

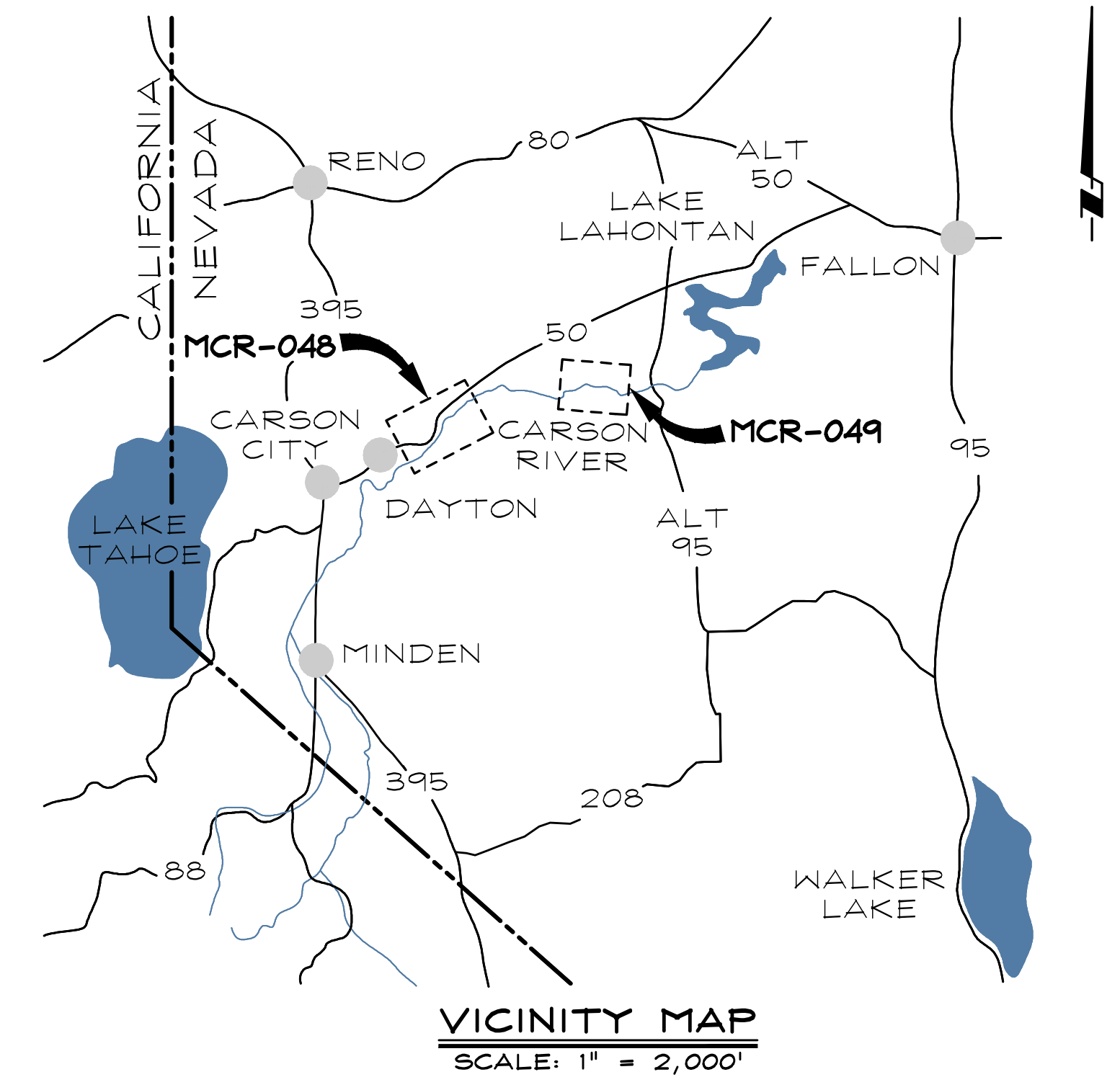
IMPROVEMENT PLANS FOR 2019 CARSON RIVER BANK STABILIZATION PROJECT MCR-049 DAYTON VALLEY CONSERVATION DISTRICT



HAUL ROUTE MCR-049
SCALE: 1" = 3000'

HAUL ROUTE FROM U.S. 50 TO MCR-049 IS APPROXIMATELY 10 MILES.

SCALE: 1" = 3000'



VICINITY MAP
SCALE: 1" = 2,000'

AFFECTED PROPERTY

MCR-049 APN: 015-561-01 NEVADA, STATE OF HWY 95A

SHEET INDEX

- C1 COVER SHEET
- C2 NOTES, LEGEND & ABBREVIATIONS
- C3 SITE PLAN MCR 49 RIVER STATION 1480+00 TO 1485+50
- C4 SITE PLAN MCR 49 RIVER STATION 1485+50 TO 1490+00
- C5 DE-WATERING & TEMPORARY EROSION CONTROL
- C6 DETAILS

NOTE: PROPERTY LINES SHOWN ARE APPROXIMATE ONLY & DO NOT REPRESENT A BOUNDARY SURVEY.



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NO.	DATE	REVISION BLOCK	BY

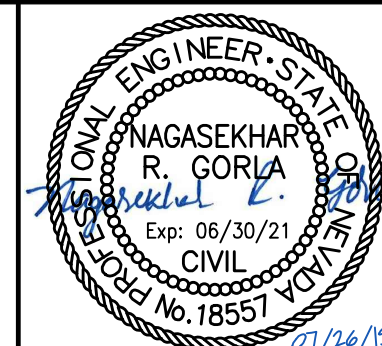
R|O Anderson
KIM R. ANDERSON, COTI

MINDEN 1605 Emeralds Ave P.O. Box 2221 Minden, NV 89429 P 775.782.2322 F 775.782.7064

RENO 9260 Double Diamond Pkwy, Unit 1B Reno, NV 89521 P 775.782.2322 F 775.782.7064

