SUBMITTED	APPROVED
xxxxxxxxxx	MAUE, BRENT — DATE CITY ENGINEER REGISTERED CIVIL ENGINEER NO. 80265 REGISTRATION EXPIRES: SEPTEMBER 30, 2026

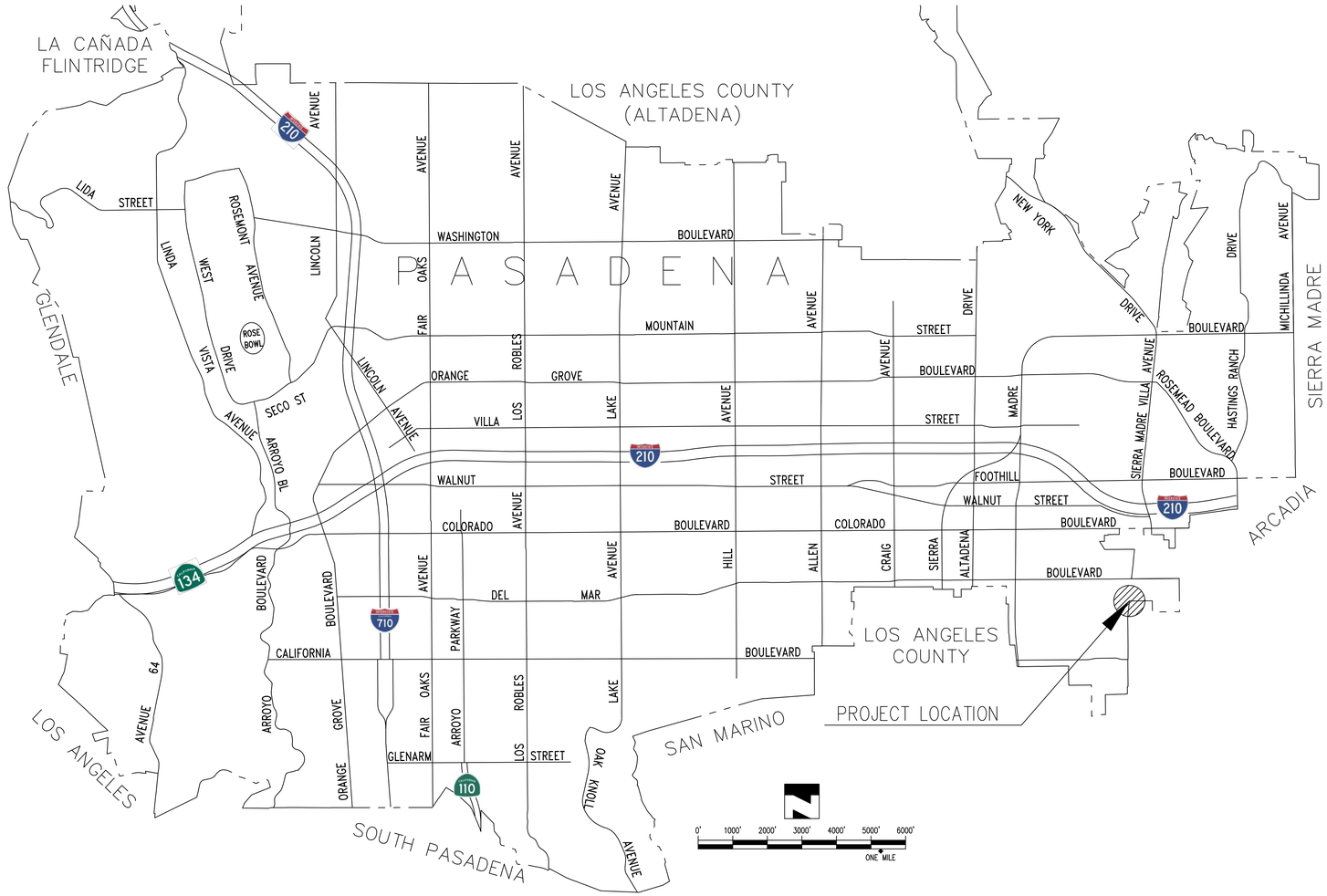
GENERAL NOTES:

1. ALL WORK TO BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION," 2021 EDITION, INCLUDING ANY SUPPLEMENTS, THE LATEST EDITION OF CITY OF PASADENA SUPPLEMENTS AND MODIFICATIONS TO THE ABOVE, AND THE PROJECT SPECIFICATIONS FOR "EATON WASH STORMWATER CAPTURE PROJECT," IN THE CITY OF PASADENA, CALIFORNIA.
2. ALL NEW CONCRETE CONSTRUCTION WILL MATCH EXISTING COLOR, FINISH, TEXTURE, AND SCORING LINE. IMPACT TOOLS AND EQUIPMENT WILL NOT BE USED FOR DEMOLITION. SAW CUTTING OF EXISTING CONCRETE, CURB, PAVEMENT, ETC. SHALL BE REQUIRED PRIOR TO DEMOLITION TO MINIMIZE VIBRATION TO ADJACENT BUILDINGS. EXISTING SURROUNDING SIDEWALKS SHALL BE CLEANED USING LOW-PRESSURE POWER WASHING USING ONLY WATER, NO MORE THAN 200 PSI.
3. THE CONTRACTOR SHALL PROTECT IN PLACE EXISTING STRUCTURES. EXTREME CARE MUST BE TAKEN WHEN WORKING IN THE VICINITY OF CONCRETE CURBS, BUILDINGS, AND LIGHT POSTS. PCC WHEEL STOPS TO BE REMOVED & RE-INSTALLED WITH CARE.
4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE STARTING WORK.

Attachment C

EATON WASH STORMWATER CAPTURE PROJECT

IN THE CITY OF PASADENA, CALIFORNIA



IMPORTANT NOTICE

Section 4216/4217 of the Government Code requires a Dig Alert Identification Number be issued before a "Permit to Excavate" will be valid For your Dig Alert I.D. Number Call Underground Service Alert TOLL FREE-1-800-422-4133 Two working days before you dig.

90% DESIGN PLANS NOT FOR CONSTRUCTION

CRAFTWATER

DRAWN BY	REVISIONS					
EJM	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
DESIGNED BY						
AMT, EJM						
CHECKED BY						
CAS			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT — SHEET G-01

SHEET TITLE: COVER SHEET — 1 OF 111

SCALE: AS SHOWN — ACCOUNT NUMBER: XXXXXX — DWG. NO.

Date: 4/9/2025 P:\PUBLIC\PROJECTS\PASADENA\2025-08\EATON WASH\90% DESIGN\PLANS\G-01 COVER SHEET.DWG

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UTILITY CONTACT LIST

UTILITY	NAME	TELEPHONE NO.
GAS	SOUTHERN CALIFORNIA GAS CO.	(714) 634-5067
STORM DRAIN & WASTE WATER	PASADENA PUBLIC WORKS - SEWER & STORM DRAIN	(626) 744-7389
ROAD	LOS ANGELES COUNTY PUBLIC WORKS	(626) 458-1709
WATER	PASADENA WATER & POWER	(626) 744-7478
COMMUNICATION	AT&T	(888) 290-3111
	LUMEN	(877) 366-8344
	SPECTRUM	(818) 922-6839
ELECTRIC	PASADENA WATER & POWER	(626) 744-4271
	SOUTHERN CALIFORNIA EDISON - METRO EAST	(949) 815-8934

VERTICAL CONTROL:
VERTICAL VALUES SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) UTILIZING COUNTY OF LOS ANGELES BENCHMARKS LISTED BELOW:

1. BENCHMARK NO: HG4123
   CSBM MON IN N ENF C. B. @ NE COR SAN GABRIEL BLVD & DEL MAR BLVD MKD (BM 10-7A 1971 RE 5869)
   ELEVATION 696.63 NAVD88
2. BENCHMARK NO: HG3604
   L&BN IN S END C. B. 3.3FT N/O BCR @ NW COR DEL MAR BLVD & SAN GABRIEL BLVD
   ELEVATION 697.07 NAVD88

HORIZONTAL CONTROL:
THE BASIS OF HORIZONTAL CONTROL FOR THIS PROJECT IS CALIFORNIA COORDINATE SYSTEM NAD83 ZONE 5, (2010.00) DETERMINED LOCALLY BY THE FOLLOWING N.G.S. CONTINUOUS OPERATING REFERENCE STATIONS (C.O.R.S.):

N.G.S. C.O.R.S. AZU1:
NORTHING = 1868257.71' EASTING = 6592998.35'

N.G.S. C.O.R.S. TORP:
NORTHING = 1748960.14' EASTING = 6461222.49'

THE COMBINATION FACTOR FOR THIS PROJECT WAS APPLIED AT THE FOLLOWING POINT:
NORTHING = 1873453.46' EASTING = 6535989.24'

MAPPING ANGLE = -0°02'54" SCALE FACTOR = 1.00004758

SWPPP - WDID# (TO BE ADDED)

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
EJM	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
DESIGNED BY						
AMT, EJM						
CHECKED BY						
CAS			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: GENERAL NOTES 1

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET G-02

2 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-NOTES.DWG

GENERAL NOTES

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE PROJECT TECHNICAL SPECIFICATIONS. WORK NOT COVERED BY THE PROJECT SPECIFICATIONS SHALL CONFORM TO THE STANDARD PLANS OF LOS ANGELES COUNTY, THE CITY OF PASADENA, AMERICAN PUBLIC WORKS ASSOCIATION AND CALTRANS STANDARD PLANS AND SPECIFICATIONS (ALL LATEST EDITIONS).
2. NOTIFICATION: AT LEAST TEN (10) DAYS BEFORE THE START OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY, IN WRITING, ALL HOMES LOCATED WITHIN 500 FEET OF THE WORK AREA, OF THE PROPOSED CONSTRUCTION START DATE. A COPY OF SAID WRITTEN NOTIFICATION SHALL BE PROVIDED TO THE INSPECTOR FOR WRITTEN APPROVAL BEFORE THEY ARE DISTRIBUTED TO THE OCCUPANTS OF THE ABUTTING PROPERTY.
3. THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER TWO (2) WORKING DAYS IN ADVANCE PRIOR TO STARTING WORK AT (626) 744-7311.
4. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES 48 HOURS IN ADVANCE PRIOR TO WORKING AROUND THEIR FACILITIES.
5. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT AT 811 48 HOURS IN ADVANCE PRIOR TO WORKING AROUND THEIR FACILITIES.
6. THE CONTRACTOR SHALL VISIT THE SITE AND BE KNOWLEDGEABLE OF CONDITIONS THEREON. THE CONTRACTOR SHALL INVESTIGATE, VERIFY AND BE RESPONSIBLE FOR ALL CONDITIONS OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE CITY OF ANY CONDITIONS REQUIRING CORRECTION OR MODIFICATION PRIOR TO PROCEEDING WITH THE WORK.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF ALL WORK ON THE SITE.
8. EXISTING ELEVATIONS AND LOCATIONS TO BE JOINED BY THE WORK SHALL BE VERIFIED BY THE CONTRACTOR BEFORE COMMENCING THE WORK. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES ON THE DRAWINGS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL DRAWINGS WITH ITS SUBCONTRACTORS. ALL SUBCONTRACTORS SHALL BE FURNISHED WITH COMPLETE SETS OF PLANS AND SPECIFICATIONS BY THE CONTRACTOR.
10. WHERE SPECIFIC DIMENSIONS, DETAILS, OR DESIGN INTENT CANNOT BE DETERMINED, CONSULT THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
11. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES AND PROTECT THEM FROM DAMAGE AS REQUIRED. ALL EXISTING UTILITY CROSSINGS SHALL BE POTHOLED AND FIELD LOCATED. IN ANY INSTANCES WHERE THE CLEARANCE BETWEEN THE TOP OF THE EXISTING PIPE AND THE BOTTOM OF THE CROSSING PIPE OR CONDUIT IS LESS THAN 18", CONTRACTOR SHALL INSTALL BLANKET PROTECTION IN ACCORDANCE WITH THE STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION NO. 225-2.

EXISTING FACILITY NOTE

ALL EXISTING INFORMATION SHOWN ON THE PLANS PREPARED BY CRAFTWATER HAS BEEN TRANSFERRED FROM DOCUMENTS PROVIDED BY THE CITY OF PASADENA. CRAFTWATER HAS PROVIDED DRAFTING SERVICES ONLY WITH REGARD TO DEPICTING EXISTING IMPROVEMENTS AND CONDITIONS. CRAFTWATER CANNOT GUARANTEE THE ACCURACY OR COMPLETENESS OF EXISTING INFORMATION SHOWN. IF CONTRACTOR NOTICES ANY DISCREPANCIES BETWEEN EXISTING INFORMATION SHOWN ON THESE PLANS AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL GIVE NOTICE OF SUCH FACT TO THE CITY OR ITS REPRESENTATIVE WITHOUT DELAY.

