SOUTHERN SANDOVAL COUNTY ARROYO FLOOD CONTROL AUTHORITY LOWER MONTOYAS ARROYO BANK STABILIZATION PROJECT

SSCAFCA Project No. MO_P0029-01 MONTOYAS ARROYO WATERSHED

	Sheet List Table	To Bo W Copper NE
Sheet Number	Sheet Title	Turquoise Dr NE Quantina Por Vista Hills Vista Hills Nick
1	COVER SHEET	Limestone Dr NE 28 Park Vista Hills Park Nickel D: NE
2	GENERAL NOTES	Lim
3	SITE SURVEY	P. Deart Dr. NE
4	SITE CONTROL PLAN	Pumice Dr NE Sum Dr NE
5	SITE REMOVALS PLAN	NE NE
6	STA. 0+00 TO 2+00	Saprhire Dr.NE
7	STA. 2+00 TO 5+00	W. D. NE Was do Opai Or NE Pearl Drive Dearl Drive Dea
8	STA. 5+00 TO 8+00	E SO OPAI DE NE PERILL RANCHO
9	STA. 8+00 TO 11+00	Aid ise Rd M. ise Rd M.
10	STA. 11+00 TO 14+00	Sundt Rd NE
11	STA. 14+00 TO 17+00	a ancho Dr. ME
12	STA. 17+00 TO 20+00	RIO Rambe
13	STA. 20+00 TO 23+00	PROJECT
14	STA. 23+00 TO 26+00	LOCATION
15	STA. 26+00 TO 29+00	Library Comments of the Commen
16	STA. 29+00 TO 32+00	* DiArco
17	GENERAL DETAILS	at the draft a part
18	CONCRETE PAVING AND RAMP DETAILS	Arrowhead Rides Angel Rd
19	LOW FLOW CONCRETE CHANNEL DETAILS	
20	ARMORMAX DETAILS	a Way St. Angel Rd
S-1	GRADE CONTROL STRUCTURE PLAN, ELEVATION, 3D VIEWS	ace ode Ave SE
S-2	CONCRETE RENFORCEMENT DETAILS	Leon Grand La
S-3	CONCRETE REINFORCEMENT AND STANDARD DETAILS	VICINITY MAP
S-4	CONCRETE REINFORCEMENT AND PIPE RAIL DETAILS	VICINITY MAP

APPROVALS



Southern Sandoval County Arroyo Flood Control Authority

1041 Commercial Dr. S.E.
Rio Rancho, New Mexico 87124
505-892-RAIN (7246)
505-892-7241 (Fax)
www.sscafca.com



LOWER MONTOYAS ARROYO BANK STABILIZATION PROJECT	COVER SHEET	THE CONTRACT NICE OF THE CONTRACT TO A STATE OF THE CONTRACT O		
REVISIONS &				

CHANGE NOTICES							
MARK	DESCRIPTION	DATE					

PROJECT NO: MO_P0029-01
DESIGNED BY: AES
DRAWN BY: KLF
CHECKED BY: JN
DATE: 1/6/2022

•

SHEET 1 OF 24

GENERAL NOTES

- 1. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH 1) THE PROJECT CONSTRUCTION PLANS, 2) THE PROJECT SPECIFICATIONS, AND 3) NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, APWA NM CHARTER, LATEST EDITION, IN THAT ORDER OF PRECEDENCE AT THE TIME OF CONSTRUCTION BID.
- 2. THE CONTRACTOR AGREES THAT HE/SHE SHALL ASSUME THE SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
- 3. NO MODIFICATIONS TO THESE PLANS SHALL BE MADE WITHOUT THE WRITTEN CONSENT OF THE OWNER, ENGINEER AND ALL APPROVAL SIGNATORIES. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION METHODS OR TECHNIQUES OR FOR THE PROSECUTION OF THE WORK AS SHOWN ON THESE PLANS. THE ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS OR OTHER PERSONS PERFORMING ANY WORK, AS SHOWN IN THE PROJECT CONTRACT DOCUMENTS.
- 4. UNLESS OTHERWISE PROVIDED AS PART OF THE CONSTRUCTION PLANS, A COMPLETE TRAFFIC CONTROL PLAN SHALL BE PREPARED BY THE CONTRACTOR WHEN ANY PORTION OF THE WORK IMPACTS THE TRAVELING PUBLIC, EITHER VEHICULAR OR PEDESTRIAN. ALL CONSTRUCTION SIGNING, BARRICADING AND CHANNELIZATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (MUTCD), LATEST EDITION. THE PLAN SHALL BE SUBMITTED TO THE APPROPRIATE JURISDICTIONAL AUTHORITY FOR APPROVAL AT LEAST 7 DAYS PRIOR TO THE DESIRED START OF CONSTRUCTION. THE CONTRACTOR SHALL NOT IMPLEMENT THE TRAFFIC CONTROL PLAN UNTIL APPROVAL OF THE PLAN HAS BEEN RECEIVED.
- 5. THE CONTRACTOR SHALL DESIGNATE AT LEAST ONE EMERGENCY CONTACT PERSON, AND SHALL PROVIDE TELEPHONE NUMBERS WHERE THIS PERSON CAN BE CONTACTED AT ANY TIME. THIS INFORMATION SHALL BE PROVIDED TO THE OWNER.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM ALL JURISDICTIONAL AUTHORITIES PRIOR TO START OF CONSTRUCTION.
- 7. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY, HEALTH, AND ENVIRONMENTAL PROTECTION.
- 8. EXISTING SITE IMPROVEMENTS WHICH ARE DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE. THE WORK SHALL BE APPROVED BY THE OWNER PRIOR TO CONSTRUCTION OF THE REPAIRS. REPAIRS MUST BE ACCEPTED BY THE OWNER PRIOR TO FINAL PAYMENT.
- 9. THE CONTRACTOR SHALL ONLY UTILIZE THE DESIGNATED STAGING AREAS FOR STORAGE OF ALL EQUIPMENT AND MATERIALS. THE OWNER ASSUMES NO RESPONSIBILITY OR LIABILITY FOR CONTRACTOR'S EQUIPMENT AND MATERIAL IN THE STAGING AREA. SECURITY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. IF NO STAGING AREA IS DESIGNATED ON THESE PLANS, AN OFF-SITE STAGING AREA SHALL BE PROVIDED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE, OR THE CONTRACTOR MAY NEGOTIATE WITH THE OWNER TO USE AN ON-SITE AREA.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING, IN ADVANCE OF HIS/HER CONSTRUCTION OPERATIONS, IF OVERHEAD UTILITY LINES, SUPPORT STRUCTURES, POLES, GUYS, ETC., ARE AN OBSTRUCTION TO CONSTRUCTION OPERATIONS. IF ANY OBSTRUCTION IS EVIDENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE APPROPRIATE UTILITY OWNER TO REMOVE OR SUPPORT THE UTILITY OBSTRUCTION. ANY COSTS ASSOCIATED WITH THIS EFFORT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 11. FACILITIES WHICH ARE NOT SPECIFICALLY LOCATED WITH ACTUAL VERTICAL AND HORIZONTAL CONTROLS ON THE CONSTRUCTION DOCUMENTS, ARE SHOWN APPROXIMATE AND IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION PROVIDED BY VARIOUS OWNERS OF THE FACILITIES, AND SUPPLEMENTED BY VISUAL SURFACE INFORMATION WHERE APPROPRIATE. ACCURACY, LOCATION, AND COMPLETENESS OF THIS INFORMATION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHOULD BE VERIFIED, BY ANY MEANS NECESSARY, PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE OWNER AT 505-892-7246 IMMEDIATELY.
- 12. IT IS MANDATORY THAT A PRE-CONSTRUCTION MEETING BE HELD PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE OWNER AT 505-892-7246 TO DETERMINE THE TIME AND LOCATION OF THE PRE-CONSTRUCTION MEETING.
- 13. AT THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL SUBMIT A DETAILED CONSTRUCTION SCHEDULE TO THE OWNER.
- 14. ANY WORK PERFORMED WITHOUT THE APPROVAL OF THE OWNER AND/OR ALL WORK AND MATERIALS NOT IN CONFORMANCE WITH THE SPECIFICATIONS IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
- 15. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS FOR CLEANING TRUCKS AND/OR OTHER EQUIPMENT OF MUD PRIOR TO ENTERING PUBLIC STREETS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS AND TAKE WHATEVER MEASURES ARE NECESSARY TO ENSURE THAT ALL ROADS ARE MAINTAINED IN A CLEAN, MUD AND DUST-FREE CONDITION AT ALL TIMES.
- 16. THE CONTRACTOR SHALL CONTACT NEW MEXICO ONE CALL AT 811 OR 1-800-321-2537, FIVE (5) WORKING DAYS PRIOR TO CONSTRUCTION FOR UTILITY SPOTS IN ACCORDANCE WITH APPLICABLE STATE LAW.
- 17. CONTRACTOR WILL NOTIFY THE OWNER AT 505-892-7246 A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF WORK.
- 18. THE CONTRACTOR SHALL CONFINE HIS WORK TO WITHIN THE CONSTRUCTION LIMITS AND/OR PUBLIC RIGHTS-OF-WAY TO PRESERVE EXISTING VEGETATION, LANDSCAPING, AND PRIVATE PROPERTY. APPROVAL OF THESE PLANS DOES NOT GIVE OR IMPLY ANY PERMISSION TO TRESPASS OR WORK ON PRIVATE PROPERTY. PERMISSION MUST BE GRANTED IN WRITING BY THE OWNER OF THAT PROPERTY.
- 19. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO KEEP THE JOB SITE FREE FROM TRASH ON A DAILY BASIS, AND ALL MATERIALS WILL BE NEATLY ORGANIZED. TRASH AND/OR NON-USED MATERIALS SHALL NOT BE BURIED ON-SITE.
- 20. CONTRACTOR SHALL PARK EQUIPMENT AND VEHICLES SO AS NOT TO INTERFERE WITH NORMAL ACTIVITIES OF RESIDENTS OR OTHER CONTRACTORS ON SITE.

GENERAL NOTES (CONTINUED)

- 21. CONTRACTOR SHALL PROVIDE CONSTRUCTION STAKING UTILIZING APPROVED CONSTRUCTION PLANS, THE APPROPRIATE RIGHT-OF-WAY MAPS AND RECORDED PLATS, EACH REVISION TO THE PLANS SHALL BE RECORDED IN THE PLAN REVISION BLOCK. PLANS SHALL INCLUDE LOCATION MAP WITH LEGAL DESCRIPTION AND LOCATION GRID.
- 22. THE CONTRACTOR SHALL MAINTAIN AN UP TO DATE SET OF AS-BUILT PLANS FOR THE PROJECT. THE FINAL AS-BUILT PLANS, REFLECTING ANY AND ALL CHANGES TO THE ORIGINAL PLAN, SHALL BE SUBMITTED TO THE OWNER PRIOR TO FINAL PAYMENT.
- 23. THE CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION ACTIVITIES, PERMITTING, AND SUBMITTALS ARE IN ACCORDANCE WITH THE SSCAFCA AND/OR JURISDICTIONAL AUTORITY ORDINANCES.
- 24. NO WORK SHALL BE PERFORMED IN A FEMA FLOODPLAIN WITHOUT WRITTEN AUTHORIZATION FROM THE LOCAL FLOODPLAIN MANAGER.
- 25. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF HIS WORK FROM STORMWATER FLOWS AS OUTLINED IN THE SUPPLEMENTAL TECHNICAL SPECIFICATIONS PROVIDED IN THE CONTRACT DOCUMENTS.
- 26. UNLESS OTHERWISE SPECIFIED, ALL CONCRETE SHALL BE A MINIMUM OF 3,000 PSI.
- 27. IF APPLICABLE, THE CONTRACTOR SHALL COMPLY WITH ALL CONSTRUCTION RELATED REQUIREMENTS OF THE PROJECT'S CORP OF ENGINEERS 404 PERMIT. COPIES OF THE PERMIT TERMS MAY BE OBTAINED FROM THE OWNER.

EROSION CONTROL / ENVIRONMENTAL PROTECTION / STORMWATER POLLUTION PREVENTION PLAN

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULFILLING ALL NECESSARY NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS INCLUDING, BUT NOT LIMITED TO, PREPARING A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), OBTAINING AN NPDES PERMIT PRIOR TO CONSTRUCTION, FILLING OUT THE NOTICE OF INTENT (NOI) APPLICATION, AND FILLING OUT THE NOTICE OF TERMINATION (NOT) APPLICATION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE IMPLEMENTATION OF AND INSPECTION REPORTS FOR THE SWPPP.
- 2. THE CONTRACTOR SHALL SUBMIT THE SWPPP WITH THE PROPOSED CONSTRUCTION STAGING AREA AND TEMPORARY SANITARY FACILITIES CLEARLY SHOWN. ANY CHECK DAMS, SILT FENCES, OR OTHER BEST MANAGEMENT PRACTICES (BMPS) THAT ARE REQUIRED IN THE APPROVED SWPPP SHALL BE INCLUDED IN, AND ARE INCIDENTAL TO, THE NPDES/SWPPP BID ITEM.
- 3. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED SWPPP ON—SITE AT ALL TIMES AND SHALL COMPLY WITH THE REQUIREMENTS INDICATED ON THAT PLAN AND SHALL PROVIDE AN ADDITIONAL FULLY EXECUTED COPY TO THE OWNER.
- 4. THE CONTRACTOR SHALL EITHER PROMPTLY REMOVE ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY OR INSTALL BMPS IDENTIFIED IN THE APPROVED SWPPP TO PREVENT DISCHARGE OF EXCAVATED MATERIAL WITHIN THE PUBLIC RIGHT-OF-WAY DURING A RAIN OR WIND EVENT.
- 5. THE CONTRACTOR SHALL IMPLEMENT THE APPROVED SWPPP, IF APPLICABLE, AND ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT—OF—WAY OR ONTO PRIVATE PROPERTY.
- 6. THE CONTRACTOR SHALL MITIGATE EROSION OF TEMPORARY OR PERMANENT DIRT SWALES BY INSTALLING BMPS IDENTIFIED IN THE APPROVED SWPPP IN THE SWALES PERPENDICULAR TO THE DIRECTION OF FLOW, AND AT INTERVALS AS SPECIFIED IN THE SWPPP.
- 7. CONSTRUCTION AREAS SHALL BE WATERED FOR DUST CONTROL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND SUPPLYING WATER AS REQUIRED. WATERING, AS REQUIRED FOR CONSTRUCTION AND DUST CONTROL, SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION AND NO MEASUREMENT OR PAYMENT SHALL BE MADE THEREFOR.
- 8. ANY AREAS DISTURBED BY CONSTRUCTION AND NOT COVERED BY AN IMPERVIOUS SURFACE SHALL BE REVEGETATED WITH NATIVE GRASS SEEDING. WHEN CONSTRUCTION ACTIVITIES CEASE AND EARTH DISTURBING ACTIVITIES WILL NOT RESUME WITHIN 14 DAYS. STABILIZATION MEASURES MUST BE INITIATED.
- 9. ALL WASTE PRODUCTS FROM THE CONSTRUCTION SITE, INCLUDING ITEMS DESIGNATED FOR REMOVAL, CONSTRUCTION WASTE, CONSTRUCTION EQUIPMENT WASTE PRODUCTS (OIL, GAS, TIRES, ETC.) GARBAGE, GRUBBING, EXCESS CUT MATERIAL, VEGETATIVE DEBRIS, ETC. SHALL BE APPROPRIATELY DISPOSED OF OFF—SITE AT NO ADDITIONAL COST TO THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN PERMITS REQUIRED TO HAUL OR DISPOSE OF WASTE PRODUCTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE WASTE DISPOSAL SITE COMPLIES WITH GOVERNMENT REGULATIONS REGARDING THE ENVIRONMENT, ENDANGERED SPECIES, AND ARCHAEOLOGICAL RESOURCES.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANUP AND REPORTING OF SPILLS OF HAZARDOUS MATERIALS ASSOCIATED WITH THE CONSTRUCTION SITE. HAZARDOUS MATERIALS INCLUDE GASOLINE, DIESEL FUEL, MOTOR OIL, SOLVENTS, CHEMICALS, PAINTS, ETC. WHICH MAY BE A THREAT TO THE ENVIRONMENT. THE CONTRACTOR SHALL REPORT THE DISCOVERY OF PAST OR PRESENT SPILLS TO THE NEW MEXICO ENVIRONMENT DEPARTMENT EMERGENCY RESPONSE TEAM AT 505-827-9329.
- 11. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS CONCERNING SURFACE AND UNDERGROUND WATER. CONTACT WITH SURFACE WATER BY CONSTRUCTION EQUIPMENT AND PERSONNEL SHALL BE MINIMIZED. EQUIPMENT MAINTENANCE AND REFUELING OPERATIONS SHALL BE PERFORMED IN AN ENVIRONMENTALLY SAFE MANNER IN COMPLIANCE WITH GOVERNMENT REGULATIONS.
- 12. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS CONCERNING CONSTRUCTION NOISE AND HOURS OF OPERATION.
- 13. WHERE STORM INLETS ARE SUSCEPTIBLE TO INFLOW OF SILT OR DEBRIS FROM CONSTRUCTION ACTIVITIES, PROTECTION SHALL BE PROVIDED ON THEIR UPSTREAM SIDE UTILIZING BMPS IDENTIFIED IN THE APPROVED SWPPP.

SOILS

1. UNLESS OTHERWISE SPECIFIED SUBGRADE SOILS AND STRUCTURAL FILL MATERIALS SHALL BE COMPACTED TO THE FOLLOWING PERCENTAGES OF THE ASTM D-1557 MAXIMUM DENSITY.

MATERIALS	PERCENT (%) COMPACTION
STRUCTURAL FILL IN THE BUILDING AREA	95
SUB BASE FOR SLAB SUPPORT	95
MISCELLANEOUS BACKFILL BELOW STRUCTURAL FILL OR ROAD	95
MISCELLANEOUS BACKFILL BELOW UNPAVED, NON-BUILDING AREAS	90
ROAD SUB GRADE	95
SIDEWALK / TRAIL SUB GRADE	95
CURB AND GUTTER SUBGRADE	95

2. AT ALL FINAL GRADES, WITH THE EXCEPTION OF AREAS WITH IMPROVEMENTS, SHALL BE DISKED OR RIPPED TO A DEPTH OF 12" TO FACILITATE PLANT GROWTH.

UTILITY COMPANY CONTACTS

CITY OF RIO RANCHO UTILITIES DEPARTMENT STEVE GALLEGOS

DEPUTY DIRECTOR OF UTILITIES
3200 CIVIC CENTER CIRCLE NE
RIO RANCHO, NEW MEXICO 87124
SUITE 250
(505) 896-8715
SGALLEGOS@RNNM.GOV

PNM-ELECTRIC
PAUL DUNAGAN
ENGINEERING REPRESENTATIVE
4201 EDITH BLVD, NEW MS-ES10

(505) 241-3629

(505) 245-8967

CENTURY LINK
DON DAVALOS
ENGINEER II
4301 BOGAN AVE NE
ALBUQUERQUE, NEW MEXICO 87109

ALBUQUERQUE, NEW MEXICO 87107

CENTURY LINK NATIONAL

LARRY KELLY SENIOR OPERATIONS TECHINICAN 400 TIJERAS AVE NW SUITE 570 ALBUQUERQUE, NEW MEXICO 87102 (505) 246-0501

COMCAST CABLE
MIKE MORTUS
PLANNING AND DESIGN SUPERVISOR
8440 WASHINGTON ST NE
ALBUQUERQUE, NEW MEXICO 87107

(505) 271-3644 mike_mortus@cable.comcast.com

SEAN KELLY
GNFO - MANAGER - NEW MEXICO
111 THIRD ST NW
ALBUQUERQUE, NEW MEXICO 87102
(505) 217-0038

WINDSTREAM

RICHARD MUELLER SUPERVISOR AT OUTSIDE TECHS 505 MARQUETTE AVE NW SUITE 1600 ALBUQUERQUE, NEW MEXICO 87102

LEVEL 3 COMMUNICATIONS LLC

ALAN SMITH
RESOURCE SUPERVISOR
1025 ELDORADO BLVD
BROOMFIELD, COLORADO 80021
(918) 547-0050
centurylinknationalosp@centuryline.com

VERIZON/MCI WORLDCOM

MATT STURGIS
ADVANCED TELECOM TECHNICIAN
6001 MIDWAY PARK BLVD NE
ALBUQUERQUE, NEW MEXICO 87109
(505) 348-8613

NM GAS COMPANY
CHRIS MONETTE, AREA MANGER
RUBEN SOSA, SUPERVISOR
7120 WYOMING BLVD NE #20
ALBUQUERQUE, NEW MEXICO 87109
(505) 697-3188

