

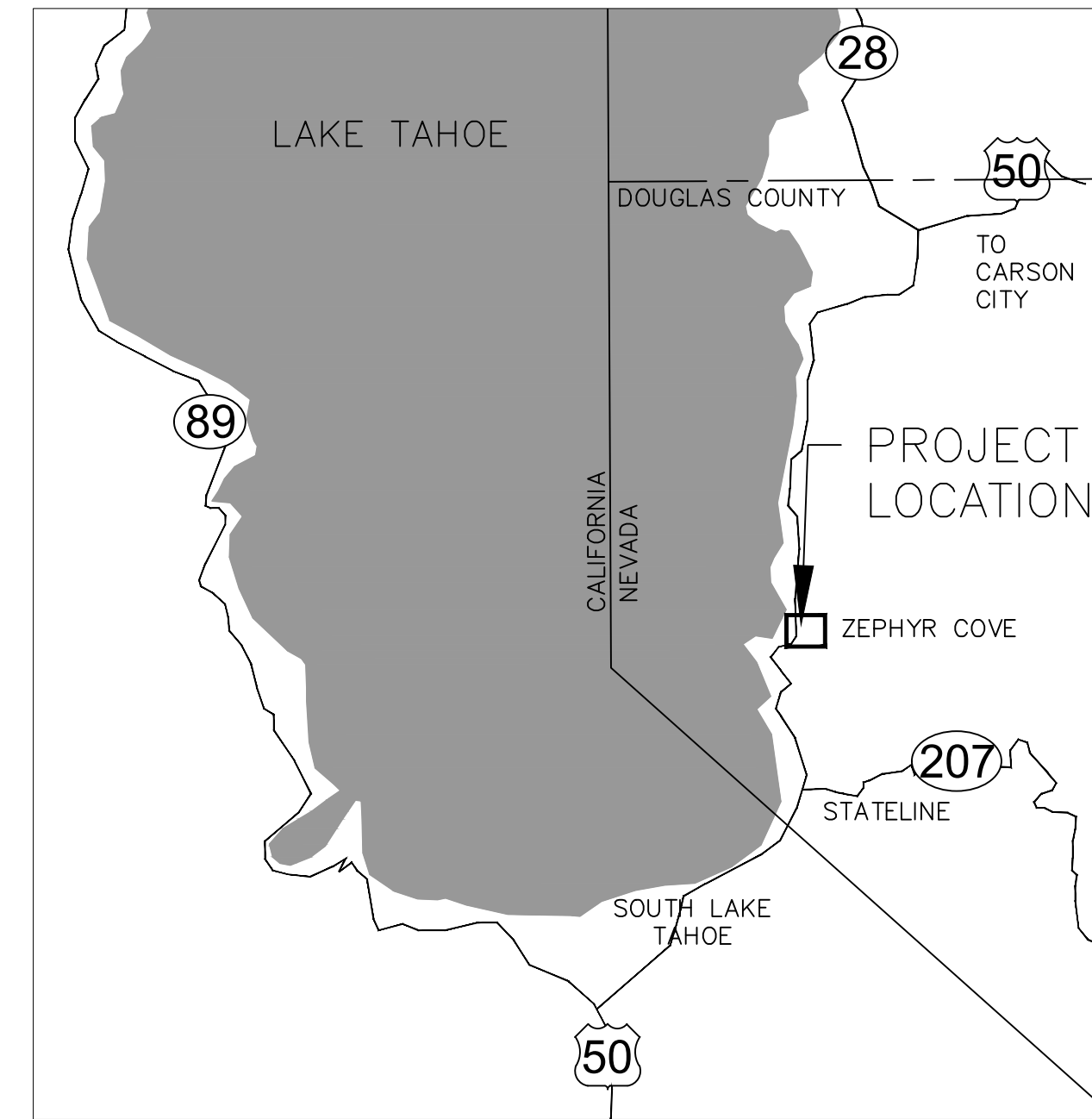
NEVADA TAHOE CONSERVATION DISTRICT ZEPHYR COVE WATER QUALITY IMPROVEMENT PROJECT, PHASE 2

IN THE COUNTY OF DOUGLAS
EIP # 01.01.01.15



PLAN

SCALE: 1" = 150'



VICINITY MAP

NOT TO SCALE

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ENGINEER:

Meghan C. Kelly 2/6/17

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REGISTERED CIVIL ENGINEER
STATE OF NEVADA, NO. 20851
NEVADA TAHOE CONSERVATION DISTRICT
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(775) 586-1610



ZEPHYR COVE WATER QUALITY
IMPROVEMENT PROJECT, PHASE 2

BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS



DESIGNED/DRAWN MCK/MCK

CHECKED MBG

DATE 2/2017

SCALE AS SHOWN

PROJECT ZC WQIP

SHEET

i

1 OF 12

GENERAL NOTES

- ALL IMPROVEMENTS SHALL BE ACCOMPLISHED UNDER THE APPROVAL, INSPECTION, AND TO THE SATISFACTION OF NEVADA TAHOE CONSERVATION DISTRICT (NTCD) & THE NEVADA DEPARTMENT OF TRANSPORTATION (NDOT). IMPROVEMENT CONSTRUCTION SHALL COMPLY WITH THESE PLANS AND THE MOST RECENT **NDOT STANDARD SPECIFICATIONS & PLANS FOR ROAD & BRIDGE CONSTRUCTION** ("STANDARD SPECIFICATIONS"). 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.
- CONTRACTOR SHALL MAINTAIN A SET OF PLANS ON SITE SHOWING "AS CONSTRUCTED" CHANGES. UPON COMPLETION, CONTRACTOR SHALL SUPPLY NDOT, DOUGLAS COUNTY, AND NTCD A SET OF "AS BUILT" PLANS. SEE SPECIAL PROVISIONS.
- MOBILIZATION/STAGING AND STORAGE AREAS ARE TO BE SECURED BY THE CONTRACTOR AND APPROVED BY TRPA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF MOBILIZATION SITES, INCLUDING PLACEMENT AND MAINTENANCE OF BMPS.
- 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. DURING CONSTRUCTION ENVIRONMENTAL PROTECTION DEVICES, SUCH AS EROSION CONTROL, DUST CONTROL, AND VEGETATION PROTECTION DEVICES SHALL BE MAINTAINED AT ALL TIMES. SILT FENCE IS REQUIRED AT ALL CROSS DRAIN OUTLETS. SILT FENCE OR SEDIMENT LOGS 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.
- ALL EXISTING VEGETATION SHALL BE PRESERVED UNLESS SPECIFICALLY IDENTIFIED BY THE ENGINEER FOR REMOVAL. BMP'S 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.
- NTCD WILL PROVIDE ONE SET OF CONSTRUCTION STAKES AT NTCD'S EXPENSE. 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.
- 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 POTHOLE TO VERIFY THE LOCATION, SIZE AND MATERIAL OF THE UTILITY PRIOR TO CONSTRUCTION.
- ASPHALT REPLACEMENT SHALL INCORPORATE A 4% ±1% CROSS SLOPE BETWEEN THE SAWCUT AND THE NEW ROADSIDE TREATMENT. NEW ROADSIDE FLOW CONVEYANCES SHALL INCORPORATE SUCH GRADE AS NECESSARY TO GUARANTEE WATER CONTINUES TO FLOW IN THE PRESENT DIRECTION, WITHOUT PONDING OR BREAKOUTS.
- ANY DAMAGE DONE BY THE CONTRACTOR OR HIS SUBCONTRACTORS TO PRIVATE PROPERTY AND/OR OUTSIDE OF THE NOTED LIMITS OF WORK IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND/OR HIS SUBCONTRACTORS.
- MATERIAL TESTING COORDINATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. 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.
- 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. NOISE GENERATING ACTIVITIES WILL BE LIMITED TO THE HOURS OF 8:00 AM TO 6:30 PM.
- NOISE SHALL BE REDUCED BY THE MANDATORY USE OF MUFFLERS ON ALL CONSTRUCTION VEHICLES AND EQUIPMENT. WHERE FEASIBLE, SOLENOIDAL PAVEMENT BREAKERS WILL BE USED IN LIEU OF AIR POWERED JACK HAMMERS. NOISE GENERATING ACTIVITIES WILL BE LIMITED TO THE HOURS OF 8:00 AM TO 6:30 PM.
- THE CONTRACTOR SHALL PROVIDE A WATER TRUCK TO WATER AREAS AS NECESSARY TO CONTROL DUST. THE CONTRACTOR WILL PROVIDE SWEEPING PER SPECIFICATION.
- ALL TREES AND NATURAL VEGETATION TO REMAIN ON THE SITE SHALL BE PROTECTED PER TRPA.
- 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.
- 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.
- EXCAVATED MATERIAL SHALL BE STORED UPGRADE FROM THE EXCAVATED AREA WHENEVER POSSIBLE. NO MATERIAL SHALL BE STORED IN ANY STREAM ENVIRONMENT ZONE (SEZ) OR WET AREA.
- 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.
- NO WASHING OF VEHICLES OR HEAVY EQUIPMENT, INCLUDING CEMENT MIXERS, SHALL BE PERMITTED ANYWHERE ON THE SUBJECT PROPERTY UNLESS AUTHORIZED BY TRPA IN WRITING.
- NO VEHICLE OR HEAVY EQUIPMENT SHALL BE ALLOWED IN A STREAM ENVIRONMENT ZONE OR WET AREA EXCEPT AS AUTHORIZED BY TRPA.
- ALL CONSTRUCTION SHALL BE WINTERIZED BY OCTOBER 15 TO REDUCE THE WATER QUALITY IMPACTS ASSOCIATED WITH WINTER WEATHER.
- 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 IN, THE NDOT RIGHT-OF-WAYS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SYSTEM.
- 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 IN THE TRUCKEE MEADOWS CONSTRUCTION SITE BEST MANAGEMENT PRACTICE HANDBOOK.
- TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LONGER THAN 24 HOURS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS BEEN TEMPORARILY OR PERMANENTLY CEASED.
- 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.

- TRAFFIC CONTROL AND LANE CLOSURES WILL BE PER NDOT STANDARD SPECIFICATIONS AND MANUAL ON TRAFFIC CONTROL DEVICES (MUTCD). CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL PLAN.
- ACCESS TO HOMES AND BUSINESSES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.

ABBREVIATIONS

NOT ALL ABBREVIATIONS LISTED ARE USED IN THESE PLANS

A.B.	AGGREGATE BASE	MDD	MAXIMUM DRY DENSITY
AC.	ACRE	MJ	MECHANICAL JOINT
AC OR A.C.	ASPHALT CONCRETE OR ASBESTOS CEMENT	MILE	MILE
@	AT	MIN.	MINIMUM
APPROX.	APPROXIMATE	MISC.	MISCELLANEOUS
AVG.	AVERAGE	N	NORTH
AWWA	AMERICAN WATER WORKS ASSOCIATION	NAC	NEVADA ADMINISTRATIVE CODE
BC	BEGIN CURVE	N.I.C.	NOT IN CONTRACT
BGN	BEGIN	NDOT	NEVADA DEPT OF TRANSPORTATION
C&G	CURB AND GUTTER	NEVADA TAHOE CONSERVATION DISTRICT	NOT TO SCALE
CATV	CABLE TELEVISION	NO.	NUMBER
C.B.	CATCH BASIN	OC	ON CENTER
CBM	CHANNEL BED MATERIAL	OD	OUTSIDE DIAMETER
CL	CENTERLINE	OFF	OFFSET
CLF	CONSTRUCTION LIMIT FENCE	OG	ORIGINAL GRADE
CLR.	CLEAR	OH(E/T)	OVERHEAD ELECTRIC OR TELEPHONE LINES
CO.	CLEAN OUT	±	PLUS OR MINUS
CONST.	CONSTRUCT	PT.	POINT
CF	CUBIC FEET	PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT
CMP	CORRIGATED METAL PIPE	PC	POINT OF CURVATURE
CMAP	CORRIGATED METAL ARCH PIPE	PI	POINT OF INFLECTION
CY	CUBIC YARD	PIP	PROTECT IN PLACE
DBH	DIAMETER AT BREST HEIGHT	PVC	POLYVINYL CHLORIDE
DEG	DEGREE(S)	PVMT	PAVEMENT
D.G.	DECOMPOSED GRANITE	POC	POINT ON CURVE
D.I.	DROP INLET	POS	POSITIVE
DIA.	DIAMETER	PRC	POINT OF REVERSE CURVE
DR	DIMENSION RATIO	PSI	POUNDS PER SQUARE INCH
DWG	DRAWING	PL	PROPERTY LINE
DW, DWY	DRIVEWAY	PO	PUSH ON
EA.	EACH	PUE	PUBLIC UTILITY EASEMENT
EASE.	EASEMENT	R	RADIUS
EG	EXISTING GRADE	RCP	REINFORCED CONCRETE PIPE
ELEC	ELECTRIC	REVEG	REVEGETATION
EP	EDGE OF PAVEMENT	RLC	ROCK LINED CHANNEL
ELEV. OR EL	ELEVATION	RT,R	RIGHT
EC	END CURVE	R/W, ROW	RIGHT-OF-WAY
EX.	EXISTING	S	SLOPE OR SOUTH
FG	FINISH GRADE	SD	STORM DRAIN
FH	FIRE HYDRANT	SDMH	STORM DRAIN MANHOLE
FCA	FLANGE COUPLER ADAPTER	SDR	STANDARD DIMENSION RATIO
FES	FLARED END SECTION (METAL)	SF	SQUARE FOOT/FEET
FF	FILTER FENCE	SHT	SHEET
FL	FLOWLINE	STA	STATION
FLG	FLANGED	STD	STANDARD
FT.	FOOT, FEET	SS	SANITARY SEWER, STAINLESS STEEL
FTG	FOOTING	SSCO.	SANITARY SEWER CLEAN OUT
FV	FLUSH VALVE	SSMH	SANITARY SEWER MANHOLE
*	DEGREE	SSPWC	STANDARD SPECIFICATIONS FOR PUBLIC WORKS
G	GAS	SWPPP	STORM WATER POLLUTION PREVENTION PLAN
GV	GATE VALVE	SY	SQUARE YARD
GB	GRADE BREAK	TBC	TOP BACK OF CURB
HDPE	HIGH DENSITY POLYETHYLENE	TOC	TOP OF CURB
HDPE-NP	NON-PERFORATED HIGH DENSITY POLYETHYLENE	TRPA	TAHOE REGIONAL PLANNING AGENCY
HDPE-P	PERFORATED HIGH DENSITY POLYETHYLENE	TW	TOP OF WALL
HP	HIGH POINT	(TYP)	TYPICAL
HOR., HORIZ.	HORIZONTAL	UGE	UNDERGROUND ELECTRIC LINES
Hwy	HIGHWAY	UGT	UNDERGROUND TELEPHONE LINES
IN.	INCH	VC	VERTICAL CURVE
IE	INVERT ELEVATION	VG	VALLEY GUTTER
IRR.	IRRIGATION	VPC	VERTICAL POINT OF CURVATURE
IVGID	INCLINE VILLAGE GENERAL IMPROVEMENT DISTRICT	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
MH	MANHOLE		
MAX.	MAXIMUM		

UTILITIES

CABLE TELEVISION	CHARTER COMMUNICATIONS, (775) 588-1077
NATURAL GAS	SOUTHWEST GAS, (877) 860-6022
ELECTRIC	NV ENERGY, (775) 834-4444
STORM DRAIN	ZEPHYR COVE GID AND NDOT
SEWER	TAHOE DOUGLAS DISTRICT (775) 588-3558
WATER	DOUGLAS COUNTY (775) 782-9989
PHONE	FRONTIER (775) 782-0966
USA DIGS	(800) 642-2444 OR 811

LEGEND

NOTE: LEGENDS PROVIDED ON INDIVIDUAL PLAN SHEETS OVERRIDE THIS LEGEND

EXISTING		PROPOSED	
	MAJOR CONTOUR		MAJOR CONTOUR
	MINOR CONTOUR		MINOR CONTOUR
	EXISTING MAJOR CONTOUR LABEL		PROPOSED MAJOR CONTOUR LABEL
	EXISTING ALIGNMENT		PROPOSED ALIGNMENT
	EXISTING GRADE (SECTION VIEW)		GRADING DAYLIGHT LINE/GRADING LIMIT
	PROPERTY LINE		GRADING LINE/FEATURE LINE
	EXISTING FENCE		PROPOSED GRADE (SECTION VIEW)
	OR	CLF	CONSTRUCTION LIMIT FENCE
	PAVEMENT	FF	FILTER FENCE
	STORM DRAIN LINE		SEDIMENT ROLL
	CATCH BASIN		EROSION CONTROL BLANKET
	STORM DRAIN MANHOLE		STAGING AREA
	WATER LINE		PROPOSED PIPE
	WATER METER/ VALVE		PROPOSED CONCRETE/CURB
	SANITARY SEWER LINE		PROPOSED VEGETATION
	SANITARY SEWER MANHOLE		ROCK LINED CHANNEL (PLAN VIEW)
	OVERHEAD ELECTRIC LINE		XERPAVE PAVERS
	POWER POLE		ROCK DISSIPATER
	UG T		PROJECT BOUNDARY
	UNDER GROUND TELEPHONE LINES		PROPOSED FENCE (TYPE SPECIFIED ON PLAN)
	OH T		
	OVERHEAD TELEPHONE LINES		
	UG F		
	UNDERGROUND FIBER OPTIC LINES		
	GAS		
	UNDERGROUND GAS LINES		
	TREE		
	FIRE HYDRANT		
	CURB		
	OR	CONCRETE	
	CONTROL POINT		
	BUILDING		
	PRIVATE DRIVEWAY		
	SIGN		
	ROCK LINED CHANNEL		
	EXISTING ROCK WALL		
125-382-13	ASSESSOR PARCEL NUMBER		
958 TYNER ST.	PHYSICAL ADDRESS (PRIVATE LOT)		

	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

HORIZONTAL AND VERTICAL PROJECTION

VERTICAL CONTROL IS DATUM NGVD 29 US FEET;
HORIZONTAL CONTROL IS STATE PLANE COORDINATE SYSTEM NEVADA ZONE WEST (U.S. FEET) HARN

