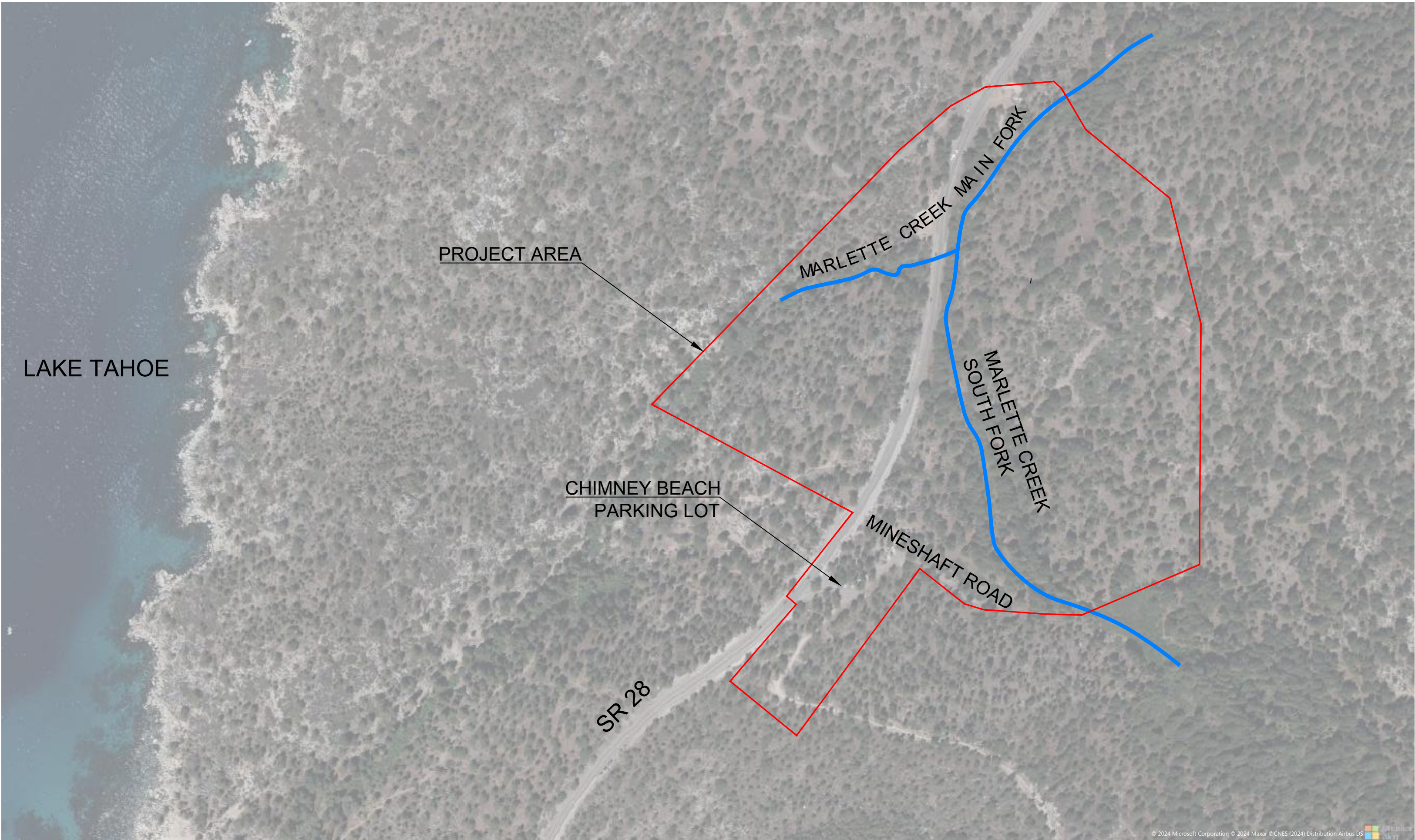


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UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE REGION FIVE
LAKE TAHOE BASIN MANAGEMENT UNIT
EIP PROJECT NO. 01.01.01.0177

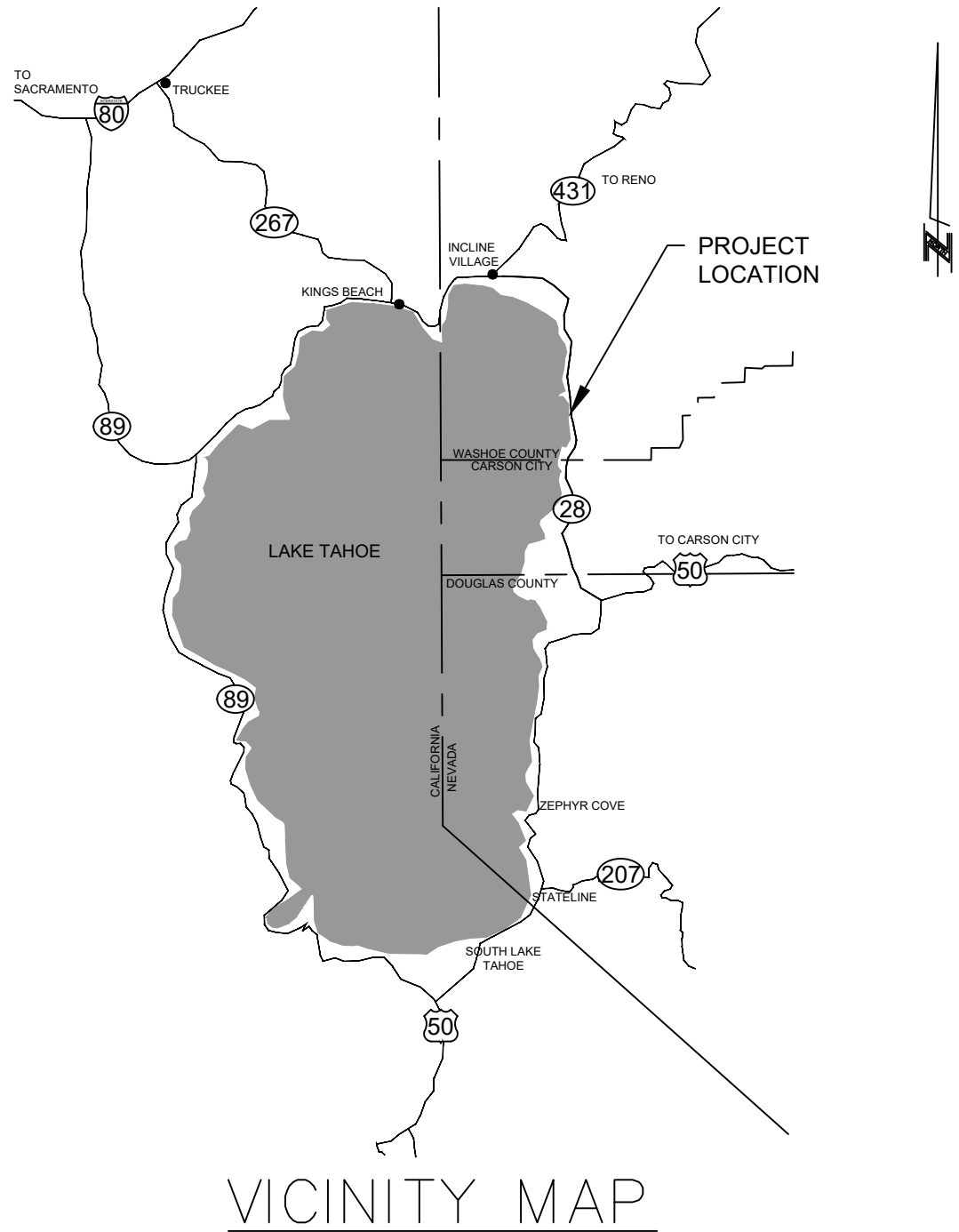
MARLETTE CREEK RESTORATION AND SR28 CROSSING
IMPROVEMENT PROJECT

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24	D9	DETAILS 9
25	L1	LANDSCAPING & REVEGETATION PLAN 1

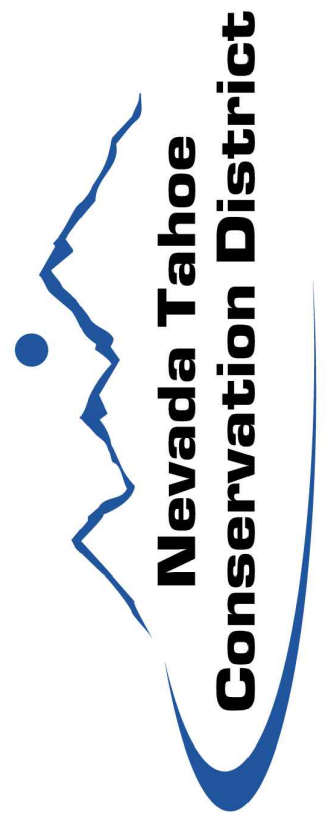


PROJECT LOCATION MAP
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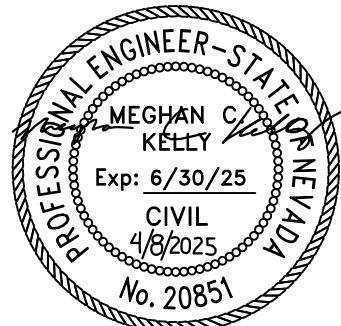
FOREST SERVICE ROAD 1201
WASHOE COUNTY, NEVADA



VICINITY MAP



TITLE SHEET
MARLETTE CREEK RESTORATION PROJECT



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PROJECT MARLETTE CREEK RESTORATION SHEET



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GENERAL NOTES

1. ALL IMPROVEMENTS SHALL BE ACCOMPLISHED UNDER THE APPROVAL, INSPECTION, AND TO THE SATISFACTION OF NEVADA TAHOE CONSERVATION DISTRICT (NTCD), THE UNITED STATES FOREST SERVICE (USFS) LAKE TAHOE BASIN MANAGEMENT UNIT (LTBMU), AND NEVADA DEPARTMENT OF TRANSPORTATION (NDOT). IMPROVEMENT CONSTRUCTION SHALL COMPLY WITH THESE PLANS, THE TECHNICAL PROVISIONS, AND THE 2024 FEDERAL PROJECTS FOR THE CONSTRUCTION OF ROADS AND BRIDGES ("STANDARD SPECIFICATIONS") AND NDOT 2024 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. THE CONTRACTOR IS OBLIGATED TO BE FAMILIAR WITH APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS NOT DISCUSSED IN THE GENERAL NOTES. THE CONTRACT SPECIAL TECHNICAL PROVISIONS SHALL SUPERSEDE THOSE OF THE STANDARD SPECIFICATIONS WHERE DISCREPANCIES OCCUR.
2. CONTRACTOR SHALL MAINTAIN A SET OF PLANS ON SITE SHOWING "AS CONSTRUCTED" CHANGES. UPON COMPLETION, CONTRACTOR SHALL SUPPLY USFS AND NTCD A SET OF "AS BUILT" PLANS.
3. MOBILIZATION AREAS ARE TO BE SECURED BY THE CONTRACTOR AND APPROVED BY TRPA IF OUTSIDE SHOWN PROJECT BOUNDARY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF MOBILIZATION SITES, INCLUDING PLACEMENT AND MAINTENANCE OF BMPS.
4. PRIOR TO STARTING WORK, THE CONTRACTOR SHALL INSTALL TEMPORARY BMP MEASURES AT LOCATIONS WHERE NEEDED TO CONTROL EROSION AND WATER POLLUTION DURING THE CONSTRUCTION OF THE PROJECT. THE BMP MEASURES SHALL REMAIN IN PLACE AND SHALL BE MAINTAINED IN A FUNCTIONAL CONDITION FOR THE DURATION OF THE CONSTRUCTION. SILT FENCE IS REQUIRED AT ALL CROSS DRAIN OUTLETS. SILT FENCE OR FIBER ROLLS WILL BE REQUIRED AT OTHER LOCATIONS AS SHOWN ON THE DRAWINGS OR STAKED IN THE FIELD BY THE ENGINEER. ALL EROSION CONTROL MEASURES SHALL MEET OR EXCEED TRPA REQUIREMENTS.
5. ALL EXISTING VEGETATION SHALL BE PRESERVED UNLESS SPECIFICALLY IDENTIFIED BY THE ENGINEER FOR REMOVAL. BMPS TO PROTECT VEGETATION SHALL BE INSTALLED BY THE CONTRACTOR IF REQUIRED BY TRPA. CONTRACTOR TO REVEGETATE ANY AREAS OUTSIDE THE DISTURBED AREA SHOWN ON THE PLANS WITH PLANTS APPROVED BY TRPA AT THEIR OWN EXPENSE.
6. NTCD WILL PROVIDE ONE SET OF CONSTRUCTION STAKES AS PART OF THE CONTRACT. ADDITIONAL CONSTRUCTION STAKES WILL BE PROVIDED AT THE CONTRACTOR'S EXPENSE. LIMITS FOR ALL ITEMS OF WORK SHALL BE STAKED IN THE FIELD BY THE ENGINEER. THESE LIMITS AND THE RESULTING TREATMENT LENGTH/AREAS MAY VARY FROM THOSE SHOWN ON THE DRAWINGS. PAYMENT FOR ITEMS OF WORK WILL BE MADE FOR THE AMOUNT AUTHORIZED BY THESE FIELD STAKED LIMITS AND THE SPECIAL TECHNICAL PROVISIONS.
7. UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. WHERE EXCAVATION IS NECESSARY, THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AND ALL AFFECTED UTILITY COMPANIES TO LOCATE ALL BURIED UTILITIES AT LEAST 48 HOURS PRIOR TO EXCAVATION. THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES FOR RELOCATION OF UTILITIES AS REQUIRED BY THE WORK. WHENEVER CONNECTIONS TO OR CLEARANCE FROM ANY UTILITY IS REQUIRED, THE CONTRACTOR SHALL POT HOLE TO VERIFY THE LOCATION, SIZE AND MATERIAL OF THE UTILITY PRIOR TO CONSTRUCTION.
8. THE COST OF REMOVAL AND/OR REPLACEMENT OF ANY DEFECTIVE WORK OR MATERIAL IS THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF RETESTING AND/OR INSPECTING OF REPLACED WORK AND MATERIAL IS ALSO THE RESPONSIBILITY OF THE CONTRACTOR. SUCH COSTS WILL BE DEDUCTED FROM ANY MONEYS DUE OR WHICH MAY BECOME DUE TO THE CONTRACTOR.
9. STANDARD WORK DAYS SHALL BE MONDAY THROUGH FRIDAY. SATURDAY AND SUNDAY MAY BE WORKED ON OCCASION ONLY TO MAKE UP FOR WEATHER DELAYS OR OTHER SCHEDULE DELAYS.
10. NOISE SHALL BE REDUCED BY THE MANDATORY USE OF MUFFLERS ON ALL CONSTRUCTION VEHICLES AND EQUIPMENT. NOISE GENERATING ACTIVITIES WILL BE LIMITED TO THE HOURS OF 8:00 AM TO 6:30 PM.
11. THE CONTRACTOR SHALL PROVIDE A WATER TRUCK TO WATER AREAS AS NECESSARY TO CONTROL DUST. THE CONTRACTOR WILL PROVIDE SWEEPING AT THE END OF EACH DAY.
12. ALL TREES AND NATURAL VEGETATION TO REMAIN ON THE SITE SHALL BE PROTECTED PER TRPA.
13. SOIL AND CONSTRUCTION MATERIAL SHALL NOT BE TRACKED OFF THE CONSTRUCTION SITE. GRADING OPERATIONS SHALL CEASE IN THE EVENT THAT A DANGER OF VIOLATING THIS CONDITION EXISTS.
14. DURING CONSTRUCTION ENVIRONMENTAL PROTECTION DEVICES, SUCH AS EROSION CONTROL, DUST CONTROL, AND VEGETATION PROTECTION DEVICES SHALL BE MAINTAINED AT ALL TIMES.
15. LOOSE SOIL MOUNDS OR SURFACES SHALL BE PROTECTED FROM WIND OR WATER EROSION BY BEING APPROPRIATELY COVERED WHEN CONSTRUCTION IS NOT IN ACTIVE PROGRESS OR WHEN REQUIRED BY TRPA.
16. EXCAVATED MATERIAL SHALL BE STORED UPGRADIENT FROM THE EXCAVATED AREA WHENEVER POSSIBLE. NO MATERIAL SHALL BE STORED IN ANY STREAM ENVIRONMENT ZONE (SEZ) OR WET AREA.
17. ONLY EQUIPMENT OF A SIZE AND TYPE THAT WILL DO THE LEAST AMOUNT OF DAMAGE, UNDER PREVAILING SITE CONDITIONS, AND CONSIDERING THE NATURE OF THE WORK TO BE PERFORMED, WILL BE USED.
18. NO WASHING OF VEHICLES OR HEAVY EQUIPMENT, INCLUDING CEMENT MIXERS, SHALL BE PERMITTED ANYWHERE ON THE SUBJECT PROPERTY UNLESS AUTHORIZED BY TRPA IN WRITING.
19. ALL CONSTRUCTION SHALL BE WINTERIZED BY OCTOBER 15 TO REDUCE THE WATER QUALITY IMPACTS ASSOCIATED WITH WINTER WEATHER.
20. THE CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATE ON, PAVED ROADS, PARKING AREAS, AND ASSOCIATED SHOULDERS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT.
21. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED LAHONTAN REGIONAL WATER QUALITY CONTROL BOARD:
22. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LONGER THEN 24 HOURS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS BEEN TEMPORARILY OR PERMANENTLY CEASED.
23. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMP'S WEEKLY, PRIOR TO A FORECASTED RAIN EVENT AND WITHIN 24 HOURS AFTER ANY ACTUAL RAIN EVENT. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS FROZEN GROUND CONDITIONS OF SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE SWPPP.
24. TRAFFIC CONTROL AND LANE CLOSURES WILL BE PER NDOT ENCROACHMENT PERMIT AND MUTCD STANDARDS.

ABBREVIATIONS

NOT ALL ABBREVIATIONS LISTED ARE USED IN THESE PLANS			
A.B.	AGGREGATE BASE	NTCD	NEVADA TAHOE CONSERVATION DISTRICT
AC.	ACRE	N.T.S.	NOT TO SCALE
A.C.	ASPHALT CONCRETE	NO.	NUMBER
@	AT	OC	ON CENTER
APPROX.	APPROXIMATE	OG	ORIGINAL GRADE
AVG.	AVERAGE	OH(E/T)	OVERHEAD ELECTRIC OR TELEPHONE LINES
AWWA	AMERICAN WATER WORKS ASSOCIATION	±	PLUS OR MINUS
BC	BEGIN CURVE	P	PIPE
C&G	CURB AND GUTTER	PT.	POINT
CATV	CABLE TELEVISION	PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT
C.B.	CATCH BASIN	PC	POINT OF CURVATURE
CL	CENTERLINE	PI	POINT OF INFLECTION
CLR.	CLEAR	PIP	PROTECT IN PLACE
CO.	CLEAN OUT	PVC	POLYVINYL CHLORIDE
CONST.	CONSTRUCT	PVMT	PAVEMENT
CF	CUBIC FEET	POC	POINT ON CURVE
CMP	CORRIGATED METAL PIPE	POS	POSITIVE
CY	CUBIC YARD	PRC	POINT OF REVERSE CURVE
D.G.	DECOMPOSED GRANITE	PSI	POUNDS PER SQUARE INCH
DEG	DEGREE(S)	PL	PROPERTY LINE
DI	DROP INLET	PO	PUSH ON
DIA.	DIAMETER	PUE	PUBLIC UTILITY EASEMENT
DR	DIMENSION RATIO	R	RADIUS
DWG	DRAWING	RCP	REINFORCED CONCRETE PIPE
DW, DWY	DRIVEWAY	REVEG	REVEGETATION
EA.	EACH	RLC	ROCK LINED CHANNEL
EASE.	EASEMENT	RT,R	RIGHT
EQ	EXISTING GRADE	RWQCB	REGIONAL WATER QUALITY CONTROL BOARD
ELEC	ELECTRIC	R/W, W	RIGHT-OF-WAY
EP	EDGE OF PAVEMENT	SS	SANITARY SEWER, STAINLESS STEEL
ELEV.	ELEVATION	SSCO.	SANITARY SEWER CLEAN OUT
EC	END CURVE	SSMH	SANITARY SEWER MANHOLE
EX.	EXISTING	S	SLOPE
FG	FINISH GRADE	SOUTH	SOUTH
FH	FIRE HYDRANT	SF	SQUARE FOOT/FEET, SOUTH FORK
FCA	FLANGE COUPLER ADAPTER	SHT	SHEET
FES	FLARED END SECTION (METAL)	SN	SNAG
FL	FLOWLINE	STD	STANDARD
FLG	FLANGED	SDR	STANDARD DIMENSION RATIO
FP	FLOODPLAIN	SSPWC	STANDARD SPECIFICATIONS FOR PUBLIC WORKS
FT.	FOOT, FEET	STA	STATION
FTG	FOOTING	SD	STORM DRAIN
FV	FLUSH VALVE	SDMH	STORM DRAIN MANHOLE
°	DEGREE	TBC	TOP BACK OF CURB
G	GAS	TOC	TOP OF CURB
GV	GATE VALVE	TRPA	TAHOE REGIONAL PLANNING AGENCY
GB	GRADE BREAK	TW	TOP OF WALL
HDPE	HIGH DENSITY POLYETHYLENE	TYP	TYPICAL
HDPE-NP	NON-PERFORATED HIGH DENSITY POLYETHYLENE	UGE	UNDERGROUND ELECTRIC LINES
HDPE-P	PERFORATED HIGH DENSITY POLYETHYLENE	UGT	UNDERGROUND TELEPHONE LINES
HP	HIGH POINT	USFS	UNITED STATES FOREST SERVICE
HOR., HORIZ.	HORIZONTAL	VC	VERTICAL CURVE
IN.	INCH	VG	VALLEY GUTTER
IE	INVERT ELEVATION	VPC	VERTICAL POINT OF CURVATURE
IRR.	IRRIGATION	VPI	VERTICAL POINT OF INFLECTION
L	LEFT	VPT	VERTICAL POINT OF TANGENT
LEN.	LENGTH	W	WATER
LF	LINEAR FEET	WL	WATERLINE
LID	LOW IMPACT DEVELOPMENT	W	WEST
LP	LOW POINT	W/	WITH
LS	LUMP SUM	WM	WATER METER
MF	MAIN FORK		
MH	MANHOLE		
MAX.	MAXIMUM		
MDD	MAXIMUM DRY DENSITY		
MJ	MECHANICAL JOINT		
MI.	MILE		
MIN.	MINIMUM		
MISC.	MISCELLANEOUS		
N	NORTH		
N.I.C.	NOT IN CONTRACT		

UTILITIES

CABLE TELEVISION	CHARTER COMMUNICATIONS, (775) 588-1077
NATURAL GAS	SOUTHWEST GAS, (877) 860-6022
ELECTRIC	NV ENERGY, (775) 834-4444
STORM DRAIN	NEVADA DEPARTMENT OF TRANSPORTATION (775) 888-7771
SEWER AND WATER	INCLINE VILLAGE GENERAL IMPROVEMENT DISTRICT, (775) 832-1203
PHONE	ATT, (800) 288-2020
USA DIGS	(800) 642-2444 OR 811

HORIZONTAL AND VERTICAL PROJECTION

VERTICAL CONTROL IS ASSUMED; HORIZONTAL CONTROL IS NEVADA STATE PLANE, NAD 83, ZONE WEST (U.S. FEET)

LEGEND

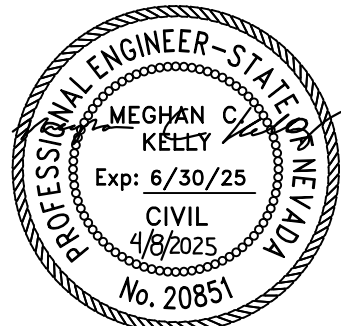
NOTE: LEGENDS PROVIDED ON INDIVIDUAL PLAN SHEETS OVERRIDES THIS LEGEND

EXISTING	PROPOSED
MAJOR CONTOUR	MAJOR CONTOUR
MINOR CONTOUR	MINOR CONTOUR
EXISTING MAJOR CONTOUR LABEL	MAJOR CONTOUR LABEL
EXISTING ALIGNMENT	CENTERLINE ALIGNMENT
EXISTING GRADE (SECTION VIEW)	GRADING DAYLIGHT LINE
RIGHT OF WAY	FLOODPLAIN BOUNDARY
EXISTING GUARDRAIL	MAINTAIN EX. STREAM CHANNEL
EDGE OF PAVEMENT	
CULVERT	REMOVE TREE
CATCH BASIN	PLACE BOULDER
DRAINAGE PATH	DEWATERING DITCH
TREE - (DIAMETER) PINE	CONSTRUCTION ACCESS ROUTE
CONCRETE	CONSTRUCTION STAGING AREA
CONTROL POINT	ROCK
	DEWATERING DISCHARGE ZONE
	CONSTRUCTION LIMIT FENCE
	PIPE SIZE
	DEWATERING COFFER DAM

- SECTION OR DETAIL IDENTIFICATION
- NUMBER OF SHEET ON WHICH SECTION OR DETAIL IS DRAWN
- SECTION OR DETAIL IDENTIFICATION
- SYMBOL FOR DETAIL ON THE SAME SHEET



NOTES, ABBREVIATIONS, AND NLA
MARLETTE CREEK RESTORATION PROJECT

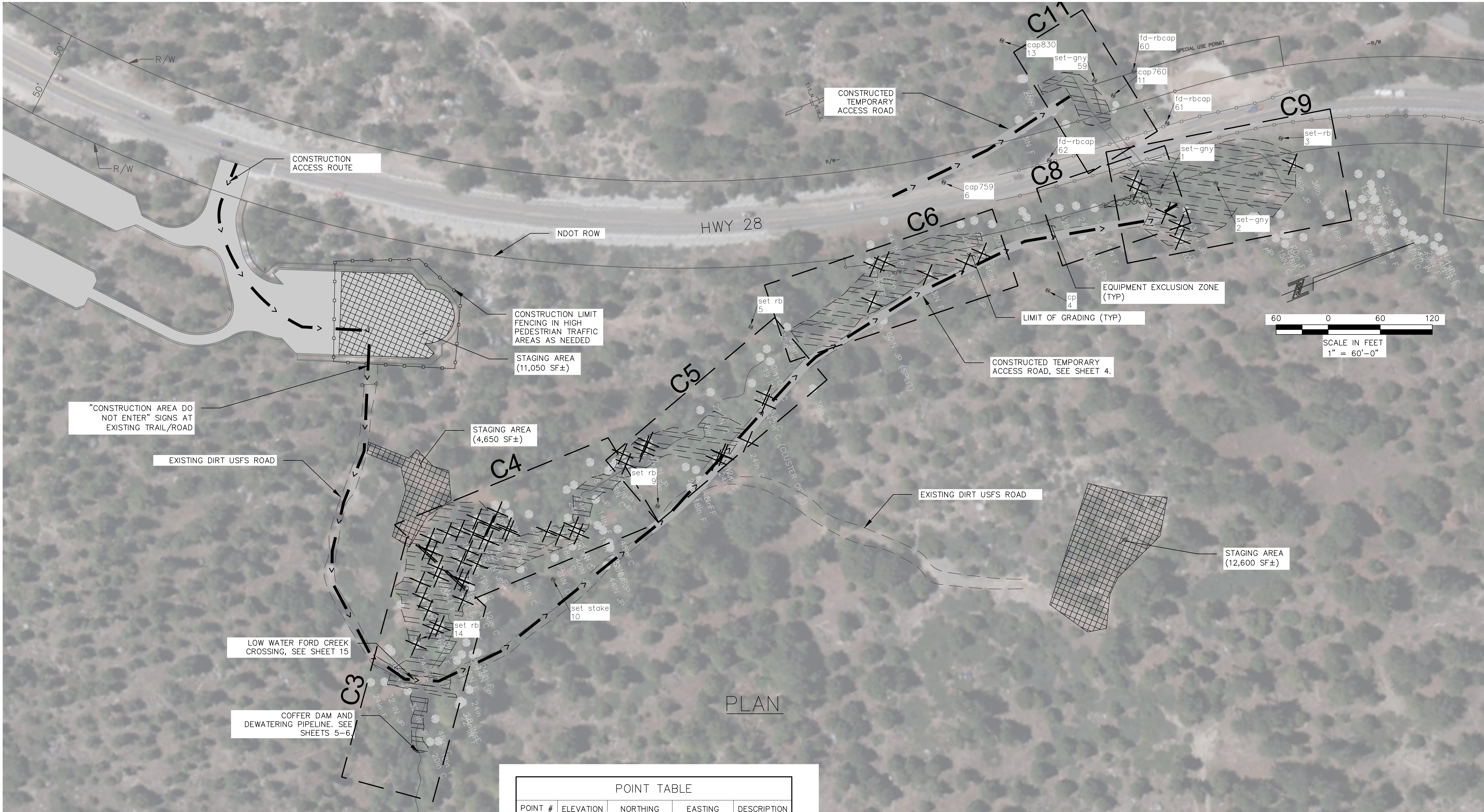


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PLAN

TREE REMOVAL	
SPECIES (DBH)	QTY
PINE (12"-29")	9
PINE (30"-36")	6
PINE (38")	1
FIR (12"-29")	36
FIR (30"-36")	3
FIR (46")	1
TOTAL	56

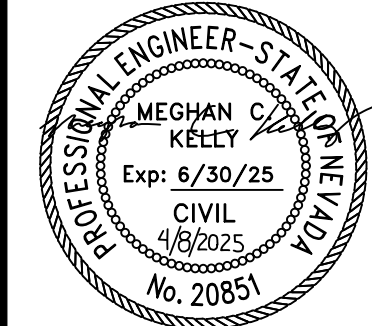
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POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
1	6388.40	14739316.390	2244736.570	set-gny
2	6391.88	14739380.860	2244751.161	set-gny
3	6397.27	14739469.430	2244730.492	set-rb
4	6418.58	14739155.080	2244794.071	cp
5	6416.23	14738821.610	2244706.629	set rb
6	6408.82	14739089.960	2244633.851	cap759
9	6421.34	14738645.450	2244858.834	set rb
10	6427.21	14738502.410	2244892.725	set stake
11	6385.50	14739308.200	2244613.426	cap760
13	6384.20	14739212.510	2244506.873	cap830
14	6432.12	14738332.970	2244899.472	set rb
59	6382.54	14739294.788	2244589.218	set-gny
60	6395.33	14739340.415	2244596.096	fd-rbcap
61	6403.37	14739354.370	2244665.755	fd-rbcap
62	6404.46	14739212.010	2244655.510	fd-rbcap

GRADING SUMMARY - MARLETTE SOUTH FORK REALIGNMENT	
CUT (BANK) = 1,320 CY	
FILL = 750 CY	
NET = 570 CY FILL	
GRADING DISTURBANCE = 40,000 SF	
GRADING SUMMARY - MARLETTE MAIN FORK UPSTREAM OF CULVERT	
CUT (BANK) = 1,030CY	
FILL = 260 CY	
NET = 770 CY CUT (BANK)	
GRADING DISTURBANCE = 15,500 SF	
GRADING SUMMARY - MARLETTE DOWNSTREAM STEP POOLS	
CUT (BANK) = 5 CY	
FILL = 70 CY	
NET = 65 CY FILL	
GRADING DISTURBANCE = 1,220 SF	

GRADING SUMMARY - ENTIRE PROJECT	
GRADING QUANTITIES (TO FG):	
CUT (BANK) = 2,355 CY	
FILL = 1,080 CY	
NET = 1,275 CY CUT	
GRADING DISTURBANCE = 56,700 SF	