GARC

ABBREVIATIONS

BLDG

ВМ

BOA

BOP

BVC

BW

CATV

CFS

CO

ECR

ELEV

EOA

EOP

EΡ

ESMT

EST

EVC

ΕW

EXIST

FOC

FΡ

GV

INT

INV

PGL

PRC

PUE

PVC

PVMT

QTY

RAD

RCP

RT

STA

STD

SW

TΑ

TAC

TBC

TEL

TYP

VC

WM

WQ

WSEL

VFRT

TRANS

R/W,ROW

SAS, SS

РΤ

HORIZ

INV EL

ANALYSIS POINT

BEGIN CURB RETURN

BEGINNING OF ALIGNMENT

BEGINNING OF PROJECT

BEGIN VERTICAL CURVE

CUBIC FEET PER SECOND

CORRUGATED METAL PIPE

DRAINAGE UTILITY EASEMENT

CITY OF RIO RANCHO

CURB AND GUTTER

CHAIN LINK FENCE

BEGIN CURVE

BENCH MARK

BASE OF WALL

CABLE TV LINE

CATCH BASIN

CURB FACE

CENTERLINE

CLEAN OUT

CONCRETE

CUBIC YARDS

DROP INLET

END CURVE

ELEVATION

EASEMENT

ESTIMATE

EACH WAY

FINISH FLOOR

FINISH GRADE

FIRE HYDRAN1

FACE OF CURB

FINISHED PAD

FEET PER SECOND

FLOW LINE

GAS METER

GATE VALVE

HORIZONTAL

INVERT

LEFT

MANHOLE

MID-POINT

ON CENTER

PULL BOX

PAGE

NATURAL GROUND

OVER HEAD ELECTRIC

POINT OF CURVATURE

PROFILE GRADE LINE

POINT OF TANGENCY

PROPERTY LINE

PAVEMENT

QUANTITY

ROOF DRAIN

RADIUS POINT

RIGHT-OF-WAY

STORM DRAIN

SQUARE FEET

SQUARE YARDS

TOP OF ASPHALT

TOP OF ASPHALT CURB

TELEPHONE LINE, RISER OR BOX

UNDERGROUND ELECTRICAL LINE

UNDERGROUND TELEPHONE LINE

VERTICAL POINT OF INTERSECTION

WATER SURFACE ELEVATION

TOP BACK OF CURB

TOP OF CONCRETE

TOP OF PIPE

TRANSVERSE

TOP OF WALL

VERTICAL CURVE

TYPICAL

VELOCITY

VERTICAL

WATER LINE

WATER METER

WATER VALVE

WATER QUALITY

SANITARY SEWER LINE

REFERENCE

RADIUS

RIGHT

SLOPE

STATION

STANDARD

SIDEWALK

TANGENT

POINT OF INTERSECTION

PUBLIC UTILITY EASEMENT

POLYVINYL CHLORIDE PIPE

100 YEAR PEAK DISCHARGE

REINFORCED CONCRETE PIPE

POINT OF COMPOUND CURVATURE

POINT OF REVERSE CURVATURE

INTERSECTION

LINEAR FEET

LIGHT POLE

INVERT ELEVATION

EXISTING

END CURB RETURN

END OF ALIGNMENT

EDGE OF PAVEMENT

END VERTICAL CURVE

END OF PROJECT

DIAMETER

DELTA

EACH

BOOK

BUILDING

Southern Sandoval County Arroyo Flood Control Authority

1041 Commercial Dr. S.E.
Rio Rancho, New Mexico 87124
505-892-RAIN (7246)
505-892-7241 (Fax)
www.sscafca.com



ROYO BANK ROJECT FES

LOWER MONTOYAS ARROYO E STABILIZATION PROJECT GENERAL NOTES

CHANGE NOTICES						
MARK	DESCRIPTION		DATE			
PROJECT NO: MO P0029-01						

REVISIONS &

PROJECT NO: MO_P0029-0
DESIGNED BY: AES

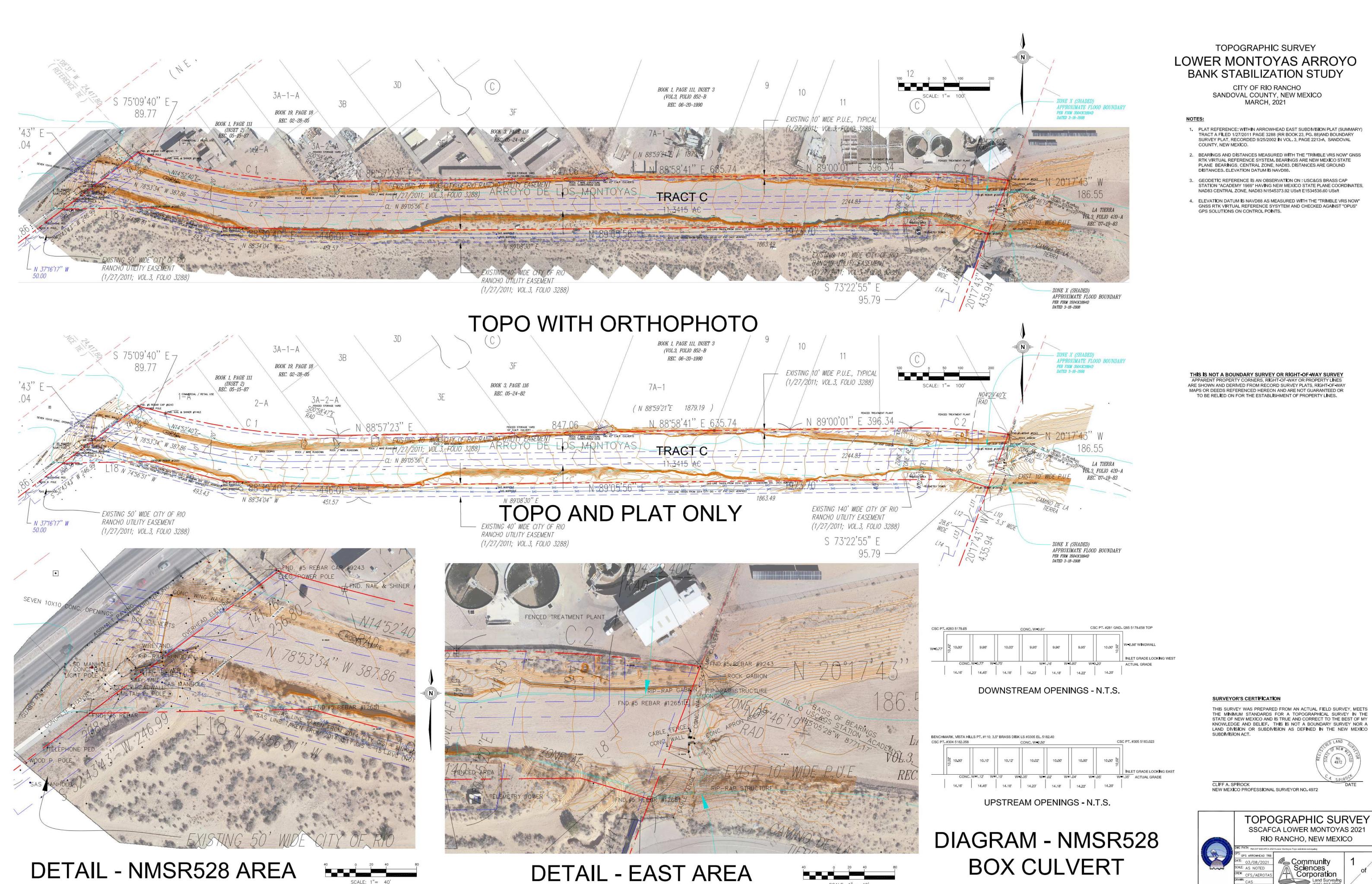
DRAWN BY: ###

CHECKED BY: JN

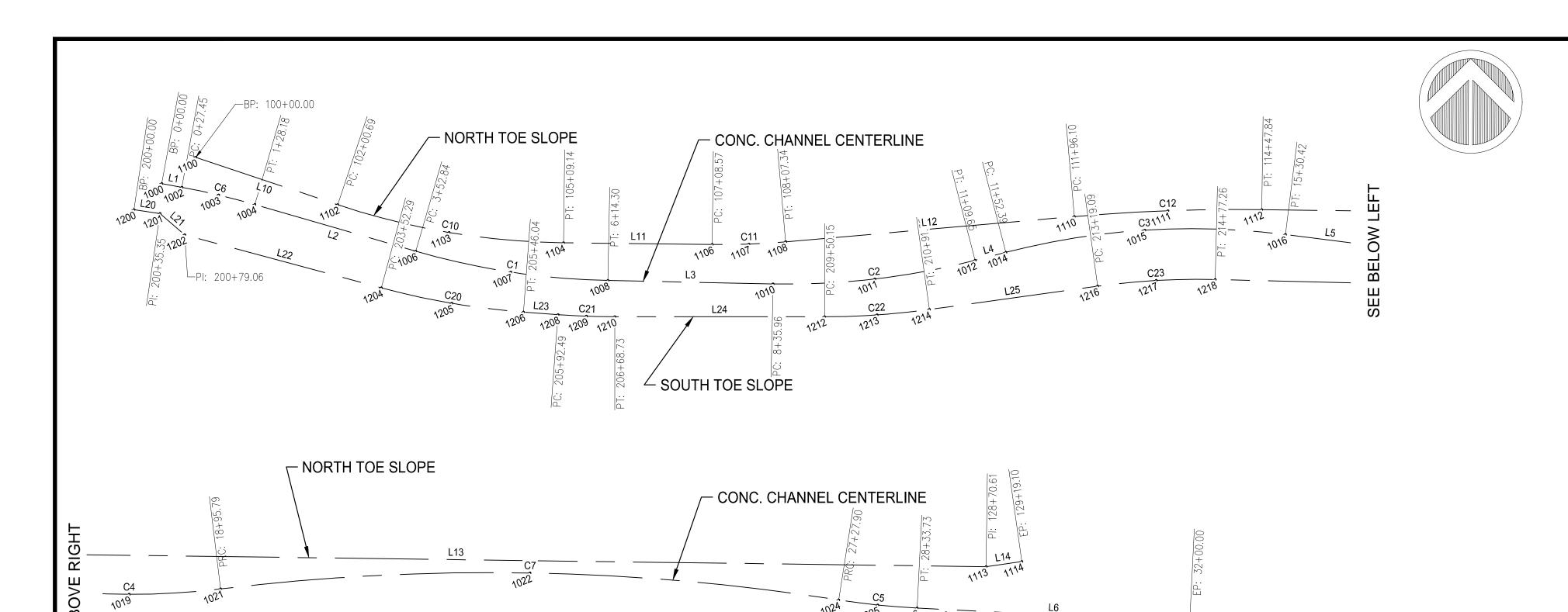
DATE: 1/7/2022

_

SHEET 2 OF 24



Community Sciences Corporation Land SurveyIng (505) 897.0000



Point Table					
Point #	Elevation	Northing	Easting	Description	
33	5029.00	1545373.92	1534536.60	ACADEMY	
1000	5168.64	1549085.69	1523624.67	CONC-CHANNEL - 0+00.00 - BOA	
1001	5164.50	1548097.16	1523471.19	CONC-CHANNEL - 0+27.45 - RP	
1002	5168.32	1549080.74	1523651.67	CONC-CHANNEL - 0+27.45 - PC	
1003	5165.60	1549070.40	1523700.96	CONC-CHANNEL - 0+77.81 - Mid	
1004	5164.50	1549057.60	1523749.67	CONC-CHANNEL - 1+28.18 - PT	
1005	5161.85	1549955.49	1524243.91	CONC-CHANNEL - 3+52.84 - RP	
1006	5161.85	1548995.04	1523965.44	CONC-CHANNEL - 3+52.84 - PC	
1007	5160.32	1548966.94	1524093.01	CONC-CHANNEL - 4+83.57 - Mid	
1008	5158.78	1548955.70	1524223.17	CONC-CHANNEL - 6+14.30 - PT	
1009	5156.17	1549950.89	1524465.53	CONC-CHANNEL - 8+35.96 - RP	
1010	5156.17	1548951.10	1524444.78	CONC-CHANNEL - 8+35.96 - PC	
1011	5154.56	1548957.62	1524581.37	CONC-CHANNEL - 9+72.81 - Mid	
1012	5152.95	1548982.71	1524715.79	CONC-CHANNEL - 11+09.65 - PT	
1013	5152.45	1548025.22	1525007.42	CONC-CHANNEL - 11+52.39 - RP	
1014	5152.45	1548993.40	1524757.16	CONC-CHANNEL - 11+52.39 - PC	
1015	5150.23	1549023.18	1524943.53	CONC-CHANNEL - 13+41.40 - Mid	
1016	5148.00	1549017.41	1525132.17	CONC-CHANNEL - 15+30.42 - PT	
1017	5146.60	1549994.70	1525375.43	CONC-CHANNEL - 16+49.85 - RP	
1018	5146.60	1549002.51	1525250.67	CONC-CHANNEL - 16+49.85 - PC	
1019	5145.15	1548994.70	1525373.32	CONC-CHANNEL - 17+72.82 - Mid	
1020	5133.92	1546023.88	1525857.69	CONC-CHANNEL - 18+95.79 - RP	

	Point Table						
Point #	Elevation	Northing	Easting	Description			
1021	5143.71	1549001.99	1525495.99	CONC-CHANNEL - 18+95.79 - PRC			
1022	5138.81	1549023.40	1525911.16	CONC-CHANNEL - 23+11.85 - Mid			
1023	5132.67	1549974.99	1526481.18	CONC-CHANNEL - 27+27.90 - RP			
1024	5133.92	1548987.21	1526325.31	CONC-CHANNEL - 27+27.90 - PRC			
1025	5133.30	1548980.35	1526377.77	CONC-CHANNEL - 27+80.82 - Mid			
1026	5132.67	1548976.27	1526430.52	CONC-CHANNEL - 28+33.73 - PT			
1027	5125.01	1548957.71	1526796.32	CONC-CHANNEL - 32+00.00 - EOA			
1100	5171.26	1549120.90	1523670.36	NORTH-TOE-SLOPE - 100+00.00 - BOA			
1101	5161.54	1550001.23	1524175.65	NORTH-TOE-SLOPE - 102+00.69 - RP			
1102	5165.41	1549057.38	1523860.73	NORTH-TOE-SLOPE - 102+00.69 - PC			
1103	5163.40	1549020.08	1524010.21	NORTH-TOE-SLOPE - 103+54.91 - Mid			
1104	5161.54	1549006.30	1524163.67	NORTH-TOE-SLOPE - 105+09.14 - PT			
1105	5157.95	1549998.83	1524375.08	NORTH-TOE-SLOPE - 107+08.57 - RP			
1106	5159.14	1549003.90	1524363.09	NORTH-TOE-SLOPE - 107+08.57 - PC			
1107	5158.55	1549004.53	1524412.47	NORTH-TOE-SLOPE - 107+57.96 - Mid			
1108	5157.95	1549007.61	1524461.75	NORTH-TOE-SLOPE - 108+07.34 - PT			
1109	5153.34	1546545.99	1525067.23	NORTH-TOE-SLOPE - 111+96.10 - RP			
1110	5153.34	1549041.47	1524849.03	NORTH-TOE-SLOPE - 111+96.10 - PC			
1111	5151.97	1549049.28	1524974.64	NORTH-TOE-SLOPE - 113+21.97 - Mid			
1112	5150.55	1549050.77	1525100.50	NORTH-TOE-SLOPE - 114+47.84 - PT			
1113	5133.62	1549031.88	1526523.14	NORTH-TOE-SLOPE - 128+70.61 - PI			
1114	5133.06	1549038.73	1526571.13	NORTH-TOE-SLOPE - 129+19.10 - EOA			

SOUTH TOE SLOPE -

	Point Table						
Point #	Elevation	Description					
1200	5168.64	1549050.74	1523587.42	SOUTH-TOE-SLOPE - 200+00.00 - BOA			
1201	5169.02	1549045.56	1523622.38	SOUTH-TOE-SLOPE - 200+35.35 - PI			
1202	5170.00	1549016.97	1523655.44	SOUTH-TOE-SLOPE - 200+79.06 - PI			
1203	5166.72	1549935.48	1524186.13	SOUTH-TOE-SLOPE - 203+52.29 - RP			
1204	5166.72	1548945.83	1523919.26	SOUTH-TOE-SLOPE - 203+52.29 - PC			
1205	5165.64	1548925.06	1524013.84	SOUTH-TOE-SLOPE - 204+49.17 - Mid			
1206	5164.40	1548913.31	1524109.96	SOUTH-TOE-SLOPE - 205+46.04 - PT			
1207	5162.92	1549932.03	1524232.45	SOUTH-TOE-SLOPE - 205+92.49 - RP			
1208	5163.84	1548909.86	1524156.28	SOUTH-TOE-SLOPE - 205+92.49 - PC			
1209	5163.39	1548907.73	1524194.34	SOUTH-TOE-SLOPE - 206+30.61 - Mid			
1210	5162.92	1548907.03	1524232.45	SOUTH-TOE-SLOPE - 206+68.73 - PT			
1211	5159.55	1549932.03	1524513.87	SOUTH-TOE-SLOPE - 209+50.15 - RP			
1212	5159.55	1548907.03	1524513.87	SOUTH-TOE-SLOPE - 209+50.15 - PC			
1213	5158.73	1548909.46	1524584.42	SOUTH-TOE-SLOPE - 210+20.75 - Mid			
1214	5157.85	1548916.74	1524654.62	SOUTH-TOE-SLOPE - 210+91.35 - PT			
1215	5153.22	1547982.24	1525014.09	SOUTH-TOE-SLOPE - 213+19.09 - RP			
1216	5155.12	1548948.01	1524880.21	SOUTH-TOE-SLOPE - 213+19.09 - PC			
1217	5154.17	1548955.68	1524958.90	SOUTH-TOE-SLOPE - 213+98.18 - Mid			
1218	5153.22	1548956.95	1525037.95	SOUTH-TOE-SLOPE - 214+77.26 - PT			
1219	5137.76	1548922.68	1526438.16	SOUTH-TOE-SLOPE - 228+77.89 - PI			
1220	5137.94	1548949.31	1526452.17	SOUTH-TOE-SLOPE - 229+07.97 - PI			
1221	5133.06	1548943.52	1526566.30	SOUTH-TOE-SLOPE - 230+22.26 - EOA			

Number	Radius	Length	Line/Chord Direction	Chord Length	Delta
C1	1000.00	261.46	S81° 19' 16"E	260.72	14° 58' 50
C2	1000.00	273.69	N83° 20' 52"E	272.84	15° 40' 53
C3	1000.00	378.03	N86° 20' 13"E	375.78	21° 39′ 34
C4	1000.00	245.94	S89° 52′ 44″E	245.32	14° 05' 29
C5	1000.00	105.83	S84° 03′ 52″E	105.78	6° 03′ 49″
C6	1000.00	100.73	S76° 43′ 00″E	100.69	5° 46' 18"
C7	3000.00	832.11	S88° 58′ 43″E	829.45	15° 53' 32
C10	995.00	308.45	S80° 25′ 44″E	307.22	17° 45' 42
C11	995.00	98.77	N87° 50′ 48″E	98.73	5° 41' 15"
C12	2505.00	251.75	N87° 52′ 55″E	251.64	5° 45′ 29″
C20	1025.00	193.74	S80° 19′ 24″E	193.46	10° 49′ 48
C21	1025.00	76.24	S87° 52′ 09″E	76.22	4° 15' 42"
C22	1025.00	141.19	N86° 03' 13"E	141.08	7° 53′ 33″
C23	975.00	158.17	N86° 45' 17"E	157.99	9° 17' 41"
L1		27.45	S79° 36′ 09″E		
L2		224.66	S73° 49' 51"E		
L3		221.67	S88° 48′ 41″E		
L4		42.73	N75° 30′ 26″E		
L5		119.43	S82° 50′ 00″E		
L6		366.27	S87° 05′ 46″E		
L10		200.69	S71° 32′ 53″E		
L11		199.44	S89° 18' 35"E		
L12		388.75	N85° 00' 10"E		
L13		1422.77	S89° 14' 21"E		
L14		48.48	N81° 52′ 37"E		
L20		35.35	S81° 34′ 39″E		
L21		43.71	S49° 08' 39"E		
L22		273.24	S74° 54' 31"E		
L23		46.45	S85° 44′ 18″E		
L24		281.42	N90° 00' 00"E		
L25		227.75	N82° 06' 27"E		
L26		1400.63	S88° 35' 52"E		
L27		30.09	N27° 44' 44"E		
L28		114.29	S87° 05′ 46″E		



Southern Sandoval County Arroyo Flood Control Authority

1041 Commercial Dr. S.E.
Rio Rancho, New Mexico 87124
505-892-RAIN (7246)
505-892-7241 (Fax)
www.sscafca.com



LOWER MONTOYAS ARROYO BANK
STABILIZATION PROJECT

		EVISIONS & NGE NOTICES	3	
MARK	DE	SCRIPTION		DA٦

PROJECT NO: MO_P0029-01

DESIGNED BY: AES

DRAWN BY: KLF

CHECKED BY: JN

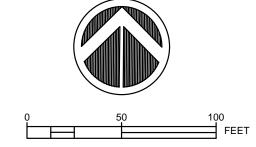
DATE: 12/30/2021

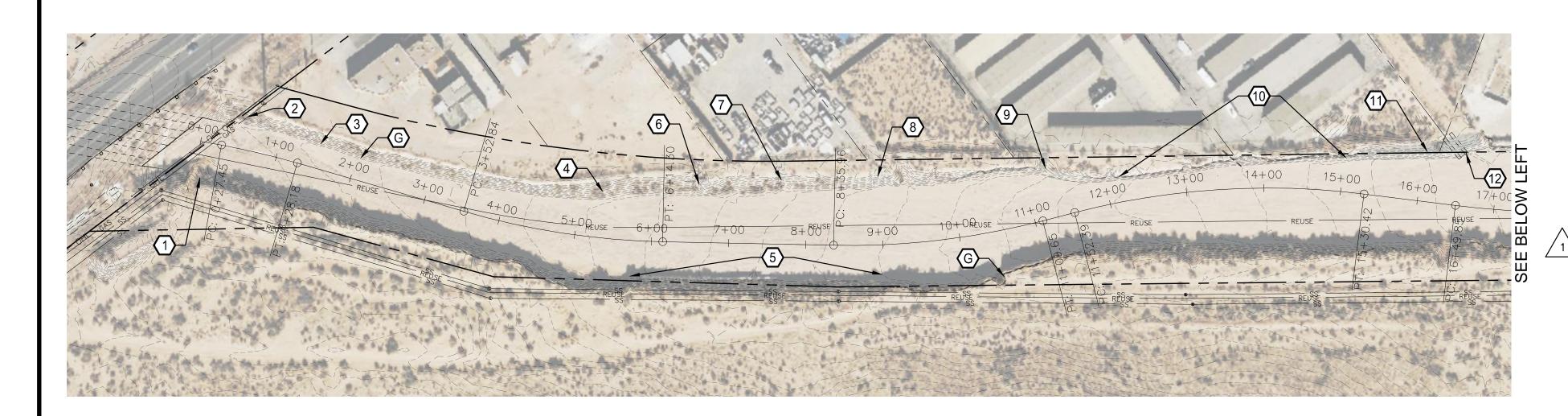
4

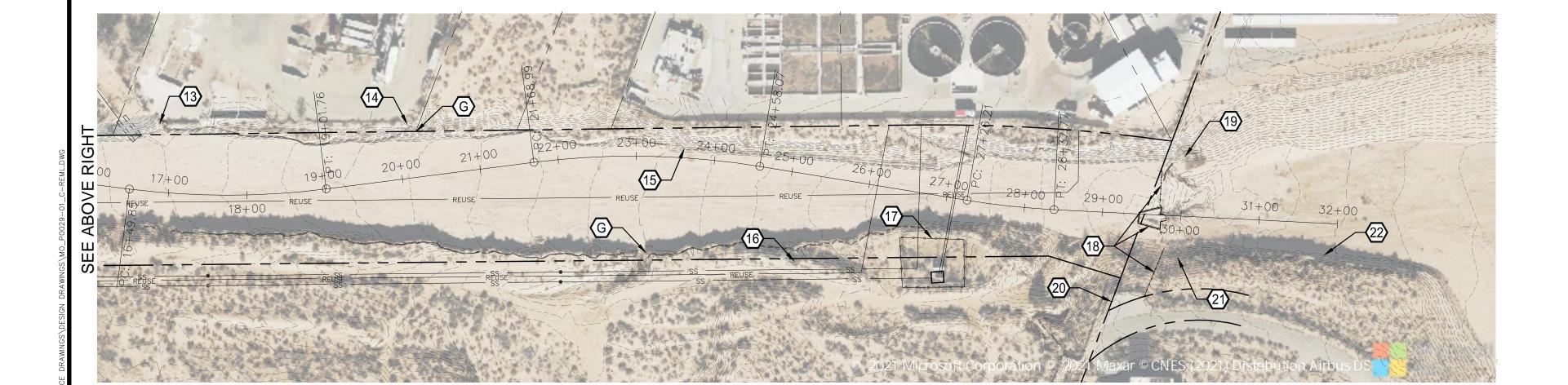
SHEET 4 OF 24

G GENERAL NOTE:

SMALL QUANTITIES OF BROKEN CONCRETE AND MISCELLANEOUS NON—NATURAL RUBBLE EXIST THROUGHOUT THE PROJECT AREA. REMOVAL AND DISPOSAL OF THESE ITEMS, ALTHOUGH NOT INDIVIDUALLY CALLED OUT FOR REMOVAL ON THIS SHEET, SHALL BE CONSIDERED INCIDENTAL TO THE REMOVAL OF OBSTRUCTIONS BID ITEM.