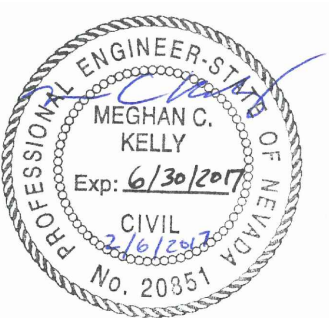
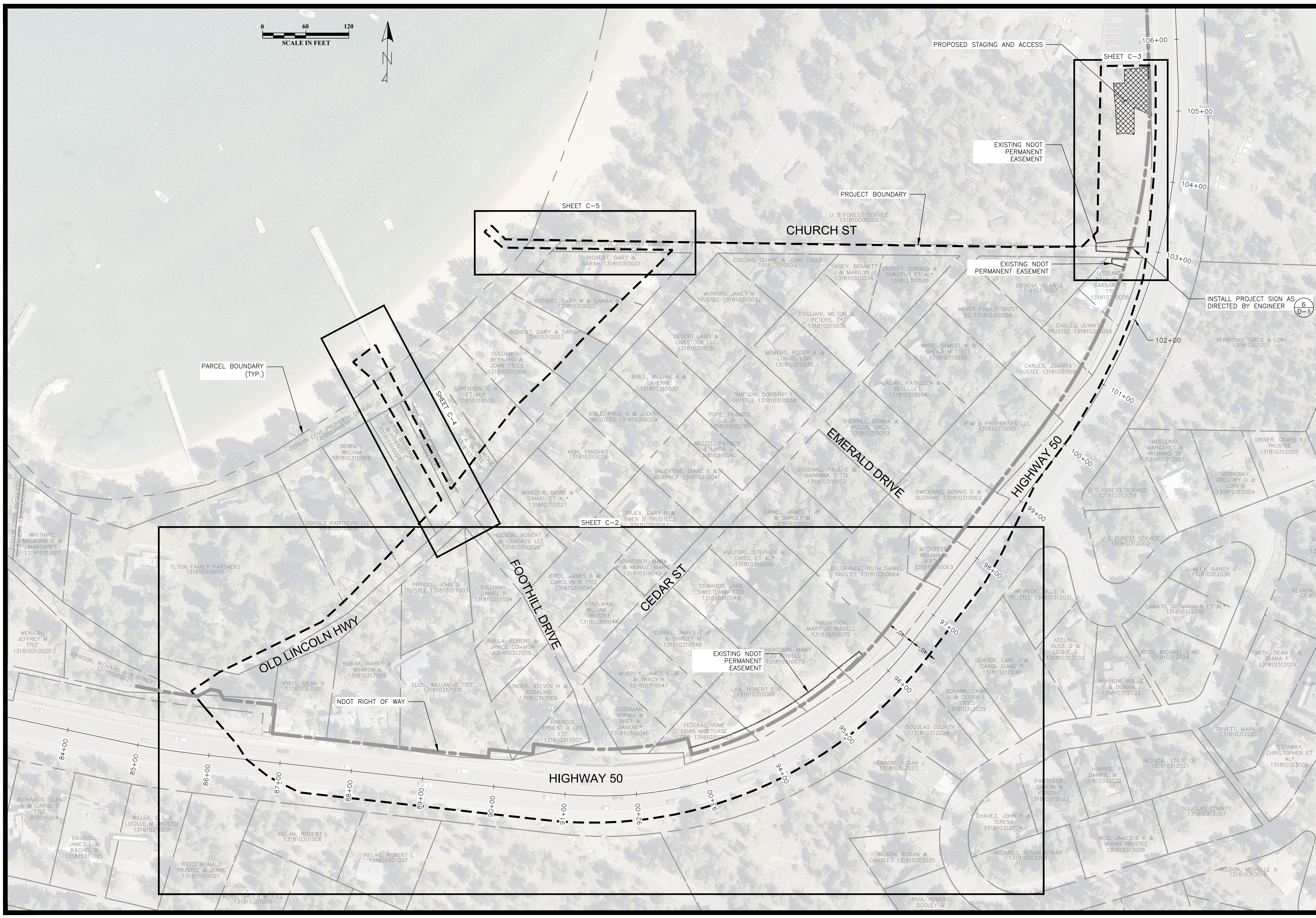
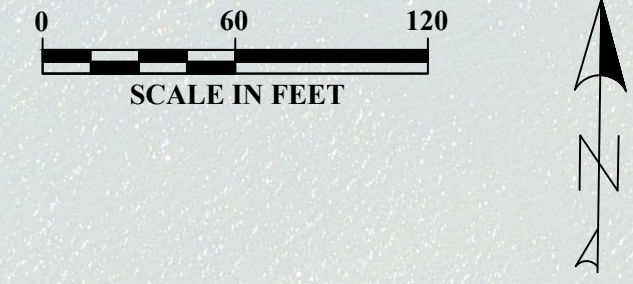
BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS

0" 1"

DESIGNED/DRAWN
MCK/MCK
CHECKED
MBG
DATE
2/2017
SCALE
AS SHOWN

PROJECT
ZC WQIP

SHEET

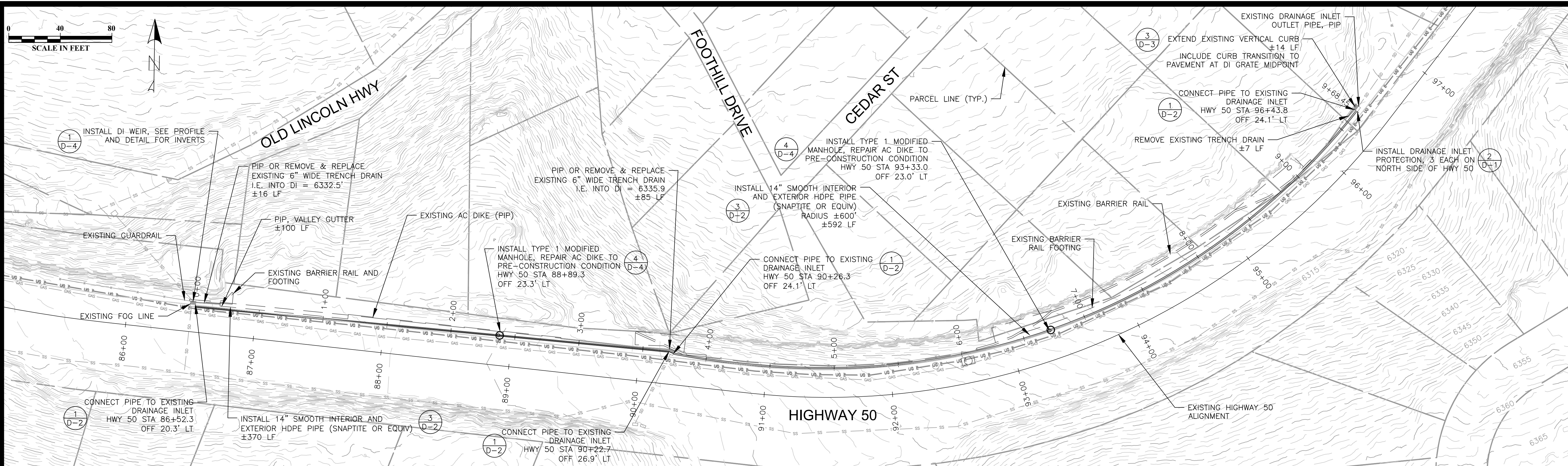


**ZEPHYR COVE WATER QUALITY
 IMPROVEMENT PROJECT, PHASE 2
 OVERVIEW, STAGING, AND STORAGE**

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS



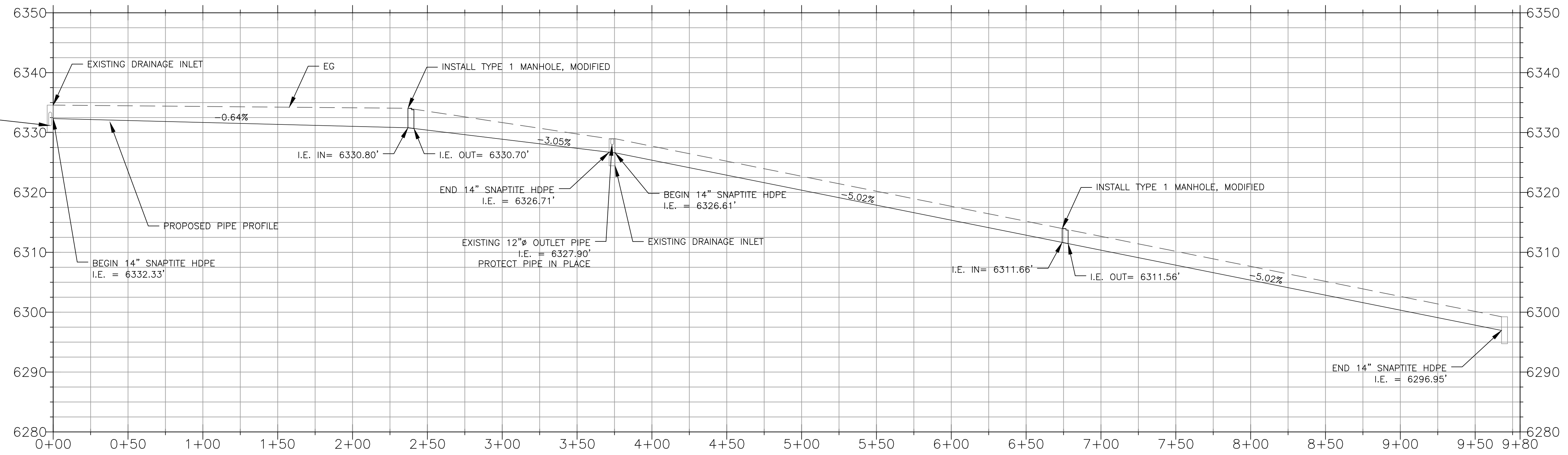
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DATE	2/2017
SCALE	AS SHOWN
PROJECT	ZC WQIP



PLAN

SCALE: 1"=40'

- NOTES:**
1. LANE CLOSURES SHALL BE LIMITED TO ONE LANE. ACCESS TO ALL PRIVATE PROPERTY SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
 2. ELEVATIONS TO BE VERIFIED IN FIELD BY ENGINEER.
 3. ONLY A SINGLE LANE CLOSURE WILL BE ALLOWED.



PROFILE

SCALE: 1" = 40'
HORIZ: VERT = 4:1



**ZEPHYR COVE WATER QUALITY
IMPROVEMENT PROJECT, PHASE 2
HIGHWAY 50 CONVEYANCE**

BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS



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CHECKED	MBG
DATE	2/2017
SCALE	AS SHOWN

PROJECT
ZC WQIP

**ZEPHYR COVE WATER QUALITY
IMPROVEMENT PROJECT, PHASE 2
FOOTHILL OUTFALL**

BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS

0" 1"

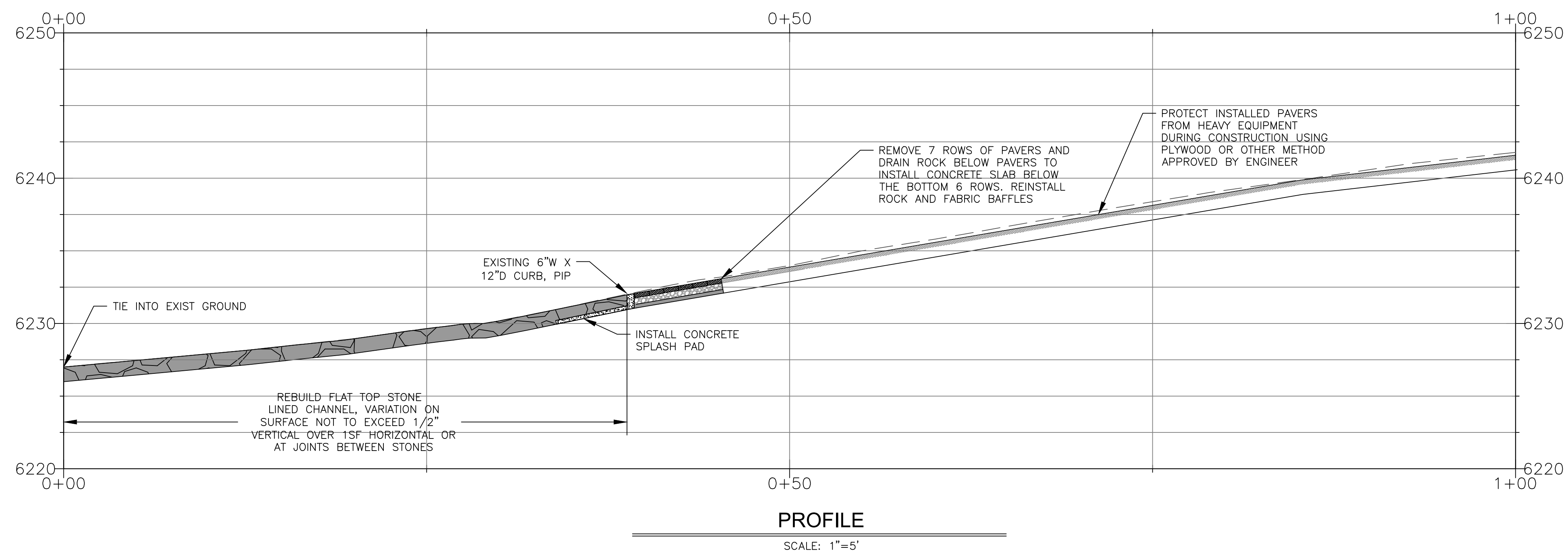
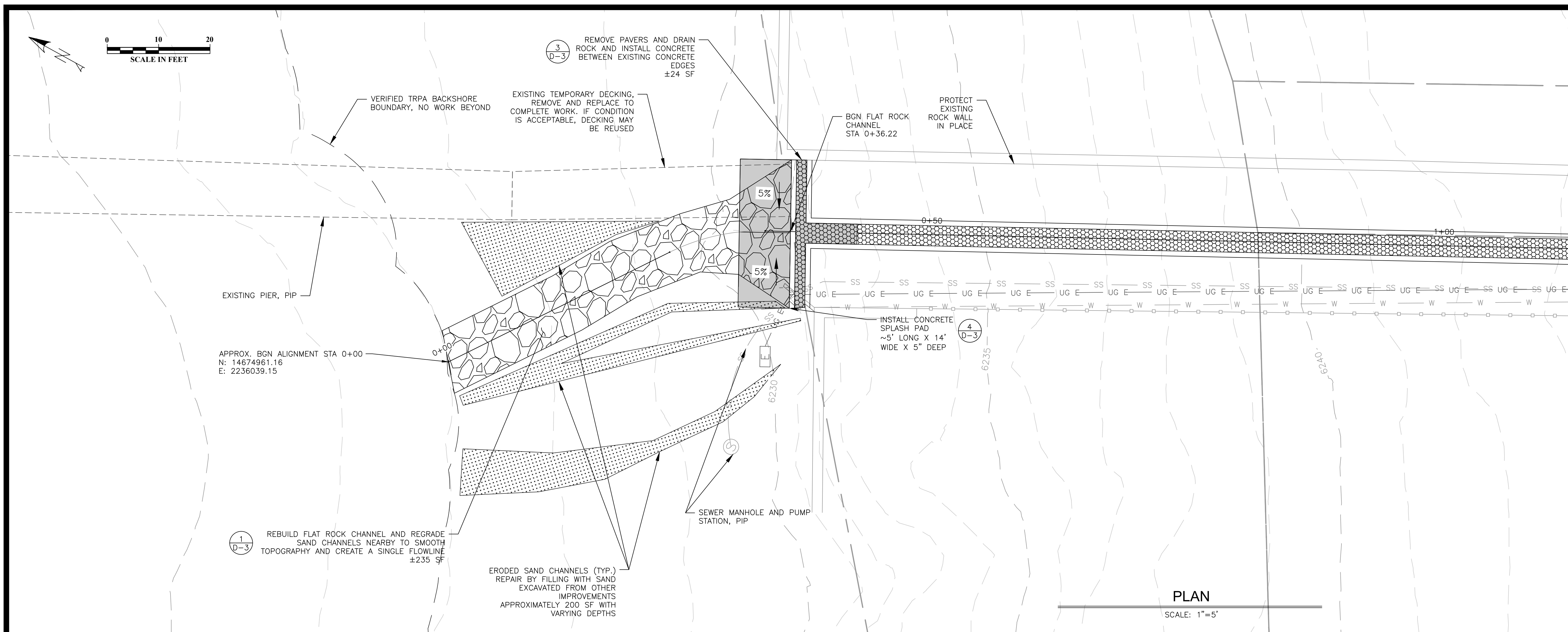
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DATE
2/2017
SCALE
AS SHOWN

PROJECT
ZC WQIP

SHEET

C-4

6 OF 12



NOTES:
1. PARCEL LINES IN DOUGLAS COUNTY DO NOT OFTEN LINE UP WITH GROUND SURVEYS AND AERIALS. PARCEL BOUNDARIES WILL BE VERIFIED AND STAKED PRIOR TO CONSTRUCTION.
2. INSTALL SEDIMENT LOG (1) AT DOWNSTREAM END OF CONSTRUCTION LIMITS, ±35 LF

**ZEPHYR COVE WATER QUALITY
IMPROVEMENT PROJECT, PHASE 2
CHURCH STREET OUTFALL**

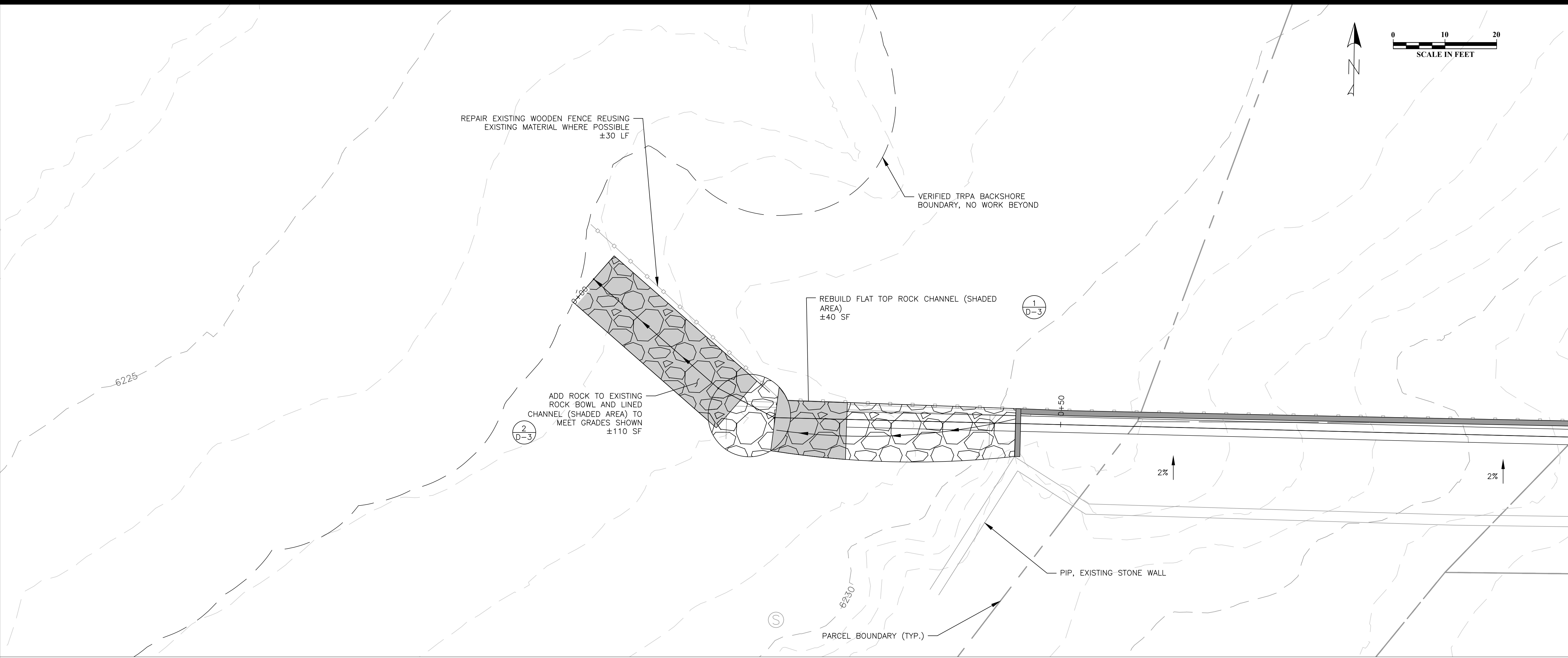
BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS

0" 1"

DESIGNED/DRAWN
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DATE
2/2017
SCALE
AS SHOWN