JOB SITE RESPONSIBILITY

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; AND THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

WORK AREA RESTRICTIONS

1. ONCE AUTHORIZED BY THE CITY TO COMMENCE WORK WITHIN THE LACFCD STORM DRAIN, THE CONTRACTOR SHALL NOTIFY THE FLOOD MAINTENANCE DIVISION AT TELEPHONE (626) 458-4304 (8:00AM TO 4:00PM) AND WATER RESOURCES DIVISION (OPERATIONS SECTION) AT TELEPHONE (626) 458-6177 AND PROVIDE THEM WITH A SCHEDULE OF ACTIVITIES A MINIMUM OF 120 HOURS (5 WORKING DAYS) BEFORE STARTING ANY WORK UNDER THE PERMIT.
2. CONTRACTOR SHOULD BE AWARE THAT IMPROVEMENTS WITHIN THE LACFCD STORM DRAIN MAY OCCUR WHEN LARGE FLOWS ARE PRESENT WITHIN THE LACFCD STORM DRAIN, RAIN GAUGES THROUGHOUT THE WATERSHED SHOULD BE MONITORED DURING ALL WORK WITHIN THE LACFCD STORM DRAIN. CONTRACTOR IS RESPONSIBLE FOR SAFELY DIVERTING AND CONVEYING FLOW WITHIN THE WORK AREA THROUGHOUT THE DURATION OF CONSTRUCTION.
3. PRIOR TO ANY WORK WITHIN THE LACFCD STORM DRAIN, THE CONTRACTOR SHALL SUBMIT A WATER DIVERSION PLAN TO THE CITY AND THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT (LACFCD) TO PROVIDE BYPASS CAPACITY AS FOLLOWS:
   - APRIL 16 TO MAY 31: xx.xx CFS (33%)
   - JUNE 1 TO AUGUST 31: xx.xx CFS (5%)
   - SEPTEMBER 1 TO OCTOBER 14: xx.xx CFS (33%)
   - NO WORK WILL BE ALLOWED IN THE LACFCD STORM DRAIN DURING THE PERIOD OF OCTOBER 15-APRIL 15 PLEASE SEE PERMIT POLICY DURING THE STORM SEASON FOR MORE DETAILS.
4. THE CONTRACTOR SHALL SUBMIT THE WATER DIVERSION PLAN A MINIMUM OF 60-DAYS PRIOR TO THE ANTICIPATED START DATE OF THE WORK TO OCCUR WITHIN THE STORM DRAIN. THE WATER DIVERSION PLAN IS REQUIRED TO BE REVIEWED AND APPROVED BY THE CITY AND LACFCD.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM NOTES

1. IN THE CASE OF EMERGENCY, CALL CITY OF PASADENA ENGINEER AT (626) 744-7311.
2. SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ONSITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE.
3. STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORTATION FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.
4. ALL WORK SHALL BE IN ACCORDANCE WITH THE PROJECT APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
5. THE CONTRACTOR IS REQUIRED TO PREPARE AND SUBMIT THE SWPPP FOR APPROVAL BY THE CITY.

UTILITY NOTES

1. A PERMIT SHALL BE OBTAINED AND ALL FEES AND DEPOSITS FOR CONSTRUCTION INSPECTION SHALL BE PAID TO THE LOS ANGELES COUNTY PUBLIC WORKS AT THE PERMIT COUNTER, 900 SOUTH FREMONT AVENUE, 8TH FLOOR, PRIOR TO STARTING WORK UNDER THIS CONTRACT. ALSO, ALL OTHER REQUIRED PERMITS, SUCH AS ROAD EXCAVATION PERMITS, MUST BE OBTAINED PRIOR TO STARTING WORK.
2. APPROVAL OF THIS PLAN BY LOS ANGELES COUNTY DOES NOT CONSTITUTE A REPRESENTATION TO THE ACCURACY OF THE LOCATION, OR THE EXISTENCE OR NONEXISTENCE OF ANY UNDERGROUND UTILITY, PIPE, OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THIS NOTE APPLIES TO ALL SHEETS.
3. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" (INCLUDING SUPPLEMENTS).
4. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 7-10.4.1 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION IN REGARD TO SAFETY ORDERS AND SHALL CONFORM TO THE "MINIMUM PUBLIC SAFETY REQUIREMENTS" AS SHOWN ON THE LOS ANGELES COUNTY PUBLIC WORKS STANDARD PLAN 6008.
5. ELEVATIONS ARE IN FEET ABOVE U.S.C. AND G.S. MEAN SEA LEVEL DATUM OF 1929 UNLESS OTHERWISE INDICATED.
6. NO CONCRETE SHALL BE PLACED UNTIL THE FORMS AND REINFORCING STEEL HAVE BEEN PLACED, INSPECTED, AND APPROVED.
7. ALL STRUCTURAL CONCRETE SHALL BE PORTLAND CEMENT CONCRETE WITH AN ULTIMATE 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI UNLESS OTHERWISE NOTED.
8. TRANSVERSE REINFORCEMENT AND TRANSVERSE JOINTS SHALL BE PLACED AT RIGHT ANGLES (OR RADIAL) TO THE CONDUIT CENTERLINE EXCEPT AS OTHERWISE SHOWN ON THE DRAWINGS.
9. ALL STEEL ADJACENT TO FACE OF CONCRETE SHALL HAVE A 2-1/2-INCH CLEARANCE UNLESS OTHERWISE SPECIFIED.
10. REINFORCEMENT SHALL BE DEFORMED BARS OF INTERMEDIATE GRADE STEEL, PER ASTM A615 GRADE 60.
11. ALL BAR BENDS AND HOOKS SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE "MANUAL OF STANDARD PRACTICE."
12. DIMENSIONS FROM FACE OF CONCRETE TO STEEL ARE TO CENTERLINE OF STEEL UNLESS OTHERWISE NOTED.
13. ALL STEEL THAT IS TO BE CONTINUOUS SHALL HAVE A MINIMUM LAP OF 30 BAR DIAMETERS OR 18 INCHES, WHICHEVER IS GREATER.
14. ALL CONSTRUCTION JOINTS IN THE FOOTING OR SLABS AND WALLS SHALL BE IN THE SAME PLANE. NO STAGGERING OF JOINTS WILL BE PERMITTED.
15. ALL EXPOSED EDGES SHALL BE FINISHED WITH A 3/4-INCH CHAMFER.
16. UNLESS OTHERWISE SHOWN, CONCRETE DIMENSIONS SHALL BE MEASURED VERTICALLY OR HORIZONTALLY AND PARALLEL OR AT RIGHT ANGLES (OR RADIAL) TO THE CENTER LINE OF CONSTRUCTION.
17. CONCRETE BACKFILL IS REQUIRED WHEN THE PIPE HAS LESS THAN ONE-FOOT OF COVER. THE CONCRETE BACKFILL SHALL CONSIST OF 1:3:5 MIX, PORTLAND CEMENT CONCRETE POURED FROM WALL TO WALL OF TRENCH AND FROM BOTTOM OF TRENCH TO A MINIMUM OF 4 INCHES OVER THE TOP OF THE PIPE.
18. ALL PIPES SHALL BE PLACED IN TRENCH IN NATURAL GROUND AND/OR COMPACTED FILL. THE GROUND LEVEL BEFORE THE TRENCHING SHALL BE AT LEAST 3 FEET ABOVE THE TOP OF THE PIPE ELEVATION OR AT FINISH SURFACE ELEVATION, WHICHEVER IS LESS.
19. ALL BACKFILL AND RELATIVE COMPACTION FILLS OUTSIDE OF STREET RIGHT OF WAY SHALL BE COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 90 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM SOIL TEST D 1557-91 METHOD D UNLESS OTHERWISE SPECIFIED. THIS SHALL BE CERTIFIED BY A SOILS ENGINEER. THIS CERTIFICATION SHALL BE SUBMITTED TO THE CITY ENGINEER PRIOR TO ACCEPTANCE OF THE WORK BY THE COUNTY.
20. ALL BACKFILL AND FILLS WITHIN STREET RIGHTS OF WAY SHALL BE COMPACTED IN ACCORDANCE WITH CITY REQUIREMENTS UNLESS OTHERWISE NOTED AND INSPECTED BY THE CITY. THE SOIL COMPACTION SHALL BE CERTIFIED BY A GEOTECHNICAL ENGINEER.
21. PIPE BEDDING SHALL BE:
    -IN ACCORDANCE WITH THE LOS ANGELES COUNTY PUBLIC WORKS STANDARD PLAN NO. 3092 UNLESS OTHERWISE NOTED.

    -ACCORDING TO STANDARD PLAN NO. 3080-2, CASE III, EXCEPT BELL AND SPIGOT PIPE, WHICH SHALL BE CASE II BEDDING UNLESS OTHERWISE SHOWN. W VALUES SHALL BE AS SPECIFIED ON STANDARD PLAN NO. 3080 FOR CASE III BEDDING, NOTES 3 (A), 3 (B), AND 3 (C). IF THE W: VALUE AT THE TIP OF THE PIPE IS EXCEEDED, THE BEDDING SHALL BE MODIFIED AND/OR PIPE OF ADDITIONAL STRENGTH SHALL BE PROVIDED. THE PROPOSED MODIFICATION SHALL BE APPROVED BY PUBLIC WORKS.
22. PIPE SHALL BE EMBEDDED 5 INCHES INTO ALL STRUCTURES INCLUDING INLET AND HEAD WALLS UNLESS OTHERWISE SPECIFIED.
23. THE MINIMUM CONCRETE COVER FOR REINFORCEMENT IN PRECAST CONCRETE PIPE SHALL BE 1 INCH IN PIPE HAVING A WALL THICKNESS OF 2 1/2 INCHES OR GREATER AND 3/4 INCH IN PIPE HAVING A WALL THICKNESS OF LESS THAN 2 1/2 INCHES.
24. ALL CATCH BASINS WITHIN THE DEDICATED STREET RIGHT OF WAY SHALL BE CONSTRUCTED PER THE STREET PLANS
25. ALL REFERENCES ON THIS PLAN TO THE COUNTY ENGINEER, ROAD DEPARTMENT, OR FLOOD CONTROL DISTRICT SHALL APPLY TO THE APPROPRIATE ELEMENTS OF PUBLIC WORKS.
26. EXISTING UTILITIES SHALL BE MAINTAINED IN PLACE BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
27. WHERE THE UTILITIES ARE INDICATED ON THE DRAWINGS TO BE SUPPORTED, SAID SUPPORTS - SHALL BE IN ACCORDANCE WITH STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION NO. 224 UNLESS OTHERWISE INDICATED.
28. MANHOLES SHALL USE THE STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION NO. 630 FOR THE "FRAME AND COVER" AND NO. 635 FOR THE "STANDARD DROP STEP."
29. THIS WATER QUALITY SYSTEM WILL NOT BE FIELD ACCEPTED UNTIL THE STREETS HAVE BEEN PAVED, MANHOLES BROUGHT TO GRADE, AND THE SYSTEM CLEANED TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS.
30. THE SOILS ENGINEER OF RECORD SHALL INSPECT AND APPROVE THE FOUNDATION EXCAVATIONS BEFORE STEEL OR CONCRETE IS PLACED.
31. STORM DRAIN MANHOLE COVERS CONSTRUCTED PER S.P.P.W.C. STANDARD PLANS 630, 631, 632, AND 633 SHALL BE CAST WITH THE LETTERS "L.A.C.F.C.D.". THE LETTERS SHALL BE 1 INCH IN HEIGHT AND PLACED BELOW THE LETTER "D"IN THE CENTER OF THE COVER.
32. STORM DRAIN MANHOLE COVERS CONSTRUCTED PER S.P.P.W.C. STANDARD PLAN 312 SHALL BE CAST WITH THE LETTERS "L.A.C.F.C.D.". THE LETTERS SHALL BE 1 INCH IN HEIGHT AND PLACED BELOW THE LETTER "D"IN THE CENTER OF THE COVER.
33. ALL ABOVE GROUND FACILITIES SHALL BE STAMPED WITH THE DRAIN AND LINE NAME. THE LETTERING SHOULD BE 4"BLACK TEXT ON A YELLOW BACKGROUND.

EROSION CONTROL NOTES:

1. EVERY EFFORT SHOULD BE MADE TO ELIMINATE THE DISCHARGE OF NON-STORMWATER FROM THE PROJECT. SITE AT ALL TIMES.
2. ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON-SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEETFLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES, OR WIND.
3. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
4. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.
5. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON-SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
6. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION OF RAINWATER AND DISPERSAL BY WIND.
7. SEDIMENTS AND OTHER MATERIALS MAY NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY. ACCIDENTAL DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.
8. ANY SLOPES WITH DISTURBED SOILS OR DENUDED OF VEGETATION MUST BE STABILIZED SO AS TO INHIBIT EROSION BY WIND AND WATER.
9. THE FOLLOWING BMPs AS OUTLINED IN, BUT NOT LIMITED TO, THE LATEST EDITION OF THE LACDPW CONSTRUCTION SITE BMP MANUAL (CONSTRUCTION), MAY APPLY DURING THE CONSTRUCTION OF THIS PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY THE PROJECT ENGINEER OR THE BUILDING OFFICAL):

TEMPORARY SOIL STABILIZATION

SS-1 SCHEDULING
SS-2 PRESERVATION OF EXISTING VEGETATION
SS-3 HYDRAULIC MULCH
SS-4 HYDROSEEDING
SS-5 SOIL BINDERS
SS-6 STRAW MULCH
SS-7 TEMPORARY COVER AND ROLLED EC PRODUCTS
SS-8 WOOD MULCHING
SS-9 EARTH DIKES AND DRAINAGE SWALES
SS-10 VELOCITY DISSIPATION DEVICES
SS-11 SLOPE DRAINS
SS-12 STREAMBANK STABILIZATION

TEMPORARY SEDIMENT CONTROLS

SC-1 SILT FENCE
SC-2 SEDIMENT/DESILTING BASIN
SC-3 SEDIMENT TRAP/CURB CUTBACK
SC-4 CHECK DAM
SC-5 FIBER ROLLS
SC-6 GRAVEL BAG BERM/EARTHEN BERM
SC-7 STREET SWEEPING
SC-8 SANDBAG BARRIER
SC-9 STRAW BALE BARRIER
SC-10 TEMPORARY DRAINAGE INLET PROTECTION
SC-11 COMPOST SOCK
SC-12 FLEXIBLE SEDIMENT BARRIER