KEYED NOTES:

- 1. STA. $-0+15\pm$ TO $0+70\pm$, $40'\pm$ RT..,IF NECESSARY REMOVE AND DISPOSE OF WIRE ENCLOSED RIPRAP $85'\pm$ X $13'\pm$. DEPTH UNKNOWN.
- 2. STA. $0+50\pm$, $50'\pm$ LT., REMOVE AND DISPOSE OF WIRE ENCLOSED RIPRAP $25'\pm$ X $15'\pm$. DEPTH UNKNOWN.
- 3. STA. $0+60\pm$ TO $2+60\pm$, 35' \pm LT., IF NECESSARY REMOVE AND DISPOSE OF ROCK GABIONS 200' \pm ALONG TOE OF BANK.
- 4. STA. 5+30±, 70'±LT., REMOVE AND DISPOSE OF 1± CY CONCRETE DEBRIS.
- 5. STA. 5+90± TO 12+80±, 50'±RT., IF NECESSARY REMOVE AND SALVAGE APPROX. 115± CONCRETE BLOCKS (6'X2'X2').
- 6. STA. $6+60\pm$, $75'\pm$ LT., REMOVE AND DISPOSE OF < 1 CY ROCK/WIRE RUNDOWN.(SEE GENERAL NOTE, THIS SHEET.)
- 7. STA. 7+70±, 80'±LT., REMOVE AND DISPOSE OF 34± CY CONCRETE DEBRIS.
- 8. STA. 9+00±, 90'±LT., REMOVE AND DISPOSE OF 69± CY CONCRETE DEBRIS RUNDOWN.

9. STA. 11+30±, 65'±LT., REMOVE WIRE ENCLOSED RIPRAP RUNDOWN AND STAKES. SALVAGE ROCK, DISPOSE OF REMAINDER.

- 10. STA. 11+40± TO 17+54±, TOE OF LT. BANK, REMOVE AND SALVAGE 614'± JERSEY BARRIERS.
- 11. STA. $15+20\pm$ TO $16+90\pm$, $50'\pm$ LT. TO $75'\pm$, REMOVE AND SALVAGE 2-4'' CRUSHED ROCK.
- 12. STA. $16+55\pm$, $69'\pm$ LT., REMOVE AND SALVAGE CMP END SECTION(1).
- 13. STA. 16+84±, 87'±LT., REMOVE AND REPLACE 70'± FENCING IN KIND. INSTALL TEMPORARY FENCING DURING CONSTRUCTION.
- 14. STA. 20+20±, 65'±LT., REMOVE AND DISPOSE OF 4± CY CONCRETE DEBRIS. REMOVE AND REPLACE 50'± FENCING IN KIND.INSTALL TEMPORARY FENCING DURING CONSTRUCTION.

15. STA. 25+00± TO 26+85±, 10'± TO 34'±LT., REMOVE RIPRAP GABIONS AS NECESSARY TO CONSTRUCT PROPOSED IMPROVEMENTS. SALVAGE ROCK, DISPOSE OF REMAINDER.

16. STA. 25+20±, 112'±LT., (4) BOLLARDS, CONTRACTOR TO VERIFY SUBSURFACE UTILITY PRIOR TO REMOVAL. DISPOSE IF REMOVED.

- 17. STA. $26+50\pm$ TO $27+30\pm$, $62'\pm$ TO $50'\pm$ RT., REMOVE $120'\pm$ FENCING.
- 18. STA. 29+50± TO 30+00±, REMOVE AND DISPOSE OF CONC. STRUCTURE, WALLS AND SOIL CEMENT UPSTREAM OF FLUME.REMOVE AND DISPOSE OF ALL POST, REMOVE AND SALVAGE CABLE.

119. STA. 30+15±, 75'±LT., REMOVE RIPRAP GABIONS AND RIPRAP.SALVAGE ROCK, DISPOSE OF REMAINDER.

- 20. STA. 29+14±, 110'±RT., REMOVE AND SALVAGE SIGNAGE.
- 21. STA. 30+00±, 50'±RT., REMOVE AND DISPOSE OF GROUTED RIPRAP.

122. STA. 30+50± TO 32+00±, 40'±RT. REMOVE AND SALVAGE RIPRAP.



Southern Sandoval County Arroyo Flood Control Authority

1041 Commercial Dr. S.E.
Rio Rancho, New Mexico 87124
505-892-RAIN (7246)
505-892-7241 (Fax)
www.sscafca.com



ARROYO BANK
I PROJECT

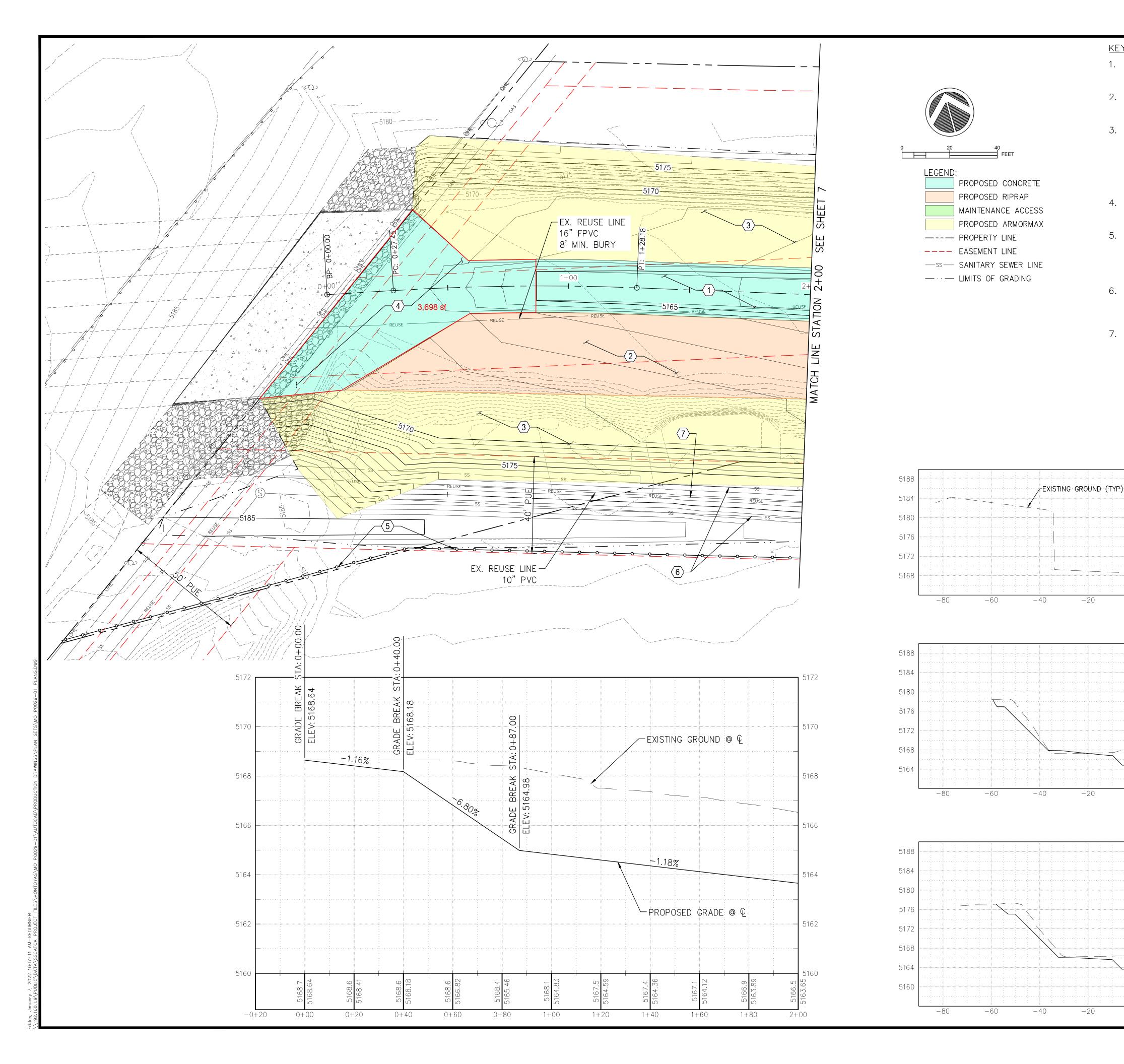
LOWER MONTOYAS ARRC STABILIZATION PRO. SITE REMOVALS PI

				Ŧ
MARK		IONS & NOTICES PTION	[DATE
	DEV#05D NO	TE	. ,	05 /6
	REVISED NO	IL.	1/2	25/2

PROJECT NO: MO_P0029-01
DESIGNED BY: AES
DRAWN BY: KLF
CHECKED BY: JN
DATE: 1/6/2022

5

SHEET 5 OF 24



0+00

1+00

2+00

FINISHED GROUND (TYP

- 1. CONSTRUCT CONCRETE LOW FLOW CHANNEL PER DETAILS SHOWN ON SHEET 19.
- 2. CONSTRUCT TYPE L RIPRAP, 20" THICK, PER DETAIL SHOWN ON SHEET 17.
- 3. INSTALL ARMORMAX PER DETAILS SHOWN ON SHEET 20. TERMINATION OF ARMORMAX ADJACENT TO CONCRETE, GROUTED BOULDERS, OR RIPRAP SHALL FOLLOW DETAILS ON SHEET 20. NATIVE GRASS SEEDING WILL BE REQUIRED UNDER ALL ARMORMAX, SEE MANUFACTURERS VEGETATION ESTABLISHMENT SPECIFICATION ON SHEET 20.
- 4. CONSTRUCT CONCRETE SURFACE PER DETAILS SHOWN ON SHEET 18.
- 5. CONSTRUCT FENCE 0.5' INSIDE SOUTH PROPERTY LINE TO STA. 0+27.15, 107.12'± RT. THEN 0.5' INSIDE EASEMENT LINE ON SOUTH EDGE OF PROJECT AS SHOWN. SEE FENCE DETAIL ON SHEET 17.
- 6. ANY EXISTING 15" PVC SEWER LINE ENCOUNTERED SHALL BE REMOVED AND DISPOSED OF PER CITY OF RIO RANCHO MODIFIED APWA 801 SPECIFICATION.
- 7. DUE TO LACK OF LOCATION & ELEVATION INFORMATION ON EXISTING 10" REUSE LINE, IF ENCOUNTERED DURING CONSTRUCTION, IT SHALL BE RELOCATED, RAISED, OR LOWERED AS NEEDED, ACCORDING TO CORR STANDARDS, TO MAINTAIN A MIN. 36" COVER. ANY WORK PERFORMED ON THE EXISTING 10" REUSE LINE WILL BE REIMBURSED UNDER BID ITEM: 10" REUSE LINE RELOCATION.

EX. 15" PVC SAS (TYP)

∕-EX. 10" PVC

REUSE LINE (TYP) ELEV. UNKNOWN

100



Southern Sandoval County Arroyo Flood Control Authority

1041 Commercial Dr. S.E. Rio Rancho, New Mexico 87124 505-892-RAIN (7246) 505-892-7241 (Fax) www.sscafca.com



OWER MONTOYAS ARROYO BANK STABILIZATION PROJECT PLAN & PROFILE STA. 0+00 TO 2+00

		EVISIONS NGE NOTI		
MARK	DE	SCRIPTION		DATE
PRO	OJECT N	10: MO	_P0029	9-01

DESIGNED BY: AES

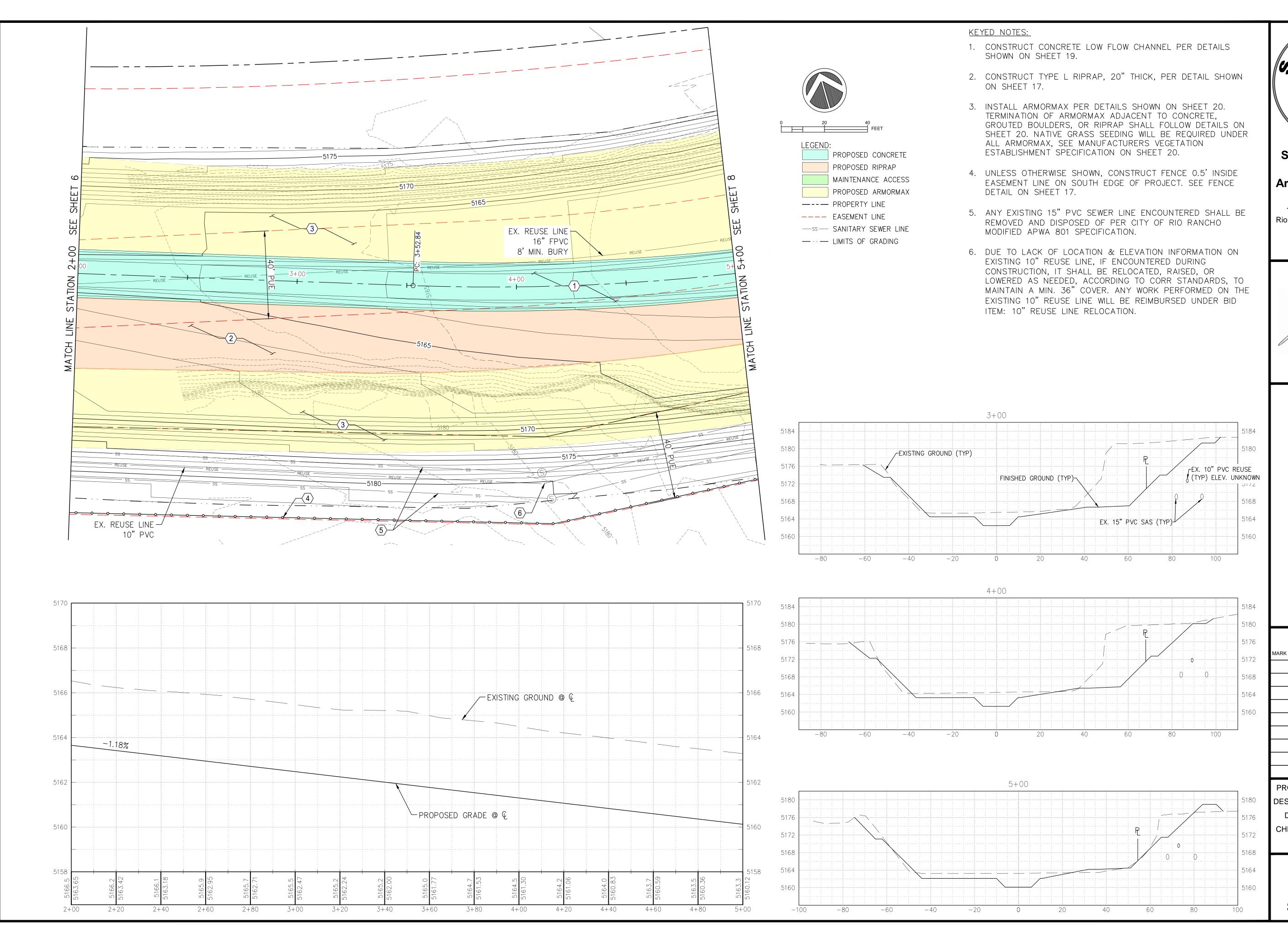
DRAWN BY: KLF

CHECKED BY: JN

DATE: 1/7/2022

6

SHEET 6 OF 24





1041 Commercial Dr. S.E.
Rio Rancho, New Mexico 87124
505-892-RAIN (7246)
505-892-7241 (Fax)
www.sscafca.com



SOYO BANK OJECT LE +00

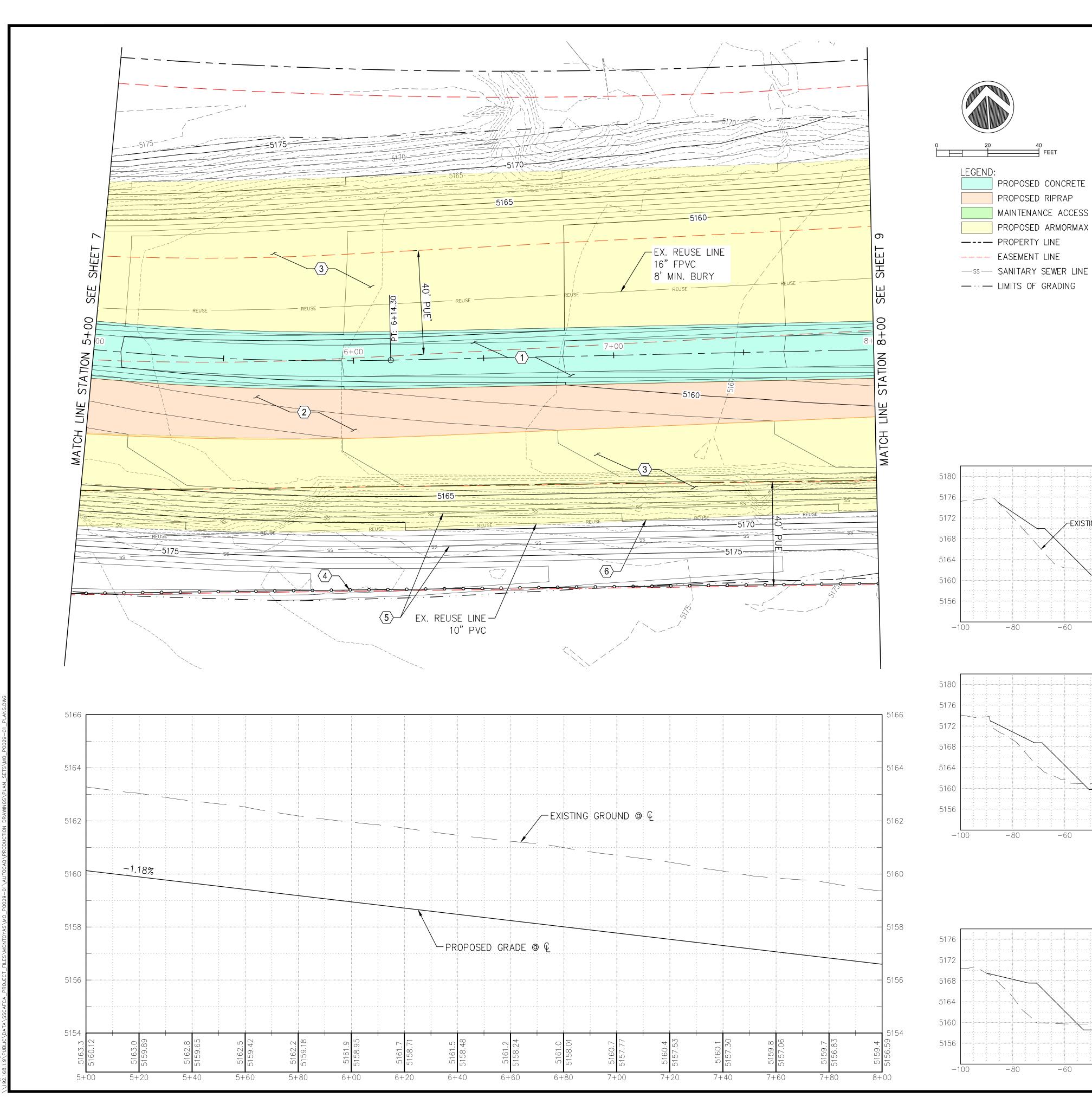
OWER MONTOYAS ARROYO BA STABILIZATION PROJECT PLAN & PROFILE STA. 2+00 TO 5+00

REVISIONS &
CHANGE NOTICES
DESCRIPTION

PROJECT NO: MO_P0029-01
DESIGNED BY: AES
DRAWN BY: KLF
CHECKED BY: JN
DATE: 1/7/2022

7

SHEET 7 OF 24



PROPOSED CONCRETE

MAINTENANCE ACCESS

PROPOSED ARMORMAX

PROPOSED RIPRAP

- 1. CONSTRUCT CONCRETE LOW FLOW CHANNEL PER DETAILS SHOWN ON SHEET 19.
- 2. CONSTRUCT TYPE L RIPRAP, 20" THICK, PER DETAIL SHOWN ON SHEET 17.
- 3. INSTALL ARMORMAX PER DETAILS SHOWN ON SHEET 20. TERMINATION OF ARMORMAX ADJACENT TO CONCRETE, GROUTED BOULDERS, OR RIPRAP SHALL FOLLOW DETAILS ON SHEET 20. NATIVE GRASS SEEDING WILL BE REQUIRED UNDER ALL ARMORMAX, SEE MANUFACTURERS VEGETATION ESTABLISHMENT SPECIFICATION ON SHEET 20.
- 4. UNLESS OTHERWISE SHOWN, CONSTRUCT FENCE 0.5' INSIDE EASEMENT LINE ON SOUTH EDGE OF PROJECT. SEE FENCE DETAIL ON SHEET 17.
- 5. ANY EXISTING 15" PVC SEWER LINE ENCOUNTERED SHALL BE REMOVED AND DISPOSED OF PER CITY OF RIO RANCHO MODIFIED APWA 801 SPECIFICATION.
- 6. DUE TO LACK OF LOCATION & ELEVATION INFORMATION ON EXISTING 10" REUSE LINE, IF ENCOUNTERED DURING CONSTRUCTION, IT SHALL BE RELOCATED, RAISED, OR LOWERED AS NEEDED, ACCORDING TO CORR STANDARDS, TO MAINTAIN A MIN. 36" COVER. ANY WORK PERFORMED ON THE EXISTING 10" REUSE LINE WILL BE REIMBURSED UNDER BID ITEM: 10" REUSE LINE RELOCATION.