PROJECT
ZC WQIP

SHEET
C-5
7 OF 12

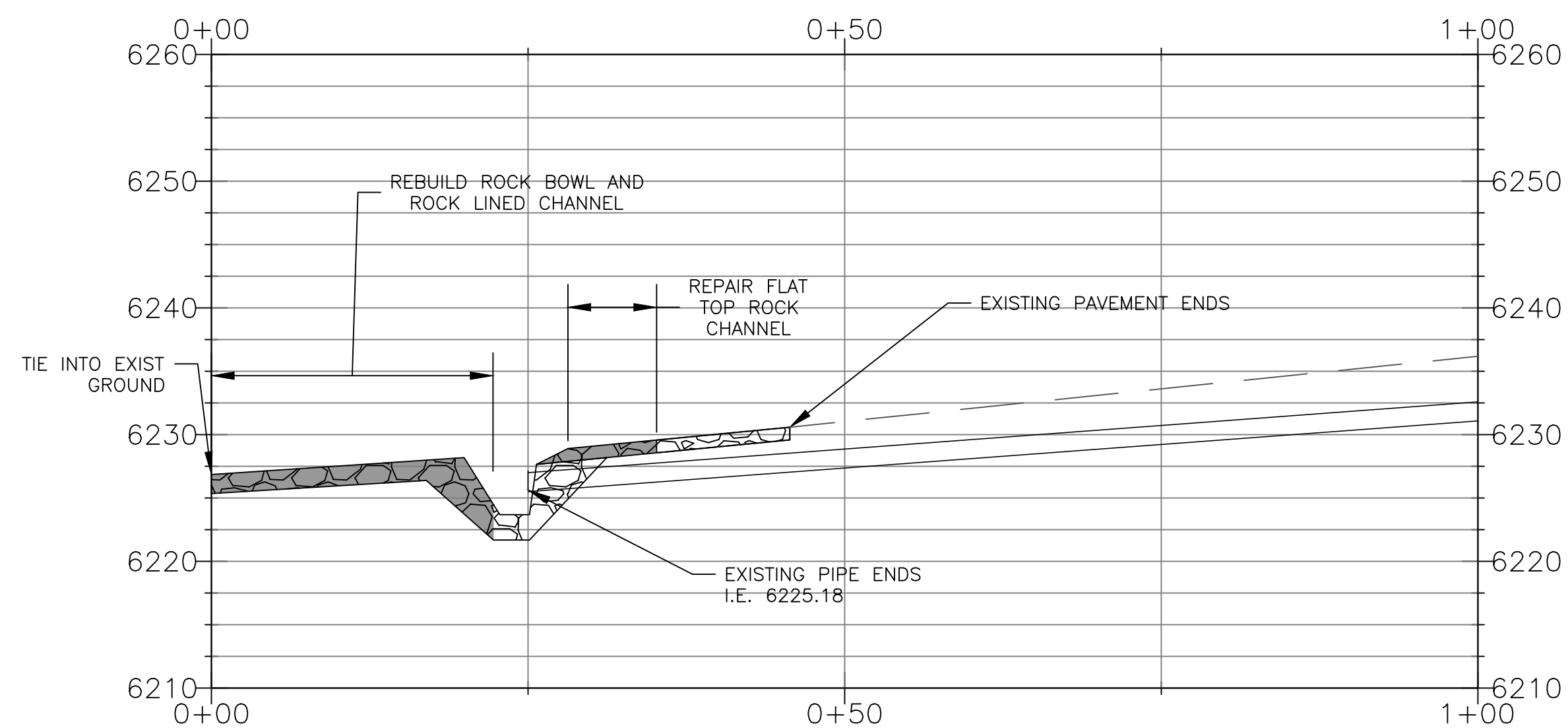


PLAN

SCALE: 1"=10'

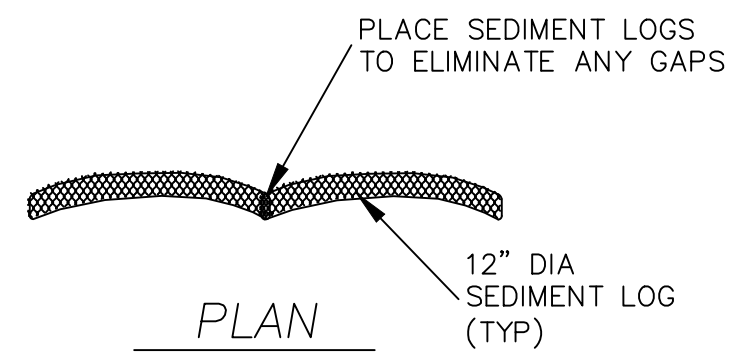
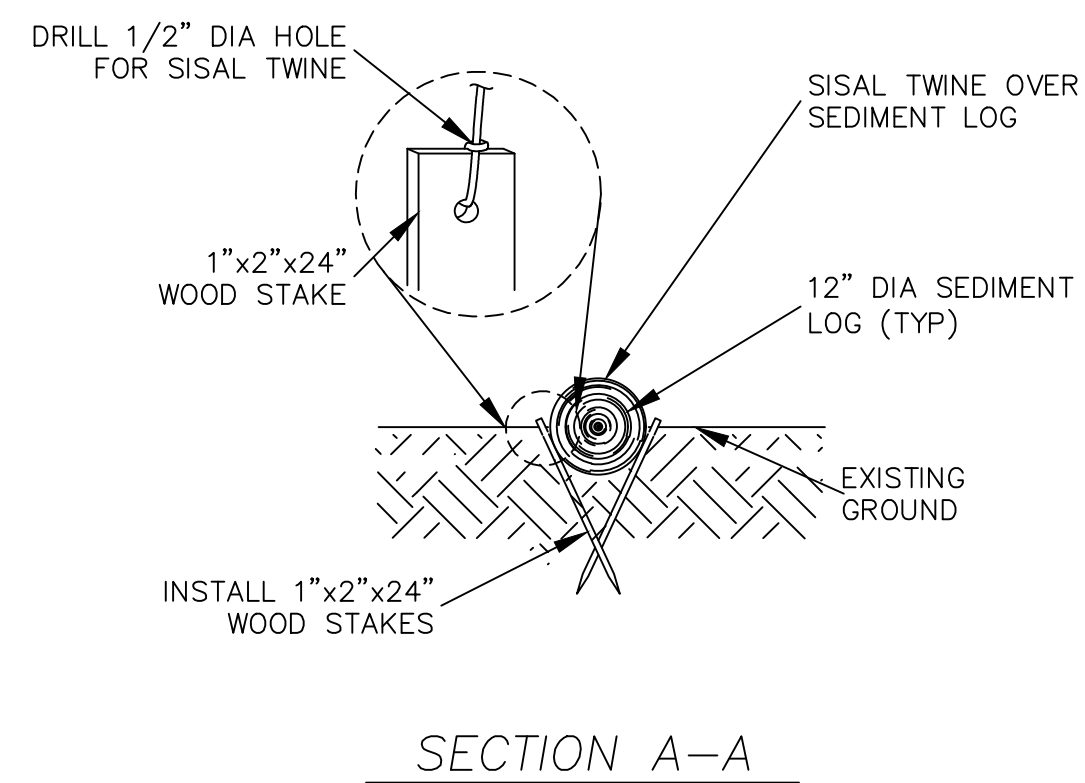
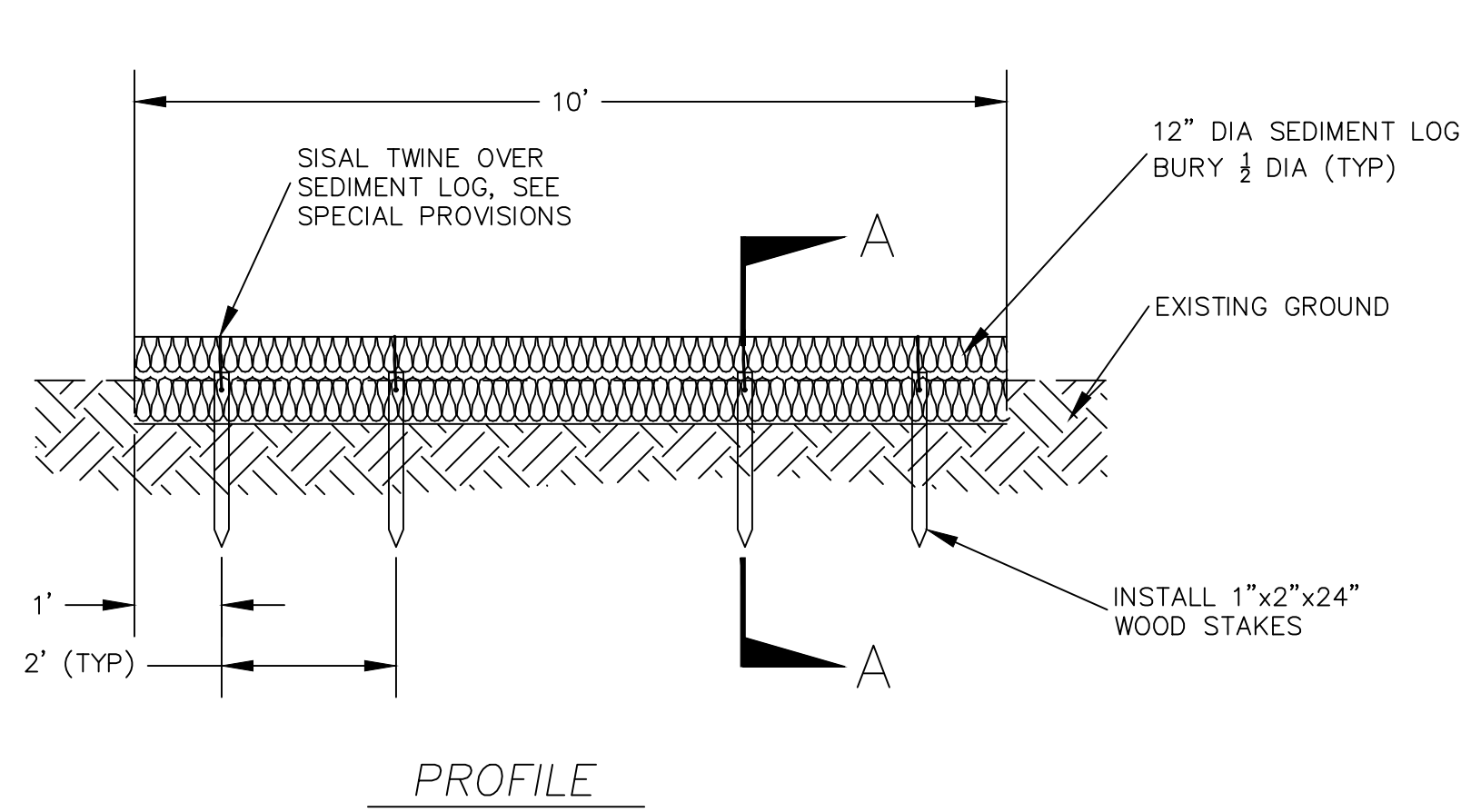
NOTES:

- ENGINEER WILL MARK EXTENTS OF CHANNEL TO BE REBUILT PRIOR TO WORK BEGINNING.
- INSTALL SEDIMENT LOG (1/D-1) AT DOWNSTREAM END OF CONSTRUCTION LIMITS, ±35 LF.



PROFILE

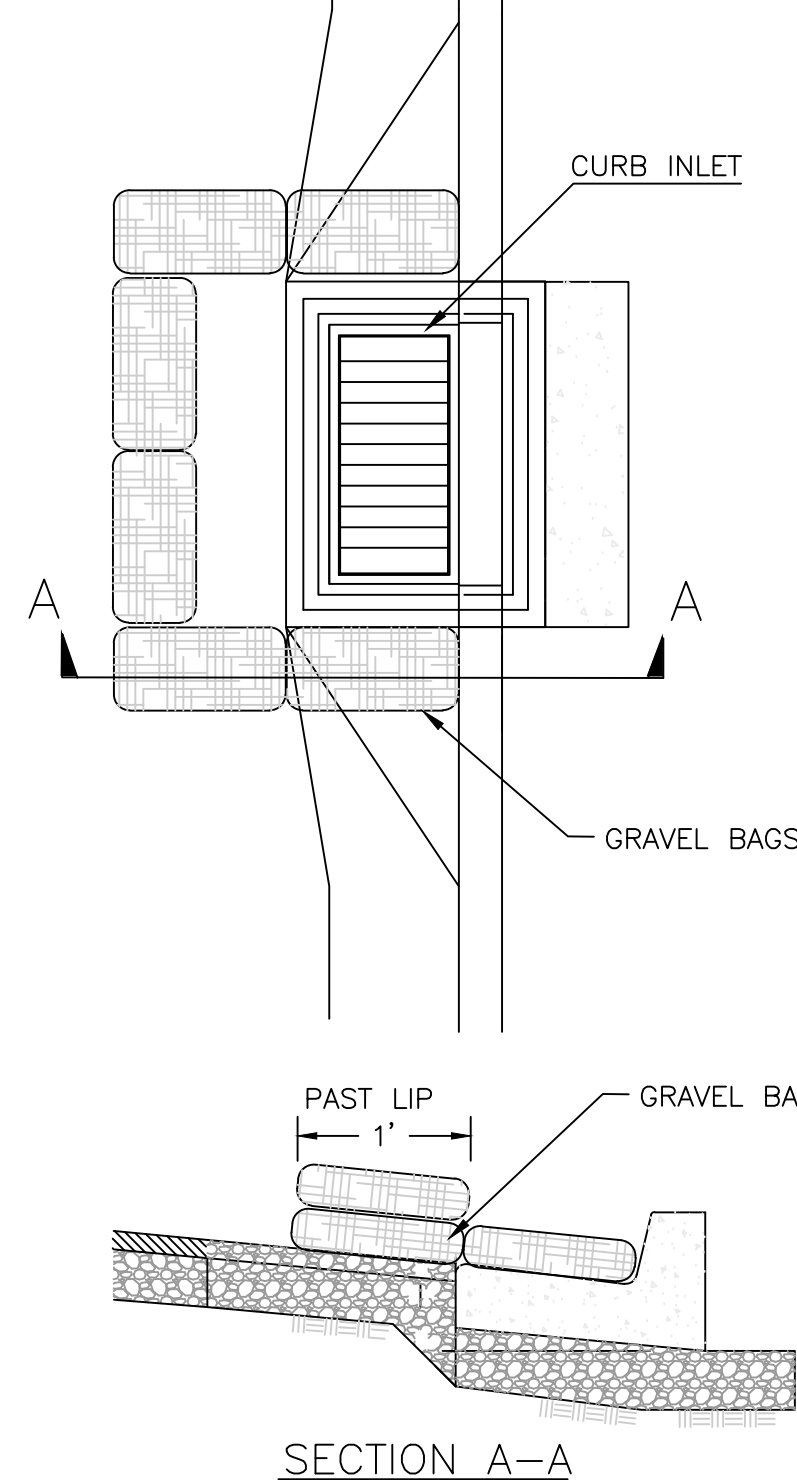
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SEDIMENT LOG
NOT TO SCALE

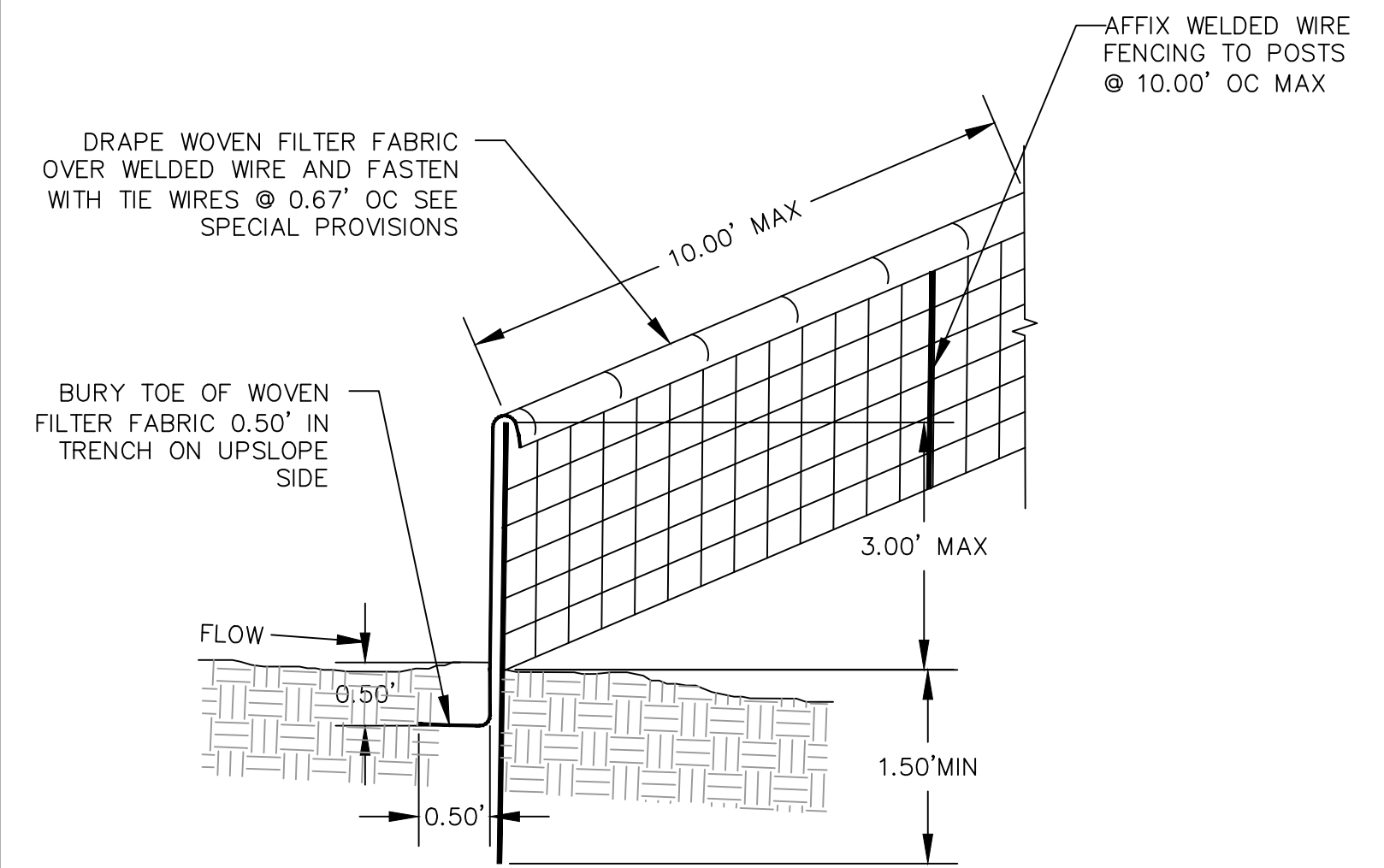
1
D-1

- NOTES:
1. PLACEMENT OF SEDIMENT LOGS IS SUBJECT TO EXISTING CONDITIONS. FINAL LOCATIONS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
 2. SEE SPECIAL PROVISIONS FOR SPECIFICATIONS REGARDING SEDIMENT LOG MATERIAL REQUIREMENTS.
 3. WEIGHTED SEDIMENT LOGS MAY BE NECESSARY ON PAVED AREAS.