WIND EROSION CONTROL

WE-1 WIND EROSION CONTROL

TRACKING CONTROL

TC-1 TEMPORARY CONSTRUCTION ENTRANCE/EXIT
TC-2 TEMPORARY CONSTRUCTION ROADWAY
TC-3 ENTRANCE/OUTLET TIRE WASH

NON-STORM WATER MANAGEMENT

NS-1 WATER CONSERVATION PRACTICES
NS-2 DEWATERING OPERATIONS
NS-3 PAVING, SEALING, SAWCUTTING AND GRINDING OPERATIONS
NS-4 TEMPORARY STREAM CROSSING
NS-5 CLEAR WATER DIVERSION
NS-6 ILLEGAL CONNECTION AND ILLICIT DISCHARGE DETECTION AND REPORTING
NS-7 POTABLE WATER/IRRIGATION
NS-8 VEHICLE AND EQUIPMENT CLEANING
NS-9 VEHICLE AND EQUIPMENT FUELING
NS-10 VEHICLE AND EQUIPMENT MAINTENANCE
NS-11 PILE DRIVING OPERATIONS
NS-12 CONCRETE CURING
NS-13 MATERIAL AND EQUIPMENT USE OVER WATER
NS-14 CONCRETE FINISHING
NS-15 STRUCTURE DEMOLITION/REMOVAL OVER OR ADJACENT TO WATER

WASTE MANAGEMENT & MATERIALS POLLUTION CONTROL

WM-1 MATERIAL DELIVERY AND STORAGE
WM-2 MATERIAL USE
WM-3 STOCKPILE MANAGEMENT
WM-4 SPILL PREVENTION AND CONTROL
WM-5 SOLID WASTE MANAGEMENT
WM-6 HAZARDOUS WASTE MANAGEMENT
WM-7 CONTAMINATED SOIL MANAGEMENT
WM-8 CONCRETE WASTE MANAGEMENT
WM-9 SANITARY AND SEPTIC WASTE MANAGEMENT
WM-10 LIQUID WASTE MANAGEMENT

PUMP/MECHANICAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CONSTRUCTION SITE DURING THE DURATION OF THE PROJECT. ALL DEBRIS, CONSTRUCTION MATERIAL, AND EQUIPMENT AT THE PUMP STATION SHALL BE LOCATED OUT OF THE WAY OF ADJACENT PROPERTY OWNER.
2. THE CONTRACTOR SHALL ENSURE APPROPRIATE FLAGGING AND TRAFFIC CONTROL IS IN PLACE TO ENSURE SAFE LOADING AND UNLOADING OF EQUIPMENT AND MATERIALS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE DURING THE DURATION OF THE PROJECT FOR CLOSING THE SITE OFF FOR VEHICULAR ACCESS. ALL APPLICABLE CALTRANS GUIDELINES SHALL BE ADHERED TO FOR MAINTAINING THE SITE AND INHIBITING VEHICULAR ACCESS INTO THE SITE.
4. THE CONTRACTOR SHALL COORDINATE WITH SOUTHERN CALIFORNIA EDISON TO ENSURE BOTH THE PROPER INSTALLATION OF ELECTRICAL SERVICE AND FOR PROTECTING THEIR EXISTING NEARBY UTILITIES. IT IS RECOMMENDED THAT PRIOR TO COMMENCING THE WORK THAT THE CONTRACTOR HAVE 911 UTILITIES LOCATE THE EXISTING UTILITIES AND PERFORM NECESSARY POTHOLE TESTING TO AVOID POTENTIAL CONFLICTS. PLEASE NOTE, THAT IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY EXISTING UTILITIES AND COORDINATE WITH EXISTING UTILITY COMPANIES TO CONFIRM THE LOCATION OF THEIR FACILITIES WITHIN THE CONSTRUCTION SITE.
5. THE CONTRACTOR SHALL FOLLOW LOCAL COUNTY NOISE ORDINANCES FOR ALL WORK ACTIVITY PERFORMED WITHIN RESIDENTIAL AREAS. WORK HOURS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
6. THE CONTRACTOR SHALL PERFORM A THOROUGH LOCK-OUT/TAG-OUT AT THE END OF EACH WORKDAY. ALL TRENCHED AREAS SHALL BE STEEL PLATED OVER TO AVOID RISKING INJURY OF LOCAL RESIDENCES.
7. THE CONTRACTOR SHALL ENSURE OSHA REGULATIONS ARE ADHERED TO DURING CONSTRUCTION. A FIELD SAFETY OFFICER FROM THE CONTRACTOR SHALL MONITOR ALL SITE SAFETY AND ENSURE IT IS UP TO NECESSARY CODES AND REGULATIONS.
8. THE ONSITE OWNER/CLIENT REPRESENTATIVE SHALL BE THE ONSITE LIAISON ASSISTING THE CONTRACTOR WITH CONCERNS RAISED BY CONCERNED RESIDENCES. ANY CONCERNS RAISED BY MEMBERS OF THE COMMUNITY SHALL BE FIRST ROUTED THROUGH TO THE DESIGNATED OWNER/CLIENT REPRESENTATIVE.

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	DESIGNED BY	CHECKED BY
EJM	AMT, EJM	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: GENERAL NOTES 2

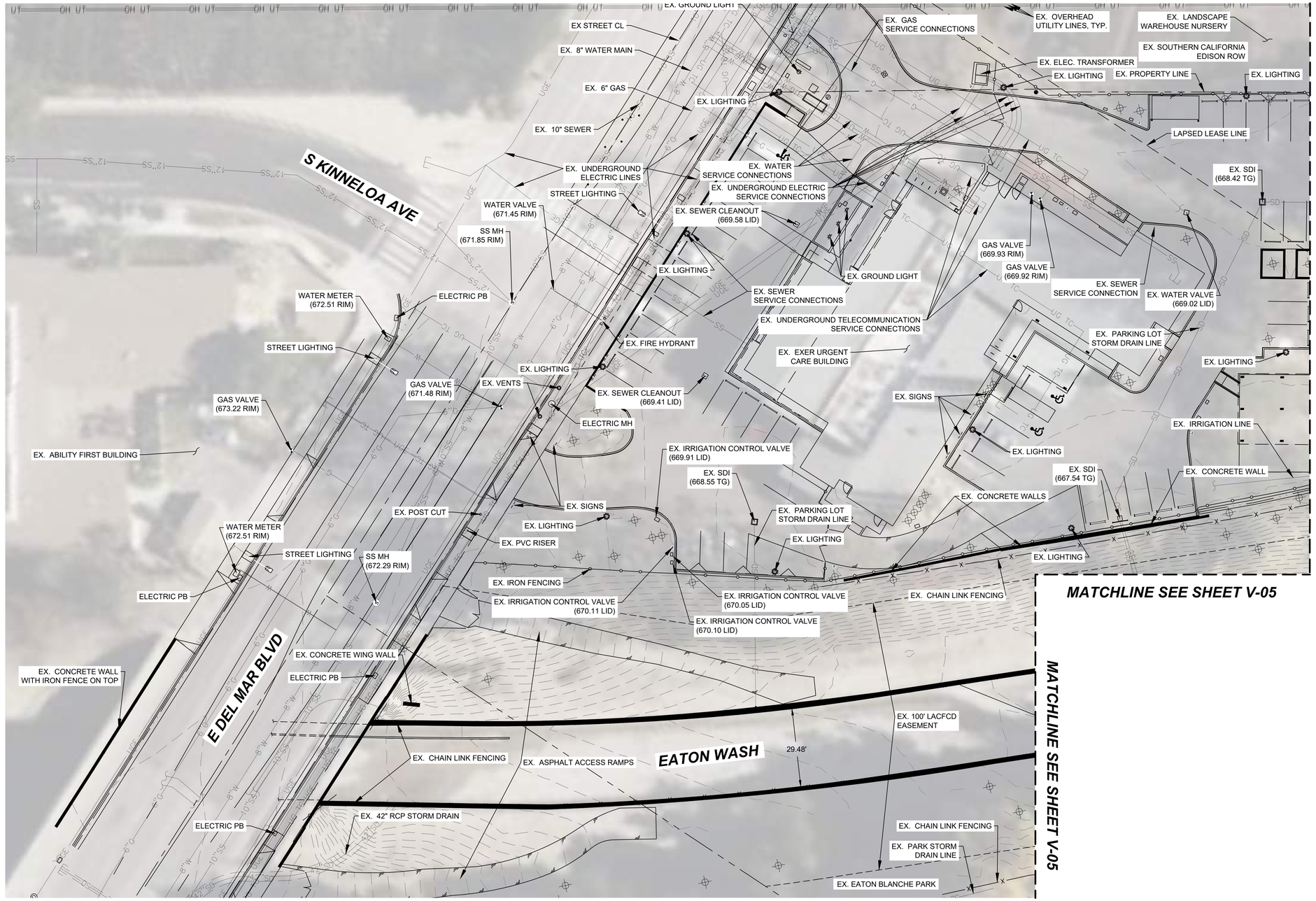
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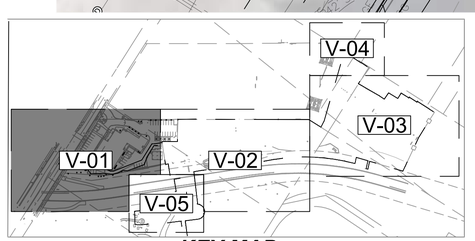
SHEET G-03

3 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-NOTES.DWG





KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

LEGEND

- X — CHAIN LINK FENCE
- ° — WROUGHT IRON FENCE
- EASEMENT LINE
- G — GAS LINE
- UGE — ELECTRICAL LINE
- OH UT — OVERHEAD LINE
- SS — SANITARY SEWER LINE
- SD — STORM DRAIN LINE
- W — WATER LINE
- UG TC — UNDERGROUND TELECOM LINE
- FIRE HYDRANT
- (D) STORM MANHOLE
- (90) MAJOR CONTOUR WITH ELEV
- (89) MINOR CONTOUR WITH ELEV
- SIGN
- CONTROL
- PROPERTY LINE
- GUY WIRE
- (E) ELECTRIC MANHOLE
- GAS VALVE
- STREET LIGHT
- GATE
- UTILITY TOWER
- POLE-POWER
- LIGHT (STANDARD)
- VENT
- ELECTRIC OUTLET
- (S) SEWER MANHOLE
- IRR. CONTROL VALVE
- WATER VALVE
- TREE
- STORMWATER FLOW DIRECTION
- 88.7 XX SPOT ELEVATION
- BLOCK WALL
- RETAINING WALL

ABBREVIATIONS

EX	EXISTING	RIM	RIM ELEVATION
INV	INVERT	SDI	STORM DRAIN INLET
LID	LID ELEVATION	TG	TOP OF GRATE
MH	MANHOLE	TYP	TYPICAL
		FG	FINISHED GRADE

NOTES

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90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: EXISTING CONDITIONS PLAN 1

SCALE: AS SHOWN

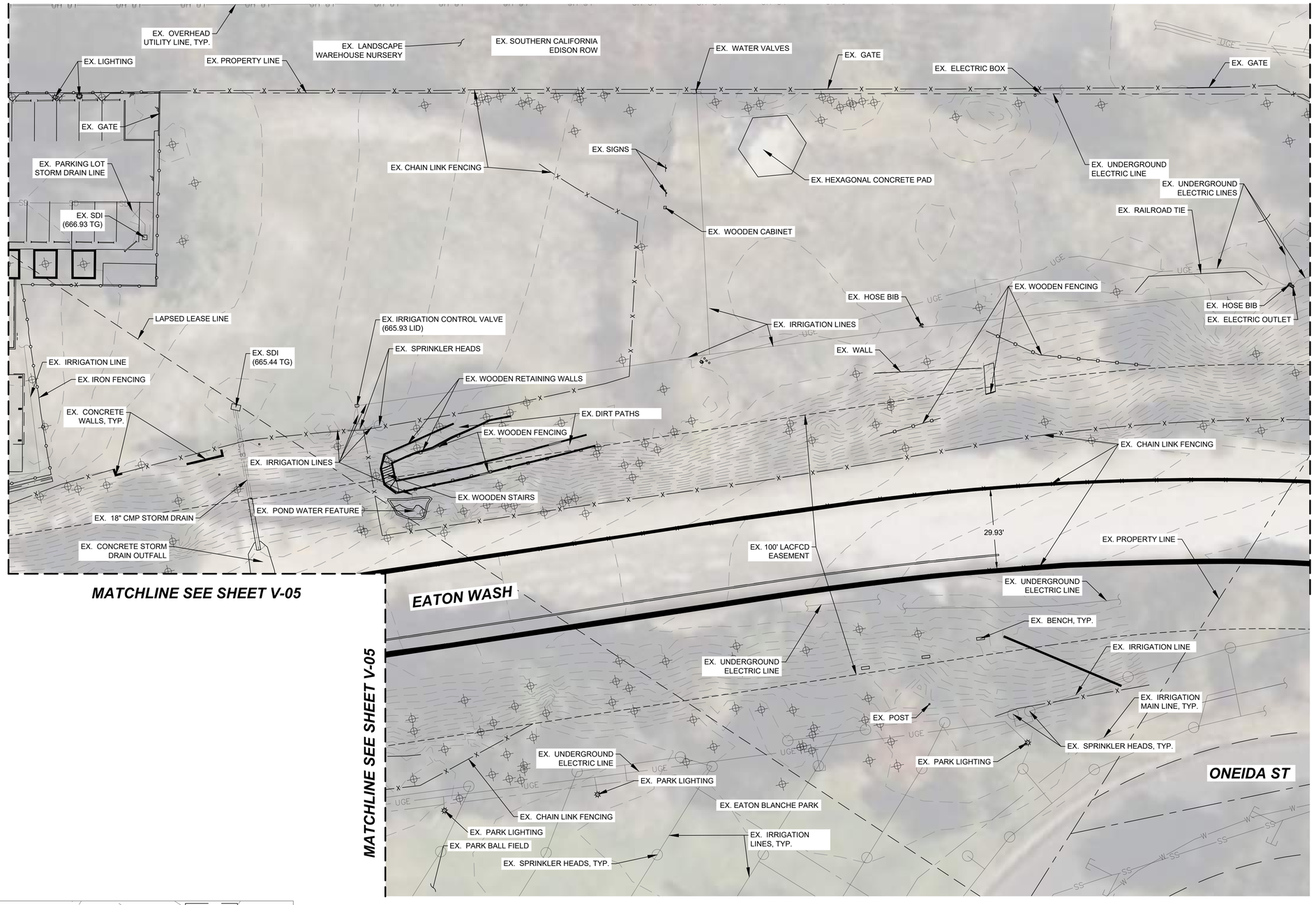
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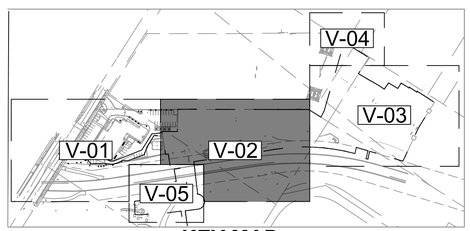
SHEET V-01