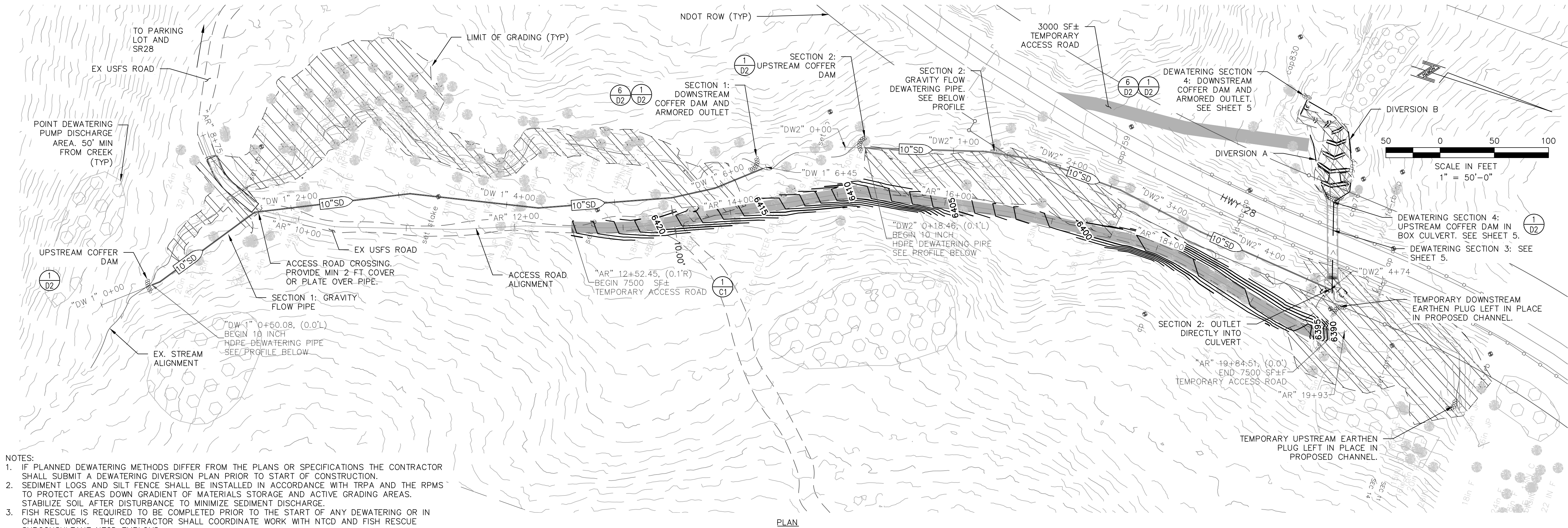


CONSTRUCTION STAGING AND CLEARING
MARLETTE CREEK RESTORATION PROJECT



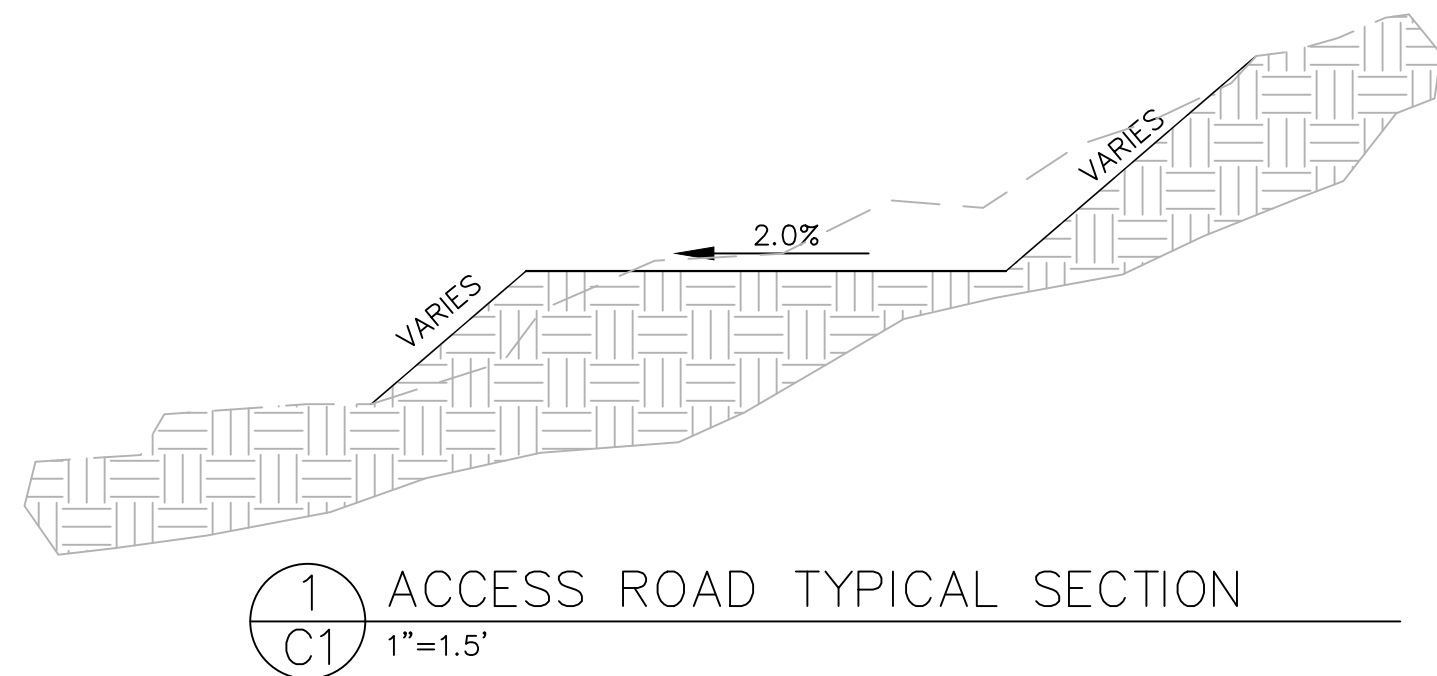
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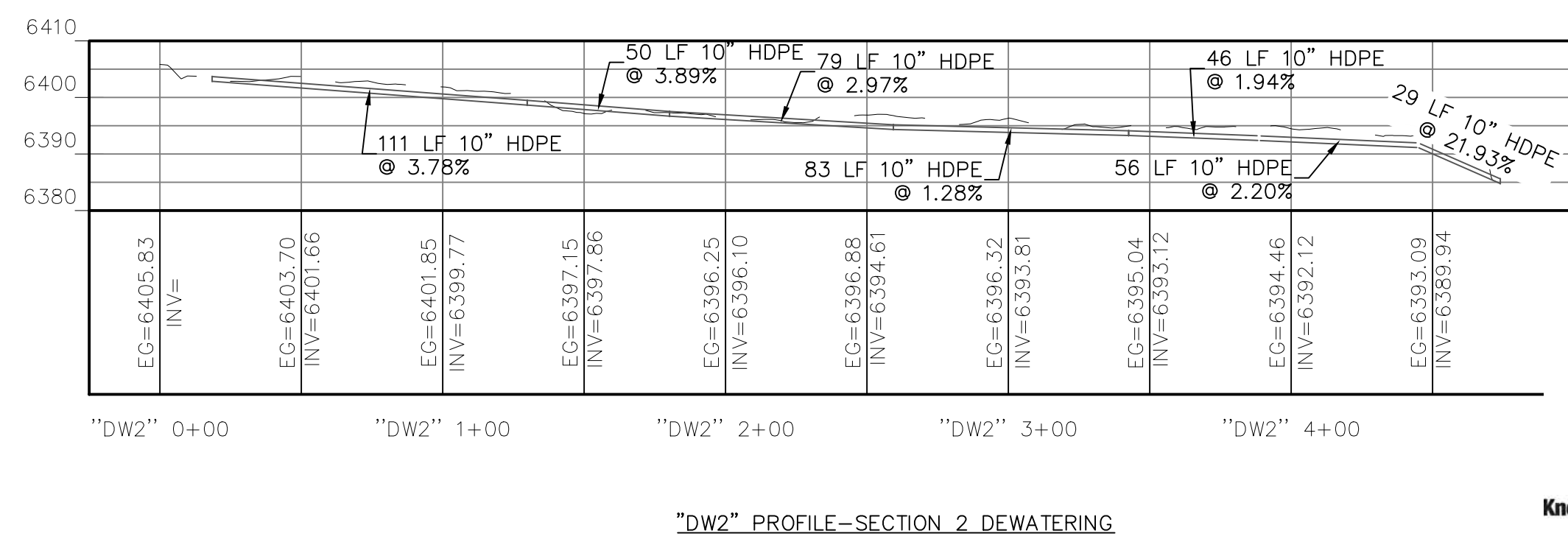
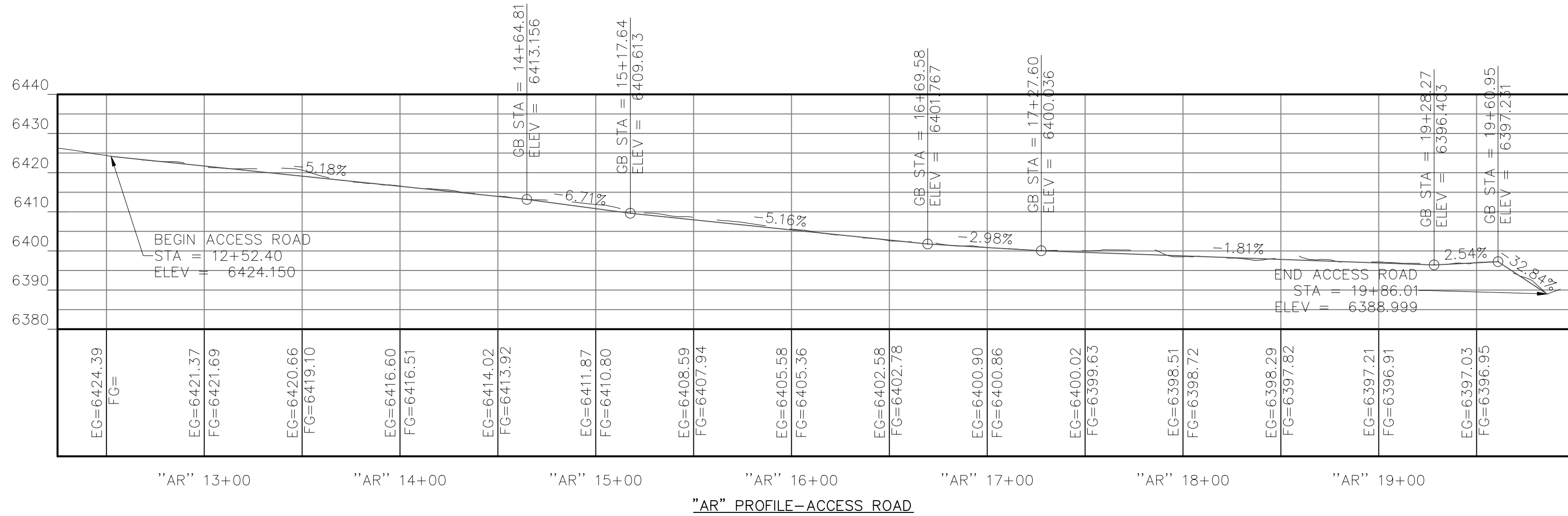
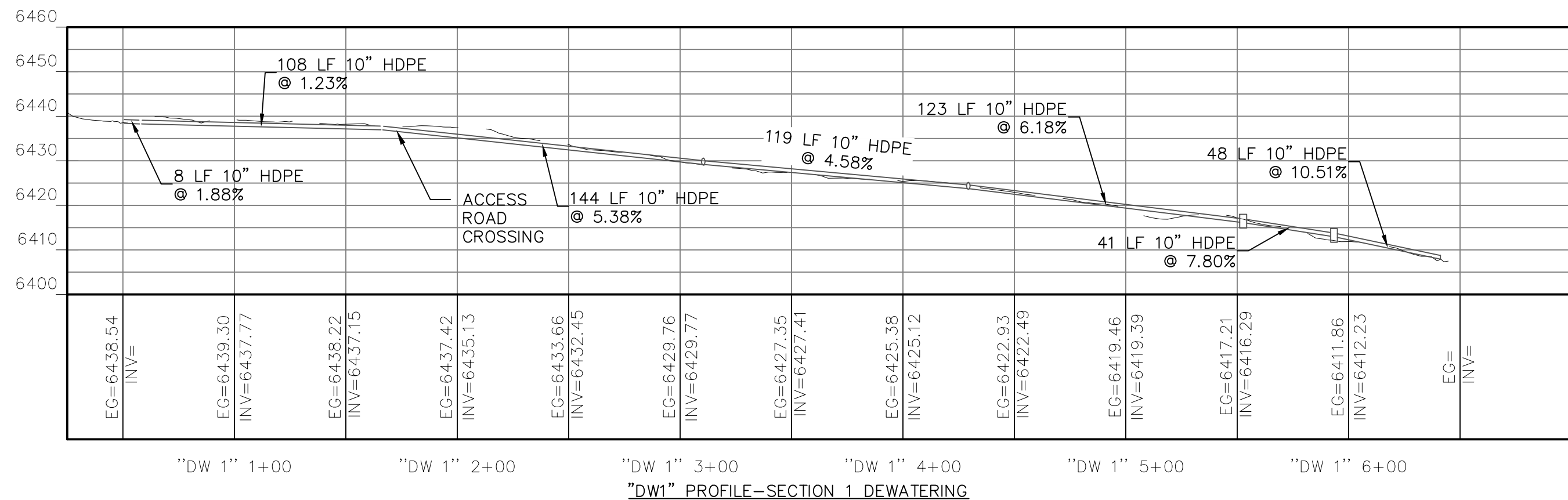


- NOTES:
- IF PLANNED DEWATERING METHODS DIFFER FROM THE PLANS OR SPECIFICATIONS THE CONTRACTOR SHALL SUBMIT A DEWATERING DIVERSION PLAN PRIOR TO START OF CONSTRUCTION.
 - SEDIMENT LOGS AND SILT FENCE SHALL BE INSTALLED IN ACCORDANCE WITH TRPA AND THE RPMS TO PROTECT AREAS DOWN GRADIENT OF MATERIALS STORAGE AND ACTIVE GRADING AREAS. STABILIZE SOIL AFTER DISTURBANCE TO MINIMIZE SEDIMENT DISCHARGE.
 - FISH RESCUE IS REQUIRED TO BE COMPLETED PRIOR TO THE START OF ANY DEWATERING OR IN CHANNEL WORK. THE CONTRACTOR SHALL COORDINATE WORK WITH NTCD AND FISH RESCUE SUBCONSULTANT NTCD EMPLOYEES.

PLAN

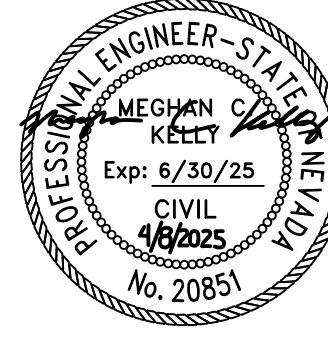


- NOTES:
- ROAD SECTION IS A SUGGESTED TYPICAL DETAIL, CONTRACTOR CAN DETERMINE AT THEIR DISCRETION NECESSARY ACCESS ROAD IMPROVEMENTS AND EXTENTS. ACCESS ROAD IMPROVEMENT LIMITS SHOWN ARE AN ESTIMATE BASED ON THE TYPICAL SECTION ABOVE AND ACCESS ROAD PROFILE.
 - CONTRACTOR SHALL RESTORE ALL EXISTING DISTURBED DIRT ROADS AND CONSTRUCTED TEMPORARY ACCESS ROADS TO THE ORIGINAL GRADES AND CONDITION PRIOR TO FINAL COMPLETION.



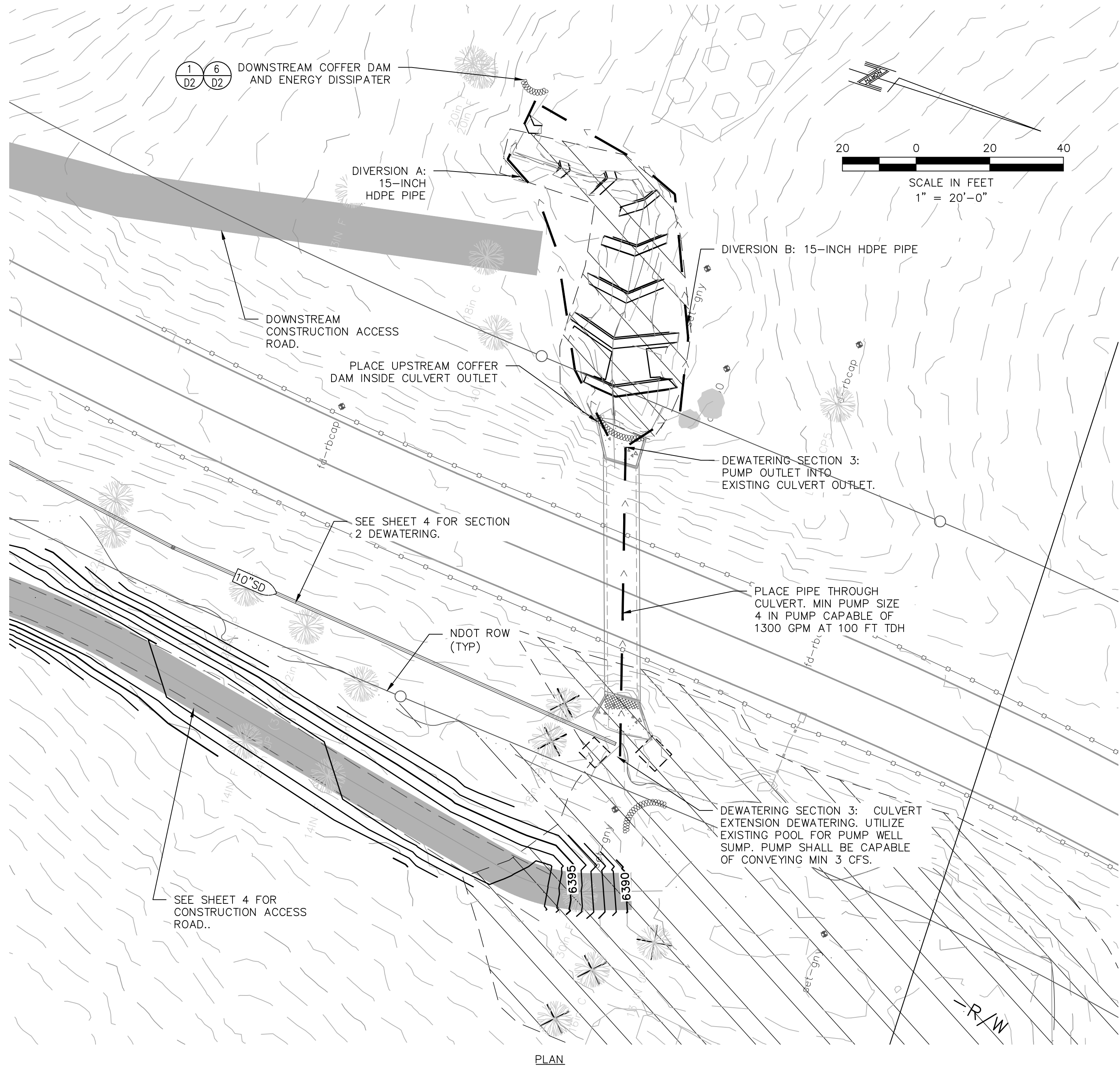
DEWATERING AND ACCESS 1

MARLETTE CREEK RESTORATION PROJECT



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NOTES:

1. DEWATERING DURING THE DOWNSTREAM CHANNEL IMPROVEMENTS MAY REQUIRE RELOCATING DEWATERING PIPES TO THE OPPOSITE SIDE OF THE CHANNEL (DEWATERING A AND B) TO GAIN UNOBSTRUCTED ACCESS TO EACH SIDE. CONTRACTOR SHALL FINALIZE IMPROVEMENTS ON ONE SIDE PRIOR TO RELOCATING DEWATERING PIPES.
2. THE CONTRACTOR MAY PROPOSE ALTERNATIVE DEWATERING METHODS. ALL DEWATERING METHODS SHALL BE APPROVED BY THE ENGINEER PRIOR TO START OF CONSTRUCTION.
3. SEDIMENT LOGS AND SILT FENCE SHALL BE INSTALLED IN ACCORDANCE WITH TRPA AND THE RPMS TO PROTECT AREAS DOWN GRADIENT OF MATERIALS STORAGE AND ACTIVE GRADING AREAS. STABILIZE SOIL AFTER DISTURBANCE TO MINIMIZE SEDIMENT DISCHARGE.
4. FISH RESCUE IS REQUIRED TO BE COMPLETED PRIOR TO THE START OF ANY DEWATERING OR IN CHANNEL WORK. THE CONTRACTOR SHALL COORDINATE WORK WITH NTCD AND FISH RESCUE SUBCONSULTANT NTCD EMPLOYS.

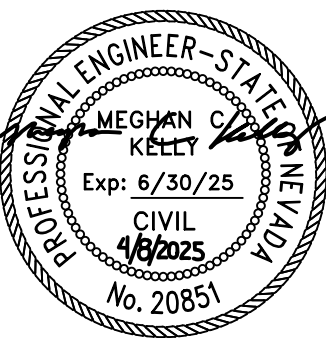


Know what's below.
Call before you dig.

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PROJECT	MARLETTE CREEK RESTORATION
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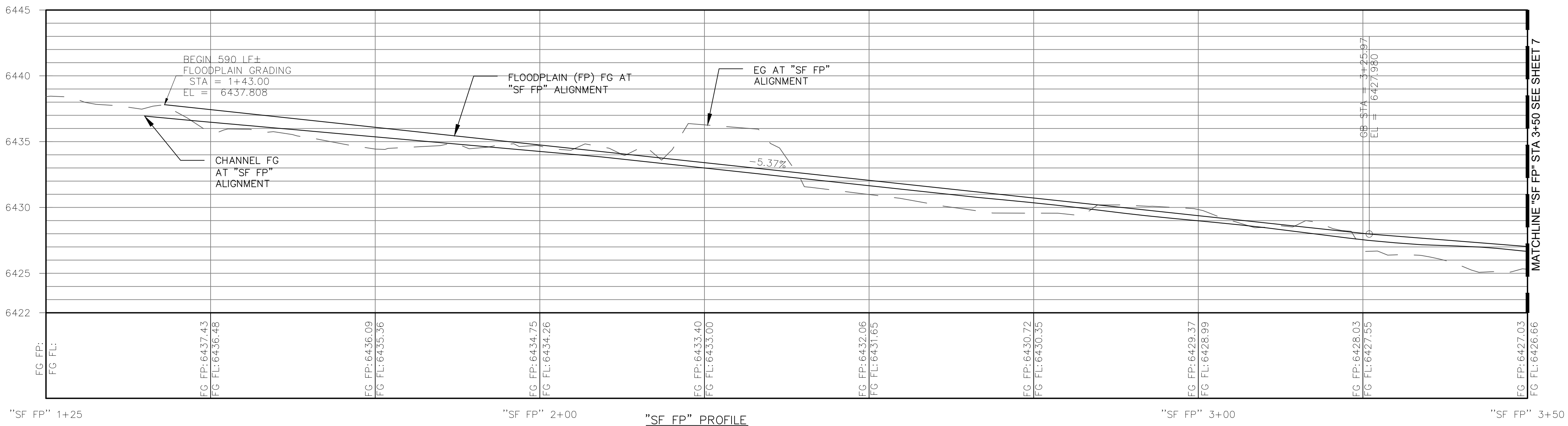
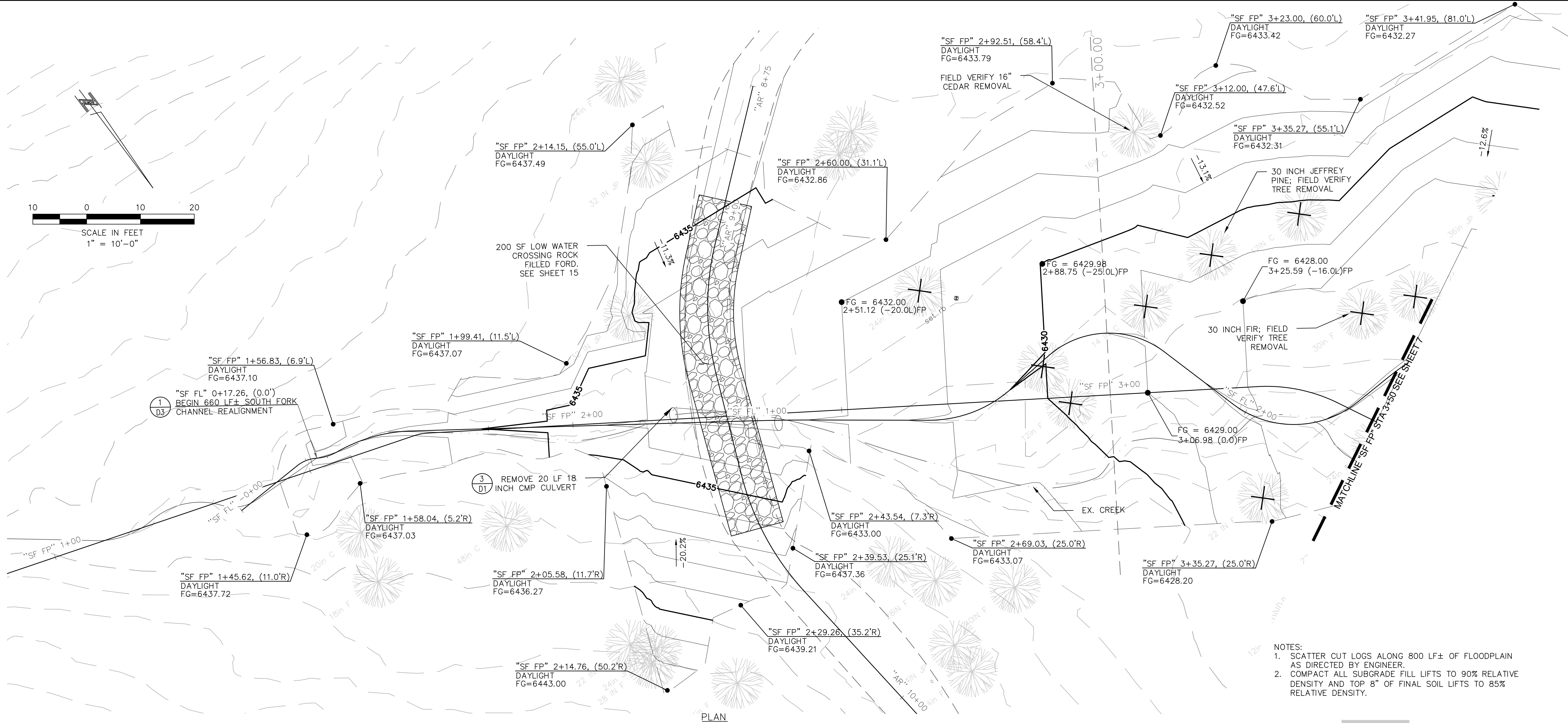
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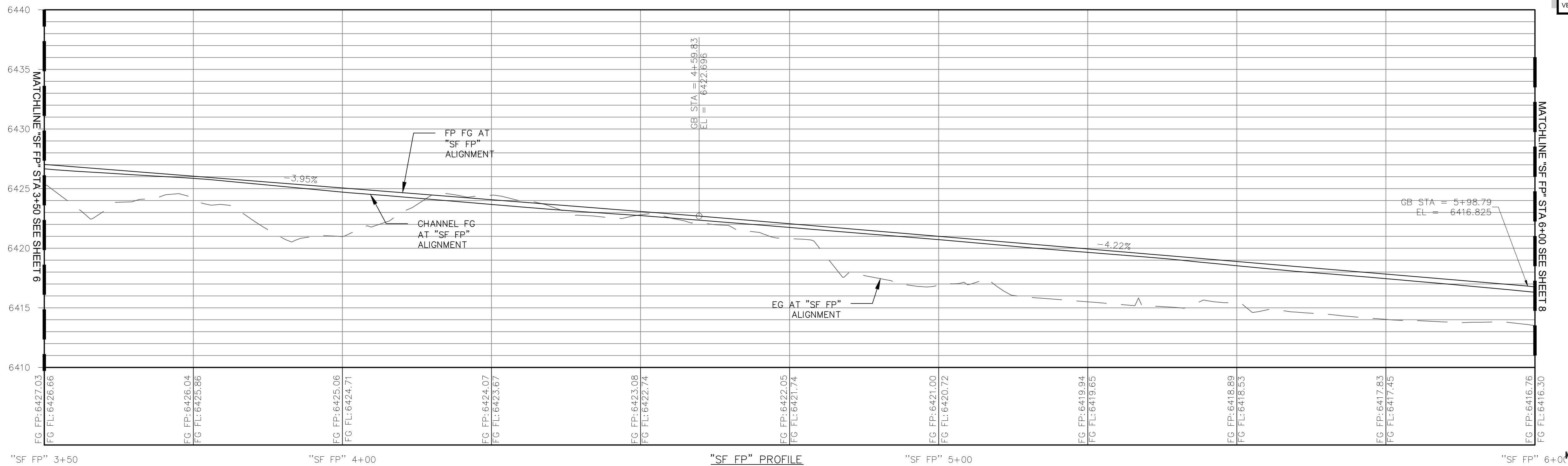
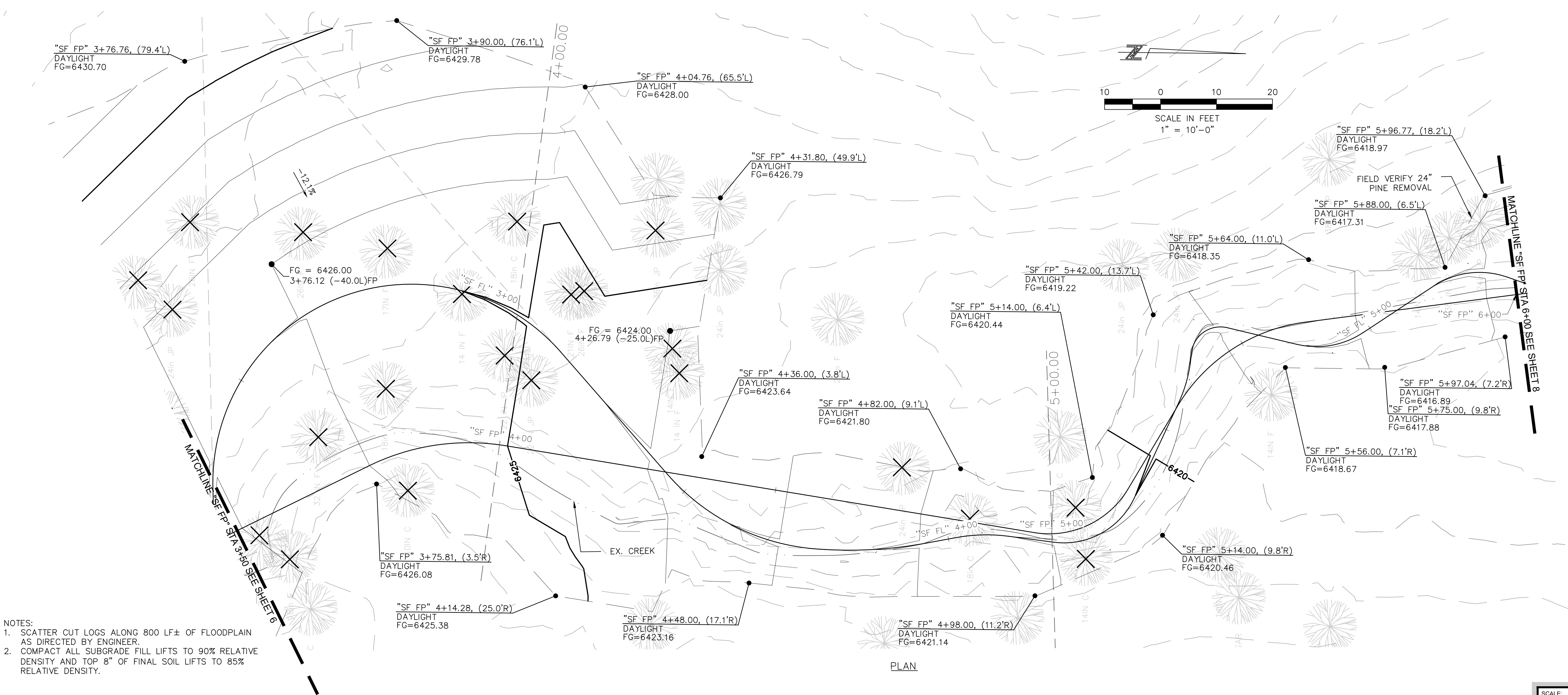
DEWATERING AND ACCESS 2
MARLETTE CREEK RESTORATION PROJECT