DRAINAGE INLET PROTECTION
NOT TO SCALE

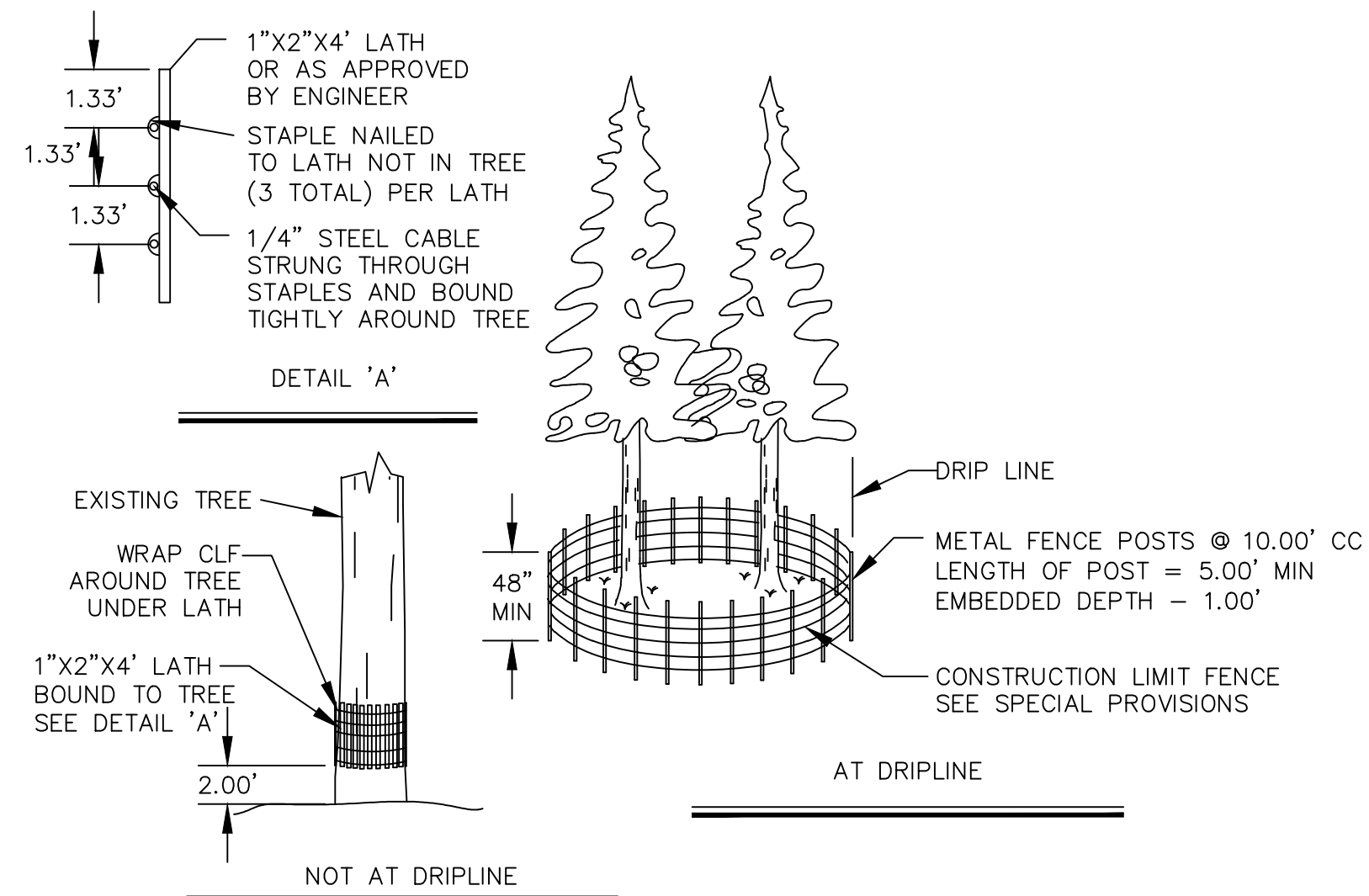
2
D-1



- NOTES:
1. CONTRACTOR MAY USE PRE MANUFACTURED SEDIMENT CONTROL FENCE AS APPROVED BY TRPA. SEE SPECIAL PROVISIONS.
 2. PLACE FENCING SUCH THAT STORM RUNOFF CANNOT PASS AROUND OR UNDER FENCE

SEDIMENT FENCE
NOT TO SCALE

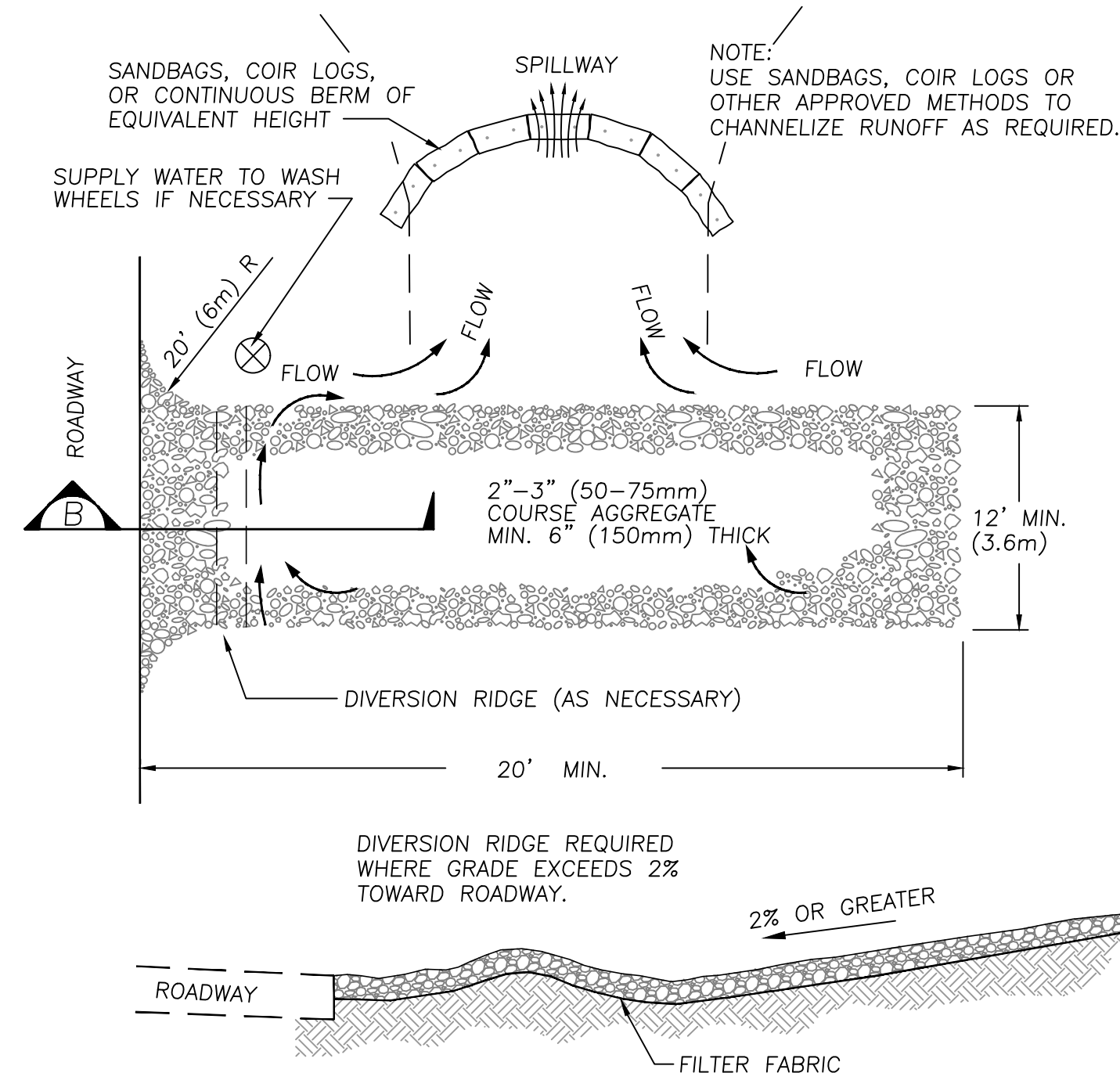
3
D-1



CONSTRUCTION LIMIT FENCE
NOT TO SCALE

4
D-1

- 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.

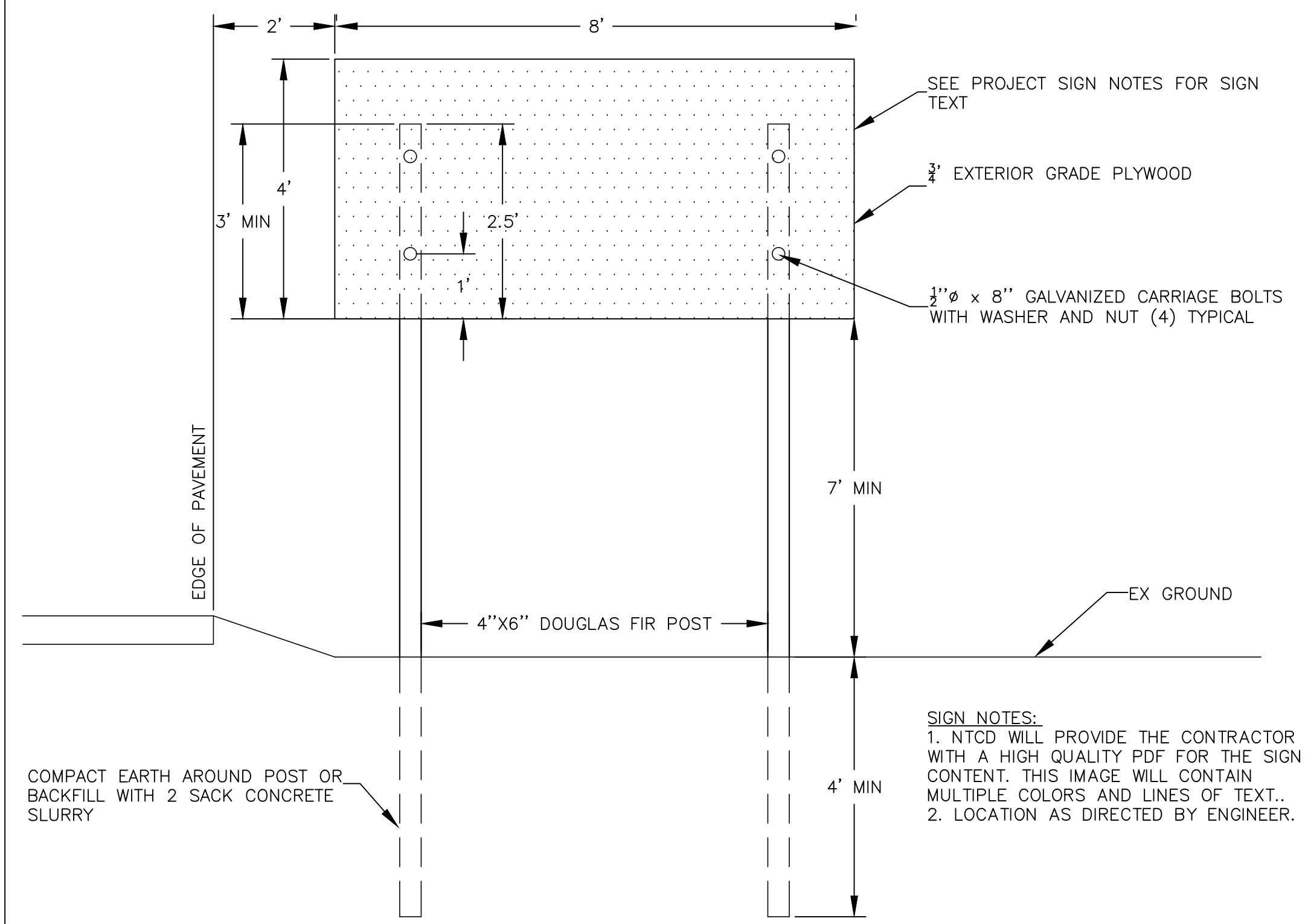


ROCKED ENTRANCE SECTION B

- ROCKED ENTRANCE NOTES**
1. THE ENTRANCE SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
 3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY CONSTRUCTION ENTRANCE
NOT TO SCALE

5
D-1



PROJECT SIGN
NOT TO SCALE

6
D-1

- SIGN NOTES:**
1. NTCO WILL PROVIDE THE CONTRACTOR WITH A HIGH QUALITY PDF FOR THE SIGN CONTENT. THIS IMAGE WILL CONTAIN MULTIPLE COLORS AND LINES OF TEXT.
 2. LOCATION AS DIRECTED BY ENGINEER.

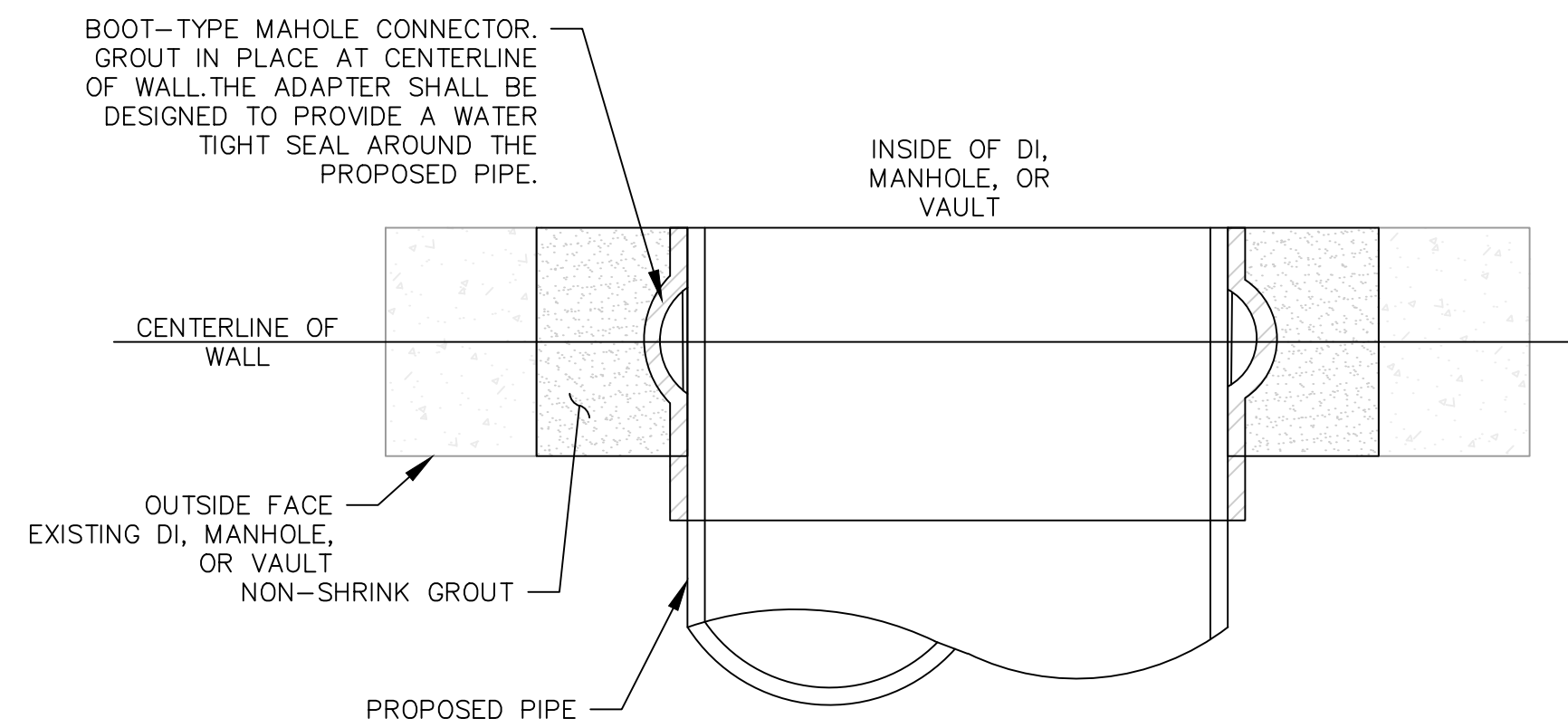
BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS

0" 1"

DESIGNED/DRAWN	MCK/MCK
CHECKED	MBG
DATE	2/2017
SCALE	AS SHOWN
PROJECT	ZC WQIP

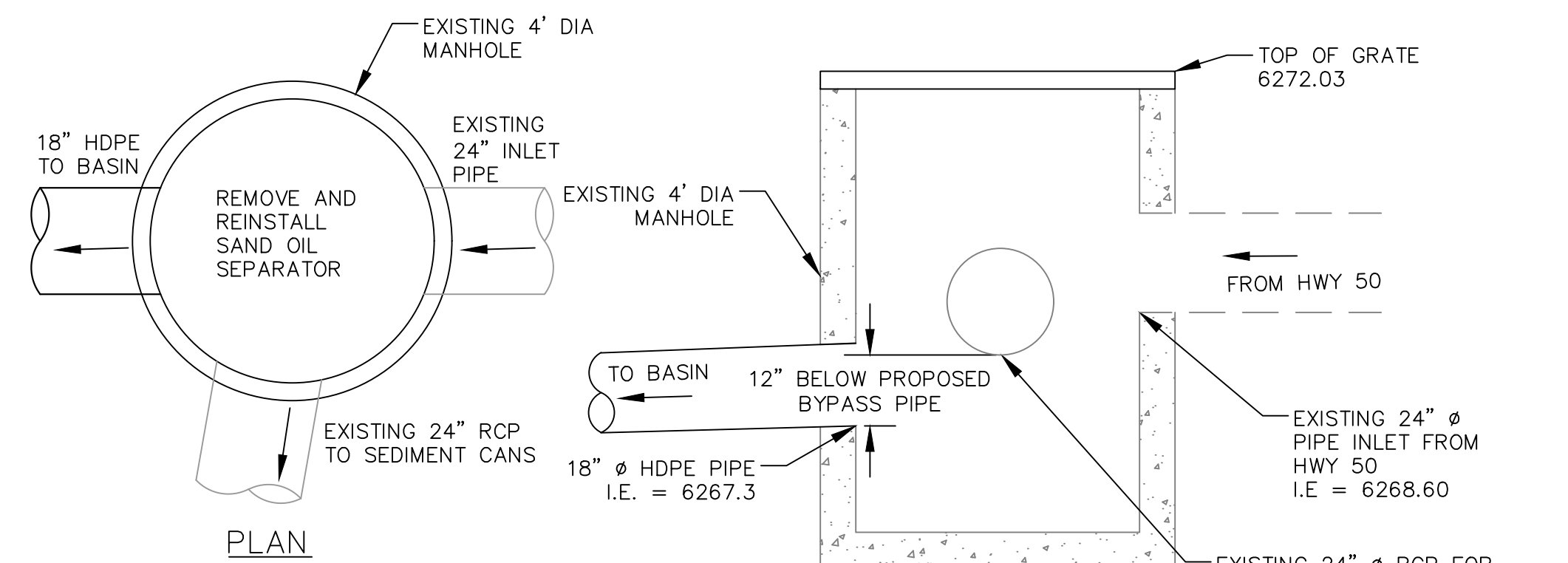
SHEET

D-1



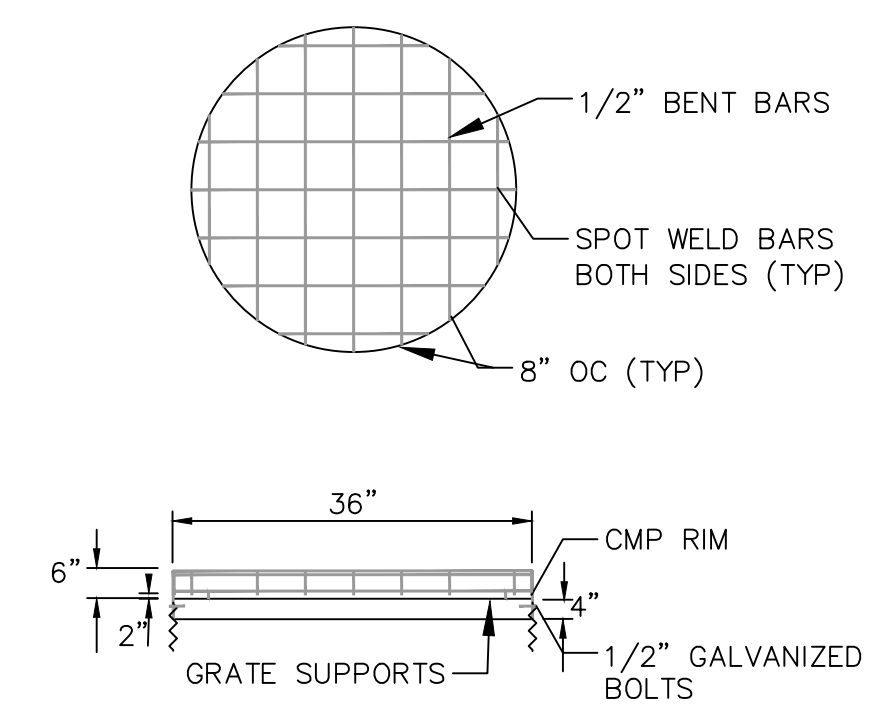
PIPE CONNECTION NOTES:
 1. ALL GROUT SHOWN SHALL BE NON-SHRINK
 2. CUT FLUSH WITH INSIDE OF DI, MANHOLE, OR VAULT AND BENCH INSIDE MANHOLE

DI/MANHOLE/VAULT PIPE CONNECTION 1
 NOT TO SCALE D-2



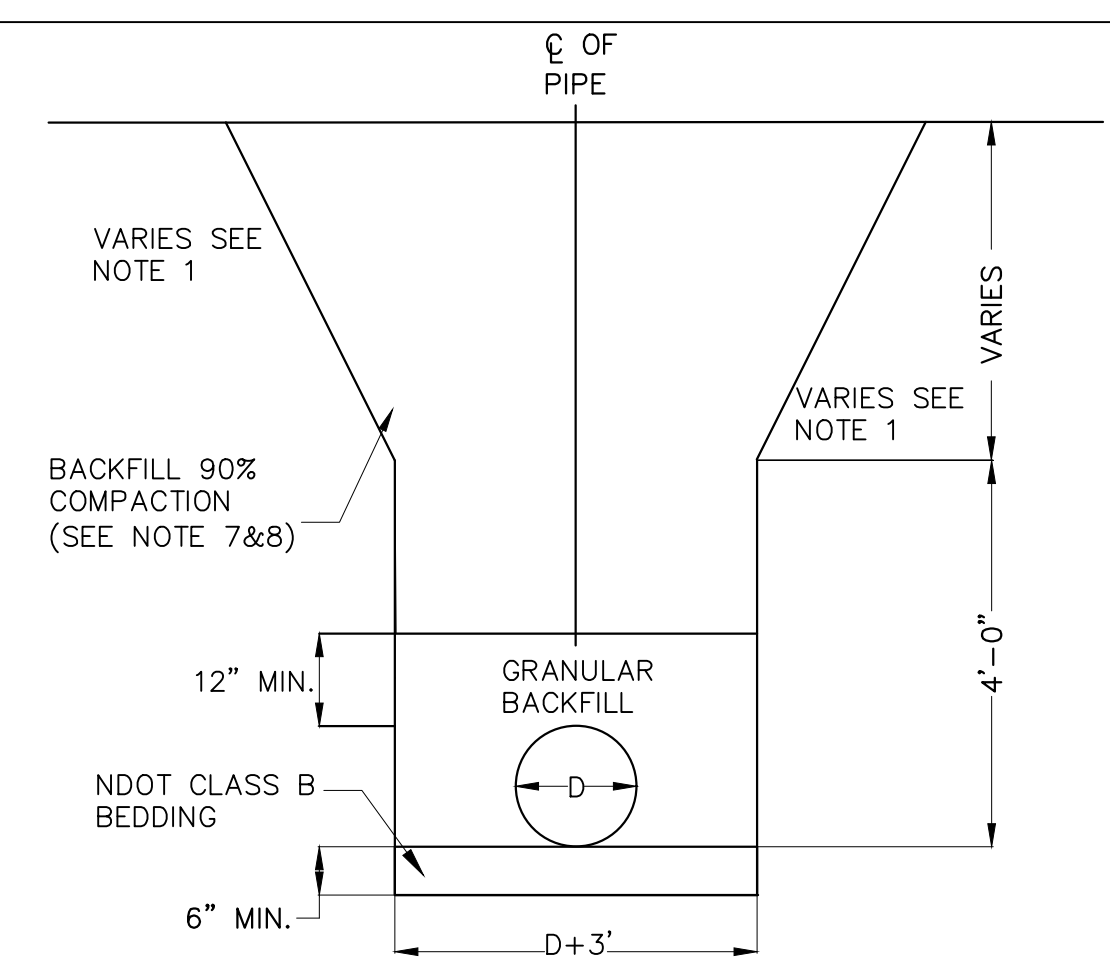
NOTES:
 1. USE DETAIL 1/D-2 FOR CONNECTION OF NEW PIPES TO EXISTING MANHOLE.