4 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-EX_CONDITIONS.DWG





KEY MAP
SCALE: 1"=250'

LEGEND

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ABBREVIATIONS

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90% DESIGN PLANS NOT FOR CONSTRUCTION

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DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: EXISTING CONDITIONS PLAN 2

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET V-02

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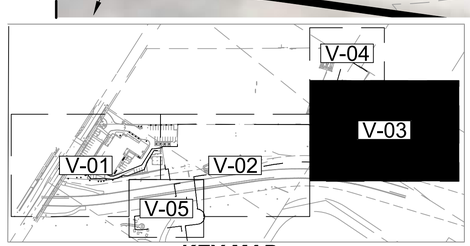
DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-EX_CONDITIONS.DWG

MATCHLINE SEE SHEET V-04

MATCHLINE SEE SHEET V-02

EX. GUY WIRE, TYP.
EX. UTILITY POLES
EX. IRRIGATION CONTROL VALVE (657.76 LID)
EX. IRRIGATION CONTROL VALVE (657.57 LID)
EX. WOODEN FENCING
EX. LANDSCAPE WAREHOUSE NURSERY
EX. IRRIGATION CONTROL VALVE (657.79 LID)
EX. IRRIGATION CONTROL VALVE (657.03 LID)
EX. UTILITY TOWER
EX. IRRIGATION LINE, TYP.
EX. IRRIGATION CONTROL VALVE (656.58 LID)
EX. IRRIGATION CONTROL VALVE (657.48 LID)
EX. IRRIGATION CABINET
EX. LOT LINES
EX. UNDERGROUND ELECTRIC LINES
EX. OVERHEAD UTILITY LINES, TYP.
EX. BLOCK WALL, TYP.
EX. GATE
EX. CONCRETE PATH
EX. OVERHEAD TELECOMMUNICATION LINE
EX. 4" WATER MAIN
EX. 2" GAS
GRAYBURN RD
EX. GATE
EX. GROUND ROD
EX. POST
EX. UTILITY POLES
EX. GAS SERVICE LATERALS
EX. UNDERGROUND ELECTRIC LINES
EX. OVERHEAD UTILITY LINES, TYP.
EX. POST
EX. GROUND ROD
EX. OVERHEAD TELECOMMUNICATION LINE
EX. CHAIN LINK FENCING
EX. OVERHEAD UTILITY LINES, TYP.
EX. IRRIGATION CONTROL VALVE (653.88 LID)
CITY OF PASADENA/COUNTY OF LA BORDER
EX. SOUTHERN CALIFORNIA EDISON ROW
EX. UNDERGROUND ELECTRIC LINE
EX. PROPERTY LINE
EX. IRRIGATION LINES
EX. HOSE BIB
EX. IRRIGATION LINE
EX. HOSE BIB
EX. WOODEN FENCING
EX. LOT LINES
EX. IRRIGATION CONTROL VALVE (654.47 LID)
COUNTY OF LOS ANGELES
CITY OF PASADENA
EX. UNDERGROUND ELECTRIC LINES
EX. IRRIGATION LINE
EX. IRRIGATION CONTROL VALVE (653.65 LID)
EX. UTILITY POLES
EX. WOODEN FENCING
EX. IRRIGATION CONTROL VALVE (653.72 LID)
EX. WALL
EX. BLOCK WALL, TYP.
LIMIT OF EX. 100' LACFCD EASEMENT
LIMIT OF EX. 100' LACFCD EASEMENT
EX. DIRT LACFCD ACCESS PATH
EX. CHAIN LINK FENCING
29.45'
EATON WASH



KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

LEGEND

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NOTES

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90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: EXISTING CONDITIONS PLAN 3

SCALE: AS SHOWN

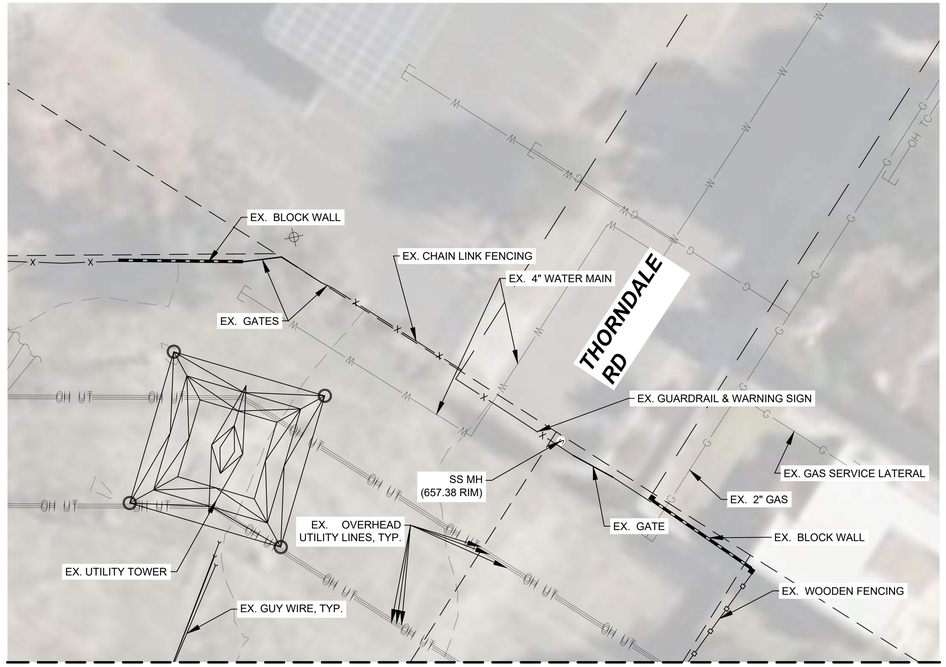
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SHEET V-03

6 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-EX_CONDITIONS.DWG



MATCHLINE SEE SHEET V-03

LEGEND

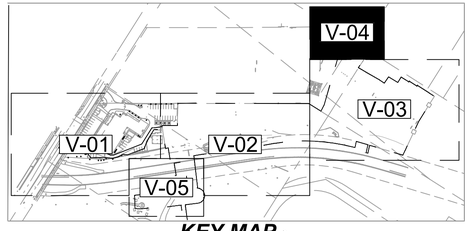
- CHAIN LINK FENCE
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KEY MAP
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0 20 40 Feet

SCALE: 1"=20'

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DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: EXISTING CONDITIONS PLAN 4

SCALE: AS SHOWN

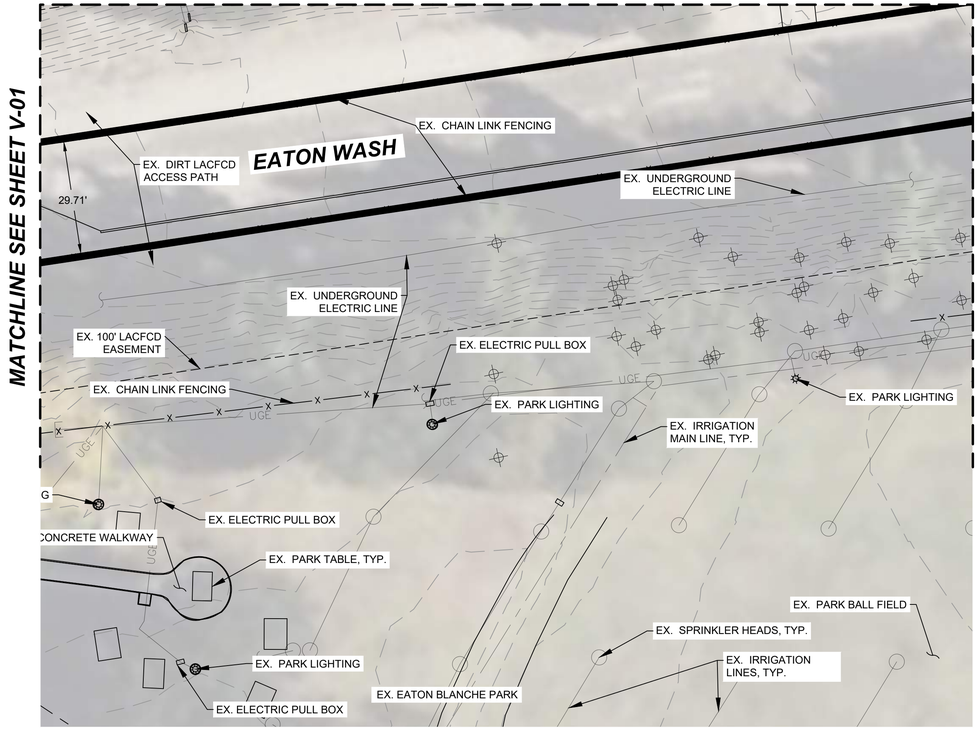
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SHEET V-04

7 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-EX_CONDITIONS.DWG



LEGEND

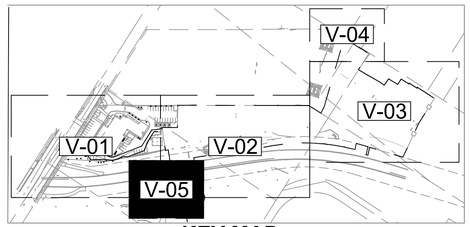
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- CONTROL
- PROPERTY LINE
- GUY WIRE
- ELECTRIC MANHOLE
- GAS VALVE
- STREET LIGHT
- GATE
- UTILITY TOWER
- POLE-POWER
- LIGHT (STANDARD)
- VENT
- ELECTRIC OUTLET
- SEWER MANHOLE
- IRR. CONTROL VALVE
- WATER VALVE
- WATER FAUCET
- TREE
- STORMWATER FLOW DIRECTION
- 88.7 XX SPOT ELEVATION
- BLOCK WALL
- RETAINING WALL

ABBREVIATIONS

EX	EXISTING	RIM	RIM ELEVATION
INV	INVERT	SDI	STORM DRAIN INLET
LID	LID ELEVATION	TG	TOP OF GRATE
MH	MANHOLE	TYP	TYPICAL
		FG	FINISHED GRADE

NOTES

1. ALL UNDERGROUND UTILITIES SHOWN WERE COMPILED USING FIELD SURVEY INFORMATION AND AVAILABLE RECORD INFORMATION.
2. A GROUND SURVEY WAS PERFORMED BY CALVADA SURVEYING IN JANUARY 2025. PLEASE SEE GENERAL NOTES ON SHEET G-02 FOR HORIZONTAL AND VERTICAL CONTROL.
3. RECORD UTILITY INFORMATION FROM THE VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES ARE APPROXIMATE ONLY AND ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD.
4. THE LOCATION OF EXISTING PIPES OR OTHER UNDERGROUND STRUCTURES OR PROPERTY LINES ARE NOT WARRANTED TO BE EXACT, NOR IS IT WARRANTED THAT ALL UNDERGROUND PIPES OR STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL CALL THE USA UNDERGROUND 811 ALERT NO LESS THAN TWO DAYS (EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS) NOR MORE THAN 7 DAYS PRIOR TO ANY EXCAVATION TO OBTAIN ACCURATE UTILITY LOCATIONS. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR ANY DAMAGE DONE TO EXISTING UTILITIES OR STREET IMPROVEMENTS INCLUDING CONCRETE AND LANDSCAPING DURING CONSTRUCTION.
5. THE EXISTING CONDITIONS PLAN IS TO BE USED FOR THE SPECIFIED PROJECT ONLY AND IS NOT WARRANTED TO BE COMPLETE FOR ANY OTHER FUTURE PROJECTS.



KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: EXISTING CONDITIONS PLAN 5

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET V-05

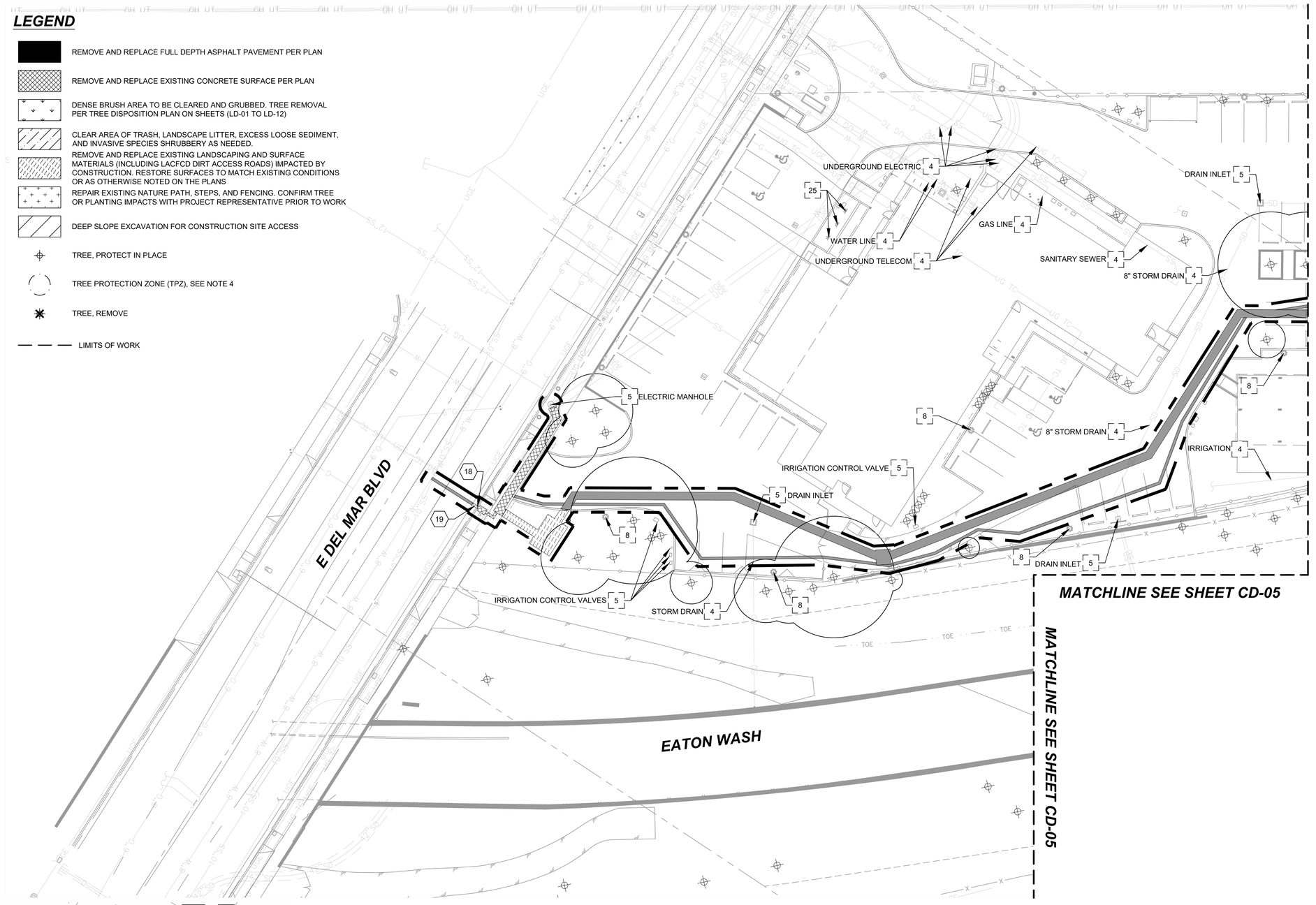
8 OF 111

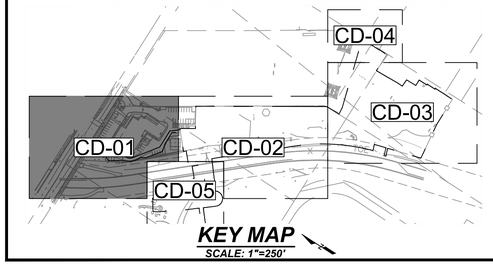
DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-EX_CONDITIONS.DWG

LEGEND

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- REMOVE AND REPLACE EXISTING CONCRETE SURFACE PER PLAN
- DENSE BRUSH AREA TO BE CLEARED AND GRUBBED. TREE REMOVAL PER TREE DISPOSITION PLAN ON SHEETS (LD-01 TO LD-12)
- CLEAR AREA OF TRASH, LANDSCAPE LITTER, EXCESS LOOSE SEDIMENT, AND INVASIVE SPECIES SHRUBBERY AS NEEDED.
- REMOVE AND REPLACE EXISTING LANDSCAPING AND SURFACE MATERIALS (INCLUDING LACFCD DIRT ACCESS ROADS) IMPACTED BY CONSTRUCTION. RESTORE SURFACES TO MATCH EXISTING CONDITIONS OR AS OTHERWISE NOTED ON THE PLANS
- REPAIR EXISTING NATURE PATH, STEPS, AND FENCING. CONFIRM TREE OR PLANTING IMPACTS WITH PROJECT REPRESENTATIVE PRIOR TO WORK
- DEEP SLOPE EXCAVATION FOR CONSTRUCTION SITE ACCESS
- TREE, PROTECT IN PLACE
- TREE PROTECTION ZONE (TPZ), SEE NOTE 4
- TREE, REMOVE
- LIMITS OF WORK





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20. PRIOR TO DEMOLITION, REMNANT ITEMS FROM PREVIOUS GARDEN SPACE TO BE FLAGGED BY PROJECT REPRESENTATIVE AND SALVAGED FOR REUSE.

CONSTRUCTION NOTES

XX EXISTING - PROTECT IN PLACE XX REMOVE

XX REMOVE AND REPLACE PER PLANS

1. TREE (SEE NOTES 3, 4, 17, & 18)
2. STORM DRAIN INLET (SEE NOTE 1)
3. STORM DRAIN LINE
4. UTILITY LINE (SEE NOTES 1, 2)
5. UTILITY STRUCTURE
6. UTILITY POLE
7. UTILITY TOWER
8. LIGHT POLE
9. WROUGHT IRON FENCING
10. CHAIN LINK FENCING
11. WOODEN FENCING
12. BLOCK WALL
13. CONCRETE WALL
14. CONCRETE PAD
15. POND WATER FEATURE
16. SIGN POST
17. CABINET
18. CONCRETE CURB
19. CONCRETE GUTTER
20. CHANNEL BOTTOM
21. GATE
22. POST
23. WOODEN WALL
24. WOOD STEPS
25. GROUND LIGHT
26. PICNIC TABLE
27. TURF/GRASS

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: DEMOLITION PLAN 1

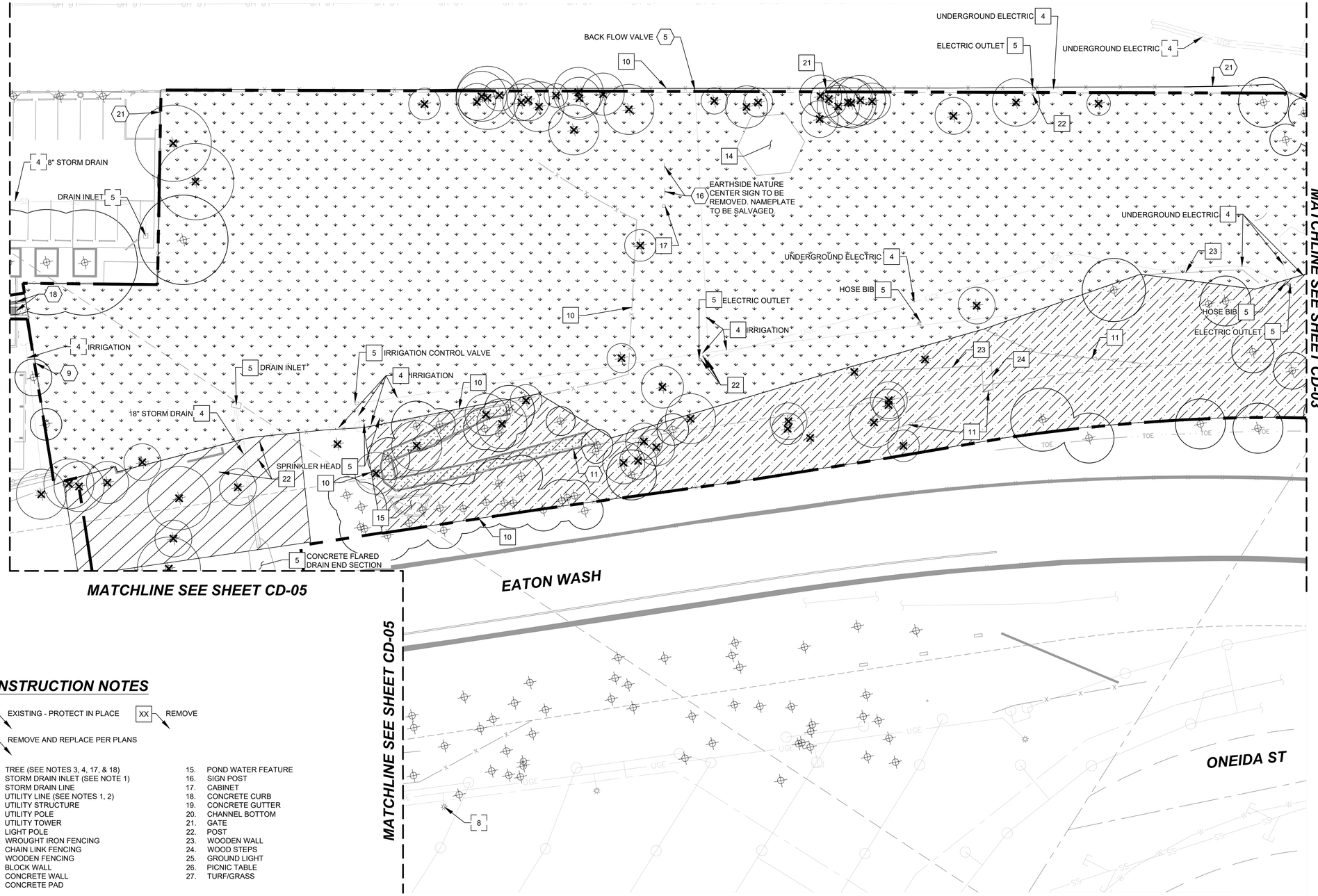
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SHEET CD-01

9 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-DEMO_PLAN.DWG



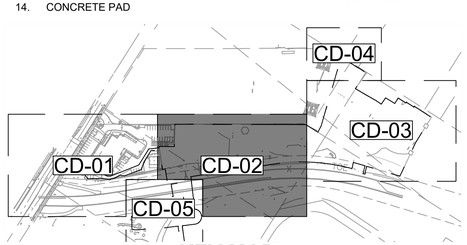
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XX REMOVE

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90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
EJM	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
DESIGNED BY						
AMT, EJM						
CHECKED BY						
CAS			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: DEMOLITION PLAN 2

SCALE: AS SHOWN

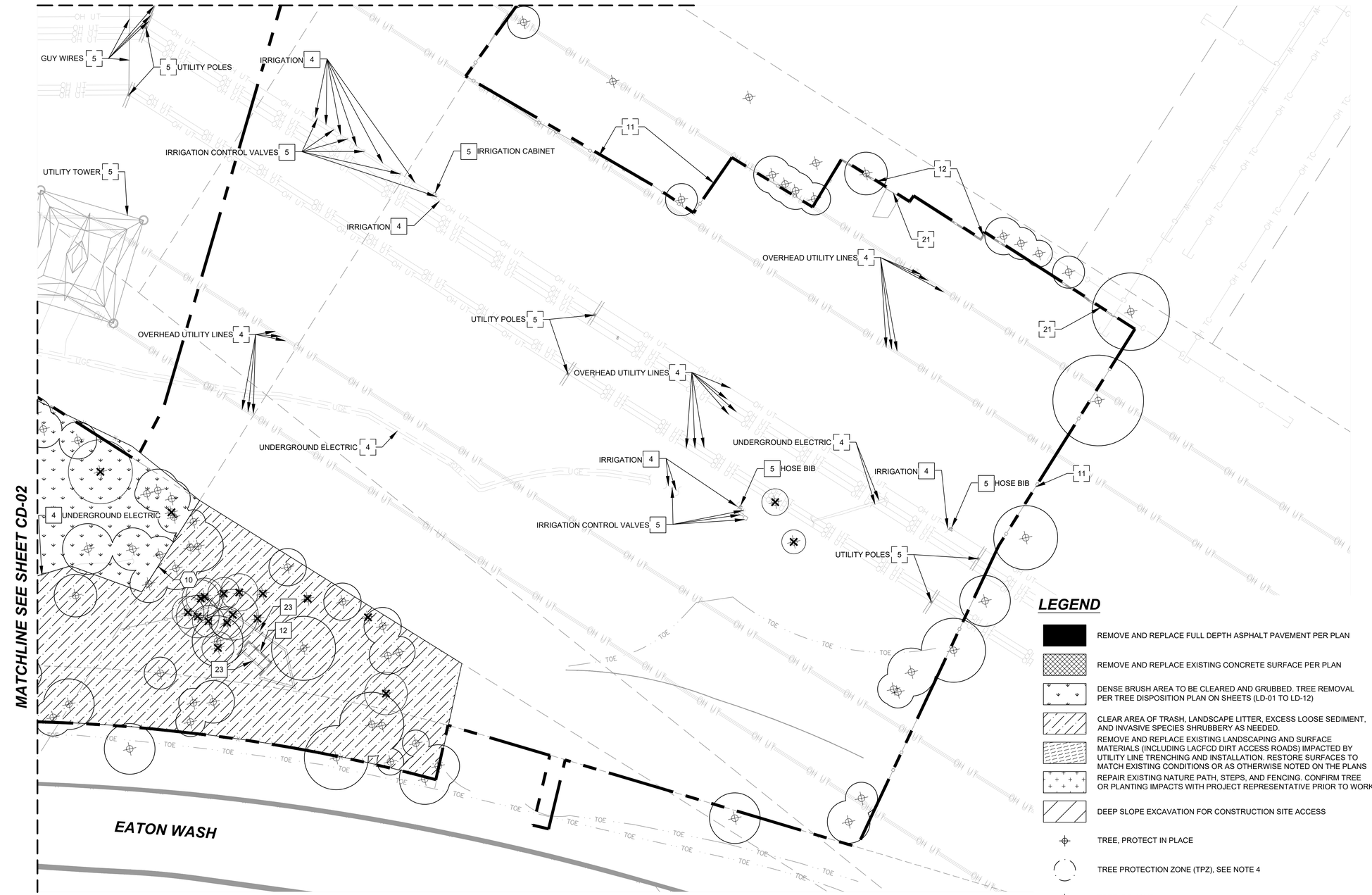
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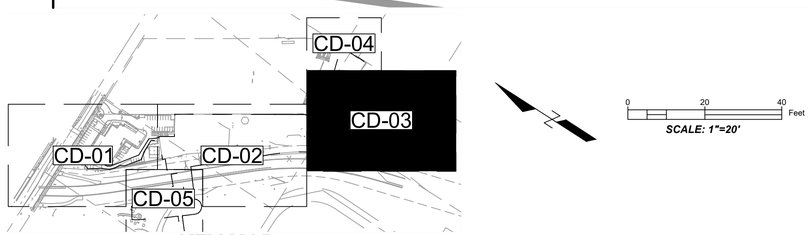
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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-DEMO_PLAN.DWG