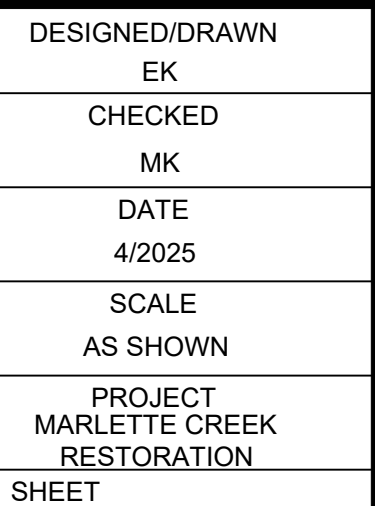


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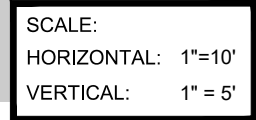
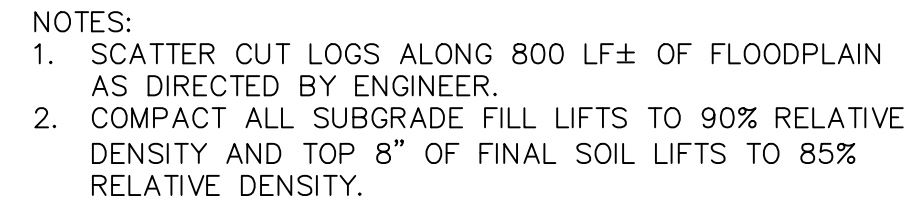




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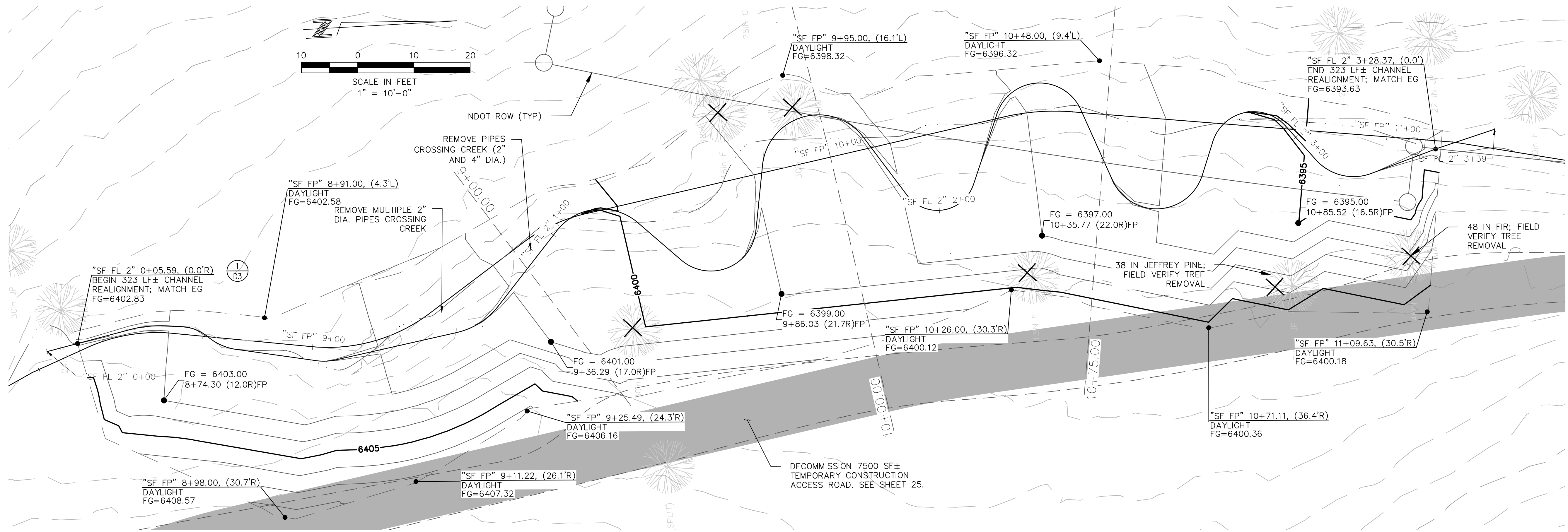


Know what's **below**.
Call before you dig.



"SF-FP" PROFILE

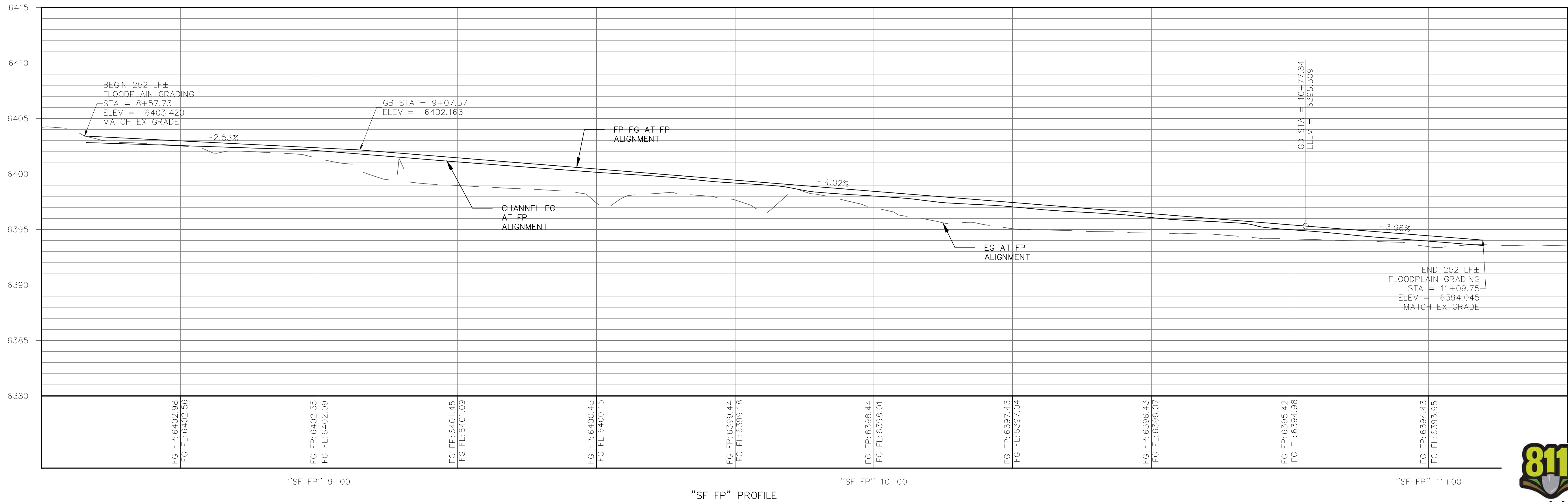
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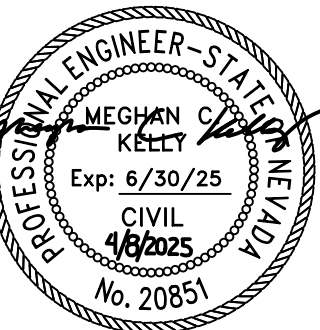
- NOTES:
1. SCATTER CUT LOGS ALONG 800 LF± OF FLOODPLAIN AS DIRECTED BY ENGINEER.
 2. COMPACT ALL SUBGRADE FILL LIFTS TO 90% RELATIVE DENSITY AND TOP 8" OF FINAL SOIL LIFTS TO 85% RELATIVE DENSITY.

PLAN

SCALE:
HORIZONTAL: 1"=10'
VERTICAL: 1"=5'

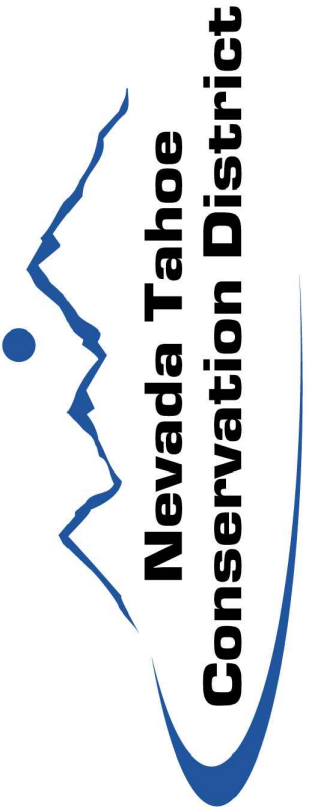


SOUTH FORK 4 - PLAN AND PROFILE
MARLETTE CREEK RESTORATION PROJECT

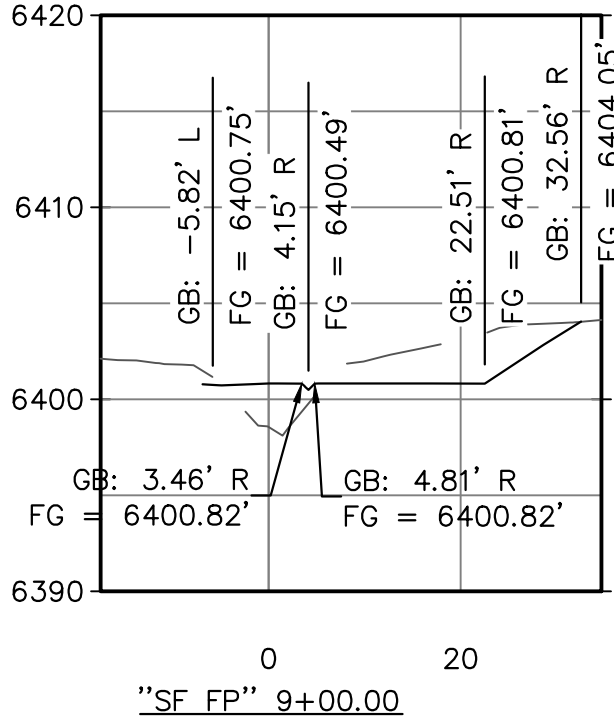
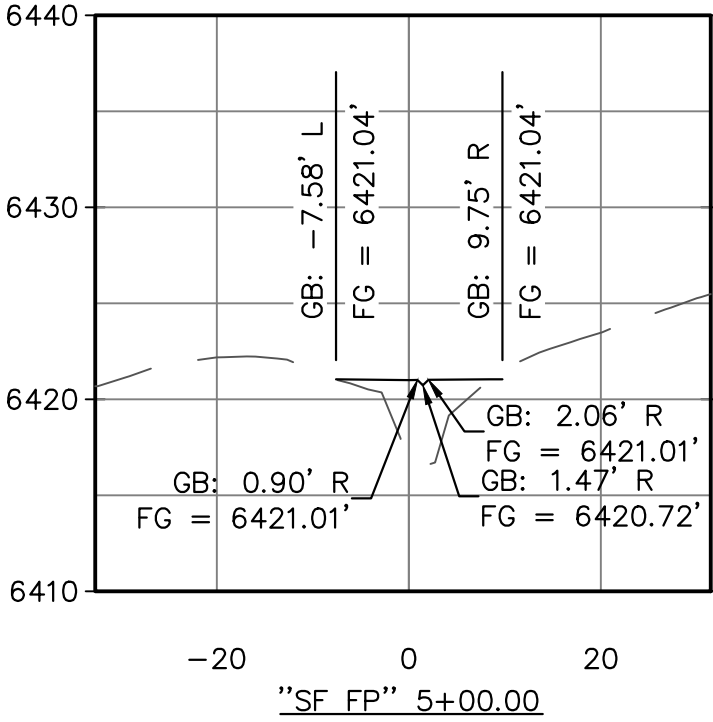
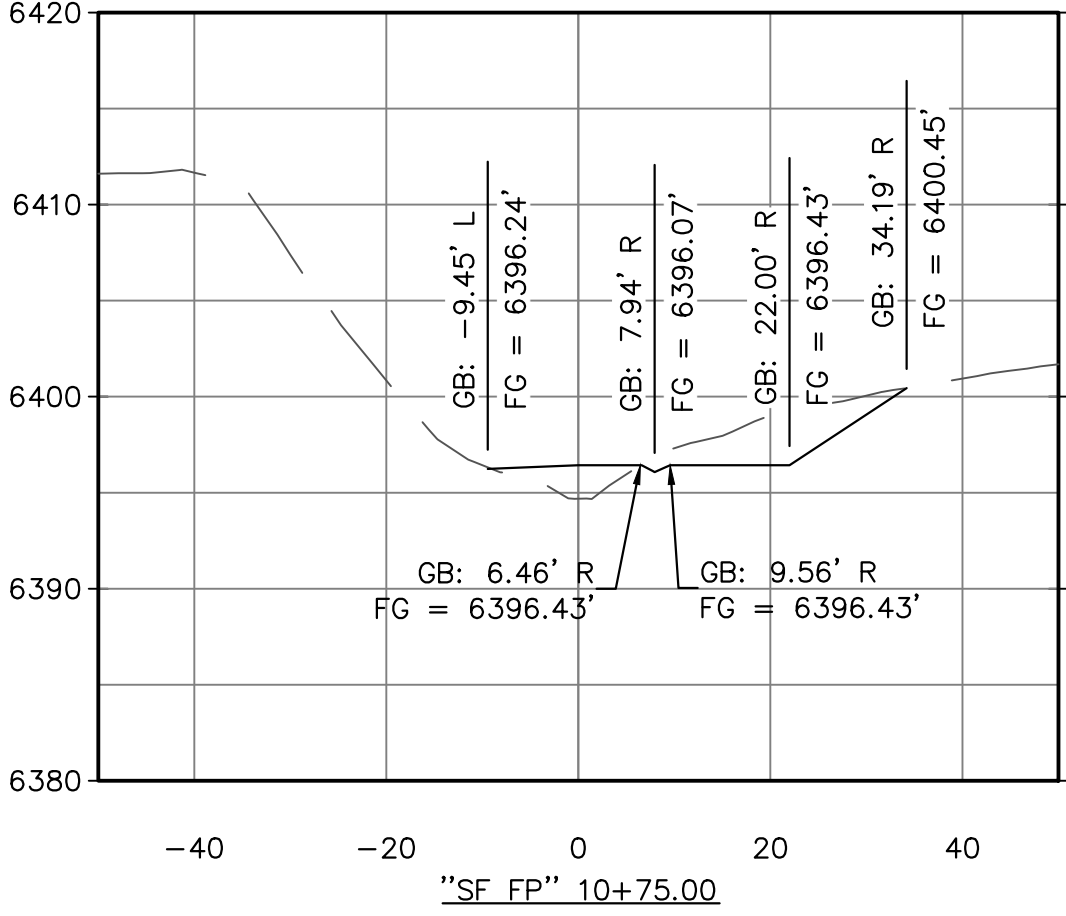
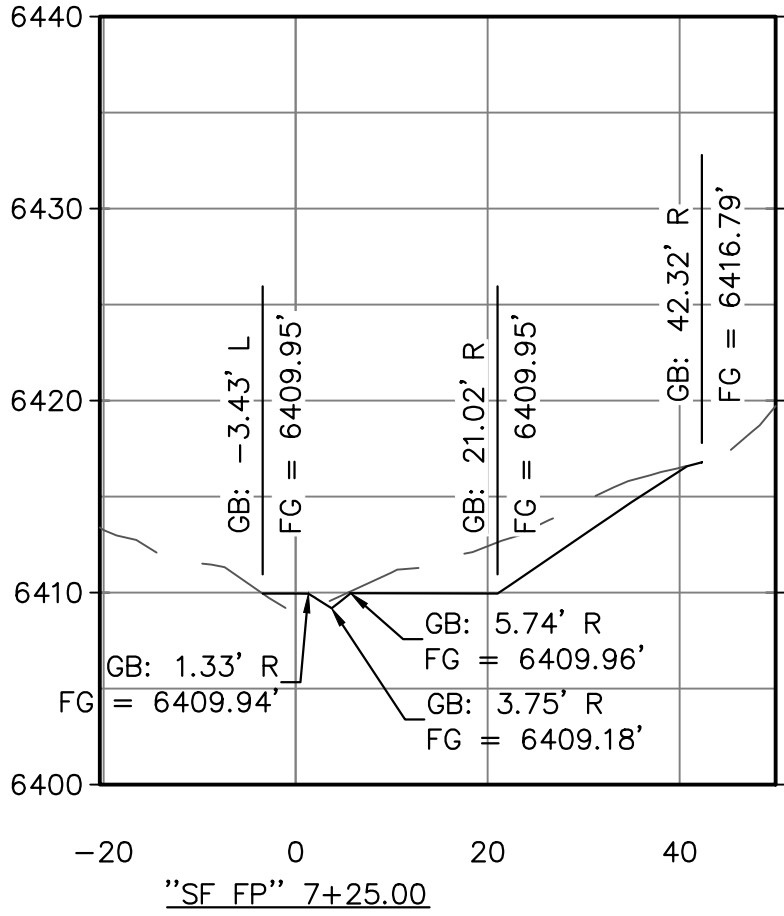
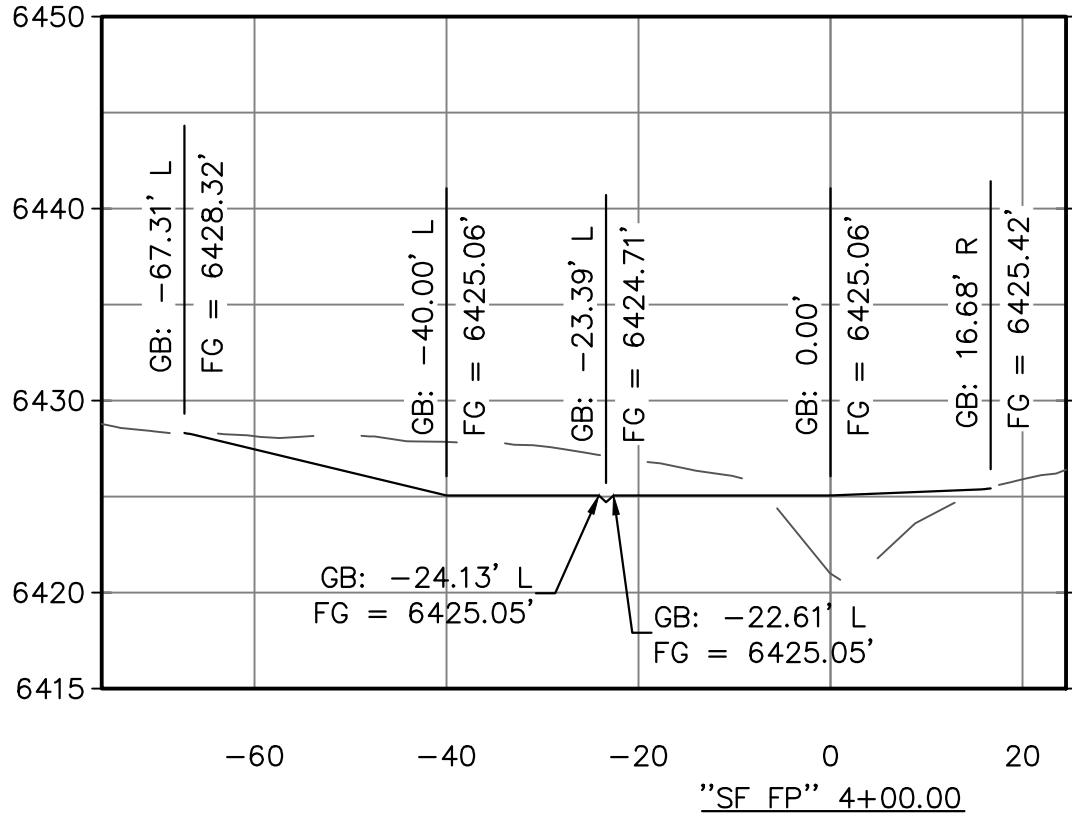
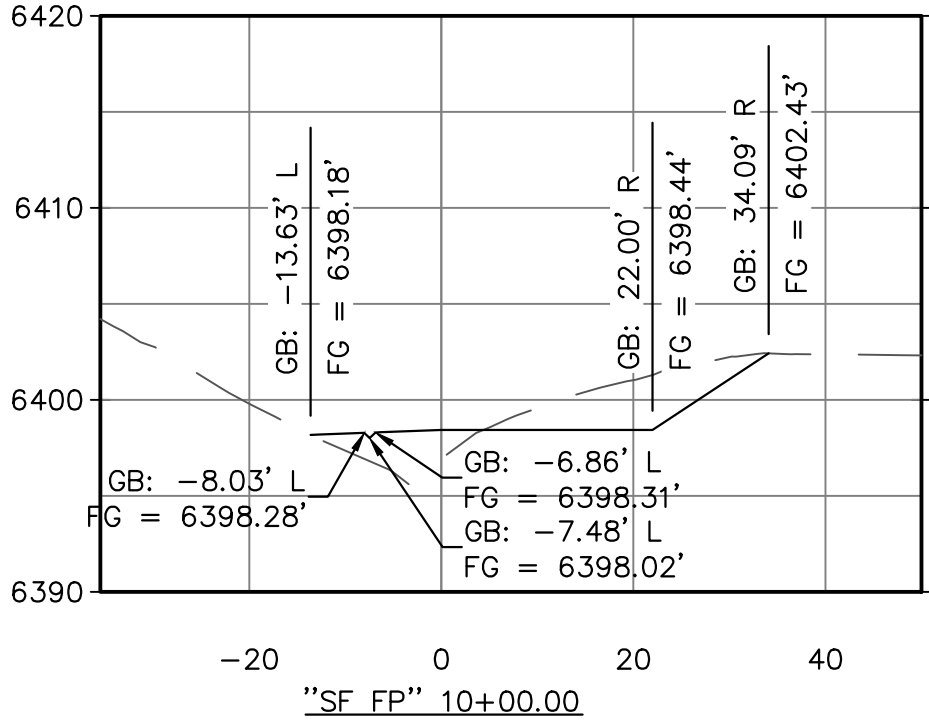
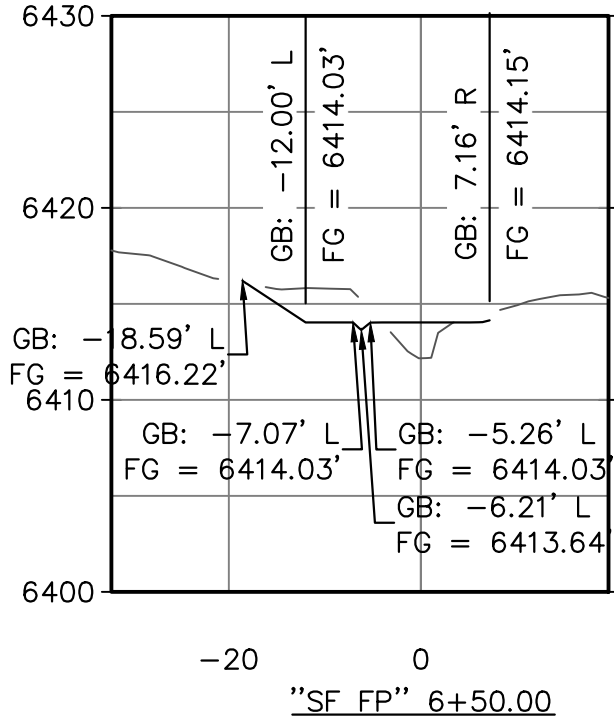
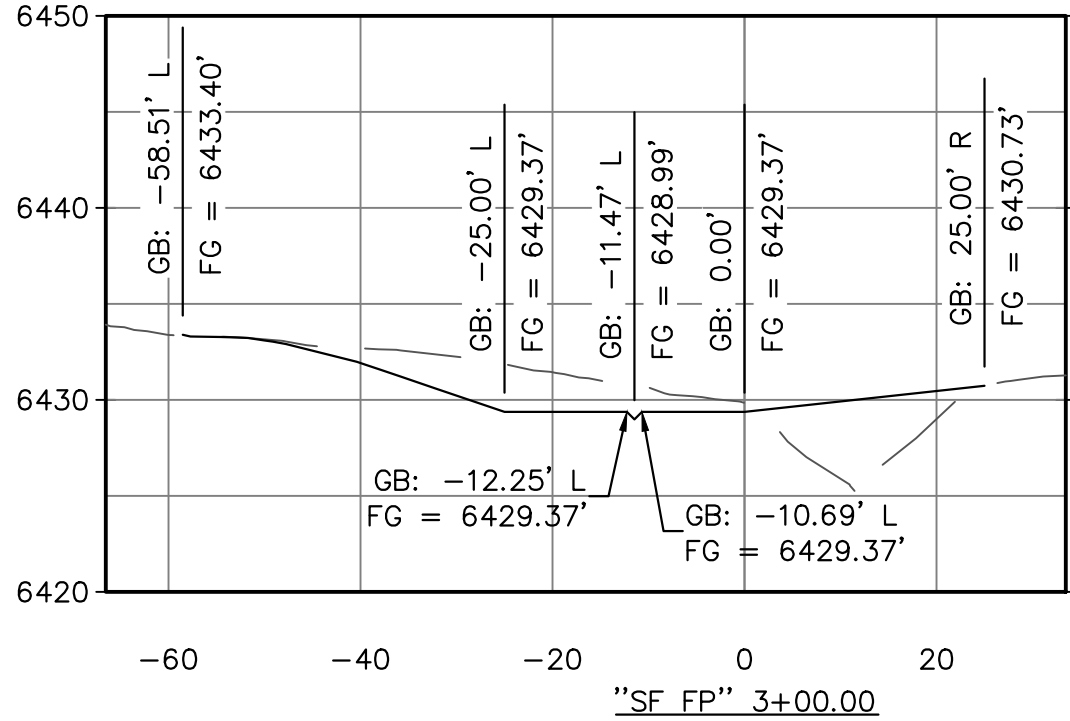


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DATE 4/2025
SCALE AS SHOWN
PROJECT MARLETTE CREEK RESTORATION
SHEET

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"SF FP" CROSS SECTIONS

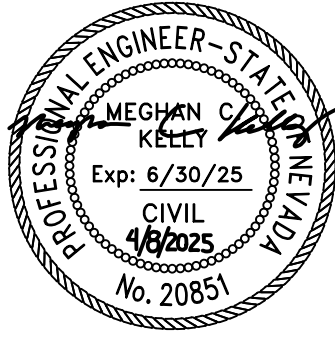
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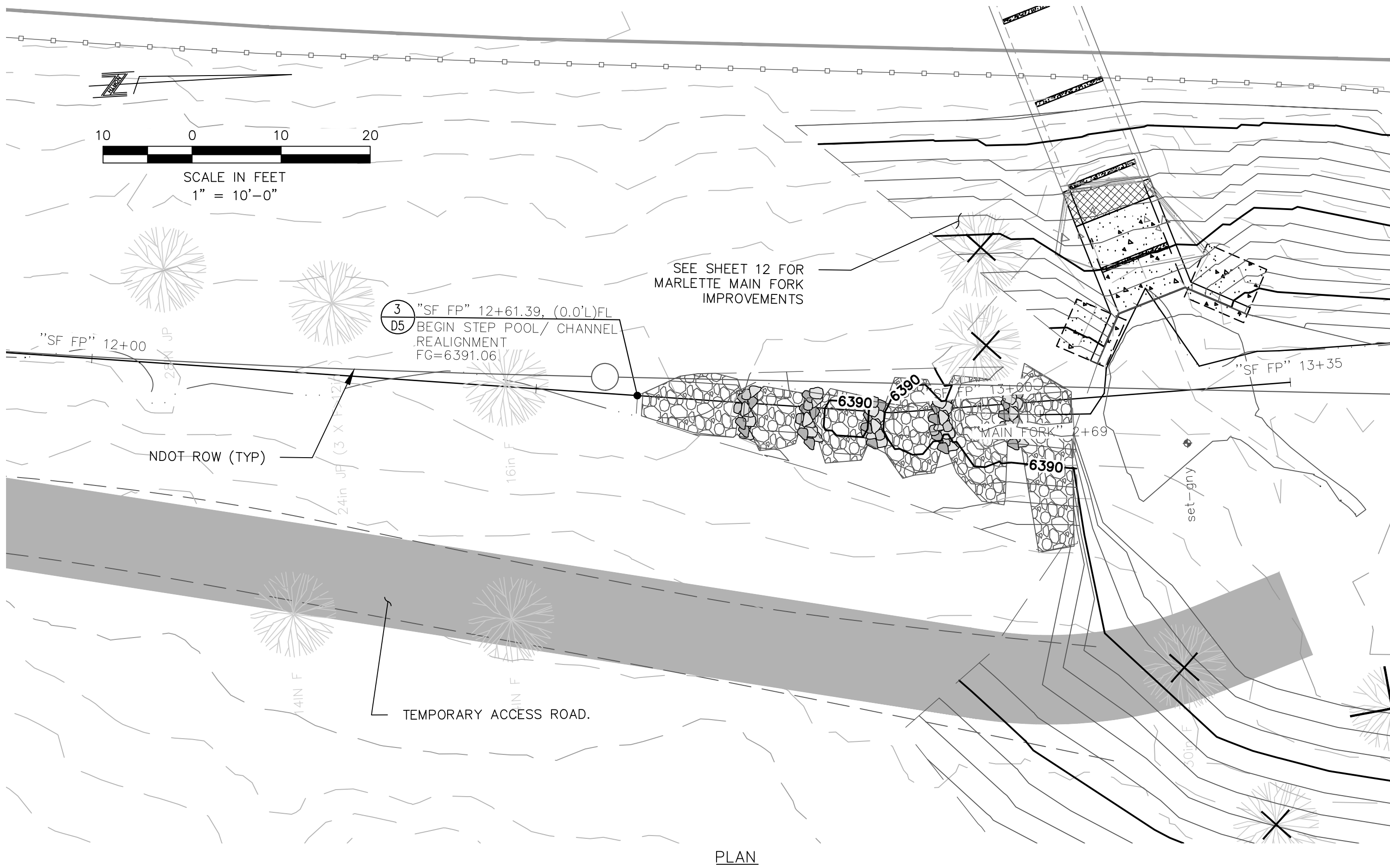
SOUTH FORK 5 - CROSS-SECTIONS
MARLETTE CREEK RESTORATION PROJECT