MCR-049
DAYTON VALLEY CONSERVATION DISTRICT

COVER SHEET

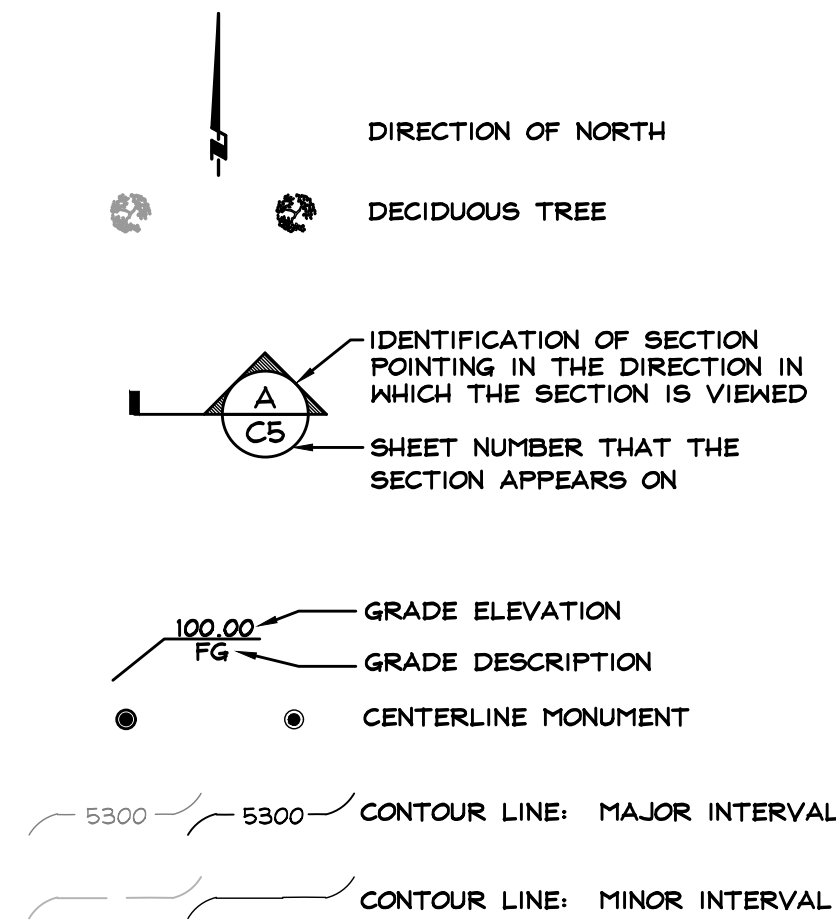


DRAWN: MCR	JOB: 0582-020
ENGINEER: NRG	DRAWING: SEE PLOT STAMP
SCALE:	SHEET: C1
DATE: 07.25.19	OF: 6 SHEETS

BID SET 07/26/19

SYMBOLS

EXISTING NEW



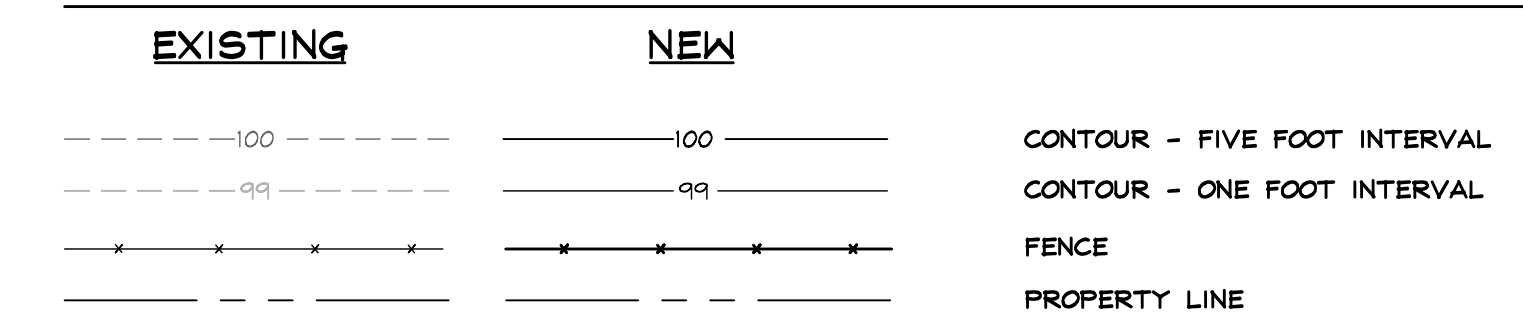
ABBREVIATIONS

AASHTO.....AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	AB.....AGGREGATE BASE	AC.....ASPHALT CONCRETE	ADA.....AMERICANS WITH DISABILITIES ACT OF 1990	ADT.....AVERAGE DAILY TRAFFIC	ALT.....ALTITUDE	ANSI.....AMERICAN NATIONAL STANDARDS INSTITUTE	APN.....ASSESSOR'S PARCEL NUMBER	APPROX.....APPROXIMATELY	APWA.....AMERICAN PUBLIC WORKS ASSOCIATION	ARV.....AIR RELEASE VALVE	ASCE.....AMERICAN SOCIETY OF CIVIL ENGINEERS	ASTM.....AMERICAN SOCIETY OF TESTING AND MATERIALS	AT.....AT	BC.....BEGIN CURVE	BCR.....BEGINNING OF CURB RETURN	BFE.....BASE FLOOD ELEVATION	BLD.....BUILDING	BOM.....BOTTOM OF WALL	BS.....BOTH SIDES	BML.....BLACK	BW.....BARBED WIRE	CAP.....CORRUGATED ALUMINUM PIPE	CAPA.....CORRUGATED ALUMINUM PIPE ARCH	CRG.....CURB AND GUTTER	CAT.....CATWALK	CC.....CARSON CITY	CF.....CUBIC FOOT	CL.....CHAIN LINK	CL.....CURB INLET (THROUGH)	CL.....CENTER LINE	CMP.....CORRUGATED METAL PIPE	CO.....CLEAN	COMP.....COMPACTION	CON.....CONIFEROUS	CORN.....CROWN OF ROAD	CSP.....CORRUGATED STEEL PIPE	CSPA.....CORRUGATED STEEL PIPE ARCH	CUL.....CULVERT INVERT	CT.....CUBIC YARD	D.....DEGREES	DIRT.....DIRT	DEC.....DECIDUOUS	DF.....DEEPEND FOOTING	DG.....DECOMPOSED GRANITE	DI.....DROP INLET	DIA(φ).....DIAMETER	E.....EAST	EA.....EACH	EC.....END CURVE	ECR.....END OF CURB RETURN	ED.....EDGE	EGL.....ENERGY GRADE LINE	ELEC.....ELECTRICAL	ELEV.....ELEVATION	EP.....EDGE OF PAVEMENT	EPA.....ENVIRONMENTAL PROTECTION AGENCY	EVC.....END VERTICAL CURVE	EW.....EDGE OF WATER	EX.....EXISTING	F.....FAHRENHEIT	FC.....FACE OF CURB	FC.....FIRE CONNECTION	FEMA.....FEDERAL EMERGENCY MANAGEMENT AGENCY	FF.....FINISHED FLOOR	FG.....FINISHED GRADE	FH.....FIRE HYDRANT	FL.....FLOWLINE	FNC.....FENCE	FND.....FOUND MONUMENT, CORNER OR CONTROL POINT	FS.....FIRE STUB	FT(').....FOOT(FEET)	G.....GAS	G.....GATE	GA.....GUY ANCHOR	GB.....GRADE BREAK	GID.....GENERAL IMPROVEMENT DISTRICT	GP.....GUY POLE	GPM.....GALLONS PER MINUTE	GR.....GRAVEL	GS.....GROUND SHOT	H/C.....HANDICAP	HDPE.....HIGH DENSITY POLYETHYLENE	HDS.....HYDRAULIC DESIGN SERIES	HEC.....HYDRAULIC ENGINEERING CIRCULAR	HERCP.....HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE	HGL.....HYDRAULIC GRADE LINE	HH.....HAND HOLE	HORIZ.....HORIZONTAL	HW.....HOG WIRE	ID.....INNER DIAMETER	IE.....INVERT ELEVATION	IN(').....INCH	INC.....INCORPORATED	INTX.....INTERSECTION	IRRI.....IRRIGATION	ITE.....INSTITUTE OF TRANSPORTATION ENGINEERS	LAT.....LATERAL	LOS.....LEVEL OF SERVICE	LS.....LUMP SUM	LT.....LIGHT	M.....METER	MAX.....MAXIMUM	MGD.....MILLION GALLONS PER DAY	MGSD.....MINDEN GARDNERVILLE SANITATION DISTRICT	MH.....MANHOLE	M.....METER	MAX.....MAXIMUM	MGD.....MILLION GALLONS PER DAY	MISC.....MISCELLANEOUS	MIX.....MIXED	MH.....MILES PER HOUR	MUTCD.....MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES	N.....NORTH	NAC.....NEVADA ADMINISTRATIVE CODE	NDEP.....NEVADA DIVISION OF ENVIRONMENTAL PROTECTION	NDOT.....NEVADA DEPARTMENT OF TRANSPORTATION	NE.....NORTHEAST	NEC.....NATIONAL ELECTRIC CODE	NFIP.....NATIONAL FLOOD INSURANCE PROGRAM	NSF.....NATIONAL SANITATION FOUNDATION	NO.....NUMBER	NOAA.....NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	NOI.....NOTICE OF INTENT	NRCS.....NATIONAL RESOURCE CONSERVATION SERVICE	NRS.....NEVADA REVISED STATUTES	NTS.....NOT TO SCALE	NM.....NORTHWEST	NWS.....NATIONAL WEATHER SERVICE	OC.....ON CENTER	OD.....OUTER DIETTER	OSHA.....OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970	O/H.....OVERHEAD	±.....PLUS OR MINUS	POW.....POWER	PC.....POINT OF CURVATURE	PDL.....PADDLE	PE.....PROFESSIONAL ENGINEER LICENSED BY THE STATE OF NEVADA	PE.....POLY ETHYLENE	PED.....PEDESTAL	PEDX.....PEDESTRIAN CROSSING	PK.....PARKING	%.....PERCENT	P/L.....PROPERTY LINE	PMF.....PROBABLE MAXIMUM FLOOD	PNT.....POINT	PNT.....PAINT MARK	PSI.....POUNDS PER SQUARE INCH	PT.....POINT OF TANGENCY	PUE.....PUBLIC UTILITY EASEMENT	PVC.....POLYVINYL CHLORIDE	R.....RADIUS	R.....ROCK	R.....RISER	RB.....RIVER BED	RCBC.....REINFORCED CONCRETE BOXED CULVERT	RCF.....REINFORCED CONCRETE PIPE	ROW.....RIGHT OF WAY	RTC.....REGIONAL TRANSPORTATION COMMISSION OF DOUGLAS COUNTY	S.....SIGN	S.....SLOPE	S.....SOUTH	SAD.....SURFACE AREA DISTURBANCE	SD.....STORM DRAIN	SDMH.....STORM DRAIN MANHOLE	SDR.....STANDARD DIMENSION RATIO	SE.....SOUTHEAST	SET.....SET MONUMENT, CORNER OR CONTROL POINT	SF.....SQUARE FOOT(FEET)	SPP.....STRUCTURAL PLATE PIPE	SPPA.....STRUCTURAL PLATE PIPE ARCH	SRV.....SERVICE	SS.....SANITARY SEWER	SSMH.....SANITARY SEWER MANHOLE	ST.....STREET	STA.....STATION	STB.....STUB	STD.....STANDARD	SW.....SOUTHWEST	S/W.....SIDEWALK	SWPPP.....STORMWATER POLLUTION PREVENTION PLAN	T.....TELEPHONE	TBC.....TOP BACK OF CURB	TC.....TOP OF CURB	TREB.....TRANSPORTATION RESEARCH BOARD	TOE.....TOE OF SLOPE	TOP.....TOP OF SLOPE	TON.....TOP OF WALL	TR.....TREE	TRF.....TRAFFIC CONTROL	TV.....TELEVISION	TYP.....TYPICAL	U.....UTILITY	UBC.....UNIFORM BUILDING CODE	UG.....UNDERGROUND	UMC.....UNIFORM MECHANICAL CODE	UNO.....UNLESS NOTED OTHERWISE	UPC.....UNIFORM PLUMBING CODE	USACE.....UNITED STATES ARMY CORPS OF ENGINEERS	USBR.....UNITED STATES BUREAU OF RECLAMATION	USGS.....UNITED STATES GEOLOGICAL SURVEY	V.....VALVE	VA.....VAULT	VC.....VERTICAL CURVE	VG.....VALLEY GUTTER	VERT.....VERTICAL	VPC.....VERTICAL POINT OF CURVATURE	VPT.....VERTICAL POINT OF TANGENCY	W.....WEST	W.....WITH	WEF.....WATER ENVIRONMENT FEDERATION	WL.....WALL	WK.....WALKWAY	WV.....WATER GATE VALVE	YR.....YEAR
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NOTES