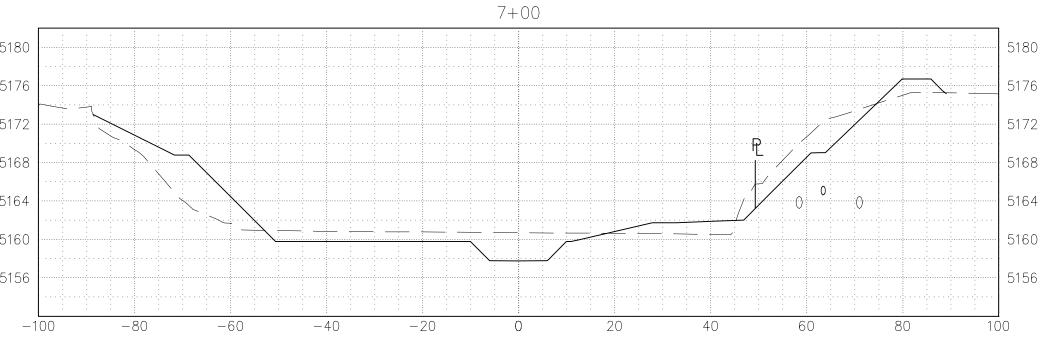


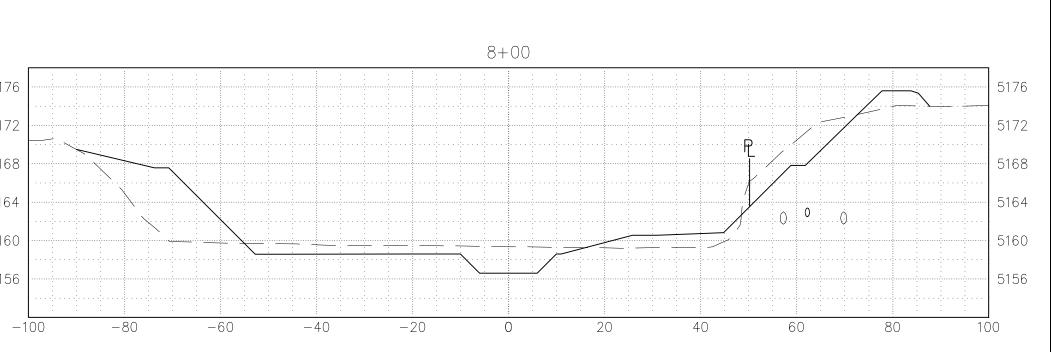
Southern Sandoval County Arroyo Flood Control **Authority**

1041 Commercial Dr. S.E. Rio Rancho, New Mexico 87124 505-892-RAIN (7246) 505-892-7241 (Fax) www.sscafca.com



6+00EX. 10" PVC ~EXISTING GROUND (TYP) REUSE (TYP) 5168 FINISHED GROUND (TYP) 5160 EX. 15" PVC SAS (TYP)-



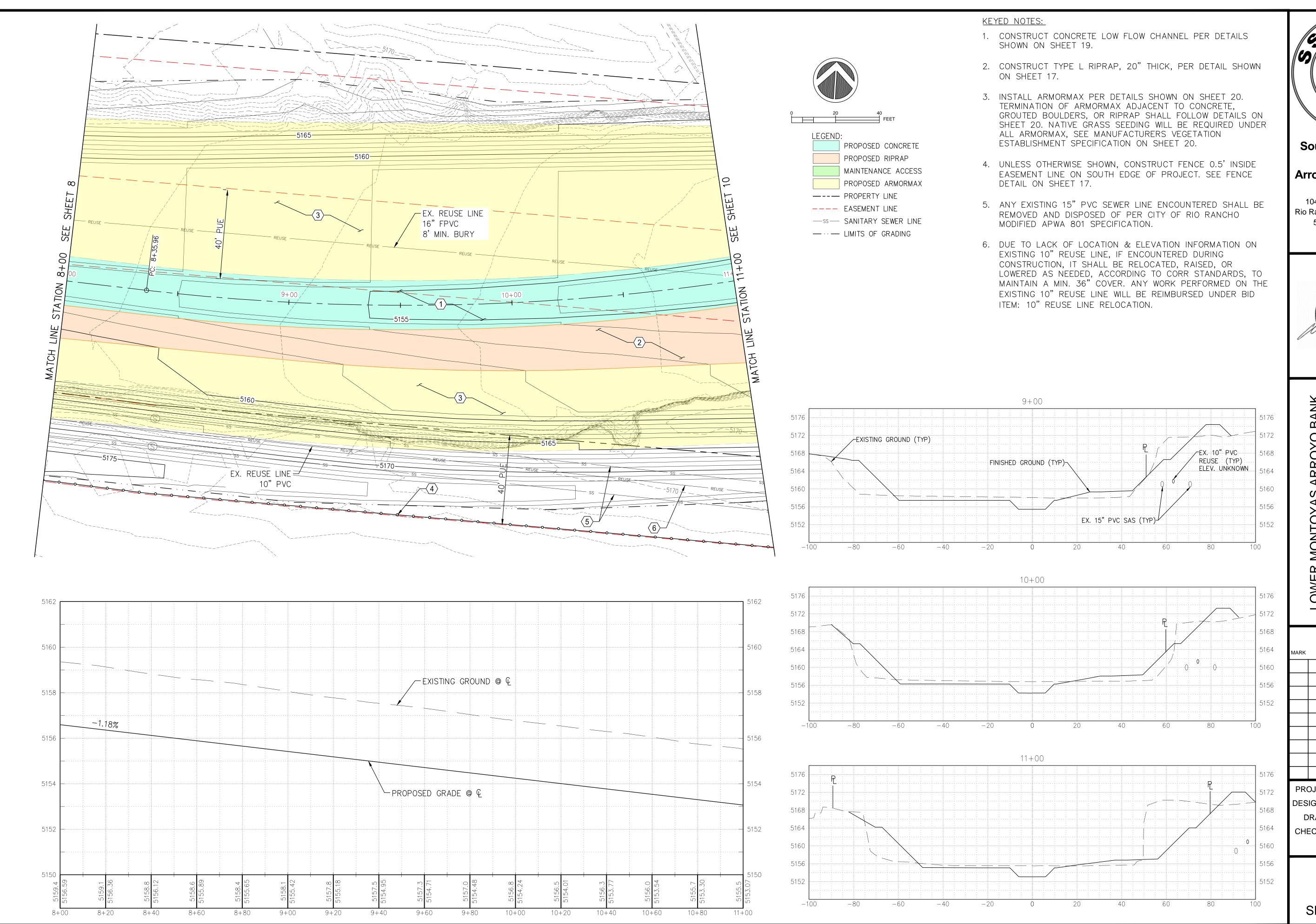


BANK NTOYAS ARROYO B. OWER MON-STABILIZ

REVISIONS & CHANGE NOTICES DESCRIPTION

PROJECT NO: MO_P0029-01 DESIGNED BY: AES DRAWN BY: KLF CHECKED BY: JN DATE: 1/7/2022

SHEET 8 OF 24





1041 Commercial Dr. S.E.
Rio Rancho, New Mexico 87124
505-892-RAIN (7246)
505-892-7241 (Fax)
www.sscafca.com



OWER MONTOYAS ARROYO BANK STABILIZATION PROJECT PLAN & PROFILE STA. 8+00 TO 11+00

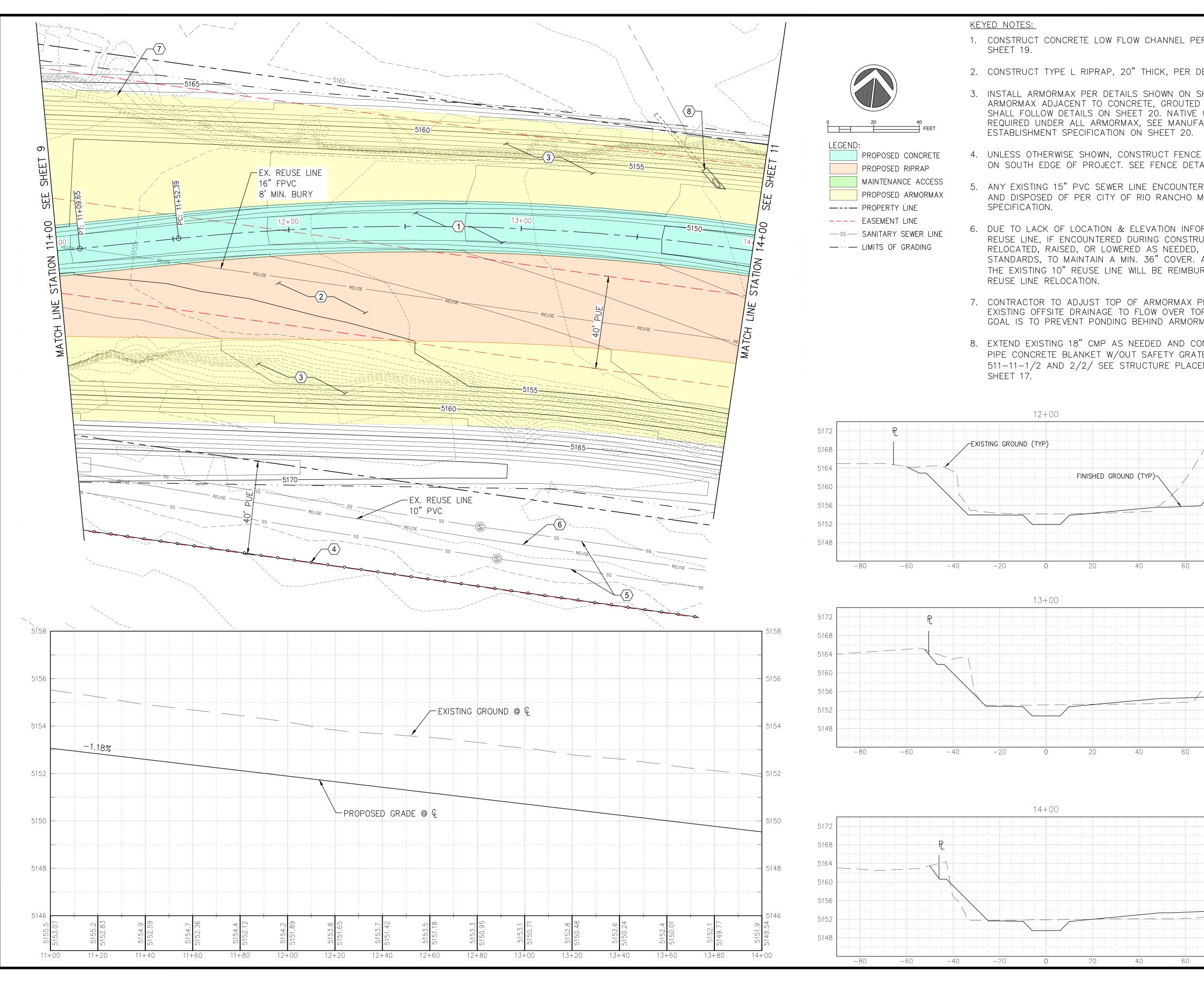
REVISIONS & CHANGE NOTICES

MARK DESCRIPTION DATE

PROJECT NO: MO_P0029-01
DESIGNED BY: AES
DRAWN BY: KLF
CHECKED BY: JN
DATE: 1/7/2022

9

SHEET 9 OF 24



- 1. CONSTRUCT CONCRETE LOW FLOW CHANNEL PER DETAILS SHOWN ON
- 2. CONSTRUCT TYPE L RIPRAP, 20" THICK, PER DETAIL SHOWN ON SHEET 17.
- 3. INSTALL ARMORMAX PER DETAILS SHOWN ON SHEET 20. TERMINATION OF ARMORMAX ADJACENT TO CONCRETE, GROUTED BOULDERS, OR RIPRAP SHALL FOLLOW DETAILS ON SHEET 20. NATIVE GRASS SEEDING WILL BE REQUIRED UNDER ALL ARMORMAX, SEE MANUFACTURERS VEGETATION
- 4. UNLESS OTHERWISE SHOWN, CONSTRUCT FENCE 0.5' INSIDE EASEMENT LINE ON SOUTH EDGE OF PROJECT. SEE FENCE DETAIL ON SHEET 17.
- 5. ANY EXISTING 15" PVC SEWER LINE ENCOUNTERED SHALL BE REMOVED AND DISPOSED OF PER CITY OF RIO RANCHO MODIFIED APWA 801
- 6. DUE TO LACK OF LOCATION & ELEVATION INFORMATION ON EXISTING 10" REUSE LINE, IF ENCOUNTERED DURING CONSTRUCTION, IT SHALL BE RELOCATED, RAISED, OR LOWERED AS NEEDED, ACCORDING TO CORR STANDARDS, TO MAINTAIN A MIN. 36" COVER. ANY WORK PERFORMED ON THE EXISTING 10" REUSE LINE WILL BE REIMBURSED UNDER BID ITEM: 10"
- 7. CONTRACTOR TO ADJUST TOP OF ARMORMAX PLACEMENT TO ALLOW EXISTING OFFSITE DRAINAGE TO FLOW OVER TOP OF NEW ARMORMAX. THE GOAL IS TO PREVENT PONDING BEHIND ARMORMAX.
- 8. EXTEND EXISTING 18" CMP AS NEEDED AND CONSTRUCT SINGLE METAL PIPE CONCRETE BLANKET W/OUT SAFETY GRATE PER NMDOT STD DWG 511-11-1/2 AND 2/2/ SEE STRUCTURE PLACEMENT SECTION ON DETAIL



Southern Sandoval



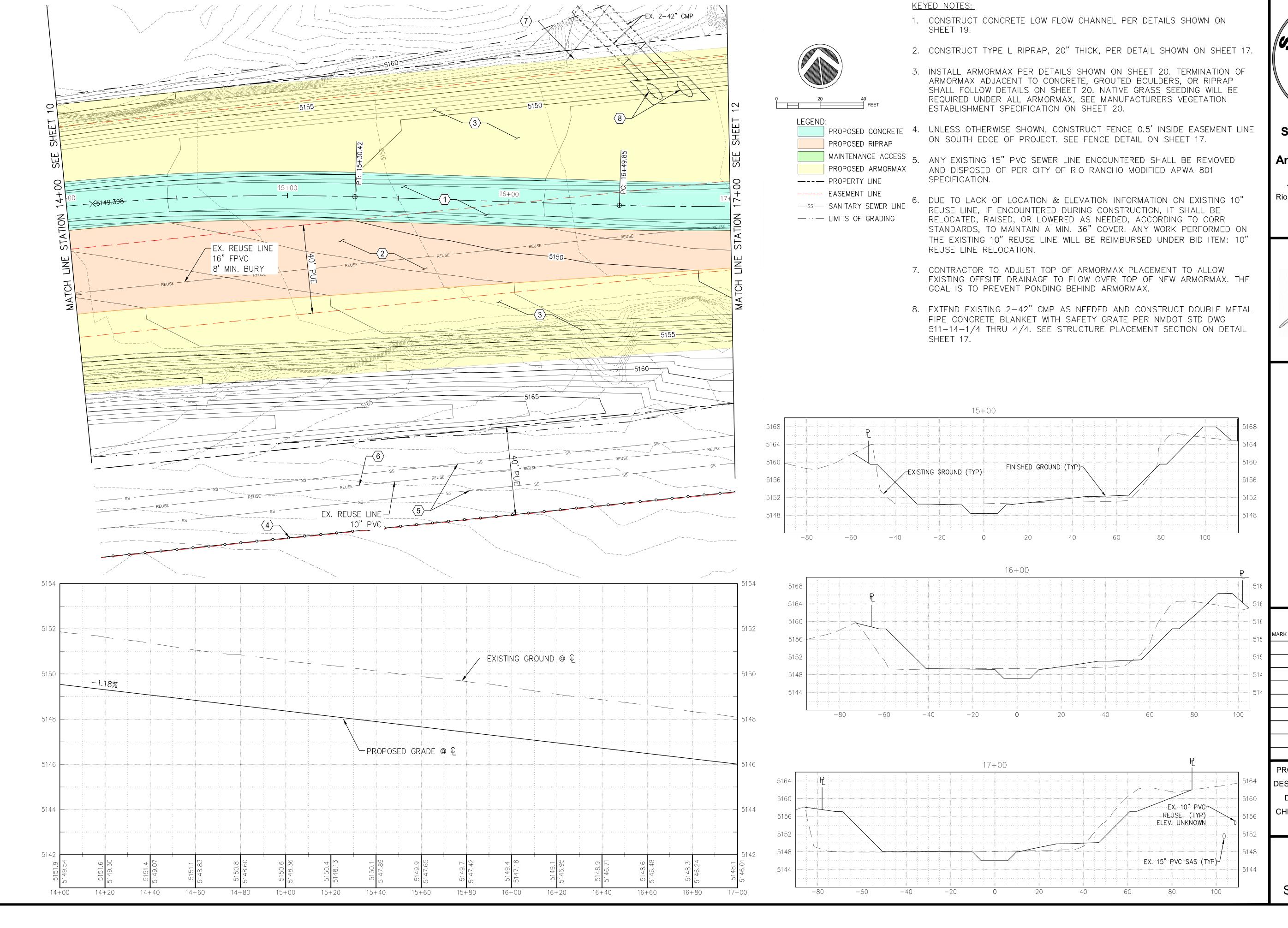
NTOYAS ARROYO B, OWER MON-STABILIZ

REVISIONS & CHANGE NOTICES DESCRIPTION

5152

PROJECT NO: MO_P0029-01 DESIGNED BY: AES DRAWN BY: KLF CHECKED BY: JN DATE: 1/7/2022

SHEET 10 OF 24





1041 Commercial Dr. S.E. Rio Rancho, New Mexico 87124 505-892-RAIN (7246) 505-892-7241 (Fax) www.sscafca.com



20363) 1-4-22 LEW STONAL ENGINE

OWER MONTOYAS ARROYO BANK
STABILIZATION PROJECT
PLAN & PROFILE
STA 14+00 TO 17+00

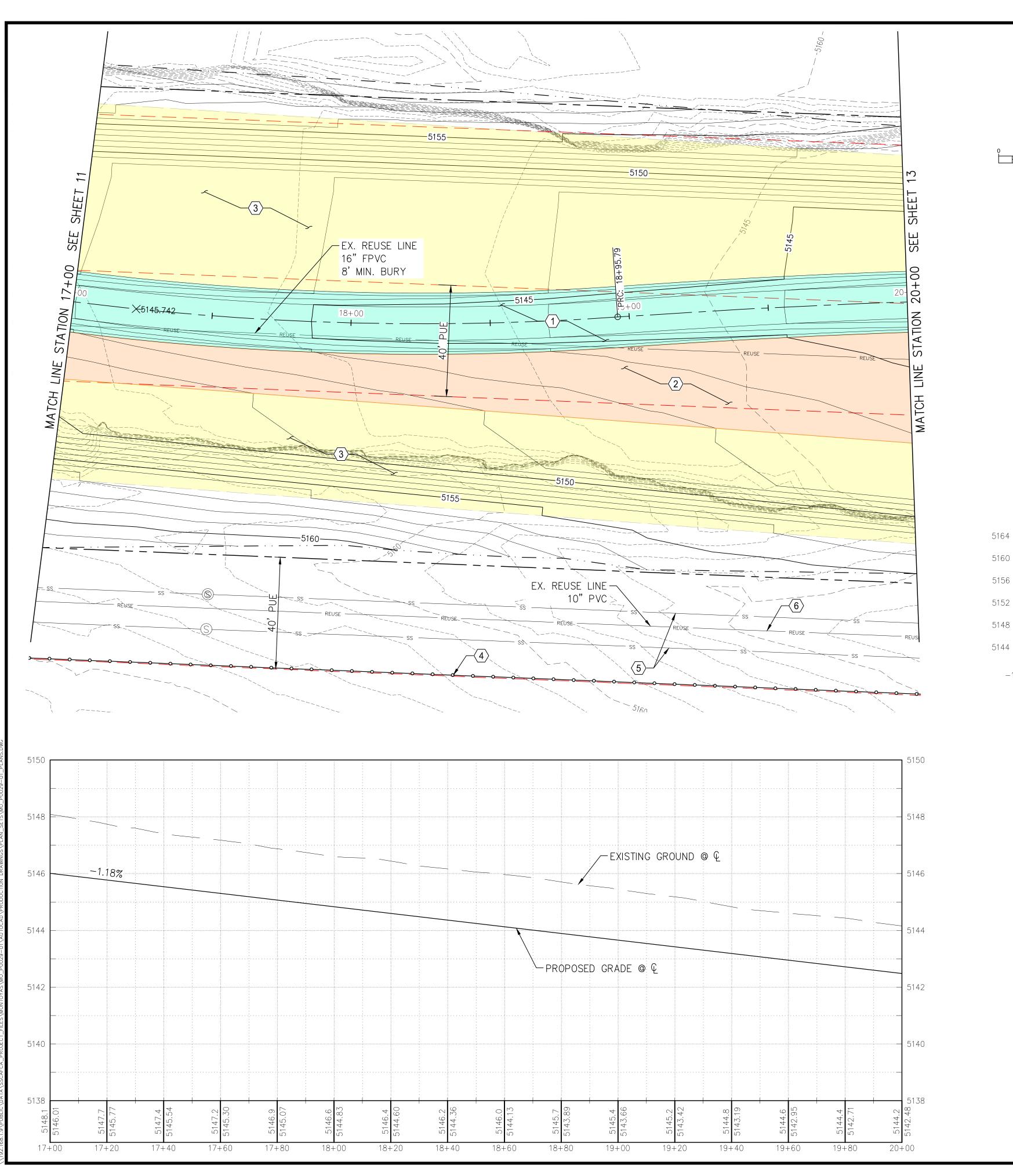
REVISIONS & CHANGE NOTICES

MARK DESCRIPTION DAT

PROJECT NO: MO_P0029-01
DESIGNED BY: AES
DRAWN BY: KLF
CHECKED BY: JN
DATE: 1/7/2022

11

SHEET 11 OF 24



PROPOSED CONCRETE

MAINTENANCE ACCESS

PROPOSED ARMORMAX

PROPOSED RIPRAP

--- PROPERTY LINE

--- EASEMENT LINE

—ss— **SANITARY SEWER LINE**

— · · · ─ LIMITS OF GRADING

- 1. CONSTRUCT CONCRETE LOW FLOW CHANNEL PER DETAILS SHOWN ON SHEET 19.
- 2. CONSTRUCT TYPE L RIPRAP, 20" THICK, PER DETAIL SHOWN ON SHEET 17.
- 3. INSTALL ARMORMAX PER DETAILS SHOWN ON SHEET 20. TERMINATION OF ARMORMAX ADJACENT TO CONCRETE, GROUTED BOULDERS, OR RIPRAP SHALL FOLLOW DETAILS ON SHEET 20. NATIVE GRASS SEEDING WILL BE REQUIRED UNDER ALL ARMORMAX, SEE MANUFACTURERS VEGETATION ESTABLISHMENT SPECIFICATION ON SHEET 20.
- 4. UNLESS OTHERWISE SHOWN, CONSTRUCT FENCE 0.5' INSIDE EASEMENT LINE ON SOUTH EDGE OF PROJECT. SEE FENCE DETAIL ON SHEET 17.
- 5. ANY EXISTING 15" PVC SEWER LINE ENCOUNTERED SHALL BE REMOVED AND DISPOSED OF PER CITY OF RIO RANCHO MODIFIED APWA 801 SPECIFICATION.
- 6. DUE TO LACK OF LOCATION & ELEVATION INFORMATION ON EXISTING 10" REUSE LINE, IF ENCOUNTERED DURING CONSTRUCTION, IT SHALL BE RELOCATED, RAISED, OR LOWERED AS NEEDED, ACCORDING TO CORR STANDARDS, TO MAINTAIN A MIN. 36" COVER. ANY WORK PERFORMED ON THE EXISTING 10" REUSE LINE WILL BE REIMBURSED UNDER BID ITEM: 10" REUSE LINE RELOCATION.