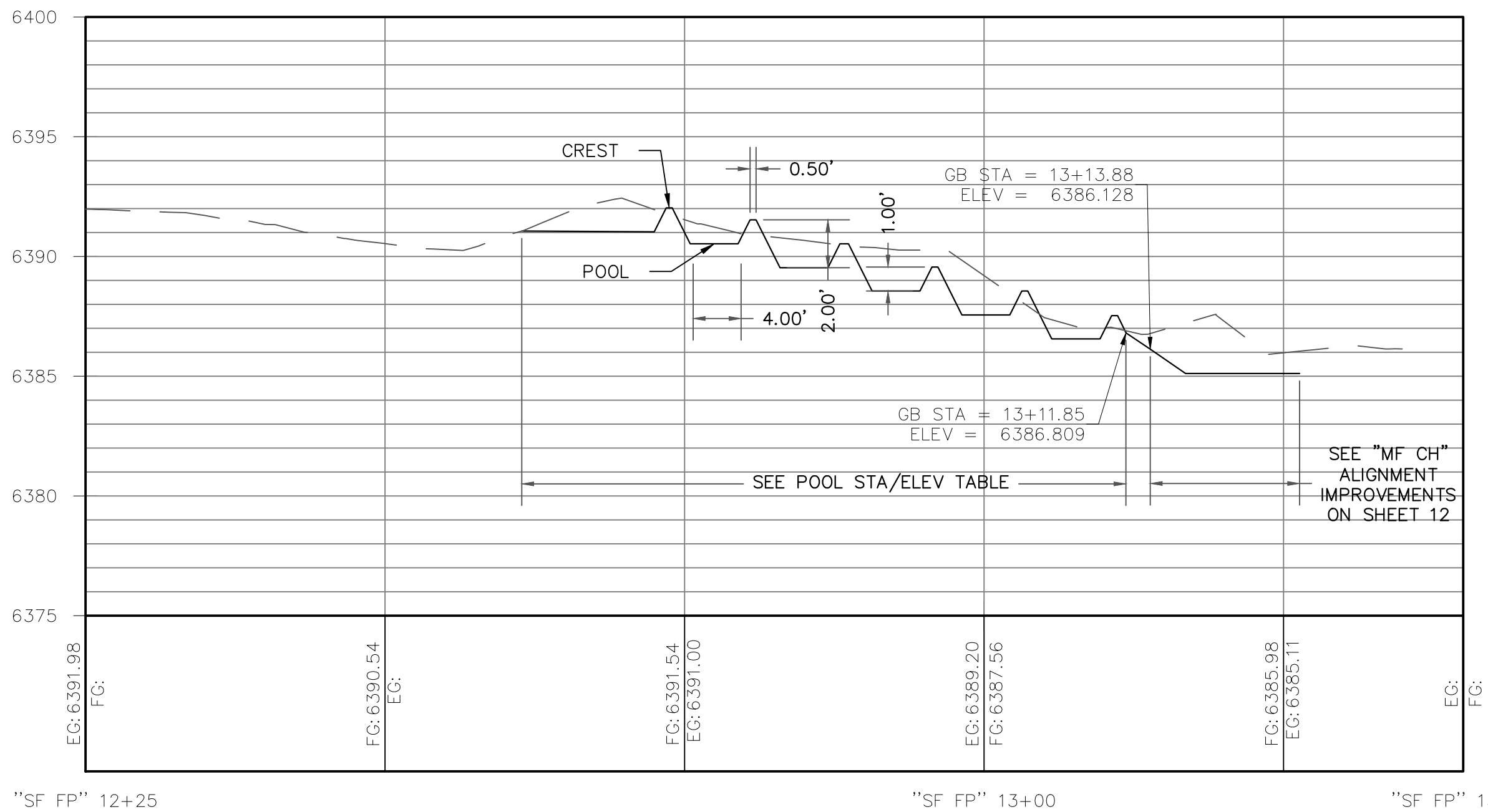
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PLAN



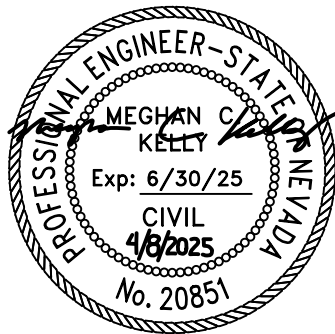
"SF FP" PROFILE

POOL STA/ELEV TABLE				
GRADE BREAK STA	GRADE OUT	ELEVATION	DESCRIPTION	
12+61.40	0.33%	6390.56	MATCH EG	
12+72.47	-100.00%	6391.03		
12+73.47	0.00%	6392.03	CREST	
12+73.97	100.00%	6392.03		
12+75.47	-0.00%	6390.53	POOL	
12+79.47	-100.00%	6390.53		
12+80.47	0.00%	6391.53	CREST	
12+80.97	100.00%	6391.53		
12+82.97	-0.00%	6389.53	POOL	
12+86.97	-100.00%	6389.53		
12+87.97	0.00%	6390.53	CREST	
12+88.68	100.11%	6390.53		
12+90.65	0.00%	6388.56	POOL	
12+94.65	-100.00%	6388.56		
12+95.65	0.00%	6389.56	CREST	
12+96.15	100.00%	6389.56		
12+98.15	-0.00%	6387.56	POOL	
13+02.15	-100.00%	6387.56		
13+03.15	0.00%	6388.56	CREST	
13+03.65	100.00%	6388.56		
13+05.65	0.00%	6386.56	POOL	
13+09.68	-100.00%	6386.56		
13+10.65	0.00%	6387.53	CREST	
13+11.15	158.12%	6387.53		

- NOTES:
1. SCATTER CUT LOGS ALONG 800 LF± OF FLOODPLAIN AS DIRECTED BY ENGINEER.
 2. COMPACT ALL SUBGRADE FILL LIFTS TO 90% RELATIVE DENSITY AND TOP 8" OF FINAL SOIL LIFTS TO 85% RELATIVE DENSITY.



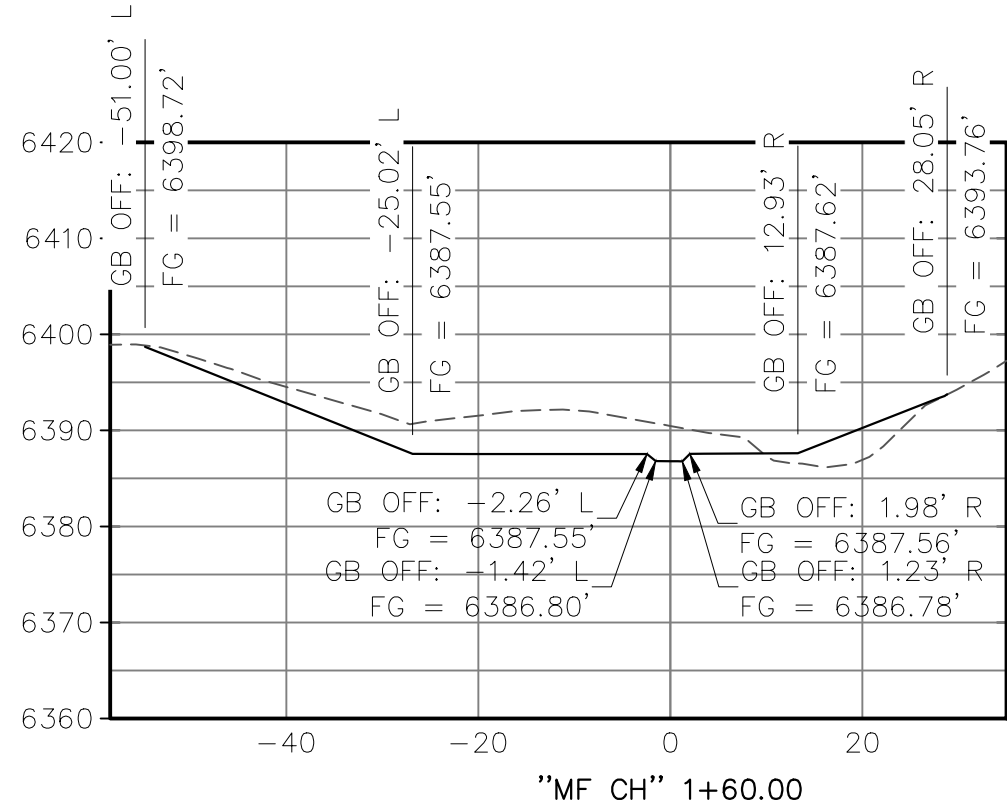
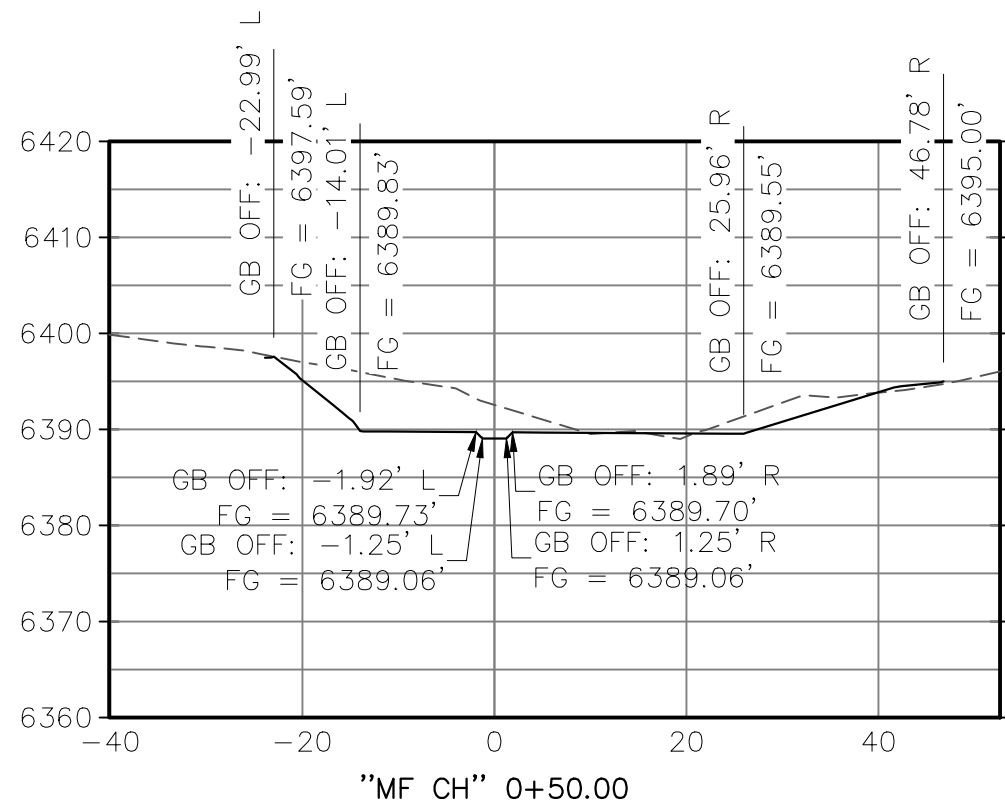
SOUTH FORK 6 - PLAN AND PROFILE
MARLETTE CREEK RESTORATION PROJECT



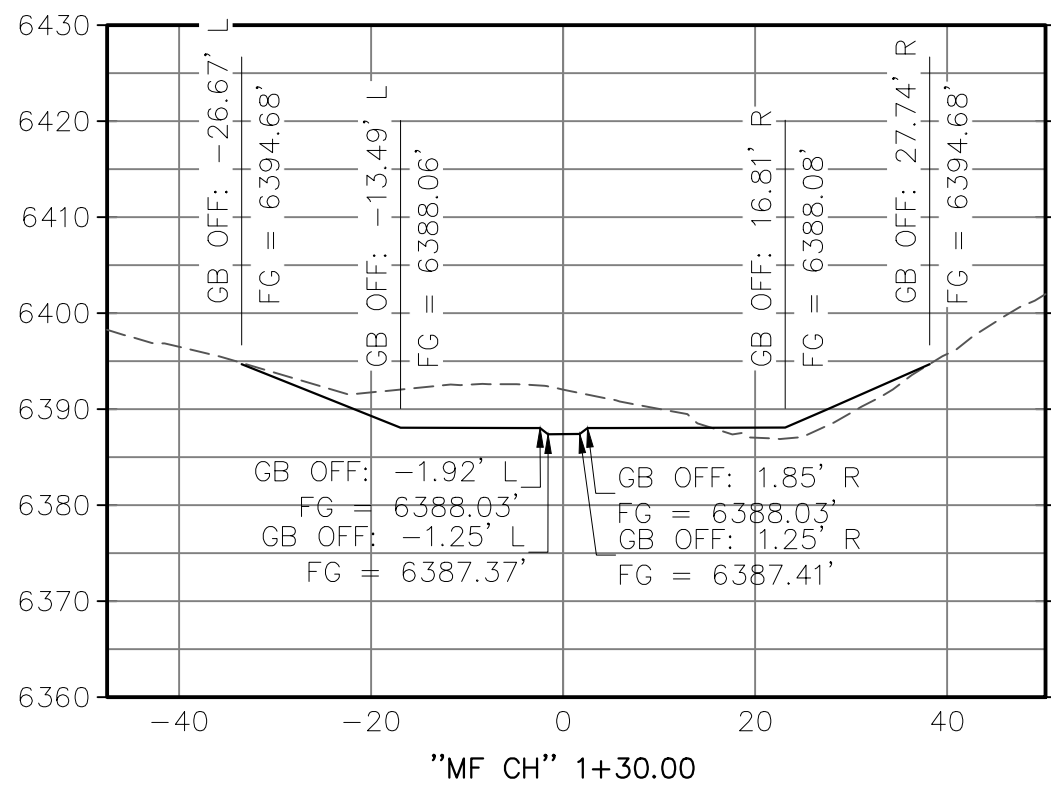
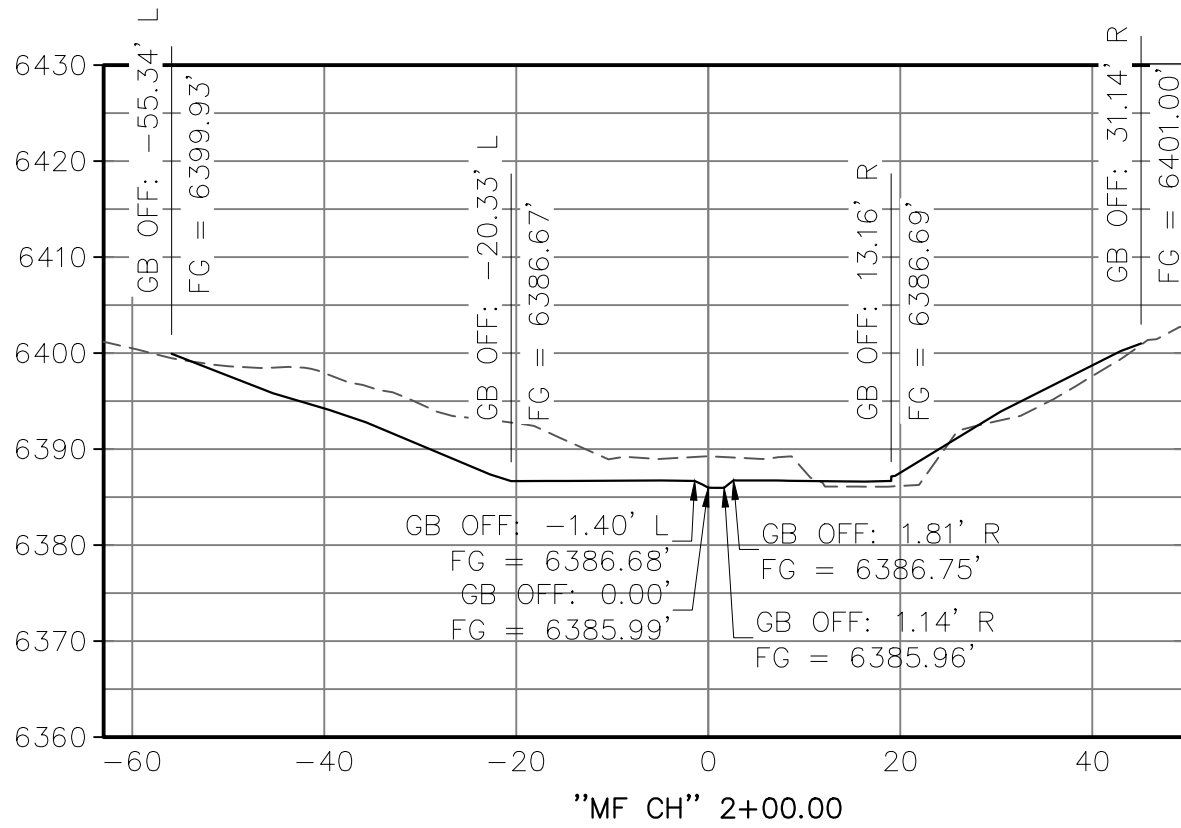
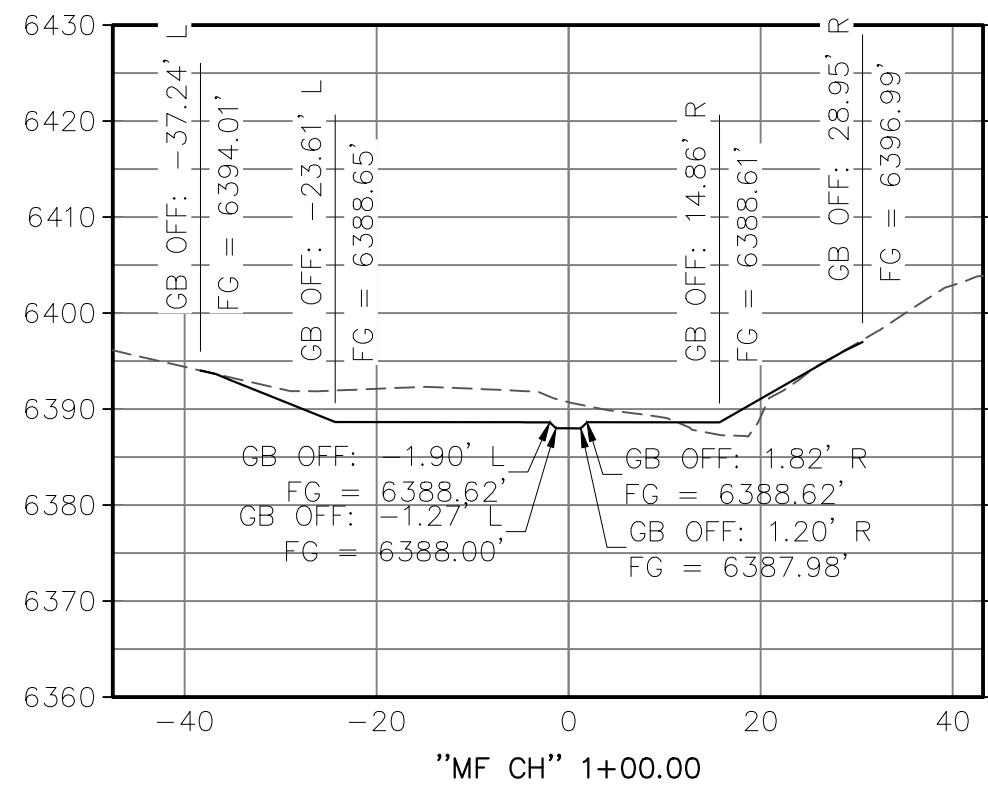
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PROJECT MARLETTE CREEK RESTORATION
SHEET

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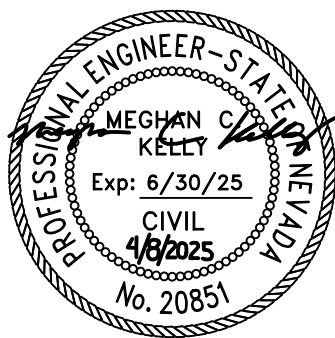
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DATE	4/2025
SCALE	AS SHOWN
PROJECT	MARLETTE CREEK RESTORATION
SHEET	C10

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MAIN FORK 2 - CROSS-SECTIONS
MARLETTE CREEK RESTORATION PROJECT

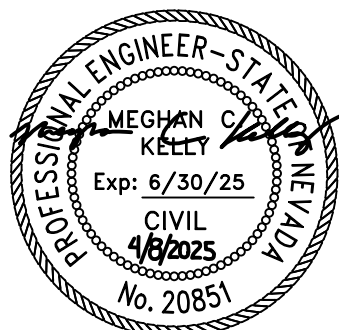




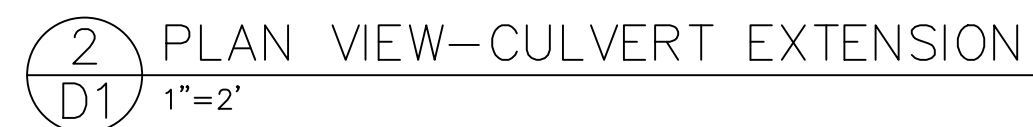
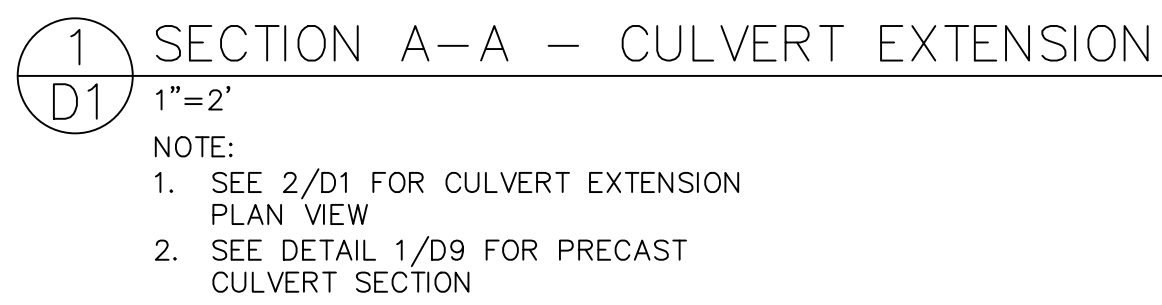
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SHEET

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SOUTH FORK FORD CROSSING



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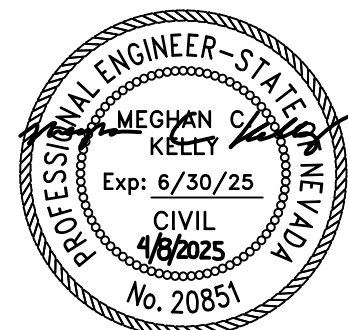
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PROJECT MARLETTE CREEK RESTORATION
SHEET

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DETAILS 1

MARLETTE CREEK RESTORATION PROJECT

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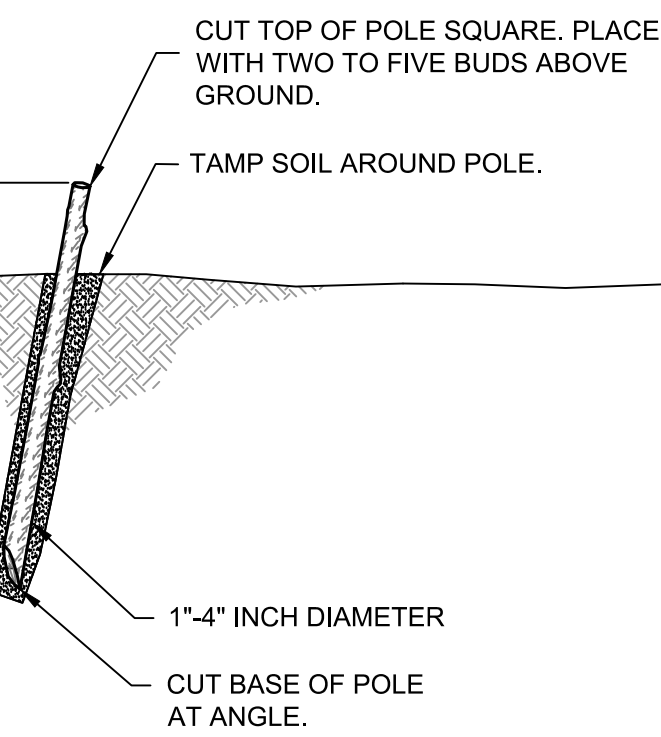


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SHEET

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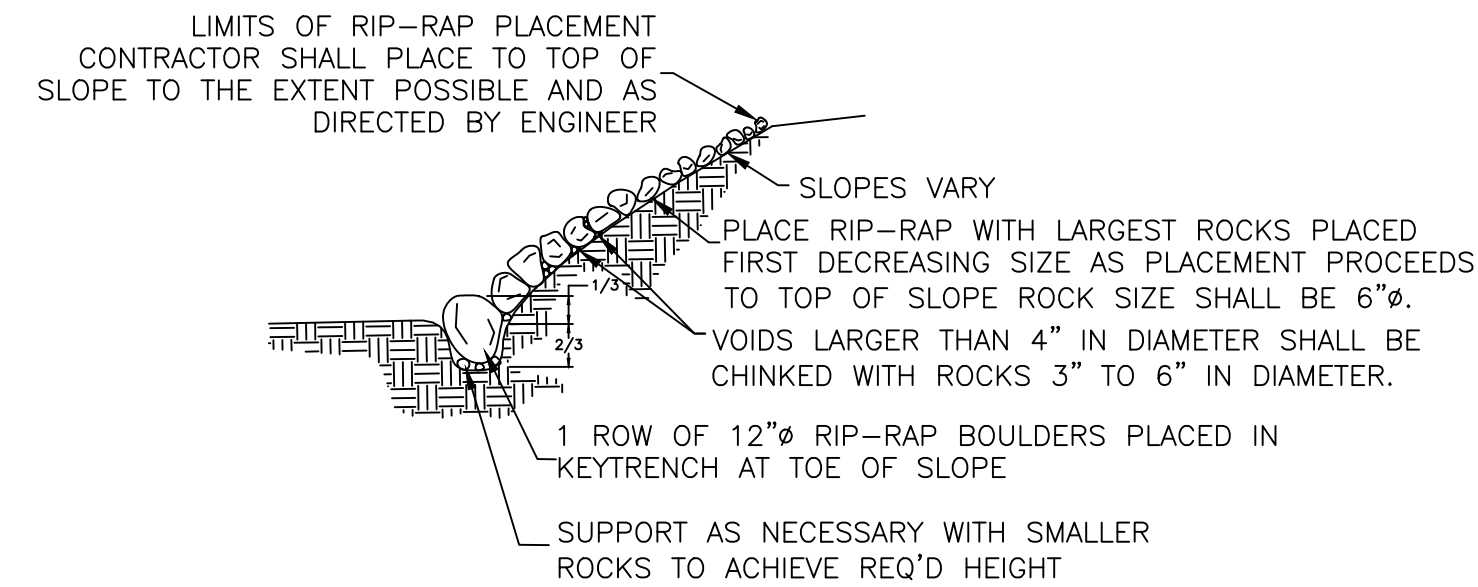


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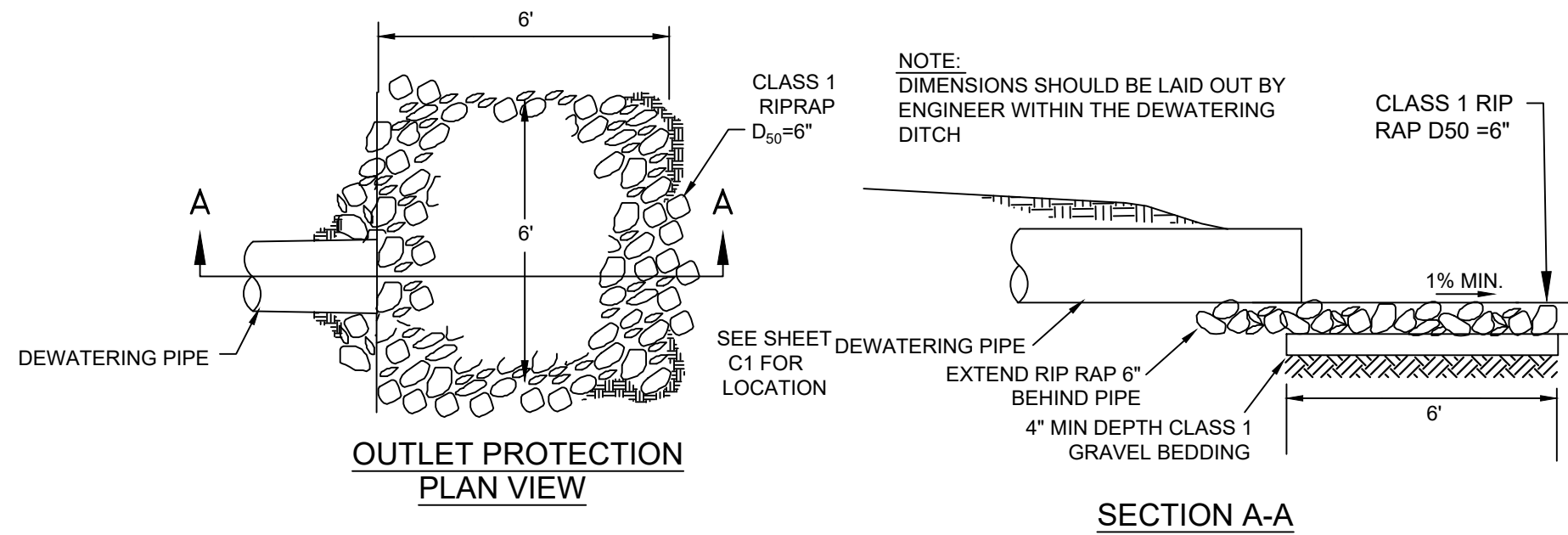
- LIVE POLE NOTES**
REVEGETATION AND REPLACEMENT PLANTINGS SHALL CONSIST OF LOCALLY-OBTAINED, NATIVE SPECIES, PER SPECIFICATIONS.
- WILLOW PREPARATION**
1. POLE CUTTINGS SHALL BE TAKEN WITH SHARP PRUNING SHEARS OR WITH A SHARP SAW BLADE, WITHOUT CAUSING INJURY TO THE BARK OR SPLITTING OF THE ENDS. THE BUTT END OF THE CUTTING SHALL BE ANGLED AND THE TOP END SHALL BE SQUARE.
2. POLES SHALL BE FROM 4 TO 6 FOOT IN LENGTH AND 1 TO 4 INCHES IN DIAMETER. POLES SHALL BE CUT SO THAT A TERMINAL BUD SCAR IS WITHIN 1 TO 4 INCHES OF THE TOP. AT LEAST 2 BUDS AND/OR BUD SCARS SHALL BE ABOVE THE GROUND AFTER PLANTING. SIDE BRANCHES SHALL BE CUT WITH SHARP PRUNING SHEARS, FLUSH WITH POLE, WITHOUT CAUSING INJURY TO BUDS.
- INSTALLATION**
1. LIVE POLES SHALL BE INSTALLED ON THE SAME DAY AS CUT OR SOAKED FOR 24 HOURS, MIN. PRIOR TO INSTALLATION.
2. THE POLE SHALL BE INSTALLED AS DEEP AS POSSIBLE INTO THE SOIL. PREFERABLY WITH 80% OF ITS LENGTH IN CONTACT WITH NATIVE SOIL. USE OF A PILOT BAR MAY HELP WITH INSTALLATION.
3. SPECIAL CARE SHALL BE TAKEN TO NOT DAMAGE THE BUDS, SPLIT POLE ENDS, OR STRIP THE BARK DURING INSTALLATION.