MANHOLE BYPASS STRUCTURE 2
 NOT TO SCALE D-2

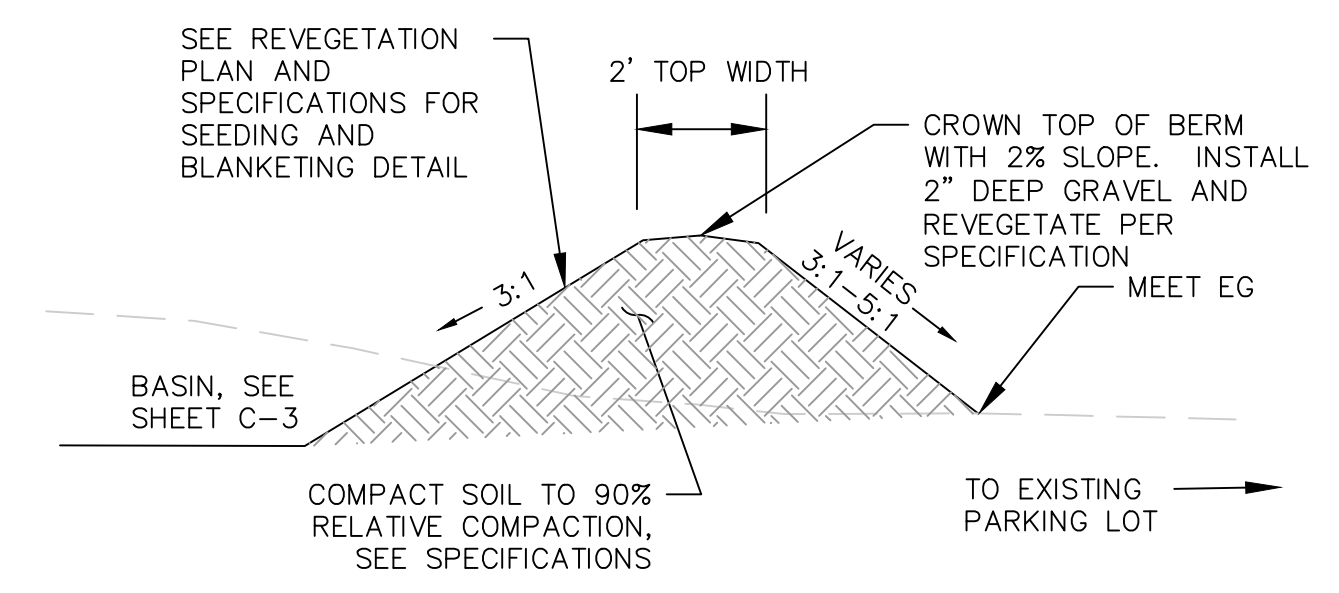


NOTES:
 1. ALL CONNECTIONS SHALL BE WELDED WITH 1/4" BEAD MIN BOTH SIDES OF BARS
 2. GRATE ASSEMBLY SHALL BE BOLTED TO CMP STANDPIPE
 3. ENTIRE GRATE TO BE HOT-DIP GALVANIZED AFTER ASSEMBLY PRIOR TO INSTALLATION

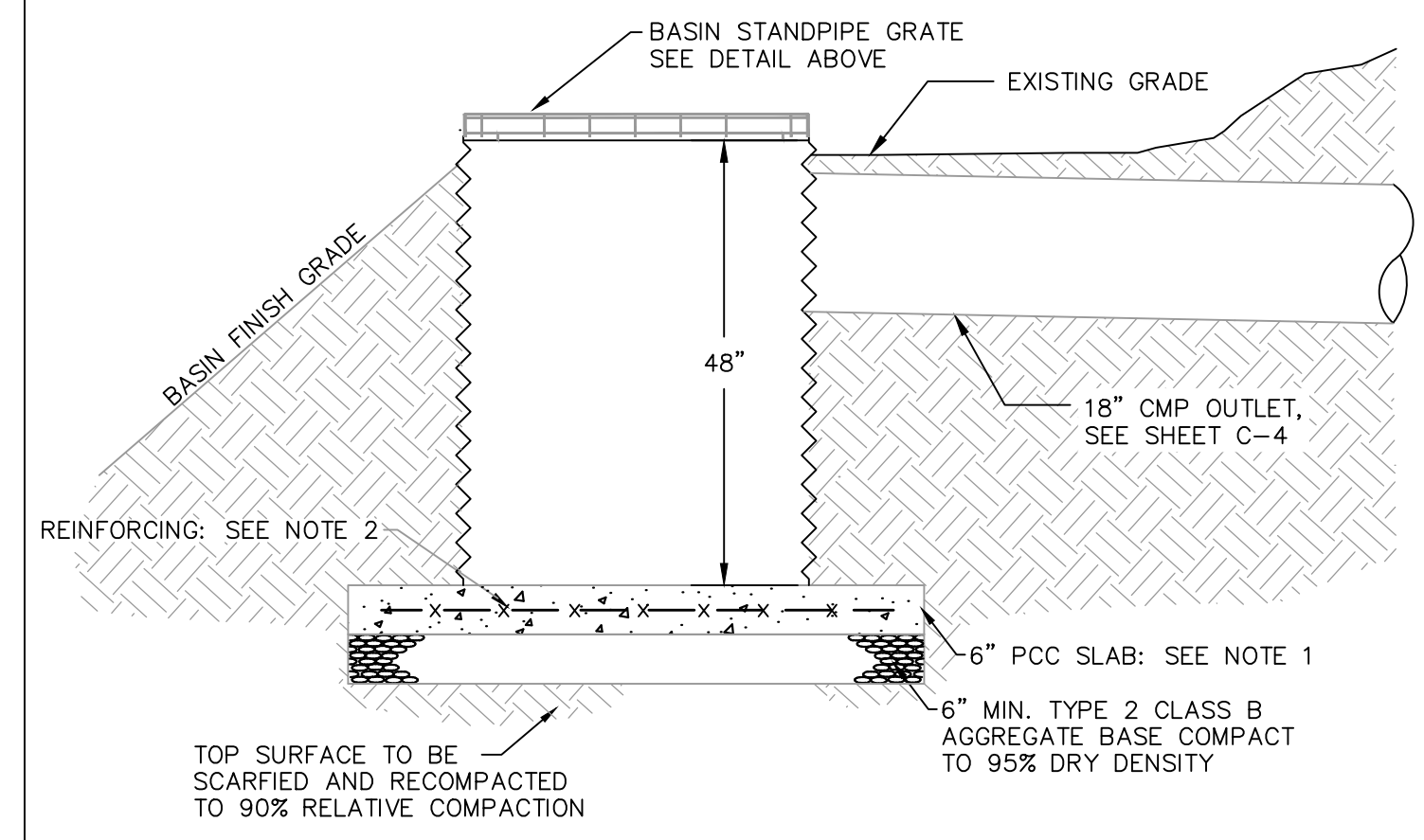
BASIN STANDPIPE GRATE DETAIL



TRENCH EXCAVATION/BACKFILL NON ROADWAY LOCATIONS

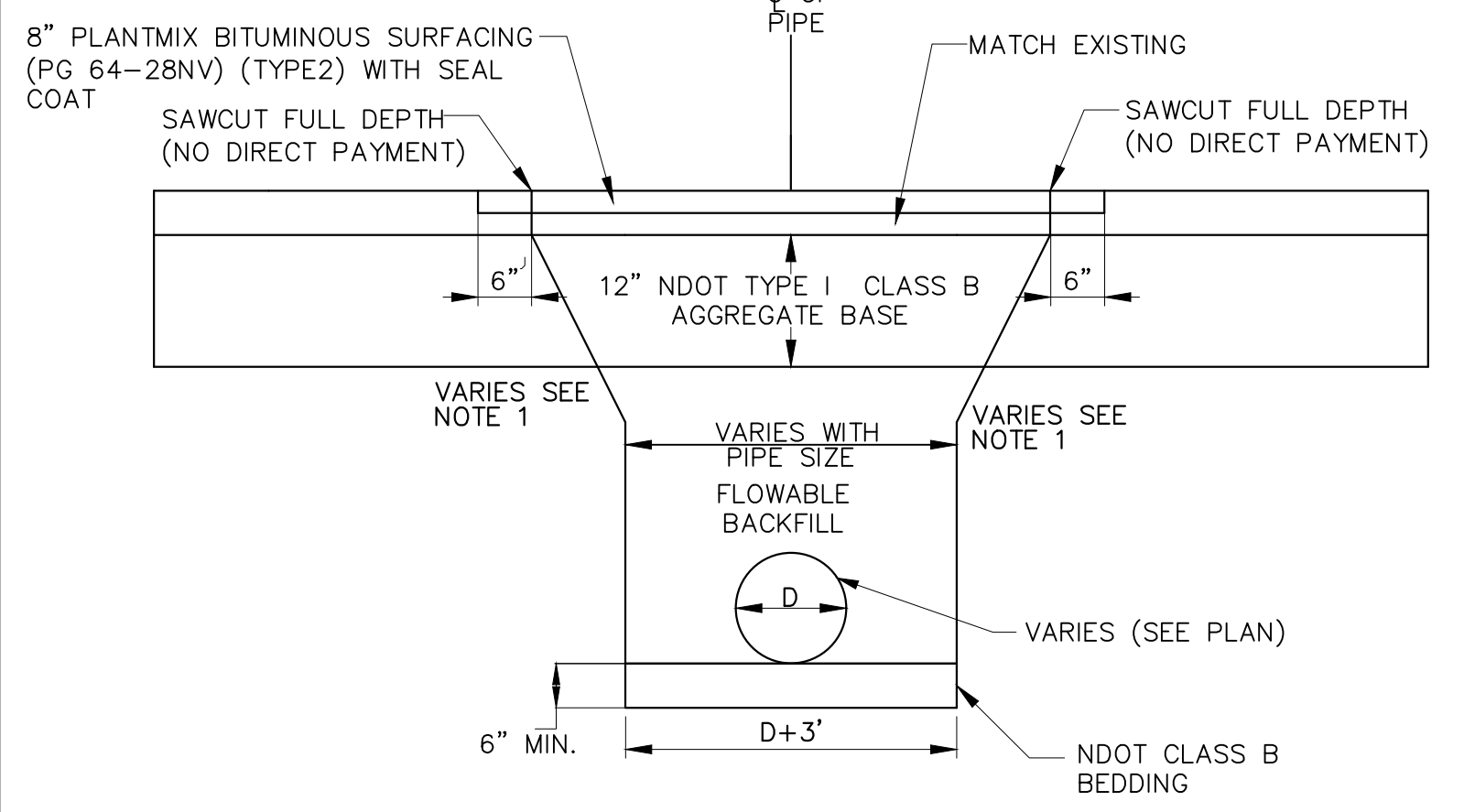


BASIN BERM 4
 NOT TO SCALE D-2



NOTES:
 1. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH @ 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH A MAX. WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5% SLUMP @ 3 INCHES. ALL MATERIALS SHALL CONFORM TO STANDARD SPECS, NDOT SECTION 700.
 2. REINFORCING SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH OR APPROVED EQUAL. USE 1 1/2 LBS. PER CUBIC YARD OF CONCRETE.

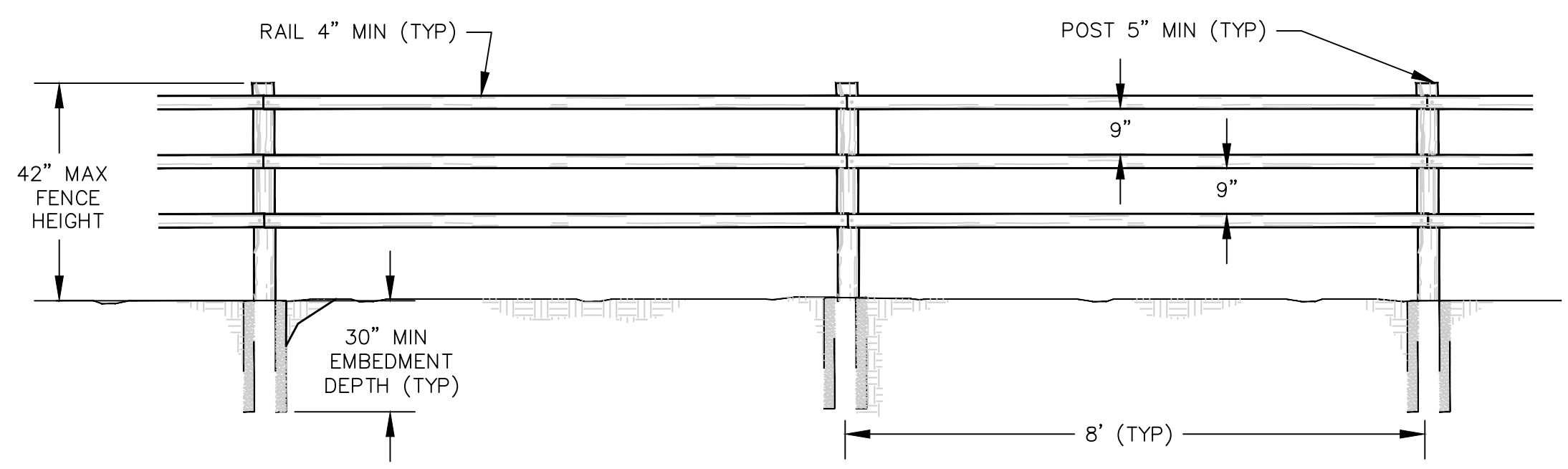
BASIN STANDPIPE 5
 NOT TO SCALE D-2



TYPICAL PATCH DETAIL

TRENCH/PATCHING NOTES:
 1. TRENCHES MORE THAN 4' DEEP SHALL BE SHORED, LAID BACK TO AT LEAST THE ANGLE OF REPOSE FOR EXISTING FIELD CONDITIONS, OR SOME OTHER MEANS OF PROTECTION SHALL BE PROVIDED.
 2. IF HAZARDOUS FIELD CONDITIONS INDICATE GROUND MOVEMENT MAY BE EXPECTED, TRENCHES LESS THAN 4' DEEP SHALL BE PROTECTED AS INDICATED IN NOTE 1.
 3. PAVING JOINTS IN ROADWAY ARE NOT ALLOWED IN WHEEL PATHS.
 4. MATCH EXISTING STRIPING THROUGH LIMITS OF PATCH AREA.
 5. A TRAVEL LANE SHALL BE MAINTAINED. TRENCH EXCAVATION INCLUDING SHIELD AND SHORING SYSTEMS SHALL COMPLY WITH CURRENT OSHA SAFETY REGULATIONS, FEDERAL REGISTER 29 CFR, PART 1926, SUBPART P.
 6. ALL MATING SURFACES SHALL BE TACK COATED PRIOR TO PAVING (NO DIRECT PAYMENT).
 7. SLURRY BACKFILL TRENCH TO BE USED WHEN UNABLE TO MAINTAIN A 12" TRAVEL LANE WITH THE STANDARD TRENCH OR AS DIRECTED BY THE ENGINEER.
 8. COMPACTION SHALL BE PERCENT RELATIVE COMPACTION BASED ON THE MAXIMUM DRY DENSITY DETERMINED WITH TEST METHOD NO. NEV. 1101.
 9. IN HIGH GROUND WATER, GRANULAR BACKFILL WRAPPED IN AN APPROVED GEOTEXTILE MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
 10. THERE SHALL BE NO ADDITIONAL COMPENSATION FOR ANY ADDITIONAL EXCAVATION OR BACKFILL REQUIRED FOR EXCAVATIONS TO MEET OSHA REGULATIONS.