Southern Sandoval County Arroyo Flood Control **Authority**

1041 Commercial Dr. S.E. Rio Rancho, New Mexico 87124 505-892-RAIN (7246) 505-892-7241 (Fax) www.sscafca.com

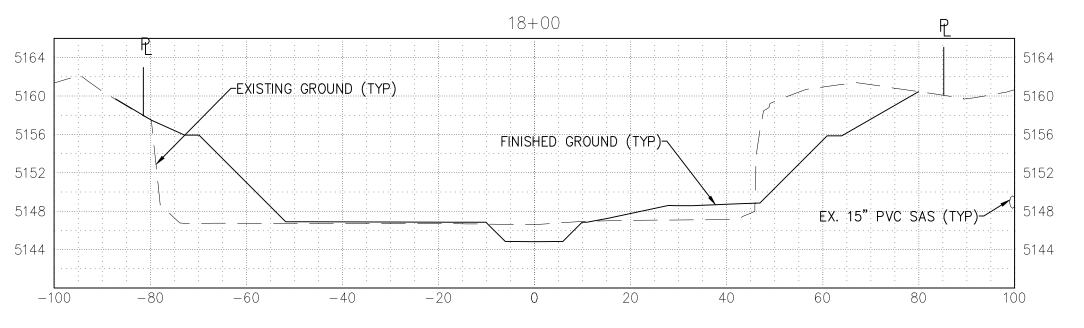


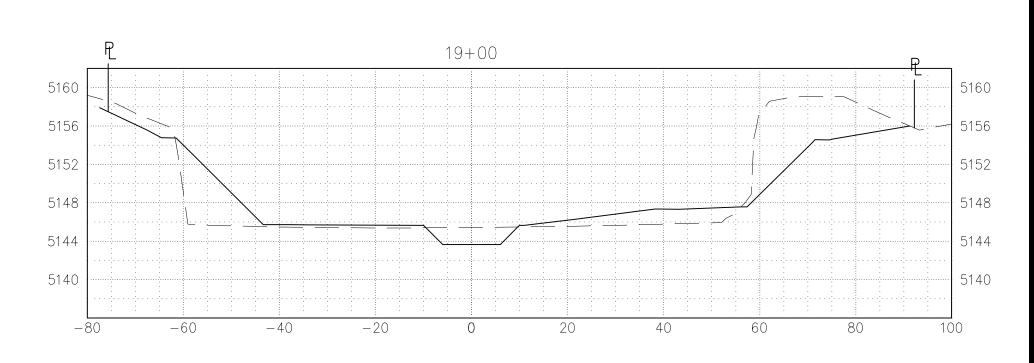
NTOYAS ARROYO B. OWER MON-STABILIZ

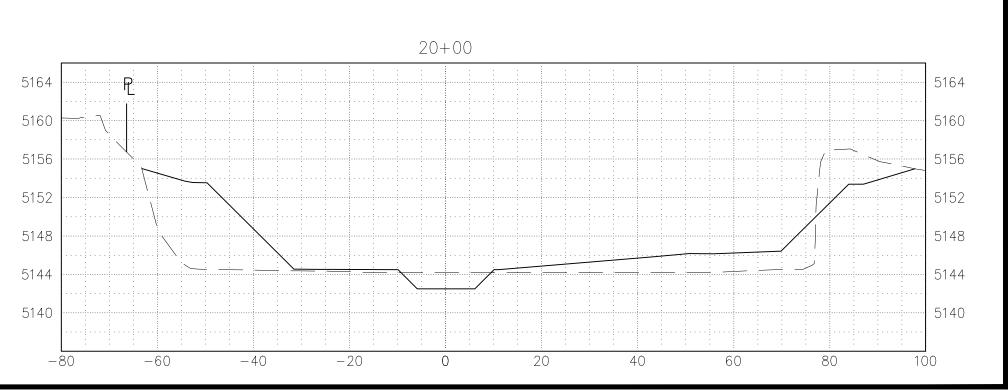
REVISIONS & CHANGE NOTICES DESCRIPTION

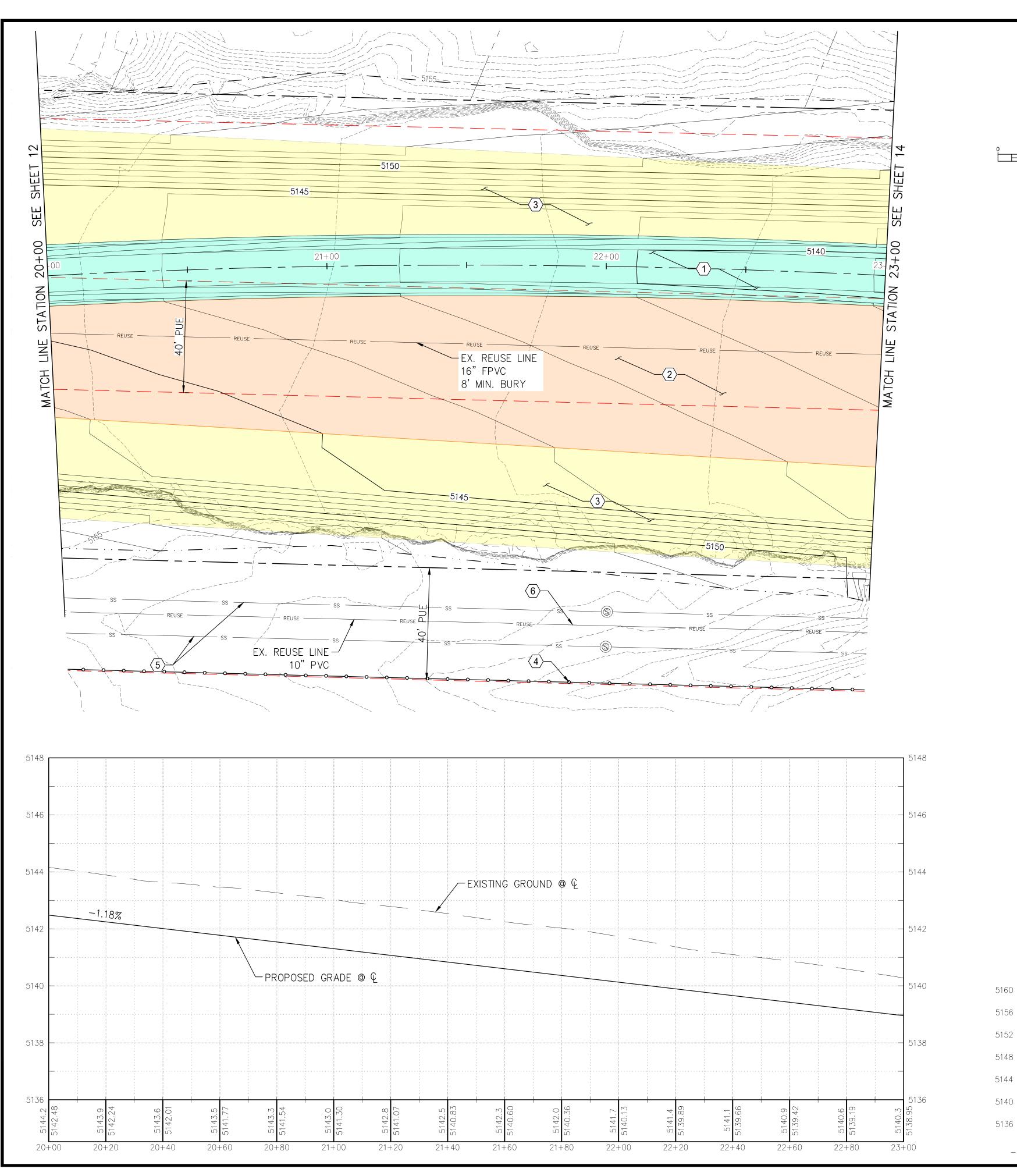
PROJECT NO: MO_P0029-01 DESIGNED BY: AES DRAWN BY: KLF CHECKED BY: JN DATE: 1/7/2022

SHEET 12 OF 24









PROPOSED CONCRETE

MAINTENANCE ACCESS

PROPOSED ARMORMAX

PROPOSED RIPRAP

--- PROPERTY LINE

--- EASEMENT LINE

—ss— **SANITARY SEWER LINE**

—··— LIMITS OF GRADING

- 1. CONSTRUCT CONCRETE LOW FLOW CHANNEL PER DETAILS SHOWN ON SHEET 19.
- 2. CONSTRUCT TYPE L RIPRAP, 20" THICK, PER DETAIL SHOWN ON SHEET 17.
- 3. INSTALL ARMORMAX PER DETAILS SHOWN ON SHEET 20. TERMINATION OF ARMORMAX ADJACENT TO CONCRETE, GROUTED BOULDERS, OR RIPRAP SHALL FOLLOW DETAILS ON SHEET 20. NATIVE GRASS SEEDING WILL BE REQUIRED UNDER ALL ARMORMAX, SEE MANUFACTURERS VEGETATION ESTABLISHMENT SPECIFICATION ON SHEET 20.
- 4. UNLESS OTHERWISE SHOWN, CONSTRUCT FENCE 0.5' INSIDE EASEMENT LINE ON SOUTH EDGE OF PROJECT. SEE FENCE DETAIL ON SHEET 17.
- 5. ANY EXISTING 15" PVC SEWER LINE ENCOUNTERED SHALL BE REMOVED AND DISPOSED OF PER CITY OF RIO RANCHO MODIFIED APWA 801 SPECIFICATION.
- 6. DUE TO LACK OF LOCATION & ELEVATION INFORMATION ON EXISTING 10" REUSE LINE, IF ENCOUNTERED DURING CONSTRUCTION, IT SHALL BE RELOCATED, RAISED, OR LOWERED AS NEEDED, ACCORDING TO CORR STANDARDS, TO MAINTAIN A MIN. 36" COVER. ANY WORK PERFORMED ON THE EXISTING 10" REUSE LINE WILL BE REIMBURSED UNDER BID ITEM: 10" REUSE LINE RELOCATION.



Southern Sandoval County Arroyo Flood Control **Authority**

1041 Commercial Dr. S.E. Rio Rancho, New Mexico 87124 505-892-RAIN (7246) 505-892-7241 (Fax) www.sscafca.com



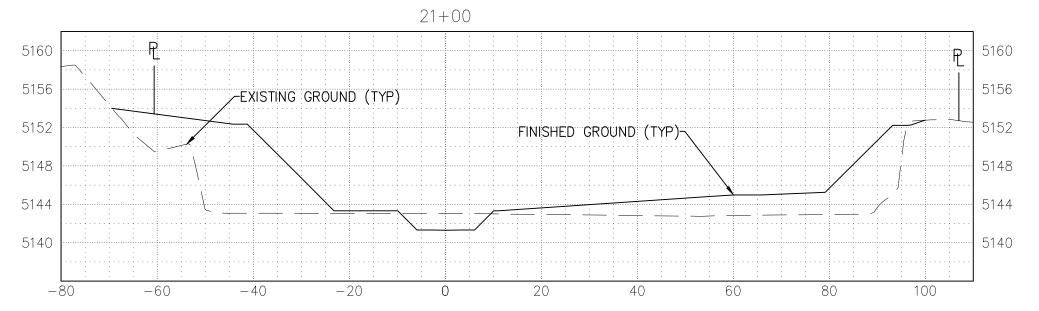
NTOYAS ARROYO B.

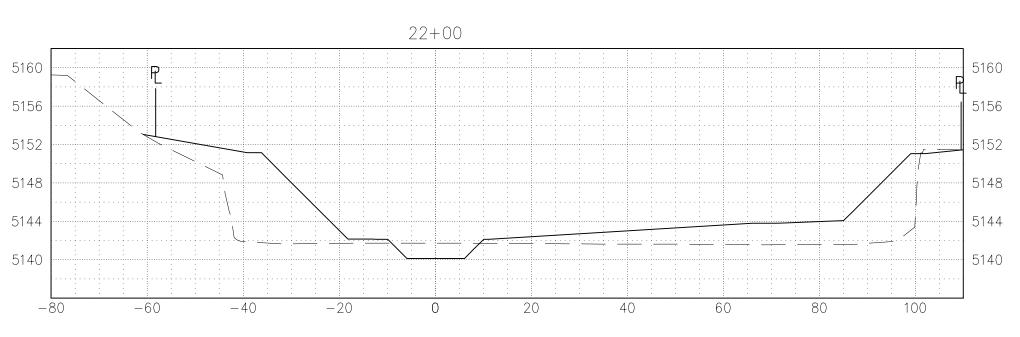
OWER MON-STABILIZ

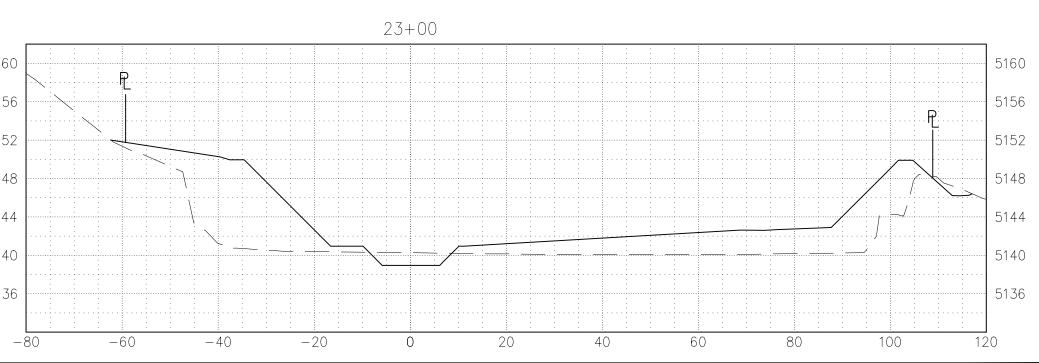
REVISIONS & CHANGE NOTICES DESCRIPTION

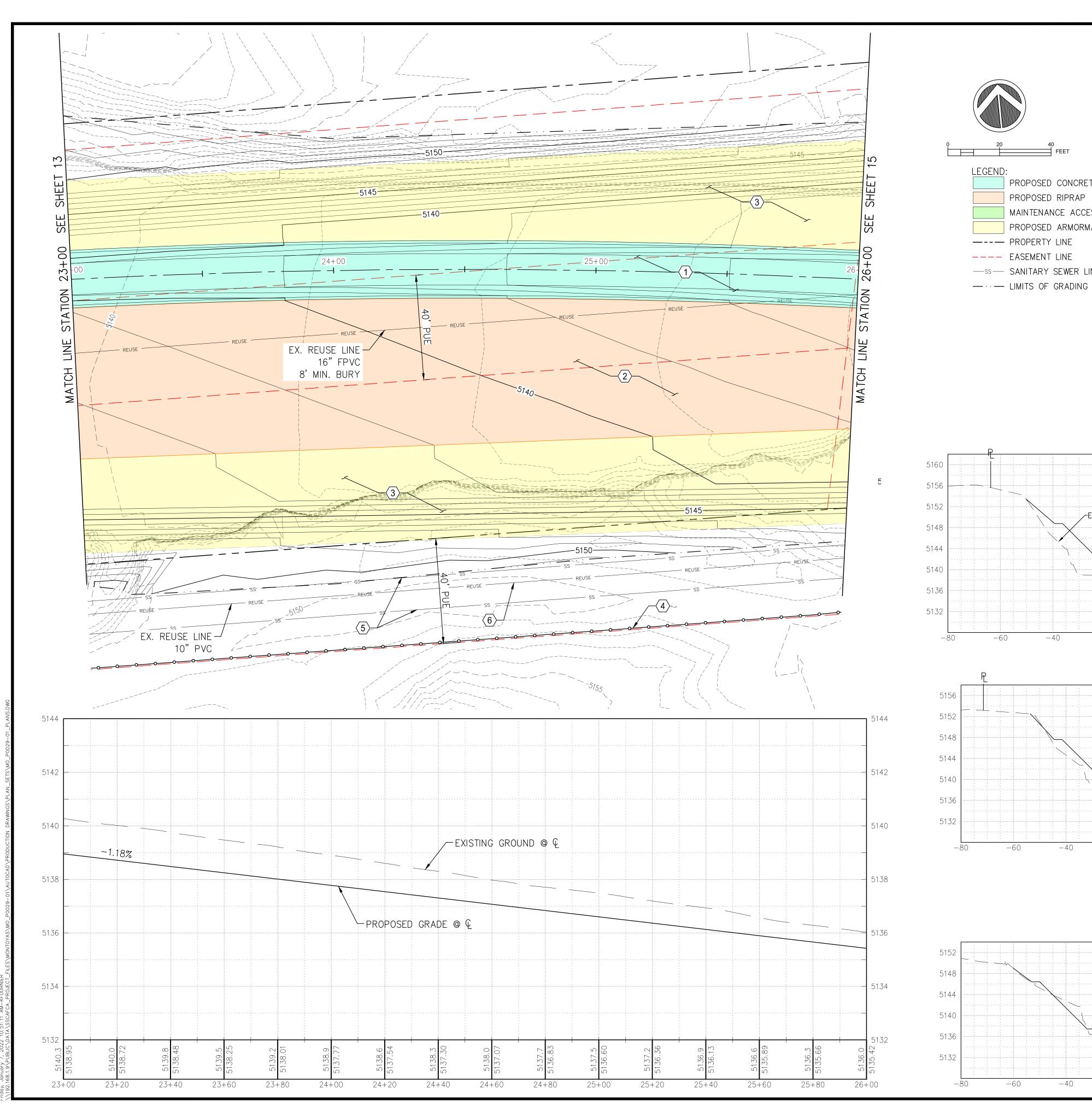
PROJECT NO: MO_P0029-01 DESIGNED BY: AES DRAWN BY: KLF CHECKED BY: JN DATE: 1/7/2022

SHEET 13 OF 24









24+00

25+00

~EXISTING GROUND (TYP)

FINISHED GROUND (TYP)

PROPOSED CONCRETE

MAINTENANCE ACCESS

PROPOSED ARMORMAX

PROPOSED RIPRAP

--- PROPERTY LINE

—ss— **SANITARY SEWER LINE**

- 1. CONSTRUCT CONCRETE LOW FLOW CHANNEL PER DETAILS SHOWN ON SHEET 19.
- 2. CONSTRUCT TYPE L RIPRAP, 20" THICK, PER DETAIL SHOWN ON SHEET 17.
- 3. INSTALL ARMORMAX PER DETAILS SHOWN ON SHEET 20. TERMINATION OF ARMORMAX ADJACENT TO CONCRETE, GROUTED BOULDERS, OR RIPRAP SHALL FOLLOW DETAILS ON SHEET 20. NATIVE GRASS SEEDING WILL BE REQUIRED UNDER ALL ARMORMAX, SEE MANUFACTURERS VEGETATION ESTABLISHMENT SPECIFICATION ON SHEET 20.
- 4. UNLESS OTHERWISE SHOWN, CONSTRUCT FENCE 0.5' INSIDE EASEMENT LINE ON SOUTH EDGE OF PROJECT. SEE FENCE DETAIL ON SHEET 17.
- 5. ANY EXISTING 15" PVC SEWER LINE ENCOUNTERED SHALL BE REMOVED AND DISPOSED OF PER CITY OF RIO RANCHO MODIFIED APWA 801 SPECIFICATION.
- 6. DUE TO LACK OF LOCATION & ELEVATION INFORMATION ON EXISTING 10" REUSE LINE, IF ENCOUNTERED DURING CONSTRUCTION, IT SHALL BE RELOCATED, RAISED, OR LOWERED AS NEEDED, ACCORDING TO CORR STANDARDS, TO MAINTAIN A MIN. 36" COVER. ANY WORK PERFORMED ON THE EXISTING 10" REUSE LINE WILL BE REIMBURSED UNDER BID ITEM: 10" REUSE LINE RELOCATION.



Southern Sandoval County Arroyo Flood Control **Authority**

1041 Commercial Dr. S.E. Rio Rancho, New Mexico 87124 505-892-RAIN (7246) 505-892-7241 (Fax) www.sscafca.com



NTOYAS ARROYO B.