2 LIVE POLE STAKE
D2 NTS

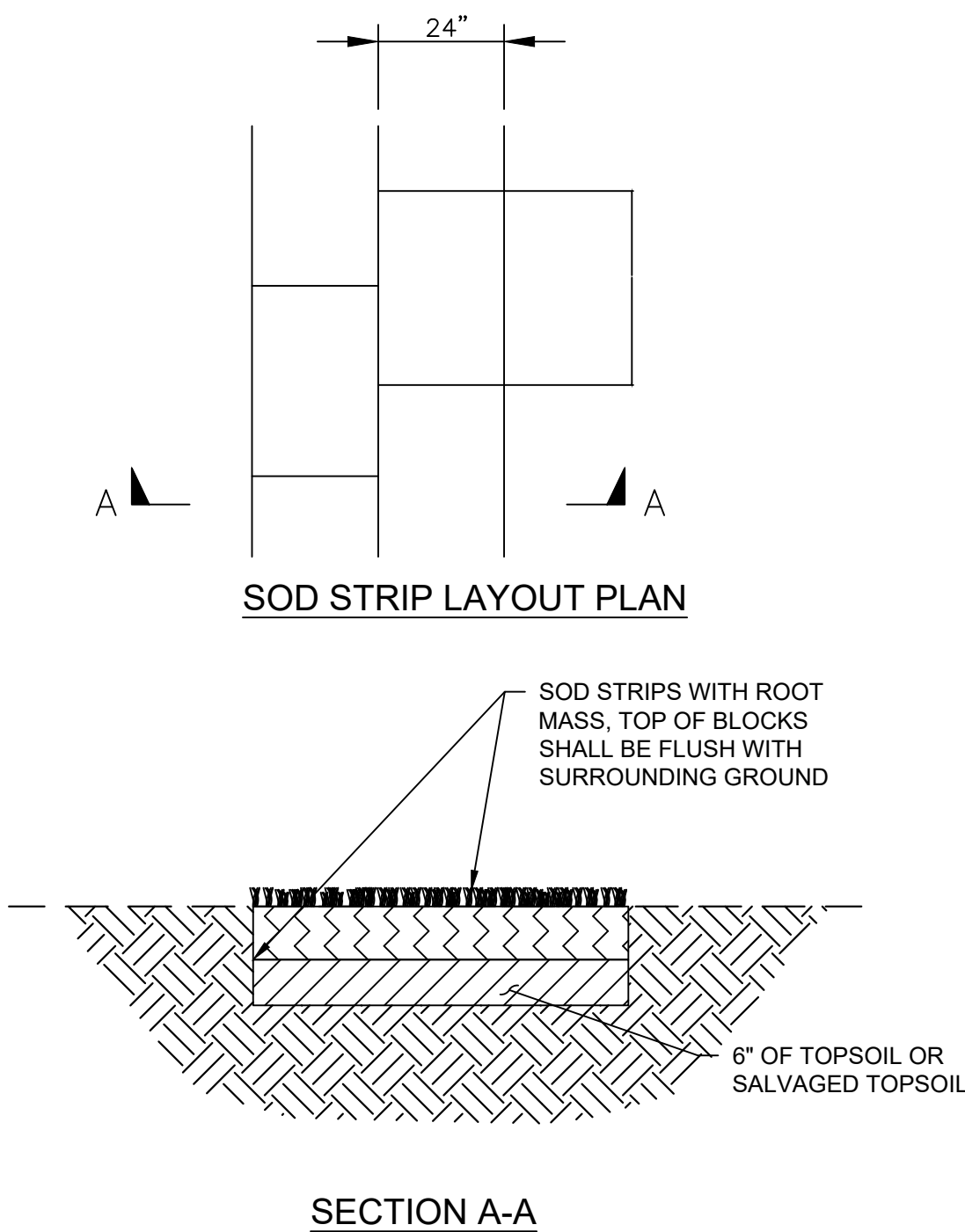


3 ROCK SLOPE PROTECTION
D2 NTS

- NOTES:**
1. RIP-RAP SIZING MAY BE ALTERED BASED ON ROCK AVAILABLE ON SITE.

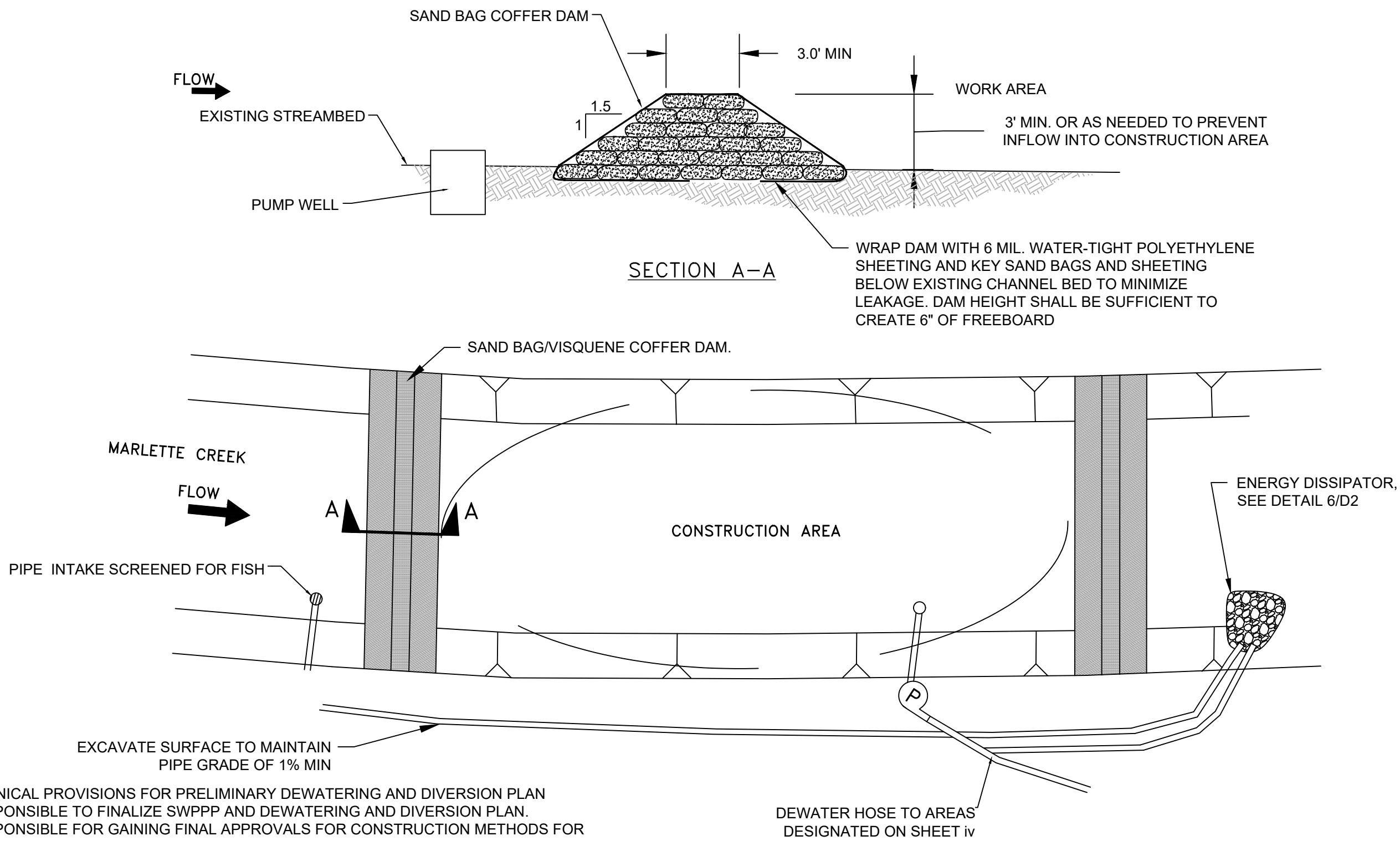


6 DEWATERING OUTLET PROTECTION
D2 NTS



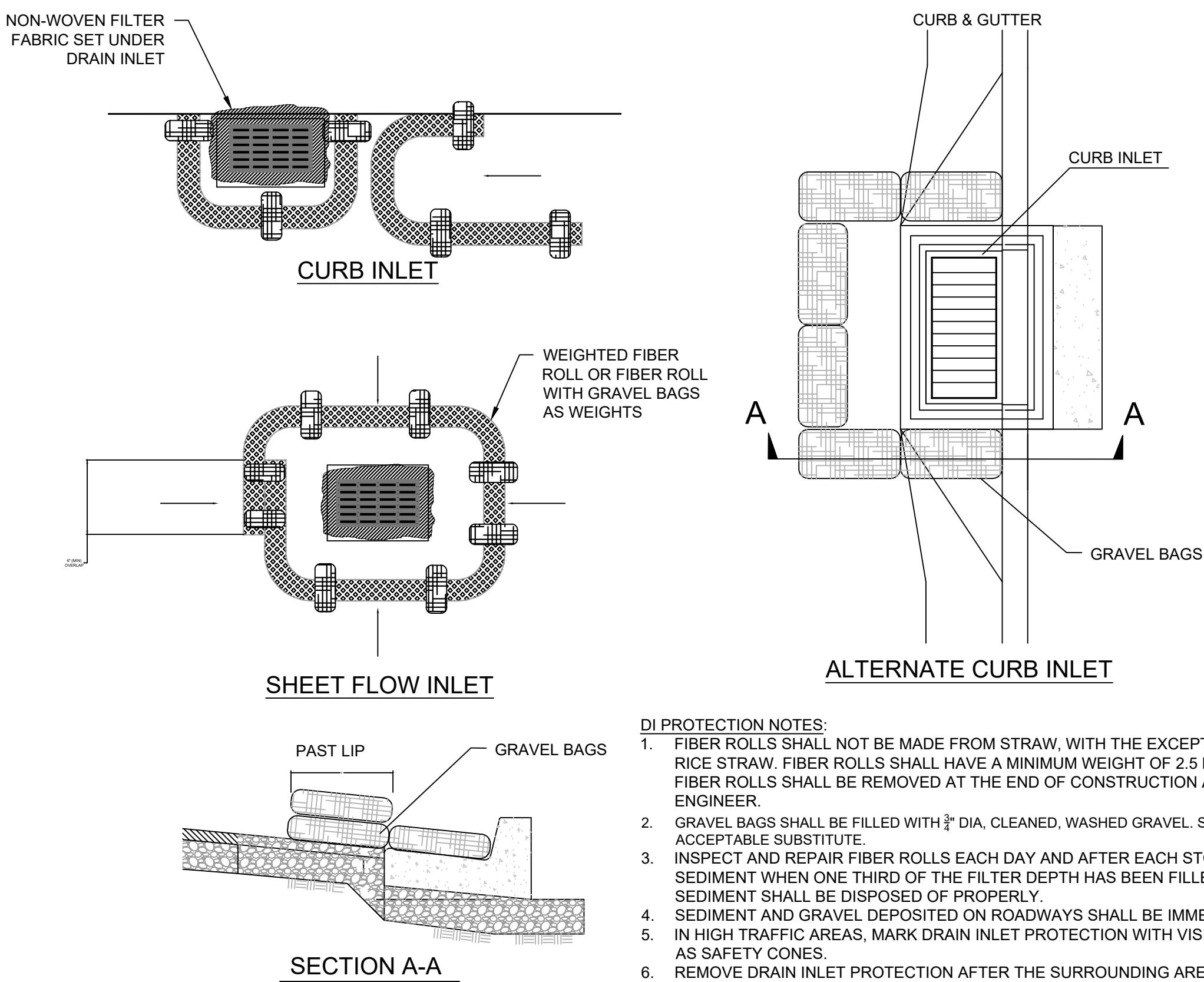
5 SALVAGE SOD
D2 NTS

- SOD STRIP NOTES:**
REVEGETATION AND REPLACEMENT PLANTINGS SHALL CONSIST OF LOCALLY-OBTAINED, NATIVE SPECIES, PER SPECIFICATIONS.



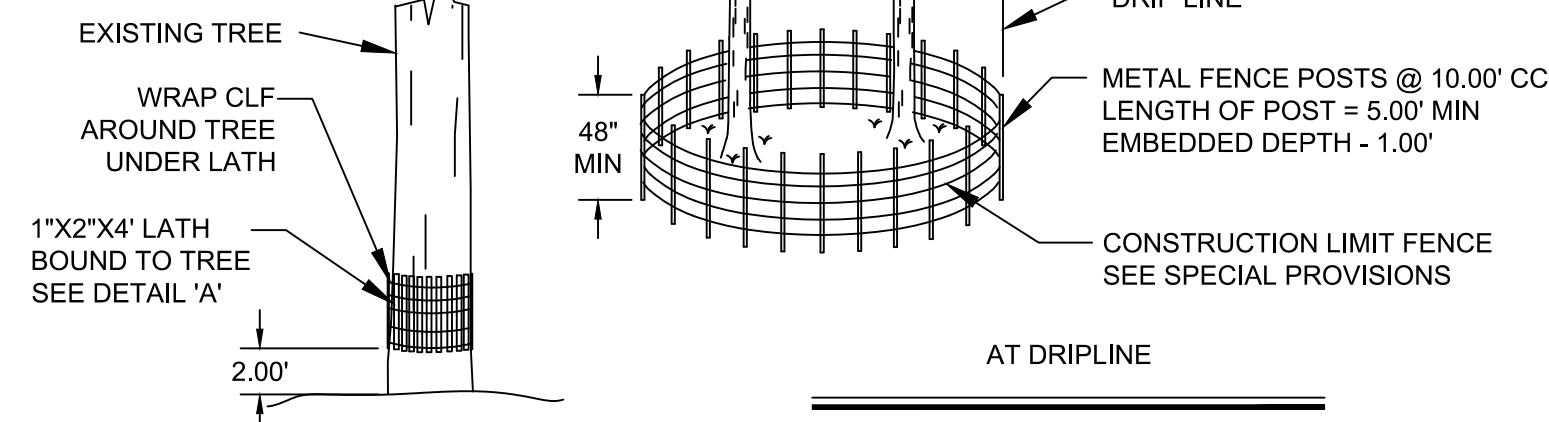
1 DEWATERING DIVERSION
D2 NTS

- DIVERSION NOTES:**
1. SEE SPECIAL TECHNICAL PROVISIONS FOR PRELIMINARY DEWATERING AND DIVERSION PLAN.
2. CONTRACTOR RESPONSIBLE TO FINALIZE SWPPP AND DEWATERING AND DIVERSION PLAN.
3. CONTRACTOR RESPONSIBLE FOR GAINING FINAL APPROVALS FOR CONSTRUCTION METHODS FOR DIVERSION AND DEWATERING FROM ALL APPLICABLE AGENCIES.



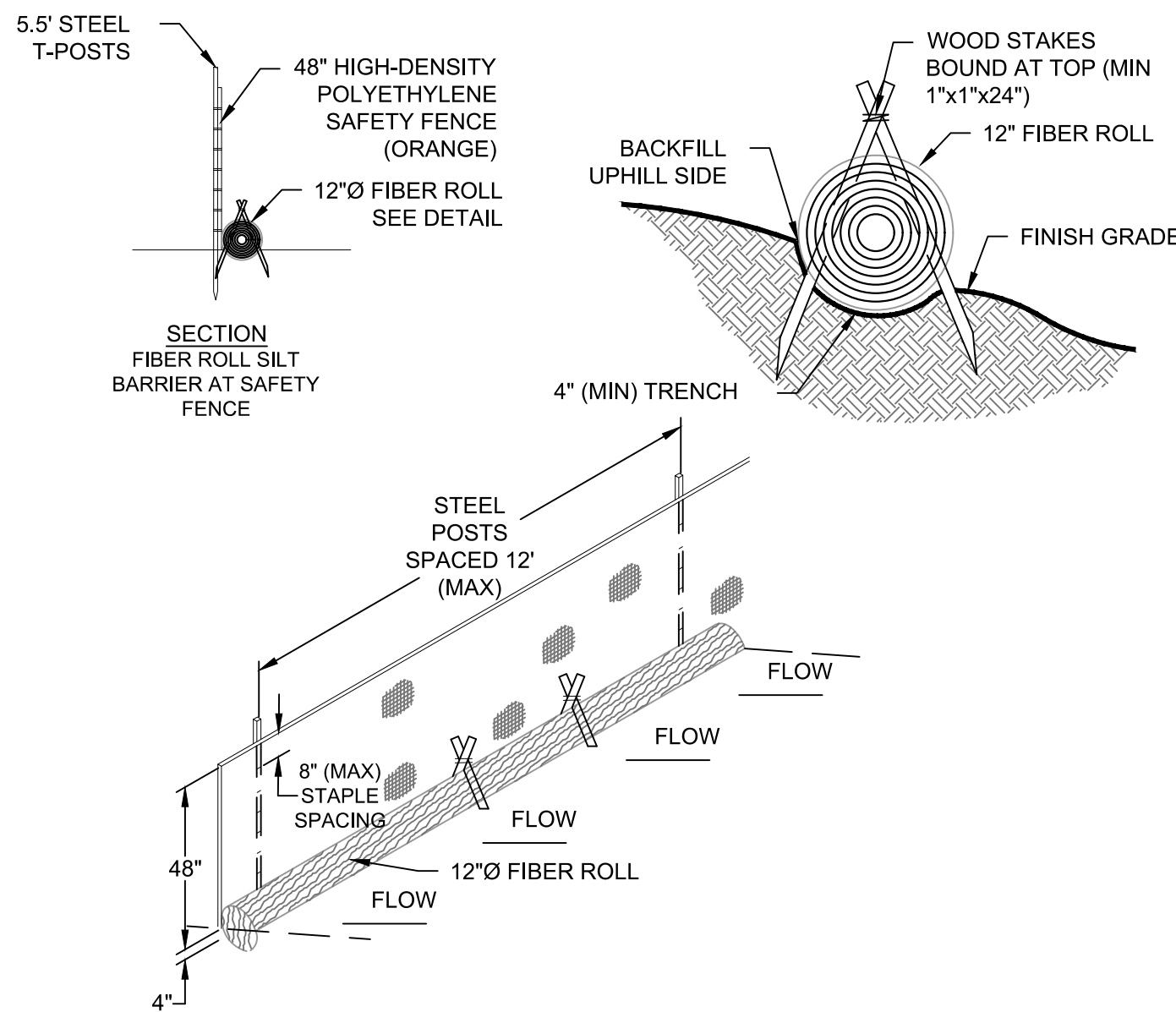
4 DRAINAGE INLET PROTECTION
D2 NTS

- DI PROTECTION NOTES:**
1. FIBER ROLLS SHALL NOT BE MADE FROM STRAW, WITH THE EXCEPTION OF WEED-FREE RICE STRAW. FIBER ROLLS SHALL HAVE A MINIMUM WEIGHT OF 2.5 LBS PER LINEAR FOOT. FIBER ROLLS SHALL BE REMOVED AT THE END OF CONSTRUCTION AS DIRECTED BY THE ENGINEER.
2. GRAVEL BAGS SHALL BE FILLED WITH 3/4" DIA, CLEANED, WASHED GRAVEL. SAND BAGS ARE NOT AN ACCEPTABLE SUBSTITUTE.
3. INSPECT AND REPAIR FIBER ROLLS EACH DAY AND AFTER EACH STORM EVENT. REMOVE SEDIMENT WHEN ONE THIRD OF THE FILTER DEPTH HAS BEEN FILLED. REMOVED SEDIMENT SHALL BE DISPOSED OF PROPERLY.
4. IN HIGH TRAFFIC AREAS, MARK DRAIN INLET PROTECTION WITH VISIBLE BARRIERS SUCH AS SAFETY CONES.
5. REMOVE DRAIN INLET PROTECTION AFTER THE SURROUNDING AREA HAS BEEN STABILIZED.
6. ADDITIONAL OR OVERLAPPING GRAVEL BAGS MAY BE NECESSARY AS DIRECTED BY ENGINEER FOR PROPER FUNCTIONING OF BMP.



- NOTE:
1. CLF AND TREE PROTECTION FENCE SHALL BE A MINIMUM OF 48" HIGH. FOR TREES WITH DRIPLINES THAT OVERHANG THE CONSTRUCTION AREAS, THE LOCATION OF THE TREE PROTECTION FENCE SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER AND/OR THE TRPA AT THE PREGRADE MEETING.
 2. THE DETAIL SHOWN IS FOR TREE PROTECTION. MATERIAL AND SPACING SHOWN ALSO APPLIES TO CLF.
 3. QUANTITY OF FILTER FENCE AND CONSTRUCTION LIMIT FENCE DOES NOT INCLUDE MINIMUM LIMITS FOR TREE PROTECTION. TREE PROTECTION FENCING TO BE PER DETAIL THIS SHEET AND/OR AS DETERMINED IN THE FIELD.

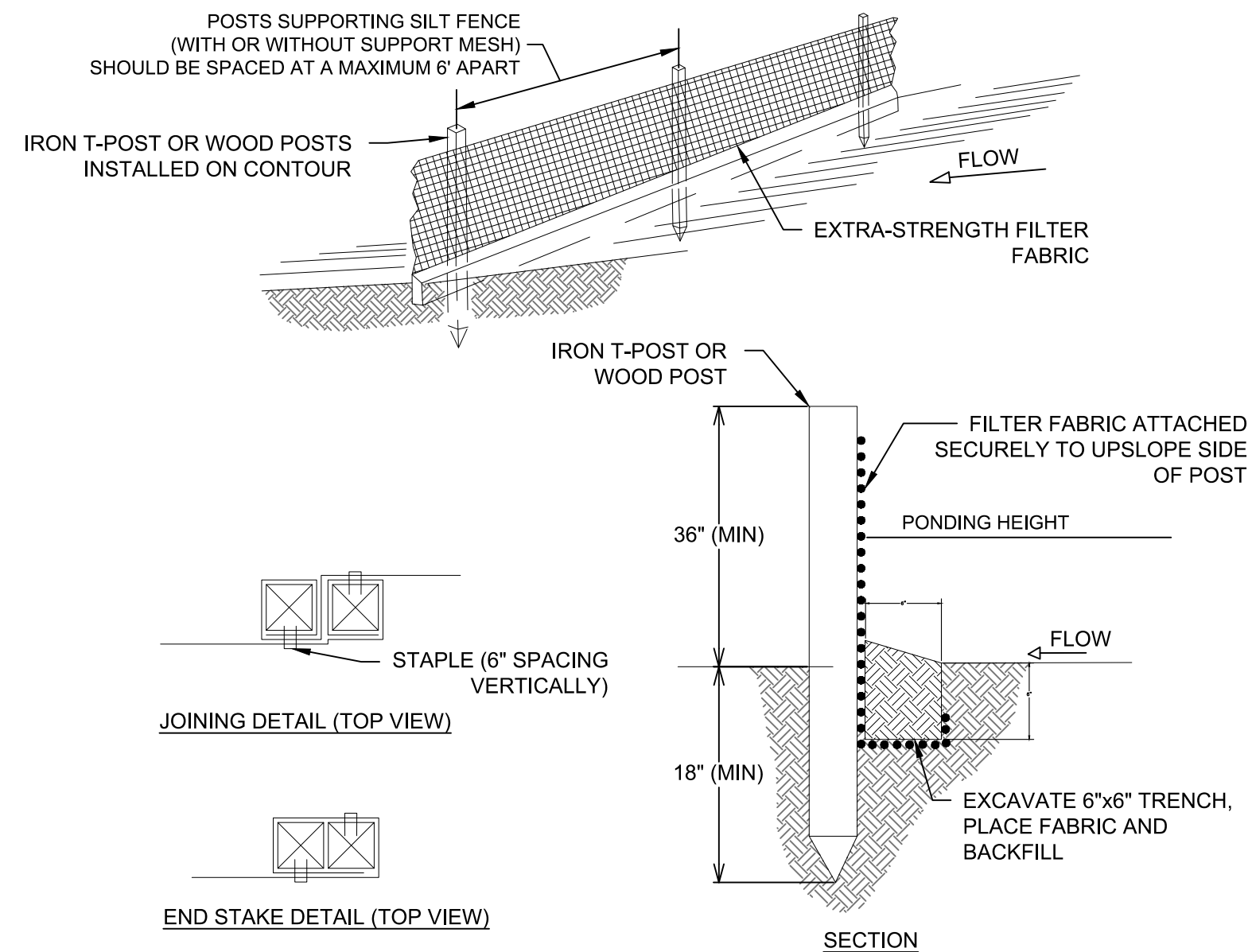
1 CONSTRUCTION LIMIT FENCE
D4 & TREE PROTECTION
NTS



FIBER ROLL NOTES:

1. FIBER ROLL SHALL NOT BE MADE FROM STRAW. FIBER ROLLS SHALL BE BOUND BY HIGH STRENGTH COIR NETTING, AND HAVE A MINIMUM WEIGHT OF 5 LBS PER LINEAL FOOT.
2. ORANGE SAFETY FENCE IS INTENDED TO PROTECT FIBER ROLLS FROM COMPRESSION BY VEHICLES, CONSTRUCTION EQUIPMENT, ETC. FENCES SHALL BE HIGH DENSITY POLYETHYLENE WITH A MESH OPENING OF APPROXIMATELY 1 INCH BY 4 INCHES AND A MINIMUM HEIGHT OF 4 FEET. SAFETY FENCE MAY BE OMITTED IN LOW TRAFFIC AREAS.
3. FIBER ROLL SILT BARRIER SHALL BE INSTALLED ALONG CONTOUR AND ON SLOPES 5H:1V OR FLATTER UNLESS OTHERWISE APPROVED BY TRPA.
4. THE INSTALLATION CONFIGURATION SHALL PREVENT RUNOFF FROM LEAVING THE SITE OR ENTERING A WATERCOURSE WITHOUT PASSING THROUGH A SILT BARRIER.
5. THE MAXIMUM LENGTH OF SLOPE DRAINING TO THE SILT BARRIER SHALL BE 100 FEET.
6. FIBER ROLL SHALL BE INSTALLED BY SHAPING A 4 INCH DEEP FURROW TO MATCH THE SHAPE OF THE LOG, SECURING IN FURROW WITH WOOD STAKES, AND TAMPING THE GROUND AROUND THE FIBER ROLL TO FILL VOIDS BETWEEN THE LOG AND THE GROUND.

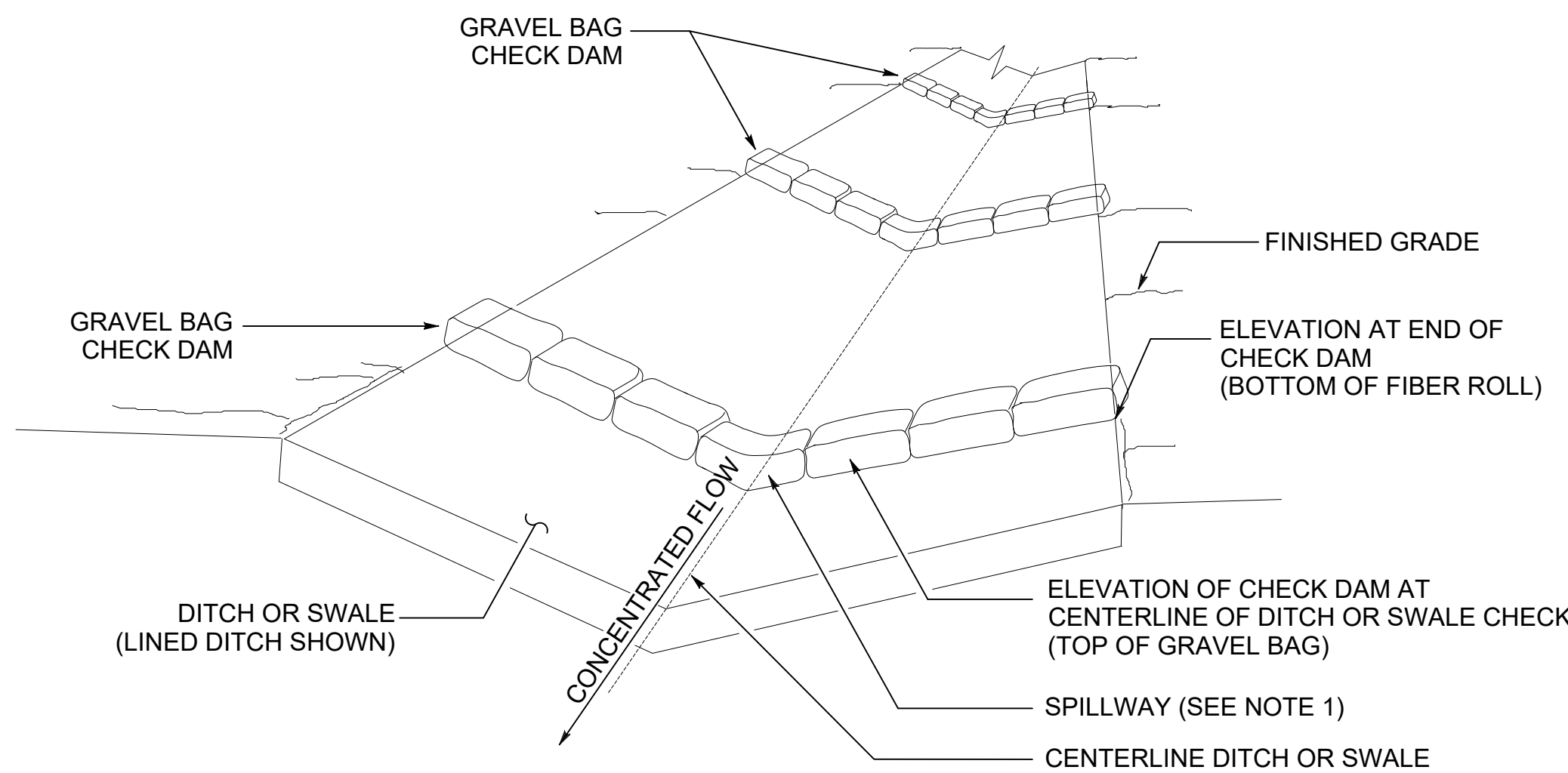
2 FIBER ROLL SILT BARRIER
D4 NTS



SILT FENCE NOTES:

1. USED IN AREAS WHERE SHEET FLOW OCCURS.
2. DO NOT USE IN STREAMS, CHANNELS, OR ANYWHERE FLOW IS CONCENTRATED. DO NOT USE SILT FENCES TO DIVERT FLOW.
3. DO NOT USE BELOW SLOPES SUBJECT TO CREEP, SLUMPING, OR LANDSLIDES.
4. SILT FENCE SHOULD BE WOVEN POLYPROPYLENE WITH A MINIMUM WIDTH OF 36 INCHES AND A MINIMUM TENSILE STRENGTH OF 100 LB FORCE.
5. INSTALL ALONG A LEVEL CONTOUR SO WATER DOES NOT POND MORE THAN 1.5 FEET AT ANY POINT ALONG THE SILT FENCE.
6. THE MAXIMUM LENGTH OF SLOPE DRAINING TO ANY POINT ALONG THE SILT FENCE SHOULD BE 200 FEET OR LESS.
7. THE MAXIMUM SLOPE PERPENDICULAR TO THE FENCE LINE SHOULD BE 1:1.
8. PROVIDE SUFFICIENT ROOM FOR RUNOFF TO POND BEHIND THE FENCE AND TO ALLOW SEDIMENT REMOVAL EQUIPMENT TO PASS BETWEEN THE SILT FENCE AND ROCKS OR OTHER OBSTRUCTIONS.
9. TURN THE ENDS OF THE FILTER FENCE UPHILL TO CREATE A "J" SHAPE, TO PREVENT STORMWATER FROM FLOWING AROUND THE FENCE.
10. LEAVE AN UNDISTURBED OR STABILIZED AREA IMMEDIATELY DOWN SLOPE FROM THE FENCE WHERE FEASIBLE.
11. SILT FENCES SHOULD REMAIN IN PLACE UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.
12. REMOVE SEDIMENT WHEN DEPOSITS REACH APPROXIMATELY 1/3 HEIGHT OF BARRIER.