TRENCH 3
 NOT TO SCALE D-2



SPLIT RAIL FENCE 6
 NOT TO SCALE D-2



ZEPHYR COVE WATER QUALITY IMPROVEMENT PROJECT, PHASE 2 DETAILS

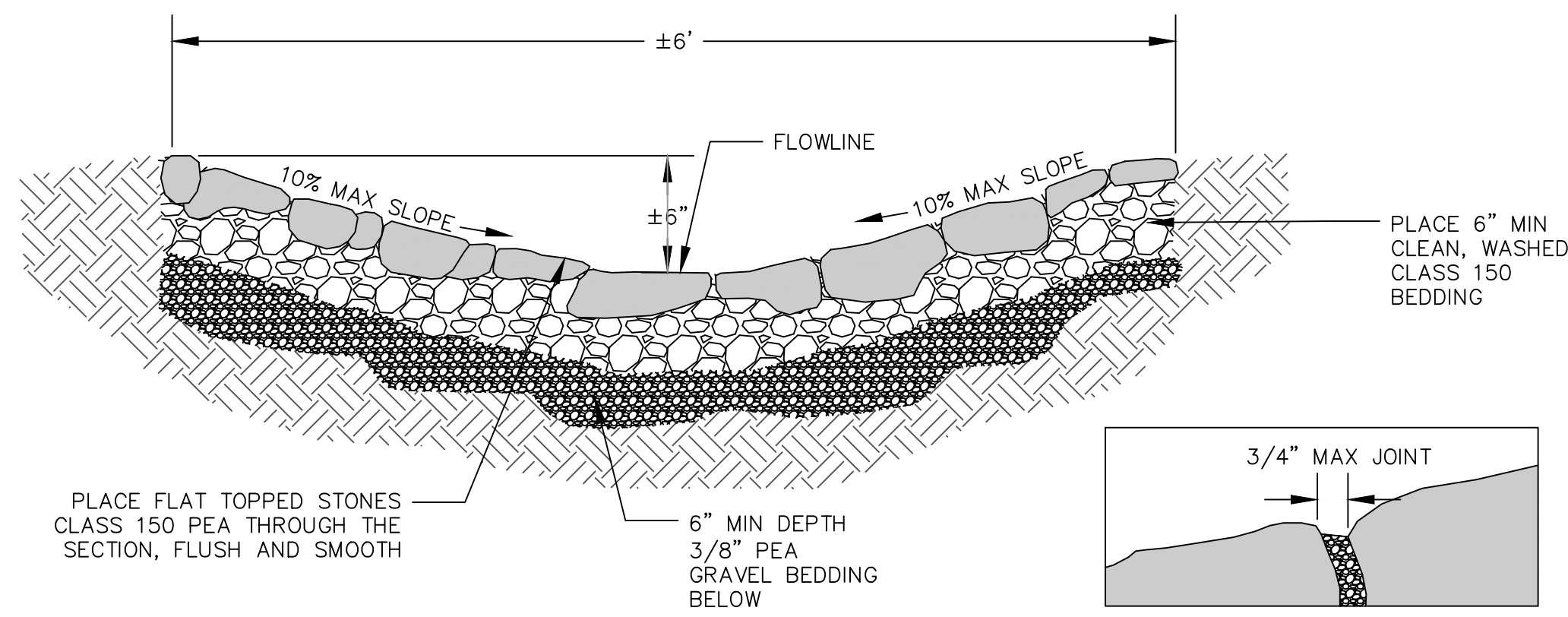
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS



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CHECKED	MBG
DATE	2/2017
SCALE	AS SHOWN

PROJECT
 ZC WQIP

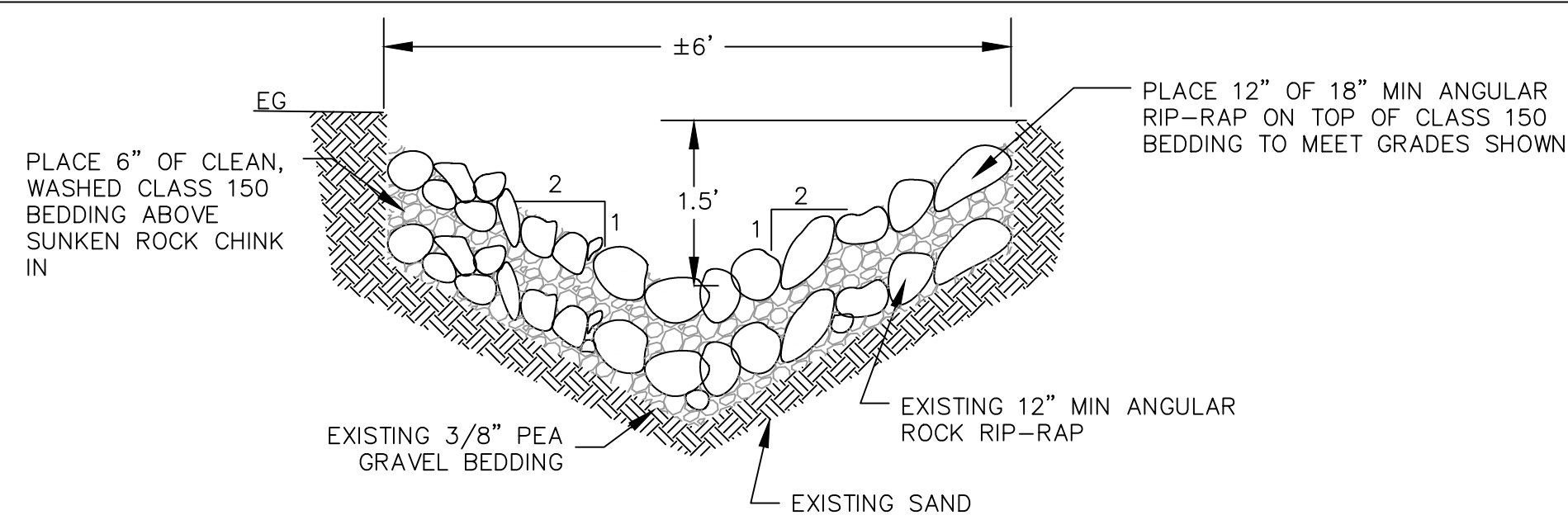
SHEET
D-2
 9 OF 11



FLAT TOP ROCK CHANNEL REPAIR

NOT TO SCALE

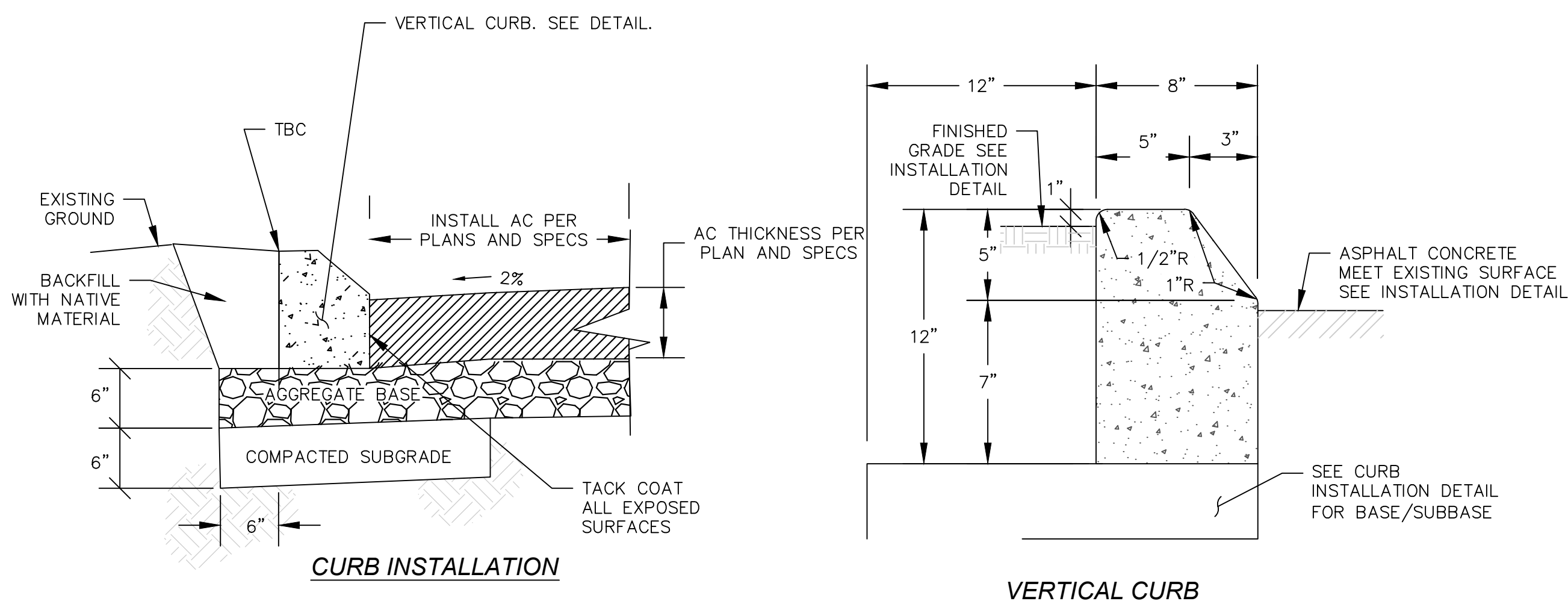
1
D-3



ROCK BOWL & ROCK LINED CHANNEL REPAIR

NOT TO SCALE

2
D-3



CURB INSTALLATION

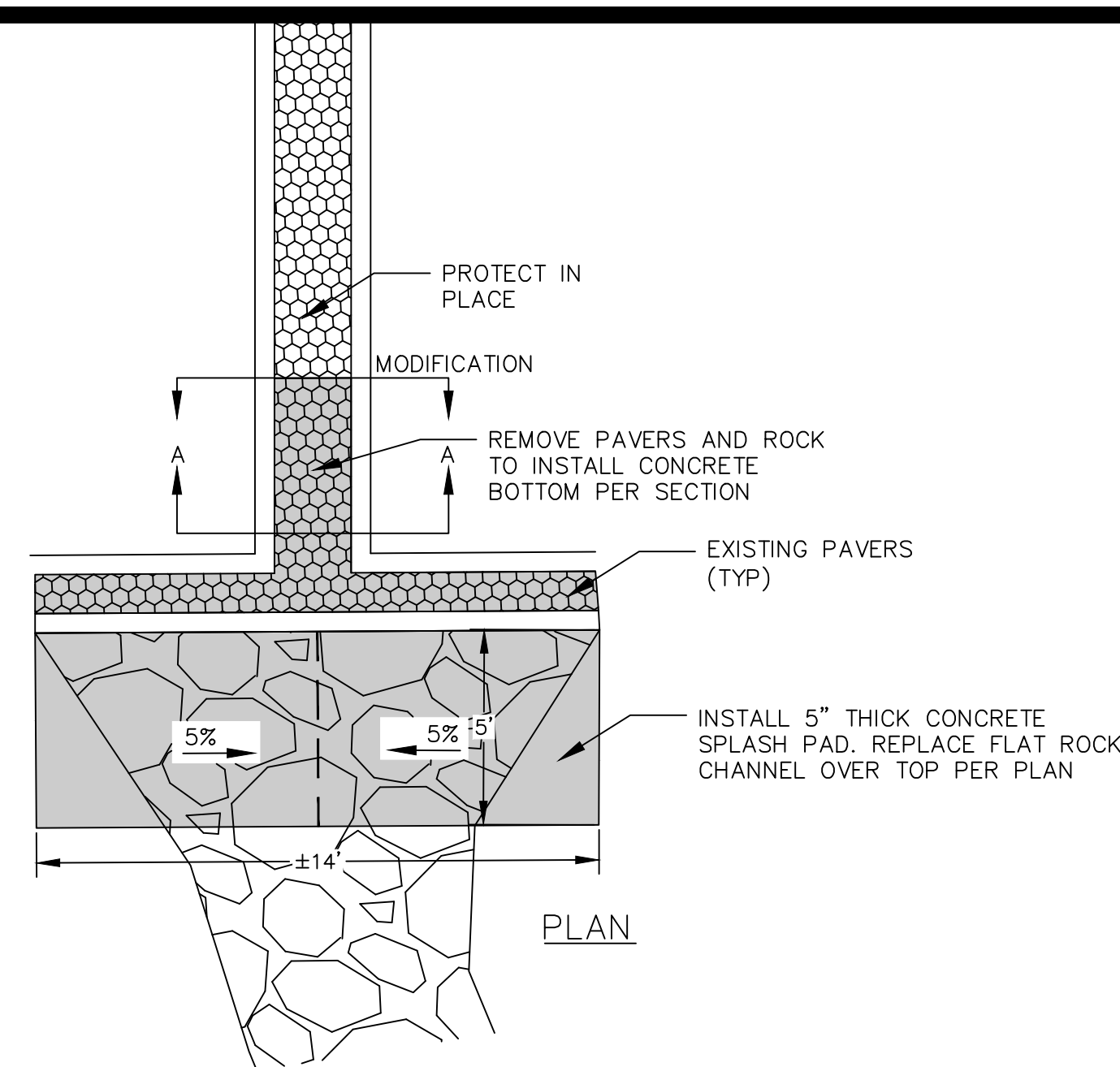
VERTICAL CURB

- CURB NOTES:**
1. CURB TYPE PER PLAN.
 2. SAW CUT ALONG STRAIGHT LINES. NO SAW CUTS WITHIN WHEEL PATH SURFACE TOLERANCES FOR AC PAVEMENT REPAIR SHALL CONFORM TO THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (ORANGE BOOK)
 3. ASPHALT CONCRETE MATERIALS AND TESTING SHALL CONFORM THE CURRENT EDITION OF THE ORANGE BOOK.
 4. AGGREGATE BASE SHALL BE TYPE 2 CLASS B COMPACTED TO 95% MDD.
 5. COMPACTED SUBGRADE SHALL BE CLASS A OR CLASS E (NATIVE) BACKFILL COMPACTED TO 90% MDD
 6. TACKCOAT ALL EXPOSED SURFACES SS-1h, 0.07-0.13 GAL/SY
 7. PORTLAND CEMENT SHALL CONFORM TO SECTION 337.10.01.01 OF THE STANDARD SPECIFICATIONS (ORANGE BOOK) FOR CONCRETE EXPOSED TO FREEZE-THAW ENVIRONMENTS.
 8. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED EVERY 5 FEET. THE JOINTS SHALL PENETRATE TO A DEPTH OF 2 INCHES AND BE CONSTRUCTED IN CONFORMANCE WITH SECTION 312.09.02 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
 9. EXPANSION JOINTS SHALL BE CONSTRUCTED AT LOCATIONS DESIGNATED IN SECTION 312.09.01A OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

VERTICAL CURB

NOT TO SCALE

3
D-3

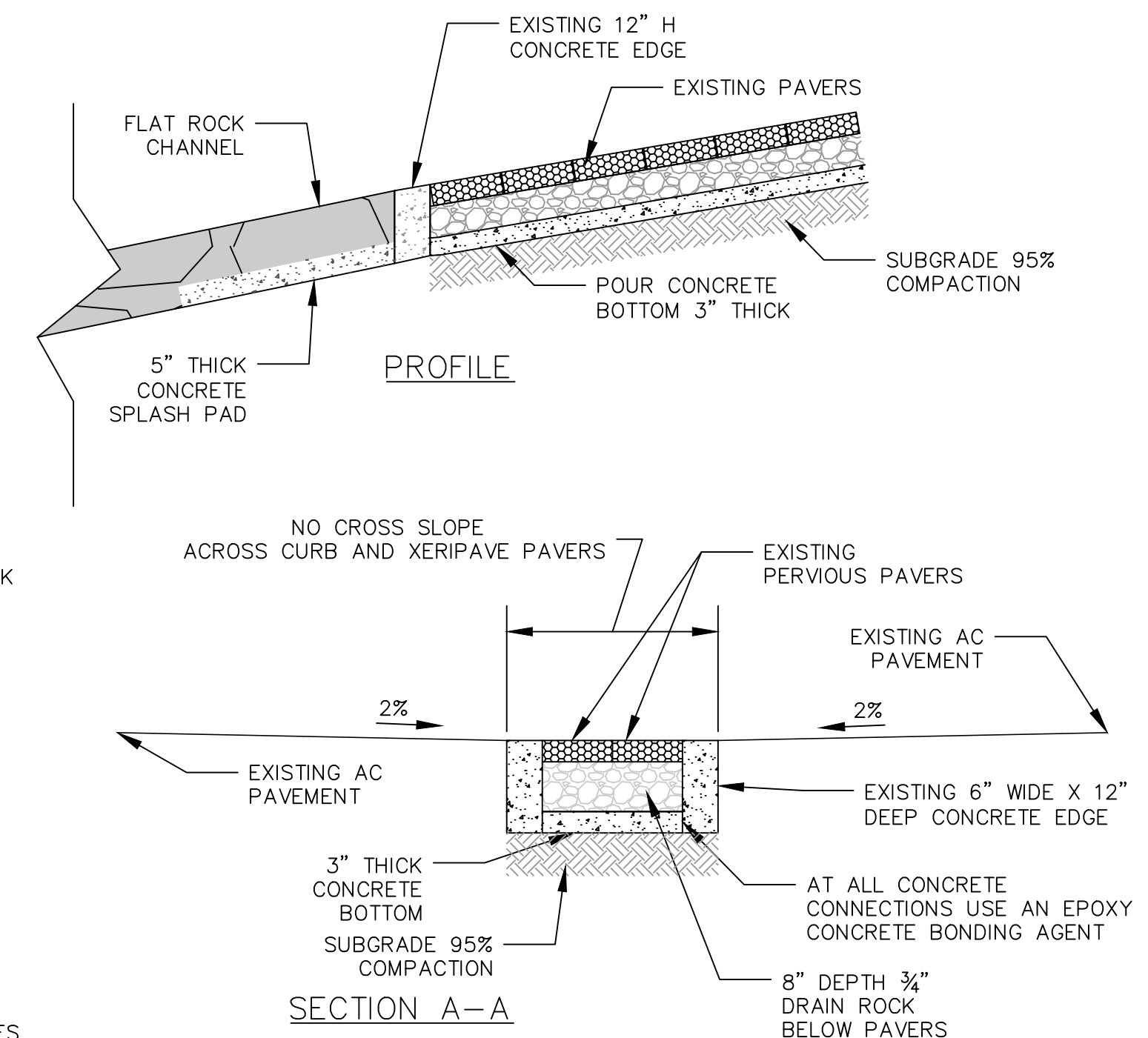


PAVER REPAIR

NOT TO SCALE

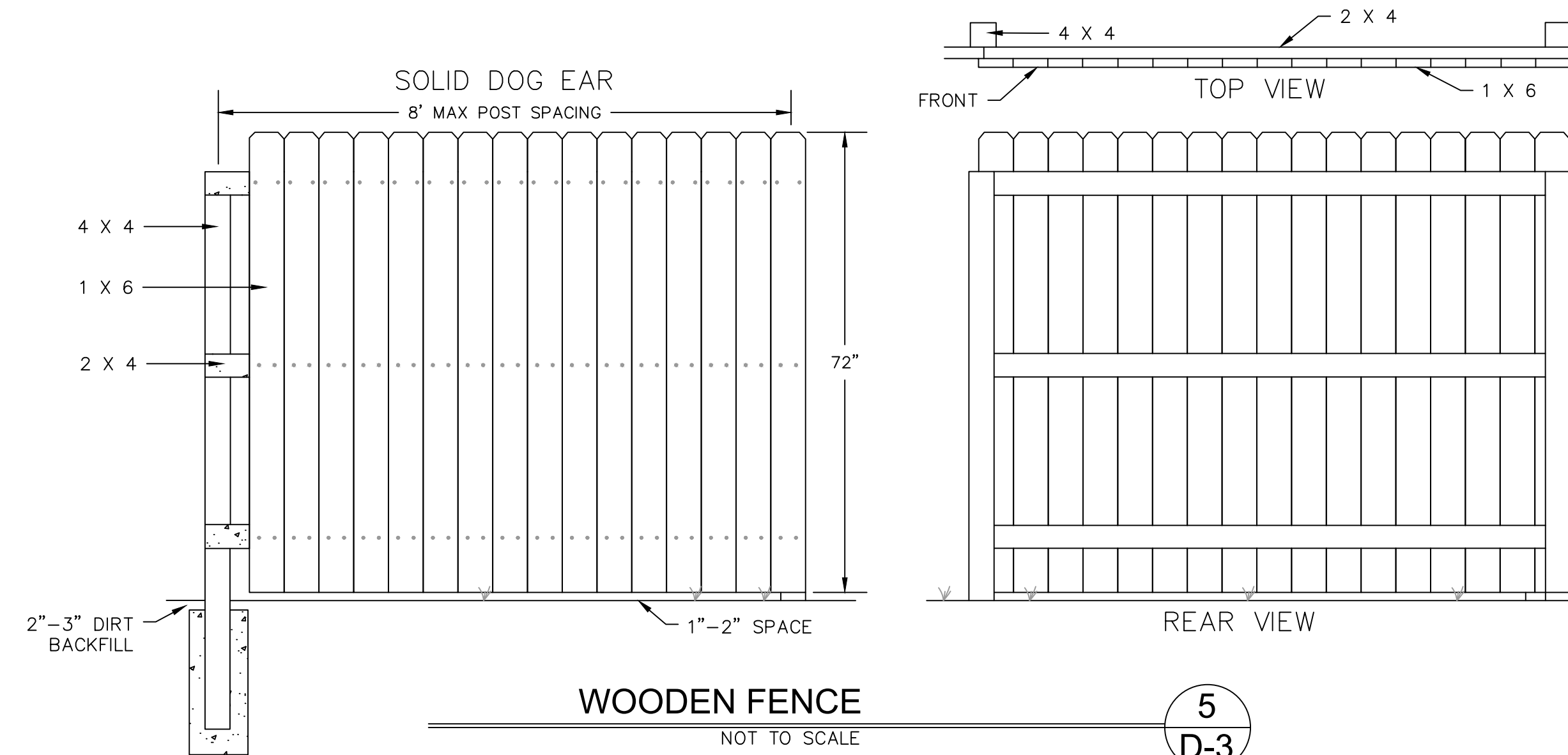
4
D-3

- NOTES:**
1. KEEP PAVERS IN ORDER AS THEY ARE CUT TO A SPECIFIC LOCATION WITHIN THE CONCRETE EDGE.
 2. USE CARE WITH PAVERS. UP TO 5 REPLACEMENT PAVERS WILL BE PROVIDED AT NO CHARGE TO CONTRACTOR.
 3. CONCRETE SHALL BE PLACED UNDER 6 ROWS OF PAVERS BUT A 7TH ROW OF PAVES WILL LIKELY NEED TO BE REMOVED TO OBTAIN SUB-GRADE COMPACTION.
 4. AL NEW CONCRETE SHOULD BE JOINED TO EXISTING CONCRETE USING HIGH STRENGTH EPOXY BONDING ADHESIVE PER MANUFACTURER'S INSTRUCTIONS SIKADUR 32 HI MOD OR EQUIVALENT.



