

ATTACHMENT L
PROJECT PLANS

SHEET INDEX		
COVER SHEET	DWG	SHT
GENERAL NOTES SHEET	T1	1
ACCESS & STAGING SHEET	G1	2
DEMOLITION SHEET	G2	3
PLAN SHEET	G3	4
ROUGHENED CHANNEL PROFILE SHEET	C1	5
ROUGHENED CHANNEL CROSS SECTIONS SHEET	C2	6
DETAILS SHEET	C3	7
	D1	8

LEGEND	
	(E) TREES
	(E) PAVED ROAD
	(E) GRAVEL ROAD
	(E) CONTOURS (MAJOR)
	(E) CONTOURS (MINOR)
	(E) FENCE
	(E) EDGE OF WATER
	(E) BUILDINGS & STRUCTURES
	EARTHWORK
	CONSTRUCTION BASELINE
	PRESERVATION FENCE
	PRESERVATION FENCE WITH SILT BARRIER
	HORIZONTAL AND VERTICAL CONTROL POINT
	HORIZONTAL CONTROL POINT
	VERTICAL CONTROL POINT
	WORK AREA LIMIT



City of Pasadena
Department of Water and Power

CONSTRUCTION PLANS FOR
Arroyo Seco Canyon Project
Area 2 Diversion/Intake Replacement
MARCH 2020

PROJECT MANAGER

Elisa Ventura, PE

APPROVED BY:

XXXXXXXXXX, title (date)

XXXXXXXXXX, title (date)

XXXXXXXXXX, title (date)



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XXXXXXXXXXXXXXXXXXXXX (date)
XXXXXXXXXX REGISTERED
PROFESSIONAL ENGINEER NO. # XXXXXXXXX
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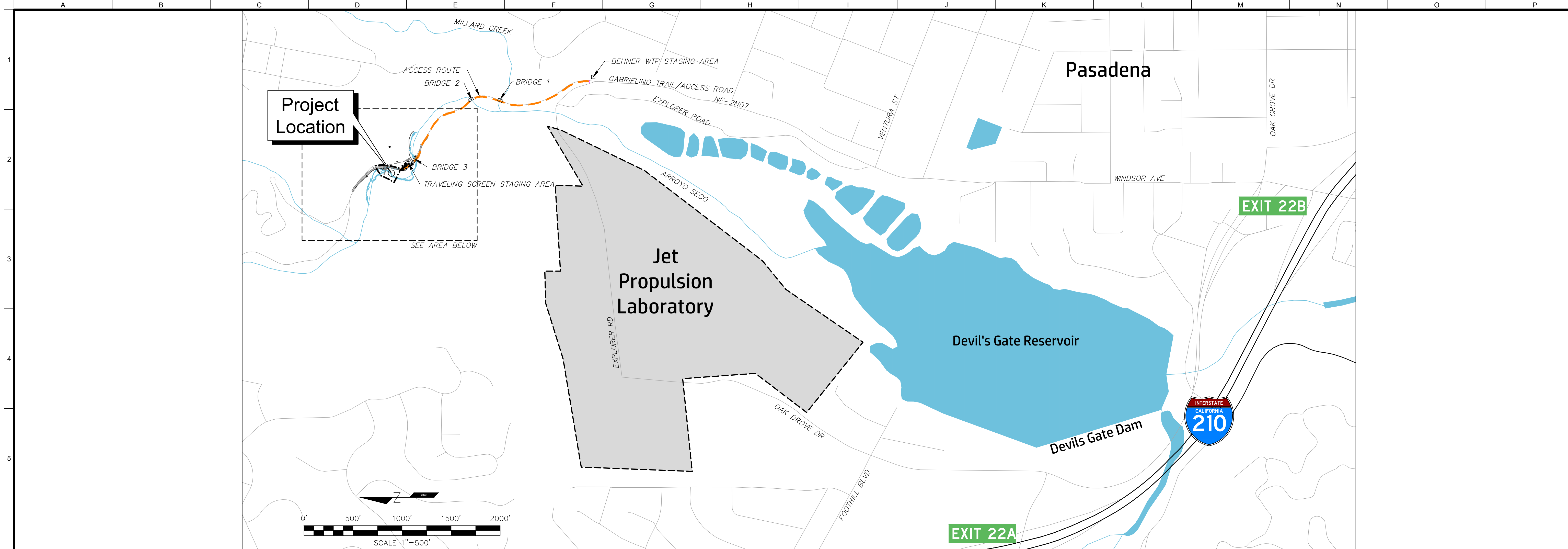
Project Location Map

Drawing Name ARROYO SECO COVER			Date 5 March 2020 11:00	
Drawing Status 65% Submittal	Designer tvs/gp	Drafter tvs	Checked eew	Job Number 6004878
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Sheet 1 of 8				T1
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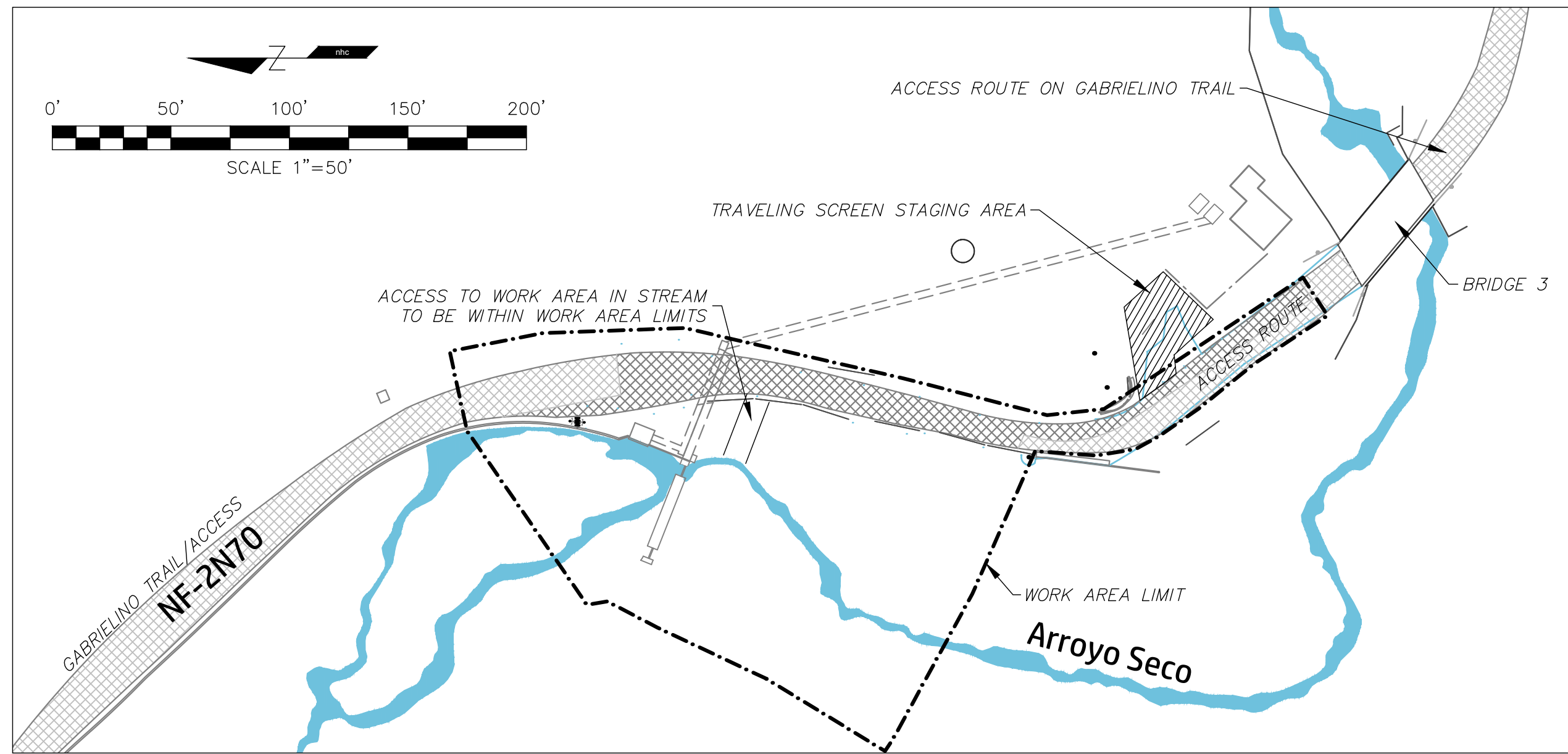
LAST SAVED BY: tshinkle LAST DATE SAVED: 03/05/2020 11:00
FILE LOCATION: P:\6004878-ARROYO_SECO\AC-6004878\DWG\ARROYO_SECO_COVER.DWG

GENERAL NOTES															
1. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE JOB SITE DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.															
2. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA) AT (800) 227-2600 (www.usanorth.org) PRIOR TO START OF ANY CONSTRUCTION.															
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AND AVOIDING DAMAGE TO UNDERGROUND UTILITIES. THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES AT LEAST 48 HOURS PRIOR TO EXCAVATION. ANY RELOCATIONS OR TEMPORARY OUTAGES SHALL BE COORDINATED WITH THE STATE. IF UTILITY CONFLICTS ARE IDENTIFIED, THE CONTRACTOR SHALL HALT ALL WORK IN THE AREA AFFECTED BY THE UTILITY CONFLICT AND SHALL IMMEDIATELY NOTIFY THE STATE. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY AND ALL DAMAGE TO EXISTING STRUCTURES AND UTILITIES DURING CONSTRUCTION.															
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING MONUMENTS AND ANY OTHER SURVEY MARKERS DURING CONSTRUCTION. ALL SUCH MONUMENTS OR MARKERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.															
5. THIS PROJECT IS SUBJECT TO REQUIREMENTS OF PERMITS ISSUED BY VARIOUS REGULATORY AGENCIES, INCLUDING THE US ARMY CORPS OF ENGINEERS, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, REGIONAL WATER QUALITY CONTROL BOARD. THE CONTRACTOR IS RESPONSIBLE TO UNDERSTAND AND PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMITS FROM ALL AGENCIES.															
6. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETING, SUBMITTING, AND ADHERING TO THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR CONSTRUCTION ACTIVITIES.															
7. TEMPORARY ISOLATION OF IN-STREAM WORK AND CONTROL OF WATER WILL BE REQUIRED. CONSTRUCTION OF WATER CONTROL AND ISOLATION FEATURES SHOWN IN THE PLANS ILLUSTRATES ONE POTENTIAL METHOD. OTHER METHODS MAY BE PROPOSED BY THE CONTRACTOR FOR APPROVAL BY THE STATE. CONTRACTOR SHALL SUBMIT A PLAN FOR CONTROL OF WATER, STREAM ISOLATION, AND DEWATERING, INCLUDING MAINTENANCE AND RELOCATION DURING CONSTRUCTION TO ACCOMMODATE GRADING ACTIVITIES. AT THE COMPLETION OF CONSTRUCTION, ALL MATERIALS USED FOR THE STREAM ISOLATION AND DEWATERING SYSTEMS SHALL BE COMPLETELY REMOVED. IF CONSTRUCTION EXTENDS OVER MORE THAN ONE SEASON, CONTRACTOR SHALL REMOVE TEMPORARY FACILITIES IN THE CREEK CHANNEL AND WINTERIZE THE SYSTEM AS PROVIDED IN THE SWPPP.															
8. EXISTING PRIVATE PROPERTY SHALL BE PROTECTED IN PLACE.															
9. EXISTING VEGETATION OUTSIDE THE WORK AREA LIMIT IS TO BE PROTECTED PER REQUIREMENTS OF THE AND SWPPP.															
10. CONTRACTOR WILL VERIFY AND CHECK EXISTING CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL VERIFY LOCATIONS, LEVELS, DISTANCES, AND FEATURES THAT MAY AFFECT THE WORK. SHOULD EXISTING CONDITIONS DIFFER FROM THOSE SHOWN OR INDICATED, CONTRACTOR SHALL NOTIFY THE STATE PRIOR TO CONTINUING WITH ANY RELATED WORK.															
11. ALL MATERIALS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.															
12. THE NORMAL WORK WEEK FOR CONSTRUCTION AT THE PROJECT SITE SHALL BE MONDAY THROUGH FRIDAY, 8:00AM TO 5:00PM, UNLESS OTHERWISE DIRECTED BY THE STATE. ALL WORK SHALL BE ACCOMPLISHED IN A MANNER THAT CAUSES MINIMAL DISRUPTION TO LOCAL RESIDENTS.															
13. A GEOTECHNICAL REPORT FOR THIS PROJECT WAS PREPARED AND IS PROVIDED FOR IN THE PROJECT MANUAL.															
14. SHOULD ARCHEOLOGICAL REMAINS OR ARTIFACTS BE ENCOUNTERED DURING ANY PHASE OF CONSTRUCTION, LAND ALTERATION WORK IN THE GENERAL VICINITY OF THE FINDS SHALL BE HALTED AND A QUALIFIED ARCHEOLOGIST AND THE STATE SHALL BE NOTIFIED IMMEDIATELY. WORK ON THE PROJECT SHALL NOT BE RESUMED UNTIL A MITIGATION PLAN WITH ADEQUATE MEASURES FOR SITE PROTECTION IS REVIEWED AND APPROVED BY THE STATE.															
15. CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL BY THE TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE FOR APPROVAL. ENCROACHMENT PERMITS FOR WORK OR STORAGE OF MATERIALS IN CITY RIGHTS OF WAY ARE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL COORDINATE WITH THE FOR CONTROL OF PUBLIC ACCESS TO THE SITE DURING CONSTRUCTION.															
16. CONTRACTOR SHALL PROVIDE A WATER TRUCK TO WATER AREAS AS NECESSARY TO CONTROL DUST. SOIL AND CONSTRUCTION MATERIAL SHALL NOT BE TRACKED OFF THE CONSTRUCTION SITE. SEE SHEET G3 AND PROJECT SPECIFICATIONS FOR WATER SUPPLY CONNECTIONS.															
17. ALL IN-WATER/IN-CHANNEL WORK SHALL BE COMPLETED BY OCT 1. ALL OTHER GRADING WORK AND SITE STABILIZATION SHALL BE COMPLETED BY OCT 15.															
18. AREAS THAT WILL BE INACTIVE BETWEEN OCTOBER 15 AND MAY 1 SHALL BE WINTERIZED IN ACCORDANCE WITH THE SWPPP, INCLUDING:															
1) TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED															
2) DISTURBED AREAS SHALL BE STABILIZED															
3) ONSITE CONSTRUCTION SLASH AND DEBRIS SHALL BE CLEANED UP AND REMOVED															
4) EXCESS MATERIAL SOIL SHALL BE REMOVED FROM THE SITE AND TRANSPORTED TO A DESIGNATED STOCKPILE OR DISPOSAL AREA.															
5) TEMPORARY IRRIGATION FACILITIES, IF INSTALLED, SHALL BE REMOVED OR WINTERIZED.															
19. THE PROJECT BASE MAP WAS PRODUCED FROM AND FIELD SURVEY ACTUAL TOPOGRAPHY IS SUBJECT TO MINOR DEVIATIONS FROM THE GRADES SHOWN, AND CHANNEL CHANGES MAY OCCUR BETWEEN THE TIME OF FINAL PLANS AND BEGINNING OF CONSTRUCTION. THE STATE WILL PROVIDE FIELD DIRECTION FOR ADJUSTMENTS IN PROJECT FEATURES, LINES, AND GRADES TO FIT ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION.															
20. ALL ELEVATIONS SHOWN ARE IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). LOCAL CONVERSION FROM TO NAVD88 IS +2.88 FEET.															
23. APPLICABLE BUILDING CODES: 2016 CALIFORNIA BUILDING CODE, CCR TITLE 24, PART 2, VOLUME 1 OF 2 (BASED ON THE 2015 IBC).															
TYPICAL ABBREVIATIONS															
ABAN ABANDONED EA EACH MH MANHOLE SS SANITARY SEWER															
& AND E EAST MAX MAXIMUM S SOUTH															
∠ ANGLE EG EXISTING GROUND MI MILES SD STORM DRAIN															
AB AGGREGATE BASE EL ELEVATION MIN MINIMUM SF SQUARE FEET															
ABA ARCHITECTURAL BARRIERS ACT ELEC ELECTRIC MM MILLIMETER SHT SHEET															
AC ASPHALT CONCRETE EP EDGE OF PAVEMENT MPH MILES PER HOUR SLP SLOPE															
ADA AMERICANS WITH DISABILITIES ACT ESM ENGINEERED STREAMBED MATERIAL N SPEC SPECIFICATION															
AIS AQUATIC INVASIVE SPECIES EW EDGE OF WATER N NORTH SQ SQUARE															
ALT ALTERNATIVE EX EXISTING # NUMBER SRL SMALL ROOTWAD LOG															
APN ASSESSOR PARCEL NUMBER F # NOT EQUAL SSTL STAINLESS STEEL															
APPROX APPROXIMATE FT FEET NA NOT APPLICABLE STA STATION															
ASCII AMERICAN STANDARD CODE FG FINISHED GROUND NE NORTHEAST STD STANDARD															
ASPH ASPHALT FH FIRE HYDRANT NTS NOT TO SCALE STL STEEL															
AUX AUXILIARY FIG FIGURE NW NORTHWEST SWPPP STORM WATER POLLUTION PREVENTION PLAN															
B FL FLOW LINE O SYM SYMBOL															
BL BASELINE G O.C. ON CENTER T															
BLK BLOCK GAL US GALLONS OH OVERHEAD TEMP TEMPORARY															
BM BENCHMARK GALV. GALVANIZED OPT OPTIONAL TBC TOP BACK OF CURB															
BMP BEST MANAGEMENT PRACTICE GB GRADE BREAK P TBM TEMPORARY BENCH MARK															
BOT BOTTOM GL GUTTER LIP P PROTECT (MAY BE PRUNED) TC TOP OF CONCRETE															
C GND GROUND ± PLUS/MINUS TKPOA TAHOE KEYS PROPERTY OWNERS ASSOCIATION															
C COTTONWOOD GPM US GALLONS PER MINUTE LB POUND TOE TOE OF SLOPE															
CF CUBIC FEET H PC PILOT CHANNEL TOP TOP OF SLOPE															
CFS CUBIC FEET PER SECOND HAZ HAZARDOUS PE POLYETHYLENE TP TOP OF PAVEMENT															
CLR CLEAR H/V HORIZONTAL/VERTICAL PERF PERFORATED TRPA TAHOE REGIONAL PLANNING AGENCY															
CM CENTIMETER HORIZ HORIZONTAL PERP PERPENDICULAR TSOM TOPSOIL, SOD, ORGANIC MATERIAL															
CMP CORRUGATED METAL PIPE HP HORSEPOWER PROP PROPERTY TW TOP OF WALL															
CONC CONCRETE HWL HIGH WATER LEVEL PSF POUNDS PER SQUARE FOOT TYP TYPICAL															
CONN CONNECTION I PSI POUNDS PER SQUARE INCH U															
CONT CONTINUOUS IN INCHES PT POINT UNK UNKNOWN															
CP CONTROL POINT INTX INTERSECTION PVC POLYVINYL CHLORIDE PIPE UNO UNLESS NOTED OTHERWISE															
CRNR CORNER INV INVERT PVMT PAVEMENT UTIL UTILITY															
CTC CALIFORNIA TAHOE CONSERVANCY ISA INTERNATIONAL SYMBOL OF ACCESSIBILITY Q UTM UPPER TRUCKEE MARSH															
CTR CENTER J QTY QUANTITY UTR UPPER TRUCKEE RIVER															
CULV CULVERT JCT JUNCTION R RADIUS V															
CY CUBIC YARDS JP JEFFREY PINE R RADIUS VB VALVE BOX															
¢ CENTERLINE L RB RIGHT BANK VEL VELOCITY															
° DEGREES LB LEFT BANK RC ROSE/CURRANT CLUMP VOL VOLUME															
LF LINEAR FEET RC RELATIVE COMPACTION W															
ø DIAMETER LO LOG ONLY REF REFERENCE WC WILLOW CLUMP															
DG DECOMPOSED GRANITE LOC LOCATION REL RELATIVE W WEST															
DI DRAIN INLET LP LODGEPOLE PINE REQ REQUIRED W/O WITHOUT															
DIA DIAMETER LRL LARGE ROOTWAD LOG REV REVISION WSEL WATER SURFACE ELEVATION															
DWG DRAWING LT LEFT RGB RED GREEN BLUE Y															
Δ DELTA LVL LEVEL RT RIGHT YR YEAR															
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PRELIMINARY NOT FOR CONSTRUCTION															
Arroyo Seco Canyon Project Area 2 Diversion/Intake Replacement General Notes Sheet															
Job Number 6004878 Sheet Number G1															
Sheet 2 of 8															

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- NOTES
1. BRIDGE #1 AND BRIDGE #3 ARE TEMPORARY STRUCTURES WITH A 12'-WIDE DRIVE WIDTH AND HS-20 LOAD RATINGS.
 2. BRIDGE #2 IS A HISTORICAL STRUCTURE TO BE PROTECTED WITH A 58,000 LB LOAD LIMIT.