- GENERAL**
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE GENERAL SAFETY DURING CONSTRUCTION AND ALL WORK SHALL CONFORM TO PERTINENT SAFETY REGULATIONS AND CODES.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND/OR PROTECTION OF ALL EXISTING UTILITIES AND/OR STRUCTURES ADJACENT TO IMPROVEMENTS DURING CONSTRUCTION.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION AND SHORING PROCEDURES.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE ENGINEER OF ANY DISCREPANCIES IN THE IMPROVEMENT PLANS.
 - CONTRACTOR SHALL OBTAIN A SWPPP AND NOI WITH THE STATE OF NEVADA, PRIOR TO CONSTRUCTION.
 - THE CONTRACTOR SHALL MAINTAIN A CLEAN PROJECT SITE, REMOVING CONSTRUCTION DEBRIS AT THE END OF EACH ACTIVITY. THE CONTRACTOR SHALL MAINTAIN DEBRIS FREE CONSTRUCTION ROUTES, ADJACENT STREETS AND STORM DRAIN SYSTEMS.
- SITE & GRADING**
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE OSHA REQUIREMENTS FOR EXCAVATION, THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" 2012 EDITION, LYON COUNTY STANDARDS, AND SPECIAL REQUIREMENTS OF THE PERMIT. VIOLATIONS WILL RESULT IN THE STOPPAGE OF ALL WORK UNTIL THE VIOLATION IS CORRECTED.
 - NO WORK SHALL BE STARTED WITHOUT FIRST NOTIFYING THE DISTRICT MANAGER, ENGINEER AND AFFECTED PROPERTY OWNER(S) AT LEAST 2 WORKING DAYS BEFORE WORK IS COMMENCED.
 - SLOPES SHALL BE NO STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL.
 - FILLS SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION".
 - FILL AREAS SHALL BE CLEARED OF VEGETATION AND DEBRIS, SCARIFIED, AND BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO THE PLACING OF FILL.
 - PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS SHALL BE USED TO PREVENT EXCESSIVE PONDING AND PROTECT ADJOINING PROPERTIES DURING CONSTRUCTION OF IMPROVEMENTS.
 - DUST SHALL BE CONTROLLED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER, AND IN ACCORDANCE WITH THE AIR QUALITY PERMIT FROM THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION WHEN REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE PERMITS WHEN REQUIRED.
 - ALL STREETS SHALL BE MAINTAINED FREE OF DUST AND MUD CAUSED BY GRADING OPERATIONS. ALL OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE STORMWATER DISCHARGE PERMIT FROM THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION WHEN REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE PERMITS WHEN REQUIRED.
 - THE OWNER'S ENGINEER OR SURVEYOR SHALL SET GRADE STAKES FOR ALL GRADING.
 - THE ENGINEER SHALL APPROVE ALL GRADING INCLUDING COMPACTION REQUIREMENTS AND THE STABILITY OF SLOPES CREATED, OR REMAINING.
 - IN THE EVENT OF CHANGES ARISING DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE ENGINEER WHO WILL DETERMINE AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR REVIEW AND APPROVAL BY THE OWNER. NO CHANGES IN THE DESIGN WILL BE PERMITTED UNLESS WRITTEN APPROVAL IS GIVEN BY THE ENGINEER.
 - EXISTING BANKS SHALL BE RE-GRADED AT 3:1 UNLESS OTHERWISE NOTED.
 - ROCK TOE PROTECTION SHALL BE INSTALLED IN ACCORDANCE WITH APPROVED DETAIL IN AREAS AS SHOWN ON SITE SPECIFIC PLAN. ROCK TOE PROTECTION SHALL BE PLACED WITHIN 5 DAYS OF FINAL BANK GRADING.
 - ALL DISTURBED AREAS SHALL BE RE-SEEDED. RE-SEEDING SHALL BE FURNISHED AND INSTALLED BY OWNER.
 - OWNER SHALL FURNISH AND INSTALL BIO-ENGINEERING TREATMENTS. CONTRACTOR SHALL BE RESPONSIBLE WITH ASSISTING OWNER BY EXCAVATING TO ALLOW FOR INSTALLATION AND BACKFILLING ONCE TREATMENT IS INSTALLED.
 - INSTALL STREAM BARBS PER APPROVED DETAIL. ELEVATIONS AND CONTROL FOR TOE, ANGLE AND KEY ARE LOCATED ON PROJECT SPECIFIC SHEET. FIELD ADJUSTMENT OF ANGLE AND LENGTH MAY BE REQUIRED DUE TO DYNAMIC NATURE OF THE SITES.
 - PROTECT EXISTING TREES AND RIPARIAN VEGETATION TO EXTENT POSSIBLE THROUGHOUT CONSTRUCTION. REMOVAL OF 6" DIAMETER TREES OR LARGER PROHIBITED WITHOUT OWNER APPROVAL UNLESS OTHERWISE NOTED.
 - NATIVE MATERIAL GENERATED FROM CHANNEL CLEARING OPERATIONS SHALL BE USED TO SHAPE FAILING BANKS TO CONTOURS AS SHOWN. EXCAVATE ONLY ENOUGH MATERIAL NECESSARY TO CONSTRUCT FAILING BANKS.
 - WORK SHALL BE PERFORMED WITHIN THE MEAN-HIGH WATER LEVEL WHICH IS COMMONLY REFERRED TO AS THE "CHANNEL BED". THIS INCLUDES STOCKPILING OF MATERIAL. CONTRACTOR SHALL ENSURE DE-WATERING PLAN ALLOWS FOR PROPER PROTECTION OF STOCKPILES AND EQUIPMENT.
 - RIVERINE ENVIRONMENTS ARE DYNAMIC SYSTEMS & SUBJECT TO CHANGE. THESE PLANS ARE BASED UPON A TOPOGRAPHIC SURVEY PERFORMED IN AUGUST 2017. PRIOR TO COMMENCING CONSTRUCTION THE CONTRACTOR SHALL INVESTIGATE THE SITE & SATISFY HIMSELF THAT CURRENT CONDITIONS GENERALLY MATCH THE PLANS. IF CURRENT SITE CONDITIONS ARE SIGNIFICANTLY DIFFERENT TO WARRANT A CHANGE IN CONTRACT PRICE OR SCHEDULE, THE CHANGE ORDER SHALL BE AGREED TO PRIOR TO COMMENCING CONSTRUCTION.
 - REMOVE & REPLACE EXISTING FENCES AS NECESSARY TO FACILITATE CONSTRUCTION. COORDINATE WITH OWNER PRIOR TO CONSTRUCTION. TEMPORARY FENCING MAY BE REQUIRED.

LINE TYPES



SURVEY CONTROL

VERTICAL DATUM

VERTICAL DATUM FOR THIS PROJECT IS NAVD 88.

THE BENCHMARK FOR THIS PROJECT IS NEVADA DEPARTMENT OF TRANSPORTATION MONUMENT "ED0001 X".

ELEVATION: 6333.16

HORIZONTAL DATUM

THE NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE, NORTH AMERICAN DATUM OF 1983 AS DETERMINED USING GPS OBSERVATIONS.

ALL BEARINGS SHOWN ARE STATE PLANE BEARINGS AND ALL DIMENSIONS SHOWN ARE GROUND DISTANCES.

LOCAL BENCHMARK

THE BENCHMARK FOR THIS PROJECT IS A SPIKE SET BY ROA DURING FIELD SURVEY.

MCR-049 SET SPIKE #503 NORTHING: 14777058.44 EASTING: 2423672.94 ELEVATION: 4227.71	SET SPIKE #502 NORTHING: 14777109.06 EASTING: 242476.40 ELEVATION: 4239.53
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BASIS OF BEARING BETWEEN SPIKES #503 & #502
N85°12'18"E 605.73'

Client: Files\0582\0582-020-CAD\Engineering\Improvement - Plan\NVC-049-12-20-18-181-Accommo Guide

NO.	DATE	REVISION BLOCK	BY

R/O Anderson
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RENO 3660 Double Diamond Pkwy, Unit 18 Reno, NV 89521 P 775.782.2342 F 775.782.7084

MCR-049

DAYTON VALLEY CONSERVATION DISTRICT

NOTES, LEGENDS & ABBREVIATIONS

ENGINEER STATE OF NEVADA
R. GORLA
Exp: 06/30/21
CIVIL
No. 18557

DRAWN: MCR JOB: 0582-020
ENGINEER: NRG DRAWING: SEE PLOT STAMP
SCALE: SHEET: C2
DATE: 07.25.19 OF: 6 SHEETS



BID SET 07/26/19



SCALE: 1" = 20'

- LEGEND**
- APPROXIMATE ORDINARY HIGH WATER MARK AS ESTIMATED BY DAYTON VALLEY CONSERVATION DISTRICT STAFF. ELEVATION 4208. THIS BEING SHOWN FOR PERMITTING PURPOSES ONLY.
 - FILL AT TOP OF BANK
 - ROCK RIP RAP
 - BORROW AREA

ESTIMATED QUANTITIES

STREAM BARBS	
STREAM BARB #1	= 285 CY = 428 TON
STREAM BARB #2	= 415 CY = 623 TON
STREAM BARB #3	= 330 CY = 495 TON
STREAM BARB #4	= 316 CY = 474 TON
STREAM BARB #5	= 306 CY = 459 TON
STREAM BARB #6	= 313 CY = 470 TON
STREAM BARB #7	= 261 CY = 392 TON
STREAM BARB #8	= 340 CY = 510 TON
STREAM BARB #9	= 311 CY = 467 TON
TOTAL	= 2,877 CY = 4,318 TON
ROCK REFUSAL TRENCH #1	= 65 CY = 98 TON
ROCK REFUSAL TRENCH #2	= 107 CY = 161 TON
ROCK TOE PROTECTION TOTAL	= 1,718 CY = 2,577 TON
EARTH WORK:	
CUT	= 6,484 CY
FILL	= 8,136 CY
NET FILL	= 1,652 CY

NOTE: NO GUARANTEE IS MADE CONCERNING THE ACCURACY OF THE ESTIMATED QUANTITIES. THE CONTRACTOR SHALL DETERMINE ACTUAL QUANTITIES OF WORK ASSOCIATED WITH THE PROJECT.