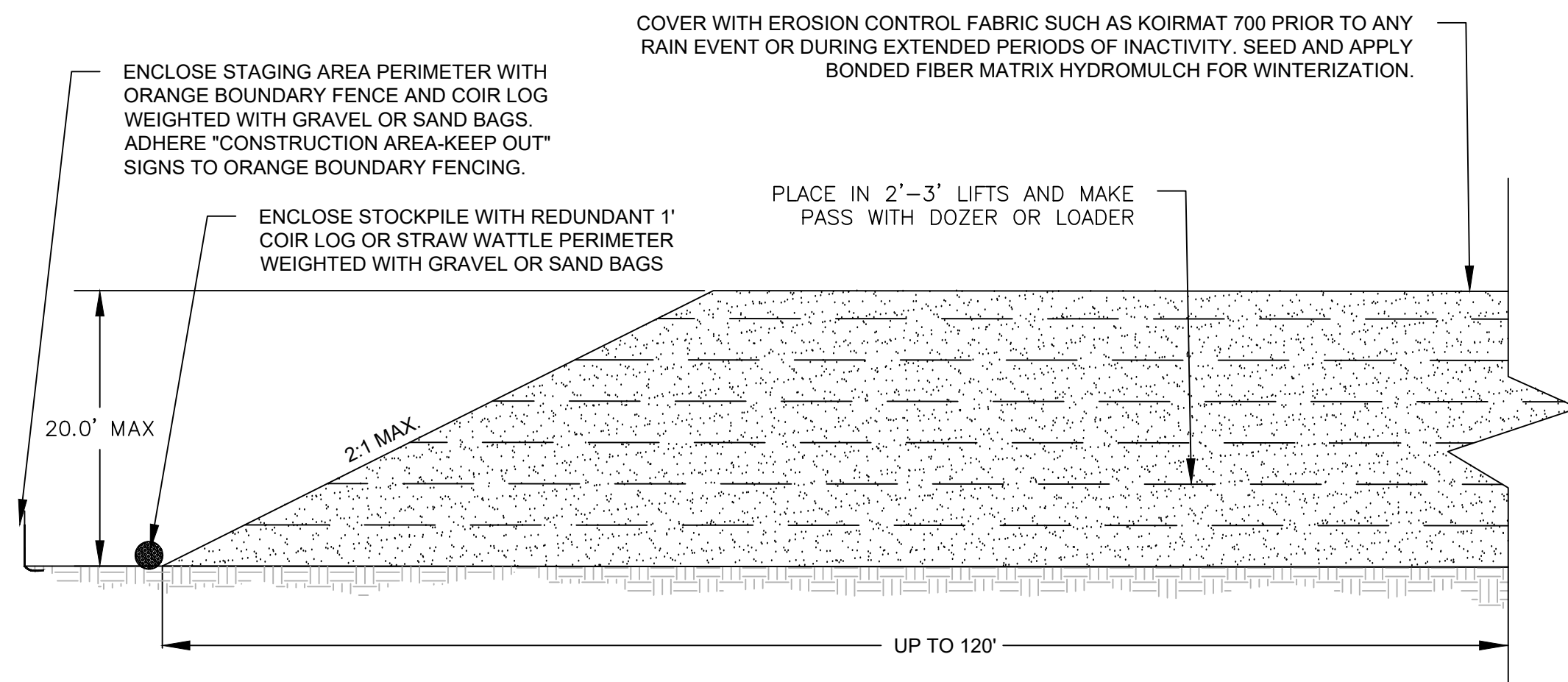
3 FILTER FENCE SILT BARRIER
D4 NTS



TEMPORARY CHECK DAM NOTES:

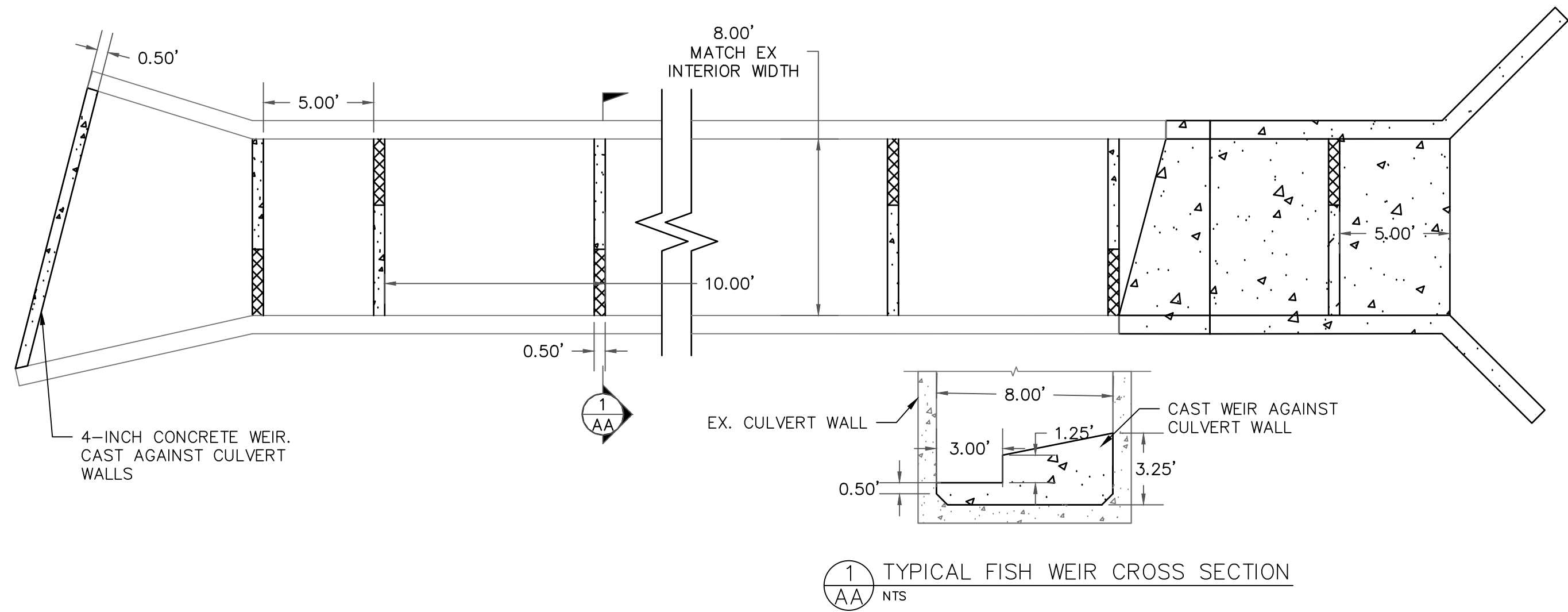
1. CHECK DAM DIMENSIONS TO BE VERIFIED BY CIVIL ENGINEER.
2. ONLY CLEAN/WASHED GRAVEL MUST BE USED IN BAGS

4 HARDENED CONSTRUCTION ENTRANCE
D4 NTS

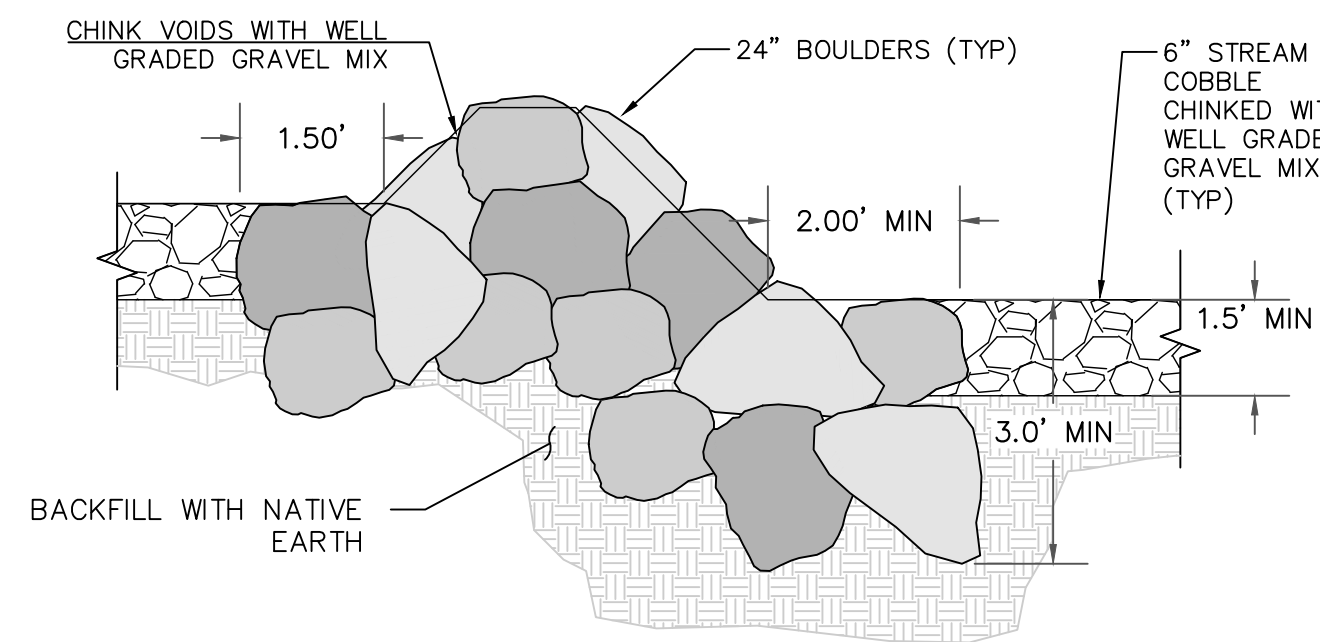


5 SOIL STOCKPILE
D4 NTS

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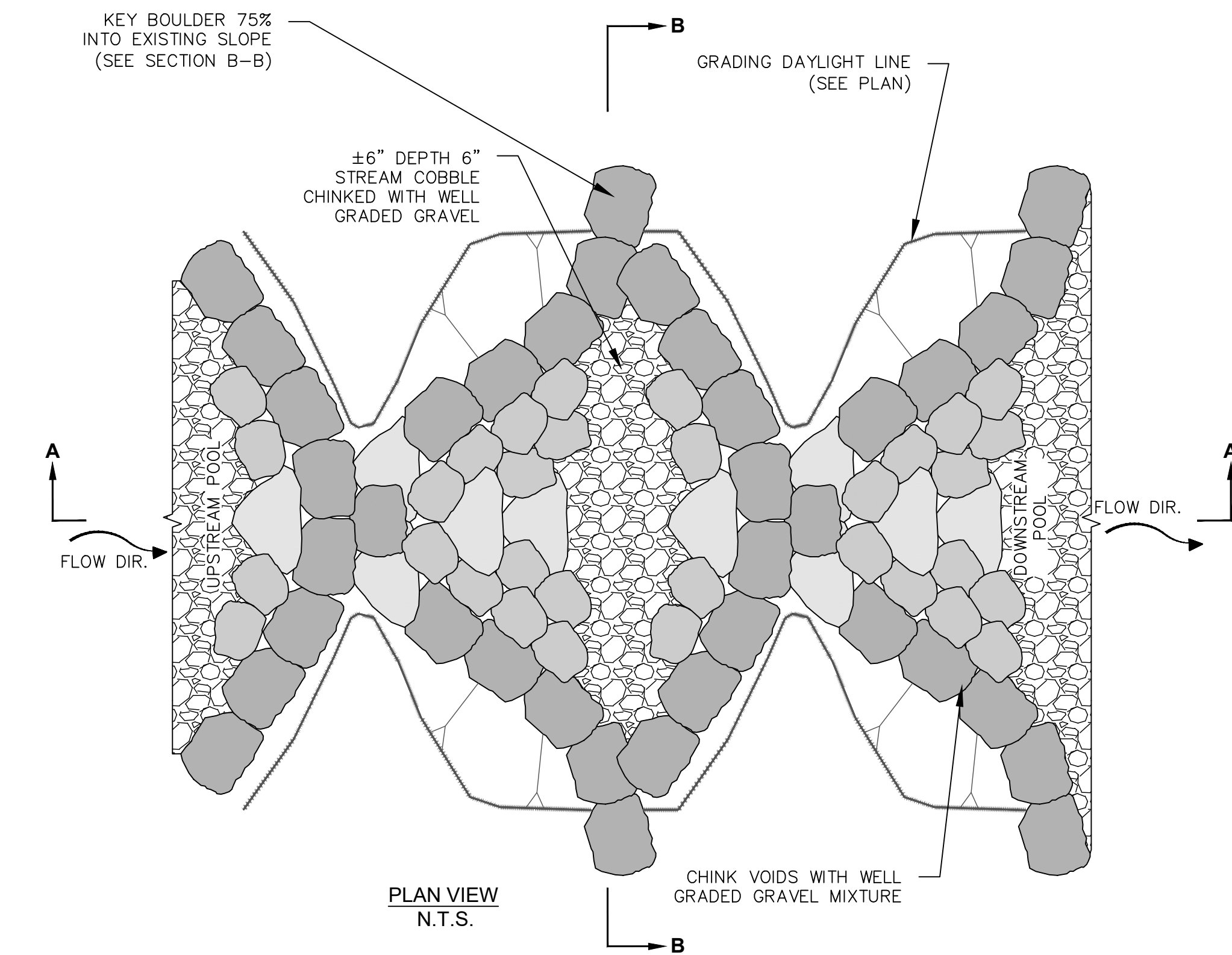


1 CULVERT FISH WEIR LAYOUT
D5 NTS

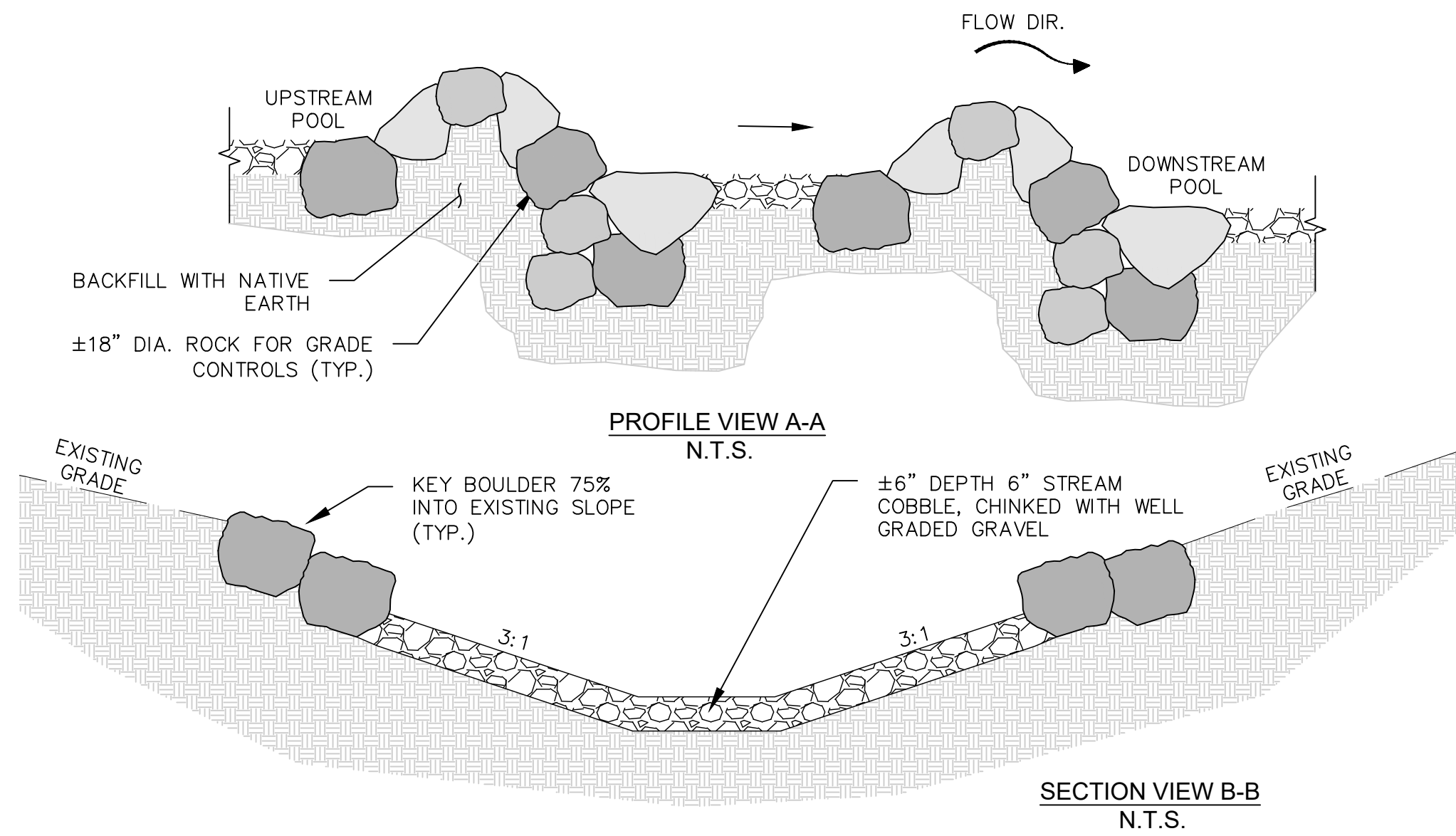


2 MAIN FORK BOULDER GRADE CONTROL
D5 NTS

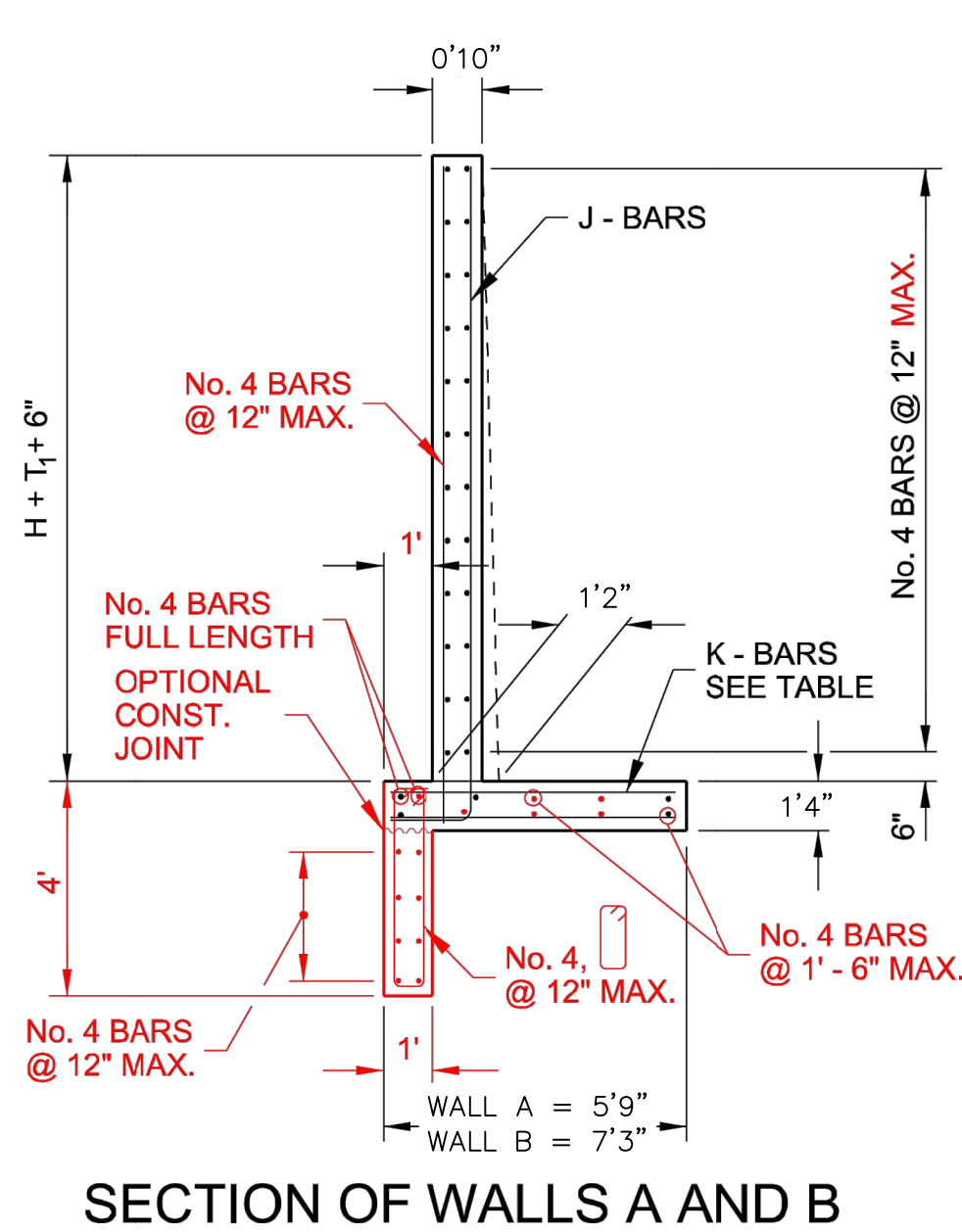
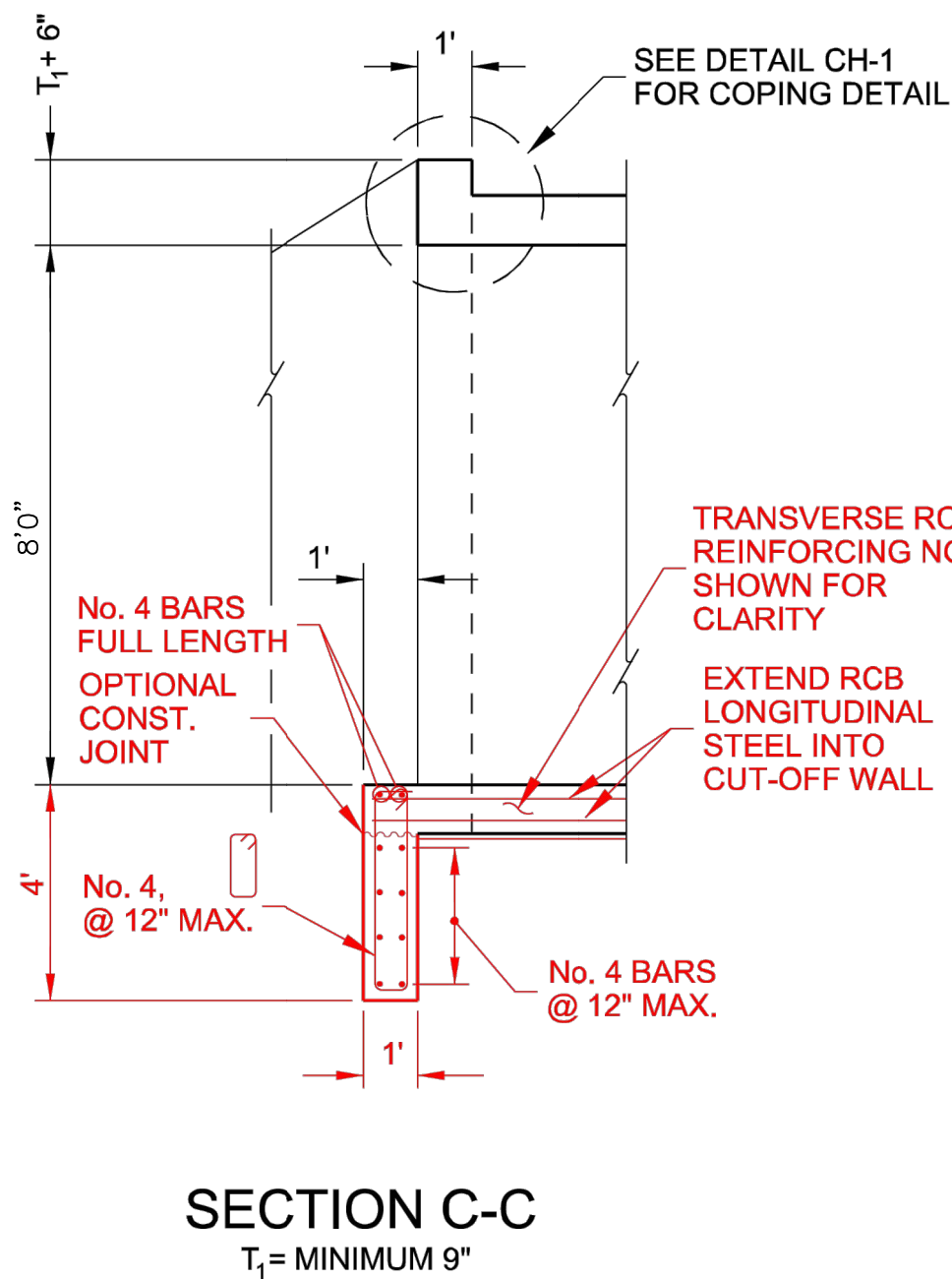
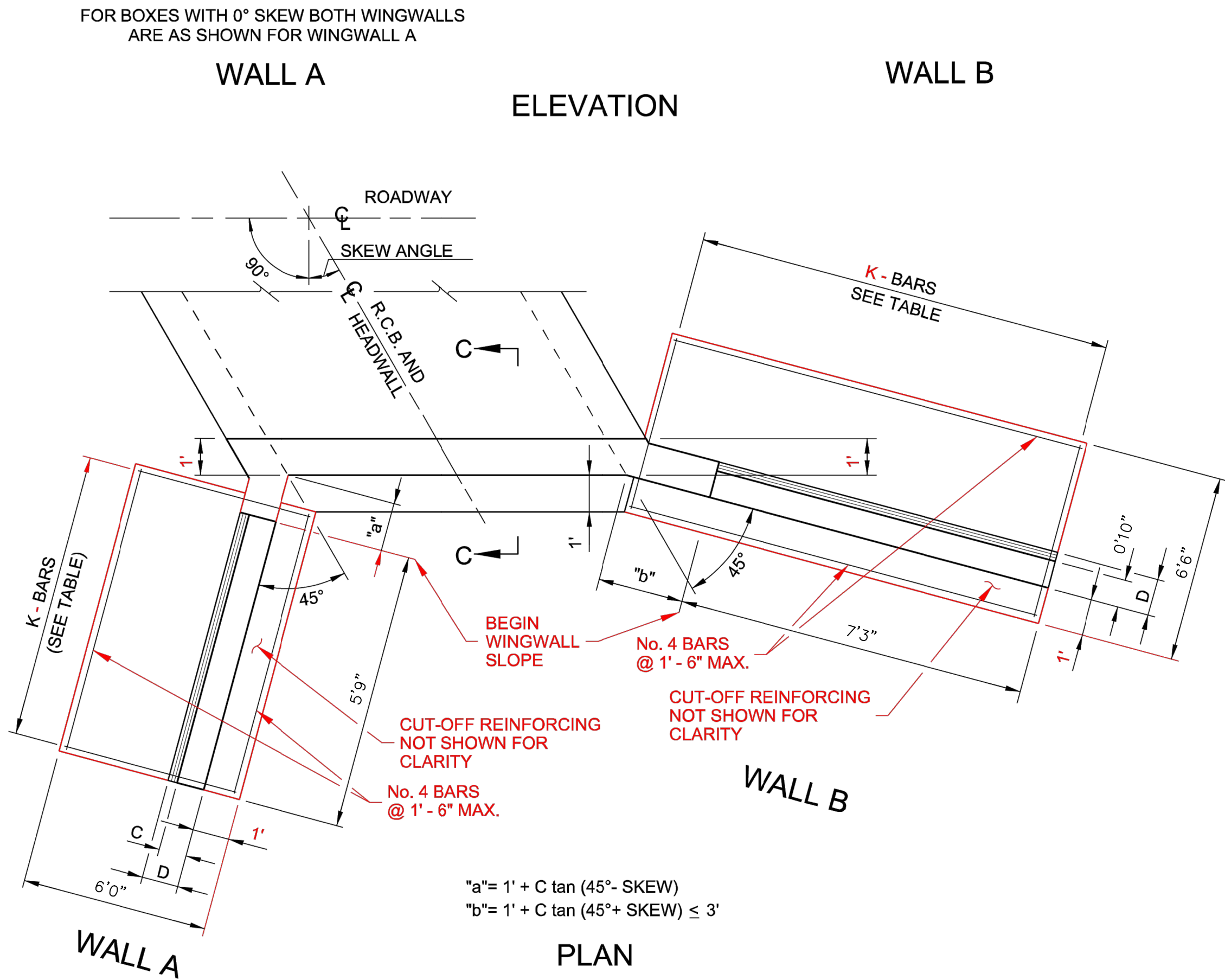
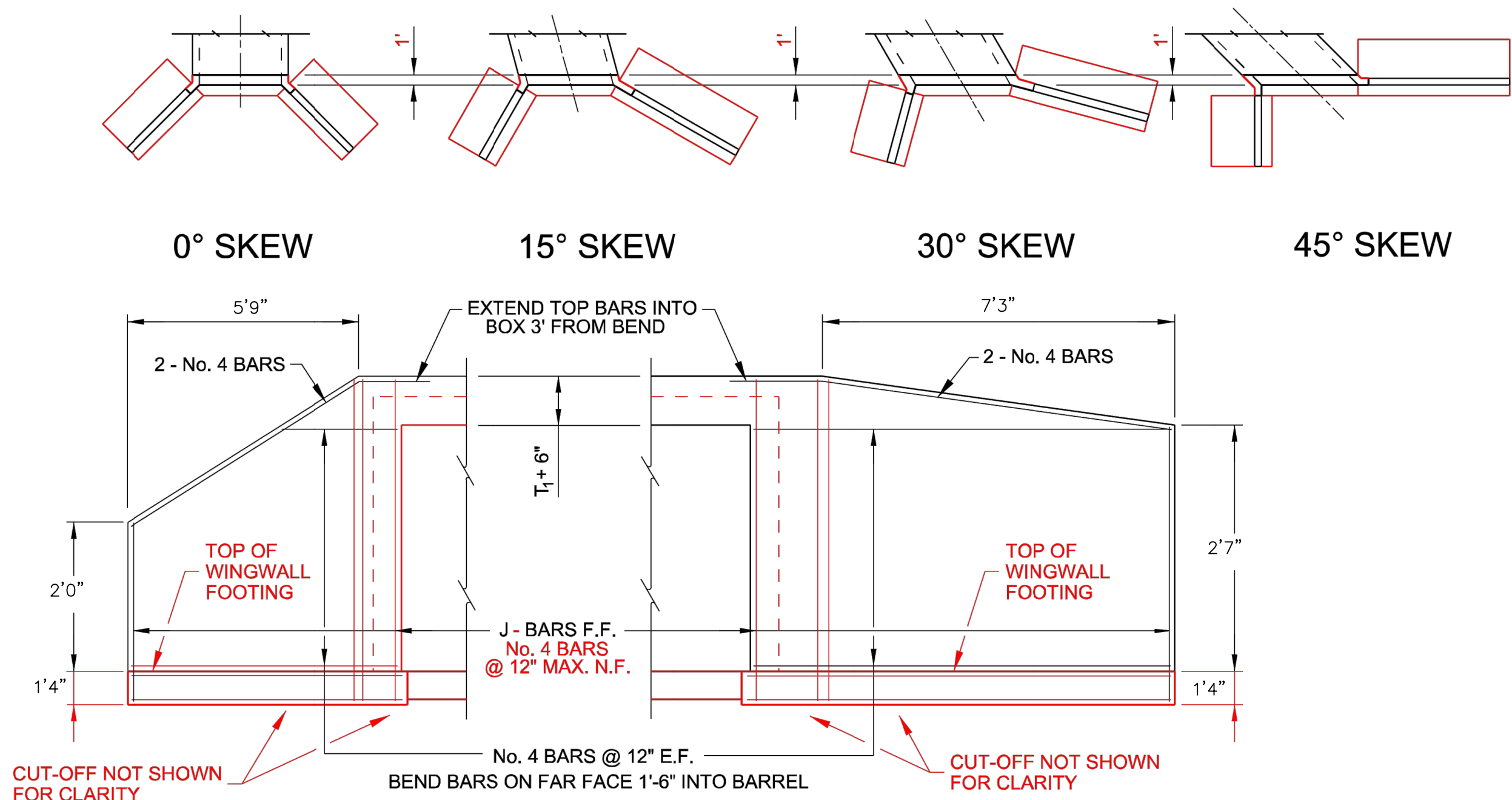
NOTE:
1. SEE SHEET 14 FOR PLAN VIEW



3 SOUTH FORK BOULDER GRADE CONTROL
D5 NTS



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NOTES:

- DESIGN SPECIFICATIONS "AASHTO LRFD Bridge Design Specifications 2012".
- For dimensions and reinforcing not shown see detail CH-5B.
- CONSTRUCTION SPECIFICATIONS: State of Nevada Department of Transportation "Standard Specifications for Road and Bridge Construction, 2014".
- WALL LOADS:
Case 1
Surcharge Depth = 2 ft
Lateral Earth Pressure = 36 pcf
Soil Dead Load = 120 pcf
Concrete Dead Load = 150 pcf
Earthquake Load = N/A
Case 2 (Wall B- 45 Degree Skew Only)
Surcharge Depth = 0 ft
Lateral Earth Pressure = 60 pcf
Soil Dead Load = 120 pcf
Concrete Dead Load = 150 pcf
Earthquake Load = N/A
- CONCRETE: Class DA Modified (Major) F'c = 4,500 psi @ 28 Days, Class D Modified in Clark County.