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Revisions			Drawing Information	
No.	Date	Description	Date	
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			Designer	PRELIMINARY
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			Checked	tvsg
			File Name	eew
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				0 1/2 1

Arroyo Seco Canyon Project
Area 2 Diversion/Intake Replacement
Access & Staging Sheet

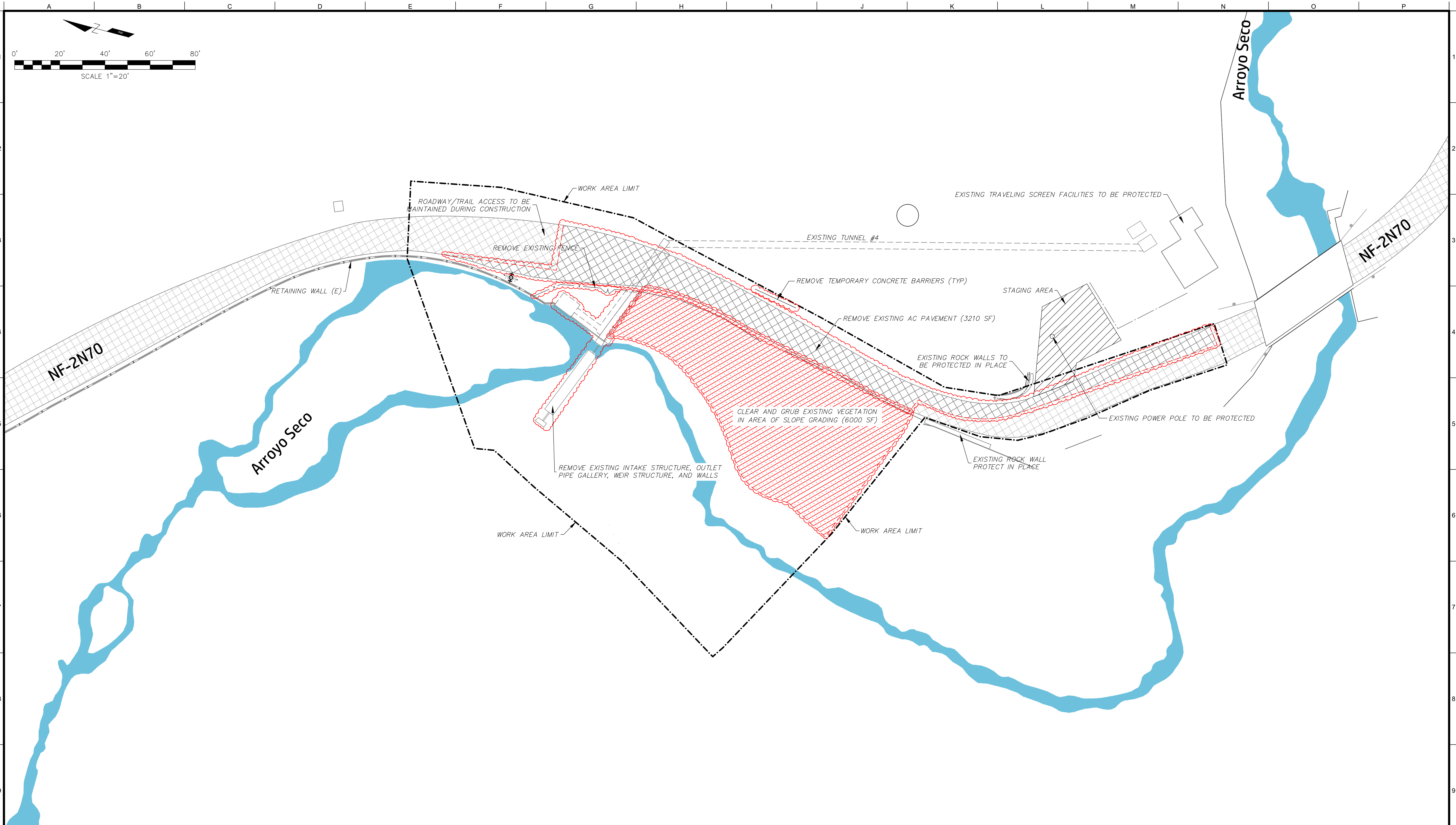
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Sheet Number

G2

Sheet 3 of 8

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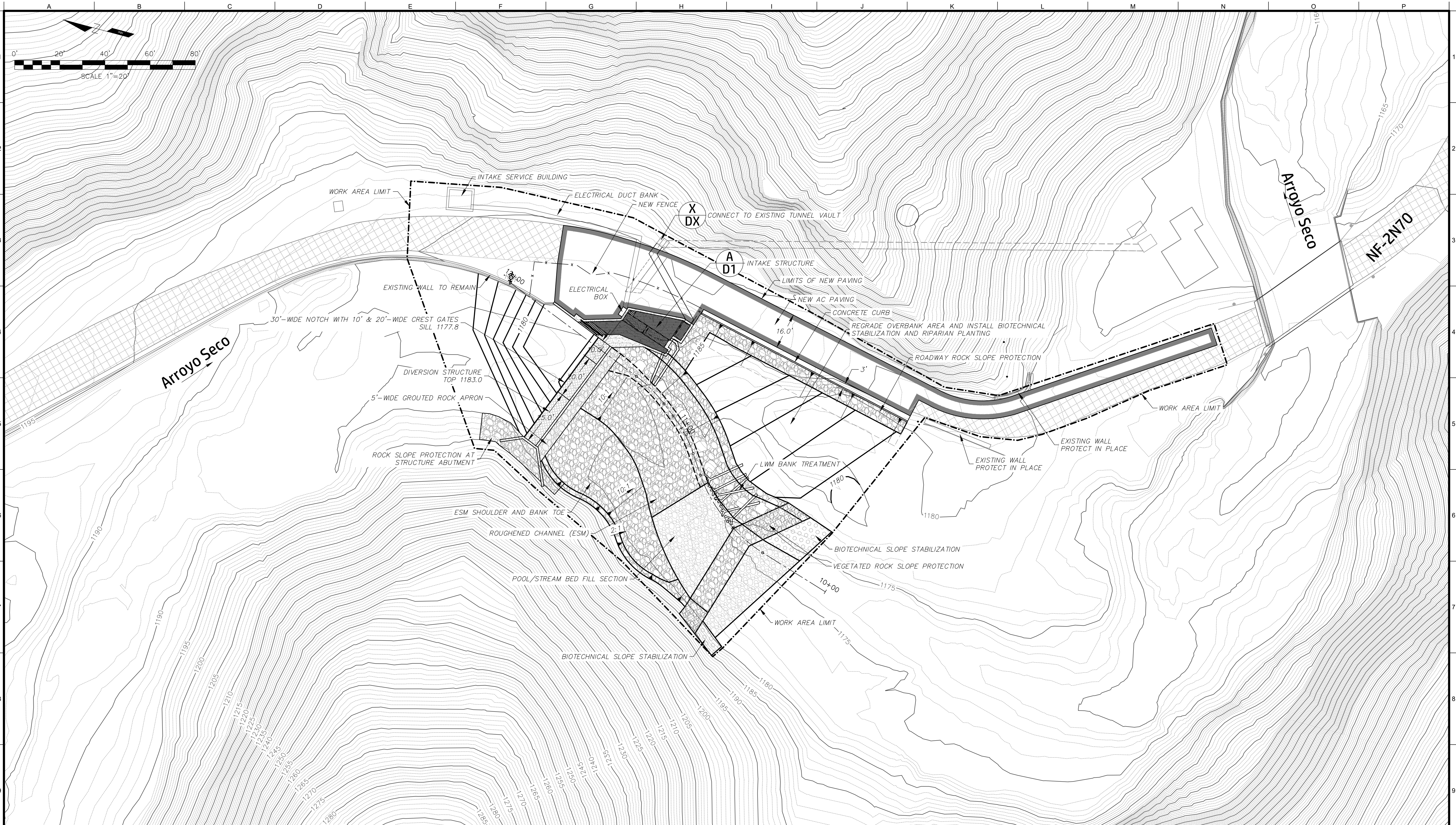
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			Plotted Scale	

Arroyo Seco Canyon Project
Area 2 Diversion/Intake Replacement
Demolition Sheet

Job Number
6004878
Sheet Number
G3
Sheet 4 of 8

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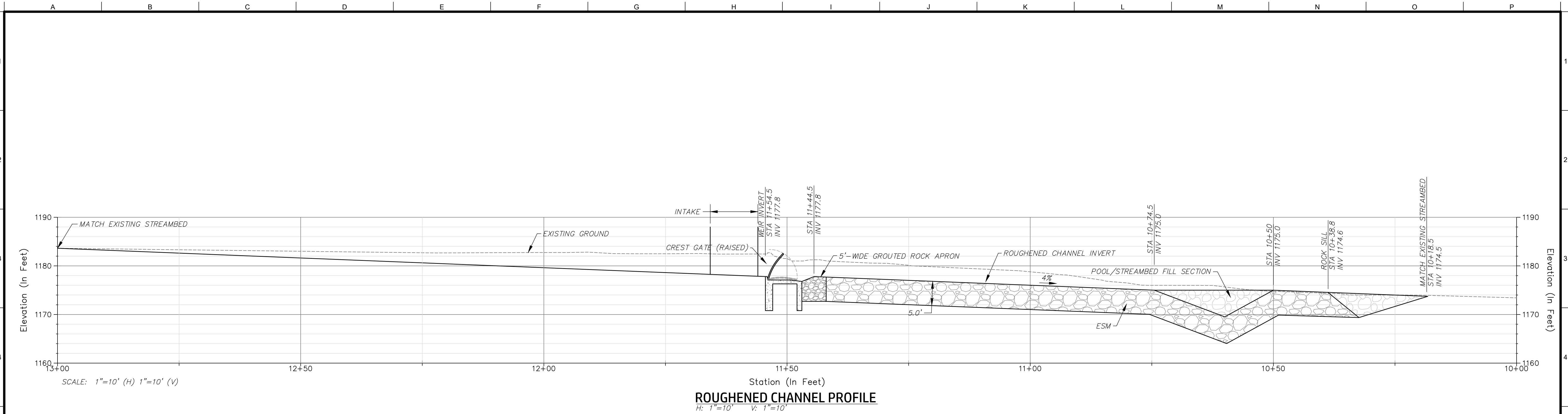
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Arroyo Seco Canyon Project
Area 2 Diversion/Intake Replacement
Site Plan Sheet

Job Number
6004878
Sheet Number
C1
Sheet 5 of 8

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Arroyo Seco Canyon Project
Area 2 Diversion/Intake Replacement
Roughened Channel Profile Sheet

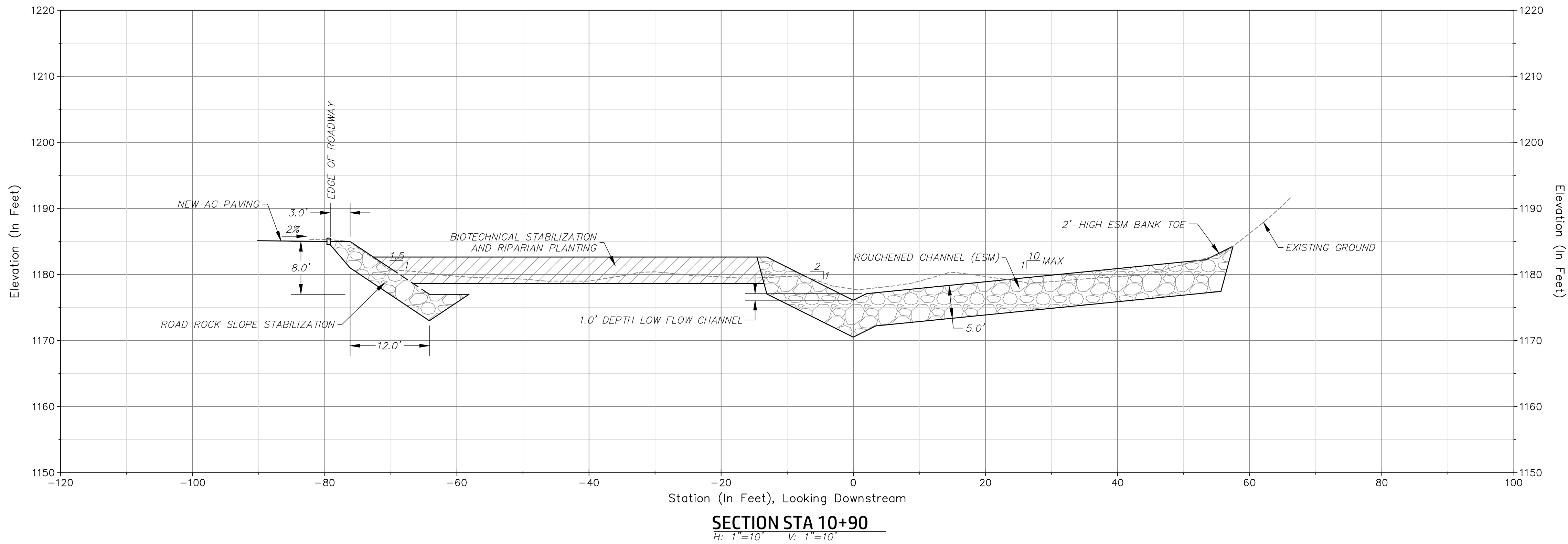
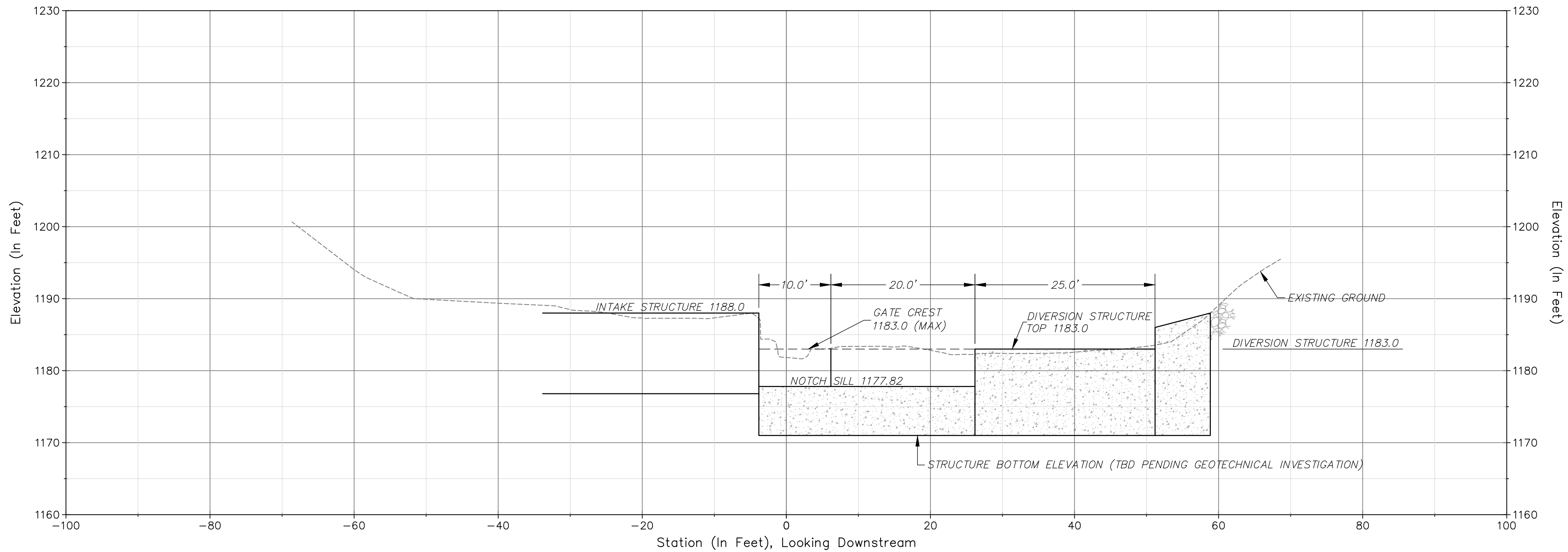
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Sheet 6 of 8

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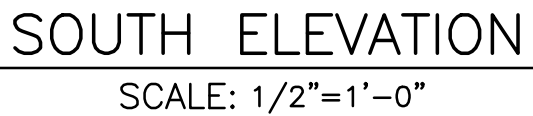
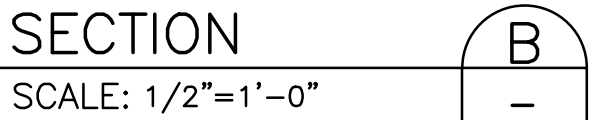
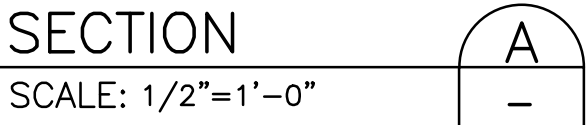
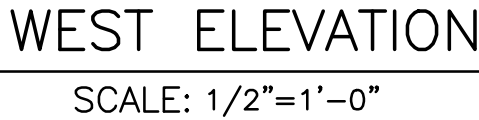
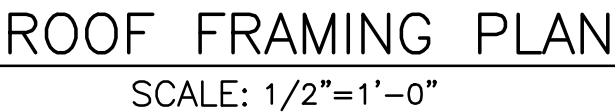
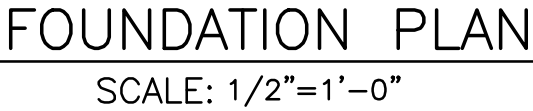
Arroyo Seco Canyon Project
Area 2 Diversion/Intake Replacement
Roughened Channel Cross Sections Sheet

Job Number
6004878

Sheet Number

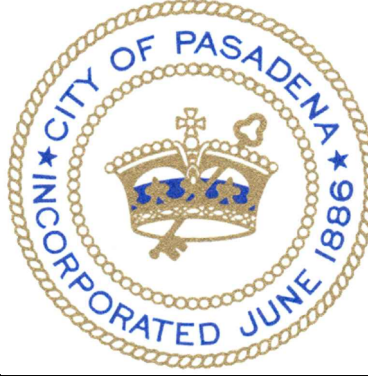
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Sheet 7 of 8



