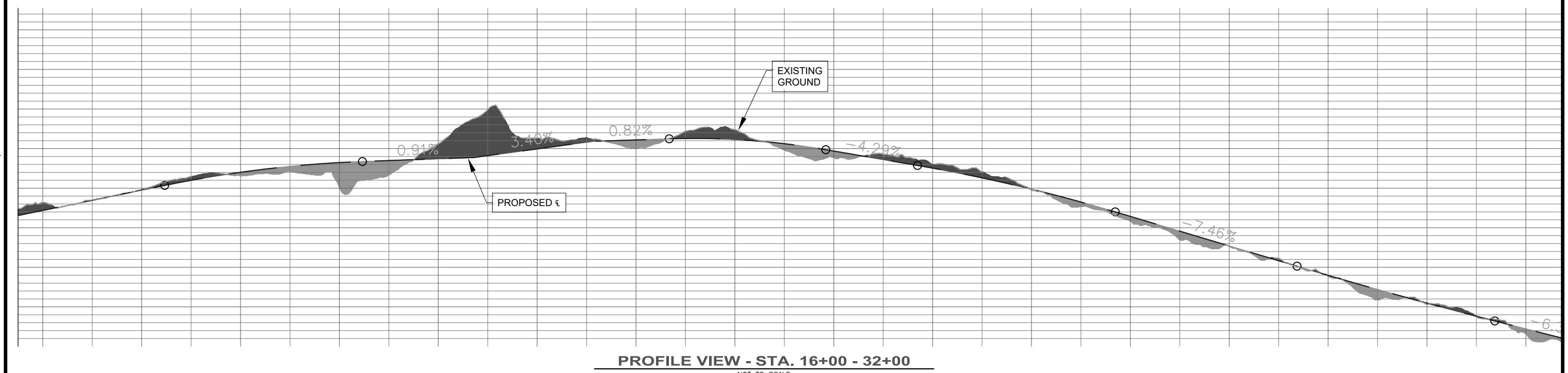
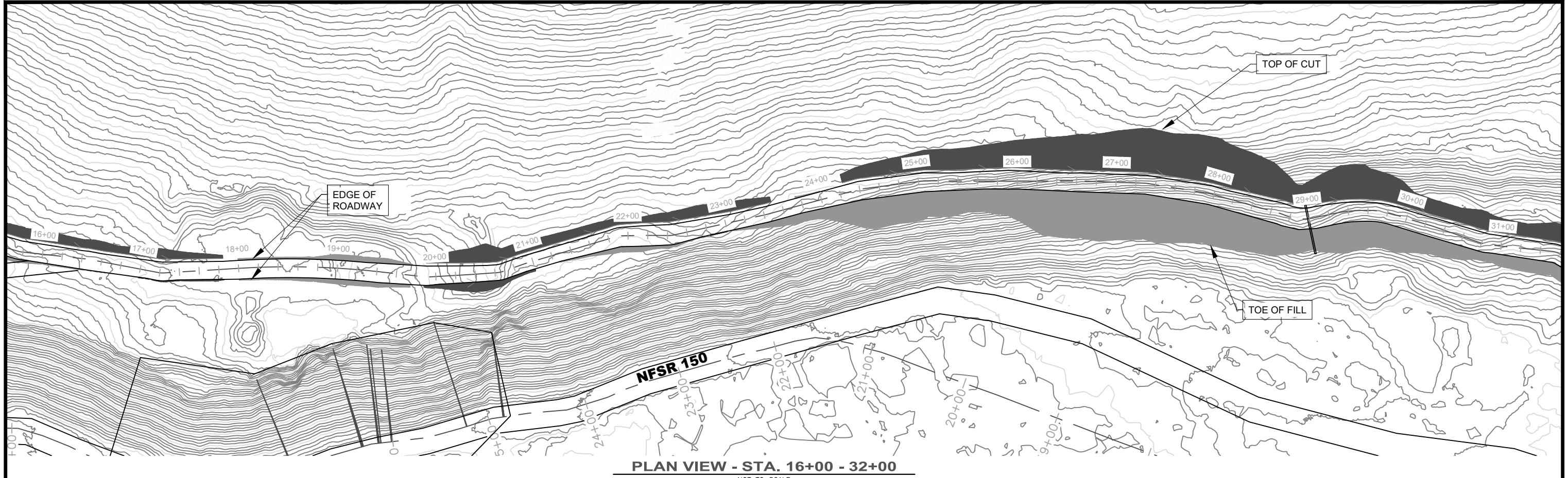
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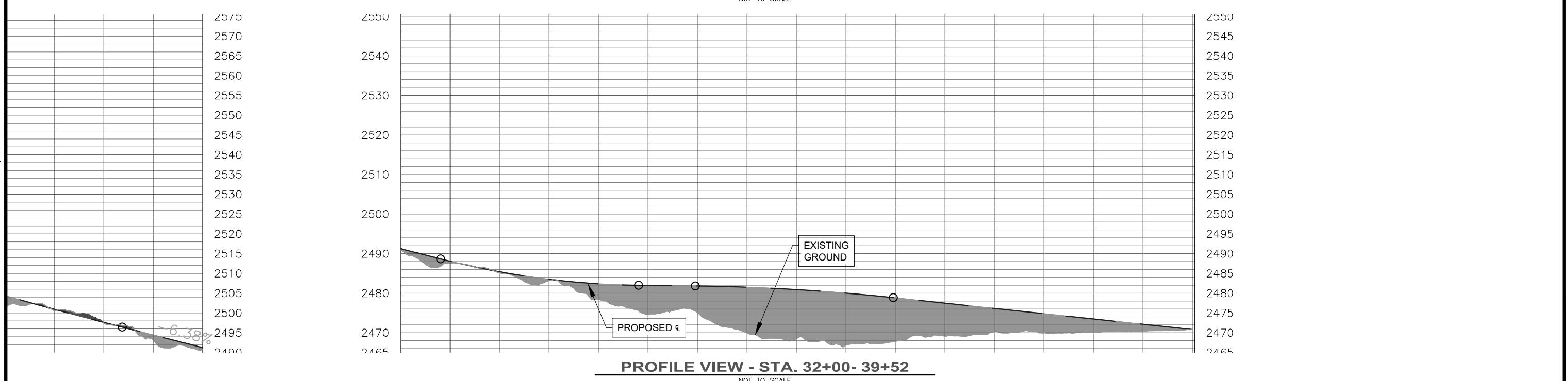
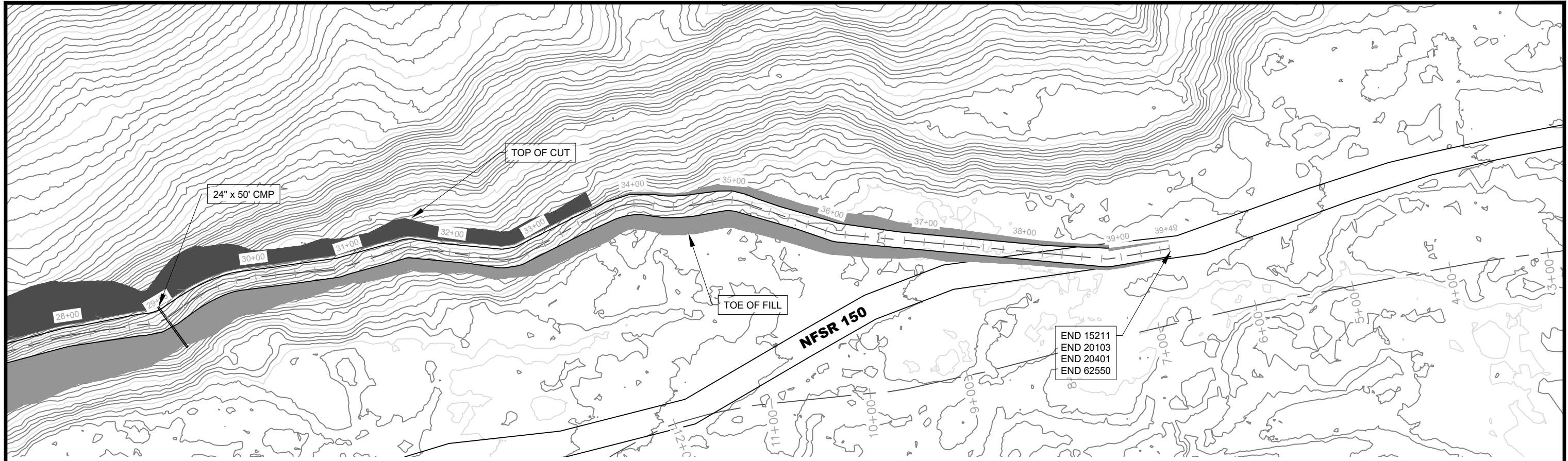
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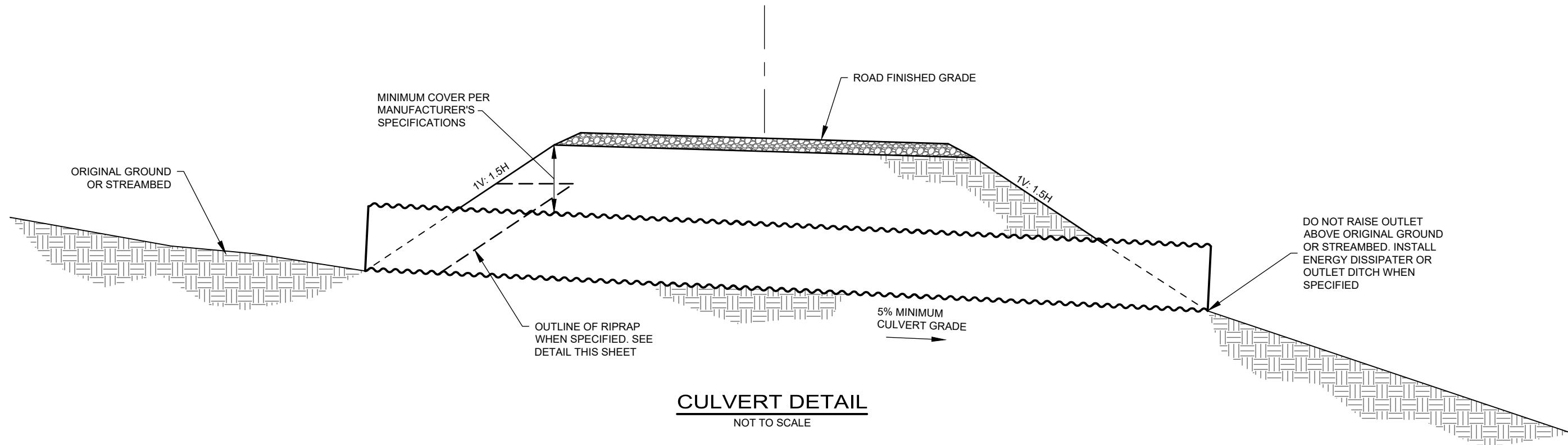
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**RESTORATION AREA DETAILS**