KEY MAP
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CONSTRUCTION NOTES

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XX REMOVE AND REPLACE PER PLANS

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20. CHANNEL BOTTOM
21. GATE
22. POST
23. WOODEN WALL
24. WOOD STEPS
25. GROUND LIGHT
26. PICNIC TABLE
27. TURF/GRASS

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: DEMOLITION PLAN 3

SCALE: AS SHOWN

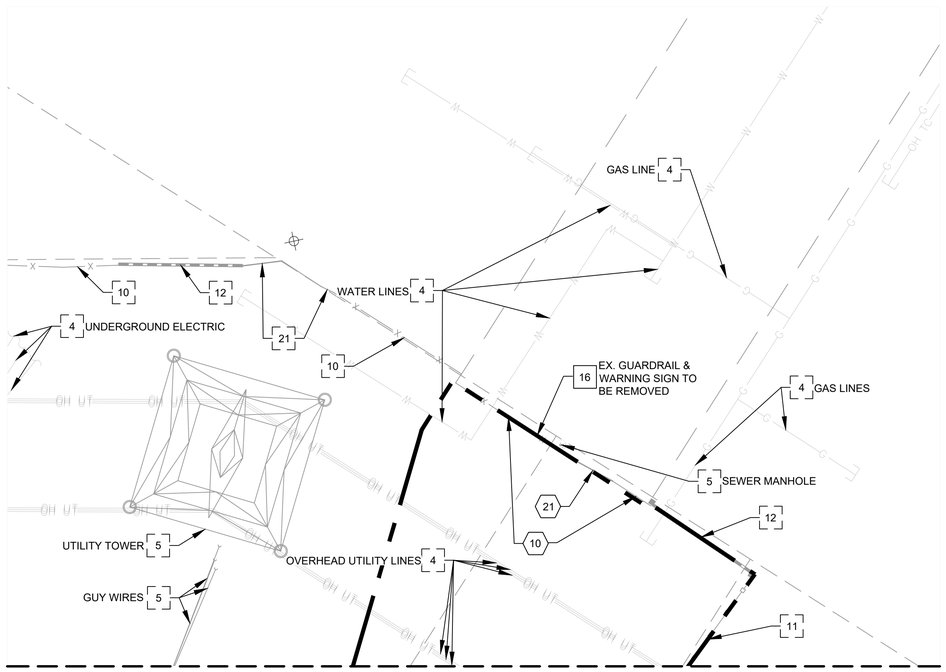
ACCOUNT NUMBER: XXXXXX

SHEET: CD-03

11 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-REMO_PLAN.DWG



LEGEND

- REMOVE AND REPLACE FULL DEPTH ASPHALT PAVEMENT PER PLAN
- REMOVE AND REPLACE EXISTING CONCRETE SURFACE PER PLAN
- DENSE BRUSH AREA TO BE CLEARED AND GRUBBED. TREE REMOVAL PER TREE DISPOSITION PLAN ON SHEETS (LD-01 TO LD-12)
- CLEAR AREA OF TRASH, LANDSCAPE LITTER, EXCESS LOOSE SEDIMENT, AND INVASIVE SPECIES SHRUBBERY AS NEEDED.
- REMOVE AND REPLACE EXISTING LANDSCAPING AND SURFACE MATERIALS (INCLUDING LACFCD DIRT ACCESS ROADS) IMPACTED BY UTILITY LINE TRENCHING AND INSTALLATION. RESTORE SURFACES TO MATCH EXISTING CONDITIONS OR AS OTHERWISE NOTED ON THE PLANS
- REPAIR EXISTING NATURE PATH, STEPS, AND FENCING. CONFIRM TREE OR PLANTING IMPACTS WITH PROJECT REPRESENTATIVE PRIOR TO WORK
- DEEP SLOPE EXCAVATION FOR CONSTRUCTION SITE ACCESS
- TREE, PROTECT IN PLACE
- TREE PROTECTION ZONE (TPZ), SEE NOTE 4
- TREE, REMOVE
- LIMITS OF WORK

DEMOLITION NOTES

1. LOCATION OF EXISTING UTILITIES IS APPROXIMATE AND BASED ON RECORD DRAWINGS. ACTUAL CONDITIONS MAY VARY. CONTRACTOR SHALL FIELD VERIFY. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION, REMOVAL AND/OR REPLACEMENT OF EXISTING UTILITIES SHOWN ON THE PLANS AND AS-BUILTS.
2. EXISTING UNDERGROUND UTILITIES MUST BE PROTECTED IN PLACE UNLESS OTHERWISE SPECIFIED PER PLAN.
3. TREE LOCATIONS SHOWN ARE BASED ON THE ARBORIST'S SURVEY. LOCATIONS WERE OBTAINED VIA GPS AND MAY NOT MATCH SURVEYED FIELD CONDITIONS. CONTRACTOR SHALL VERIFY ACTUAL FIELD LOCATIONS PRIOR TO COMMENCING WORK.
4. TREE PROTECTION ZONE (TPZ) LIMITS SHOWN ARE BASED ON CITY STANDARD S-642, DEFINED AS THE TREE DRIPLINE PLUS 4 RADIAL FEET. SEE DETAIL 1 ON SHEET LP-06.
5. WORK WITHIN TPZS SHALL BE MINIMIZED TO THE EXTENT FEASIBLE. WHERE WORK WITHIN A TPZ IS NECESSARY, PROTECTIVE MEASURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE PROJECT ARBORIST'S RECOMMENDATIONS TO AVOID OR MINIMIZE DAMAGE TO ROOTS, TRUNKS, AND CANOPIES.
6. TREES TO BE REMOVED SHALL BE TAGGED BY THE CONTRACTOR PRIOR TO DEMOLITION. CONTRACTOR SHALL REMOVE TREES ONLY AFTER APPROVAL FROM THE CITY. NEW TREES SHALL BE INSTALLED PER THE LANDSCAPE PLANTING PLANS.
7. REFER TO TREE DISPOSITION PLANS (LD-01 TO LD-12) TO DETERMINE WHICH TREES ARE TO REMAIN AND WHICH ARE TO BE REMOVED.
8. ALL TREE OF HEAVEN (*AILANTHUS ALTISSIMA*), DEAD TREES, AND STUMPS SHALL BE REMOVED, EVEN IF THEY ARE NOT INDICATED ON THE PLANS.
9. PRUNE TREES WITHIN BRIDGE INSTALLATION AREAS AND ALL OTHER OVERGROWN TREES WITHIN THE SITE AS NEEDED UNDER DIRECTION OF THE CITY AND PROJECT ARBORIST.
10. CONTRACTOR TO FIELD VERIFY UTILITY LINES PRIOR TO EXCAVATION.
11. REMOVE AND REINSTALL IRRIGATION LINES AND IRRIGATION CONTROL VALVES PER LANDSCAPE PLANS. ANY IRRIGATION LINES NOT SHOWN ON THE DEMOLITION PLANS THAT ARE IMPACTED BY CONSTRUCTION SHALL BE REMOVED AND REPLACED IN KIND TO PRE-EXISTING CONDITIONS OR BETTER.
12. THE DEMOLITION SHOWN ON THE PLANS IS NOT ALL INCLUSIVE OF EVERYTHING NEEDED TO PROPERLY INSTALL THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL REVIEW AS-BUILTS AND PERFORM AN INVESTIGATION OF EXISTING CONDITIONS TO INCLUDE ALL DEMOLITION REQUIRED IN THE BID.
13. THE CONTRACTOR SHALL RESTORE ANY DAMAGED ITEMS DURING CONSTRUCTION TO ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE CITY
14. CONTRACTOR TO REMOVE AND REPLACE SIDEWALK AND WALKWAYS AT NEAREST CONTROL JOINT, TO BE FIELD VERIFIED. GRADING SHALL MATCH EXISTING ELEVATION AT JOIN LOCATIONS WITH GRADES NO GREATER THAN 2%.
15. CONTRACTOR SHALL REMOVE ALL EXISTING WOOD RAILINGS, FENCING, WALLS, AND CURBS ASSOCIATED WITH DECOMMISSIONED PATHWAYS WITHIN THE SLOPE AREA. FOLLOWING REMOVAL, THE CONTRACTOR SHALL PERFORM ALL NECESSARY SLOPE REPAIR, INFILL, AND STABILIZATION TO RESTORE SLOPE INTEGRITY AND PREVENT EROSION.
16. CONTRACTOR TO SALVAGE BOULDERS OVER 2' IN DIAMETER THAT ARE UNEARTHED DURING EXCAVATION. CLEAN AND STOCKPILE FOUND BOULDERS FOR REUSE WHEREVER BOULDERS ARE SPECIFIED IN THE PLANS. BOULDERS TO BE REUSED MUST BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
17. TREE LOCATIONS SHOWN WITHIN THE URGENT CARE AREA ARE BASED ON THE TOPOGRAPHIC SURVEY, NOT THE ARBORIST'S SURVEY. LOCATIONS MAY NOT MATCH ACTUAL FIELD CONDITIONS. CONTRACTOR SHALL VERIFY TREE LOCATIONS IN THE FIELD PRIOR TO COMMENCING WORK.
18. TREE PROTECTION ZONES FOR TREES NOT INCLUDED IN THE ARBORIST'S SURVEY WERE DETERMINED BASED ON A RATIO OF 1" TRUNK DIAMETER = 1' RADIAL TREE PROTECTION ZONE. CONTRACTOR SHALL ESTABLISH TREE PROTECTION ZONE LIMITS IN ACCORDANCE WITH CITY STANDARD S-642, DEFINED AS THE TREE DRIPLINE PLUS 4 RADIAL FEET. SEE DETAIL 1 ON SHEET LP-06.
19. FOR LINEAR UTILITY WORK WITHIN URGENT CARE PARKING LOT, SURFACE MATERIALS SHALL BE REMOVED AND REPLACED IN KIND TO MATCH EXISTING THICKNESS, MATERIAL, AND FINISH. EXCAVATION WITHIN THE PUBLIC STREET SHALL BE REPAIRED IN ACCORDANCE WITH CITY STANDARD S-416.
20. PRIOR TO DEMOLITION, REMNANT ITEMS FROM PREVIOUS GARDEN SPACE TO BE FLAGGED BY PROJECT REPRESENTATIVE AND SALVAGED FOR REUSE.

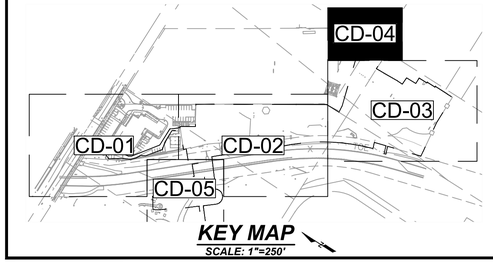
CONSTRUCTION NOTES

XX EXISTING - PROTECT IN PLACE

XX REMOVE

XX REMOVE AND REPLACE PER PLANS

1. TREE (SEE NOTES 3, 4, 17, & 18)
2. STORM DRAIN INLET (SEE NOTE 1)
3. STORM DRAIN LINE
4. UTILITY LINE (SEE NOTES 1, 2)
5. UTILITY STRUCTURE
6. UTILITY POLE
7. UTILITY TOWER
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26. PICNIC TABLE
27. TURF/GRASS



KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
EJM	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
DESIGNED BY						
AMT, EJM						
CHECKED BY						
CAS			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: DEMOLITION PLAN 4