SURVEY CONTROL POINTS & DATA

	TOE	ANGLE	KEY
STREAMBARB NO. 1	N:14776775.58 E:2423561.07 ELEV. 4204	N:14776895.58 E:2423561.26 ELEV. 4204	N:14776850.52 E:2423548.79 ELEV. 4210
STREAMBARB NO. 2	N:14776893.43 E:2423623.24 ELEV. 4204	N:14776894.87 E:2423644.46 ELEV. 4204	N:14776911.42 E:2423634.53 ELEV. 4210
STREAMBARB NO. 3	N:14776893.24 E:2423717.48 ELEV. 4204	N:14776940.32 E:2423735.96 ELEV. 4204	N:14776958.95 E:2423728.65 ELEV. 4210
STREAMBARB NO. 4	N:14776917.70 E:2423896.24 ELEV. 4204	N:14776971.24 E:2423893.32 ELEV. 4204	N:14776990.18 E:2423892.88 ELEV. 4210
STREAMBARB NO. 5	N:14776938.04 E:2423899.27 ELEV. 4204	N:14776986.76 E:2423984.28 ELEV. 4204	N:14777006.16 E:2423982.83 ELEV. 4210

- NOTES:**
- EXISTING BANKS SHALL BE REGRADED AT 3:1 (MAX) UNLESS OTHERWISE NOTED.
 - ROCK TOE PROTECTION SHALL BE INSTALLED IN ACCORDANCE WITH DETAIL ON SHEET C6 IN AREAS AS SHOWN ON THIS PLAN.
 - ALL DISTURBED AREAS SHALL BE RESEED BY OWNER WITH NATIVE SEED MIX.
 - INSTALL STREAMBARBS PER DETAIL ON SHEET C6. ELEVATIONS AND CONTROL FOR TOE, ANGLE AND KEY ARE LOCATED IN THE SURVEY CONTROL POINTS AND DATA TABLE SHOWN ON THIS SHEET. FIELD ADJUSTMENT OF ANGLE AND LENGTH MAY BE REQUIRED DUE TO DYNAMIC NATURE OF SITE.
 - PROTECT EXISTING TREES AND RIPARIAN VEGETATION TO EXTENT POSSIBLE THROUGHOUT CONSTRUCTION. REMOVAL OF TREES 6" IN DIAMETER OR LARGER IS PROHIBITED WITHOUT OWNER APPROVAL UNLESS OTHERWISE NOTED.
 - DEPTH OF EXCAVATION IN BORROW AREA SHALL NOT EXCEED ELEVATION OF ADJACENT PROPOSED TOE IN PROJECT AREA. TRANSITION FROM BORROW AREA TO EX. UNDISTURBED GROUND SHALL BE MADE AT 5:1 (MAX.) IN A SMOOTH & WORKMAN LIKE MANNER.



NO.	DATE	REVISION BLOCK	BY
1	10.09.17	TOPO UPDATED, EARTHWORK QUANTITIES ADJUSTED, BORROW AREA ADJUSTED	JJH

SCALE: 1" = 20'

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MCR-049
DAYTON VALLEY CONSERVATION DISTRICT

SITE PLAN
MCR - 049
STA.1480+00 - 1485+50

ENGINEER: MCR
ENGINEER: NRG
SCALE: 1" = 20'
DATE: 07.25.19

JOB: 0582-020
DRAWING: SEE PLOT STAMP
SHEET: C3
OF: 6 SHEETS

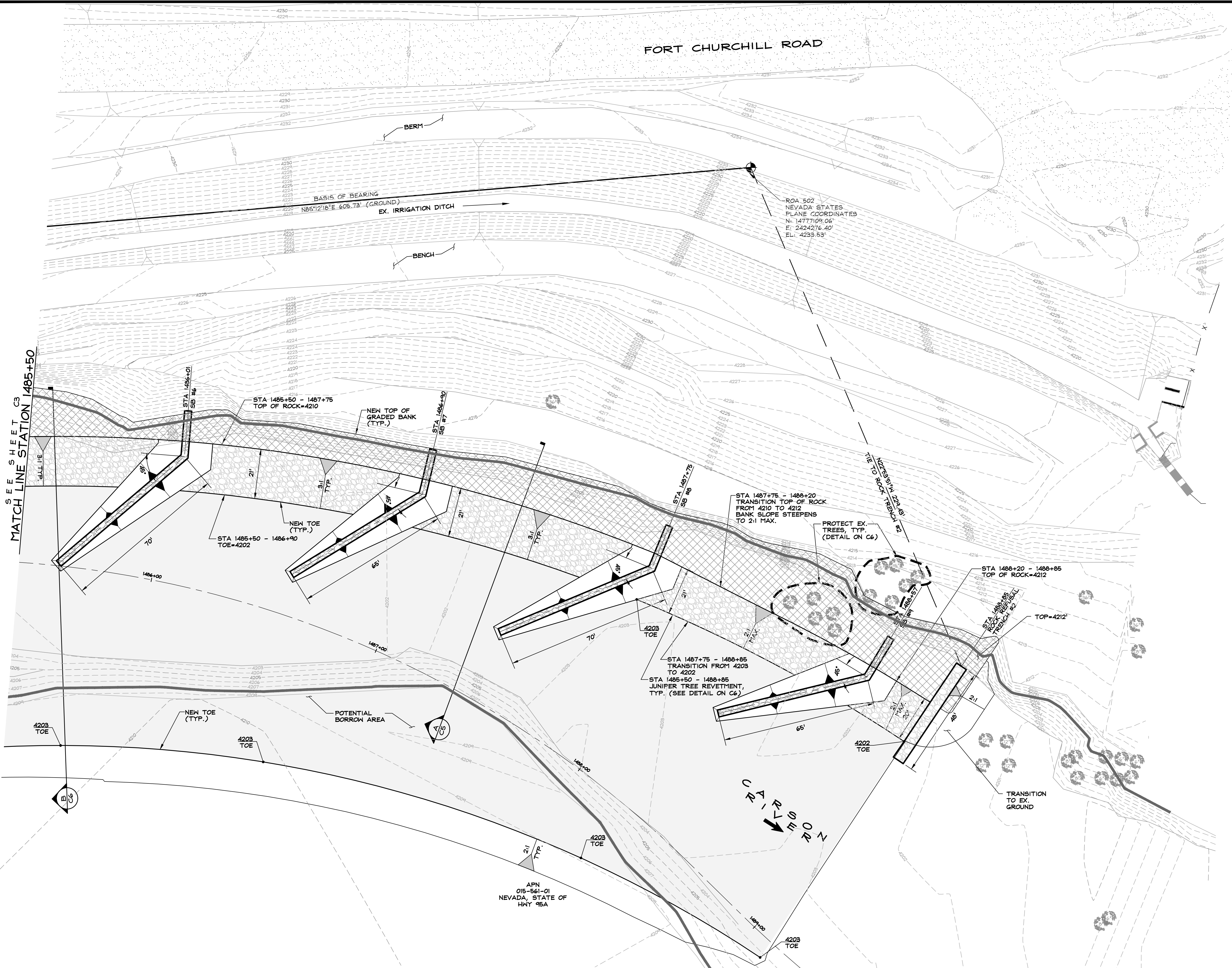
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BID SET 07/26/19

FORT CHURCHILL ROAD

SCALE: 1" = 20'

SHEET C3
MATCH LINE STATION 1485+50



SURVEY CONTROL POINTS & DATA

	TOE	ANGLE	KEY
STREAMBARB No. 6	N:1477641.19 E:2423983.14 ELEV. 4204	N:14776986.57 E:2424036.44 ELEV. 4209	N:14777005.89 E:2424037.99 ELEV. 4210
STREAMBARB No. 7	N:14776936.55 E:2424081.54 ELEV. 4204	N:14776970.54 E:2424137.34 ELEV. 4209	N:14776989.38 E:2424141.85 ELEV. 4210
STREAMBARB No. 8	N:14776912.16 E:2424169.95 ELEV. 4204	N:14776939.11 E:2424234.55 ELEV. 4209	N:14776957.04 E:2424241.92 ELEV. 4210
STREAMBARB No. 9	N:14776877.59 E:2424262.61 ELEV. 4203.5	N:14776893.06 E:2424325.75 ELEV. 4210	N:14776909.63 E:2424335.80 ELEV. 4211