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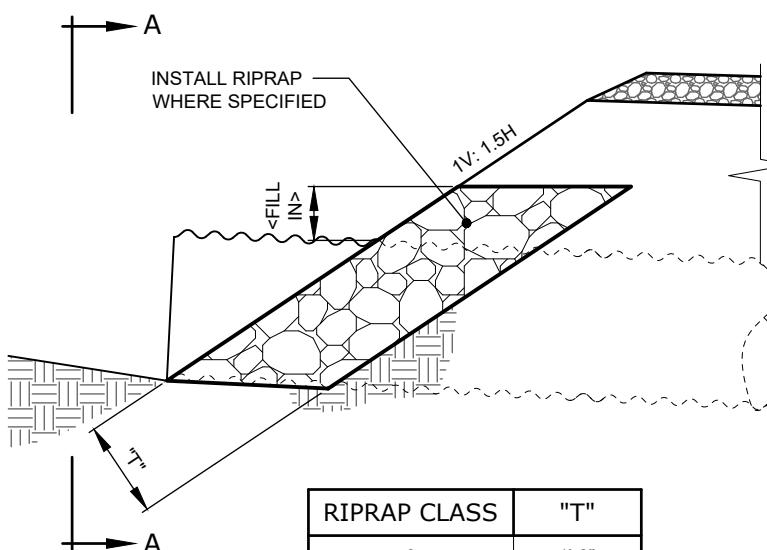
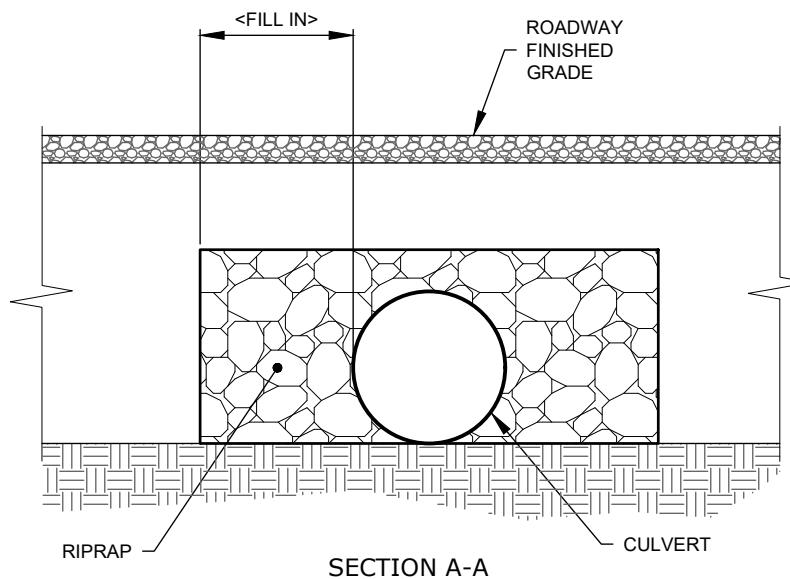