EX. 10" PVC\

REUSE (TYP) ELEV. UNKNOWN

EX. 15" PVC SAS (TYP)-

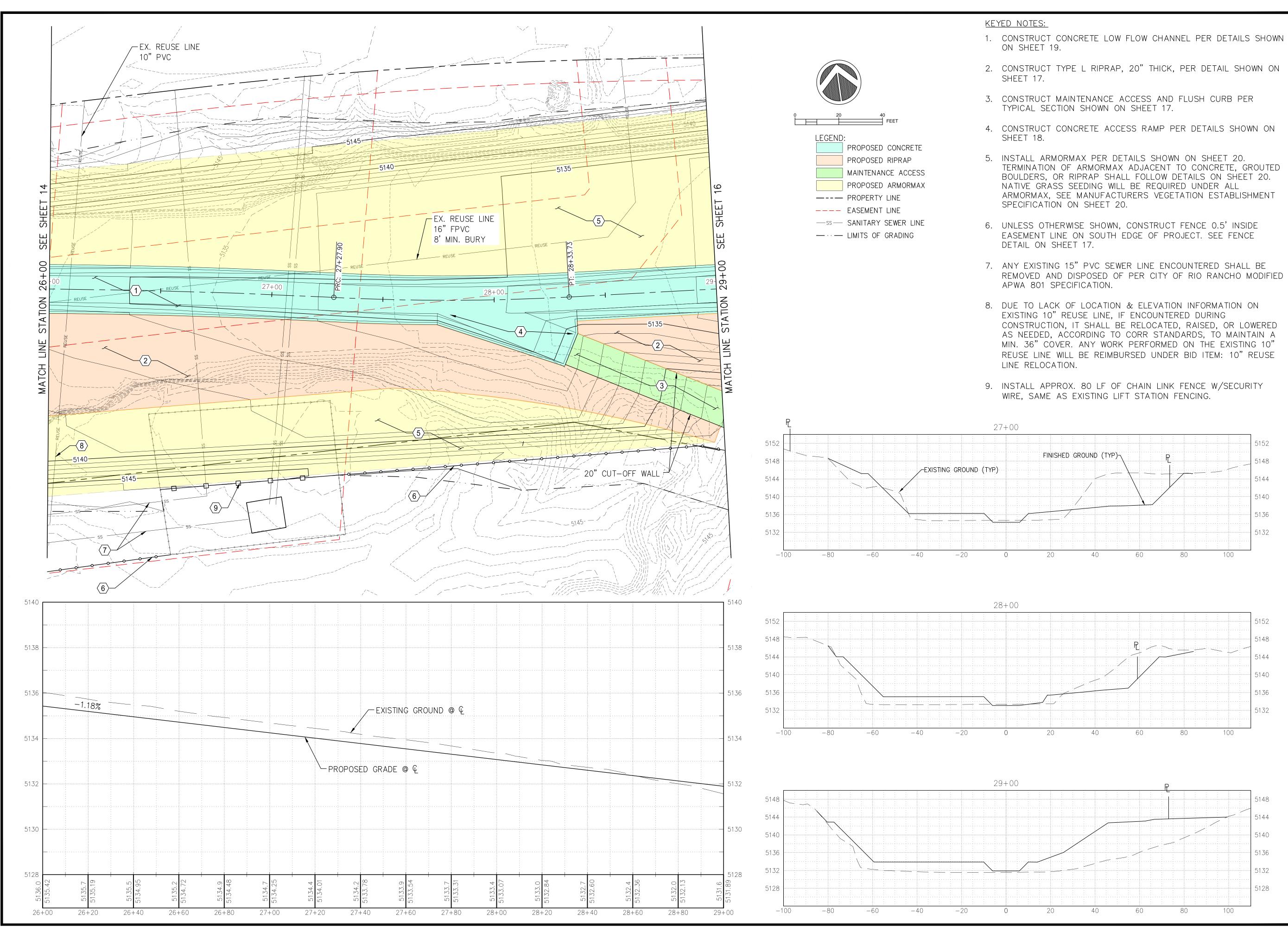
OWER MON-STABILIZ

	REVISIONS & CHANGE NOTICES	
MARK	DESCRIPTION	DATE
DD/	DIFCT NO. MO DOO	00.04

PROJECT NO: MO_P0029-01 **DESIGNED BY: AES** DRAWN BY: KLF CHECKED BY: JN DATE: 1/7/2022

SHEET 14 OF 24

26+00





1041 Commercial Dr. S.E.
Rio Rancho, New Mexico 87124
505-892-RAIN (7246)
505-892-7241 (Fax)
www.sscafca.com



OWER MONTOYAS ARROYO BANK
STABILIZATION PROJECT
PLAN & PROFILE
STA. 26+00 TO 29+00

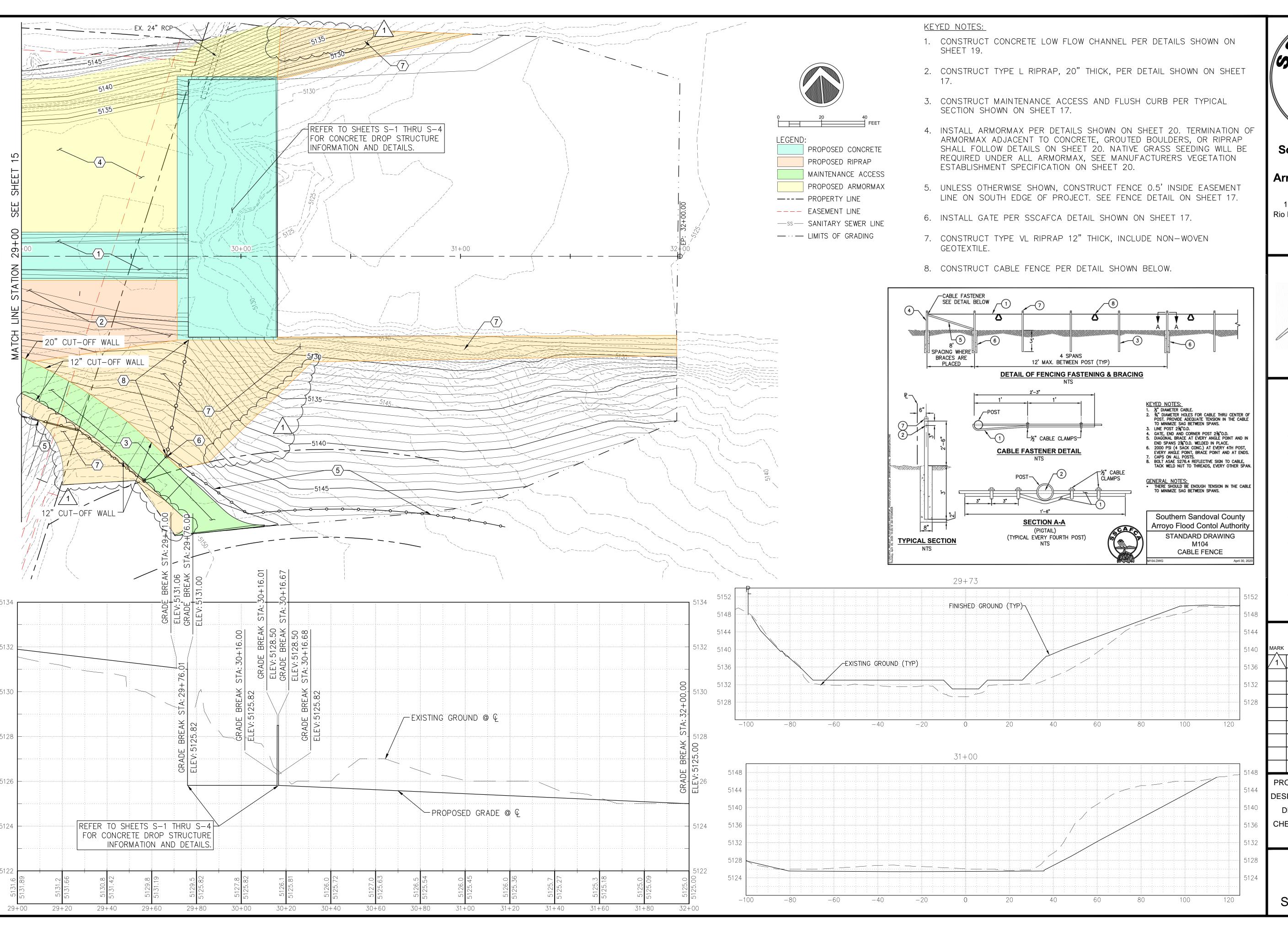
REVISIONS & CHANGE NOTICES

MARK DESCRIPTION DATE

PROJECT NO: MO_P0029-01
DESIGNED BY: AES
DRAWN BY: KLF
CHECKED BY: JN
DATE: 1/7/2022

15

SHEET 15 OF 24





1041 Commercial Dr. S.E. Rio Rancho, New Mexico 87124 505-892-RAIN (7246) 505-892-7241 (Fax) www.sscafca.com



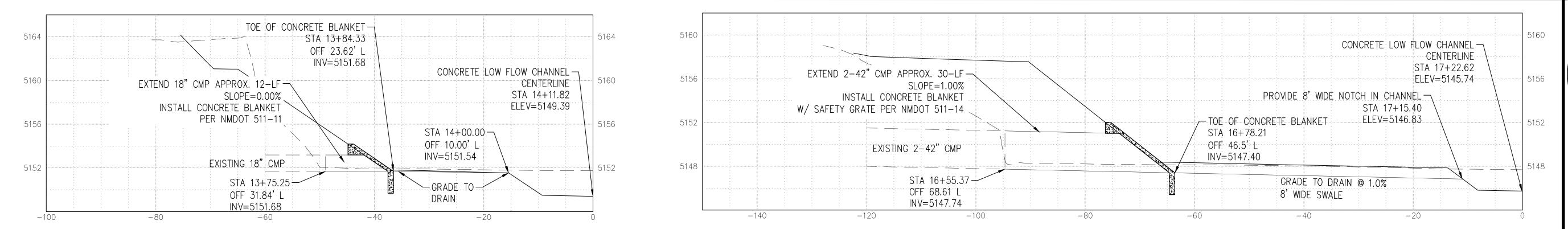
NTOYAS ARROYO BAIZATION PROJECT ROFILE TO 32+00 OWER MONSTABILE

	REVISIONS & CHANGE NOTICES	
MARK	DESCRIPTION	DATE
$\sqrt{1}$	ADD/MODIFIED RIPRAP	1/25/2
	EXTENTS	
		1

PROJECT NO: MO_P0029-01 DESIGNED BY: AES DRAWN BY: KLF CHECKED BY: JN DATE: 1/25/2022

16

SHEET 16 OF 24

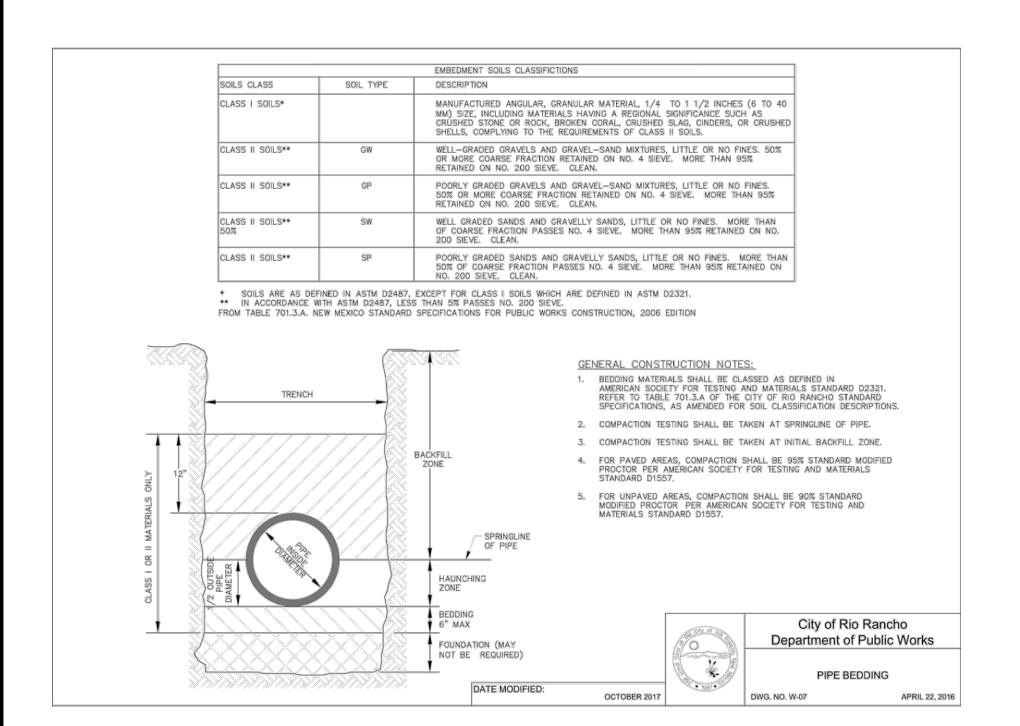


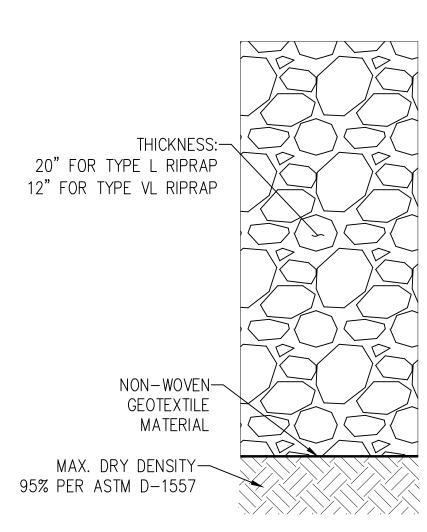
STRUCTURE PLACEMENT SECTION - 18" CMP EXTENSION

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

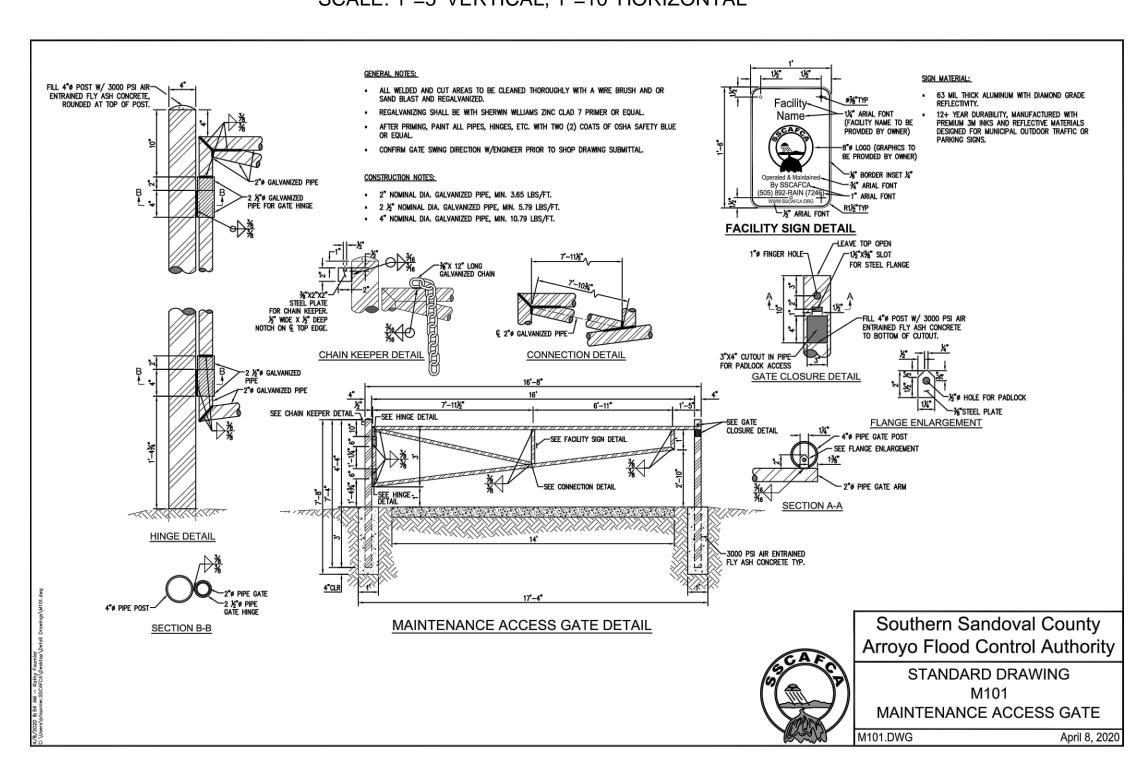
STRUCTURE PLACEMENT SECTION - 2-42" CMP EXTENSION

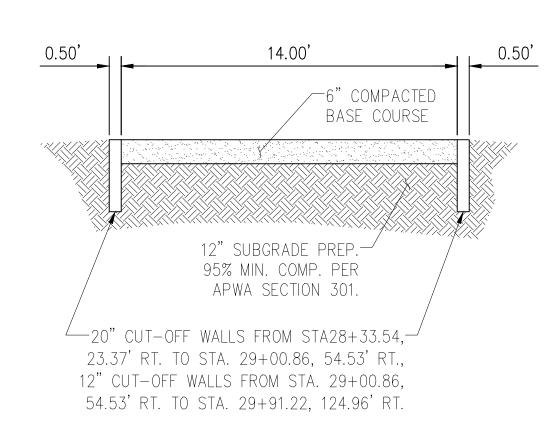
SCALE: 1"=5' VERTICAL, 1"=10' HORIZONTAL



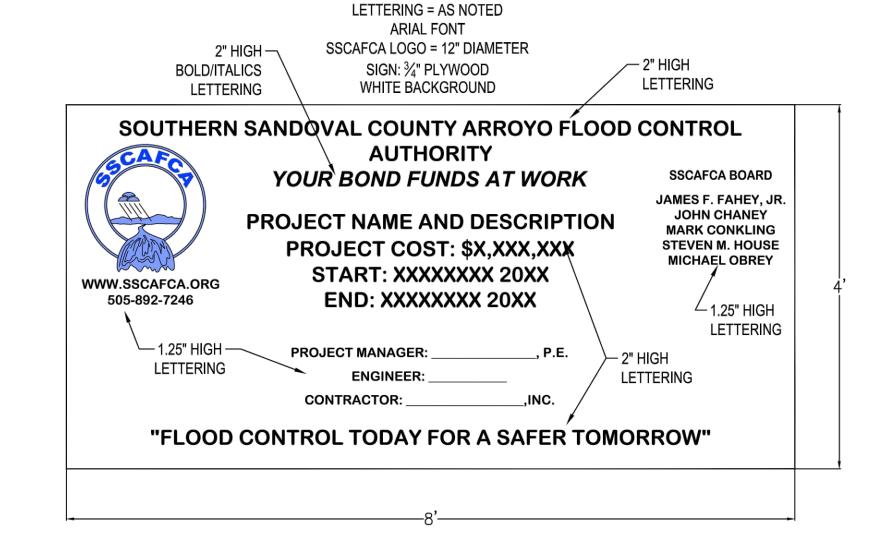


TYPICAL RIPRAP SECTION DETAIL NOT TO SCALE





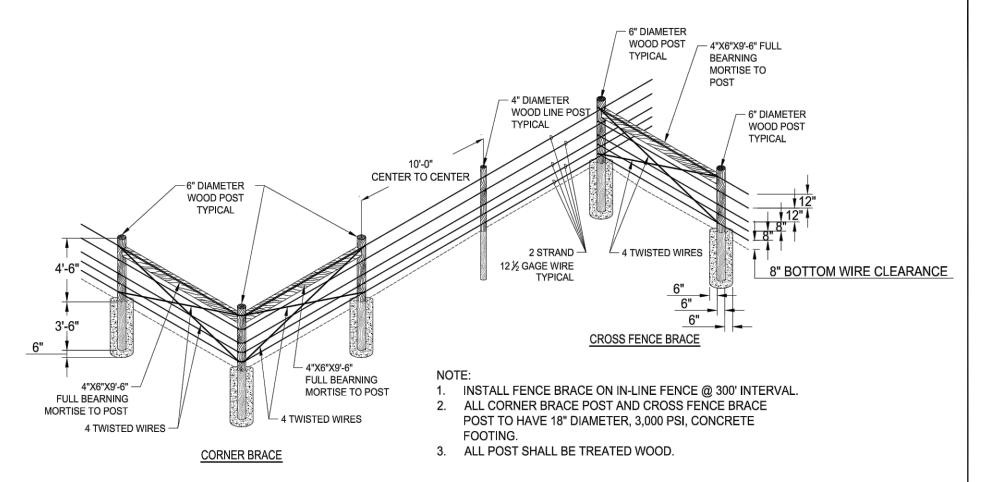
TYPICAL MAINTENANCE ACCESS **SECTION DETAIL** NOT TO SCALE

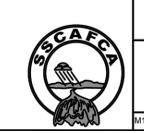




Southern Sandoval County STANDARD DRAWING

Arroyo Flood Contol Authority PROJECT CONSTRUCTION SIGN (4'X8')





Southern Sandoval County **Arroyo Flood Contol Authority** STANDARD DRAWING M100 FIVE STRAND WIRE FENCE