SECTION A-A

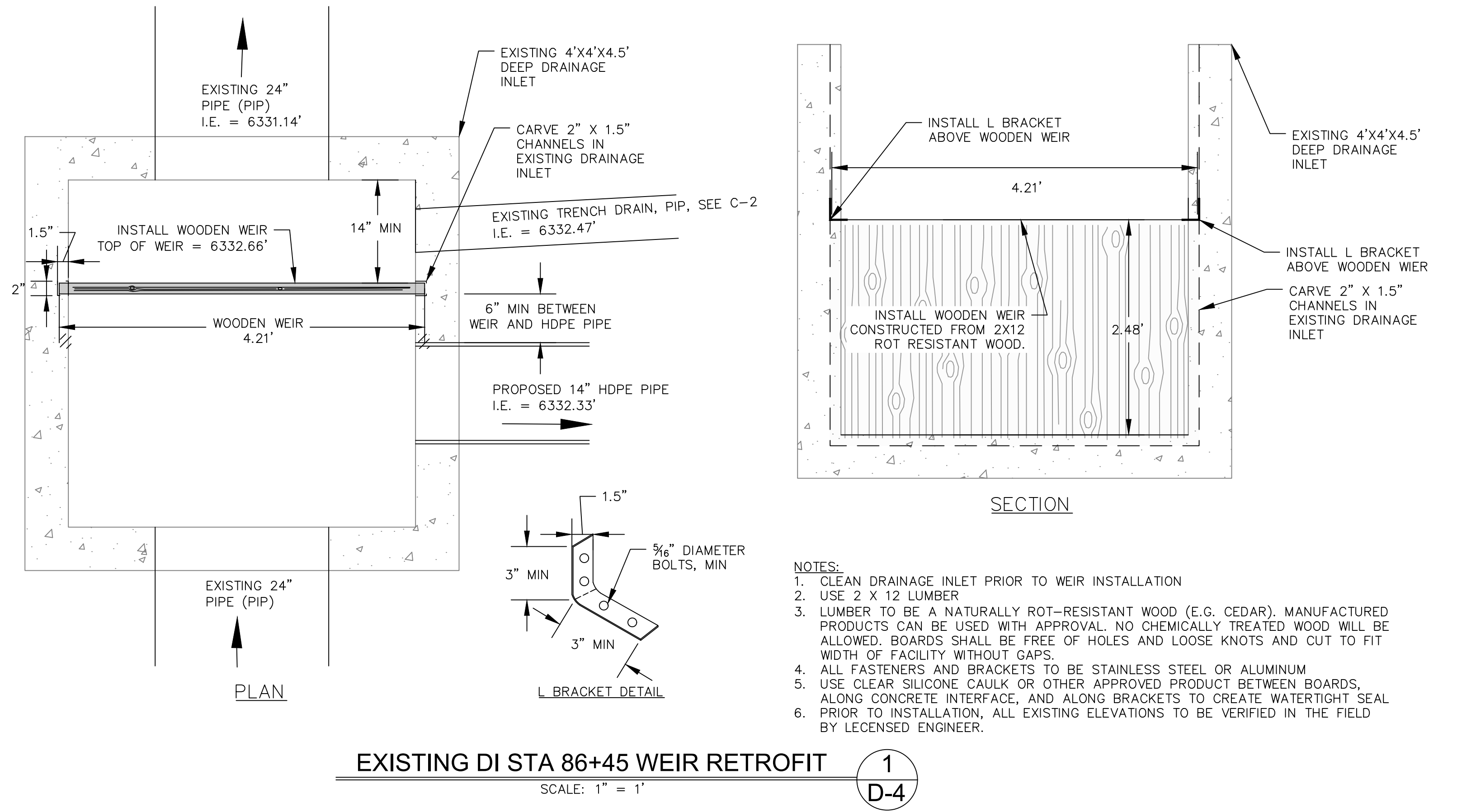
- NOTES:**
1. XERIPAVE HEAVY DUTY PAVERS MEASURE 11.81" X 11.81" X 3.54"
 2. REINSTALL PER MANUFACTURER'S INSTRUCTIONS



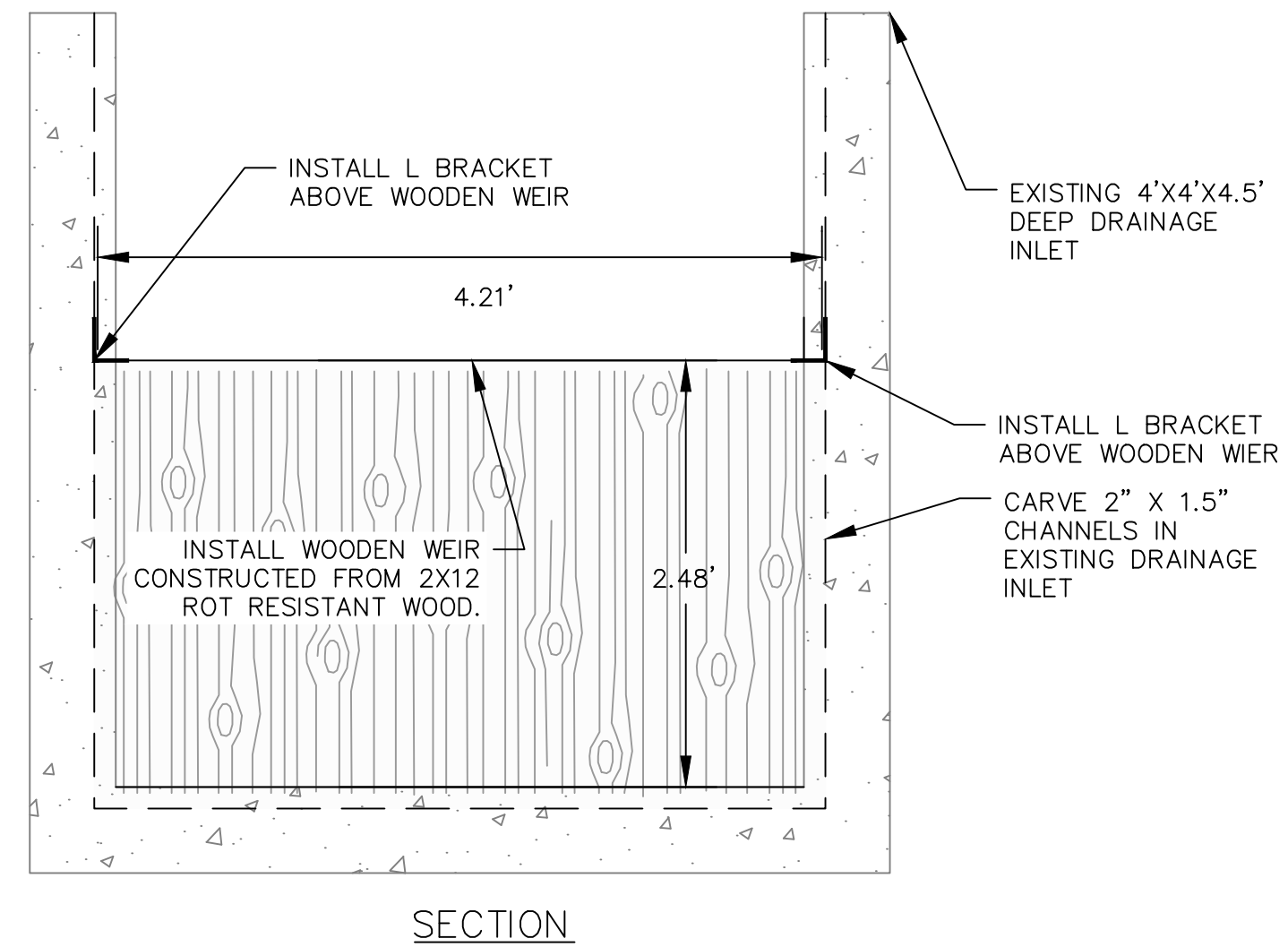
WOODEN FENCE

NOT TO SCALE

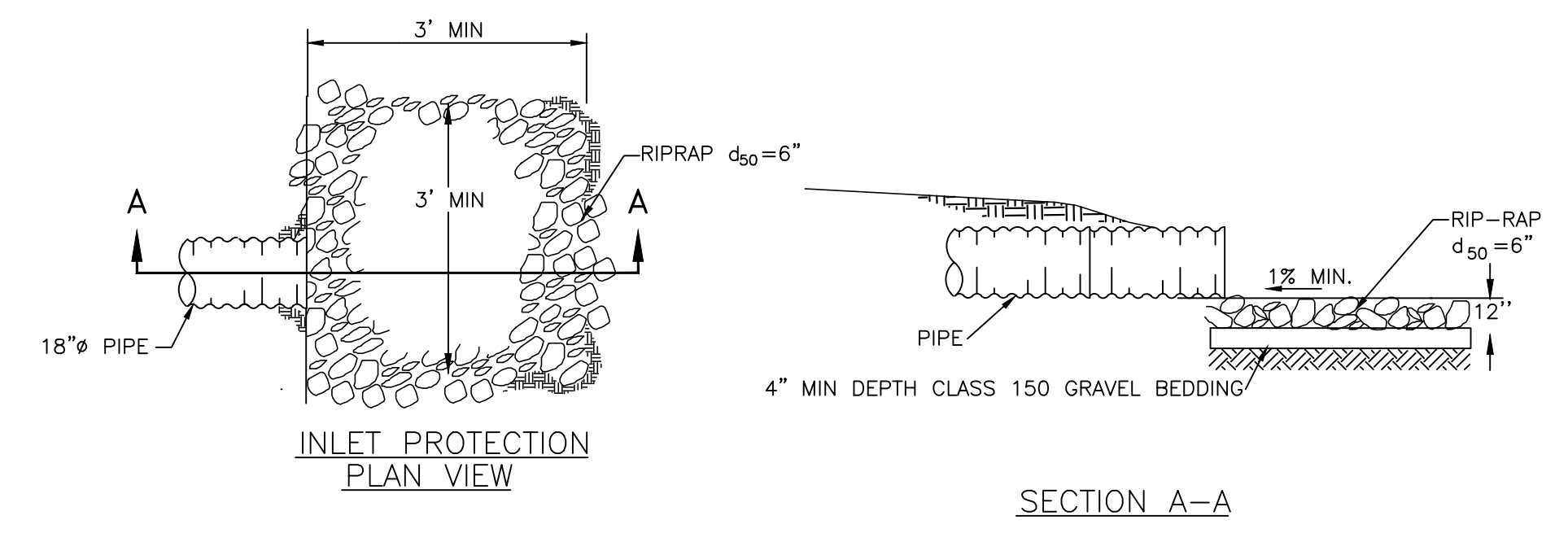
5
D-3



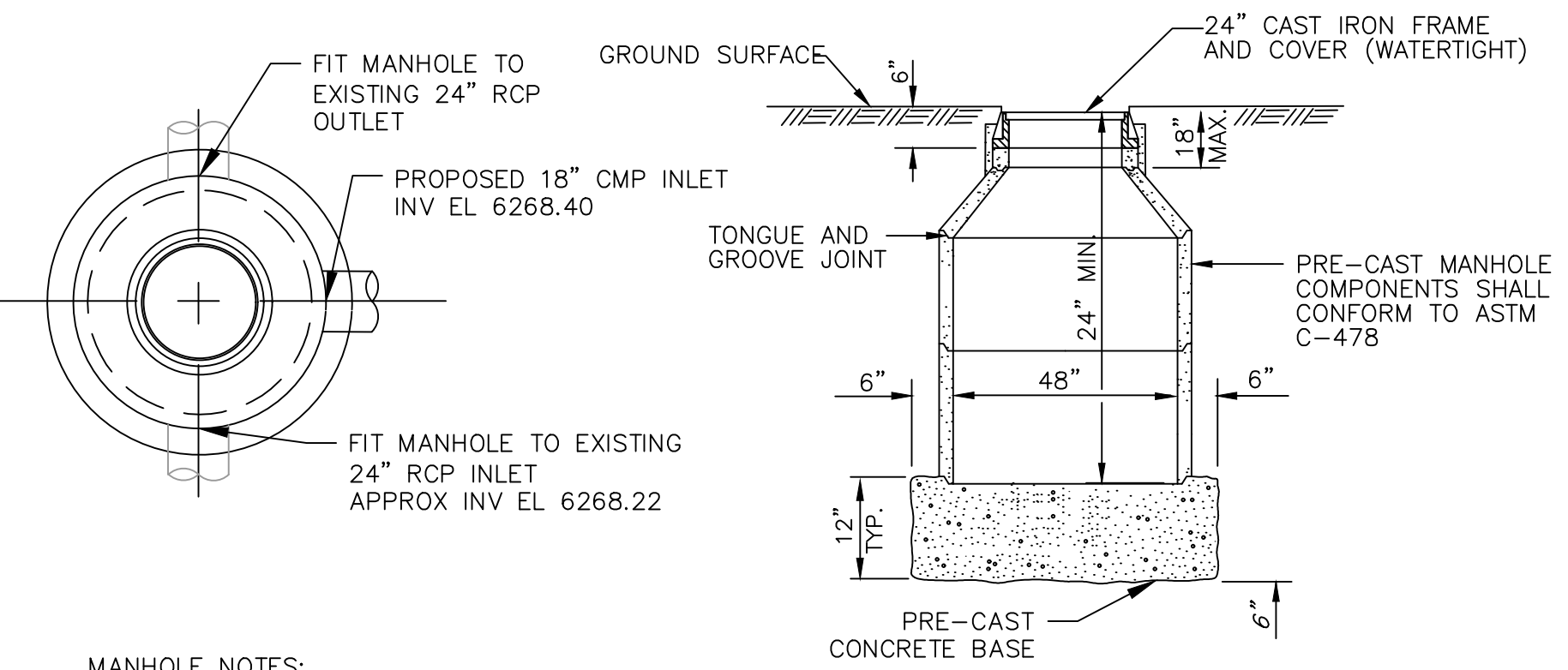
EXISTING DI STA 86+45 WEIR RETROFIT
SCALE: 1" = 1'



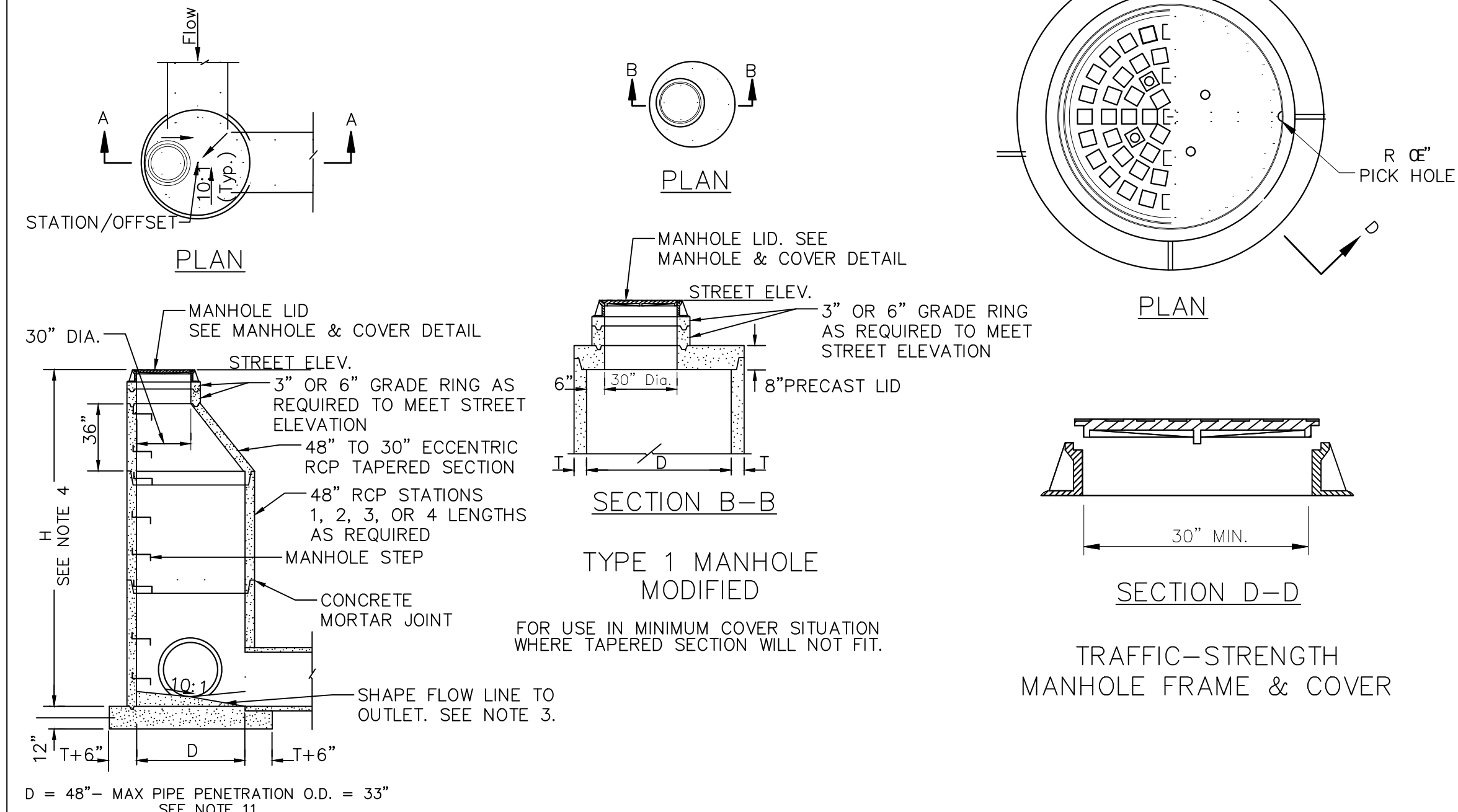
- NOTES:**
- CLEAN DRAINAGE INLET PRIOR TO WEIR INSTALLATION
 - USE 2 X 12 LUMBER
 - LUMBER TO BE A NATURALLY ROT-RESISTANT WOOD (E.G. CEDAR). MANUFACTURED PRODUCTS CAN BE USED WITH APPROVAL. NO CHEMICALLY TREATED WOOD WILL BE ALLOWED. BOARDS SHALL BE FREE OF HOLES AND LOOSE KNOTS AND CUT TO FIT WIDTH OF FACILITY WITHOUT GAPS.
 - ALL FASTENERS AND BRACKETS TO BE STAINLESS STEEL OR ALUMINUM
 - USE CLEAR SILICONE CAULK OR OTHER APPROVED PRODUCT BETWEEN BOARDS, ALONG CONCRETE INTERFACE, AND ALONG BRACKETS TO CREATE WATERTIGHT SEAL PRIOR TO INSTALLATION, ALL EXISTING ELEVATIONS TO BE VERIFIED IN THE FIELD BY LICENSED ENGINEER.