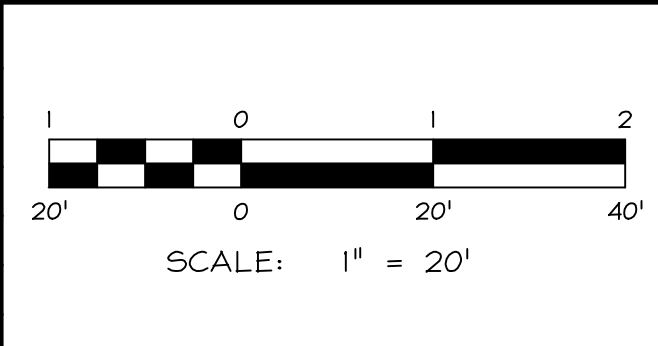
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LEGEND

- APPROXIMATE ORDINARY HIGH WATER MARK AS ESTIMATED BY DAYTON VALLEY CONSERVATION DISTRICT STAFF. ELEVATION 4208 THIS BEING SHOWN FOR PERMITTING PURPOSES ONLY.
- FILL AT TOP OF BANK
- ROCK RIP RAP
- BORROW AREA

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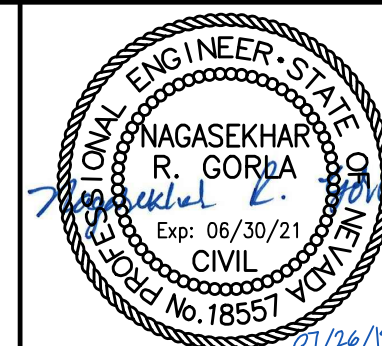
NO.	DATE	REVISION BLOCK	BY
1	10.09.17	TOPO UPDATED, EARTHWORK QUANTITIES ADJUSTED, BORROW AREA ADJUSTED	JJH



R/O Anderson
 HINK, ROANDERSON.COM
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MCR-049
 DAYTON VALLEY CONSERVATION DISTRICT

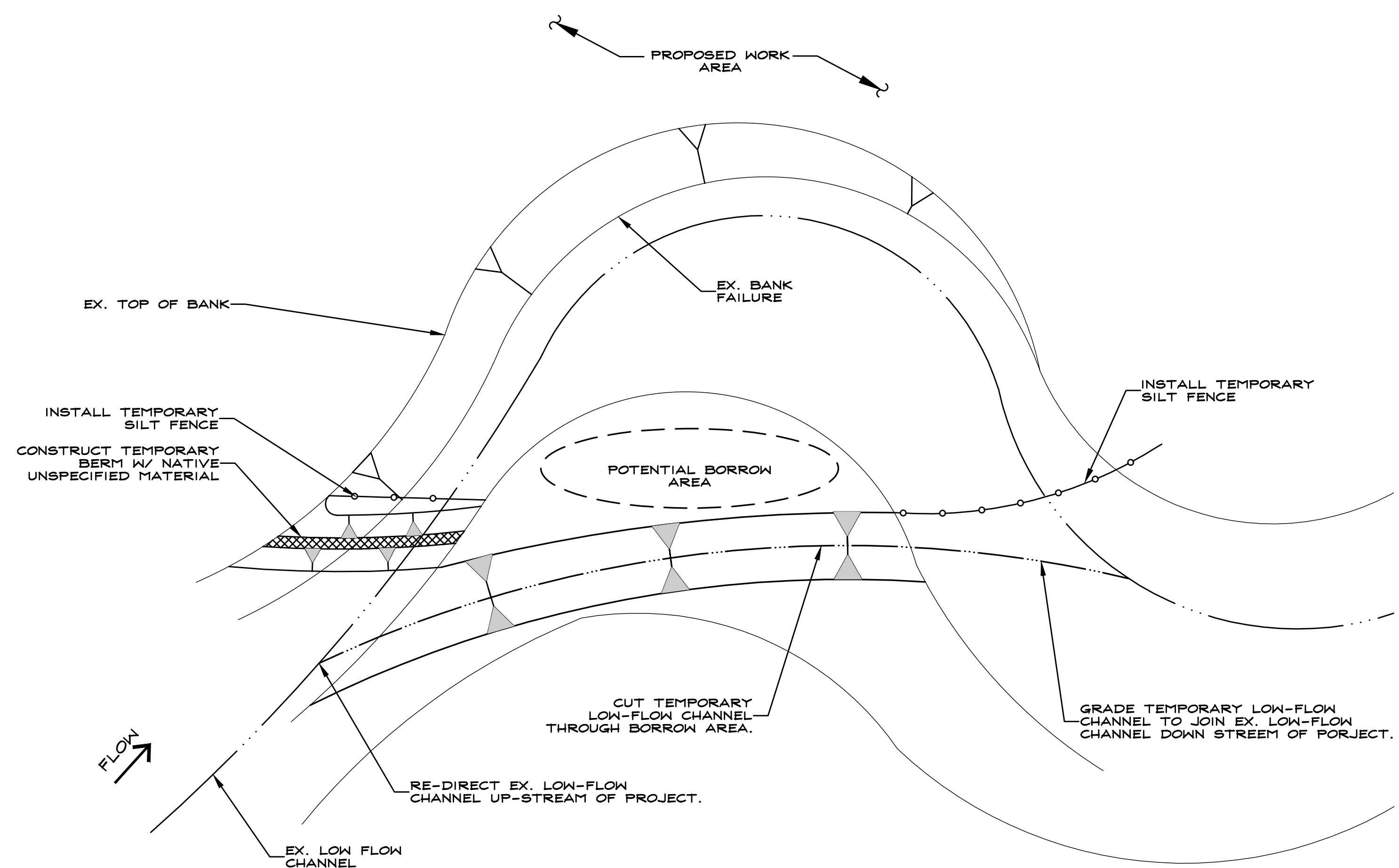
SITE PLAN
MCR - 049
 STA.1485+50 - 1490+00



DRAWN: MCR	JOB: 0582-020
ENGINEER: NRG	DRAWING: SEE PLOT STAMP
SCALE: 1" = 20'	SHEET: C4
DATE: 07.25.19	OF: 6 SHEETS

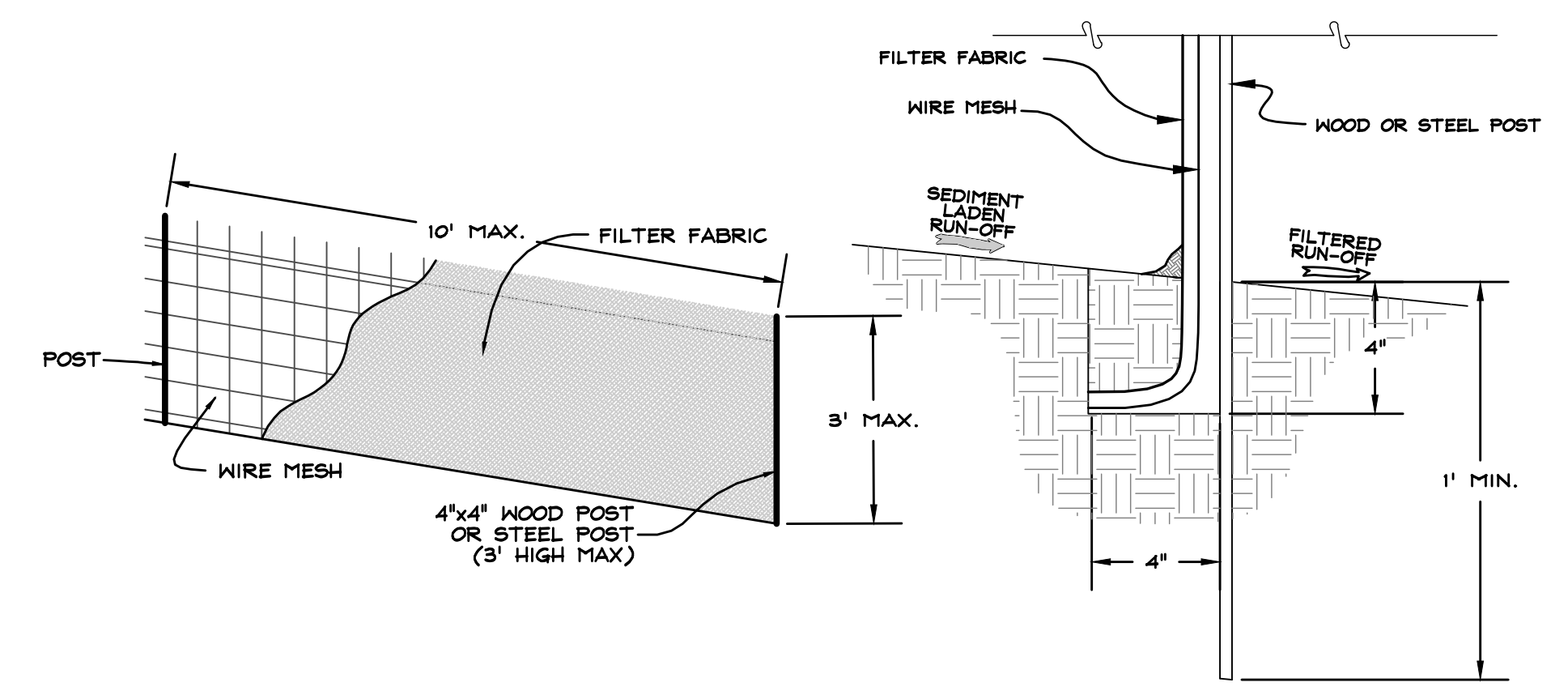


BID SET - 07/26/19



TYPICAL DE-WATERING & EROSION CONTROL PLAN
NOT TO SCALE

- GENERAL NOTES:**
1. PLAN SHOWN IS GENERIC & WILL REQUIRE ADJUSTMENT IN FIELD BY CONTRACTOR.
 2. PLAN ASSUMES WORK IS CONDUCTED AT EXTREMELY LOW FLOW CONDITIONS.
 3. CONTRACTOR SHALL SATISFY HIMSELF THAT LOCATION WHERE TEMPORARY LOW-FLOW CHANNEL IS CUT WILL ALLOW ENOUGH BORROW AREA TO SATISFY FILL REQUIREMENTS OF PROJECT.
 4. LOW-FLOW CHANNEL WILL BE FILLED & RESTORED TO EX. CONDITIONS.