SCALE: AS SHOWN

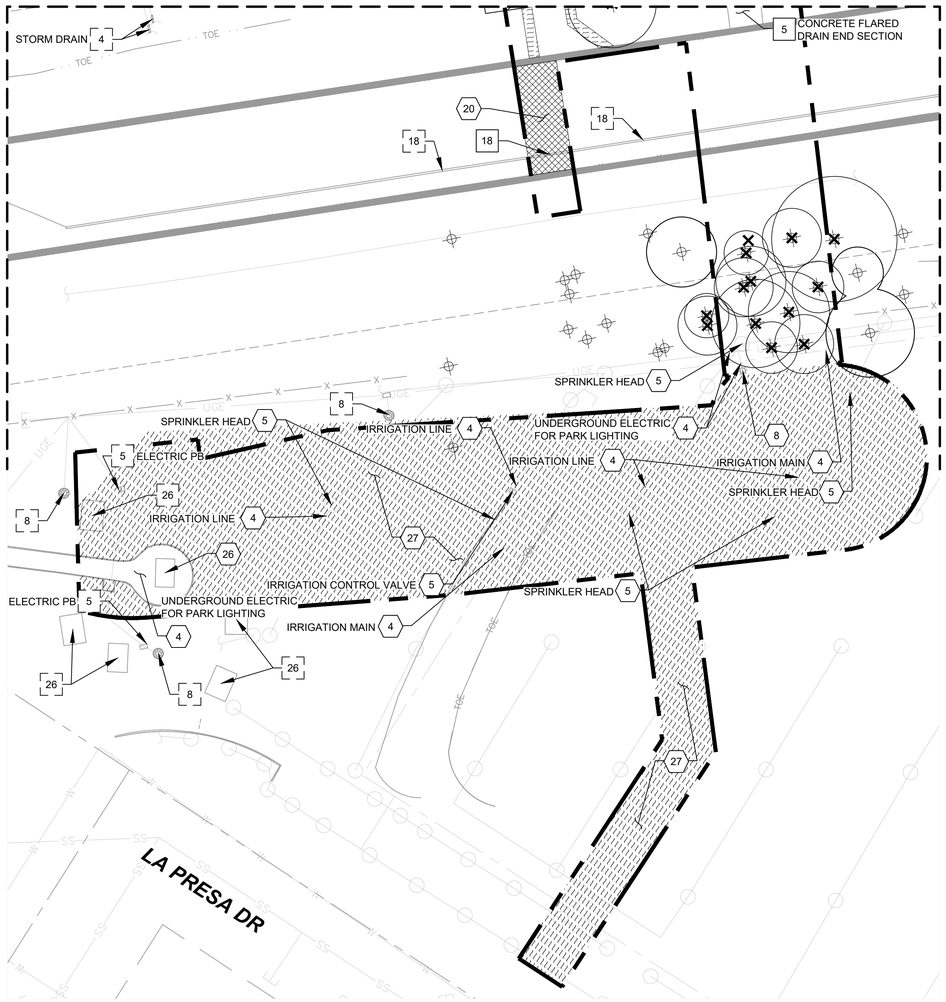
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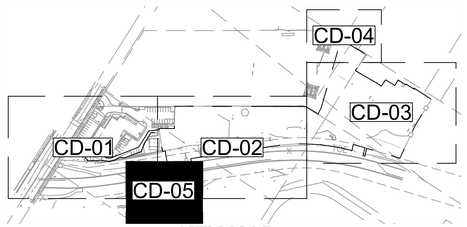
SHEET: CD-04

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-DEMO_PLAN.DWG





KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

LEGEND

- REMOVE AND REPLACE FULL DEPTH ASPHALT PAVEMENT PER PLAN
- REMOVE AND REPLACE EXISTING CONCRETE SURFACE PER PLAN
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- TREE, PROTECT IN PLACE
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CONSTRUCTION NOTES

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XX REMOVE
XX REMOVE AND REPLACE PER PLANS

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2. STORM DRAIN INLET (SEE NOTE 1)
3. STORM DRAIN LINE
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24. WOOD STEPS
25. GROUND LIGHT
26. PICNIC TABLE
27. TURF/GRASS

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

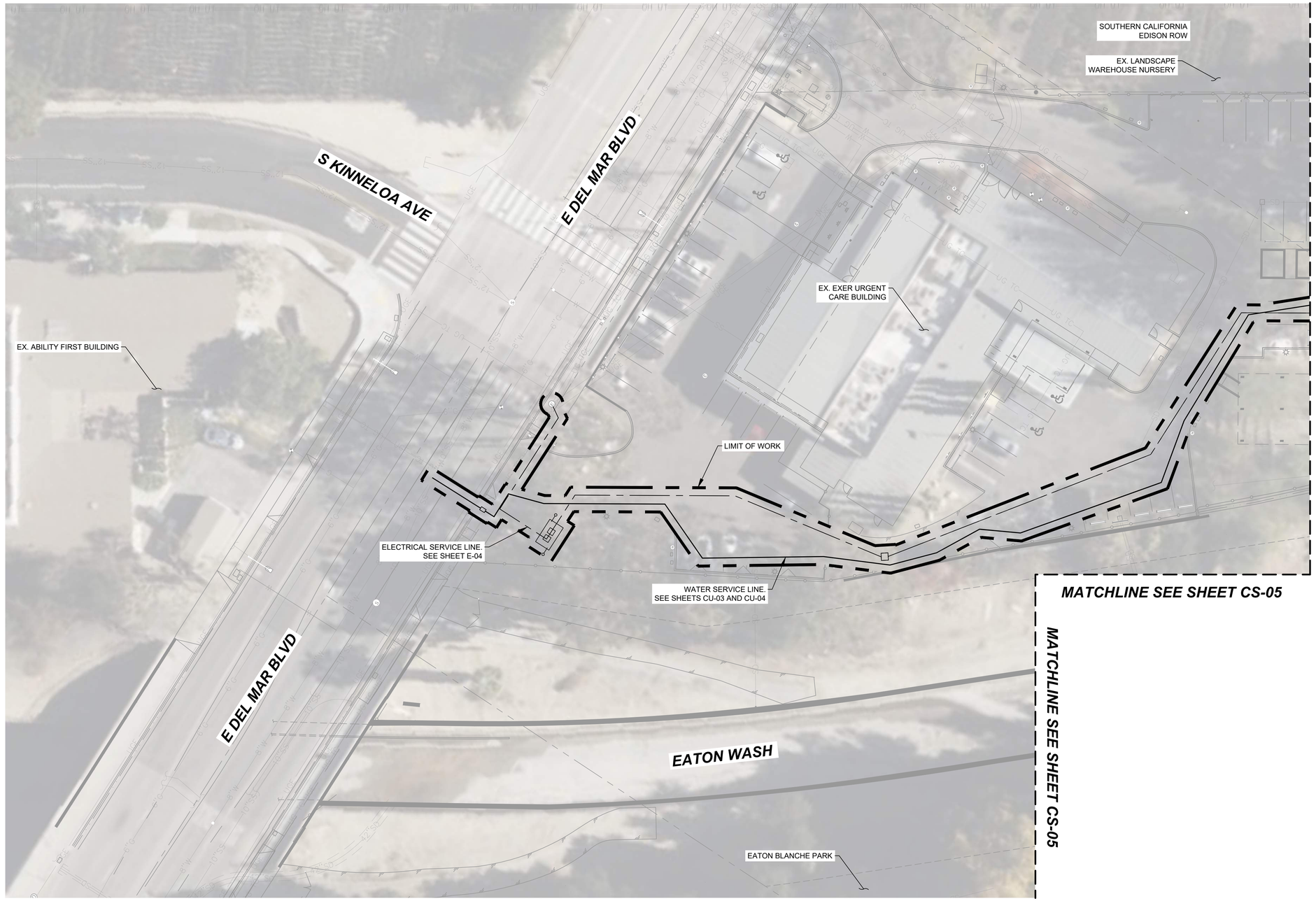
CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

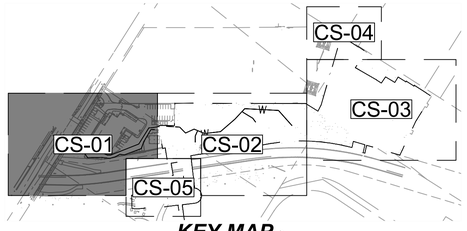
EATON WASH STORMWATER CAPTURE PROJECT — SHEET CD-05

SHEET TITLE: DEMOLITION PLAN 5 — 13 OF 111

SCALE: AS SHOWN — ACCOUNT NUMBER: XXXXXX — DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-DEMO_PLAN.DWG





KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

LEGEND

(# / C-#) DETAIL AND SHEET NUMBER CALLOUT

NOTES:

1. REFER TO LANDSCAPE PLANS (LS-01 TO LP-06) FOR SURFACE HARDSCAPE AND SOFTSCAPE MATERIALS, SITE AMENITIES, AND DETAILS.
2. REFER TO TREE DISPOSITION PLANS TO DETERMINE WHICH TREES ARE TO REMAIN AND WHICH ARE TO BE REMOVED.
3. REFER TO HORIZONTAL CONTROL PLAN (CS-06 TO CS-10) FOR LAYOUT INFORMATION.

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: SITE PLAN 1

SCALE: AS SHOWN

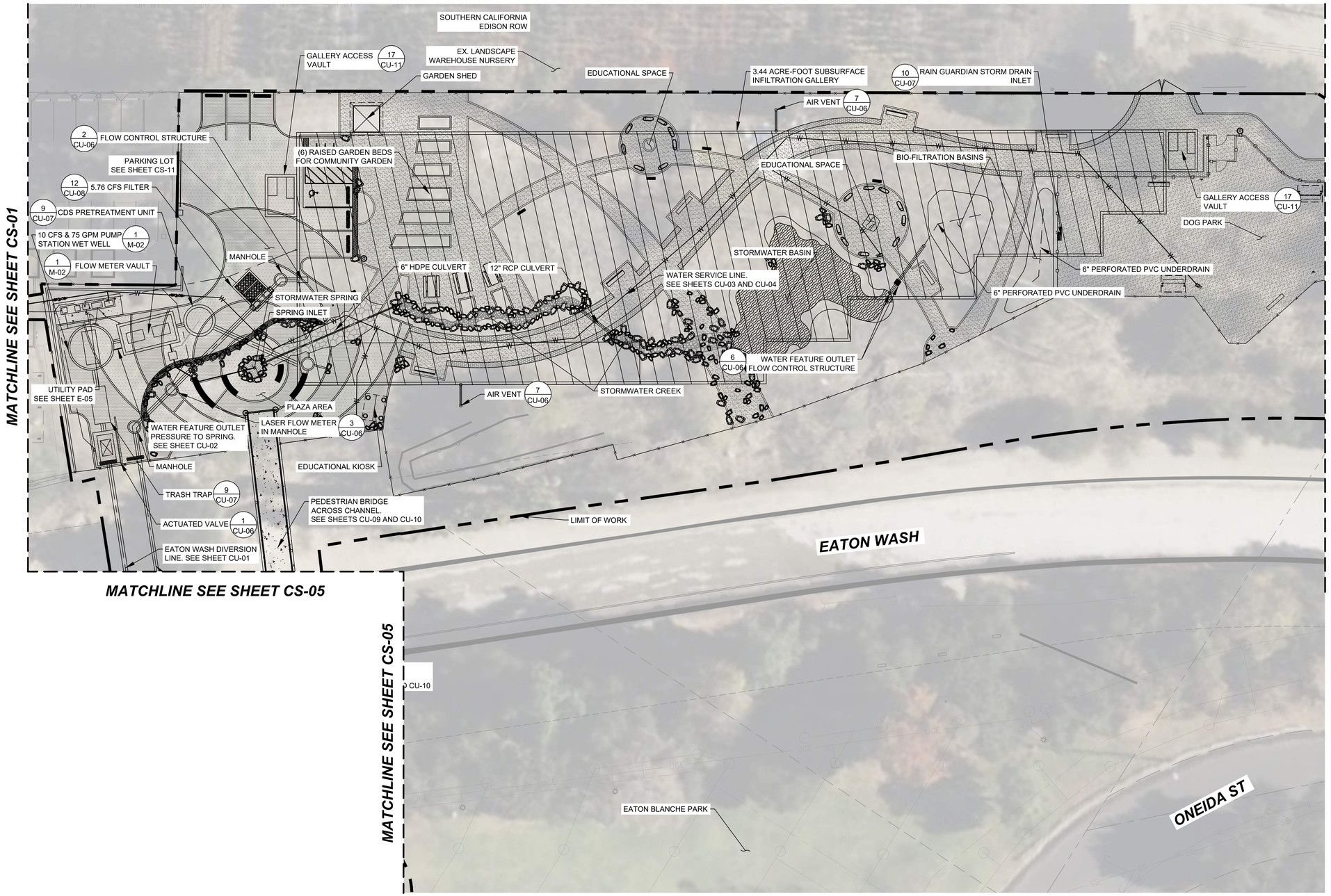
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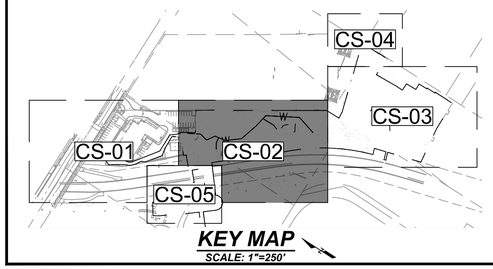
SHEET: CS-01

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-SITE_PLAN.DWG





KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

LEGEND

/ C-# DETAIL AND SHEET NUMBER CALLOUT

NOTES:

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90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: SITE PLAN 2

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET CS-02

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-SITE_PLAN.DWG

MATCHLINE SEE SHEET CS-04

MATCHLINE SEE SHEET CS-02

SOUTHERN CALIFORNIA EDISON ROW

EX. LANDSCAPE WAREHOUSE NURSERY

PARKING LOT SEE SHEET CS-11

SHADE STRUCTURES

GRAYBURN RD

BIO-FILTRATION BASINS

EDUCATIONAL SPACE

(35) RAISED GARDEN BEDS

6" PERFORATED PVC UNDERDRAIN

SHADE STRUCTURES

SHADE STRUCTURES

DOG PARK

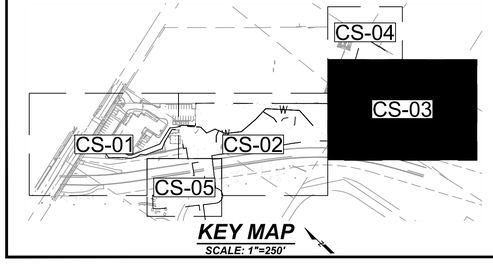
EDUCATIONAL SPACE

MANHOLE

LIMIT OF WORK

SCE EASEMENT AREA OUTLET LINE. SEE SHEET CU-05

EATON WASH



KEY MAP

SCALE: 1"=250'

0 20 40 Feet

SCALE: 1"=20'

LEGEND

DETAIL AND SHEET NUMBER CALLOUT

NOTES:

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90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
EJM	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
DESIGNED BY						
AMT, EJM						
CHECKED BY						
CAS			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: SITE PLAN 3