### CULVERT DETAIL

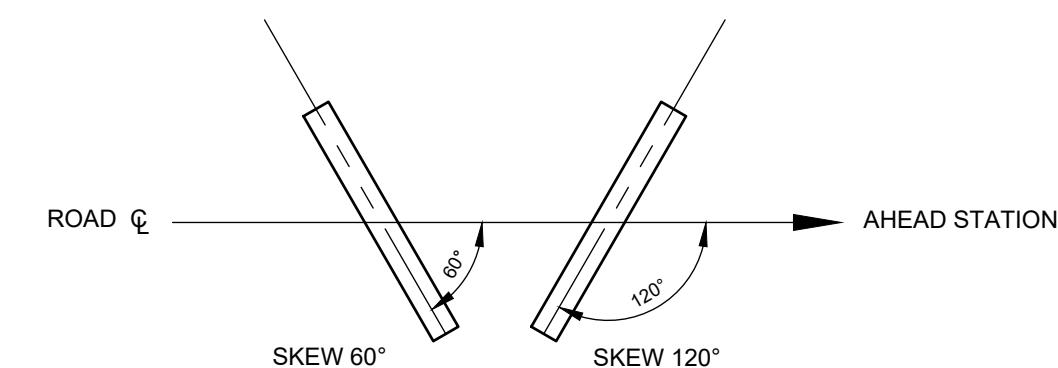
NOT TO SCALE



RIPRAP CLASS	"T"
0	1'-0"
1	1'-6"
2	2'-6"
3	3'-0"
4	3'-6"