Southern Sandoval County **Arroyo Flood Control Authority**

1041 Commercial Dr. S.E. Rio Rancho, New Mexico 87124 505-892-RAIN (7246) 505-892-7241 (Fax) www.sscafca.com



TOYAS ARROYO B Ш OWER MON

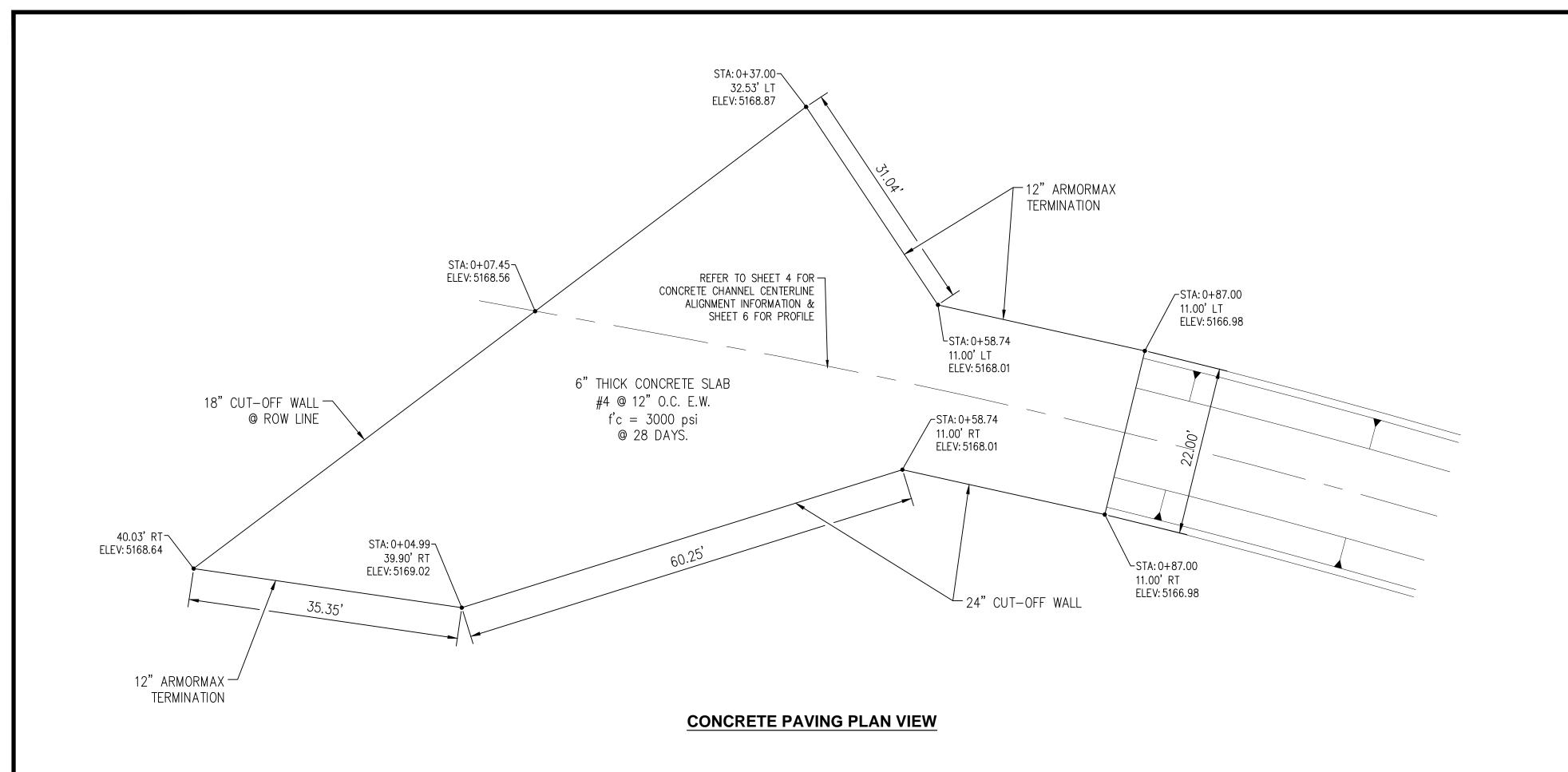
	REVISIONS & CHANGE NOTICES	
MARK	DESCRIPTION	DA
PRO	DJECT NO: MO_P002	9-01

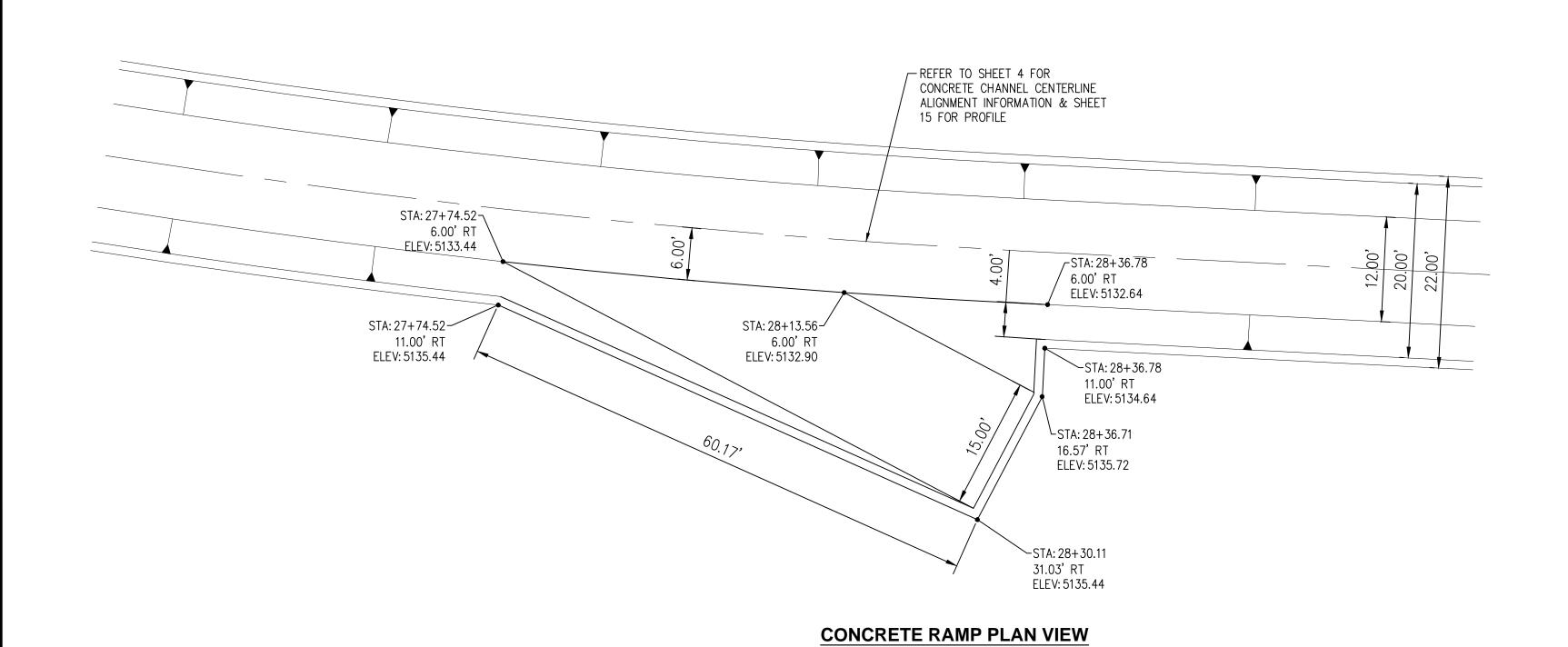
DESIGNED BY: AES

DRAWN BY: ###

CHECKED BY: JN DATE: 1/7/2022

SHEET 17 OF 24







1041 Commercial Dr. S.E.
Rio Rancho, New Mexico 87124
505-892-RAIN (7246)
505-892-7241 (Fax)
www.sscafca.com



OWER MONTOYAS ARROYO BANK STABILIZATION PROJECT

	REVISIONS & CHANGE NOTICES	
MARK	DESCRIPTION	DATE

PROJECT NO: MO_P0029-01

DESIGNED BY: AES

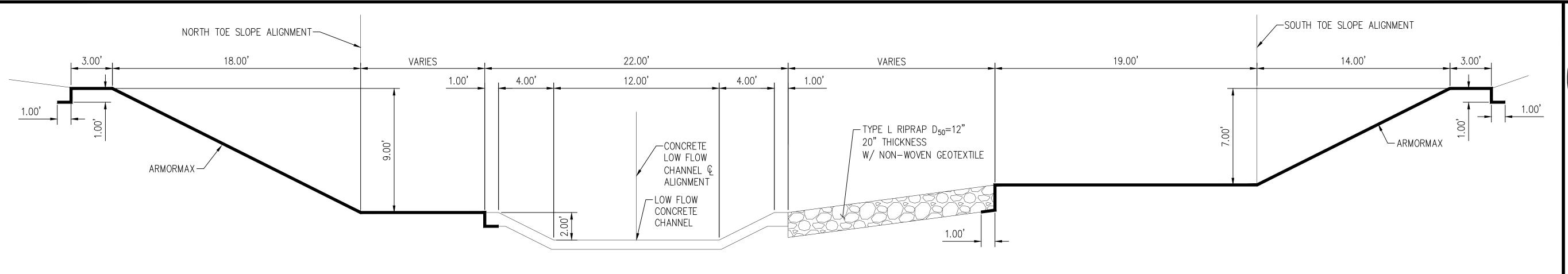
DRAWN BY: KLF

CHECKED BY: JN

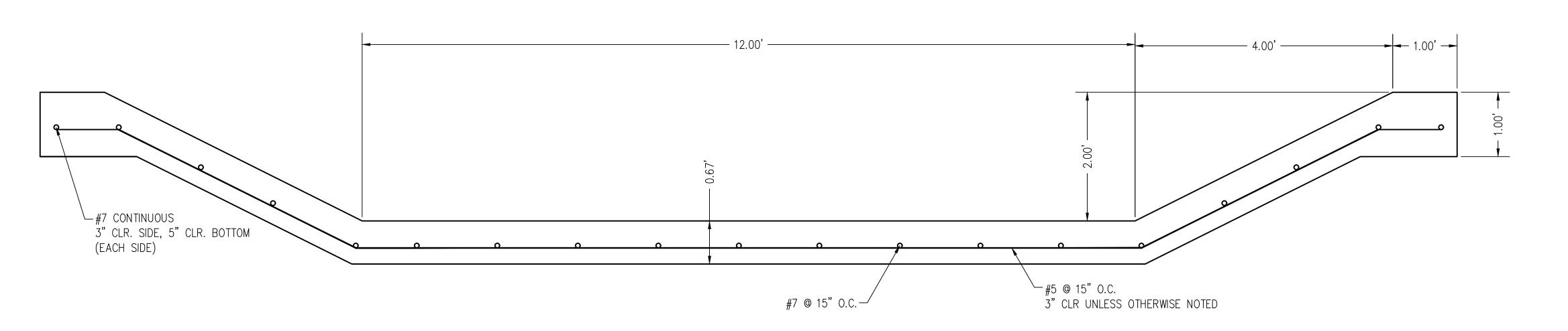
DATE: 1/6/2022

18

SHEET 18 OF 24



TYPICAL COMPOSITE CHANNEL SECTION TO DEMONSTRATE COMPOSITE CHANNEL CONCEPT



CONCRETE LOW FLOW CHANNEL SECTION

BASE BID = NO CONCRETE COLOR

CONCRETE LOW FLOW CHANNEL NOTES:

- 1. CAST-IN-PLACE CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH f'c=3000 PSI MINIMUM.
- 2. ALL EXPOSED FORMED EDGES SHALL HAVE $\frac{3}{4}$ CHANFER UNLESS OTHERWISE NOTED
- 3. CHANNEL SUBGRADE PREPARATION TO A DEPTH OF 12", MUST ACHIEVE MAX.

 DRY DENSITY OF 95% PER ASTM D-1557
- 4. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. MINIMUM LAP LENGTHS FOR #5 AND #7 REBAR SHALL BE 30" AND 43", RESPECTIVELY.
- 5. EXPOSED CHANNEL CONCRETE SHALL HAVE A TINED FINISH, TINING SHALL BE APPLIED TRANSVERSE TO FLOW.
- 6. BASE BID = NO CONCRETE COLOR.
- 7. CONTROL JOINTS ARE REQUIRED AT A SPACING NOT TO EXCEED 18-FT. ALL CONTROL JOINTS SHALL BE SEALED WITH SONOLASTIC NP-1 OR APPROVED EQUAL.
- 8. CONSTRUCTION JOINTS SHALL BE IN ACCORDANCE WITH AMAFCA STANDARD DRAWING 102, SEE BID AND CONTRACT DOCUMENTS VOLUME 2 SPECIFICATIONS.



1

REMOVAL OF ADDITIVE ALTERNATIVE #1



Southern Sandoval County Arroyo Flood Control Authority

1041 Commercial Dr. S.E.
Rio Rancho, New Mexico 87124
505-892-RAIN (7246)
505-892-7241 (Fax)
www.sscafca.com



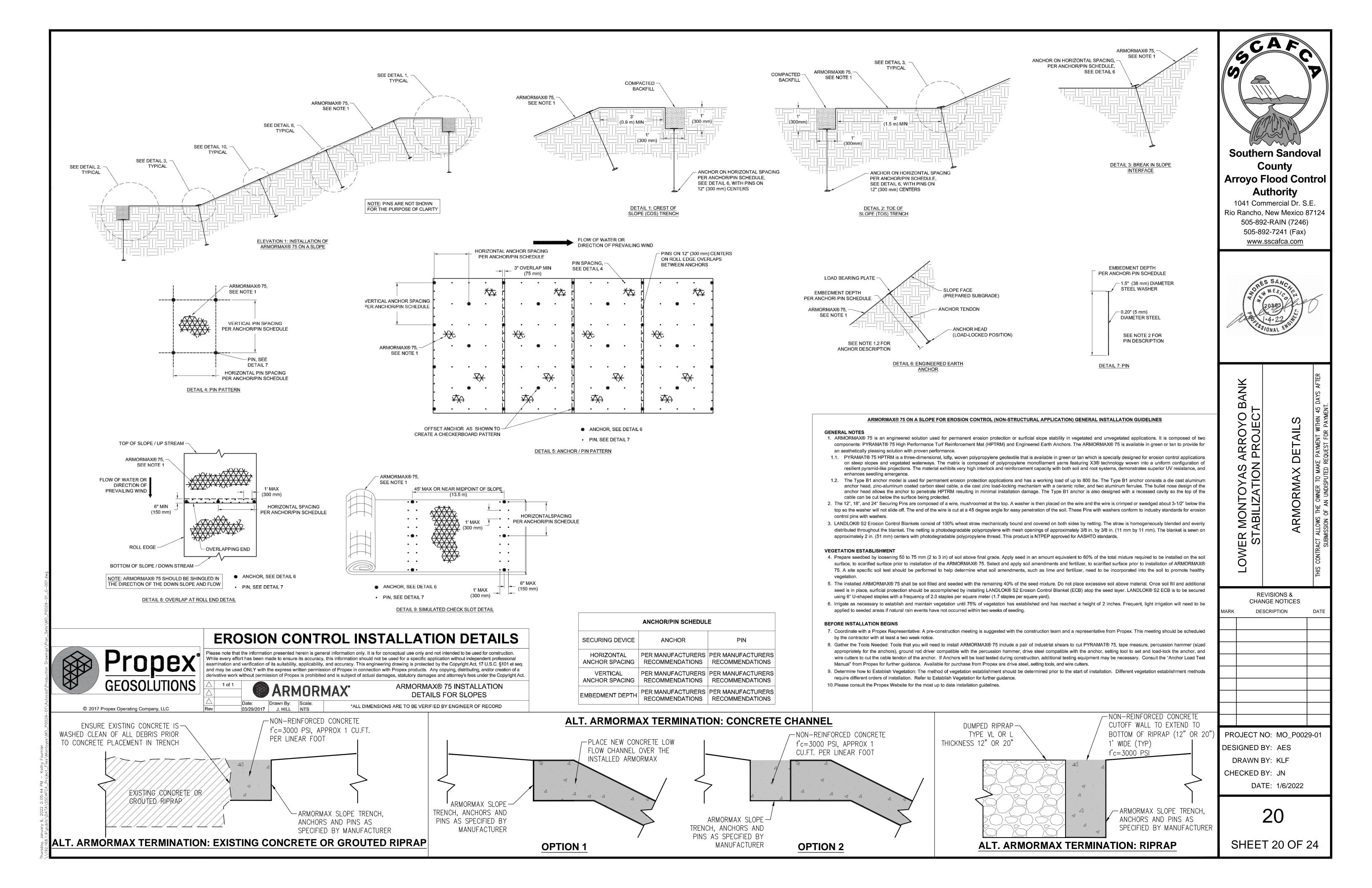
OWER MONTOYAS ARROYO BANK STABILIZATION PROJECT OW FLOW CONCRETE CHANNEL

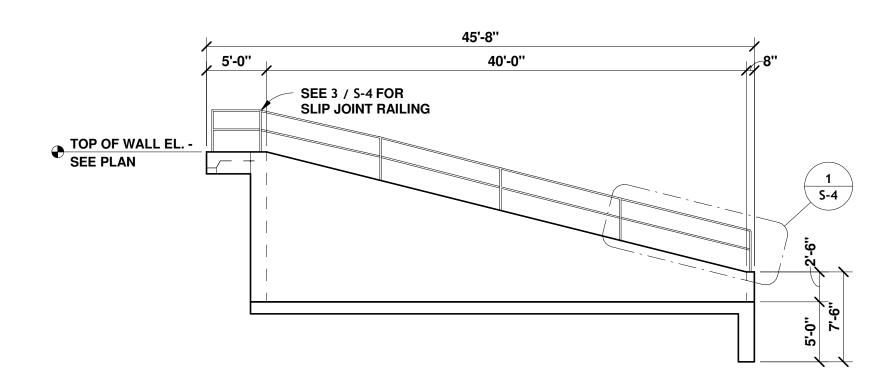
	REVISIONS & CHANGE NOTICES				
MARK	DESCRIPTION			DATE	:
	REMOVAL OF ADD.				
	ALTERNATIVE #1	1,	/24	4/2	22
2	ADDED NOTES	1,	/2	5/2	2.2
					_

PROJECT NO: MO_P0029-01
DESIGNED BY: AES
DRAWN BY: ###
CHECKED BY: JN
DATE: 1/6/2022

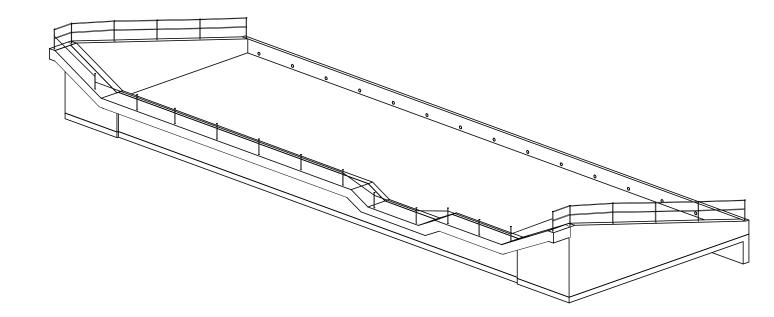
19

SHEET 19 OF 24

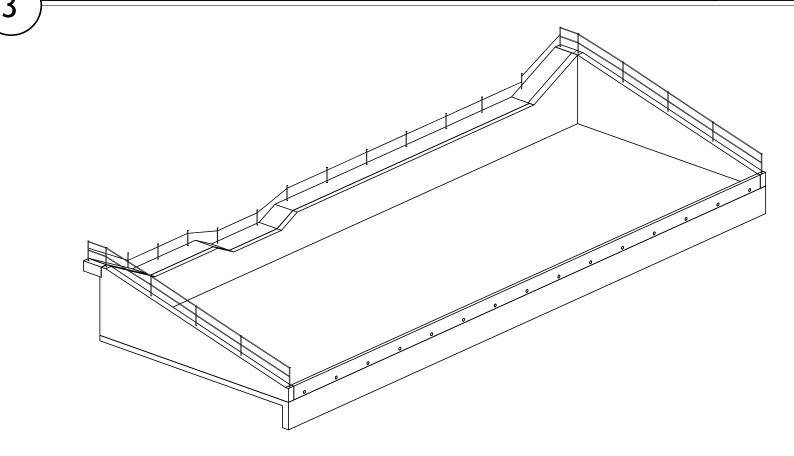




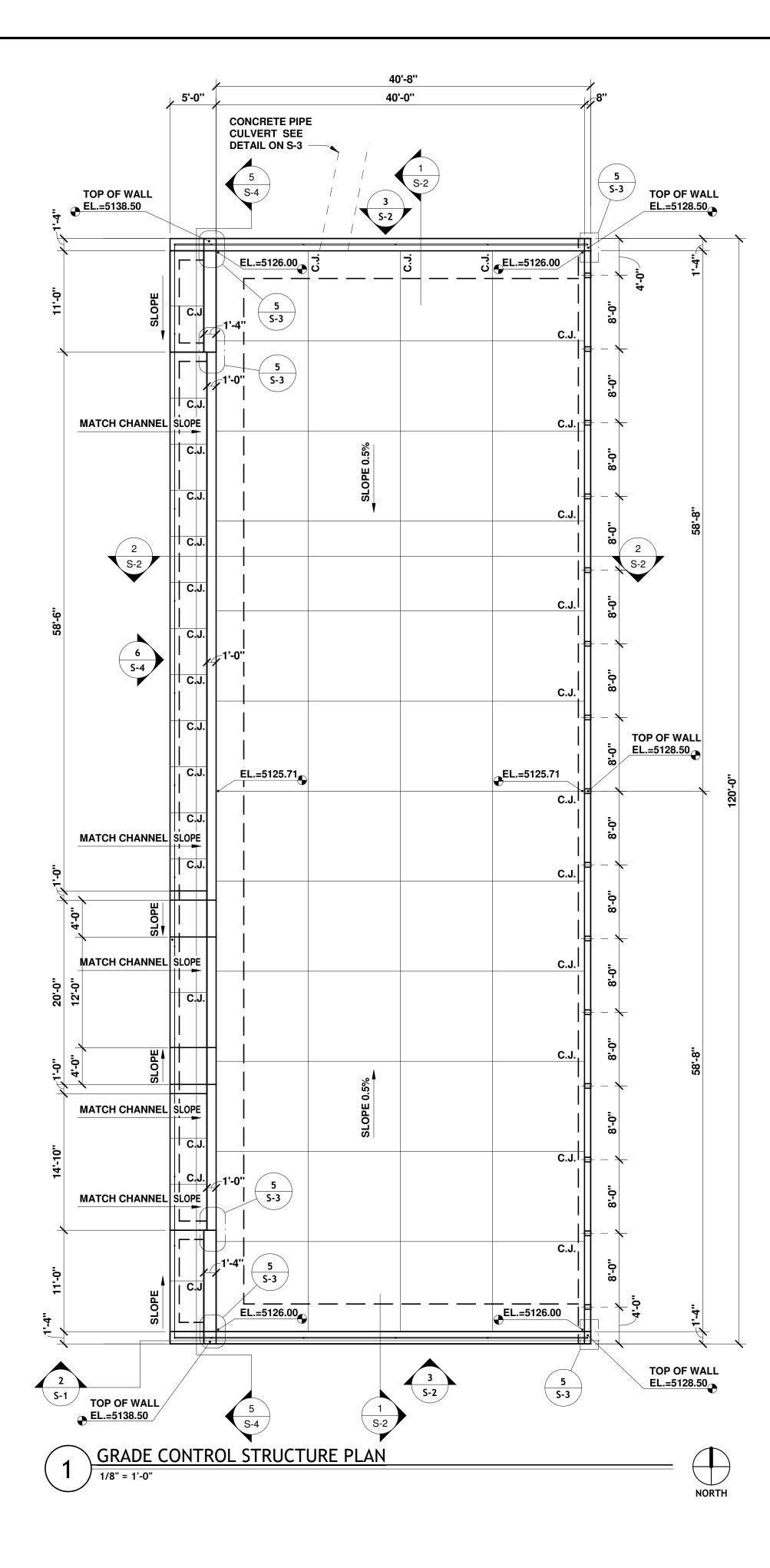
GRADE CONTROL STRUCTURE ELEVATION



GRADE CONTROL STRUCTURE 3D VIEW - FOR REFERENCE ONLY



GRADE CONTROL STRUCTURE 3D VIEW - FOR REFERENCE ONLY



SHEET NOTES:

- A. CONTROL (CONTRACTION) JOINTS SHALL BE PLACED TO PROVIDE A STONE WITH DIMENSIONS TO NOT EXCEED 1.5:1 (L:W). SEE 1 / S-3.
- B. FOR TYPICAL BAR BENDS, SEE 2 / S-3.
- C. FOR TYPICAL WALL JOINT DETAIL, SEE 3 / S-3.
- **D.** FOR LAP SPLICE SCHEDULE FOR CONCRETE REINFORCING, SEE **4** / **S-3**.
- E. CONTRACTOR TO PROVIDE CONCRETE JOINT LAYOUT FOR REVIEW PRIOR TO PLACEMENT OF CONCRETE.
- F. EXPANSION JOINTS SHALL BE PLACED AT ALL CHANGES IN GRADE AND AT LOCATIONS FOR ISOLATION AND NOT TO EXCEED 50-FEET IN SPACING.
- **G.** CONTRACTOR SHALL ALSO INDICATE WHERE PROPOSED CONSTRUCTION JOINTS ARE IN THE JOINT LAYOUT PLAN.