Where traffic loads will be placed directly on the top surface of the culvert, and/or up to 2-feet of fill (at edge of pavement), provide epoxy coated reinforcement, except in Clark County. Use EA Modified (Major) concrete, Class E Modified in Clark County, in lieu of Class DA. F'c = 4,500 PSI @ 28 Days.

Approved waterproofing membrane may be used in lieu of EA/E Concrete and epoxy coated reinforcing at the discretion of the NDOT Structures Division.
- REINFORCING STEEL: All reinforcing steel to be ASTM A 615 grade 60 or A706 grade 60. Dimensions relating to bar spacing are center to center. Reinforcing steel shall be embedded 3-inches clear of bottom of footing, and 2-inches clear of all other concrete surfaces.
- FOUNDATION PRESSURE: Headwalls are designed to the following soil bearing pressures:

RCB HEIGHT, H	Ton/ft. ²
≤ 6 ft	1.6
≤ 8 ft	1.7
≤ 10 ft	1.8
≤ 12 ft	1.9
≤ 14 ft	2.0
- SLIDING RESISTANCE:
Coefficient of Friction between Concrete Footing and Soil = 0.450
Cohesion = 0.200 ksf
Passive Earth Pressure = 360 pcf
Passive Resistance = Per design specifications ignoring top 2-feet of soil
- For quantities see detail CH-5C.

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CHIEF BRIDGE ENGR
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ADOPTED
11/1970

REVISED
9/2022

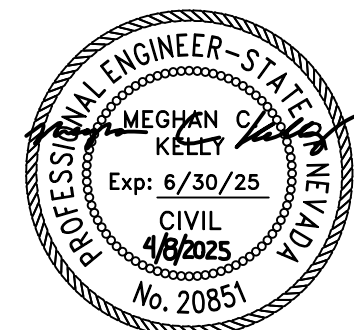
RCB CULVERTS
TYPE I HEADWALLS

SPEC. #
502

DETAIL
NUMBER
CH-5A



DETAILS 6
MARLETTE CREEK RESTORATION PROJECT



DESIGNED/DRAWN
EK
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DATE
4/2025
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AS SHOWN
PROJECT
MARLETTE CREEK
RESTORATION
SHEET

D6
21 OF 25



1 RCB CULVERTS TYPE I HEADWALL
D6 SOURCE: NDOT

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8

TYPE I HEADWALL DIMENSIONS AND REINFORCING STEEL

	0 DEGREE SKEW				15 DEGREE SKEW				30 DEGREE SKEW				45 DEGREE SKEW			
H (FT.)	AA (FT. - IN.)	BB (FT. - IN.)	CC (FT. - IN.)	DD (FT. - IN.)	AA (FT. - IN.)	BB (FT. - IN.)	CC (FT. - IN.)	DD (FT. - IN.)	AA (FT. - IN.)	BB (FT. - IN.)	CC (FT. - IN.)	DD (FT. - IN.)	AA (FT. - IN.)	BB (FT. - IN.)	CC (FT. - IN.)	DD (FT. - IN.)
3	6 - 3	6 - 3	2 - 2	2 - 2	5 - 9	7 - 3	2	2 - 7	5 - 3	9	1 - 10	3 - 3	5 - 3	11 - 3	1 - 10	H + T ₁ + 6"
4	7 - 9	7 - 9	2 - 8	2 - 8	7	9	3 - 2	2 - 5	6 - 6	11 - 3	2 - 4	3 - 11	6 - 3	14	2 - 3	H + T ₁ + 6"
5	9 - 3	9 - 3	3 - 3	3 - 3	8 - 3	10 - 9	2 - 11	3 - 10	7 - 9	13 - 6	2 - 9	4 - 9	7 - 9	16 - 9	2 - 8	H + T ₁ + 6"
6	10 - 9	10 - 9	3 - 10	3 - 10	9 - 9	12 - 9	3 - 5	4 - 6	9 - 3	15 - 9	3 - 3	5 - 7	9	20	3 - 2	H + T ₁ + 6"
7	12 - 3	12 - 3	4 - 4	4 - 4	11	14 - 3	3 - 11	5 - 1	10 - 6	18	3 - 8	6 - 4	10 - 3	22 - 9	3 - 7	H + T ₁ + 6"
8	13 - 9	13 - 9	4 - 10	4 - 10	12 - 3	16	4 - 4	5 - 8	11 - 6	20	4 - 1	7 - 1	11 - 3	25 - 9	4	H + T ₁ + 6"
9	15	15	5 - 4	5 - 4	13 - 6	17 - 9	4 - 10	6 - 3	12 - 9	22	4 - 6	7 - 9	12 - 6	28 - 6	4 - 5	H + T ₁ + 6"
10	16 - 6	16 - 6	5 - 10	5 - 10	14 - 9	19 - 3	5 - 3	6 - 10	14	24	4 - 11	8 - 6	13 - 9	31 - 3	4 - 10	H + T ₁ + 6"
11	18	18	6 - 4	6 - 4	16	21	5 - 8	7 - 5	15 - 3	26 - 3	5 - 4	9 - 3	14 - 9	34 - 3	5 - 3	H + T ₁ + 6"
12	19 - 3	19 - 3	6 - 10	6 - 10	17 - 6	22 - 9	6 - 2	8	16 - 3	28 - 3	5 - 9	10	16	37	5 - 8	H + T ₁ + 6"
13	20 - 9	20 - 9	7 - 4	7 - 4	18 - 9	24 - 3	6 - 7	8 - 7	17 - 6	30 - 3	6 - 2	10 - 9	17 - 3	39 - 9	6 - 1	H + T ₁ + 6"
14	22 - 3	22 - 3	7 - 10	7 - 10	20	26	7 - 1	9 - 2	18 - 9	32 - 6	6 - 8	11 - 5	18 - 6	42 - 6	6 - 6	H + T ₁ + 6"

							0 DEGREE SKEW		15 DEGREE SKEW				30 DEGREE SKEW				45 DEGREE SKEW	
							WALL A AND B		WALL A		WALL B		WALL A		WALL B		WALL A	
H (FT.)	C (IN.)	D (IN.)	J (SIZE)	J SPACING (IN.)	K (SIZE)	K SPACING (IN.)	E (FT. - IN.)	F (FT. - IN.)	E (FT. - IN.)	F (FT. - IN.)	E (FT. - IN.)	F (FT. - IN.)	E (FT. - IN.)	F (FT. - IN.)	E (FT. - IN.)	F (FT. - IN.)	E (FT. - IN.)	F (FT. - IN.)
3	8	10	5	12	5	12	1	3-3	1	3-3	1	3-3	1	3-3	1	3-3	1	3-3
4	8	10	5	12	5	12	1	3-6	1	3-6	1	3-9	1	3-6	1	4	1	3-6
5	8	12	5	12	5	12	1	4-3	1	4	1	4-6	1	4	1	4-9	1	4
6	8	12	5	6	5	6	1	5	1	4-9	1	5-3	1	4-9	1	5-6	1	4-9
7	10	14	5	6	5	6	1	5-9	1	5-3	1	5-9	1	5-3	1	6-3	1	5-3
8	10	14	5	6	5	6	1-4	6-3	1-4	6	1-4	6-6	1-4	6	1-4	7	1-4	6
9	10	16	6	6	5	6	1-4	7	1-4	6-9	1-4	7-3	1-4	6-9	1-4	7-9	1-4	6-6
10	10	16	6	6	6	6	1-4	7-6	1-4	7-3	1-4	7-9	1-4	7-3	1-4	8-6	1-4	7
11	12	18	6	6	6	6	1-4	8	1-4	7-9	1-4	8-6	1-4	7-9	1-4	9	1-4	7-9
12	12	18	7	6	6	6	1-4	8-6	1-4	8-3	1-4	9	1-4	8-3	1-4	9-6	1-4	8-3
13	12	20	7	6	7	6	1-6	9-3	1-6	9	1-6	9-9	1-6	8-9	1-6	10-6	1-6	8-9
14	12	20	7	6	7	6	1-6	9-9	1-6	9-6	1-6	10-3	1-6	9-3	1-6	11	1-6	9-3

45 DEGREE SKEW								
WALL B								
H (FT.)	C (IN.)	D (IN.)	J (SIZE)	J SPACING (IN.)	K (SIZE)	K SPACING (IN.)	E (FT. - IN.)	F (FT. - IN.)
3	12	12	5	12	5	12	1	5
4	12	12	5	12	5	12	1	6-3
5	12	12	6	12	5	12	1	7-6
6	12	12	5	6	5	6	1	9
7	12	14	5	6	5	6	1	10-3
8	12	14	5	6	5	6	1-3	11-6
9	12	16	6	6	5	6	1-3	12-9
10	12	16	6	6	6	6	1-3	13-9
11	12	18	6	6	6	6	1-3	15
12	12	18	7	6	8	6	1-3	16
13	12	20	8	6	7	6	1-6	17-6
14	12	20	8	5	8	5	1-6	18-6

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ADOPTED
11/1970

REVISED
9/2022

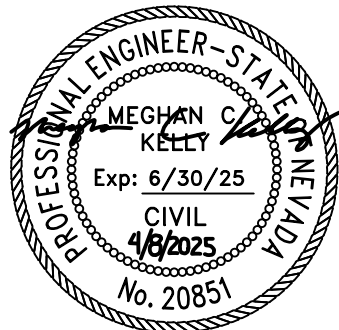
RCB CULVERTS
TYPE I HEADWALLS

SPEC. #
502

DETAIL
NUMBER
CH-5B



DETAILS 7
MARLETTE CREEK RESTORATION PROJECT



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DATE
4/2025
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AS SHOWN

PROJECT
MARLETTE CREEK
RESTORATION
SHEET

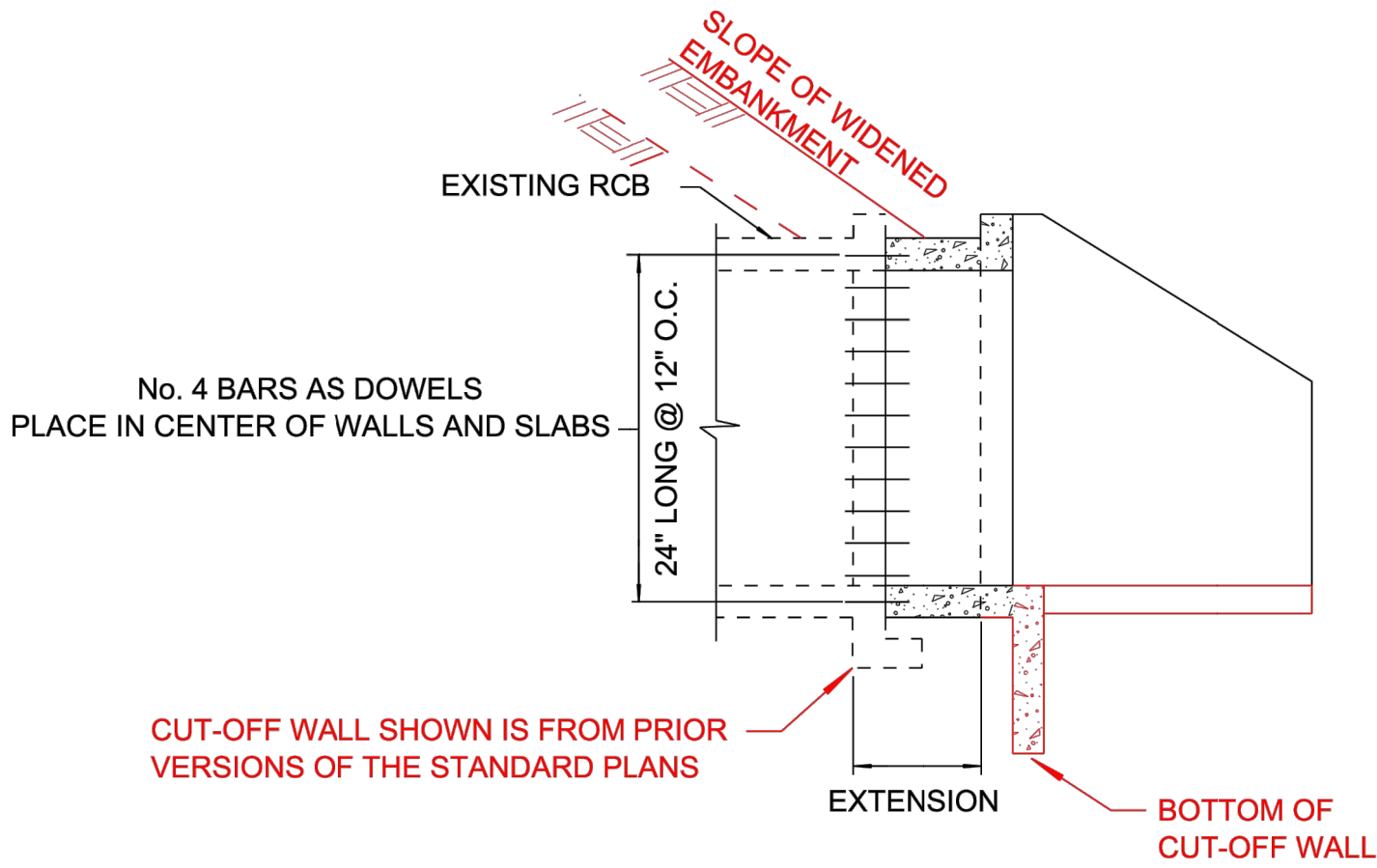
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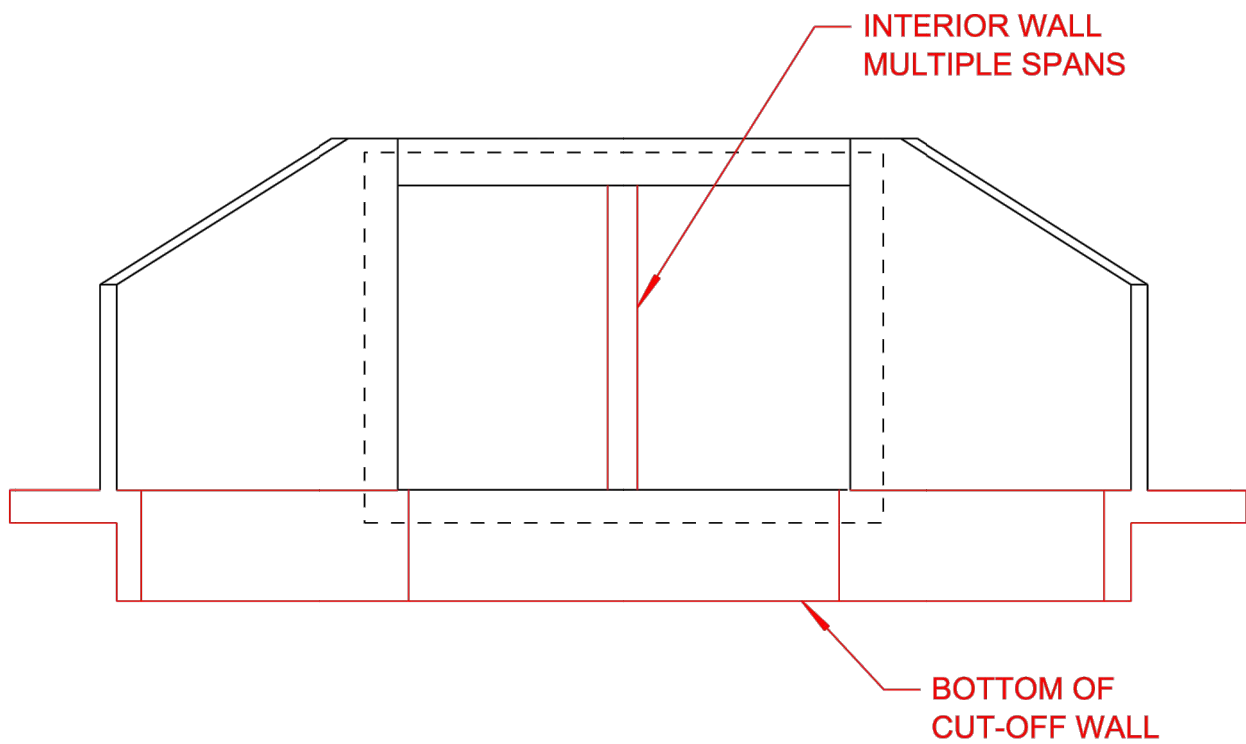
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NOTES:

1. For additional notes see detail CH-1.
2. Dowel holes shall be drilled 12-inches into existing concrete. Diameter of hole shall be 1/4-inch larger than diameter of bar. Hole may be inclined no more than 5° off the horizontal. Dowels shall be epoxied into clean holes. Epoxy shall conform to the requirement of Section 728.
3. To remove rounded ends of interior culvert walls, sawcut a vertical line 1/2" deep where the curved portion of the wall ends. Demolish the rounded end of the wall while protecting any existing reinforcing.

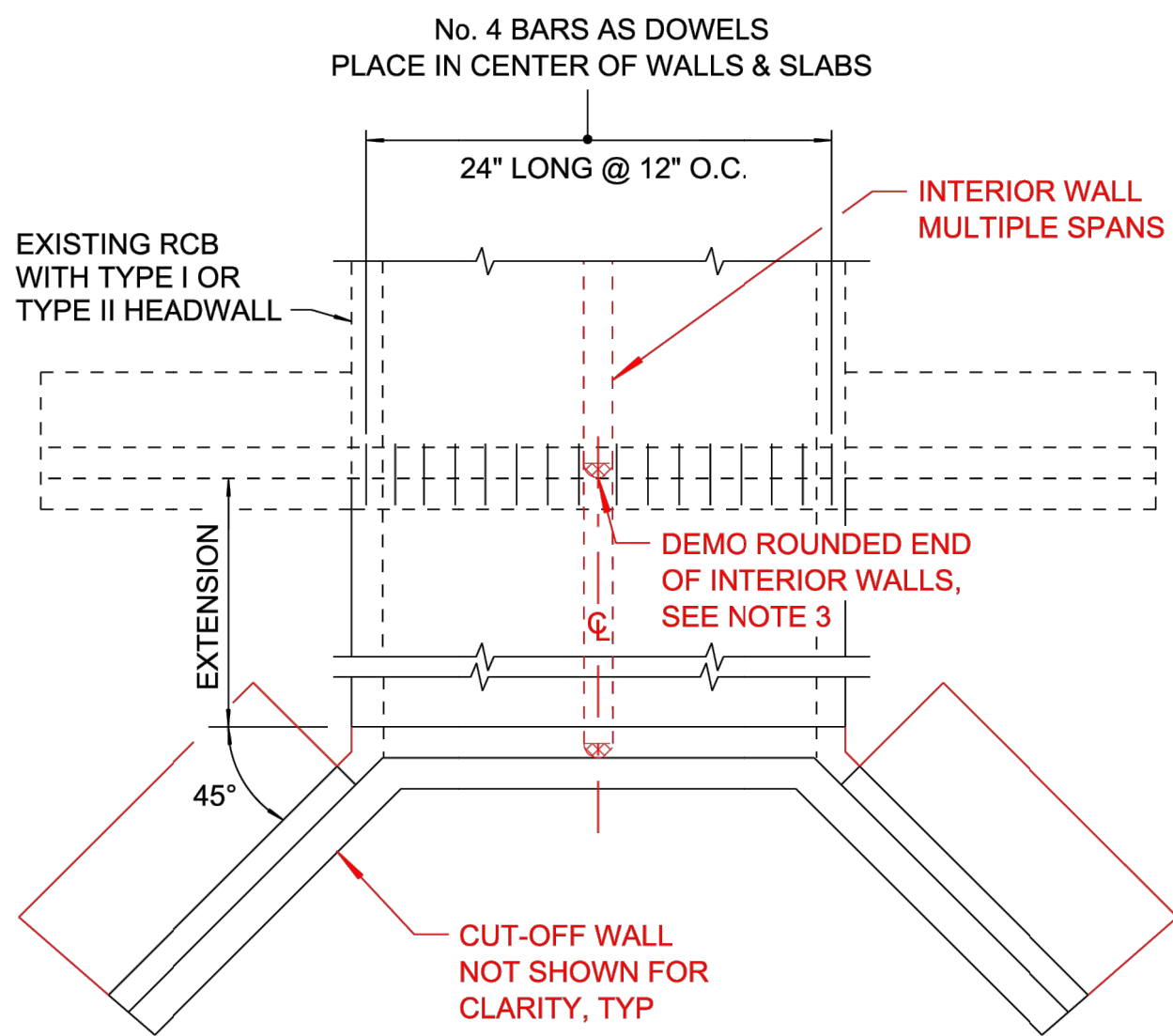


OLD HEADWALLS TO REMAIN IN PLACE
UNLESS OTHERWISE NOTED
PART LONGITUDINAL SECTION

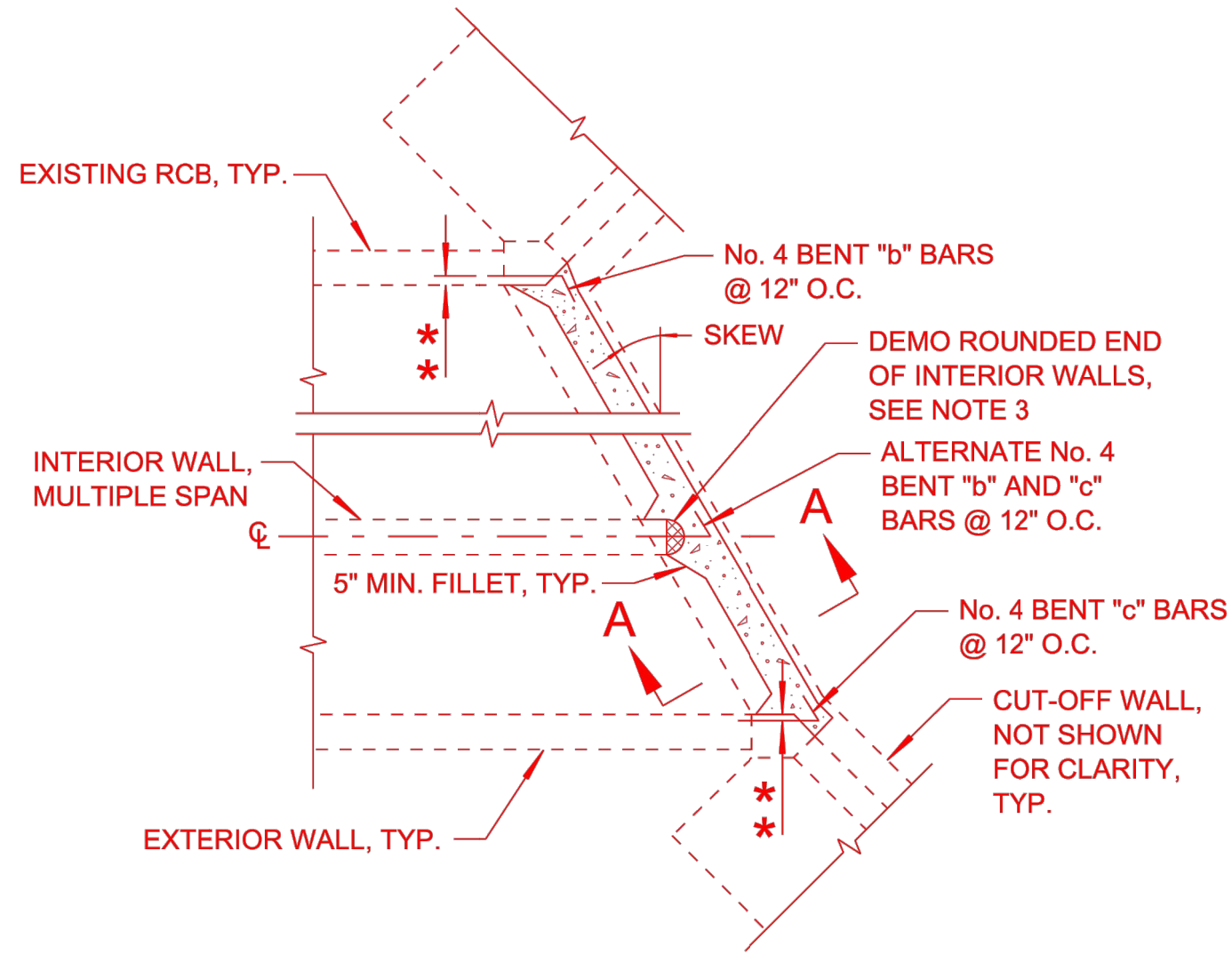


ELEVATION

RCB CULVERT EXTENSION

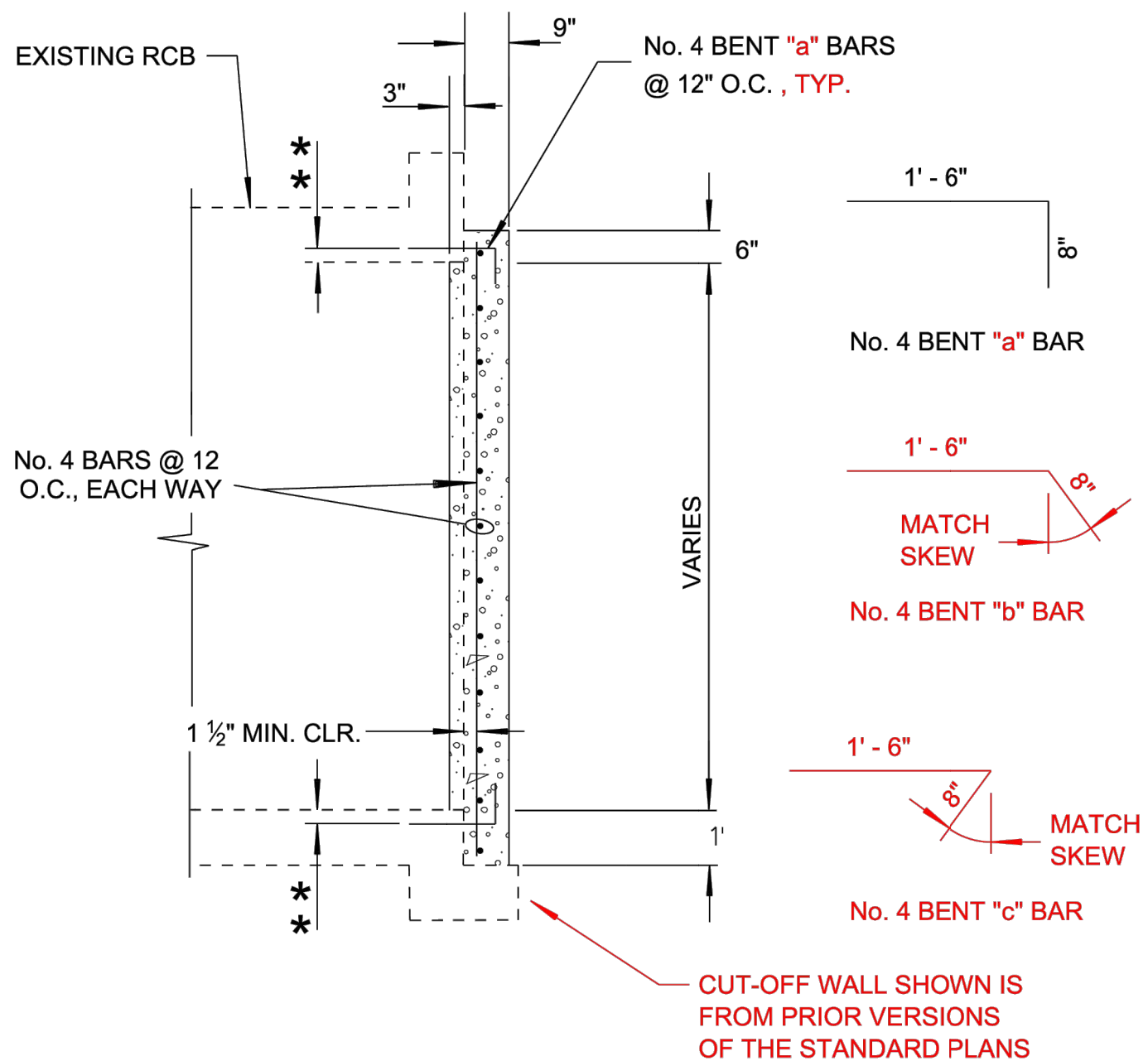


PLAN



* * - 3" TO CENTER OF HOLE
FROM INSIDE FACE
OF CONCRETE

PLAN VIEW



SECTION A-A
WIDTH AND HEIGHT VARIES
METHOD OF PLUGGING RCB

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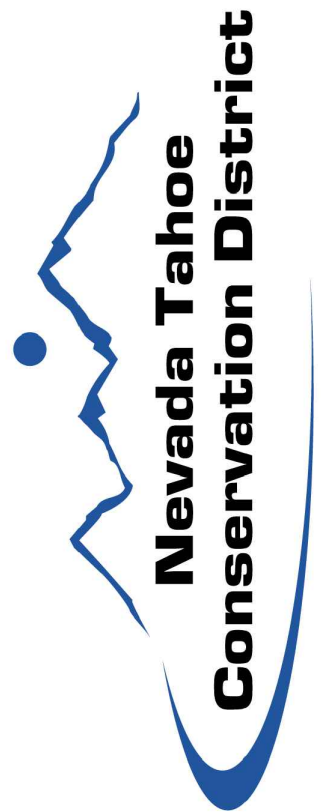
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9/2022