### RIPRAP DETAIL

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### SKEW DIAGRAM

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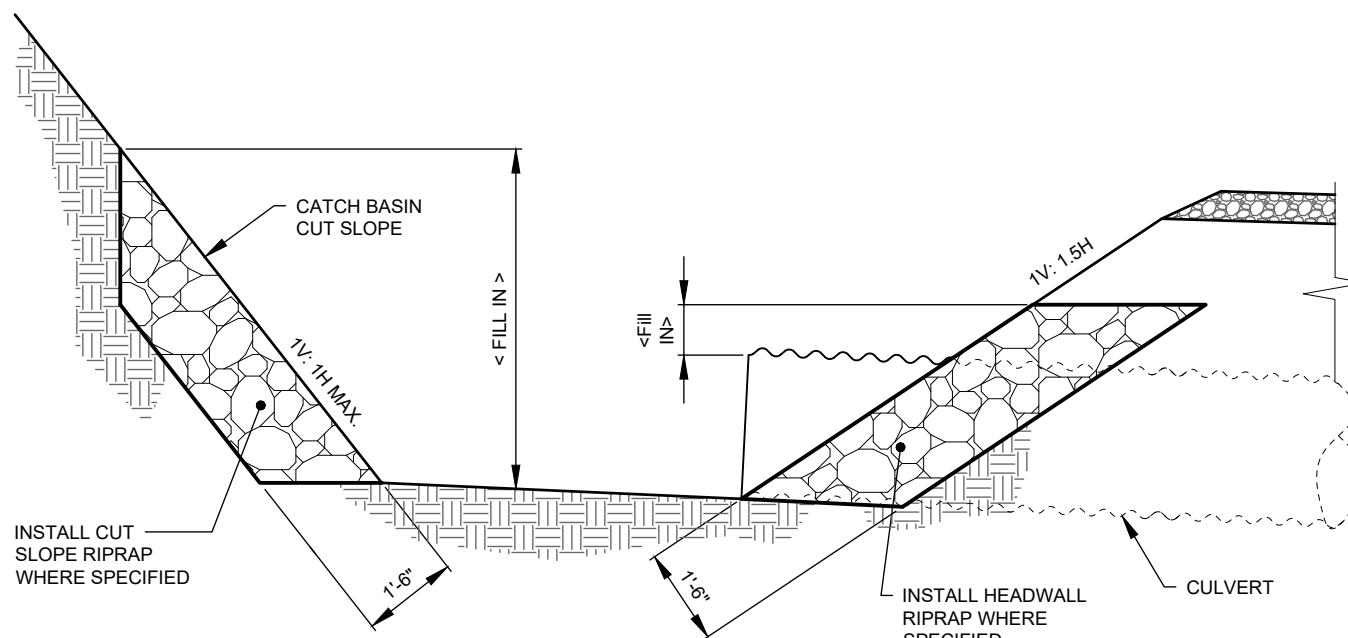
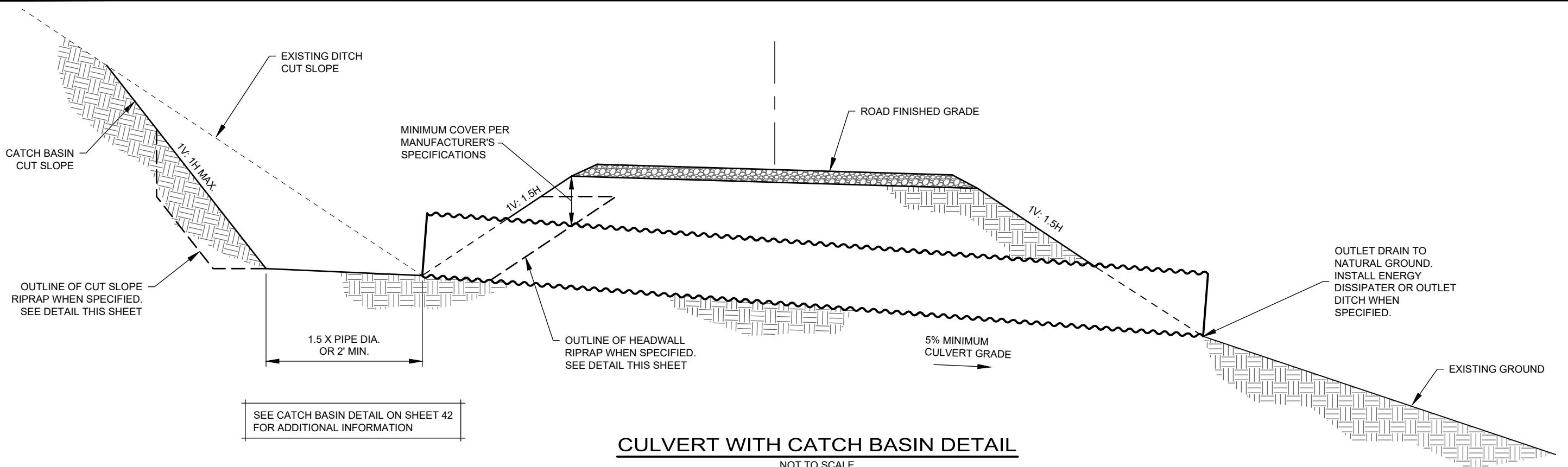
CULVERT DETAILS