- GENERAL NOTES:**
1. SOME TYPES OF FILTER FABRIC FENCE HAVE STAKES INCLUDED AND DO NOT REQUIRE THE MATERIALS LISTED.
 2. THE FABRIC SHOULD NOT EXCEED MORE THAN 3' ABOVE THE GROUND. CUT FILTER FABRIC FROM A CONTINUOUS ROLL TO AVOID HAVING JOINTS. WHERE JOINTS ARE NECESSARY, SPLICE THE FABRIC ONLY AT A POST, WITH AT LEAST 6" OF OVERLAP, AND FASTEN BOTH ENDS SECURELY TO THE POST.
 3. INSPECT PERIODICALLY AND AFTER EACH STORM. REPLACE DAMAGED FENCE.
 4. CLEAN OUT THE SEDIMENT BEFORE IT REACHES 1/3 FENCE HEIGHT. DEPOSIT THE SEDIMENT WHERE IT WILL NOT ENTER A DRAINAGEWAY.

- SILT FENCE INSTALLATION INSTRUCTIONS:**
1. SPACE POSTS NO MORE THAN 10' APART AND DRIVE THEM AT LEAST 1' INTO THE GROUND. ALIGN THE FENCE ALONG THE SLOPE CONTOUR, CURVING IT SLIGHTLY UPHILL TO AVOID END RUNS.
 2. DIG A 4"x4" TRENCH ALONG THE UPHILL SIDE OF THE POSTS.
 3. FASTEN WIRE MESH TO UPHILL SIDE OF POST WITH STAPLES (ON WOOD POSTS) OR WIRE (ON STEEL POSTS). EXTEND MESH TO BOTTOM OF TRENCH. (DO NOT ATTACH MESH OR FABRIC TO TREES).
 4. FASTEN FILTER FABRIC TO UPHILL SIDE OF POSTS WITH STAPLES OR WIRE. EXTEND FABRIC 8" INTO TRENCH.
 5. BACKFILL TRENCH AND COMPACT THE SOIL.

- MATERIALS:**
1. SILT FENCE:
 - a. FILTER FABRIC SHALL BE 42" WIDE, TENSILE STRENGTH 120 LBS., EQUIVALENT OPENING SIZE 70.
 - b. POSTS SHALL BE 5' LONG (MIN.), 4"x4" WOOD OR 1.3 LBS./FT STEEL.
 - c. WIRE MESH SHALL BE 42" WIDE, 6" MESH, 16 GAUGE WIRE (MINIMUM).
 - d. STAPLES (FOR WOOD POSTS) SHALL BE HEAVY DUTY 1" LONG, 14 GAUGE (MINIMUM).
 - e. WIRE (FOR STEEL POSTS).

SILT FENCE
NOT TO SCALE

SPILL PREVENTION AND RESPONSE

1. CONTRACTOR SHALL STEAM CLEAN ALL EQUIPMENT THAT WILL BE WORKING IN RIVER BED AT SHOP PRIOR TO COMMENCING CONSTRUCTION.
2. ALL EQUIPMENT SHALL BE CHECKED FOR LEAKS AND REPAIRED PRIOR TO COMMENCING CONSTRUCTION.
3. CONTRACTOR SHALL INSURE INTEGRITY OF SILT FENCE AND STRAW BALE BARRIERS DURING THE COURSE OF CONSTRUCTION.
4. CONTRACTOR SHALL USE DRIP PANS OR ABSORBENT MATS DURING FUELING AND MAINTENANCE TO PROTECT AGAINST SPILLS.
5. SPILLED PETROLEUM PRODUCTS, CONTAMINATED SOILS OR WATER, AND ACCUMULATED SEDIMENTS SHALL BE CLEANED UP AND PROPERLY DISPOSED OF AT A LICENSED LANDFILL. DISCHARGE OF SUCH MATERIALS TO THE RIVER CHANNEL OR DITCHES IS PROHIBITED.

REVEGETATION

1. ALL DISTURBED AREAS, CUT & FILL SLOPES SHALL BE RE-SEEDDED. THE SEED MIX, APPLICATION RATE ETC. SHALL BE SPECIFIED BY THE DVCD.
2. REVEGETATED AREAS WILL BE INSPECTED AT COMPLETION OF INSTALLATION & ACCEPTANCE SUBJECT TO COMPLIANCE WITH SPECIFIED MATERIALS & INSTALLATION REQUIREMENTS. FOR ONE FULL GROWING SEASON TO ENGINEER. SUBMITTAL SHALL BE MADE IN ADVANCE OF SEEDING SPECIES & MULCH SUCH THAT THERE IS NO SIGNIFICANT EVIDENCE OF RILLS, GULLIES OR OTHER EVIDENCE OF EROSION. IF ADEQUATE COVERAGE IS NOT ACHIEVED, THE CONTRACTOR SHALL RE-SOIL AMEND, RE-SEED OR RE-MULCH. THE ENGINEER, UPON CONTRACTOR'S REQUEST, WILL MAKE FINAL INSPECTION & ACCEPTANCE ONE FULL YEAR FOLLOWING COMPLETION OF SEEDING (THE MAINTENANCE PERIOD). PROVIDE NOTIFICATION AT LEAST 10 WORKING DAYS BEFORE REQUESTED INSPECTION DATE.

GENERAL DE-WATERING & TEMPORARY EROSION CONTROL PLAN NOTES

1. IN CASE OF EMERGENCY CALL DAYTON VALLEY CONSERVATION DISTRICT (ROB HOLLEY, @ 775-720-1897 OR ENGINEER @ 775-782-2322).
2. CONTRACTOR MAY SUBMIT ALTERNATE DE-WATERING & EROSION CONTROL PLAN TO ENGINEER. SUBMITTAL SHALL BE MADE IN ADVANCE OF CONSTRUCTION ACTIVITIES FOR REVIEW & APPROVAL.
3. CONSTRUCTION SHALL BE SCHEDULED TO COINCIDE WITH PERIODS OF LOW FLOW IN THE RIVER.
4. RESTORE AREAS DISTURBED BY DE-WATERING ACTIVITIES TO PRE-CONSTRUCTION CONDITIONS.
5. ANY PASTURE FENCES DAMAGED, FAILING OR RELOCATED FOR CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO EXISTING CONDITIONS AT TOP OF BANK.
6. DUST SHALL BE CONTROLLED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AND OWNER.
7. THE CONTRACTOR SHALL MAINTAIN A CLEAN PROJECT SITE, REMOVING CONSTRUCTION DEBRIS AT THE END OF EACH ACTIVITY DAY. TRASH WILL BE HAULED TO A LICENSED DISPOSAL FACILITY. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE.
8. THE CONTRACTOR SHALL MAINTAIN DEBRIS FREE CONSTRUCTION ROUTES, ADJACENT STREETS AND STORM DRAIN SYSTEMS.
9. A STANDBY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES. NECESSARY MATERIALS SHALL BE AVAILABLE ON-SITE AND STOCKPILED AT APPROVED LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES OR TO REPAIR DAMAGED EROSION CONTROL MEASURES. CONTRACTOR SHALL PROVIDE OWNER WITH THE NAME & PHONE NUMBER OF EMERGENCY CONTACT AT THE PRE-CONSTRUCTION MEETING.
10. AFTER A RAINSTORM, ALL BMP'S AND GRADED SLOPE SURFACE PROTECTION MEASURES SHALL BE INSPECTED TO VERIFY CONTINUED SATISFACTORY OPERATION AND REPAIRED OR REPLACED IF NECESSARY.
11. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.
12. FILL SLOPES AT THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE TOP OF THE SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
13. BUILT UP SEDIMENT SHALL BE REMOVED AS NECESSARY TO MAINTAIN PROPER FUNCTIONING OF THE BMP'S.
14. ALL CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE PER WEEK AND FOLLOWING ANY STORM EVENT OF 0.5 INCHES OR GREATER.
15. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. THE REPORT WILL CONTAIN THE NAME OF THE INSPECTOR, MEASURES, AREAS INSPECTED, OBSERVED CONDITIONS, AND NOTE CHANGES NECESSARY.
16. REPORT RELEASES OF REPORTABLE QUANTITIES OF OIL OR HAZARDOUS MATERIALS (IF THEY OCCUR) TO NDEP AND THE OWNER WITHIN 24 HOURS.
17. FILTER FABRIC FENCES. IF THE FABRIC BECOMES CLOGGED, TORN, OR DEGRADES, IT SHOULD BE REPLACED. MAKE SURE THE STAKES ARE SECURELY DRIVEN IN THE GROUND AND ARE IN GOOD SHAPE (IE., NOT BENT, CRACKED, OR SPLINTERED, AND ARE REASONABLY PERPENDICULAR TO THE GROUND.) REPLACE DAMAGED STAKES.
18. SEDIMENT THAT ACCUMULATES IN THE BMP MUST BE PERIODICALLY REMOVED IN ORDER TO MAINTAIN BMP EFFECTIVENESS. SEDIMENT SHOULD BE REMOVED WHEN THE SEDIMENT ACCUMULATION REACHES ONE-THIRD OF THE BARRIER HEIGHT. SEDIMENT REMOVED DURING MAINTENANCE MAY BE INCORPORATED INTO EARTHWORK ON THE SITE OR DISPOSED AT AN APPROPRIATE LOCATION.
19. NO DE-WATERING UNTIL FLOWS EXCEED 400 CFS AS READ AT THE CARSON CITY GAUGE.