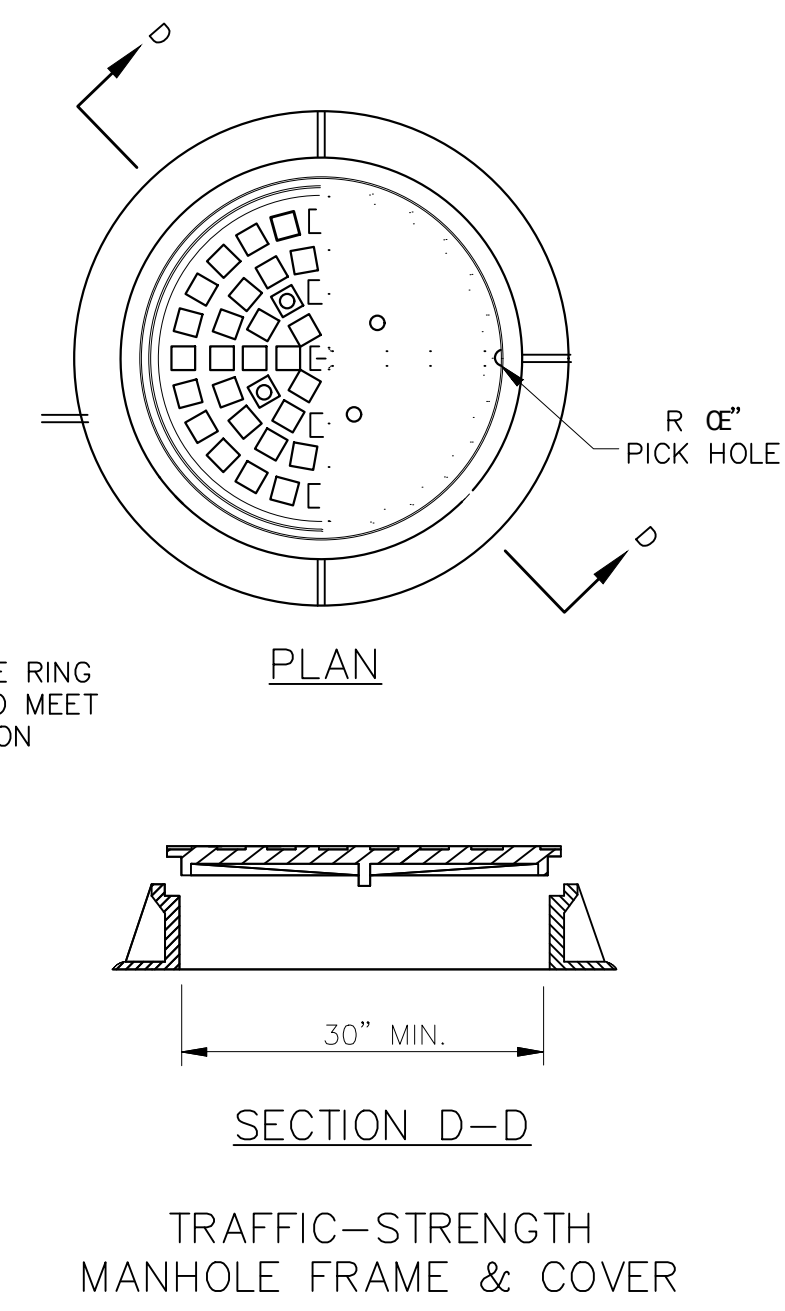
ROCK DISSIPATOR
NOT TO SCALE



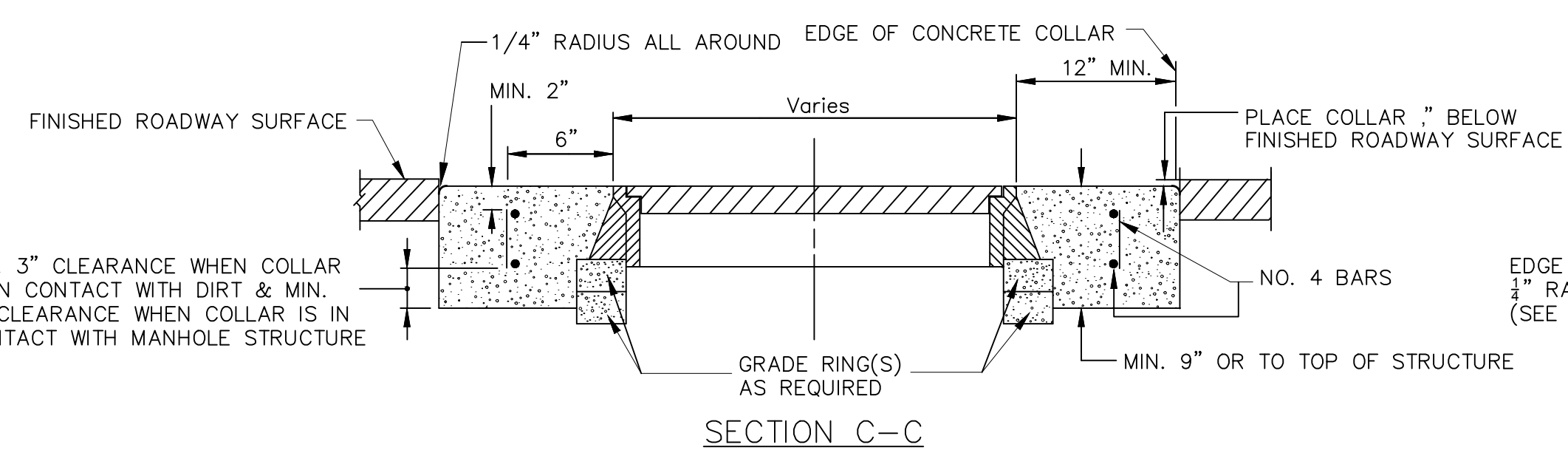
- MANHOLE NOTES:**
- ALL CONCRETE SHALL BE CLASS A OR CLASS AA.
 - INFLOW PIPE INVERT ELEVATIONS SHALL BE GREATER THAN OR EQUAL TO 0.1' ABOVE THE OUTFLOW PIPE INVERT ELEVATION.
 - PRECAST CONCRETE PIPE SECTIONS, TAPERED SECTIONS, LIDS, GRADE RINGS, BASES, AND STEPS SHALL CONFORM TO AASHTO M 199 (ASTM C-478).
 - MANHOLE COVER SHALL BEAR ENTITY IDENTIFICATION AND SYSTEM FUNCTION (IF APPLICABLE).
 - SHAPE FLOWLINE IN MANHOLE TO OUTLET PIPE, AND PROVIDE A 10:1 SLOPE FROM ALL DIRECTIONS TOWARD FLOW LINE.



TYPE 1 MANHOLE MODIFIED
FOR USE IN MINIMUM COVER SITUATION WHERE TAPERED SECTION WILL NOT FIT.

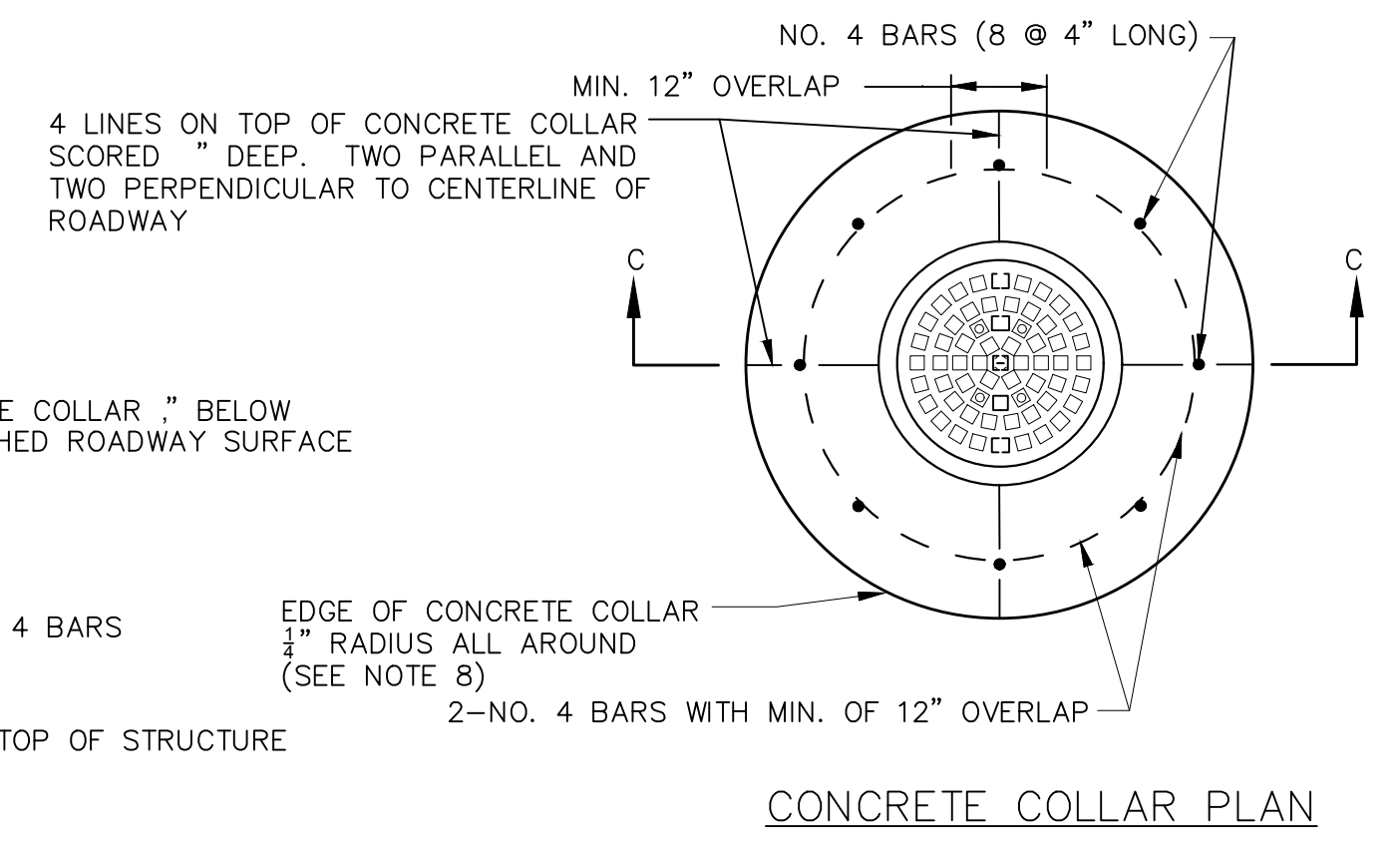


TRAFFIC-STRENGTH MANHOLE FRAME & COVER



NDOT TYPE 1 MODIFIED STORM DRAIN MANHOLE
NOT TO SCALE

- NOTES:**
- FOR CAST IN PLACE CONCRETE BASE ALL REINFORCING STEEL TO BE NO. 4 BARS AT 18" CENTERS TIGHTLY WOUND AT ALL INTERSECTIONS AND EMBEDDED IN CONCRETE AT LEAST 2" AND BAR ENDS MUST CLEAR CONCRETE SURFACES BY 1". PRECAST CONCRETE MAY BE USED IN LIEU OF CAST-IN PLACE BASE.
 - ALL CONCRETE SHALL BE CLASS A OR AA.
 - INFLOW PIPE INVERT ELEVATIONS SHALL BE \geq 0.1' ABOVE OUTFLOW PIPE ELEVATION.
 - FOR VALUES OF "H" SEE PLANS. "H" IS THE DIFFERENCE IN ELEVATION BETWEEN THE OUTFLOW PIPE INVERT ELEVATION AND THE TOP OF MANHOLE ELEVATION AT STREET GRADE.
 - DO NOT PLACE PIPES IN TAPERED SECTION.
 - MANHOLE COVER SHALL BEAR ENTITY IDENTIFICATION AND SYSTEM FUNCTION (IF APPLICABLE).
 - PRECAST CONCRETE PIPE SECTIONS, TAPERED SECTIONS, LIDS, GRADE RINGS, BASES, AND STEPS SHALL CONFORM TO AASHTO M 199 (ASTM C-478).
 - SHAPE FLOW LINE IN MANHOLE TO OUTLET PIPE, AND PROVIDE A 10:1 MINIMUM SLOPE FROM ALL DIRECTIONS TOWARD FLOW LINE.
 - T = MANHOLE PIPE WALL THICKNESS.
 - ROTATE PRECAST LID OR ECCENTRIC RCP TAPERED SECTION TO LOCATE LADDER AWAY FROM PIPE OPENINGS AND TO KEEP MANHOLE COVER OUT OF THE WHEEL PATH OR OTHER UNDESIRABLE LOCATIONS AS DIRECTED BY THE ENGINEER.
 - THE CLEAR DISTANCE BETWEEN ADJACENT PIPE PENETRATIONS SHALL NOT BE LESS THEN 6". A LARGER MANHOLE MAY BE NECESSARY TO MAINTAIN ADEQUATE SPACING.
 - THE WEIGHT OF FRAME SHALL BE 145 lbs. MINIMUM AND THE WEIGHT OF COVER SHALL BE 125 lbs. MINIMUM. TRAFFIC-STRENGTH MANHOLE FRAME & COVER SHALL COMPLY WITH AASHTO M18 WHEEL LOADS. EQUIVALENT MANHOLE FRAMES & COVERS OTHER THAN SHOWN MAY BE USED UPON APPROVAL BY THE ENGINEER.
 - THE FRAME SEAT AND COVER EDGE SHALL BE MACHINED TO A TRUE BEARING SURFACE ALL AROUND. THE FRAME & COVER SHALL BE COMPATIBLE TO THE MANUFACTURERS SPECIFICATIONS.
 - THE SURFACE SHOWN IS FOR ILLUSTRATION ONLY. ANY SURFACE DESIGN, OTHER THAN SMOOTH, MAY BE USED UPON APPROVAL.
 - FRAMES & COVERS SHALL CONFORM TO ASTM A48, CLASS 40 FOR GRAY IRON CASTINGS.
 - A CAST-IN-PLACE CONCRETE COLLAR SHALL BE PLACED AROUND A MANHOLE FRAME UNLESS OTHERWISE DIRECTED.
 - CONCRETE COLLARS MAY BE POURED ROUND, OR ANY OTHER APPROPRIATE SHAPE WHEN APPROVED BY THE ENGINEER.
 - COMMERCIAL PREFABRICATED GRADE RINGS FOR MANHOLES SHALL CONFORM TO AASHTO M 199 (ASTM C-478).



CONCRETE COLLAR PLAN

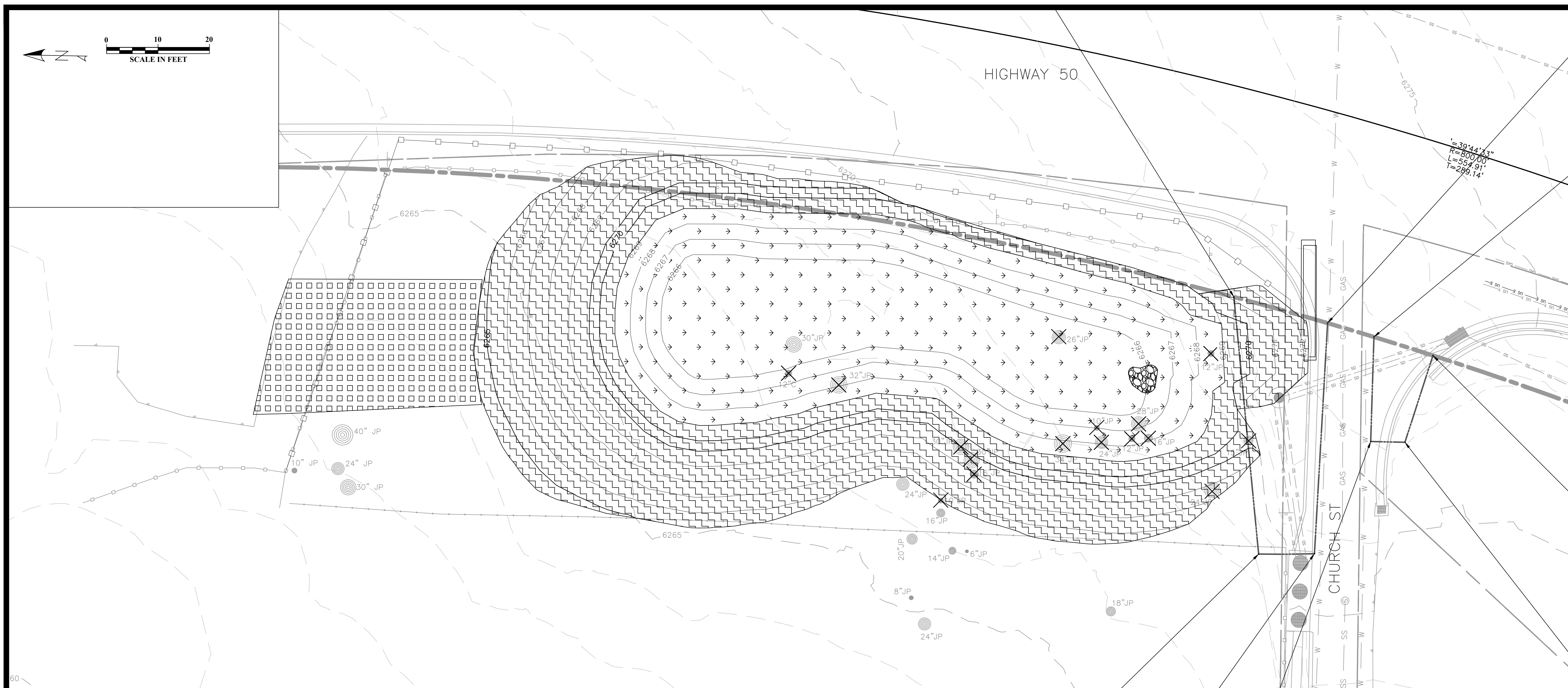
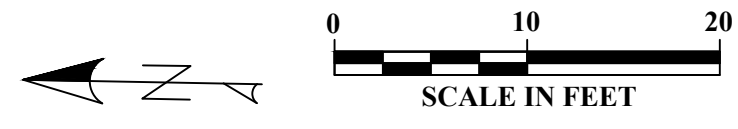
CHURCH STREET STORM DRAIN MANHOLE
NOT TO SCALE



ZEPHYR COVE WATER QUALITY IMPROVEMENT PROJECT, PHASE 2 DETAILS

BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS
0" = 1"

DESIGNED/DRAWN	MCK/MCK
CHECKED	MBG
DATE	2/2017
SCALE	AS SHOWN
PROJECT	ZC WQIP



BASIN SEED MIX
±4,000 SF

SPECIES	PLS LBS/ACRE
Orchardgrass Paiute	0.75
Slender Wheatgrass Revenue	0.75
Fescue Sheep Covar	1
Fescue Hard Durar	1
Bluegrass Sherman	2
Blue Wildrye	2
Wildrye Creeping Shosone	2.5
Brome Mountain Bromar	3
Yarrow White	0.1
Lupine Argenteus - Collected	0.2
Rocky Mountain Penstemon	0.2

BERM SEED MIX
±4500 SF

SPECIES	PLS LBS/ACRE
Streambank Wheatgrass 'Sodar'	2.00
Big Bluegrass	2.00
Sheep Fescue 'Covar'	2.50
Hard Fescue	3.50
Squirreltail	2.00
Creeping Wildrye	2.00
Slender Wheatgrass	2.50
California Sierra Brome	1.00
Western Needlegrass	1.00
Blue Flax	0.75
California Poppy	0.50
Sulfur-flower Buckwheat	0.75
Yarrow	0.50
Silvery Lupine	0.25
Showy Penstemon	0.50

UPLAND SEED MIX
±1,200 SF

SPECIES	PLS LBS/ACRE
Streambank Wheatgrass 'Sodar'	2.00
Big Bluegrass	1.00
Sheep Fescue 'Covar'	2.50
Hard Fescue	3.00
Squirreltail	1.00
Creeping Wildrye	1.00
Slender Wheatgrass	2.50
California Sierra Brome	0.75
Western Needlegrass	0.75
Blue Flax	0.50
California Poppy	0.50
Sulfur-flower Buckwheat	0.50
Yarrow	0.50
Silvery Lupine	0.25
Showy Penstemon	0.25
Woods Rose	0.25
Mountain Big Sagebrush	0.25
Antelope Bitterbrush	0.50

- NOTES:
 1. PLS MEANS PURE LIVE SEED.
 2. ALL DISTURBED AREAS SHALL BE REVEGETATED PER SPECIFICATION, INCLUDING AREAS NOT SHOWN ON THIS SHEET.
 3. SEED WILL BE SUPPLIED BY NTCO.



ZEPHYR COVE WATER QUALITY IMPROVEMENT PROJECT, PHASE 2 REVEGETATION PLAN

BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS



DESIGNED/DRAWN	MCK/MCK
CHECKED	MBG
DATE	2/2017
SCALE	AS SHOWN
PROJECT	ZC WQIP