DATE  
03/01/2024DESIGNER  
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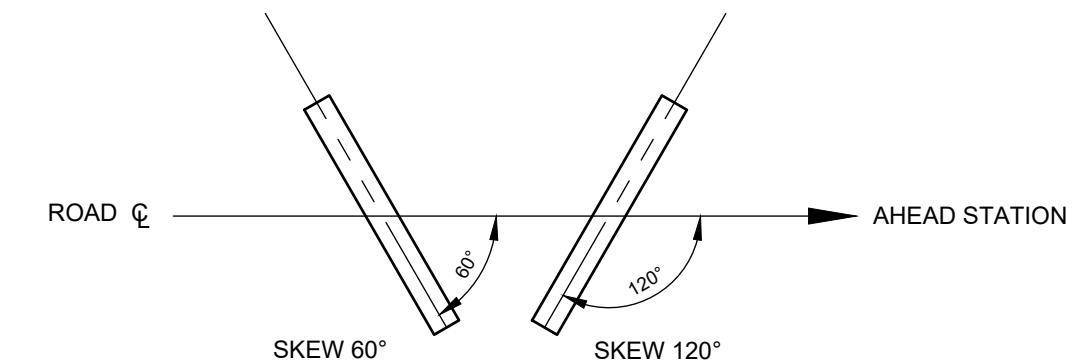
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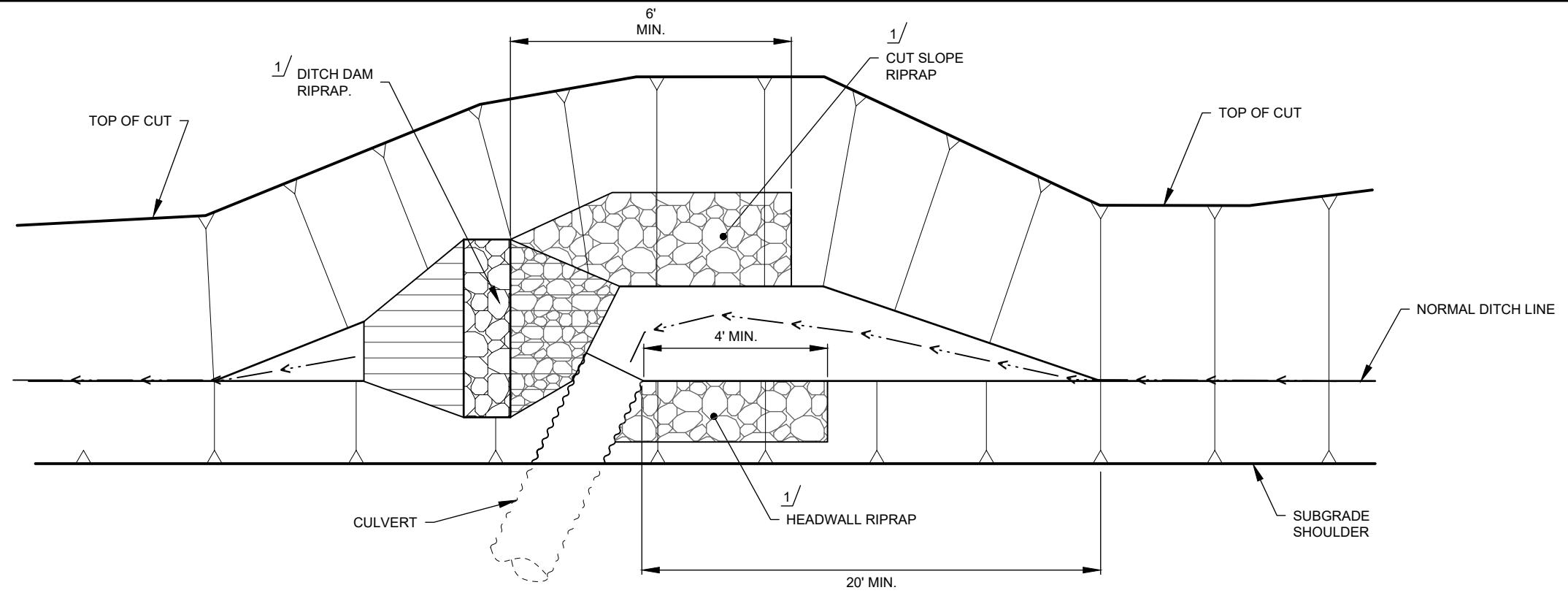
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**RIPRAP DETAIL**  
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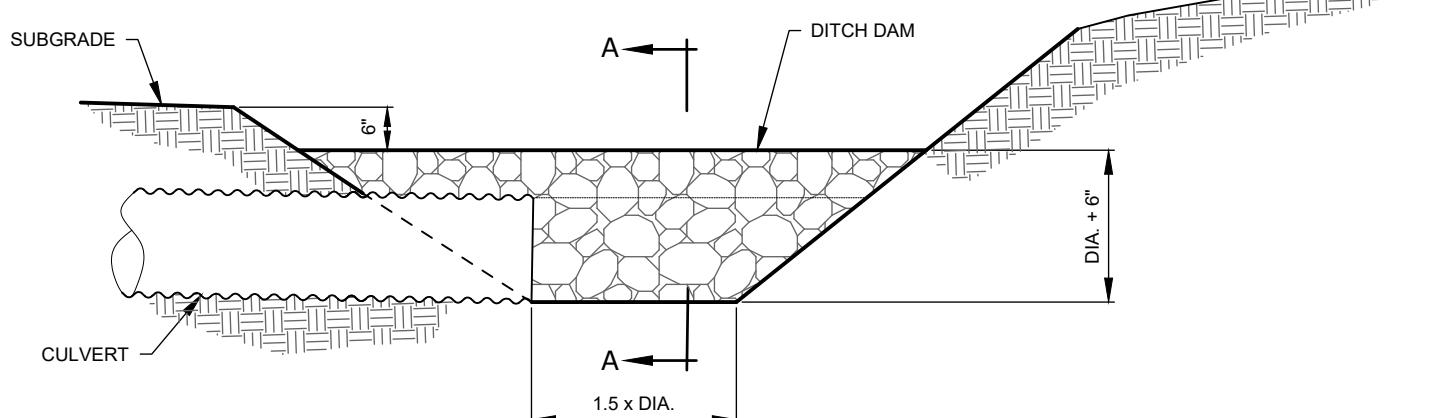
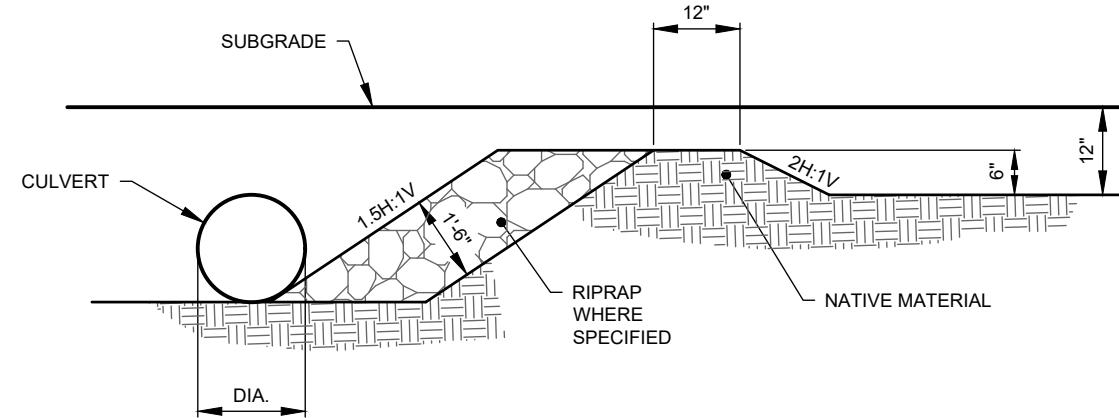