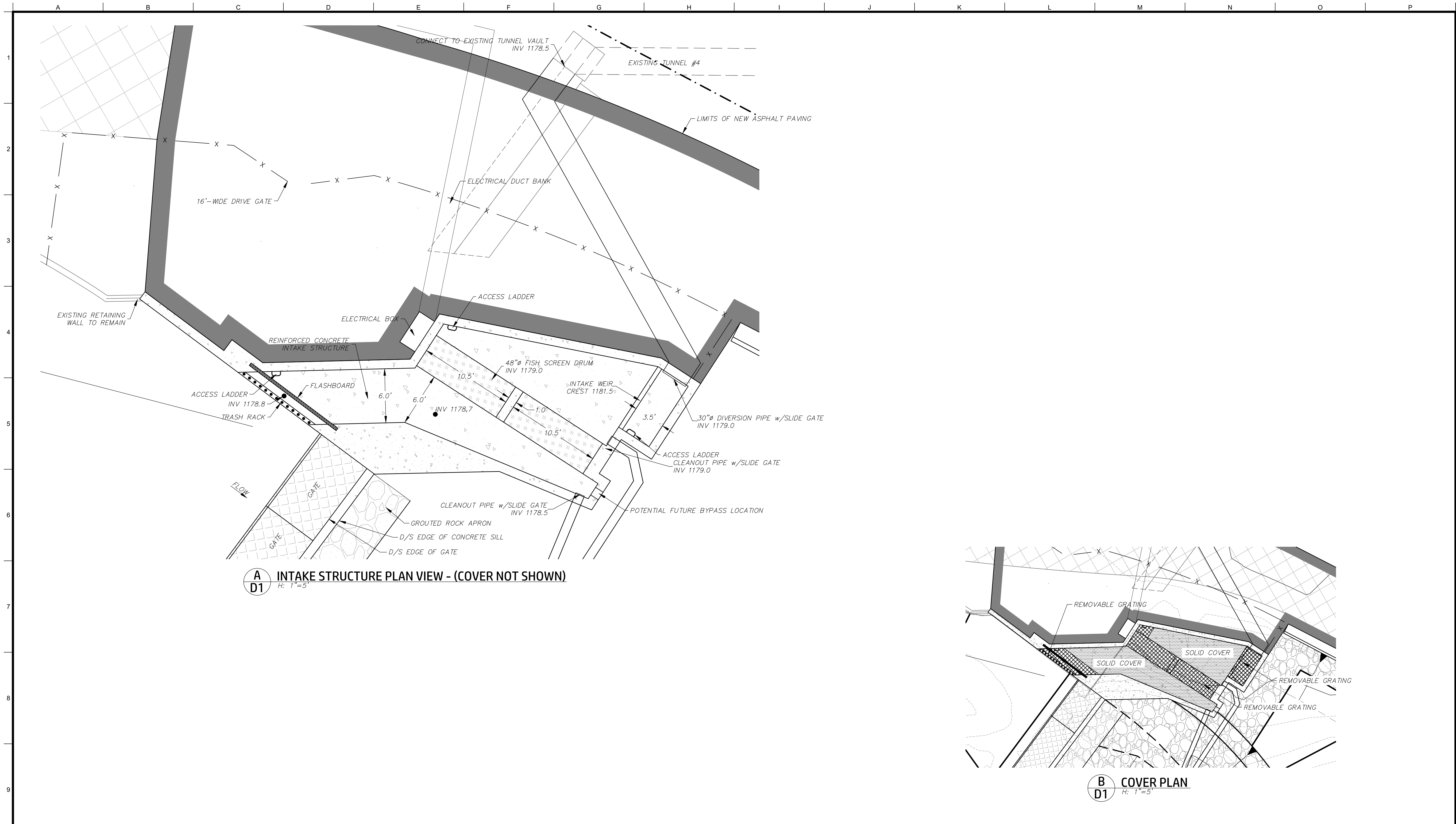
- NOTES:**
1. STONE MASONRY SHALL BE SOURCED ON SITE FROM INTAKE EXCAVATION.
 2. SEE MECHANICAL DRAWINGS FOR CONDUIT LOCATIONS AND EQUIPMENT ANCHORAGE.
 3. 2-2" DIA VENT HOLES EACH BLOCK.
 4. SEE GENERAL STRUCTURAL NOTES FOR INFORMATION NOT SHOWN

APPROVED BY: _____	
NAME _____	PE # _____
APPROVED: _____	
_____	DATE _____
APPROVED: _____	
_____	DATE _____



D.S.-206 TO 209											
DATE APRIL 2017		SCALE AS SHOWN		PASADENA WATER & POWER CITY OF PASADENA ARROYO SECO CANYON PROJECT AREA 2 - INTAKE SERVICE BUILDING				SHEET NO. OF XX SHEETS			
DRAWN BY _____		PDH _____						WORK ORDER 03055		FILE NUMBER 02S-05	
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CHECKED BY _____		JRE _____									
SUBMITTED BY _____		_____									
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Arroyo Seco Canyon Project
Area 2 Diversion/Intake Replacement
Details Sheet

Job Number
6004878
Sheet Number

D1

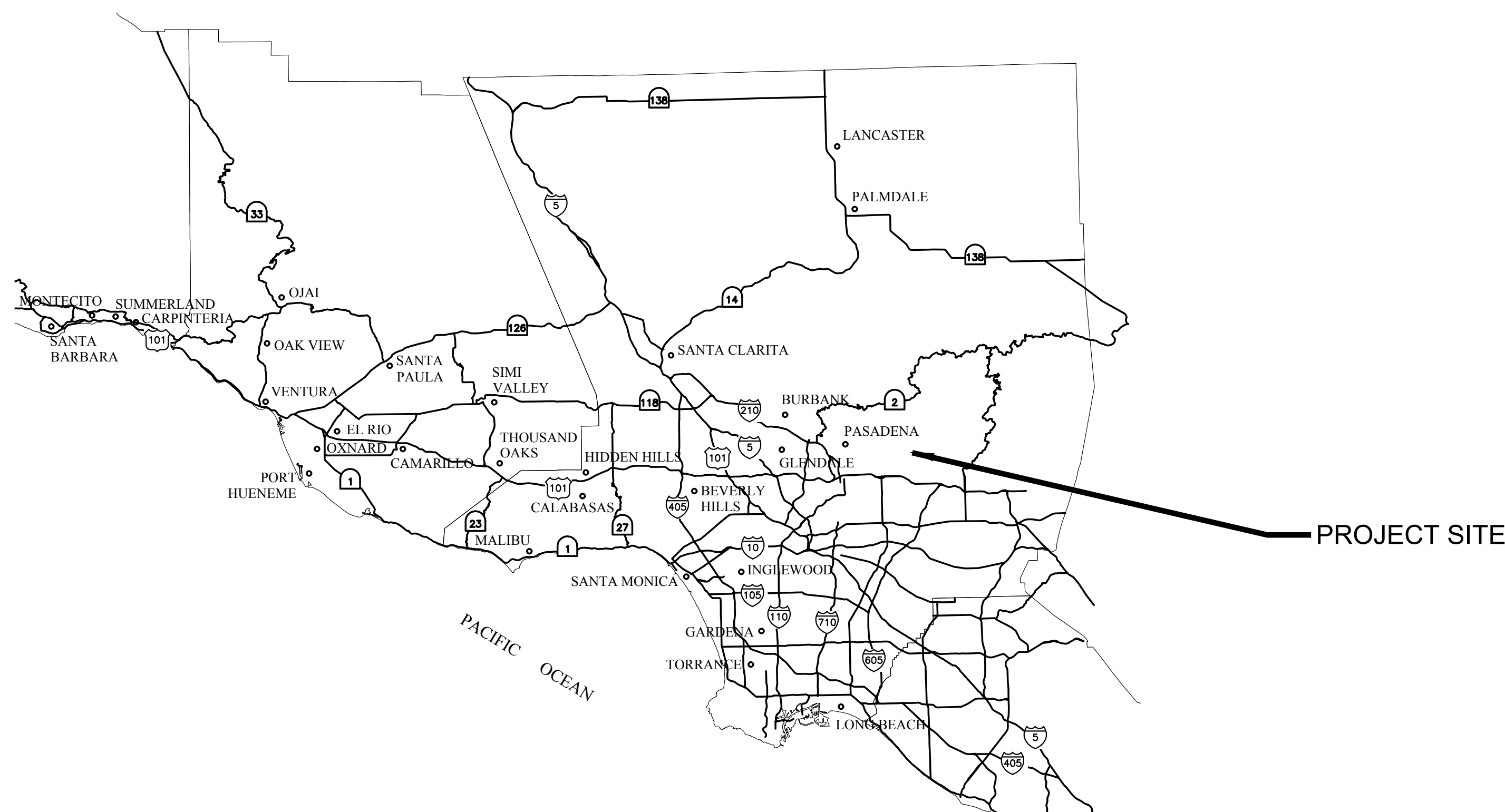
Sheet 8 of 8

PASADENA WATER & POWER

ARROYO SECO CANYON PROJECT, AREA 3



PRELIMINARY SUBMITTAL



LOCATION MAP
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

G-1

REVISIONS					
NO.	DESCRIPTION	DATE	NO.	DESCRIPTION	DATE

APPROVED BY:	PE #
NAME	
APPROVED:	DATE
	DATE

DUDEK
3685 Main Street, Suite 250
Riverside, CA 92501
951.300.2100 Fax 951.300.2105

9/21/20
DATE

CHARLES H. GREELY R.C.E. No. 69056



D.S. - TO		SCALE		PASADENA WATER & POWER CITY OF PASADENA		SHEET NO 1 OF 13 SHEETS	
DATE	Month YEAR	AS SHOWN		ARROYO SECO CANYON PROJECT, AREA 3		WORK ORDER	FILE NUMBER
DRAWN BY				TITLE SHEET			
DESIGNED BY				VICINITY MAP & LOCATION MAP			
CHECKED BY							
SUBMITTED BY							
FIELD BOOKS	CALC BOOKS	APPROVED	APPROVED	REVISION			

\\dudek.in\data\Projects\101.Engineering\Pasadena, City of\12517 - PWP - Arroyo Seco Canyon\6-CAD\12517 Arroyo Seco Canyon.dwg 9/21/2020 1:14 PM

GENERAL NOTES

1. THESE PLANS AND SPECIFICATIONS REPRESENT THE DESIGN INTENT OF THE ENGINEER, AS APPROVED BY THE OWNER, CITY OF PASADENA. THE CONTRACTOR IS RESPONSIBLE FOR ALL ITEMS SHOWN ON THESE PLANS AND SPECIFICATIONS AND SHALL BE RESPONSIBLE FOR ANY DEVIATIONS FROM THESE PLANS AND ASSOCIATED RISK AND EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A COPY OF THE APPROVED PLANS AND SPECIFICATIONS AND ANY ADDENDA AT THE JOB SITE AT ALL TIMES. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY CITY OF PASADENA OF ANY UNFORESEEN CIRCUMSTANCES OR CONDITIONS THAT WOULD ALTER THESE PLANS AND SPECIFICATIONS FOR APPROVAL OF MODIFICATIONS TO THE INTENDED DESIGN.
2. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING FACILITIES AND UTILITIES SHOWN OR NOT SHOWN WHICH ARE TO REMAIN IN PLACE FROM DAMAGE. ALL FACILITIES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE EXPEDITIOUSLY REPAIRED OR RECONSTRUCTED TO THE CITY'S SATISFACTION AT THE CONTRACTOR'S EXPENSE WITHOUT ADDITIONAL COMPENSATION.
3. PROVIDE A MINIMUM OF 42 INCHES COVER ON ALL PIPELINES UNLESS OTHERWISE NOTED OR DIRECTED. INSTALL ALL PIPING AND PAVEMENT PER CITY OF PASADENA STD. PLAN S-407.
4. STRAIGHT ALIGNMENT AND UNIFORM SLOPES OF PIPES SHALL BE MAINTAINED BETWEEN INVERTS SHOWN. EXISTING UTILITIES SHALL BE VERIFIED IN ADVANCE OF PIPELINE PLACEMENT. CITY SHALL BE NOTIFIED IMMEDIATELY OF ANY EXISTING UTILITIES AFFECTING PIPELINE ALIGNMENT OR SLOPE.
5. ADJUST ALL VALVE BOXES, VAULTS, PULL BOXES AND MANHOLES TO FINISHED GRADE UNLESS OTHERWISE SHOWN OR DIRECTED.
6. ALL DEBRIS FROM DEMOLITION TO BE DISPOSED OF PROPERLY OFFSITE. ANY SALVAGEABLE MATERIALS OR EQUIPMENTS SHALL BE THE PROPERTY OF THE CITY AND MOVED TO THE CITY OF PASADENA WATER AND POWER MAINTENANCE YARD.
7. CONTRACTOR SHALL PROVIDE A STORM WATER POLLUTION CONTROL PLAN (PREPARED BY A CALIFORNIA REGISTERED CIVIL ENGINEER) FOR WORK DURING CONSTRUCTION CONFORMING TO THE NPDES PERMIT REQUIREMENTS.
8. THE CONTRACTOR SHALL SHORE, SUPPORT AND PROTECT EXISTING STRUCTURES AND FACILITIES IN ACCORDANCE WITH SECTION 02260.
9. WHERE REPLACING EXISTING PAVEMENT, MATCH EXIST GRADE AT EXISTING STRUCTURES AND BUILDINGS, EXCEPT WHERE NOTED OTHERWISE.
10. CONTRACTOR SHALL USE MECHANICAL RESTRAINT SYSTEMS, NOT THRUST BLOCKS, UNLESS NOTED OTHERWISE.
11. ALL EXISTING VALVES TO BE OPERATED BY CITY PERSONNEL ONLY. NOTIFY CITY 24 HOURS PRIOR TO NEED FOR VALVE OPERATION.
12. FOR CONNECTIONS TO EXISTING PIPES, CUT EXISTING PIPES SQUARE AND REPAIR ANY DAMAGE TO THE EXISTING LINING AND COATING.
13. ALL PIPE DIAMETERS ARE NOMINAL ID.
14. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION SURVEYING AND STAKING. VERIFY ALL EXISTING HORIZONTAL AND VERTICAL INFORMATION PRIOR TO DOING ANY WORK.
15. CONTRACTOR SHALL WORK WITHIN LIMITS OF WORK.
16. ALL TRENCHING AND BACKFILL SHALL BE IN ACCORDANCE WITH CONTRACT DOCUMENTS.
17. ALL ABOVE GROUND PIPING SHALL BE SUPPORTED WHETHER EXPLICITLY NOTED OR NOT. PROVIDE PIPE SUPPORTS EVERY 2 FT UNLESS EXPLICITLY NOTED OTHERWISE ON THE PLANS.
18. ANY CONTRACTOR PERFORMING WORK ON THIS PROJECT SHALL FAMILIARIZE HIMSELF WITH THE SITE AND SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING DIRECTLY OR INDIRECTLY FROM HIS OPERATIONS, WHETHER OR NOT SUCH FACILITIES ARE SHOWN ON THESE PLANS.
19. THE CONTRACTOR'S ATTENTION IS EXPRESSLY DIRECTED TO ALL THE REQUIREMENTS AND PROVISIONS OF THE STATE OF CALIFORNIA SAFETY REGULATIONS. CONFORMANCE SHALL BE STRICTLY ENFORCED DURING THE ENTIRE LIFE OF THE CONTRACT AND/OR PROJECT. AN EXCAVATION PERMIT WILL BE REQUIRED FOR TRENCHES IN EXCESS OF 50 FEET IN DEPTH FROM CAL-OSHA.
20. THE CONTRACTOR SHALL DISPOSE OF ALL SURPLUS EXCAVATION AND DEMOLITION DEBRIS CONFORMING TO LOCAL CODES AND REGULATION.
21. THE CONTRACTOR SHALL REPLACE IN KIND, TO THE SATISFACTION OF THE CITY, ANY PAVING, OR OTHER IMPROVEMENTS CUT, REMOVED OR DAMAGED IN CONJUNCTION WITH THIS PROJECT.
22. PIPE DELIVERED TO THE SITE SHALL BE PROTECTED BY THE CONTRACTOR FROM DUST OR CONTAMINATION PRIOR TO PLACING IN TRENCH DURING INSTALLATION AND TESTING. PIPE IS TO BE STORED TO PREVENT DAMAGE IN ACCORDANCE WITH MANUFACTURING RECOMMENDATIONS AND PROCEDURES. RECEIVING, STORAGE, AND HANDLING OF ALL POTABLE WATER PIPE AND APPURTENANCES SHALL BE IN ACCORDANCE WITH AWWA STANDARDS AND PROCEDURES.
23. THE CONTRACTOR SHALL ENSURE THAT ALL OPENINGS INTO ALL PIPELINES ARE PROTECTED AND AT THE END OF EACH WORK DAY SECURELY PLUGGED AND STOPPED SO THAT NO ANIMAL, FOWL OR RODENT CAN ENTER THE PIPELINE.
24. NO PIPELINE SHALL BE INSTALLED ON FILL MATERIAL WITHOUT FIRST MEETING IN-PLACE DENSITY TESTS REQUIRED.
25. ALL PERMITS REQUIRED BY LAW SHALL BE ACQUIRED BY CONTRACTOR BEFORE COMMENCING WORK. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE RULES AND REGULATIONS. SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
26. PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN AND AROUND THE AREAS OF NEW CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT POTHOLE LOCATION DRAWINGS TO THE CITY FOR REVIEW PRIOR TO SUBMITTAL OF SHOP DRAWINGS. SUBMITTAL OF PROPOSED POTHOLE LOCATIONS TO THE CITY SHALL NOT RELIEVE CONTRACTOR OF ITS DUTY AND RESPONSIBILITY FOR REPAIRING DAMAGE TO UTILITIES FROM CONTRACTOR'S WORK OR MAKING FIELD ADJUSTMENTS TO PROPOSED PIPELINE ALIGNMENTS AND CONNECTIONS PENDING WRITTEN APPROVAL BY THE CITY.
27. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF THE PRESENCE AND LOCATION OF ALL EXISTING SURFACE FEATURES, WHETHER SHOWN OR NOT HEREIN.
28. PRIOR TO SUBMITTAL OF PIPE SHOP DRAWINGS, THE CONTRACTOR SHALL FIELD POTHOLE TO VERIFY THE INVERT ELEVATION, OUTSIDE DIAMETER, LOCATION AND MATERIAL OF ALL EXISTING PIPELINES TO WHICH NEW PIPELINES WILL BE CONNECTED, AND SUBMIT THE INFORMATION WITH THE PIPE SUBMITTAL.
29. PROVIDE CONCRETE ENCASEMENT FOR ALL PIPING BENEATH STRUCTURES, PADS, VAULTS, AND ANY OTHER FACILITIES PER TYPICAL DETAIL P040.
30. ALL BUILDING COORDINATES ARE TO OUTSIDE CORNER OF COLUMN OR BUILDING WALL, UNLESS OTHERWISE INDICATED.
31. SMALL YARD PIPING (10 INCHES AND LESS INSIDE DIAMETER) IS SHOWN AS A CENTERLINE ON THE PLANS TO SCALE BUT IS NOT DIMENSIONED. THE CONTRACTOR SHALL FIELD INSTALL THE SMALL YARD PIPING ON LINE AND GRADE WITH MINIMUM COVER UNLESS OTHERWISE INDICATED. CONFLICTS BETWEEN PIPES SHALL BE RESOLVED AS FOLLOWS: GRAVITY LINES HAVE PRIORITY. PRESSURE PIPELINES SHALL BE ROUTED UNDER OR OVER GRAVITY LINES AS NECESSARY WITH SETBACKS AND INSTALLATION PER CDPH STANDARDS AND GUIDELINES.
32. PRIOR TO PAVING, ALL UNDERGROUND FACILITIES INCLUDING, BUT NOT LIMITED TO SEWER, WATER, TELEPHONE, CABLE, POWER, INSTRUMENTATION, AND GAS SHALL BE IN PLACE AND TESTED.
33. OVER EXCAVATE 5 FT (MIN) HORIZONTALLY FROM FOUNDATION FOR ALL NEW STRUCTURES. OVER EXCAVATE 3 FT (MIN) OVERLAP BENEATH FOUNDATION FOR ALL NEW STRUCTURES.
34. PROVIDE CONCRETE EQUIPMENT BASE PAD UNDER ALL EQUIPMENT. REFER TO STRUCTURAL TYPICAL DETAILS.
35. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING GROUNDWATER ENCOUNTERED AND SECURING APPROPRIATE DISCHARGE PERMITS. CONTRACTOR SHALL SUBMIT DEWATERING PLAN TO ENGINEER FOR APPROVAL. DEWATERING SHALL BE IN ACCORDANCE WITH SECTION 02240.
36. THE CONTRACTOR SHALL NOT SHUT OFF ANY WATER OR ELECTRICAL SERVICE AT THE CURB AT ANY TIME. SHOULD THE CONTRACTOR REQUIRE THE WATER OR ELECTRICAL SERVICE TO BE SHUT OFF TO THE PRIVATE PROPERTY, ARRANGEMENTS SHALL BE MADE SOLELY BY THE CONTRACTOR WITH THE PROPERTY OWNER AND THE CONTRACTOR SHALL PROVIDE THE PROPERTY OWNER WITH AT LEAST 48 HOURS PRIOR NOTICE.
37. USE CURRENT REVISIONS AND VERSIONS FOR ALL REFERENCED APWA STANDARD PLANS.
38. IF THE CONTRACTOR PROPOSES TO TRIM TREES OR SHRUBS THAT FACILITATE HIS CONSTRUCTION ACCESS, SUCH PROPOSALS SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND WRITTEN APPROVAL TWO WEEKS IN ADVANCE OF THE WORK. TRIMMING WORK SHALL BE DESIGNED AND SUPERVISED BY A LICENSED ARBORIST. THE CONTRACTOR SHALL NOTIFY AND RECEIVE WRITTEN APPROVAL PRIOR TO REMOVING ANY TREES WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO EXISTING TREES OR SHRUBS AND SHALL REPLACE ANY DAMAGED LANDSCAPE IN ACCORDANCE WITH CITY OF PASADENA REQUIREMENTS.
39. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THE PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE CITY AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE CITY OR THE ENGINEER.
40. THE CONTRACTOR SHALL MAINTAIN A CLEAN WORK SITE FOR THE DURATION OF THE CONTRACT.
41. CONTRACTOR IS RESPONSIBLE FOR DESIGN AND APPROVAL OF TRAFFIC CONTROL BY CITY OF PASADENA TRANSPORTATION DEPARTMENT.
42. A COPY OF ALL PERMITS MUST BE KEPT ON-SITE DURING ALL PERIODS OF OPERATION.
43. THE FOLLOWING NOTES APPLY TO THE STRUCTURAL AND/OR GRADING PERMITS:

A. CONTRACTOR MUST SUBMIT FINAL EXCAVATION DETAILS OF AREA AND CROSS SECTION OF EXCAVATION INCLUDING CALCULATED AMOUNTS OF CUT, FILL, AND EXPORT IN CUBIC YARDS FOR APPROVAL BY CITY OF PASADENA, DEPARTMENT OF BUILDING AND SAFETY.
B. CONTRACTOR MUST FULFILL ANY OTHER CONDITIONS THAT ARE REQUIRED FOR PERMIT APPROVAL BY THE CITY OF PASADENA.
44. FURNISH AND INSTALL TRACER WIRE AND WARNING TAPE FOR ALL BURIED PIPE.
45. CONTRACTOR SHALL COORDINATE WITH CITY OF PASADENA WATER AND POWER DURING THE DEMOLITION PHASE OF THIS PROJECT AND SALVAGE ALL MATERIALS AND EQUIPMENT AS REQUIRED. SALVAGED EQUIPMENT WILL BE DELIVERED TO THE OWNERS SPECIFIED LOCATION.
46. PROVIDE A MINIMUM OF 10-FEET HORIZONTAL SEPARATION BETWEEN POTABLE AND NON-POTABLE PIPELINES IN ACCORDANCE WITH CDPH REQUIREMENTS.
47. PRIOR TO BACK FILLING PIPE TRENCHES, CONTRACTOR SHALL FIELD SURVEY AND PROVIDE AS BUILT COORDINATES FOR ALL NEW STRUCTURES, PIPELINES, AND APPURTENANCES.
48. ALL PAVEMENT REPLACEMENT SHALL BE DONE IN ACCORDANCE WITH CITY OF PASADENA PUBLIC WORKS DEPARTMENT STANDARDS. REFER TO CITY OF PASADENA STD. PLANS S-415, S-416, AND S-417.
49. CONTRACTOR SHALL BE RESPONSIBLE TO POT HOLE AND FIELD VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES REMAINING IN SERVICE THAT WILL BE CROSSED, OR WITHIN 4-FEET HORIZONTALLY, OF THE PROPOSED PIPELINES.
50. CONTRACTOR SHALL PROVIDE AND MAINTAIN ACCESS FOR PEDESTRIANS AND TRAFFIC THROUGH AREAS 2 AND 3. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL DELINEATIONS, BARRICADES, TEMPORARY SIGNAGE, FLAGGERS, ETC. AS REQUIRED IN ACCORDANCE WITH CITY AND MUTCD STANDARDS.
51. CONTRACTOR IS REQUIRED TO OBTAIN ALL PERMITS WITH THE CITY, COUNTY, AND STATE PRIOR TO STARTING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO DEMOLITION, GRADING, PAVING, BUILDING, ELECTRICAL, AND MECHANICAL.
52. THE CONTRACTOR MUST RECEIVE APPROVAL FROM THE CITY OF PASADENA ARBORIST PRIOR TO TRIMMING ANY TREES WITHIN THE CONSTRUCTION AREA. CONTRACTOR SHALL ALLOW 3 TO 4 WEEKS FOR CITY APPROVAL. ALL WORK MUST BE IN ACCORDANCE WITH THE TREE PROTECTION PLAN APPROVED BY THE CITY FORESTRY ADVISORY COMMITTEE. ALL EXCAVATION WITHIN TREE DRP LINES MUST BE DONE BY HAND.
53. IT IS ANTICIPATED THAT A SIGNIFICANT AMOUNT OF LARGE ROCKS 'BOULDERS' MAY BE ENCOUNTERED DURING THE EXCAVATION AND CONSTRUCTION OF THIS PROJECT. CONTRACTOR SHALL MAKE SPECIAL PROVISIONS REUSING, STOCK PILING, OR DISPOSING AT AN OFF-SITE LOCATION.
54. SOME OF THE HILLSIDE SLOPES WITHIN THE PROJECT AREA ARE PRONE TO ROCK SLIDES. CONTRACTOR SHALL TAKE CAUTION AND PROVIDE SPECIAL PROTECTION WHEN WORKING IN THESE AREAS.
55. THERE ARE SPECIAL PROVISIONS AND WORK RESTRICTIONS TO PROTECT NESTING BRD HABITATS WITHIN THE PROJECT AREA. REFER TO TECHNICAL SPECIFICATIONS SECTION 01440 FOR ADDITIONAL REQUIREMENTS.
56. CONTRACTOR SHALL PROVIDE BRIDGE PROTECTION AND TEMPORARY ACCESS PLAN FOR ALL BRIDGES WHICH MAY BE IMPACTED BY CONSTRUCTION EQUIPMENT.
58. THE PROPOSED IMPROVEMENTS SHOWN ON THESE DRAWINGS ARE SUPERIMPOSED ON A BASE MAP. THIS BASE MAP IS COMPILED FROM AERIAL AND GROUND SURVEYS, AND OTHER DATA AS MADE AVAILABLE TO THE ENGINEER, WHO SHALL NOT BE HELD LIABLE FOR CHANGES, INACCURACIES, OMISSIONS OR OTHER ERRORS ON THESE DOCUMENTS. THE COMPOSITE BASE MAP IS PROVIDED AS AN AID ONLY AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THESE DOCUMENTS AND INCORPORATING/INTEGRATING ALL CONSTRUCTION AS REQUIRED TO ACCOMMODATE THE SAME. NONE OF THE INCLUDED DRAWINGS DEPICT A BOUNDARY SURVEY ALTHOUGH A PARTIAL ALTA SURVEY WAS PERFORMED ALONG A PORTION OF THE UP ROW. BOUNDARY LINES SHOWN ARE APPROXIMATE AND FOR INFORMATIONAL PURPOSES ONLY.
59. IN THE EVENT THAT SUBGRADE OBSTRUCTIONS ARE ENCOUNTERED OR DISCREPANCIES ARE FOUND BETWEEN THE DRAWINGS AND FIELD CONDITIONS, NOTIFY ENGINEER OR CITY OF PASADENA FOR DIRECTIONS. DO NOT PROCEED WITH THE WORK WITHOUT DIRECTION FROM THE ENGINEER.
60. CONTRACTOR SHALL NOTIFY ALL PUBLIC AND PRIVATE UTILITY COMPANIES IN THE PROJECT AREA A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR MUST INVESTIGATE AND VERIFY THE LOCATION OF ANY EXISTING UTILITIES WITHIN THE PROJECT AREA. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY, LOCATE, AND PROTECT ALL UNDERGROUND UTILITIES. ANY UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE CONSIDERED TENTATIVE AND APPROXIMATIONS AND THEREFORE, NO WARRANTY EXPRESSED OR IMPLIED IS MADE AS TO THE COMPLETENESS OR CORRECTNESS OF THEIR LOCATION. THE UTILITY COMPANIES ARE THOUGHT TO BE MEMBERS OF THE UNDERGROUND SERVICE ALERT (U.S.A.) ON-CALL PROGRAM. THE CONTRACTOR SHALL NOTIFY U.S.A. 72-HOURS IN ADVANCE OF PERFORMING EXCAVATION WORK AT 811 FROM 7:00 AM TO 5:00 PM, MONDAY THROUGH FRIDAY. EXISTING PUBLIC UTILITIES SHALL BE KEPT IN SERVICE AT ALL TIMES. UTILITIES THAT INTERFERE WITH THE WORK TO BE PERFORMED SHALL BE PROTECTED AS REQUIRED BY CITY OF PASADENA AND ALL OTHER AFFECTED ENTITIES. DAMAGE TO UTILITIES SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO CITY TO THE SATISFACTION OF THE ENGINEER AND OWNER. POTHOLING IS REQUIRED. ANY EXCAVATION WITHIN FIVE (5) FEET OF THE EXISTING GAS TRANSMISSION PIPE SHALL BE DUG-BY-HAND IN THE PRESENCE OF UTILITY INSPECTOR.
61. CITY OF PASADENA WILL PROVIDE A QUALIFIED BIOLOGICAL/ARCHEOLOGICAL MONITOR THAT WILL INITIALLY REVIEW SITE CONSTRUCTION PROTOCOLS WITH ALL CONSTRUCTION CONTRACTOR EMPLOYEES AT A PRE-CONSTRUCTION MEETING THAT WILL BE SPECIFICALLY HELD ON RESOURCE PROTECTION. EACH EMPLOYEE ASSIGNED TO THIS PROJECT MUST PARTICIPATE IN THIS PRE-CONSTRUCTION MEETING AND DISCUSSION OF ADJACENT SENSITIVE RESOURCES, AND SIGN A STATEMENT INDICATING THAT THEY HAVE READ AND UNDERSTOOD THE PROTOCOLS AND AGREE TO ADHERE TO THEM. SIGNIFICANT BREACHES OF PROTOCOL AND FAILURE TO ADEQUATELY PROVIDE THE DEGREE OF RESOURCE PROTECTION REQUIRED BY THIS PROJECT WILL RESULT IN THE ISSUANCE OF A STOP WORK ORDER BY THE ENGINEER OR BY THE MONITOR. CITY OF PASADENA

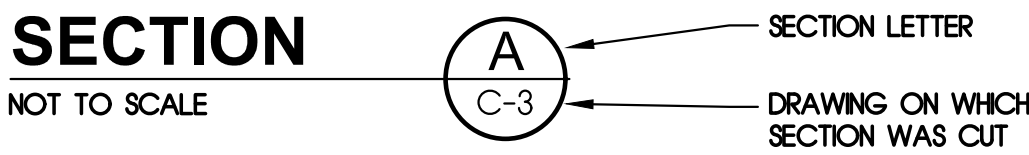
PROVIDED MONITOR WILL CAREFULLY INSPECT ALL WORK AREAS FOR THE PRESENCE OF WILDLIFE OR CULTURAL RESOURCES PRIOR TO INSTALLATION OF PROTECTIVE BARRIER FENCING AND FIELD FENCING, AND PRIOR TO INITIATION OF CONSTRUCTION EACH DAY. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY PENALTIES AND ALL REPAIRS AND MITIGATIONS IMPOSED DUE TO BREACH OF PROTOCOL.

62. BY ENTERING INTO THIS CONTRACT WITH CITY OF PASADENA, THE CONTRACTOR AGREES TO HAVING EXAMINED THE SITE, COMPARING THE SITE CONDITIONS WITH THE DRAWINGS AND SPECIFICATIONS AND HAS CAREFULLY EXAMINED ALL OF THE CONTRACT DOCUMENTS AND IS SATISFIED AS TO THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. NO ALLOWANCE SHALL BE MADE SUBSEQUENTLY ON BEHALF OF THE CONTRACTOR DUE TO FAILURE TO BE ACQUAINTED WITH THE CONDITIONS OF THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH ALL CONSTRUCTION OPERATIONS. CONTRACTOR SHALL PROTECT ALL EXISTING ON-SITE AND OFF-SITE IMPROVEMENTS AGAINST DAMAGE RESULTING FROM OPERATIONS. RESPONSIBILITY EXTENDS TO THE CONTRACTOR'S WORKERS, SUBCONTRACTORS AND OTHERS PROVIDING SERVICES. CONTRACTOR SHALL REPAIR AND/OR REPLACE DAMAGE AT THEIR OWN EXPENSE AND TO THE SATISFACTION OF THE ENGINEER AND CITY OF PASADENA. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD CITY OF PASADENA AND THE ENGINEER (QUESTA ENGINEERING CORPORATION) HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FROM LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF CITY OF PASADENA OR THE ENGINEER. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
63. CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, TRAFFIC CONTROL, ACCESS TO AND FROM ADJOINING DRIVEWAYS AND STREETS, AND ANY LANE CLOSURES. TRASH GENERATED BY THIS WORK (CONSTRUCTION DEBRIS, PAPER, BOTTLES, CIGARETTES, ETC) SHALL BE REMOVED ON A DAILY BASIS. CONTRACTOR SHALL CONTROL DUST AT ALL TIMES WITH WATER.
64. ALL WORK SHALL BE IN COMPLIANCE WITH APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS AS SET FORTH BY THE FEDERAL DEPARTMENT OF LABOR AND/OR THE STATE OF CALIFORNIA AND CITY OF PASADENA. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CALTRANS MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE OF WORK ZONES. ALL SIGNS SHALL BE APPROPRIATELY CONSTRUCTED WITH REFLECTIVE MATERIAL ON A BACKING OF METAL OR FABRIC (NO WOOD OR PLASTIC ALLOWED) AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION TO PROVIDE PROPER VISIBILITY, PER SECTION 12 OF THE CALTRANS SPECIAL PROVISIONS. THE CONTRACTOR SHALL MAINTAIN REASONABLE ACCESS TO ALL ROADWAYS DURING CONSTRUCTION.
65. REFER TO THE SPECIFICATIONS THAT ARE A PART OF THESE CONTRACT DOCUMENTS. COMPLY WITH ALL REGULATIONS AND CODES GOVERNING WORK PERFORMED UNDER THIS CONTRACT. REFER TO CALTRANS STANDARD PLANS AND SPECIFICATIONS AS REQUIRED.
66. WRITTEN DIMENSIONS ALWAYS TAKE PRECEDENCE OVER SCALED DIMENSIONS IF THERE IS A CONFLICT. THE CONTRACTOR SHALL CONTACT CITY OF PASADENA TO OBTAIN ADDITIONAL CLARIFICATION. NO DEVIATION OR SUBSTITUTION SHALL BE ALLOWED WITHOUT OBTAINING PRIOR WRITTEN APPROVAL FROM CITY OF PASADENA AND THE ENGINEER.

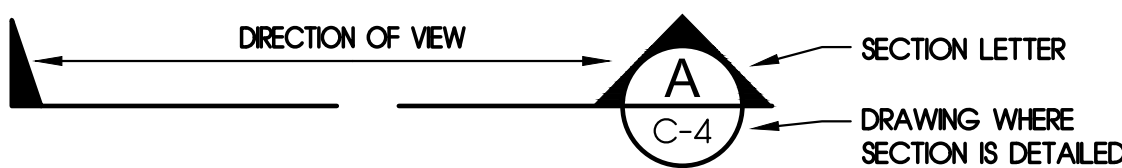
LEGEND

	RIGHT OF WAY LINE
	ROADWAY CENTERLINE
	PROPERTY LINE
	DOMESTIC WATER
	SANITARY SEWER
	ELECTRICAL
	TELEPHONE
	GAS
	STORM DRAIN
	EMWD EASEMENT
	SEWER MANHOLE

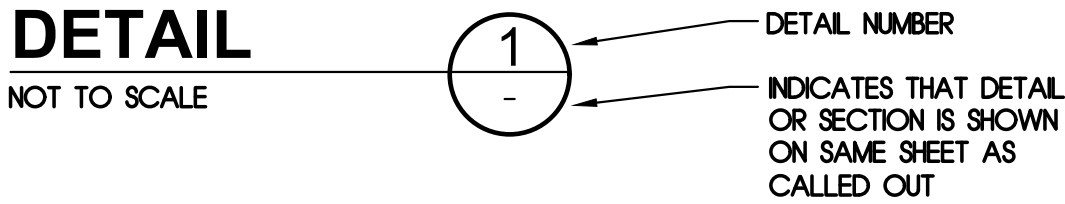
(2) THE SECTION IS IDENTIFIED AS FOLLOWS:



(1) A SECTION CUT ON A DRAWING IS IDENTIFIED AS FOLLOWS:



(3) DETAILS ARE CROSS REFERENCED IN A SIMILAR MANNER TO THAT OF SECTIONS EXCEPT DETAILS ARE ASSIGNED NUMBERS RATHER THAN LETTERS.