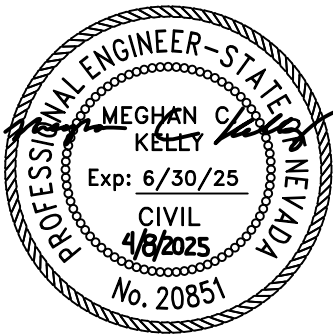
**RCB CULVERTS METHOD OF
EXTENDING AND PLUGGING**

SPEC. #
502

DETAIL
NUMBER
CH-9



DETAILS 8
MARLETTE CREEK RESTORATION PROJECT



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RESTORATION
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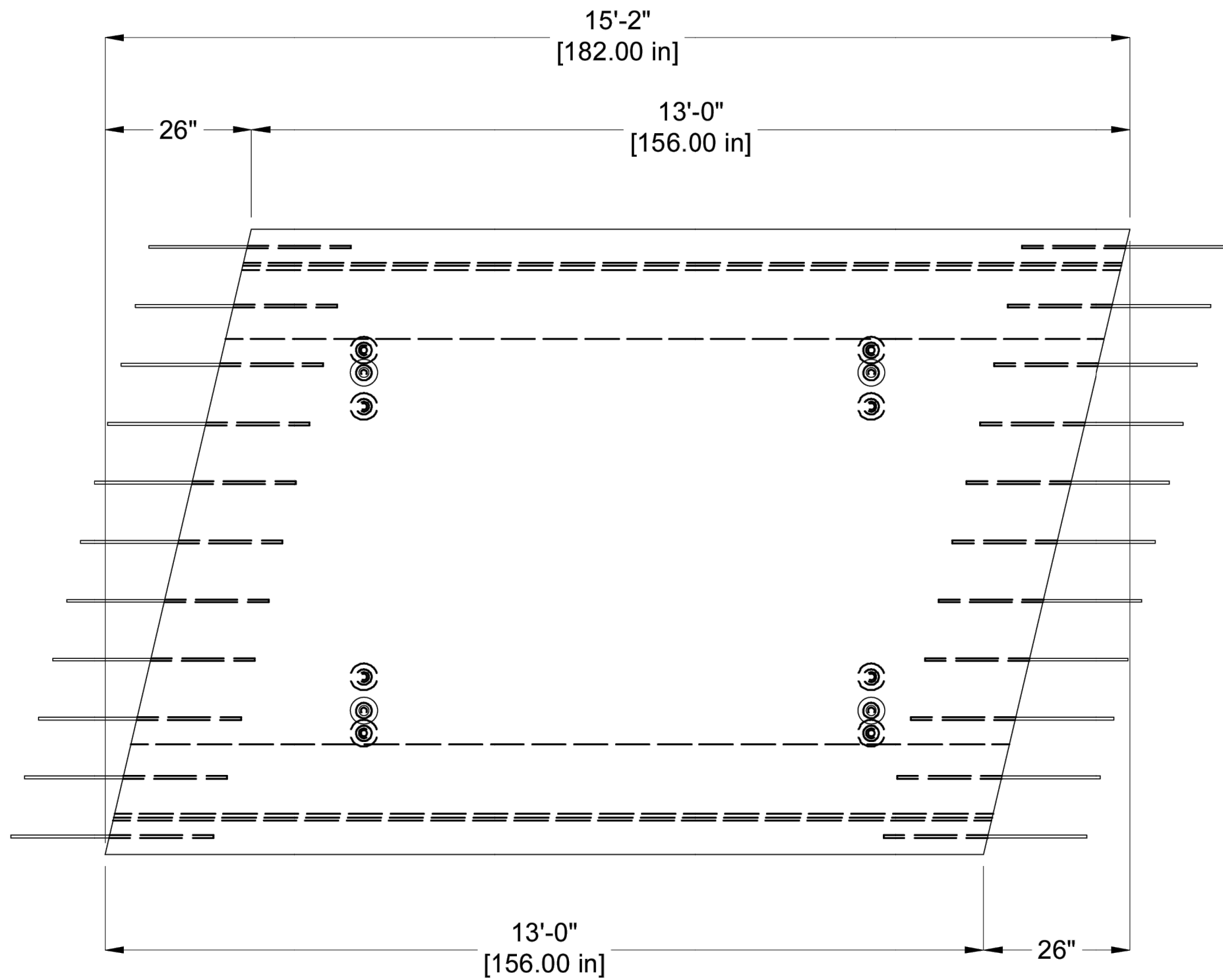
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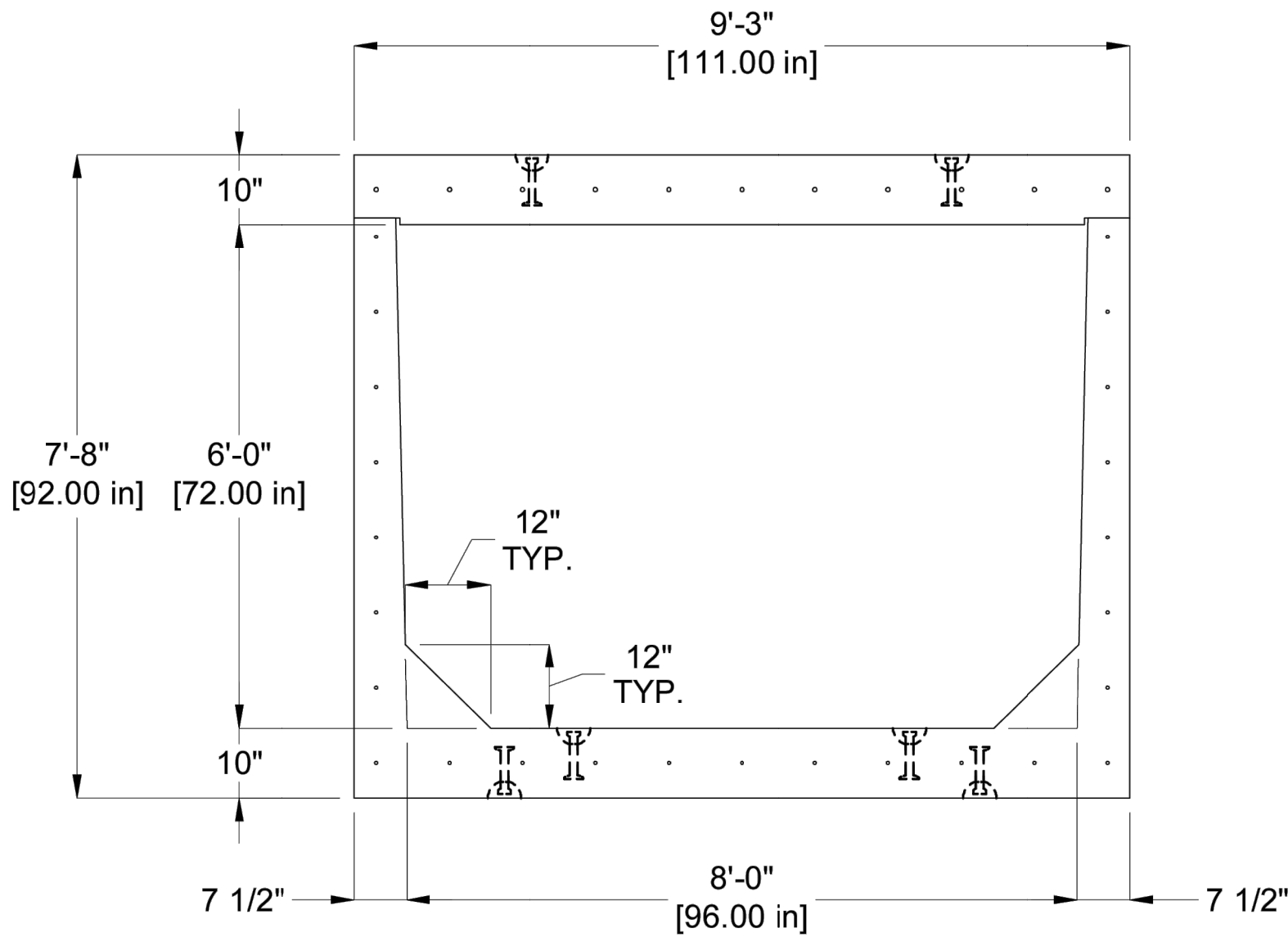
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DESIGN NOTES	
■ THIS PRODUCT MUST ONLY BE PRODUCED IN A JENSEN PRECAST FACILITY.	
■ ALL CONCRETE MUST HAVE A 28 DAY COMPRESSIVE STRENGTH OF 5000 PSI.	
■ REINFORCING STEEL MUST COMPLY WITH ASTM A615 GRADE 60 OR ASTM A706 GRADE 60.	
■ EQUIVALENT AREA WELDED WIRE REINFORCING CAGES MAY BE UTILIZED IN LIEU OF GRADE 60 REBAR.	
■ WELDED WIRE REINFORCING MUST COMPLY WITH ASTM A1064.	
■ SEE TITLE BLOCK FOR BURY DEPTH RANGE, WATER TABLE LEVEL, AND DESIGN AND LOADING SPECIFICATIONS.	
■ SOIL UNIT WEIGHT – 120 lbs/cu.ft.	
■ EQUIVALENT LATERAL EARTH PRESSURE DRY: 60 lbs/cu.ft.	
■ EQUIVALENT LATERAL EARTH PRESSURE WET: 95 lbs/cu.ft.	
■ UNLESS OTHERWISE NOTED OR SPECIFIED THE STRUCTURE MUST BE INSTALLED PER "JENSEN PRECAST TYPE 1 SEGMENTAL BOX CULVERT INSTALLATION REQUIREMENTS" FOUND AT https://wp1.jensenprecast.com/wp-content/uploads/RCBC-Type-1-Seg-Installation-Instructions.pdf	



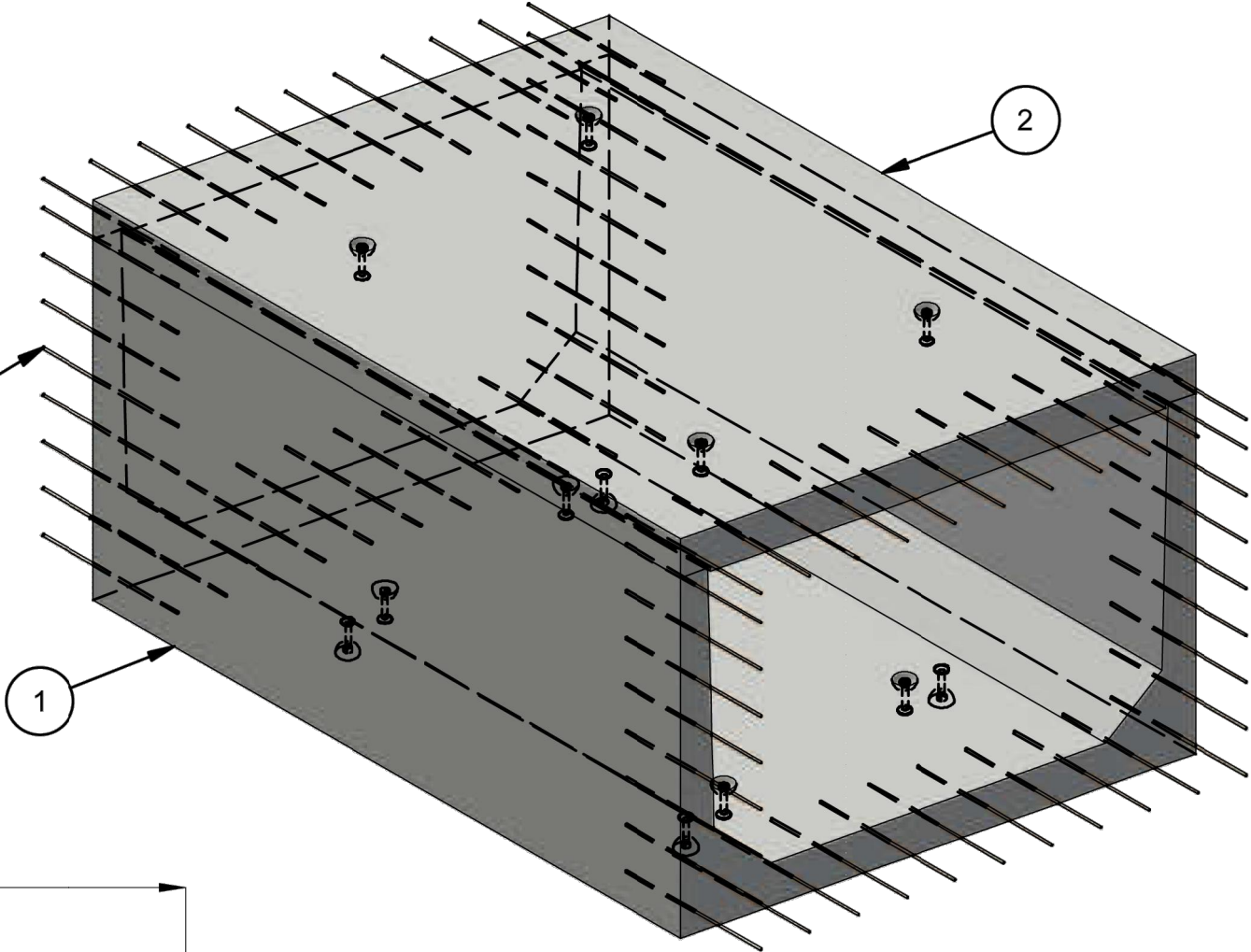
PLAN VIEW



CROSS SECTION

BILL OF MATERIALS				
ITEM	QTY	PART NUMBER	DESCRIPTION	MASS (lb)
1	1	200096079	Segmental Box Culvert SBC1-9672 Base Center Skew (Both) 96Wx72Hx156L	30360
2	1	200096084	Segmental Box Culvert SBC1-96 Slab Top Center Skew (Both) 96Wx156Lx10T	14882

#4 DOWEL BARS AT 12" O.C. MAX.
TYPICAL AT BOTH ENDS OF CULVERT
(36" LENGTH, 18" EMBEDDED)



ISO VIEW

BURY DEPTH:	1.0' - 5.0' to Top
WATER LEVEL:	3.0'
DESIGN SPEC:	AASHTO LRFD,ASTM C1786
AGENCY:	

APPROX. WEIGHT:	45241.41 Lbs
LOADING SPEC:	AASHTO HL-93
AGENCY SPEC:	

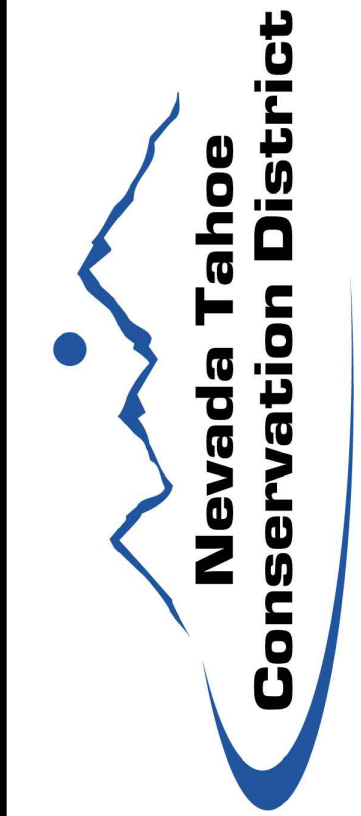


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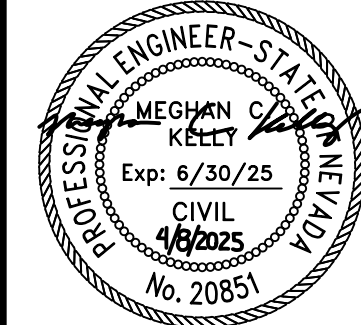
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This product shall only be produced in a Jensen Precast facility.

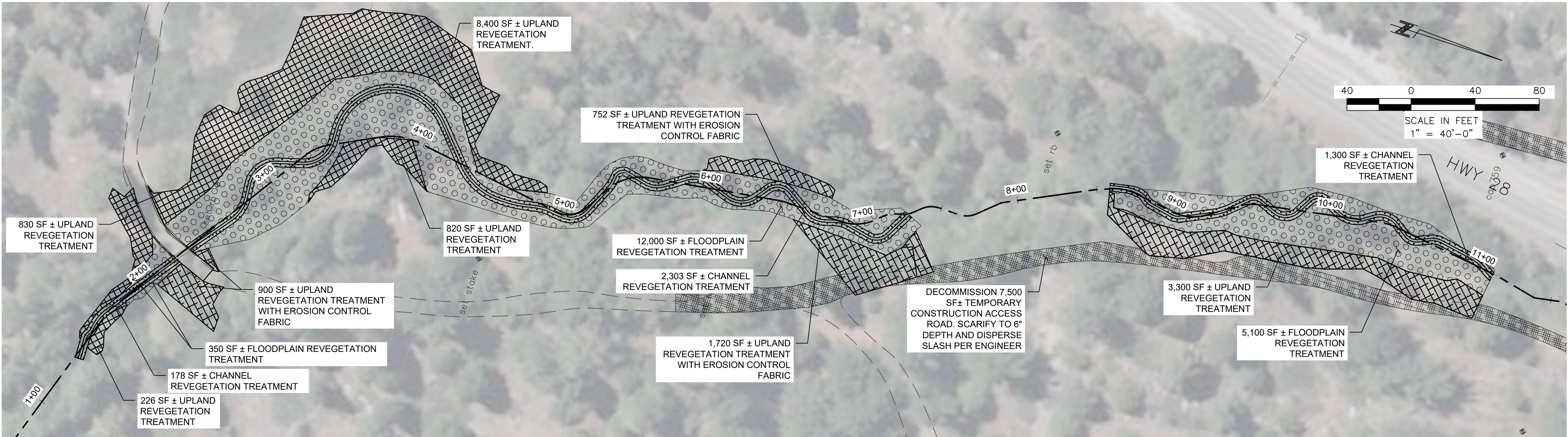
CHANGE HISTORY			
NO.	DESCRIPTION	DATE	BY
1	2412-58113	12/17/2024	MLR/RM
DESCRIPTION:			REV:
Type 1 Box Culvert Layout SBC1-86x13' Run Mariette Creek Culvert Extension			A-1
LAYOUT REVIEW			
PART NUMBER:	200096089	DRAWN BY:	MLR
CREATED:	12/13/2024	MODIFIED:	12/17/2024
			SHEET:
			1 OF 2



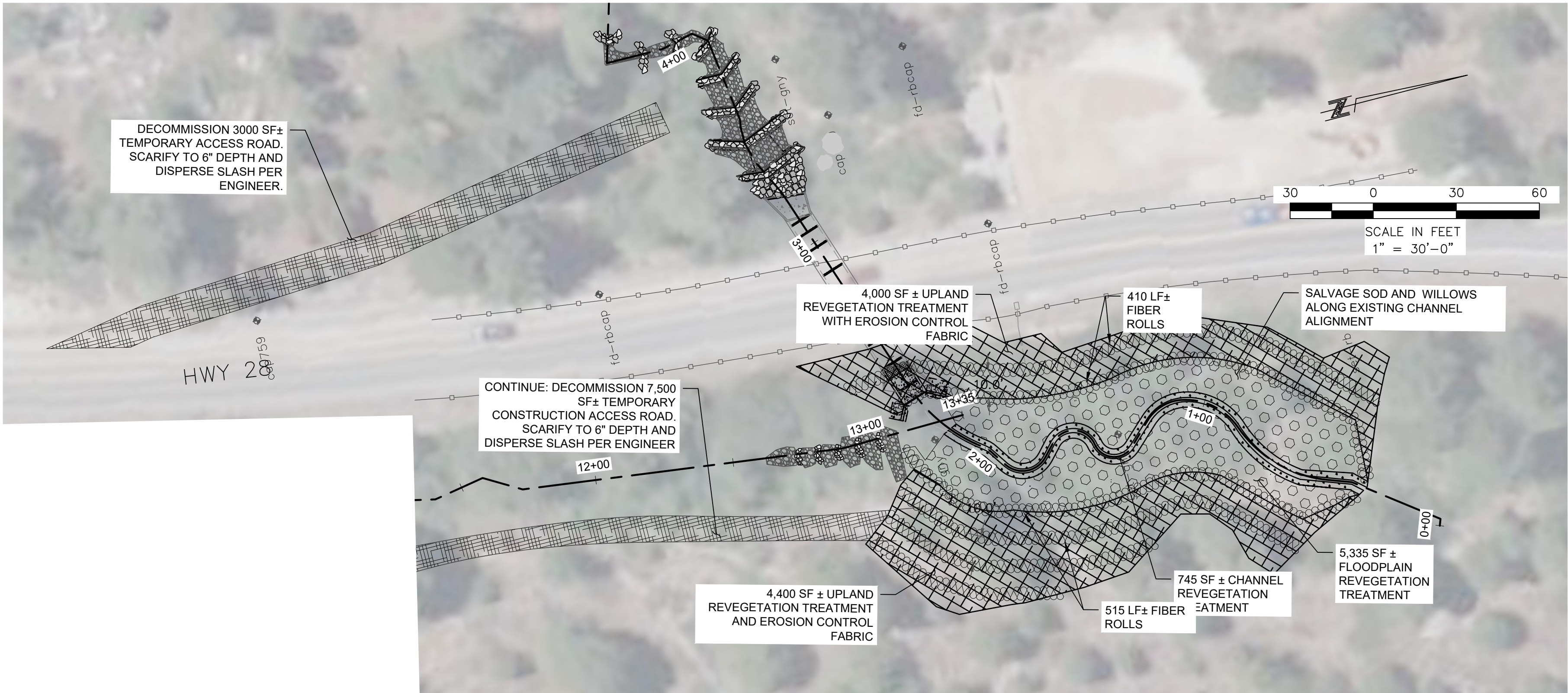
DETAILS 9
MARLETTE CREEK RESTORATION PROJECT



DESIGNED/DRAWN	EK
CHECKED	MK
DATE	4/2025
SCALE	AS SHOWN
PROJECT	MARLETTE CREEK RESTORATION
SHEET	



PLAN – SOUTH FORK STA 1+25 TO 11+10



PLAN – MAIN FORK STA 0+40 TO 4+50

- ROAD GRADE DECOMMISSION, UPLAND REVEGETATION, MULCH AND UPLAND SEED (10,500 SF±)
- UPLAND REVEGETATION, EROSION CONTROL FABRIC, MULCH AND UPLAND SEED (15,000 SF±)
- UPLAND REVEGETATION, MULCH AND UPLAND SEED (10,300 SF±)
- FLOODPLAIN REVEGETATION, EROSION CONTROL FABRIC, MULCH AND SEED MIX 1 (23,000 SF±)
- CHANNEL REVEGETATION; WETLAND MAT (4,500 SF±)

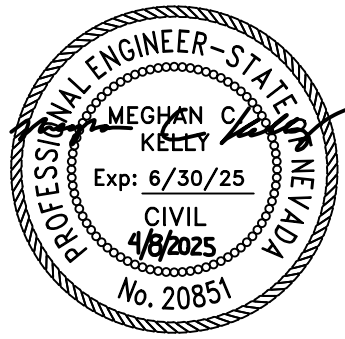
Seed Mix 1 (Riparian)		
Species (Scientific Name)	Species (Common Name)	LBS per Acre
<i>Bromus Carinatus</i>	California Brome	3.00
<i>Deschampsia Cespitosa</i>	Tufted Hairgrass	.25
<i>Carex Praegracilis</i>	Meadow Sedge	.50
<i>Hordeum Brachyantherum</i>	Meadow Barley	2.00
<i>Juncus Balticus</i>	Baltic Rush	.02
<i>Elymus Triticoides</i>	Creeping Wildrye	3.00
<i>Crex Nebraskaensis</i>	Nebraska Sedge	.50
<i>Lupinus Polyphyllus</i>	Big Leaf Lupine	1.00
<i>Potentilla Gracilis</i>	Slender Cinquefoil	.50
<i>Erythranthe Guttata</i>	Mimulus Guttatus	.02
<i>Carex Athrostachya</i>	Slenderbeak Sedge	.20
<i>Delphinium Glaucum</i>	Sierra Larkspur	.50
<i>Festuca Rubra</i>	Creeping Red Fescue	1.00
Total		12.49

Seed Mix 2 (Upland)		
Species (Common Name)	Species (Botanical Name)	LBS per Acre
Achnatherum Occidentale	Western Needlegrass	.5
Bromus Carinatus	California Brome	4.50
Elymus Elymoides	Bottlebrush Squirreltail	3.50
Elymus Triticoides	Creeping Wildrye	4.00
Leymus Cinereus	Great Basin Wildrye	2.00
Elymys Glaucus	Blue Wildrye	1.00
Poa Secunda	Sandberg Bluegrass	.50
Arctostaphylos Patula	Greenleaf Manzanita	1.50
Artemisia Tridentata	Basin Big Sagebrush	.20
Purshia Tridentata	Antelope Bitterbrush	2.00
Ceanothus Velutinus	Deerbrush	1.50
Achillea Millefolium	White Yarrow	.10
Monardella Odoratissima	Coyote Mint	.50
Lupinus Arbustus	Longspur Lupine	1.50
Wyethia Molis	Wooly Mules Ear	1.50
Lupinus Argenteus	Silverleaf Lupine	1.50
Symphotrichum Ascendens	Western Aster	.50
Penstemon Newberryi	Mountain Pirde	.50
Total PLS LBS/ACRE RATE		27.3

- SOD WILL BE SALVAGED FROM AREAS IDENTIFIED BY THE ENGINEER AND REPLANTED CLOSEST TO MARLETTE CREEK. ALL DISTURBED AREAS, INCLUDING SOD TRANSPLANT, SHALL BE SEEDED WITH SEED MIX
- AREAS IDENTIFIED AS CHANNEL REVEGETATION WILL BE RESTORED WITH WETLAND MAT PROVIDED TO THE CONTRACT BY THE ENGINEER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 5 WORKING DAYS PRIOR TO PLACEMENT OF WETLAND MAT. WETLAND MAT MAY BE STORED ON SITE AS DIRECTED BY THE ENGINEER.
- WORK SHALL BE CONDUCTED AND/OR OVERSEEN BY A LICENSED LANDSCAPE CONTRACTOR (C-10) IN THE STATE OF NEVADA AND WILL BE INSPECTED BY THE ENGINEER, IN CONJUNCTION WITH THE REVEGETATION SPECIALIST (RS). THE CONTRACTOR SHALL PERFORM ALL REVEGETATION WORK AS SPECIFIED HEREIN AND IN ACCORDANCE WITH THESE SPECIAL TECHNICAL PROVISIONS, THE PROJECT PLANS, AND THE STANDARD SPECIFICATIONS. THE REVEGETATION WORK SHALL CONSIST OF ALL SITE PREPARATION ASSOCIATED WITH THE REVEGETATION TREATMENTS, AND SHALL INCLUDE SOD AND ORGANIC MATTER SALVAGE, STORAGE AND REPLANTING; WILLOW SALVAGE, STORAGE AND REPLANTING; SEEDBED PREPARATION; SEEDING; MULCHING; DESIGN, INSTALLATION AND MANAGEMENT OF THE IRRIGATION SYSTEM, IF NECESSARY, INCLUDING WINTERIZATION AND DECOMMISSIONING; AND RECORD KEEPING.
- AREAS TO RECEIVE REVEGETATION TREATMENTS SHALL INCLUDE ALL AREAS DISTURBED DURING CONSTRUCTION AND ALL AREAS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR IS FURTHER REQUIRED TO ONLY USE "LOW IMPACT EQUIPMENT" FOR THIS PROJECT. NO EQUIPMENT HAVING A GROUND PRESSURE THAT WILL DISTURB AND/OR COMPACT THE GROUND (GENERALLY GROUND PRESSURES LESS THAN 25 PSI) WILL BE ALLOWED OFF OF PAVED AREAS OR DESIGNATED TEMPORARY TRUCK HAUL ROUTES UNDER ANY CIRCUMSTANCES. ALL EQUIPMENT ON THE PROJECT SITE, (OFF PAVED AREAS OR DESIGNATED TRUCK HAUL ROUTES), SHALL MEET THIS LOW-PRESSURE REQUIREMENT. SUPPLEMENTAL TREATMENTS MAY BE REQUIRED IF REVEGETATION EFFORTS ARE UNSATISFACTORY FOLLOWING COMPLETION OF WORK AS DETERMINED BY THE ENGINEER. THE CONTRACTOR MUST ACHIEVE 70% OF PRE-DISTURBANCE (REFERENCE AREA) NATIVE VEGETATIVE COVER FOR AREAS RECEIVING SEED. WARRANTY 100% SURVIVAL OF ALL SALVAGED AND TRANSPLANTED SOD AND WILLOWS.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER NO LESS THAN TEN (10) WORKING DAYS IN ADVANCE OF REVEGETATION WORK AND SHALL NOT BEGIN WORK UNTIL PREPARED REVEGETATION TREATMENT AREAS HAVE BEEN ACCEPTED BY THE ENGINEER. THE CONTRACTOR SHALL REQUEST THAT TREATMENT TYPES AND BOUNDARIES ARE LOCATED BY THE ENGINEER PRIOR TO PROGRESSING WITH THE WORK.
- NO SUBSTITUTIONS OR ALTERATIONS TO THESE SPECIAL TECHNICAL PROVISIONS SHALL BE ACCEPTED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ENGINEER AND THE RS. NO FURTHER DISTURBANCE OF ANY TREATMENT AREA SHALL BE ALLOWED ONCE REVEGETATION HAS BEEN INITIATED.
- SOIL DISTURBANCE SHALL BE MINIMIZED AND LIMITED TO THOSE AREAS THAT REQUIRE TREATMENT. ALL EXISTING VEGETATION WITHIN THE PROJECT LIMITS NOT DESIGNATED FOR REMOVAL SHALL BE PROTECTED. DELINEATE PROJECT BOUNDARIES WITH FENCING PER THE REQUIREMENTS IN CONSTRUCTION LIMIT FENCING AND IN THESE SPECIAL TECHNICAL PROVISIONS. TRAFFIC OUTSIDE OF PROJECT AREA IS PROHIBITED. ANY EXISTING OR PREVIOUSLY INSTALLED VEGETATION DAMAGED SHALL BE REPLACED BY THE CONTRACTOR. AREAS TO RECEIVE REVEGETATION TREATMENTS SHALL INCLUDE ALL AREAS DISTURBED DURING CONSTRUCTION, AS INDICATED ON THE PROJECT PLANS AND AS DIRECTED BY THE ENGINEER.
- SALVAGE ALL SOD TO BE DISTURBED INCLUDING BUT NOT LIMITED TO WHAT IS SHOWN ON THE DRAWINGS. SALVAGE SOD AND ORGANIC MATTER, STORE, AND REPLANT AS DIRECTED BY THE RS. TOP DRESS BARE AREAS WITH REVEGETATION SEED MIX 1. RAKE SEED TO INCORPORATE AND IRRIGATE TO ESTABLISH REQUIRED COVER IRRIGATE TO ESTABLISH SOD AND SEEDED AREAS. WATER SOD 2 TIMES PER DAY TO KEEP MOIST UNTIL PLANTED.
- SALVAGE, STORE, AND RE-PLANT WILLOWS AS SHOW ON THE PLANS AND AS DIRECTED THE ENGINEER. TOP DRESS BARE AREAS WITH SEED MIX 1. RAKE SEED TO INCORPORATE. IRRIGATE TO MEET PERFORMANCE CRITERIA.
- LOOSEN ANY COMPACTED SOILS TO ACHIEVE A MAXIMUM OF 85% COMPACTION FOR AN 8" MINIMUM DEPTH. APPLY REVEGETATION SEED MIX, INCORPORATE. APPLY MULCH AND CRIMP TO ACHIEVE 100% COVER.



LANDSCAPING & REVEGETATION PLAN 1
MARLETTE CREEK RESTORATION PROJECT



DESIGNED/DRAWN	EK
CHECKED	MK
DATE	4/2025
SCALE	AS SHOWN
PROJECT	MARLETTE CREEK RESTORATION
SHEET	1