JUN PURIGO
CA EN WET SO
CHILIN PURIGRA
(\(24553) \\\\)
V / / 1 / 1 / 1 / 1 / 1 / 1
139th
(1000)
Con The Control of th
TOSIONAL ENGALT
1/3/22
1 - 1

			DATE
SSCAFCA RIO RANCHO, NM			REVISION DESCRIPTION

ATION, 3D VIEWS NO.

STRUCTURAL ADE CONTROL STRUCTURE PLAN, ELEVA

Vision for Tomorrow
2201 San Pedro Dr NE
Building 4, Suite 200
Albuquerque, NM 87110
Phone: 505-884-0700

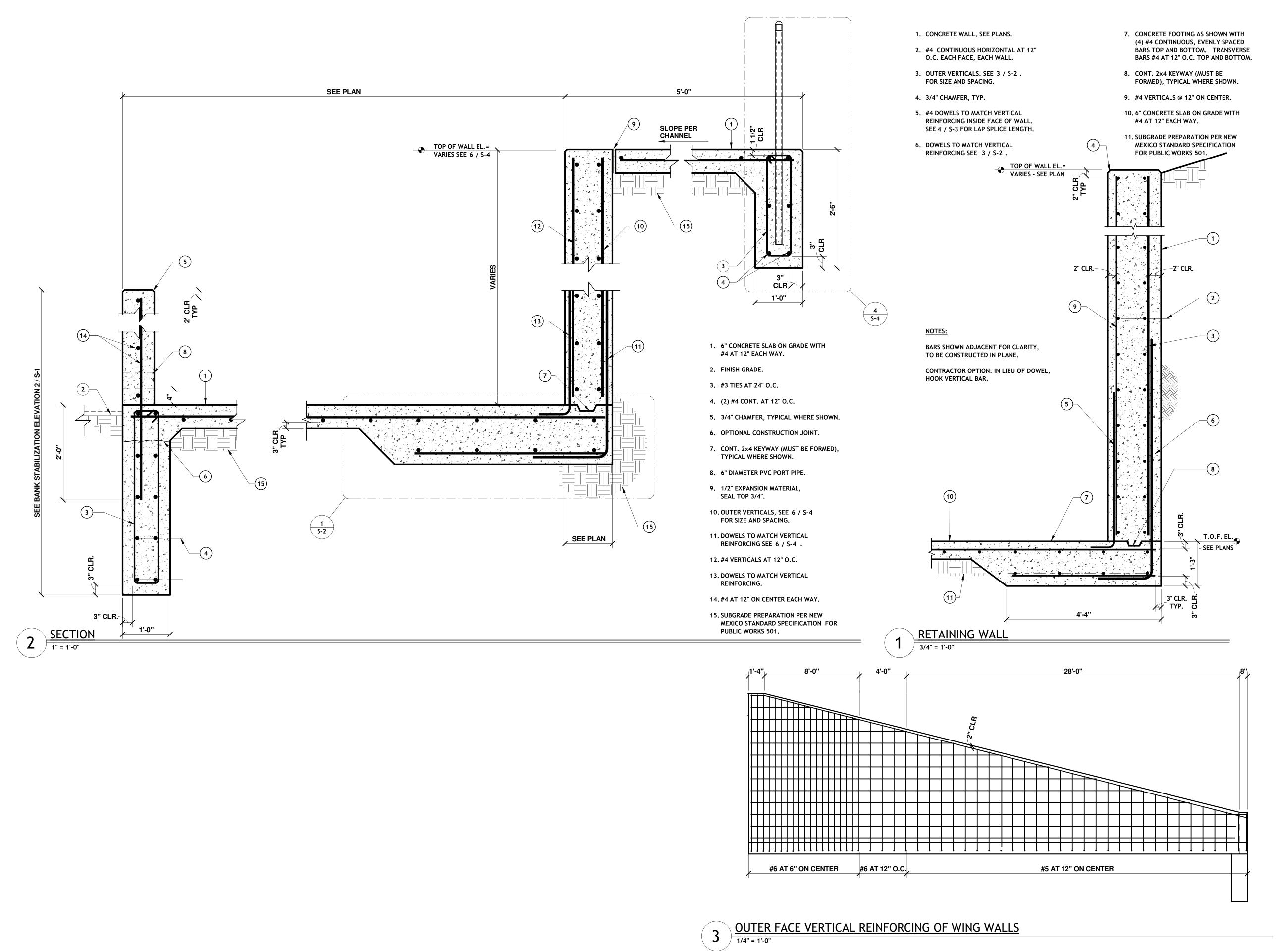
LOWER



THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT.

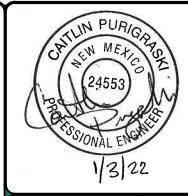
PROJECT NO: 119130-04 DATE: JANUARY 2022

SHEET NO:



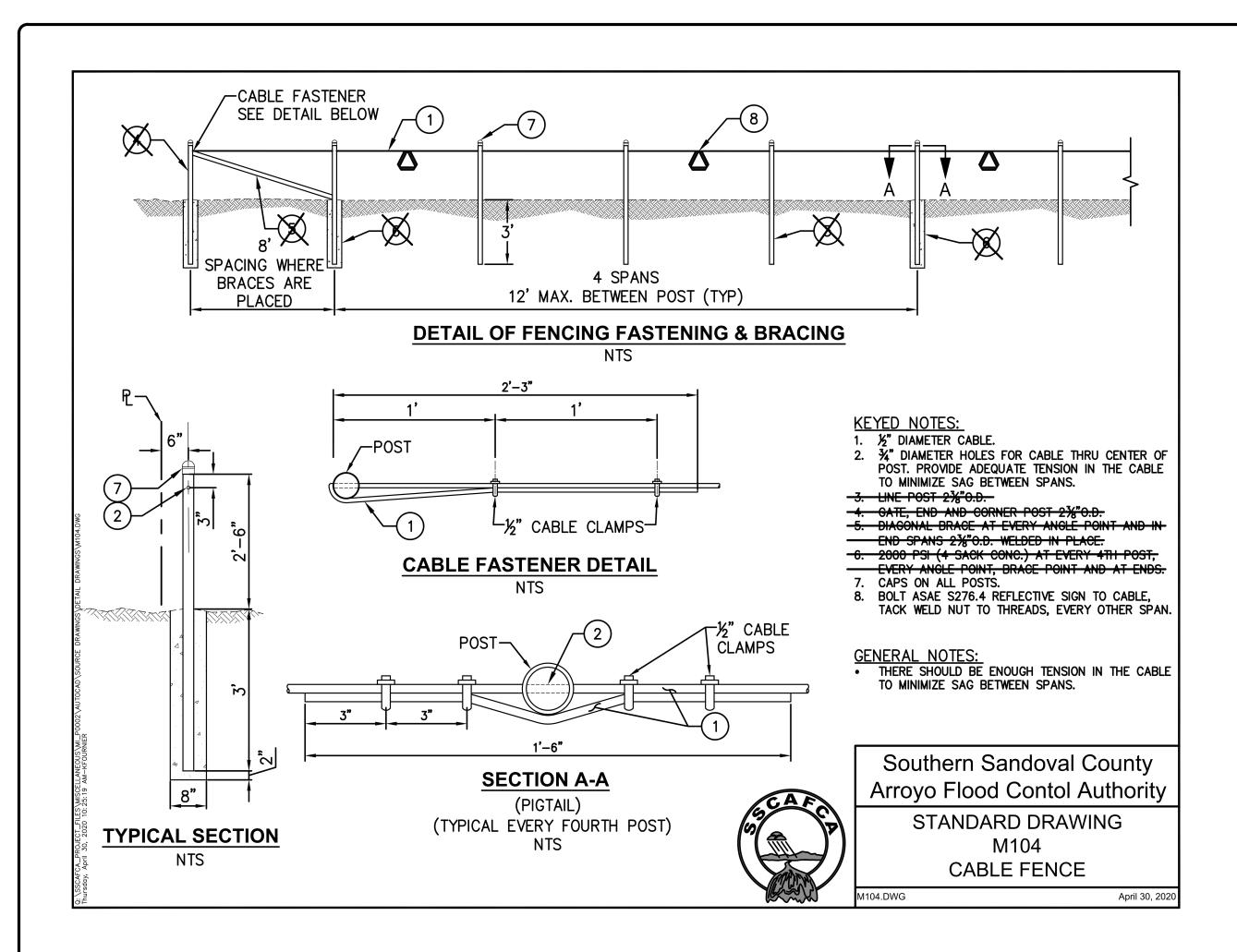
THIS CONTRACT ALLOWS THE OWNER TO MAKE **PAYMENT WITHIN 45 DAYS AFTER SUBMISSION** OF AN UNDISPUTED REQUEST FOR PAYMENT.

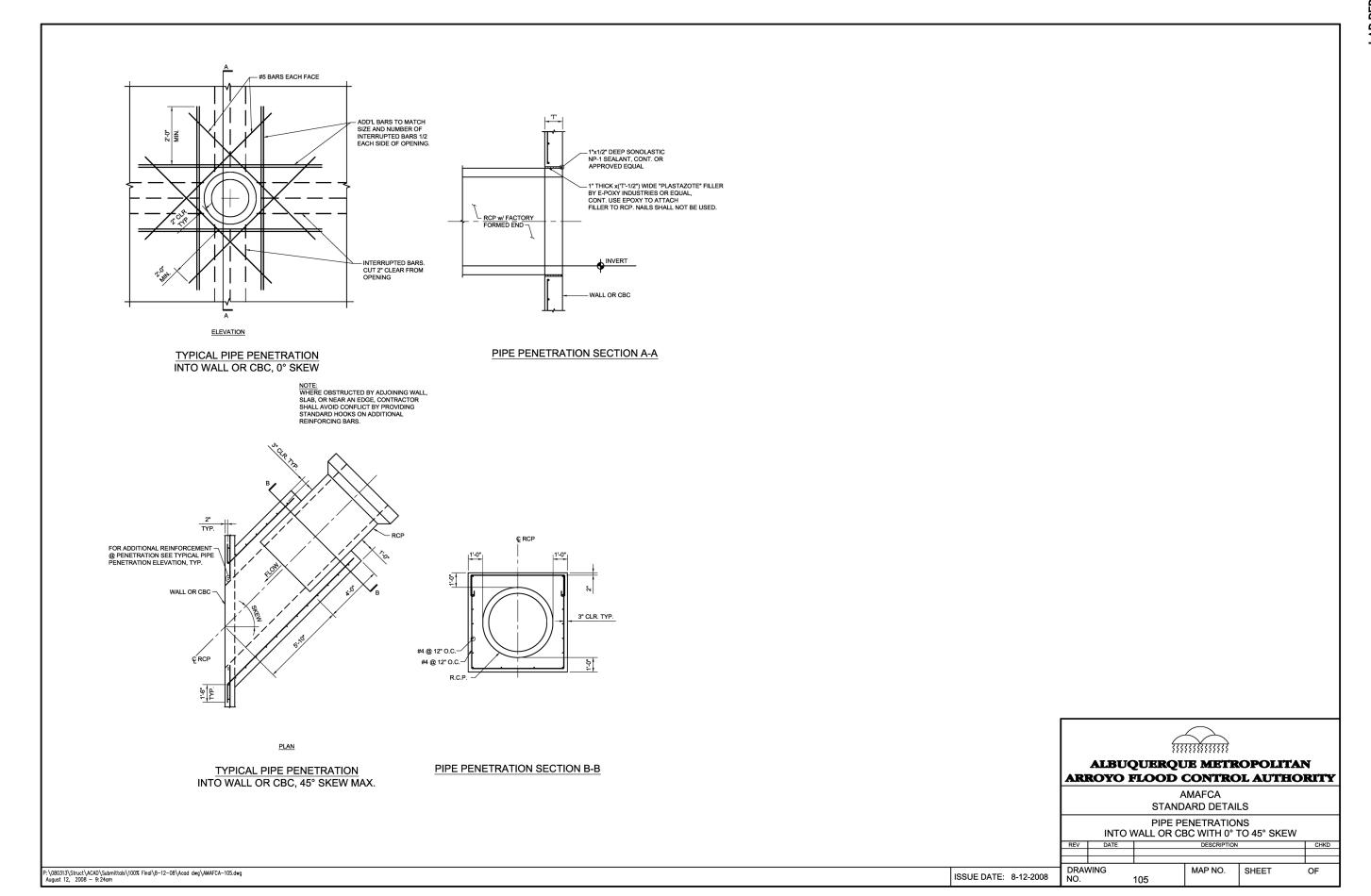
119130-04 JANUARY 2022 SHEET NO:

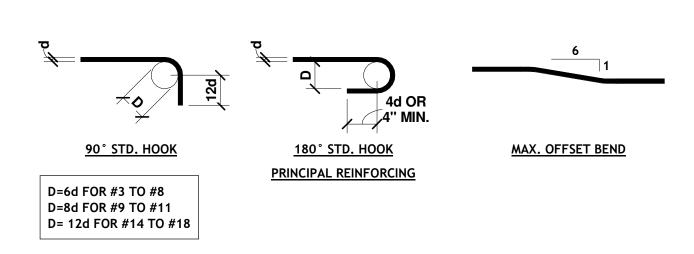


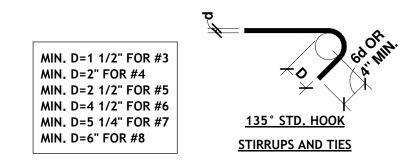
STRUCTURAL REINFORCEMEN LOWER







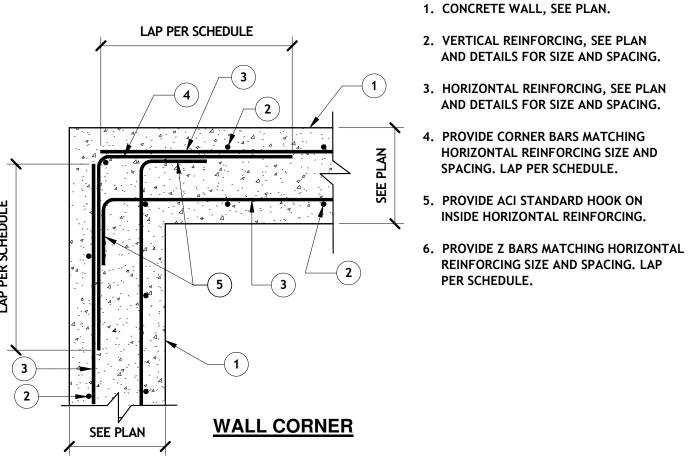


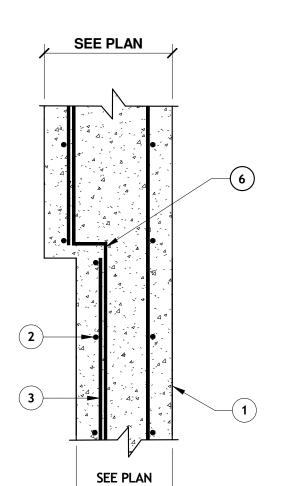


ALL BAR BENDS SHALL BE MADE COLD.

AND LAB APPROVED PRIOR TO BENDING.

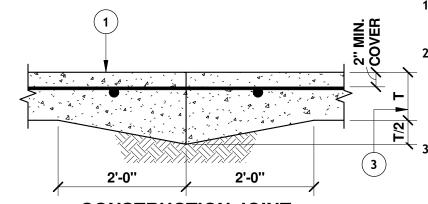
TYPICAL BAR BENDS





WALL TRANSITION

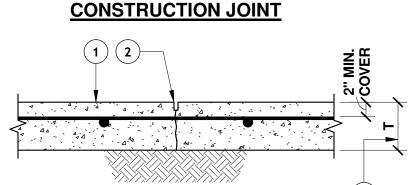
DETAIL AT CONCRETE WALL REINF



1. CONCRETE SLAB ON PREPARED SUBGRADE.

2. SAWCUT SLAB AFTER CONCRETE IS HARD ENOUGH TO AVOID SPALLING AND DAMAGE BUT NOT LATER THAN 12 HOURS AFTER CONCRETE PLACEMENT. DEPTH OF SAWCUT SHALL BE T/4.

→ 3. SEE PLANS FOR (T) SLAB THICKNESS.



SAW CUT JOINT

JOINTS TO BE NO MORE THAN 20'-0" O.C. (10'-0" O.C. #14 AND #18 BARS SHALL BE BEND TESTED WHEN LEFT EXPOSED). ASPECT RATIO OF PANEL LENGTH TO PANEL WIDTH NOT TO EXCEED 1.5.

TYPICAL CONTRACTION JOINT IN SLAB

1. CONCRETE WALL, SEE PLAN.

3. DISCONTINUE ALTERNATE HORIZONTA REINFORCEMENT AT JOINT.

2. 3/4" CHAMFER, TYPICAL BOTH SIDES.

A) TOP AND BOTTOM HORIZONTAL REINFORCEMENT TO BE CONTINUOUS

B) CONTROL JOINTS TO BE NO MORE THA 10'-0" O.C.. ASPECT RATIO OF PANEL LENGTH TO PANEL WIDTH NOT TO EXCEED 1.5.

C) PROVIDE A JOINT PLAN SHOWING ALL JOINT LOCATIONS.

D) CONSTRUCTION JOINTS SHALL BE AT PLANNED LOCATIONS AND MAY BE USED IN-LIEU OF A CONTROL JOINT.

CONSTRUCTION JOINT

4 4 4

TYPICAL WALL JOINT DETAIL

CONTROL JOINT

1. TABULATED VALUES ARE BASED ON GRADE 60 UNCOATED REINFORCING BARS. NORMAL WEIGHT CONCRETE AND MIN. COVER OF db WITH MIN. CLEAR SPACING OF 2db.

2. TENSION LAP SLICES ARE CALCULATED PER

3. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.

4. FOR GRADE 40 REINFORCING BARS **MULTIPLY THE TABULATED VALUES BY** 0.67 (12" MIN. LAP).

5. FOR LIGHT WEIGHT CONCRETE **MULTIPLY THE TABULATED VALUES BY**

6. ALL LAP SLICES ARE CLASS B SPLICES PER ACI 318.

LAP SPLICE LENGTHS	(IN.)

	LENGTHS (IN.)						
BAR SIZE	3000 PSI		4000 PSI		5000 PSI		
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	
#3	28	21	24	18	22	17	
#4	37	28	32	25	29	22	
#5	46	36	40	31	36	28	
#6	56	43	48	37	43	33	
#7	81	62	70	54	63	48	
#8	93	71	80	62	72	55	
#9	104	80	90	70	81	62	
#10	118	90	102	78	91	70	
#11	131	100	113	87	101	78	

LAP-SPLICE SCHED. FOR CONCRETE REINF'G

THIS CONTRACT ALLOWS THE OWNER TO MAKE **PAYMENT WITHIN 45 DAYS AFTER SUBMISSION** OF AN UNDISPUTED REQUEST FOR PAYMENT.

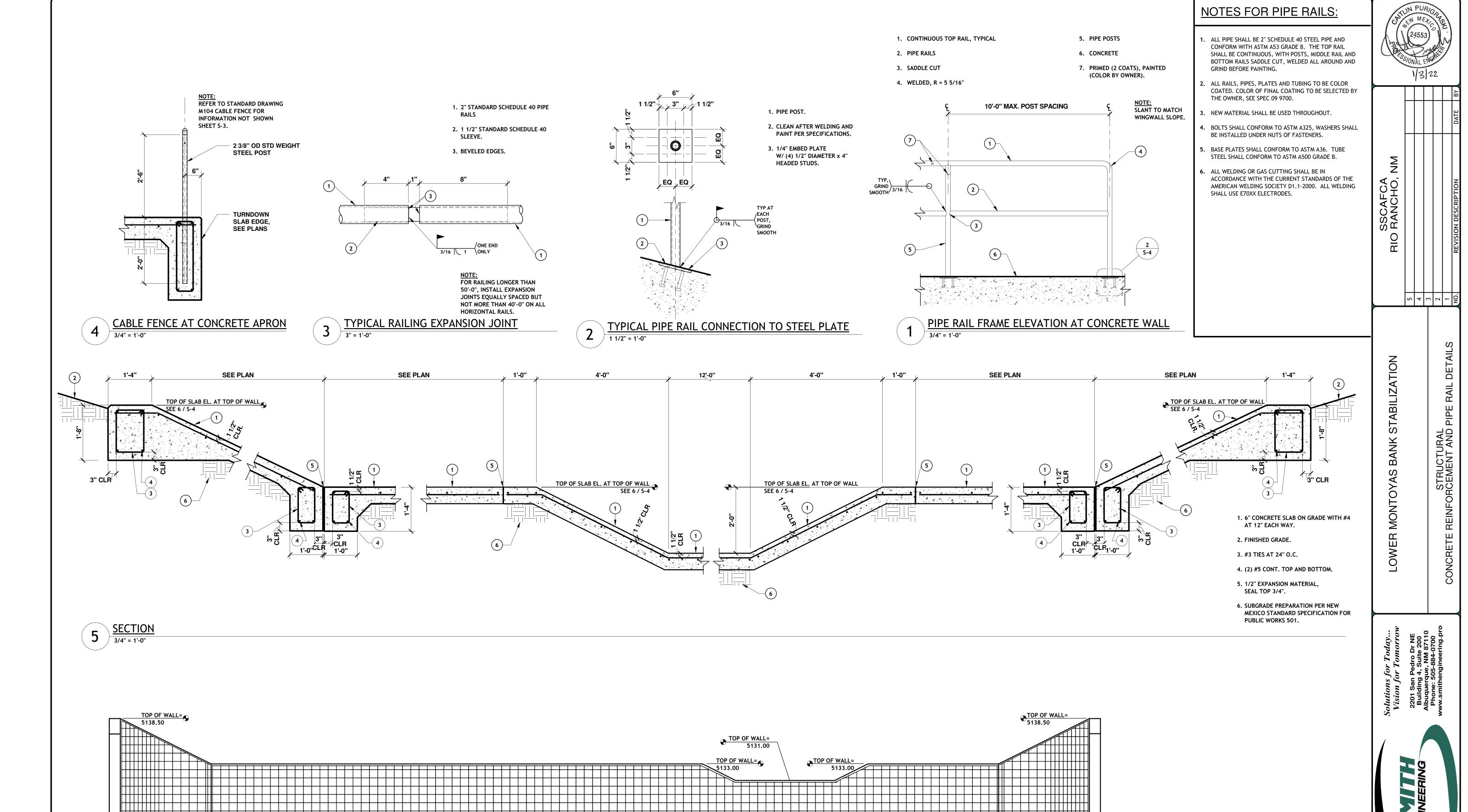
URAL AND

STRUCTI SCEMENT,

₩O.



JANUARY 2022



SLOPE

#4 AT 12" ON CENTER

SLOPE

OUTER FACE VERTICAL REINFORCING OF HEAD WALL

THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT.

119130-04 JANUARY 2022