CROSS REFERENCING SYSTEM

ABBREVIATIONS

AC	ASPHALT CONCRETE	FC	FACE OF CURB	R	RADIUS
ACP	ASBESTOS CEMENT PIPE	FG	FINISHED GRADE	RED.	REDUCER
AWWA	AMERICAN WATER WORKS ASSOCIATION	FS	FINISHED SURFACE	REF	REFERENCE
A.C.	ASPHALT CONCRETE	FWS	FUTURE WATER SUPPLY	REQ'D.	REQUIRED
B.C.	BEGINNING OF CURVE	GB	GRADE BREAK	REV.	REVISED
BFV	BUTTERFLY VALVE	GA.LV.	GALVANIZED	RCP	REINFORCED CONCRETE PIPE
BOF	BOTTOM OF FOOTING	G.D.	GROOVED END	RT.	RIGHT
BOP	BOTTOM OF PIPE	G.V.	GATE VALVE	RAW	RAW WATER
B.O.	BLOWOFF ASSEMBLY	HORIZ.	HORIZONTAL	R/W	RIGHT OF WAY
				ROW	RIGHT OF WAY
CB.	CATCH BASIN	IE	INVERT ELEVATION	S	SLOPE
C.	CENTERLINE	INV.	INVERT	SS	SANITARY SEWER
C.F.	CENTER GRADE	LF	LINEAR FEET	SD.	STORM DRAIN
CML&C	CEMENT MORTAR LINED AND COATED	LT.	LEFT	SH.	SHEET
CLR	CLEAR DISTANCE	MAX	MAXIMUM	ST.	STREET
CL	CLASS	MH	MANHOLE	STA	STATION
C/L	CENTERLINE	MIN	MINIMUM	STD.	STANDARDS
CP	CATHODIC PROTECTION	MJ	MECHANICAL JOINT	STL.	STEEL
CSP	CORRUGATED STEEL PIPE	MOC	MIDDLE OF CURVE	SW	SIDEWALK
CONC	CONCRETE	NC	NOT IN CONTRACT	T.C.	TOP OF CURB
OMB	CRUSHED MISCELLANEOUS BASE	NTS	NOT TO SCALE	T.O.C.	TOP OF CONCRETE
CPTS	CATHODIC PROTECTION TEST STATION	PC	POINT OF CURVATURE	TOP	TOP OF FOOTING
C&G	CURB & GUTTER	PE	PLAIN END	T.O.G.	TOP OF GRATE
DA	DIAMETER	PO	PUSH-ON TYPE JOINT	T.O.P.	TOP OF PIPE
DP	DUCTILE IRON PIPE	PRC	POINT OF REVERSE CURVATURE	TOW	TOP OF WALL
D.W.	DOMESTIC WATER	PROP.	PROPOSED	TYP.	TYPICAL
E.C.	END OF CURVE	PRV.	PRESSURE REDUCING VALVE	VERT.	VERTICAL
EL.	ELEVATION	PT	POINT OF TANGENT	VCP	VITRIFIED CLAY PIPE
EP.	EDGE OF PAVEMENT	PVC	POLYVINYL CHLORIDE	W	WEST
EXIST.	EXISTING			WS	WATER SURFACE
FBE	FUSION BONDED EPOXY			WSP	WELDED STEEL PIPE
FLG	FLANGE END				
FG	FIRE HYDRANT				

R E V I S I O N S					
NO.	DESCRIPTION	DATE	NO.	DESCRIPTION	DATE

APPROVED BY:

PE # _____

NAME _____

APPROVED: _____

DATE _____

APPROVED: _____

DATE _____

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951.300.2100 Fax 951.300.2105

9/18/20
DATE

CHARLES H. GREELY R.C.E. No. 68056



D.S. - ____ TO ____

DATE _____ SCALE _____

Month YEAR AS SHOWN

DRAWN BY _____

DESIGNED BY _____

CHECKED BY _____

SUBMITTED BY _____

FIELD BOOKS _____

CALC BOOKS _____

APPROVED _____

APPROVED _____

REVISION _____

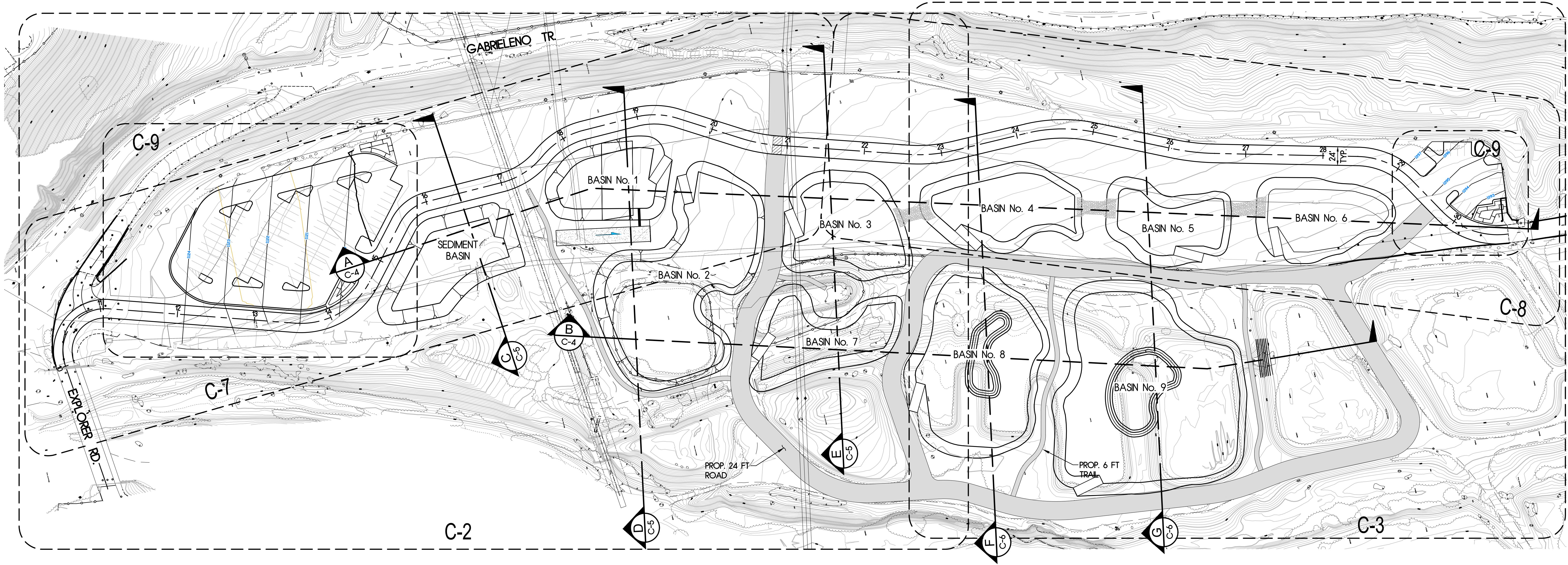
SHEET NO 2 OF 13 SHEETS

WORK ORDER _____

FILE NUMBER _____

PASADENA WATER & POWER
CITY OF PASADENA
ARROYO SECO CANYON PROJECT, AREA 3
NOTES, LEGEND & ABBREVIATIONS

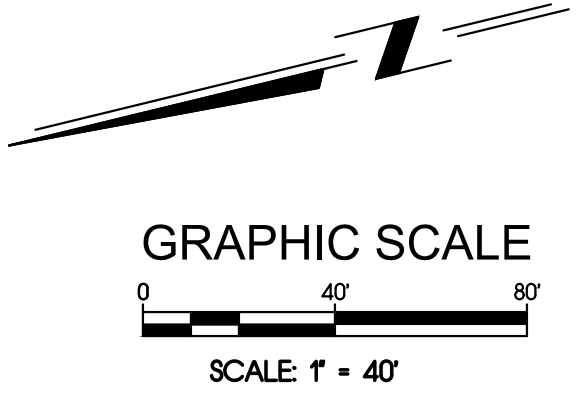
G-2



KEY MAP
SCALE: 1"=60'

SHEETS INDEX

SHEET NUMBER	DRAWING	DRAWING DESCRIPTION
1	G-1	TITLE SHEET, VICINITY MAP AND LOCATION MAP
2	G-2	NOTES, LEGEND AND ABBREVIATIONS
3	C-1	KEY MAP AND SHEET INDEX
4	C-2	BASINS GRADING PLAN 1
5	C-3	BASINS GRADING PLAN 2
6	C-4	SECTIONS A & B
7	C-5	SECTIONS C, D & E
8	C-6	SECTIONS F & G
9	C-7	STREET PLAN & PROFILE STA 10+00 TO 20+00
10	C-8	STREET PLAN & PROFILE STA 20+00 TO 30+72.61
11	C-9	GRADING PLAN PARKING LOTS
12	L-1	CONCEPTUAL LANDSCAPE PLAN
13	L-2	LANDSCAPE PLAN



C-1

REVISIONS					
NO.	DESCRIPTION	DATE	NO.	DESCRIPTION	DATE

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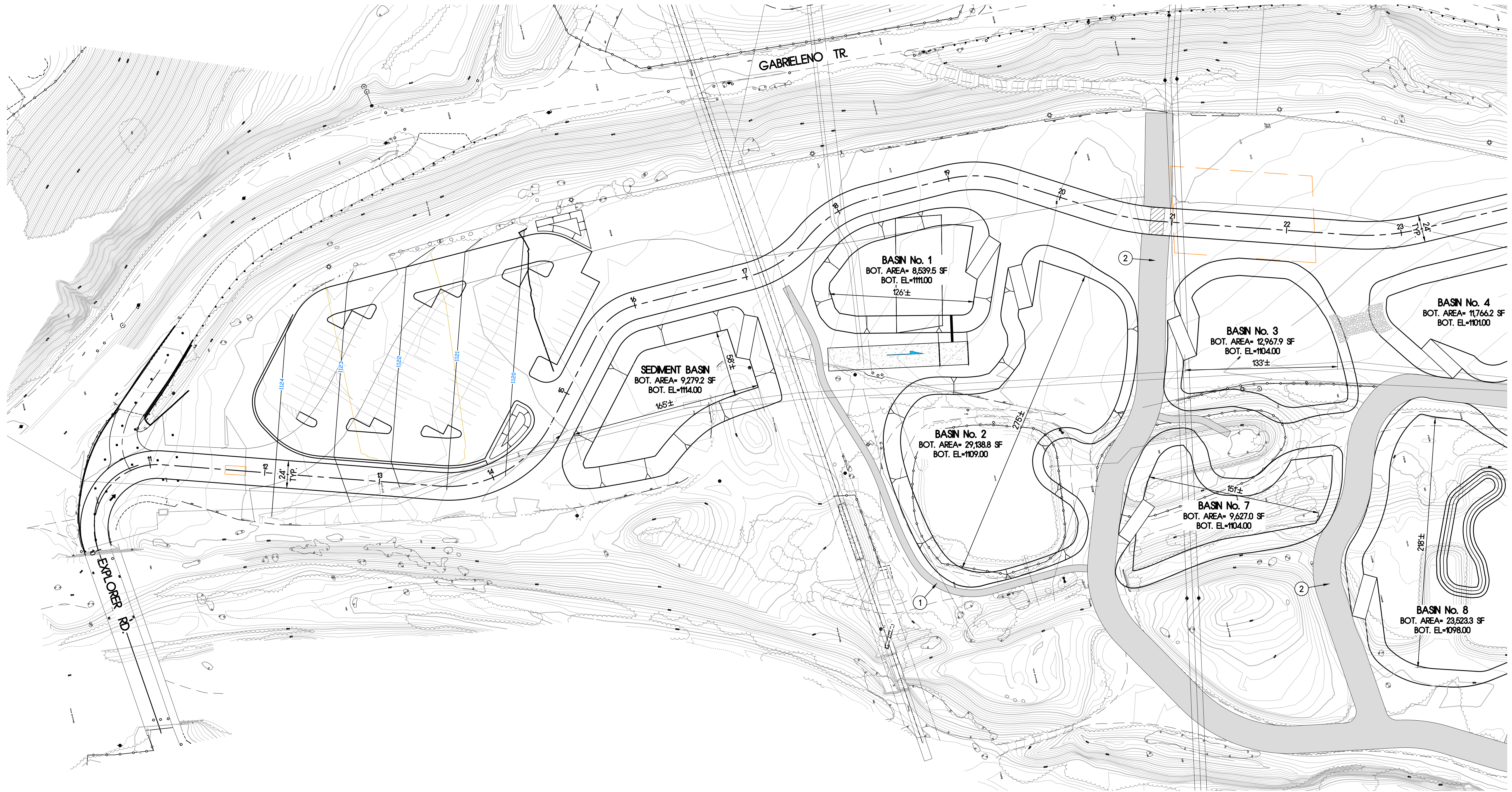
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D.S. - TO		SCALE		PASADENA WATER & POWER CITY OF PASADENA		SHEET NO 3 OF 13 SHEETS	
DATE	Month YEAR	AS SHOWN		ARROYO SECO CANYON PROJECT, AREA 3		WORK ORDER	FILE NUMBER
DRAWN BY		DESIGNED BY		KEY MAP & SHEETS INDEX			
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FIELD BOOKS		CALC BOOKS		APPROVED		APPROVED	
						REVISION	

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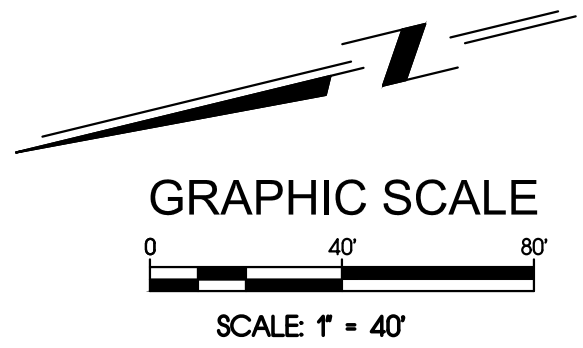


CONSTRUCTION NOTES:

- 1 CONSTRUCT 6' THICK STABILIZED DG TRAIL
- 2 CONSTRUCT 9' THICK COMPACTED AB ACCESS ROAD

BASINS GRADING PLAN 1

SCALE: 1"=40'



SEE SHEET C-3

C-2

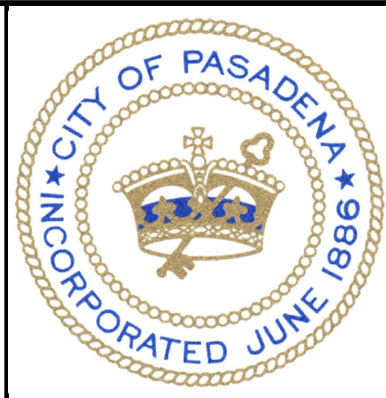
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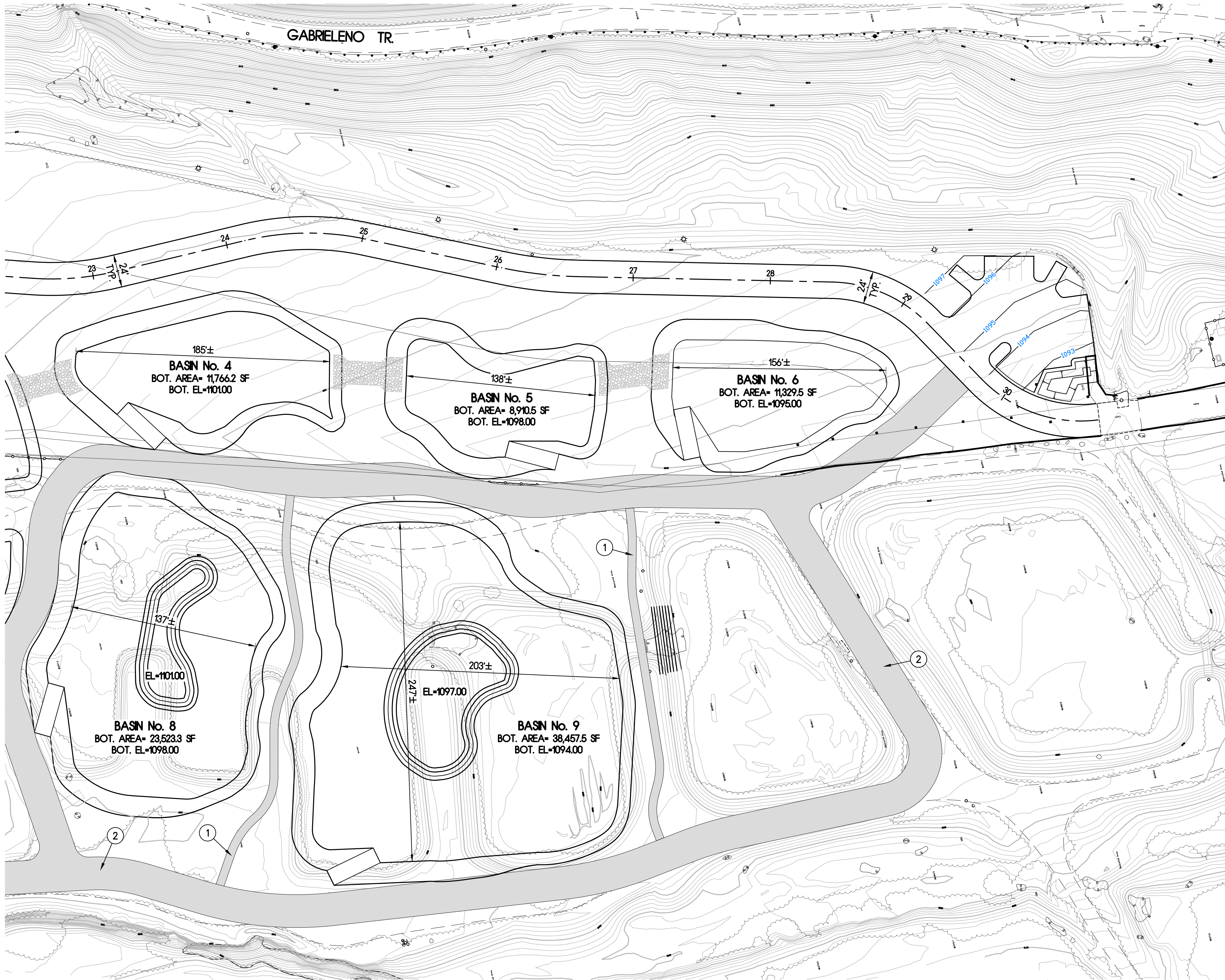
CHARLES H. GREELY R.C.E. No. 69056



D.S. — TO —		SCALE		PASADENA WATER & POWER		SHEET NO 4 OF 13 SHEETS	
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DRAWN BY				ARROYO SECO CANYON PROJECT, AREA 3		FILE NUMBER	
DESIGNED BY				BASINS GRADING PLAN 1			
CHECKED BY				APPROVED		APPROVED	
SUBMITTED BY				APPROVED		REVISION	
FIELD BOOKS		CALC BOOKS					

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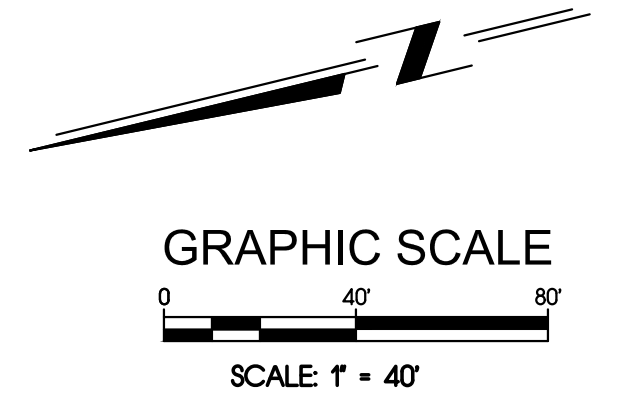
SEE SHEET C-2



BASINS GRADING PLAN 2
SCALE: 1"=40'

CONSTRUCTION NOTES:

- 1 CONSTRUCT 6" THICK STABILIZED DG TRAIL
- 2 CONSTRUCT 9" THICK COMPACTED AB ACCESS ROAD



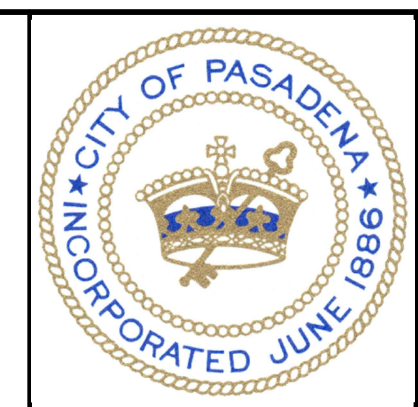
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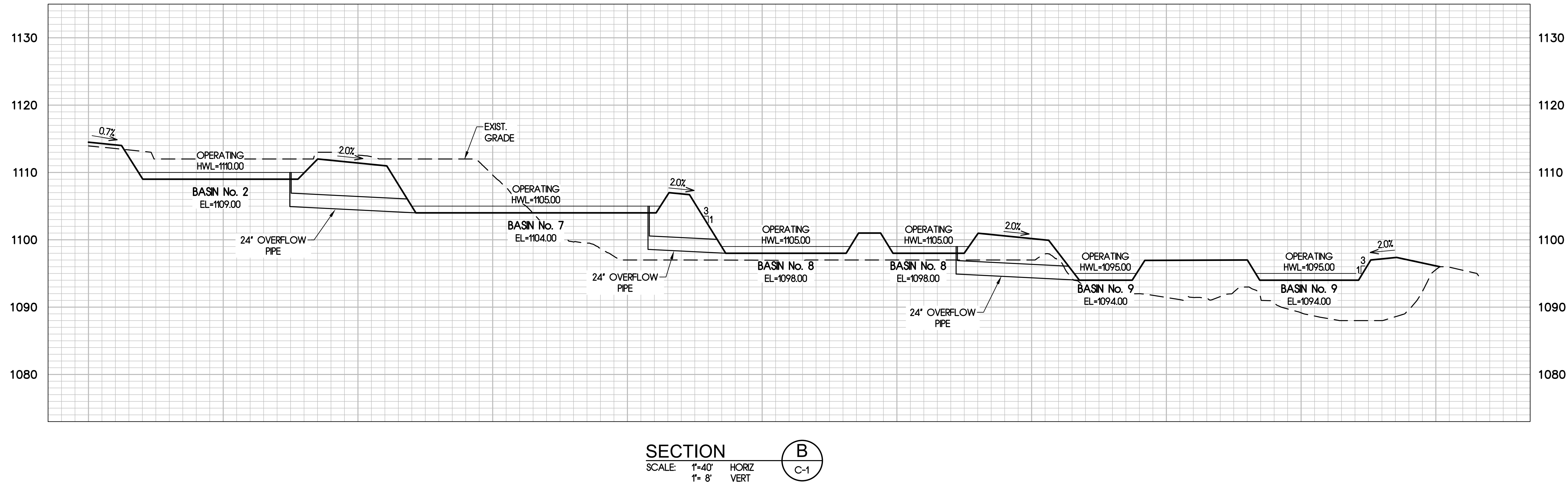
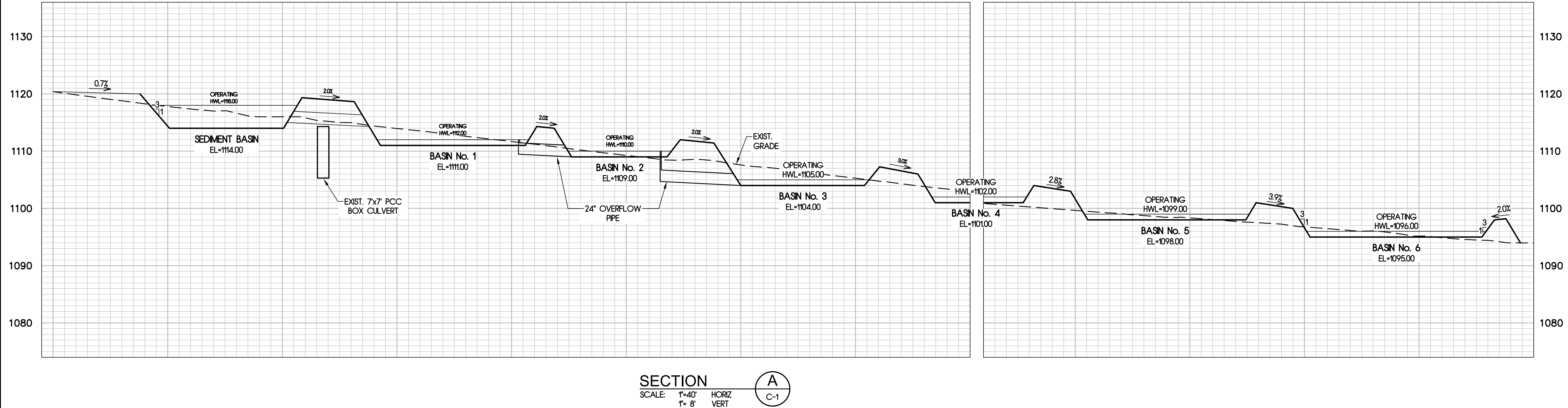
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DATE	AS SHOWN	ARROYO SECO CANYON PROJECT, AREA 3		WORK ORDER	FILE NUMBER
Month YEAR		BASINS GRADING PLAN 2			
DRAWN BY		APPROVED	APPROVED	REVISION	
CHECKED BY					
SUBMITTED BY					
FIELD BOOKS	CALC BOOKS				

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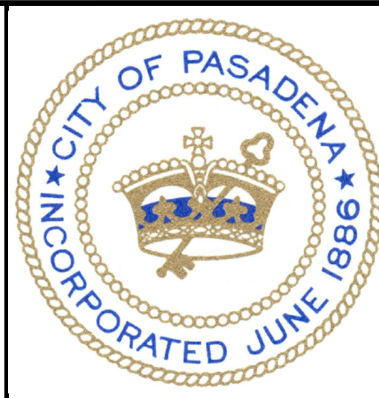
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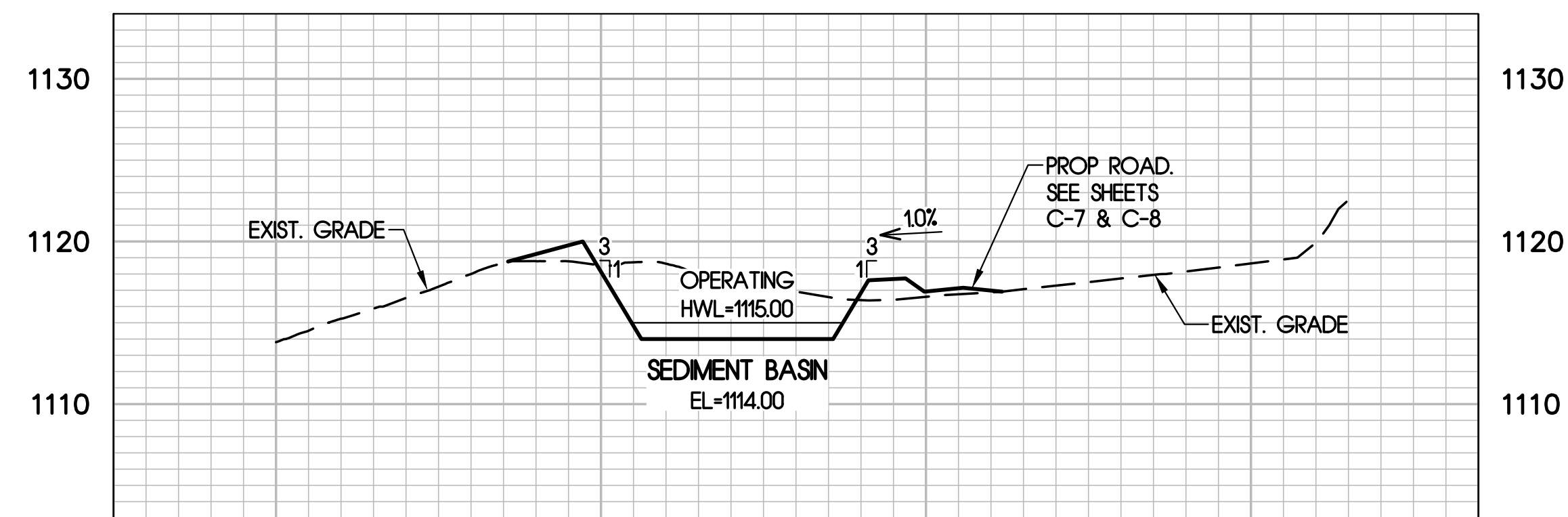
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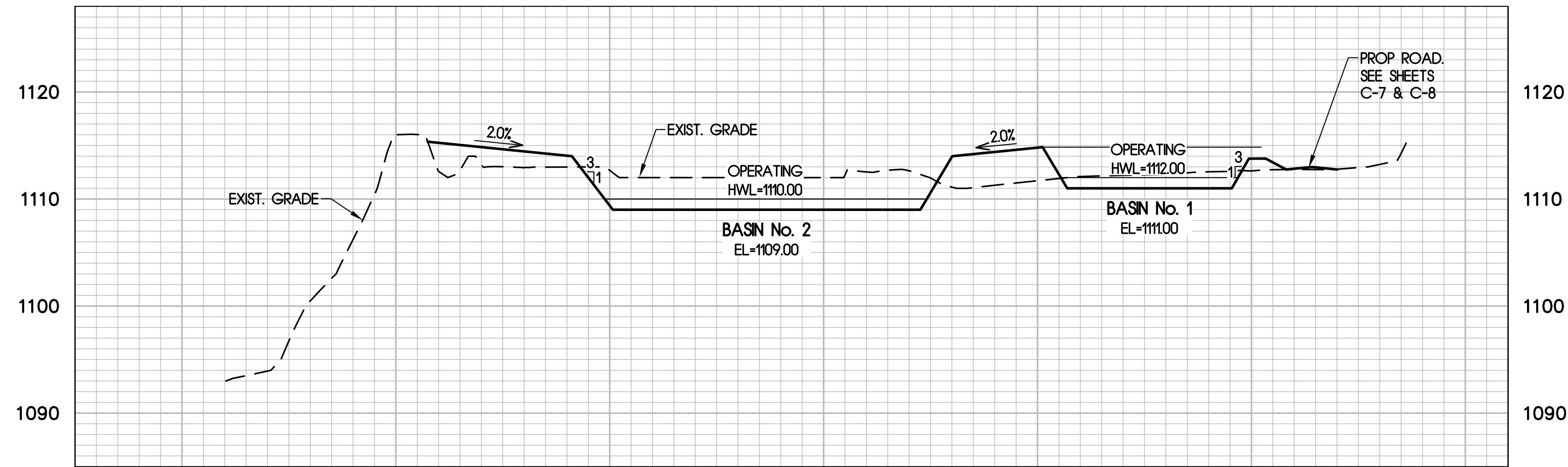


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CHECKED BY							
SUBMITTED BY							
FIELD BOOKS	CALC BOOKS	APPROVED	APPROVED	REVISION			

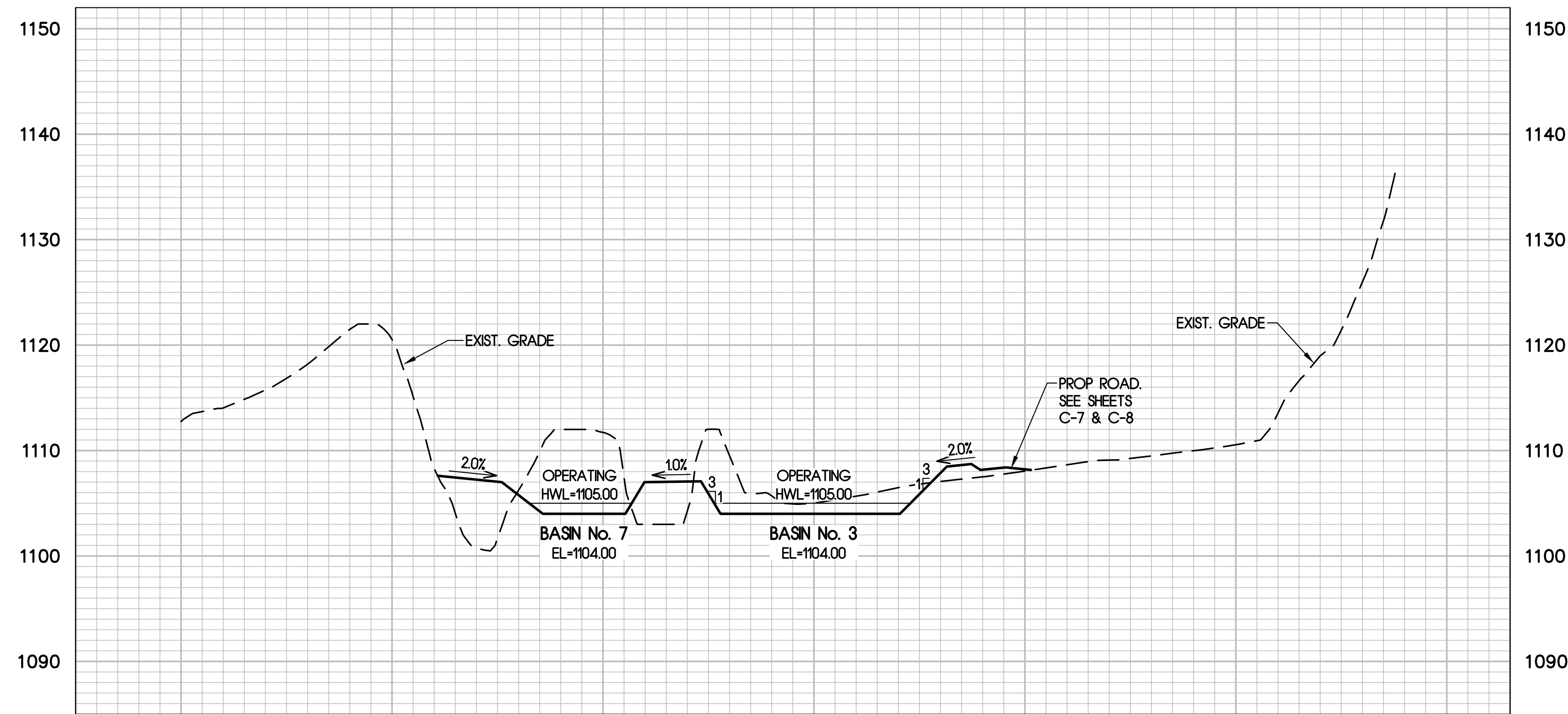
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SECTION C
SCALE: 1"=40' HORIZ
1"= 8' VERT



SECTION D
SCALE: 1"=40' HORIZ
1"= 8' VERT



SECTION E
SCALE: 1"=40' HORIZ
1"= 8' VERT

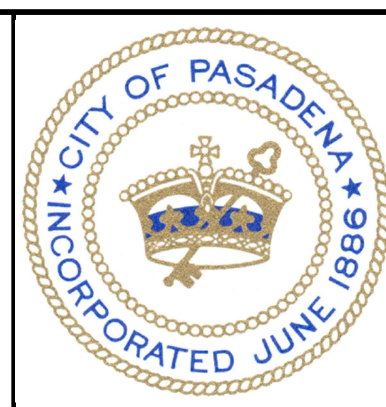
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APPROVED:	
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APPROVED:	
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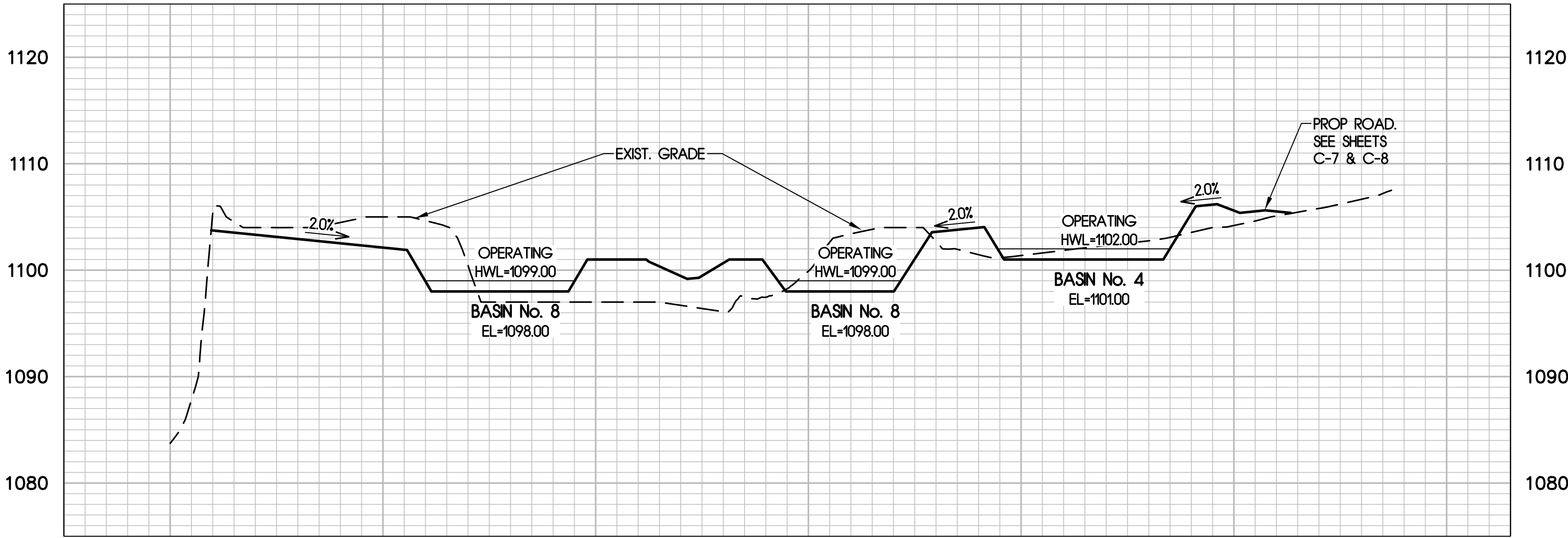
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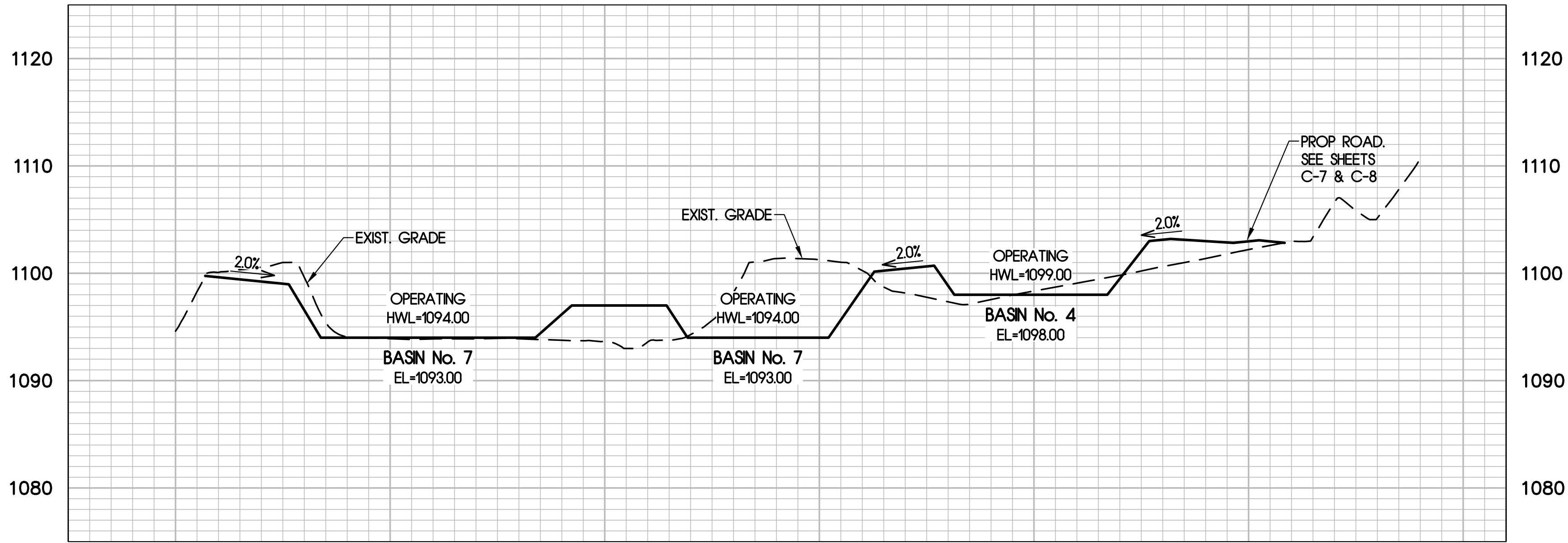


D.S. - TO		SCALE		PASADENA WATER & POWER CITY OF PASADENA		SHEET NO 7 OF 13 SHEETS	
DATE	Month YEAR	AS SHOWN		ARROYO SECO CANYON PROJECT, AREA 3		WORK ORDER	FILE NUMBER
DRAWN BY				SECTIONS 'C', 'D' & 'E'			
CHECKED BY							
SUBMITTED BY							
FIELD BOOKS		CALC BOOKS		APPROVED		REVISION	