**SKEW DIAGRAM**  
NOT TO SCALE



CATCH BASIN DETAIL

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**CATCH BASIN  
DETAILS**

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03/01/2024

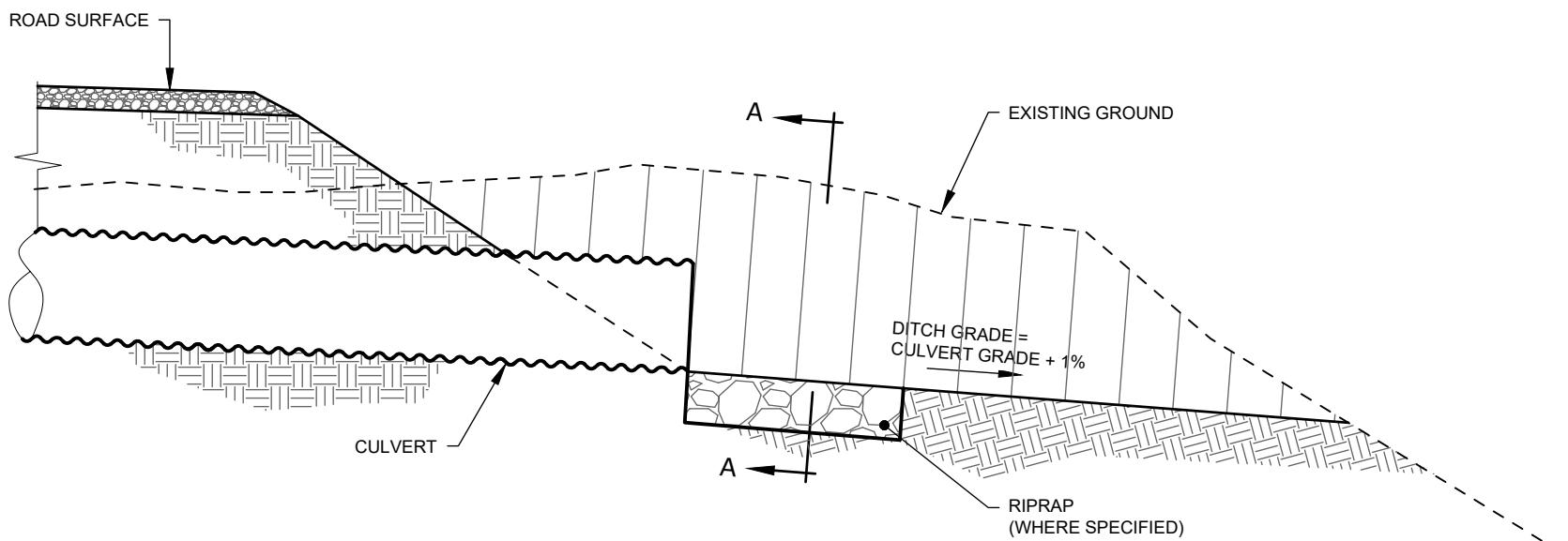
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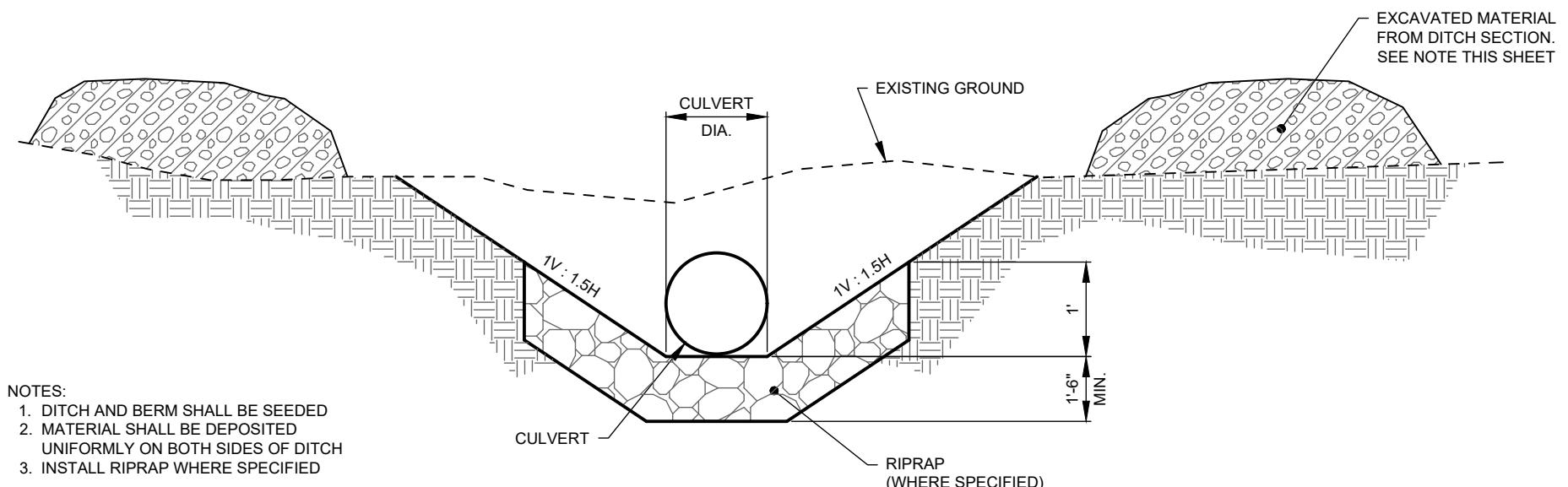
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**SECTION ALONG CENTERLINE CULVERT/OUTLET DITCH**