Client: File: 0582-020-CADD-Engineering\Improvement Plans\12-048 Plan SET\0582-020-CADD.dwg 7/26/2018 2:27:48 PM Alexander G. G.

NO.	DATE	REVISION BLOCK	BY

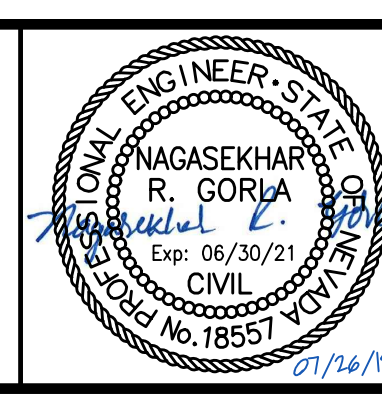
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MCR-049
DAYTON VALLEY CONSERVATION DISTRICT

DE-WATERING & TEMPORARY EROSION CONTROL

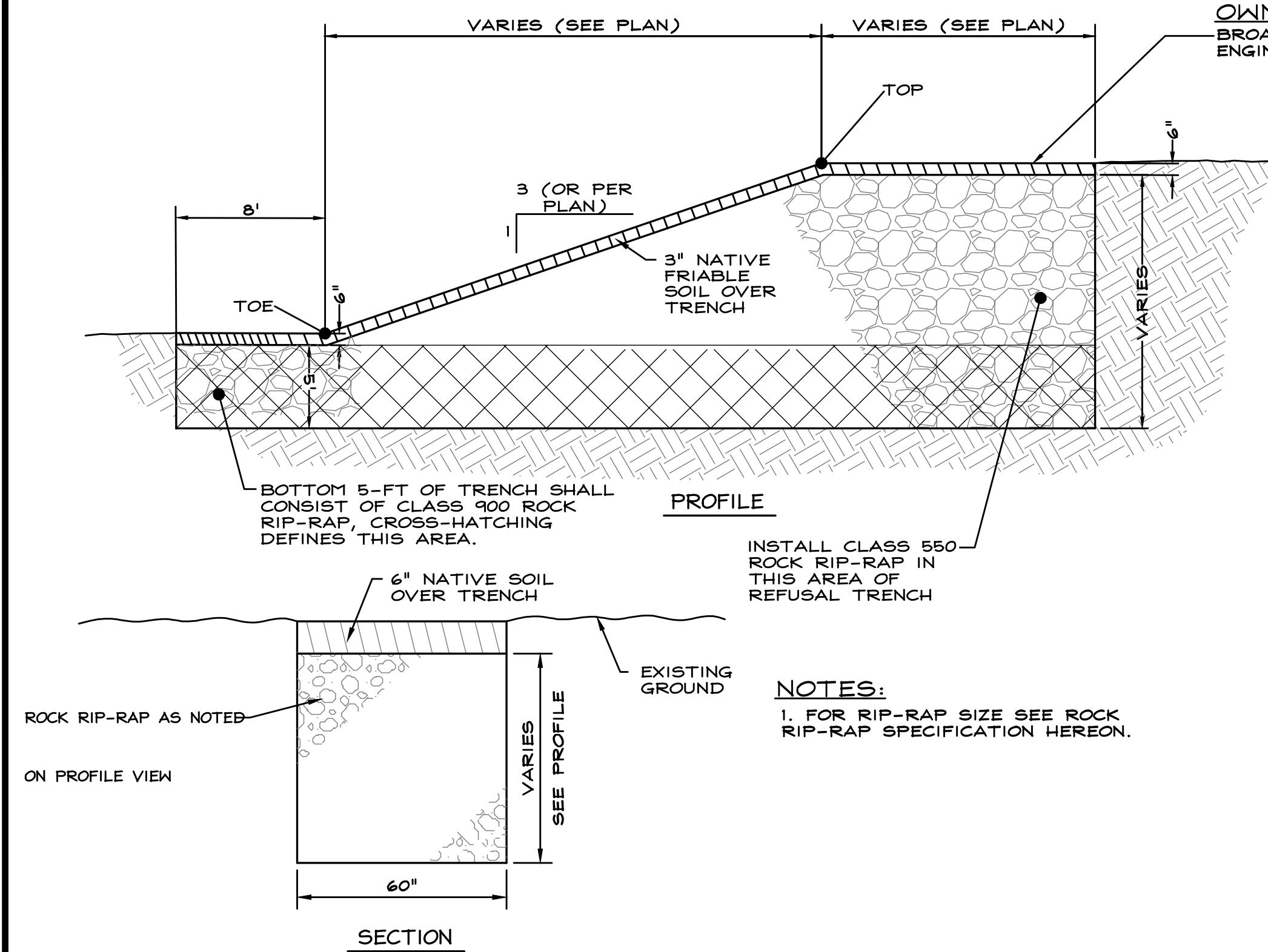


DRAWN: MCR	JOB: 0582-020
ENGINEER: NRG	DRAWING: SEE PLOT STAMP
SCALE: AS NOTED	SHEET: C5
DATE: 07.25.19	OF: 6 SHEETS



BID SET - 07/26/19

OWNER TO PROVIDE THE FOLLOWING
BROADCAST SEED WITH NATIVE SEED MIX. SUBMIT MIX TO
ENGINEER FOR APPROVAL.

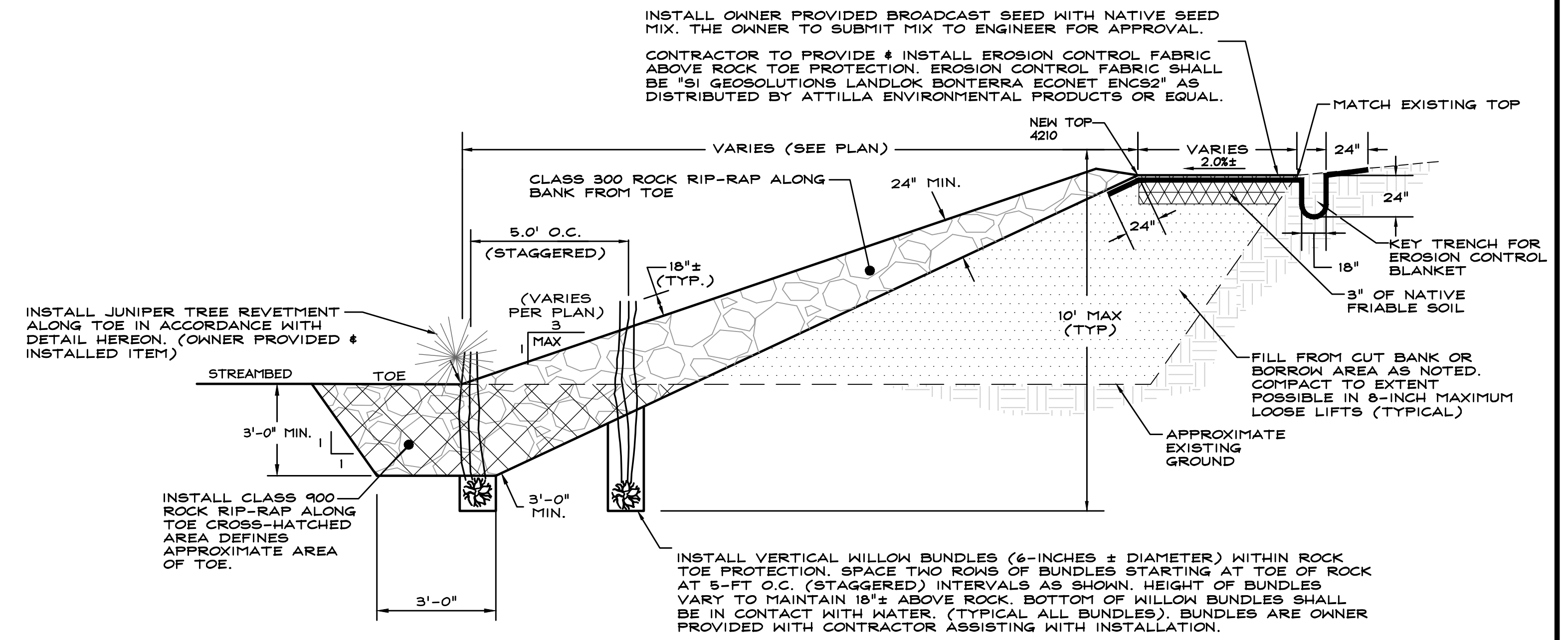


ROCK REFUSAL TRENCH

NO SCALE

NOTES:
1. FOR RIP-RAP SIZE SEE ROCK
RIP-RAP SPECIFICATION HEREON.