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SECTION F
SCALE: 1"=40' HORIZ
1"= 8' VERT



SECTION G
SCALE: 1"=40' HORIZ
1"= 8' VERT

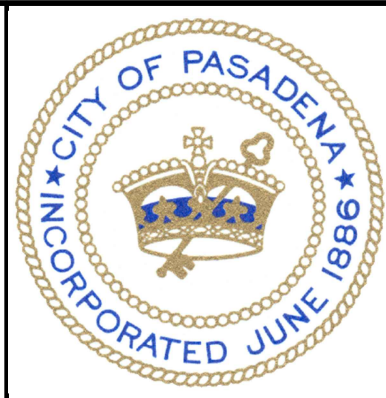
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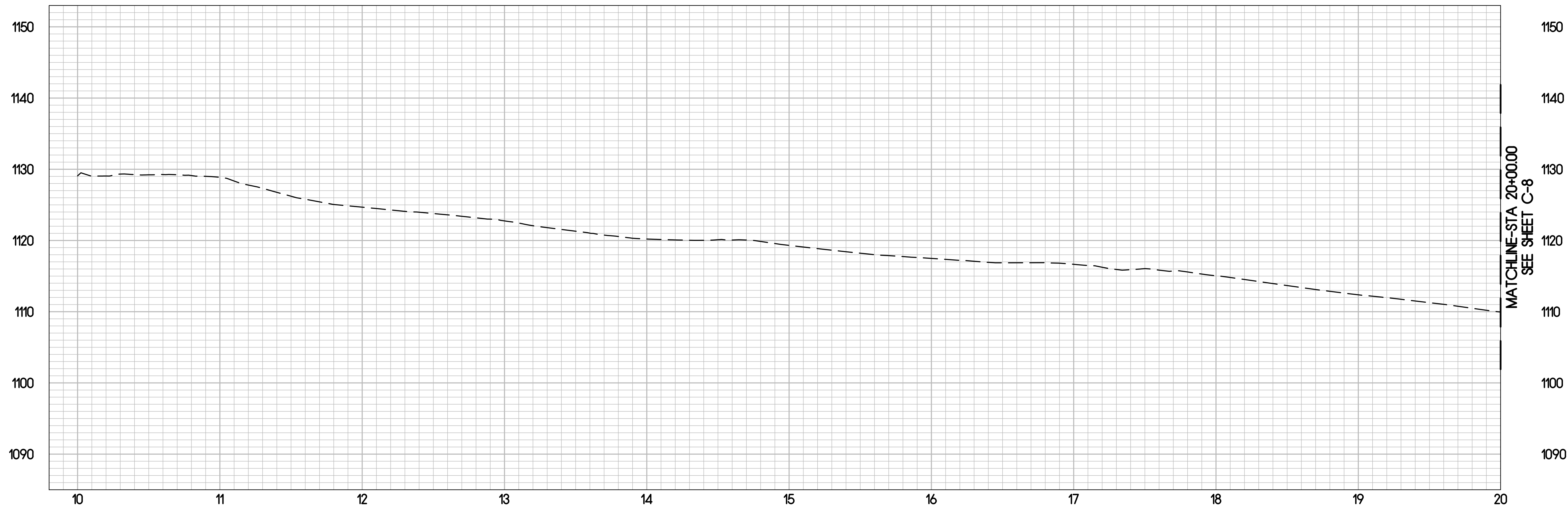
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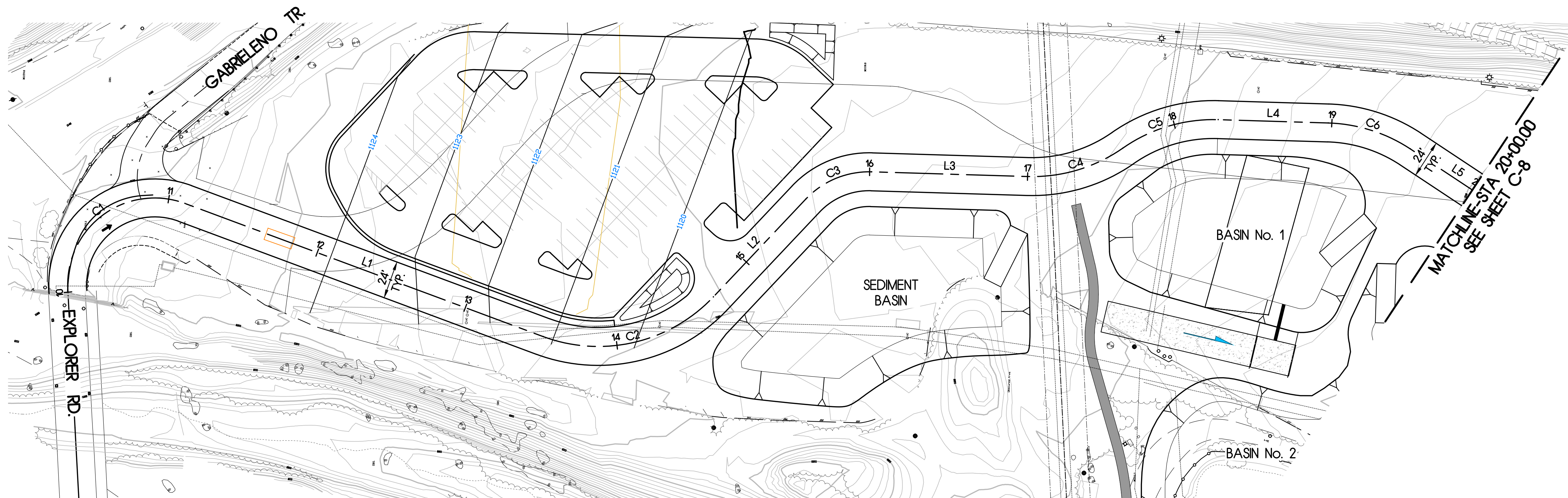
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DATE	Month YEAR	AS SHOWN		ARROYO SECO CANYON PROJECT, AREA 3		WORK ORDER	FILE NUMBER
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CHECKED BY							
SUBMITTED BY							
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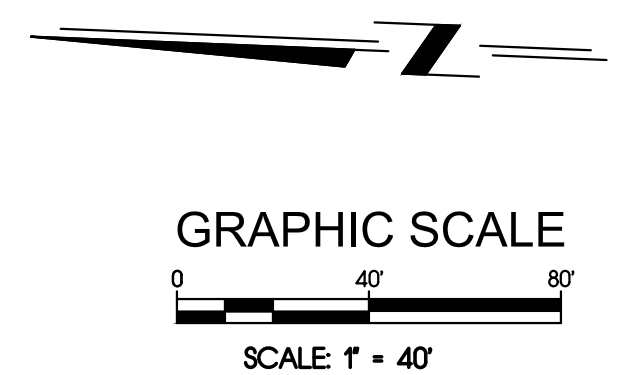
PROFILE
SCALE: 1"=40' HORIZONTAL
1"= 8' VERTICAL



PLAN
SCALE: 1"=40'

LINE TABLE		
LINE	BEARING	LENGTH
L1	S18 04' 50"W	241.86'
L2	S48 56' 08"E	85.25'
L3	S00 35' 33"E	98.74'
L4	S00 35' 33"E	69.68'
L5	S31 11' 54"W	86.20'

CURVE TABLE			
CURVE	RADIUS	DELTA	LENGTH
C1	55.00'	115 13' 53"	110.61'
C2	100.29'	066 55' 30"	117.15'
C3	55.00'	048 20' 35"	46.41'
C4	100.00'	036 40' 18"	64.00'
C5	100.00'	036 40' 17"	64.00'
C6	100.00'	031 35' 45"	55.15'



C-7

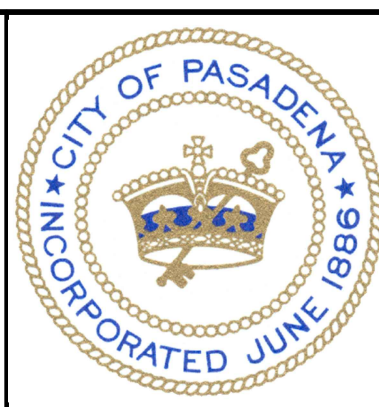
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APPROVED:	
APPROVED:	DATE
APPROVED:	DATE

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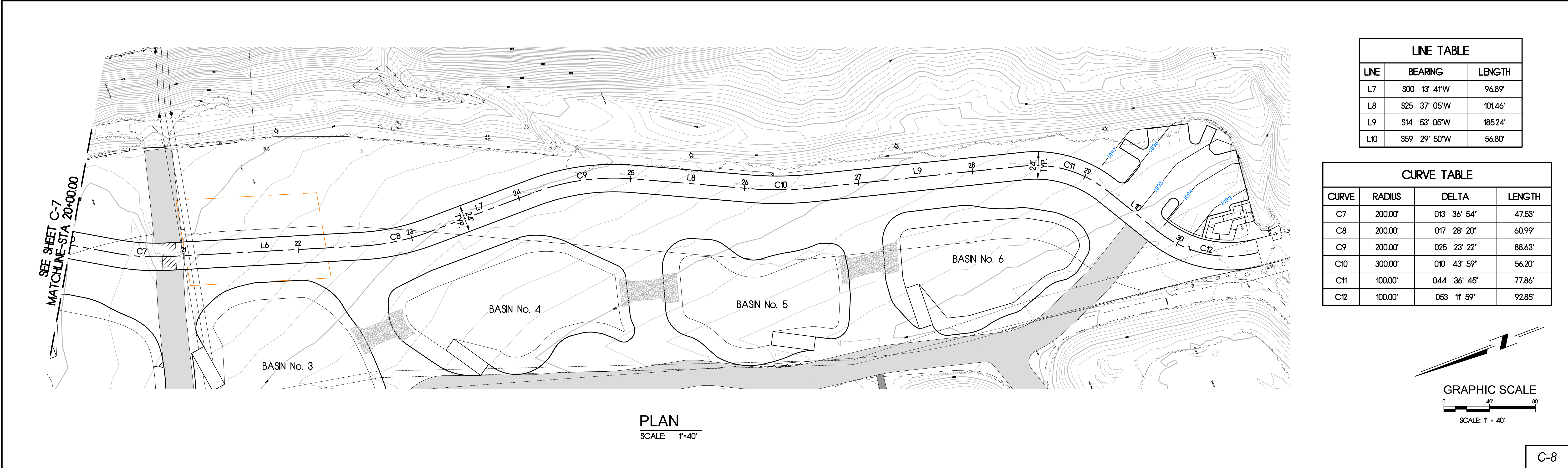
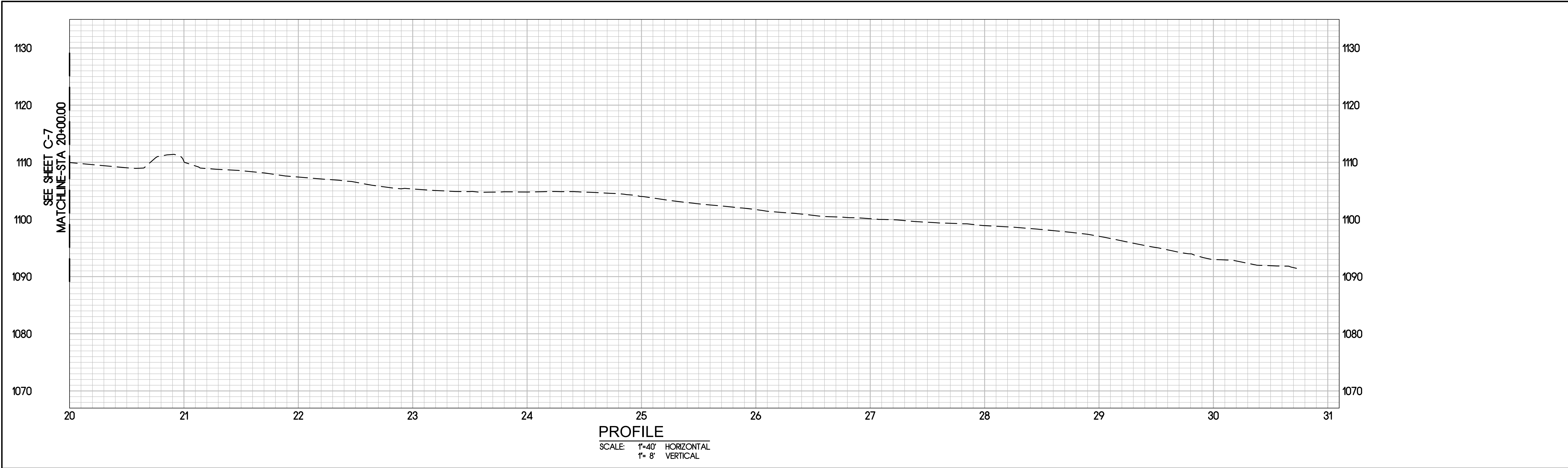
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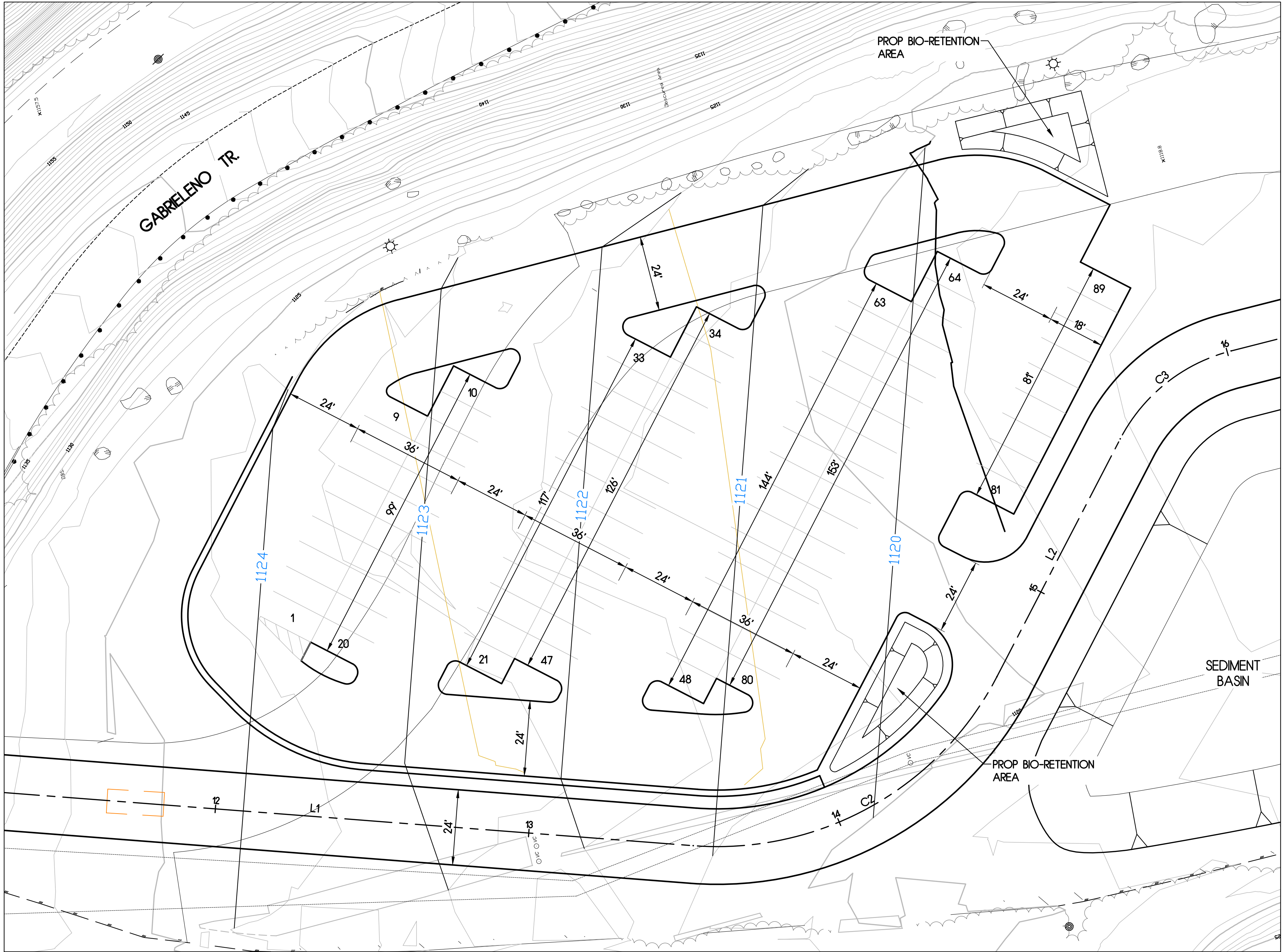
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DATE	Month YEAR	AS SHOWN		CITY OF PASADENA		WORK ORDER	
DRAWN BY				ARROYO SECO CANYON PROJECT, AREA 3		FILE NUMBER	
DESIGNED BY				STREET PLAN & PROFILE			
CHECKED BY				STA 10+00 TO STA 20+00			
SUBMITTED BY							
FIELD BOOKS		CALC BOOKS		APPROVED		REVISION	

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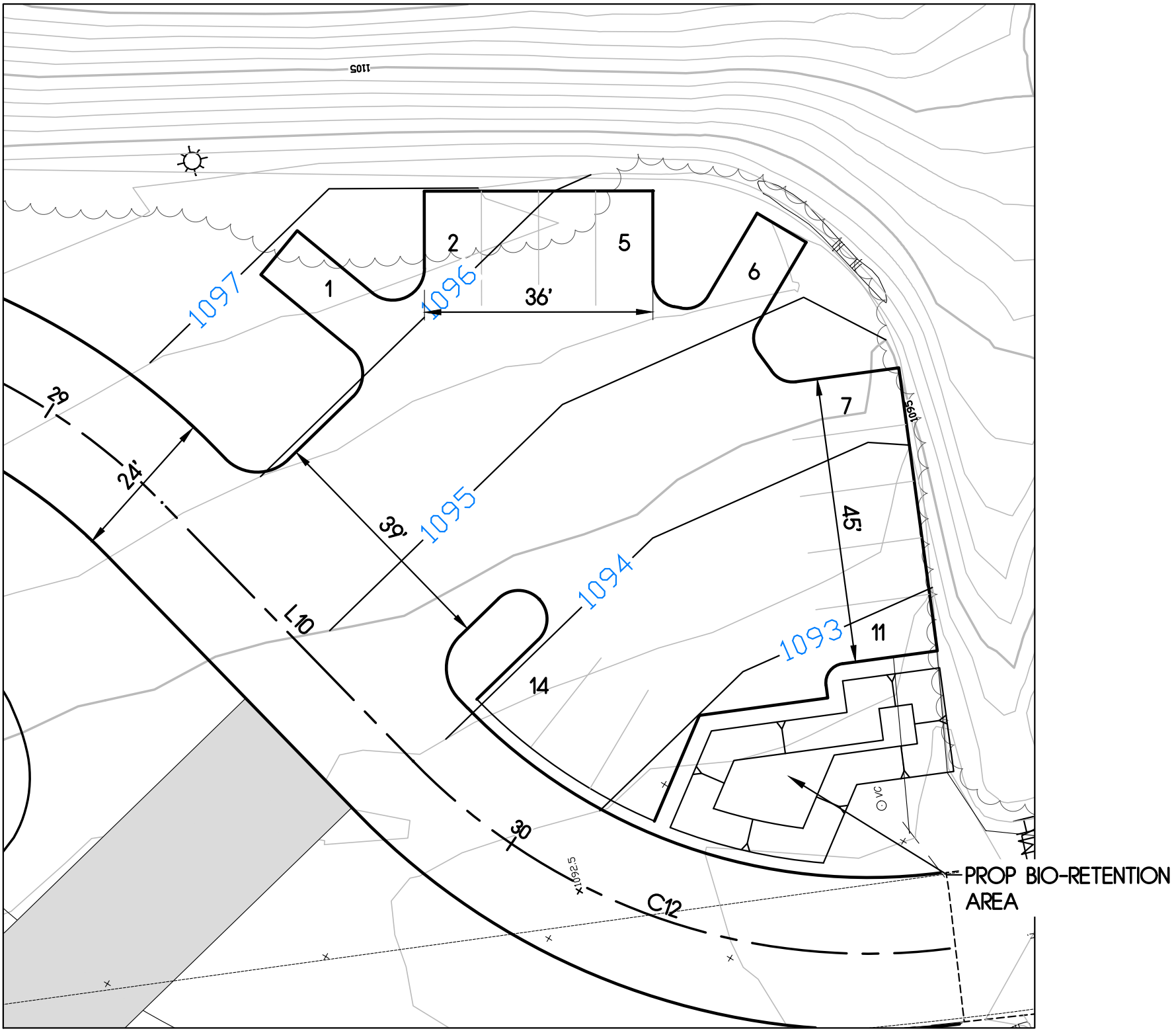