**SECTION A-A**

**OUTLET DITCH**

NOT TO SCALE

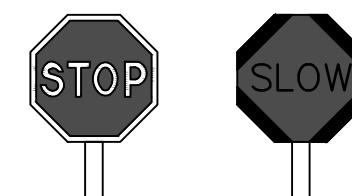
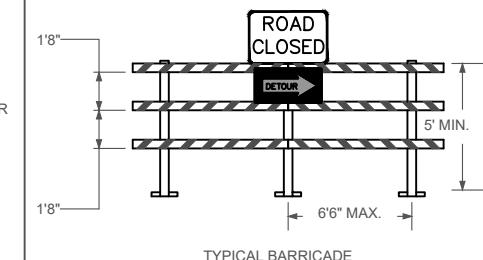


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03/01/2024	J. KOSKELA	K. WICKWARD	11	11
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SIGN	SIGN NO.	MESSAGE	MIN. SIZE INCHES	COLORS	PLACEMENT	SIGN	SIGN NO.	MESSAGE	MIN. SIZE INCHES	COLORS	PLACEMENT	SIGN	SIGN NO.	MESSAGE	MIN. SIZE INCHES	COLORS	PLACEMENT
ROAD CONSTRUCTION NEXT 5 MILES	G20-1	ROAD CONSTRUCTION NEXT 5 MILES	36 x 24	BLACK LTRS. ORANGE BKGRD.	AT EACH PROJECT TERMINUS	MEN WORKING	W21-1	MEN WORKING	24 x 24	BLACK LTRS. ORANGE BKGRD.	AS NEEDED	ROAD MACHINERY 500 FEET	W21-3	ROAD MACHINERY *500 FEET	24 x 24	BLACK LTRS. ORANGE BKGRD.	500 FT. FROM EACH END OF WORK AREA
END CONSTRUCTION	G20-2	END CONSTRUCTION	36 x 18	BLACK LTRS. ORANGE BKGRD.	AT EACH END OF PROJECT	FRESH OIL	W21-2	FRESH OIL	24 x 24	BLACK LTRS. ORANGE BKGRD.	AS NEEDED	SURVEY CREW	W21-6	SURVEY CREW	24 x 24	BLACK LTRS. ORANGE BKGRD.	AS NEEDED
DETOUR ➔	M4-10R M4-10L	DETOUR	36 x 12	BLACK LTRS. ORANGE BKGRD.	AS NEEDED	ROAD CONSTRUCTION 500 FEET	W20-1	ROAD CONSTRUCTION *500 FEET	30 x 30	BLACK LTRS. ORANGE BKGRD.	500 FT. BEFORE BEGINNING OF PROJECT	BLASTING ZONE 1000 FEET	W22-1	BLASTING ZONE *1000 FEET	30 x 30	BLACK LTRS. ORANGE BKGRD.	1000 FT. FROM EACH END OF BLASTING AREA
ROAD CLOSED	R11-2	ROAD CLOSED	30 x 18	BLACK LTRS. WHITE BKGRD.	AS NEEDED	ROAD CONSTRUCTION 500 FEET	W20-2	DETOUR *500 FEET	30 x 30	BLACK LTRS. ORANGE BKGRD.	500 FT. PRIOR TO EACH DETOUR	TURN OFF 2-WAY RADIO AND CELL PHONE	W22-2	TURN OFF 2-WAY RADIO AND CELL PHONE	30 x 27	BLACK LTRS. ORANGE BKGRD.	1000 FT. FROM EACH END OF BLASTING AREA
ROAD CLOSED 10 MILES AHEAD LOCAL TRAFFIC ONLY	R11-3	ROAD CLOSED *10 MILES AHEAD LOCAL TRAFFIC ONLY	36 x 18	BLACK LTRS. WHITE BKGRD.	10 MILES AHEAD OF CONSTRUCTION	DETOUR 500 FEET	W20-3	ROAD CLOSED *500 FEET	30 x 30	BLACK LTRS. ORANGE BKGRD.	500 FT. BEFORE BARRICADE	END BLASTING ZONE	W22-3	END BLASTING ZONE	30 x 27	BLACK LTRS. ORANGE BKGRD.	1000 FT. FROM EACH END OF BLASTING AREA
BE PREPARED TO STOP	W3-1c	BE PREPARED TO STOP	24 x 24	BLACK LTRS. ORANGE BKGRD.	AS NEEDED	ROAD CLOSED 500 FEET	W13-1	*35 MPH	13 x 13	BLACK LTRS. YELLOW BKGRD.	AS NEEDED	FLAGMAN 500 FEET	W20-7	FLAGMAN *500 FEET	30 x 30	BLACK LTRS. ORANGE BKGRD.	500 FT. BEFORE EACH FLAGMAN
TRUCK CROSSING	W8-6	TRUCK CROSSING	24 x 24	BLACK LTRS. ORANGE BKGRD.	AS NEEDED	35 MPH											
LOG TRUCKS	FW11-7	LOG TRUCKS	24 x 24	BLACK LTRS. ORANGE BKGRD.	AS NEEDED												