INSTALL OWNER PROVIDED BROADCAST SEED WITH NATIVE SEED
MIX. THE OWNER TO SUBMIT MIX TO ENGINEER FOR APPROVAL.



ROCK TOE & SLOPE PROTECTION

NO SCALE

A

TABLE 200.07.04-1

Percentage by Mass Passing Sieve	Sieve Size (inches)					
	Class 150	Class 300	Class 400	Class 550	Class 700	Class 900
100	10	20	30	40	48	60
70 - 85	9	18	27	36	45	54
30 - 50	6	12	18	24	30	36
5 - 15	2	5	7	12	18	24
0	1	2	3	6	8	12
D50(1)	6	12	16	22	28	35

1. MEAN STONE SIZE.

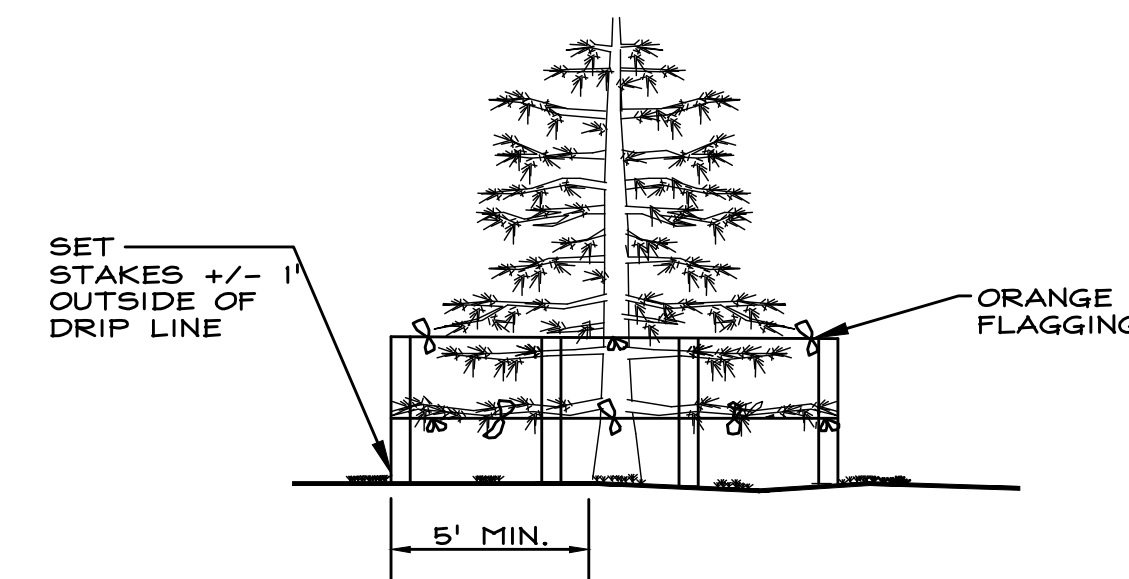
TABLE 200.07.04-2

Test	Test Method	Requirements
Resistance to Wear (percent)	ASTM C 535 (1)	45 Maximum
Absorption (percent)	ASTM C 127	4.2 Maximum
Apparent Specific Gravity	ASTM C 97	2.5 Minimum (2)
Durability	ASTM D 3744	52 Minimum

- 500 REVOLUTIONS
- RIP-RAP WITH A SPECIFIC GRAVITY OF LESS THAN 2.5 WILL NOT BE ALLOWED.
- RIP-RAP SHALL BE QUARRIED WITH FRACTURED FACES.
- RIP-RAP SHALL HAVE AN EARTH TONE WHICH BLENDS WITH SURROUNDING ENVIRONMENT.

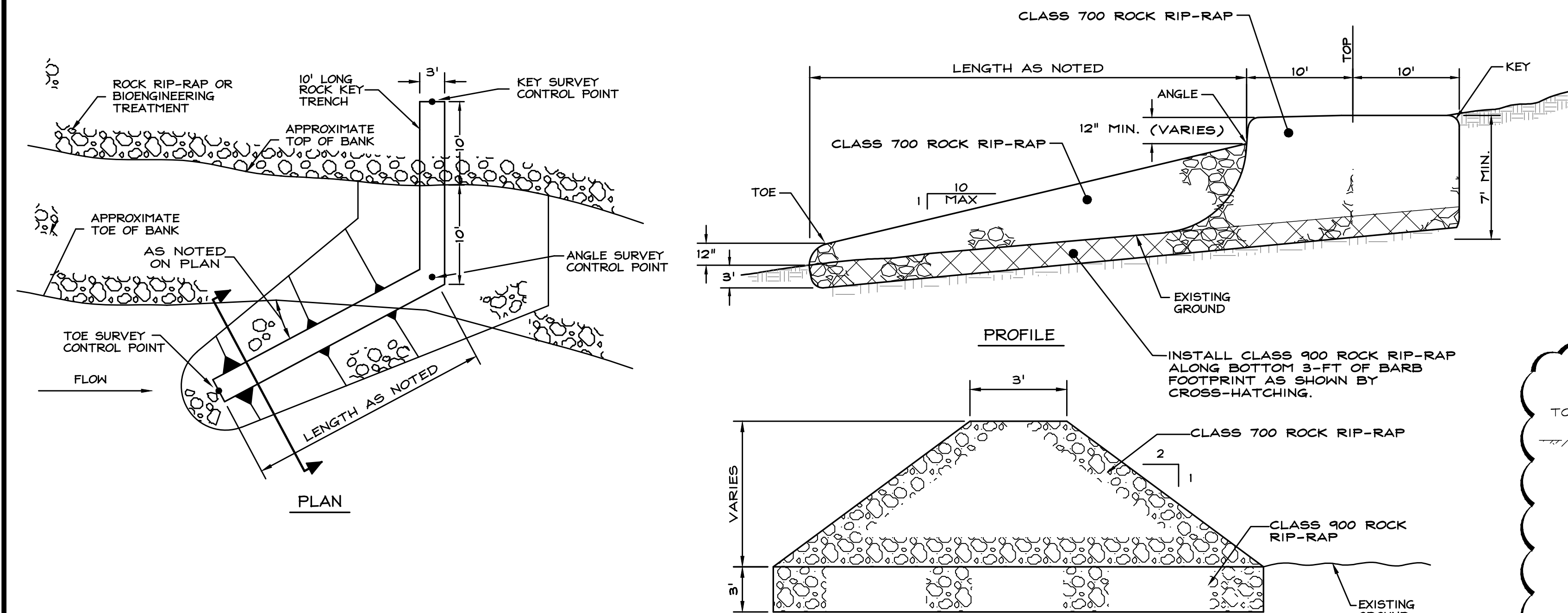
ROCK RIP-RAP SPECIFICATIONS

NO SCALE



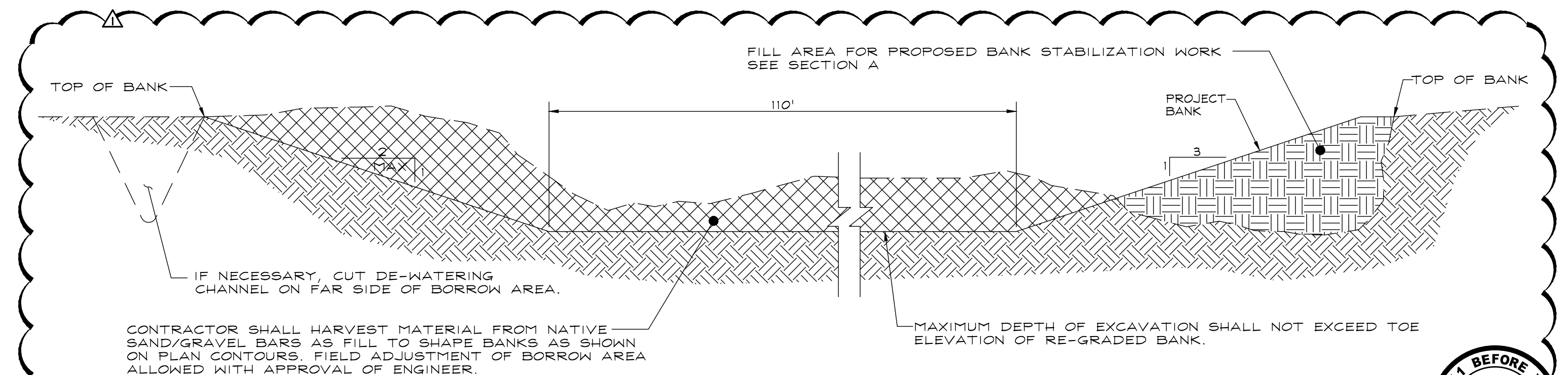
**TREE AND VEGETATION
PROTECTIVE FENCING**

NO SCALE



STREAM BARB DETAIL

NO SCALE



TYPICAL BORROW SECTION

NO SCALE

B

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MCR-049
DAYTON VALLEY CONSERVATION DISTRICT

DETAILS

CALL 811 BEFORE YOU DIG

ENGINEER: NAGASEKHAR R. GORLA
DATE: 07/25/19

DRAWN: MCR
ENGINEER: NRG
SCALE: AS NOTED
DATE: 07.25.19

JOB: 0582-020
DRAWING: SEE PLOT STAMP
SHEET: C6
OF: 6 SHEETS

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