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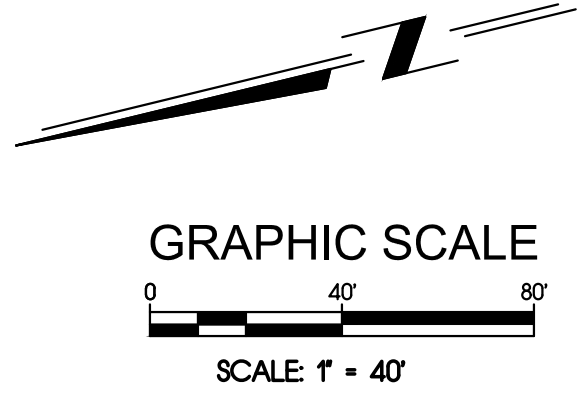
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NAME	PE #
APPROVED:	
DESIGNED BY	DATE
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SUBMITTED BY	
APPROVED:	
	DATE



PLAN PARKING LOT 1
SCALE: 1"=20'



PLAN PARKING LOT 2
SCALE: 1"=20'



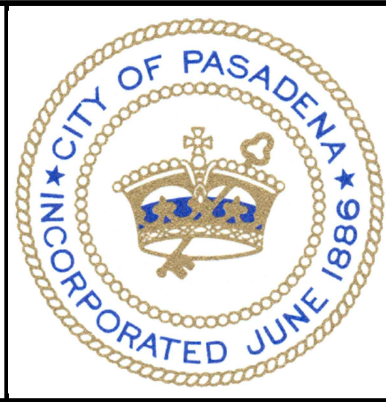
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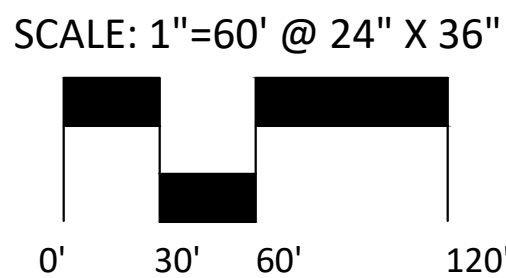
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DATE	Month YEAR	AS SHOWN		CITY OF PASADENA		WORK ORDER	FILE NUMBER
DRAWN BY		DESIGNED BY	CHECKED BY	ARROYO SECO CANYON PROJECT, AREA 3			
FIELD BOOKS		CALC BOOKS	APPROVED	GRADING PLAN			
			APPROVED	PARKING LOTS		REVISION	

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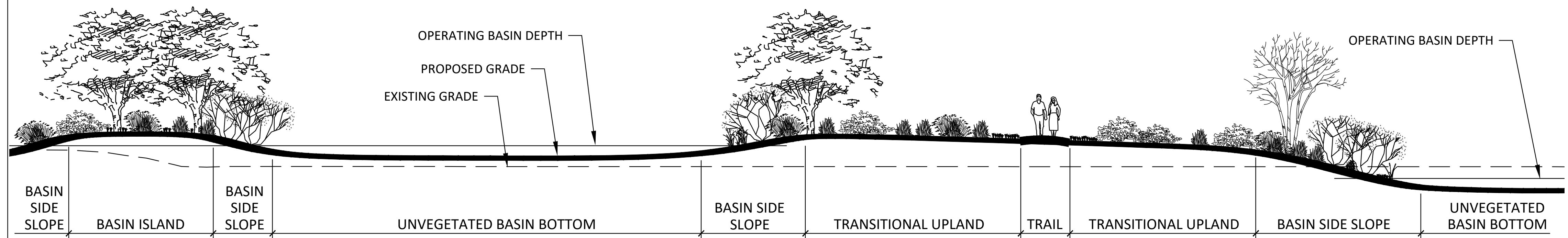


SITE IMPROVEMENT LEGEND:

- BASIN BOTTOM - NATIVE SOIL, UNVEGETATED
- PEDESTRIAN TRAIL
- MAINTENANCE ROAD/TRAIL
- FUTURE INTERPRETIVE OVERLOOK (BENCH, INTERPRETIVE SIGNAGE, AND SHADE STRUCTURE)
- BASIN ACCESS RAMP



1 LANDSCAPE PLAN



2 SECTION A

PLANTING LEGEND:

- BASIN ISLAND WETLAND CONTAINER PLANTING, SEE TABLE 1, SHEET L-2
- BASIN SIDE SLOPE WETLAND CONTAINER PLANTING, SEE TABLE 2, SHEET L-2
- SEED MIX A - BASIN ISLAND AND SIDE SLOPE WETLAND, SEE TABLE 3, SHEET L-2
- SEED MIX B - TRANSITIONAL UPLAND, SEE TABLE 4, SHEET L-2
- NATIVE WILLOWS
- BROADLEAF NATIVE RIPARIAN TREE
- STREET TREES

NOT TO SCALE

L-1

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NO.	DESCRIPTION	DATE	NO.	DESCRIPTION	DATE	NAME	PE #			DATE	SCALE	ARROYO SECO CANYON PROJECT, AREA 3		WORK ORDER	FILE NUMBER
	PLANNING DRAFT					APPROVED:	DATE			SEPTEMBER 2020	AS SHOWN	CONCEPTUAL LANDSCAPE PLAN			
											ETA/JZ/PV CG/ETA JLM				
						APPROVED:	DATE	CHARLES H. GREELY	R.C.E. No. 69056	9/18/20		APPROVED	APPROVED	REVISION	

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PLANT LISTS:

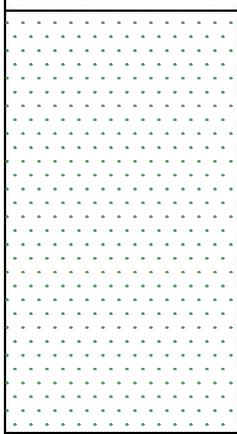
TABLE 1. BASIN ISLAND WETLAND VEGETATION CONTAINER PLANT PALETTE					
SYMBOL	BOTANICAL NAME	COMMON NAME	APPROXIMATE PERCENT COMPOSITION	SIZE	APPROX. SPACING (FEET ON CENTER)
	TREES AND SHRUBS				
	ANEMOPSIS CALIFORNICA	YERBA MANSA	10%	1 GAL.	3 FT.
	ARTEMISIA DOUGLASIANA	DOUGLAS MUGWORT	25%	1 GAL.	4 FT.
	BACCHARIS SALICIFOLIA	MULEFAT	30%	1 GAL.	8 FT.
	ROSA CALIFORNICA	CALIFORNIA ROSE	10%	1 GAL.	8 FT.
	RUBUS URSINUS	CALIFORNIA BLACKBERRY	15%	1 GAL.	6 FT.
	SALIX EXIGUIA (SALIX HINDSIANA)	SANDBAR WILLOW	10%	DEEP 1 GAL.	12 FT.
TOTALS			100%		
ALL CONTAINER PLANT PROPAGULES SHALL HAVE ORIGINATED FROM LOCAL CISMONTANE SOUTHERN CALIFORNIA SOURCES.					

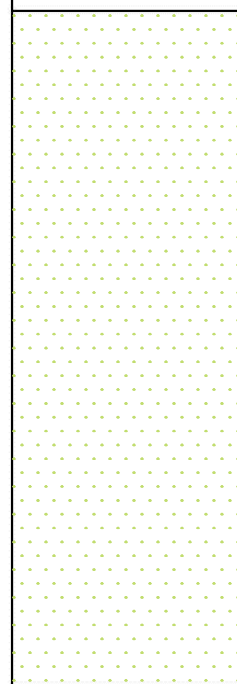
TABLE 2. BASIN SIDE SLOPE WETLAND VEGETATION CONTAINER PLANT PALETTE					
SYMBOL	BOTANICAL NAME	COMMON NAME	APPROXIMATE PERCENT COMPOSITION	SIZE	APPROX. SPACING (FEET ON CENTER)
	TREES AND SHRUBS				
	ARTEMISIA DOUGLASIANA	DOUGLAS MUGWORT	15%	1 GAL.	4 FT.
	BACCHARIS SALICIFOLIA	MULEFAT	15%	1 GAL.	8 FT.
	QUERCUS AGRIFOLIA	COAST LIVE OAK	5%		
	PLATINUS RACEMOSA	WESTERN SYCAMORE	5%		
	POPULUS FREMONTII	FREMONT COTTONWOOD	5%	DEEP 1 GAL.	12 FT.
	ROSA CALIFORNICA	CALIFORNIA ROSE	10%	1 GAL.	8 FT.
	RUBUS URSINUS	CALIFORNIA BLACKBERRY	10%	1 GAL.	6 FT.
	SALIX GOODINGII	BLACK WILLOW	5%		
	SALIX EXIGUIA (SALIX HINDSIANA)	SANDBAR WILLOW	15%	DEEP 1 GAL.	12 FT.
	SALIX LASIOLEPIS	ARROYO WILLOW	10%	DEEP 1 GAL.	15 FT.
	SAMBUCUS MEXICANA	MEXICAN ELDERBERRY	5%	DEEP 1 GAL.	30 FT.
	TOTALS		100%		
ALL CONTAINER PLANT PROPAGULES SHALL HAVE ORIGINATED FROM LOCAL CISMONTANE SOUTHERN CALIFORNIA SOURCES.					

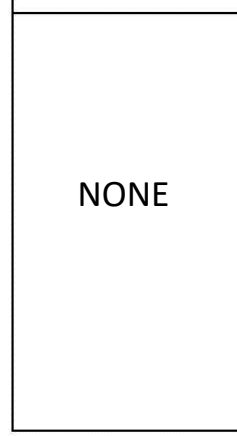
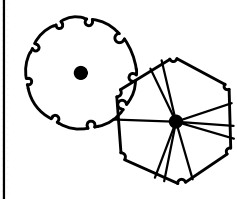
TABLE 3. BIO-FILTRATION BASIN VEGETATION CONTAINER PLANT PALETTE					
SYMBOL	BOTANICAL NAME	COMMON NAME	APPROXIMATE PERCENT COMPOSITION	SIZE	APPROX. SPACING (FEET ON CENTER)
	TREES AND SHRUBS				
	ANEMOPSIS CALIFORNICA	YERBA MANSA		1 GAL.	3 FT.
	ARTEMISIA DOUGLASIANA	DOUGLAS MUGWORT	15%	1 GAL.	4 FT.
	CAREX BARBARAE	SANTA BARBARA SEDGE		1 GAL.	3 FT.
	JUNCUS MEXICANUS	MEXICAN RUSH		1 GAL.	3 FT.
	JUNCUS XIPHIODES	IRIS RUSH		1 GAL.	3 FT.
	MUHLENBERGIA RIGENS	DEER GRASS		1 GAL.	6 FT.
	TOTALS		100%		
ALL CONTAINER PLANT PROPAGULES SHALL HAVE ORIGINATED FROM LOCAL CISMONTANE SOUTHERN CALIFORNIA SOURCES.					

TABLE 4. STREET AND PARKING AREA TREES CONTAINER PLANT PALETTE					
SYMBOL	BOTANICAL NAME	COMMON NAME	APPROXIMATE PERCENT COMPOSITION	SIZE	APPROX. SPACING (FEET ON CENTER)
	TREES AND SHRUBS				
	ALNUS RHOMBIFOLIA	WHITE ALDER	AS SHOWN	15 GAL.	AS SHOWN
	PLATANUS RACEMOSA	WESTERN SYCAMORE	AS SHOWN	15 GAL.	AS SHOWN
	QUERCUS AGRIFOLIA	COAST LIVE OAK	AS SHOWN	15 GAL.	AS SHOWN
TOTALS			100%		
ALL CONTAINER PLANT PROPAGULES SHALL HAVE ORIGINATED FROM LOCAL CISMONTANE SOUTHERN CALIFORNIA SOURCES.					

SEED MIXES:

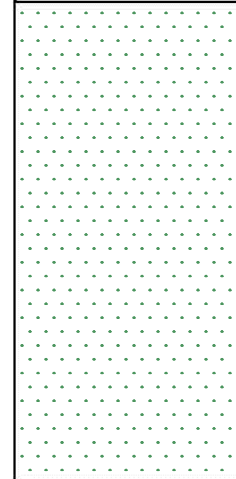
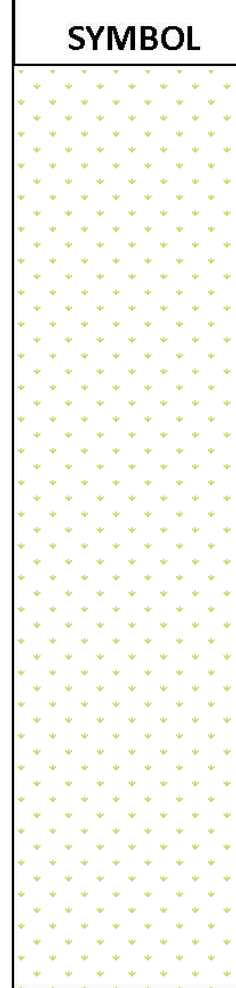
TABLE 5. BASIN ISLANDS AND SIDE SLOPE WETLAND VEGETATION SEED MIX A				
SYMBOL	BOTANICAL NAME	COMMON NAME	MINIMUM PERCENT LIVE SEED	RATE (LBS./ACRE)
	EPILOBIUM CANUM SSP. LATIFOLIUM (ZAUSCHNERIA CALIFORNICA)	CAIFORNIA FUCSHIA	27	6
	LEYMUS TRITICOIDES	CREEPING WILDRYE	80	4
	LOTUS SCOPARIUS	DEERWEED	85	4
	MIMULUS GUTTATUS	SEEP MONKEYFLOWER	10	8
	MULENBERGIA RIGENS	DEER GRASS	60	6
	PLANTAGO ERECTA	DOT-SEED PLANTAIN	85	4
	PLANTAGO INSULARIS	WHOLLY PLANTAIN	90	2
	TOTAL LBS./ACRE			34
ALL SEED SPECIES SHALL HAVE BEEN COLLECTED FROM LOCAL CISMONTANE SOUTHERN CALIFORNIA SOURCES.				

TABLE 6. TRANSITIONAL UPLAND VEGETATION SEED MIX B				
SYMBOL	BOTANICAL NAME	COMMON NAME	MINIMUM PERCENT LIVE SEED	RATE (LBS./ACRE)
	ARTEMISIA CALIFORNICA	CALIF. SAGEBRUSH	10	8
	CASTILEJA EXSERTA	OWL'S CLOVER	25	3
	ENCELIA FARINOSA	BRITTLE BUSH	30	3
	ERIOGONUM FASCICULATUM	CALIF. BUCKWHEAT	10	6
	ESCHSCHOLZIA CALIFORNICA	CALIF. POPPY	85	3
	LASTHENIA CALIFORNICA	CALIF. GOLDFIELDS	50	2
	LEYMUS CONDENSATUS	GIANT WILDRYE	70	2
	LOTUS SCOPARIUS	DEERWEED	85	2
	LUPINUS SUCCULENTUS	ARROYO LUPINE	90	2
	NASSELLA LEPIDA	FOOTHILL NEEDLEGRASS	65	3
	NASSELLA PULCHRA	PURPLE NEEDLE GRASS	75	2
	PLANTAGO ERECTA	DOT-SEED PLANTAIN	85	2
	PLANTAGO INSULARIS	WHOLLY PLANTAIN	90	2
	SALVIA APIANA	WHITE SAGE	25	4
	SISYRINCHIUM BELLUM	BLUE-EYED GRASS	80	2
	VULPIA MYUROS	RATTAIL FESCUE	85	2
				TOTAL LBS./ACRE
ALL SEED SPECIES SHALL HAVE BEEN COLLECTED FROM LOCAL CISMONTANE SOUTHERN CALIFORNIA SOURCES.				

HYDROSEED SLURRY MIX COMPONENTS:

- SEEDS AT LBS/ACRE AS INDICATED IN SEED MIXES ABOVE
- 2,500 POUNDS/ACRE VIRGIN WOOD CELLULOSE FIBER MULCH W/ GREEN MARKER DYE
- ECOLOGY CONTROLS M-BINDER SEED TACKIFIER (OR APPROVED EQUAL) @ 80 POUNDS/ACRE. (TO BE INCLUDED IN SLURRY MIX FOR INSTALLATIONS FROM NOVEMBER THROUGH MARCH OF ANY GIVEN YEAR.)
- FERTILIZERS: 6-20-20 –XB AT 200 LBS/ACRE

PLANTING NOTES:

- LANDSCAPE PLANTINGS AND IRRIGATION HAVE BEEN DESIGNED IN COMPLIANCE WITH THE CITY OF PASADENA GUIDELINES AND STANDARDS FOR LANDSCAPE PLANTING AND IRRIGATION PLANS AND THE STATE'S MODEL WATER EFFICIENT LANDSCAPE ORDINANCE.
- ALL UPLAND PLANING AND SEEDING AREAS WILL BE TOP-DRESSED WITH WALK-ON-FIR BARK MULCH AND WILL BE IRRIGATED FOR 3 TO 5 YEARS BY WAY OF A WATER EFFICIENT ABOVE-GROUND TEMPORARY IRRIGATION SYSTEM.
- ALL DISTURBED AREAS WILL BE SEEDED WITH AN EROSION CONTROL MIX FOLLOWING CONSTRUCTION.
- DETAILED PLANTING AND IRRIGATION PLANS ARE ANTICIPATED TO BE ON 22" X 34" SHEETS AT A SCALE OF 1" = 20'.

IRRIGATION CONCEPT SUMMARY:

PLANTINGS ARE COMPRISED OF SOUTHERN CALIFORNIA NATIVES OR CULTIVARS OF NATIVES THAT ARE EXPECTED TO SURVIVE WITH MINIMAL SUPPLEMENTAL IRRIGATION ONCE ESTABLISHED. THE IRRIGATION SYSTEM WILL BE A TEMPORARY ABOVE-GROUND IRRIGATION SYSTEM INSTALLED TO HELP ESTABLISH THE PLANT MATERIALS. SUPPLEMENTAL WATER WILL BE PROVIDED DURING THE DRY SEASON FOR THREE TO FIVE YEARS UNTIL PLANT ROOT SYSTEMS ARE SUFFICIENT TO SUPPORT PLANTS WITHOUT REGULAR WATER. TO WEAN PLANTS FROM SUPPLEMENTAL WATER BY THE END OF YEAR 3, IRRIGATION WILL BE SCALED BACK AFTER THE FIRST YEAR FOLLOWING CONSTRUCTION. ONCE ESTABLISHED, PLANTINGS WILL ONLY BE WATERED DURING EXCEPTIONALLY HOT AND DRY WEATHER AS NEEDED FOR PLANT SURVIVAL. THE IRRIGATION SYSTEM WILL BE REMOVED ONCE THE PLANTINGS ARE DEEMED SELF-SUSTAINABLE.