#### GENERAL SPECIFICATIONS:

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH: (a) THE STANDARD SPECIFICATIONS APPLICABLE TO THE PROJECT, AND (b) THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.
- WHERE TRAFFIC IS MAINTAINED THROUGH OR OVER ANY PART OF THE PROJECT, THE CONTRACTOR WILL BE REQUIRED TO MARK ALL HAZARDS WITHIN THE LIMITS OF THE PROJECT (INCLUDING CONNECTING ROADS) WITH WELL-MAINTAINED BARRICADES, WARNING, AND GUIDE SIGNS. ALL BARRICADES AND SIGNS SHALL BE MOVED, ADDED TO, CHANGED, OR REMOVED ENTIRELY WHEN THE PROJECT IS COMPLETED.
- WHERE TRAFFIC IS PROHIBITED FROM THE PROJECT, THE CONTRACTOR SHALL PROVIDE, ERECT, AND MAINTAIN SIGNS AND BARRICADES, COMPLETED, AT THE ENDS OF THE PROJECT.
- WORK ON THE PROJECT SHALL NOT BE STARTED UNTIL ALL REQUIRED SIGNS ARE IN PLACE AND APPROVED BY THE ENGINEER. WHERE SPEED CONTROL APPEARS NECESSARY SUCH SPEED CONTROL SHALL BE REQUESTED FROM THE ENGINEER BY THE CONTRACTOR. CONTROL OF SPEED THROUGH A CONSTRUCTION ZONE MAY BE ACHIEVED BY ADVISORY SPEED PLATES IN CONJUNCTION WITH WARNING SIGNS.
- ALL SIGNS AND BARRICADES SHALL BE PLACED FOR BEST VISIBILITY AND LEGIBILITY, MAINTAINED IN GOOD CONDITION AND KEPT CLEAN AND FREE OF DIRT AT ALL TIMES. CONTRACTOR'S AND ENGINEER'S VEHICLES AND EQUIPMENT MUST BE PARKED SO THAT SIGNS AND BARRICADES ARE VISIBLE TO APPROACHING TRAFFIC AT ALL TIMES.
- IN ALL CASES WARNING SIGNS ARE TO BE PLACED WELL IN ADVANCE OF THE HAZARD, THE DISTANCE DEPENDING ON TOPOGRAPHY AND EXISTING APPROACH SPEEDS.
- SIGNS WITH THE PREFIX "R" IN THE SIGN CODE ARE REGULATORY SIGNS AND AS SUCH IMPOSE LEGAL COMPELLSIONS OR RESTRICTION ON DRIVERS AND SHOULD ONLY BE USED AS AUTHORIZED BY THE ENGINEER.
- SIGNS WITH THE PREFIX "W" IN THE SIGN CODE ARE WARNING SIGNS AND ARE USED TO ALERT TRAFFIC TO EXISTING OR POTENTIALLY HAZARDOUS CONDITIONS.
- SIGNS WITH THE PREFIX "G" OR "M" IN THE SIGN CODE ARE GUIDE SIGNS. THOSE WITH THE PREFIX "G" CONVEY GENERAL INFORMATION AND THOSE WITH THE PREFIX "M" ARE USED FOR MARKING THE TRAFFIC ROUTE.
- ALL SIGNS SHALL BE REFLECTORIZED UNLESS OTHERWISE SPECIFIED ON THE PLANS AND/OR BY THE C.O. REGULATORY SIGNS (UNLESS OTHERWISE SPECIFIED) SHALL HAVE A SCREEN-PROCESSED BLACK LEGEND AND BORDER ON A WHITE FLEXIBLE REFLECTIVE SHEETING, NONEXPOSED LENS BACKGROUND. THE GUIDE AND WARNING SIGNS SHALL HAVE A SCREEN PROCESSED BLACK LEGEND AND BORDER ON AN ORANGE FLEXIBLE REFLECTIVE SHEETING, NONEXPOSED LENS BACKGROUND.
- POSTS FOR REGULATORY, WARNING, AND GUIDE SIGNS WILL NORMALLY BE 4" ROUND OR 4"x4" - S4S WOOD POSTS.
- SIGN PANELS FURNISHED BY THE CONTRACTOR FOR USE ONLY DURING CONSTRUCTION MAY BE FABRICATED FROM PLYWOOD, ALUMINUM, STEEL OR OTHER SUITABLE MATERIAL BUT SHALL BE STABLE AND DURABLE ENOUGH TO MEET OTHER REQUIREMENTS IN THIS STANDARD.
- ALL MATERIAL SHALL BE SOUND AND DURABLE. BARRICADES, SIGNS, SYMBOLS, AND LETTERING SHALL BE OF GOOD WORKMANSHIP. UNEVEN LETTERING WILL NOT BE ACCEPTED.
- ALTERNATE METHODS OF PROCESSING SIGNS OR THE SUBSTITUTION OF SYMBOLS OR OTHER REFLECTING ELEMENTS FOR PAINTED SYMBOLS WILL BE PERMITTED ONLY AFTER APPROVAL BY THE ENGINEER.
- SIGNS AND BARRICADES USED AS "TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION" ARE NOT TO BE PAID FOR SEPARATELY.



FLAGPERSON SIGNS