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: CS-03

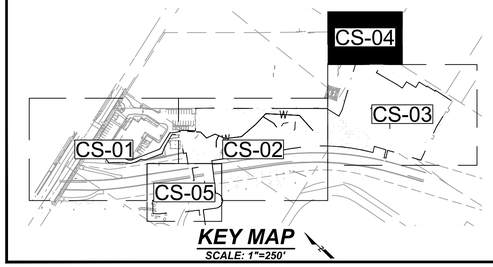
16 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-SITE_PLAN.DWG



MATCHLINE SEE SHEET CS-03



KEY MAP
SCALE: 1"=250'

0 20 40 Feet

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LEGEND

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CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

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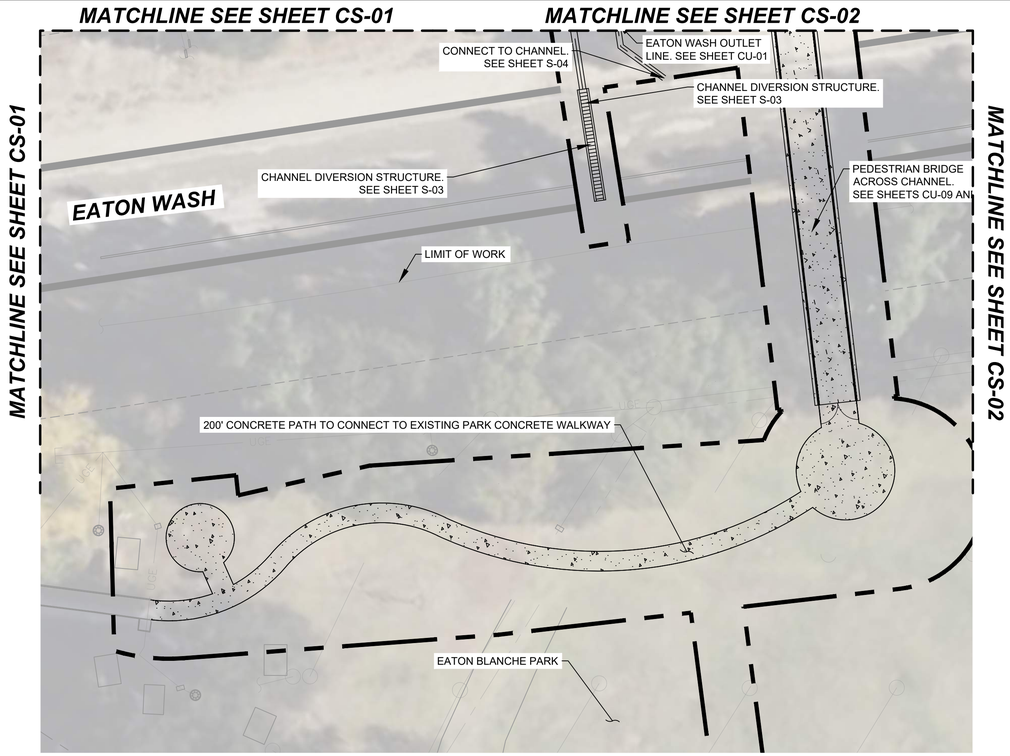
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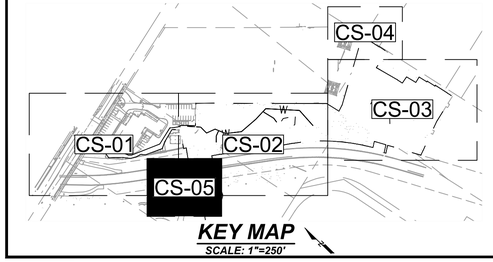
SHEET CS-04

17 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-SITE_PLAN.DWG





KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

LEGEND

DETAIL AND SHEET NUMBER CALLOUT

NOTES:

1. REFER TO LANDSCAPE PLANS (LS-01 TO LP-06) FOR SURFACE HARDSCAPE AND SOFTSCAPE MATERIALS, SITE AMENITIES, AND DETAILS.
2. REFER TO TREE DISPOSITION PLANS TO DETERMINE WHICH TREES ARE TO REMAIN AND WHICH ARE TO BE REMOVED.
3. REFER TO HORIZONTAL CONTROL PLAN (CS-06 TO CS-10) FOR LAYOUT INFORMATION.

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: SITE PLAN 3

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET CS-05

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-SITE_PLAN.DWG

E DEL MAR BLVD

EATON WASH

MATCHLINE SEE SHEET CS-07

MATCHLINE SEE SHEET CS-09

MATCHLINE SEE SHEET CS-09

SEE SHEET CU-02 FOR WATER SERVICE LINE INSTALLATION HORIZONTAL CONTROL

LEGEND

- LIMITS OF WORK
- PROPOSED DG PAVEMENT
- PERMEABLE PAVERS
- PERMEABLE PAVERS B
- OPEN CELL PAVERS
- FLAGSTONE PAVERS
- STORMWATER CREEK
- STORMWATER BASIN
- STORMWATER SPRING
- CONCRETE

NOTES

1. SITE FURNISHINGS ARE PER LANDSCAPE PLANS
2. SEE SHEET G-02 FOR BASIS OF BEARINGS AND BENCHMARK INFORMATION.
3. FOR ALL JOIN EX LINES AND CURVES, CURRENT FIELD ALIGNMENT OF EXISTING PAVEMENT SHOULD SUPERSEDE LINE AND CURVE TABLE DATA.
4. ALL NORTHING AND EASTING STRUCTURE COORDINATES SHALL REFER TO THE CENTER OF THE STRUCTURE

ABBREVIATIONS

BS	BIOSWALE
DG	DECOMPOSED GRANITE
ELEC	ELECTRICAL
EP	EDGE OF PAVEMENT
FN	FENCE
STRC	STRUCTURE
WC	WALL CENTERLINE

CS-09
CS-08
CS-06
CS-07
CS-10

KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

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DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: HORIZONTAL CONTROL PLAN 1

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: CS-06

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SEE SHEET CS-11 FOR PARKING LOT STRIPING AND LAYOUT

FOR EXACT DIMENSIONS OF THE 3.44 AC-FT SUBSURFACE INFILTRATION GALLERY, SEE DETAILS

SEE SHEET CU-02 FOR DRY WEATHER DIVERSION LINE INSTALLATION HORIZONTAL CONTROL

MATCHLINE SEE SHEET CS-06

MATCHLINE SEE SHEET CS-08

MATCHLINE SEE SHEET CS-09

MATCHLINE SEE SHEET CS-09

LEGEND

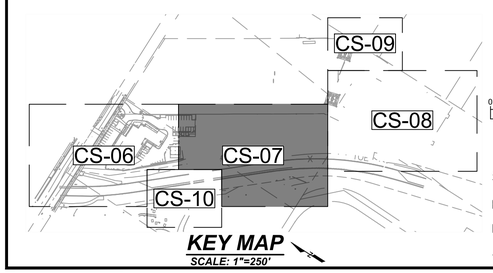
- LIMITS OF WORK
- PROPOSED DG PAVEMENT
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KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

ABBREVIATIONS

BS	BIOSWALE	EP	EDGE OF PAVEMENT
DG	DECOMPOSED GRANITE	FN	FENCE
JOIN EX	JOIN EXISTING PAVEMENT	WC	WALL CENTERLINE

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: HORIZONTAL CONTROL PLAN 2

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: CS-07

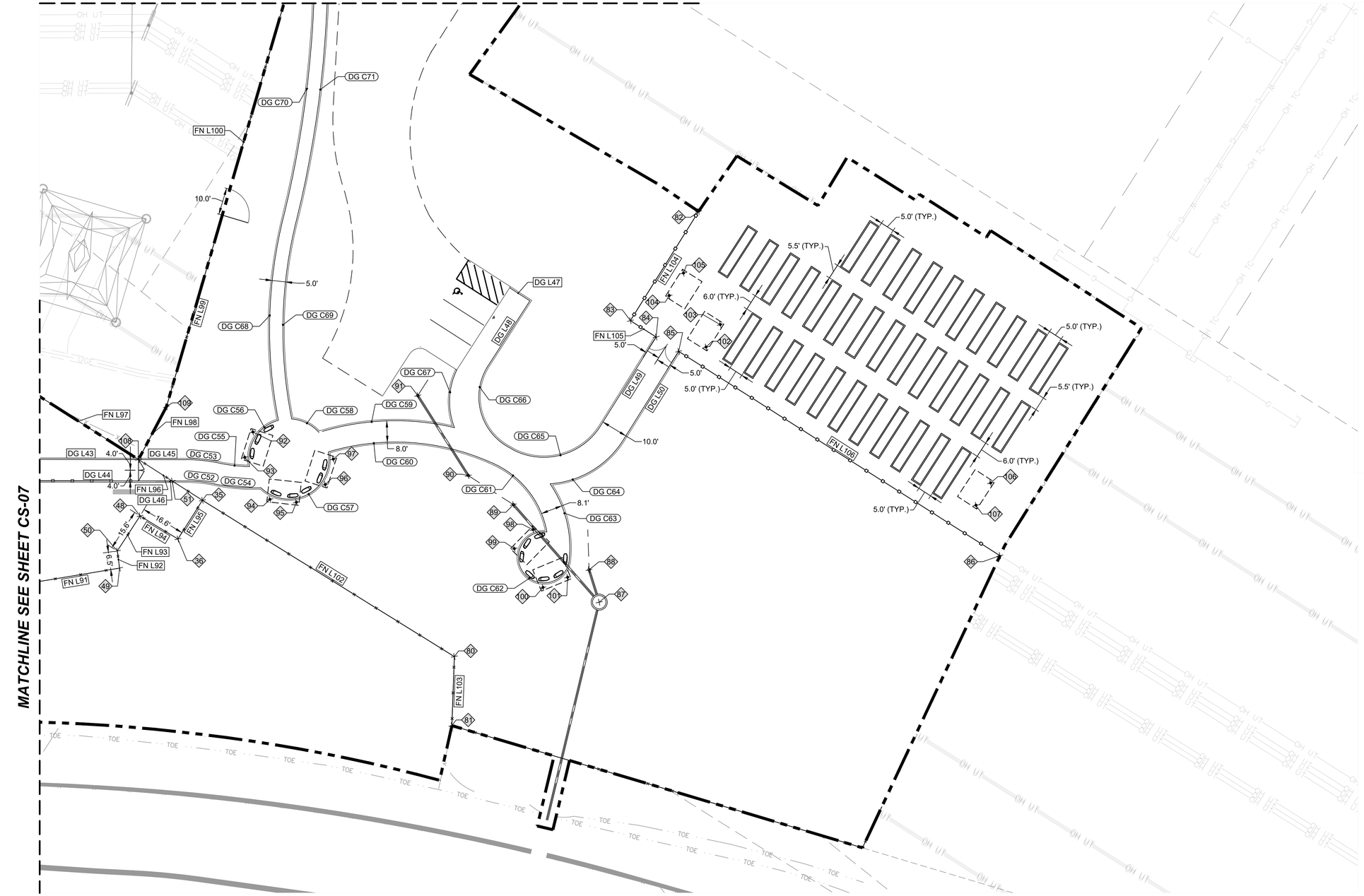
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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-HORIZONTAL_CONTROL_PLAN.DWG

MATCHLINE SEE SHEET CS-10

MATCHLINE SEE SHEET CS-07



LEGEND

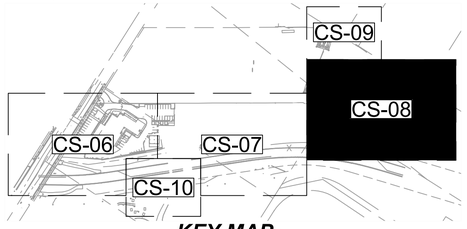
- LIMITS OF WORK
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KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

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REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: HORIZONTAL CONTROL PLAN 3

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

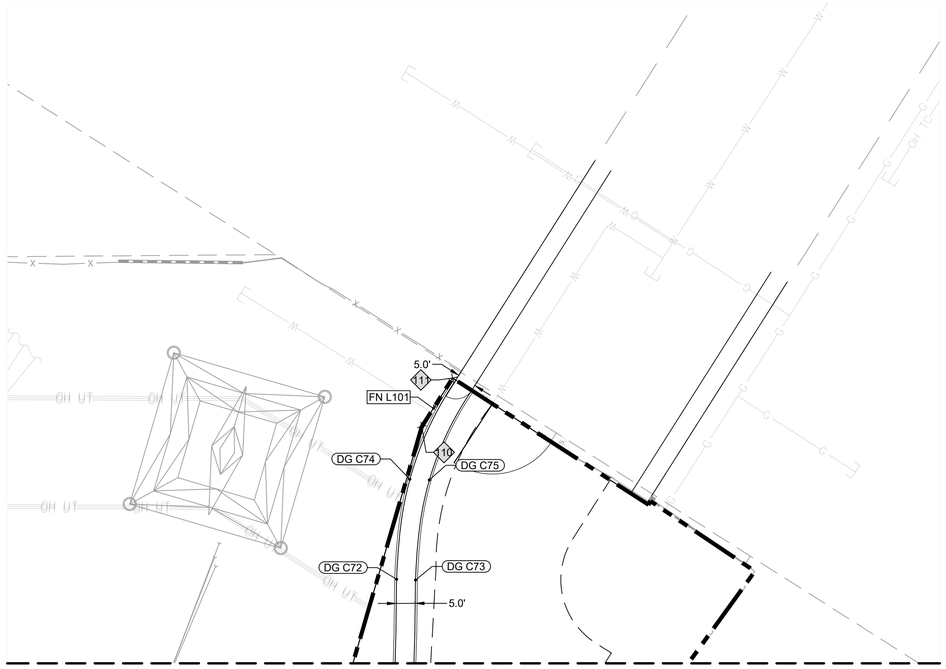
SHEET: CS-08

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DWG. NO.

Date: July 8, 2022

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MATCHLINE SEE SHEET CS-08

0 20 40 Feet

SCALE: 1"=20'

LEGEND

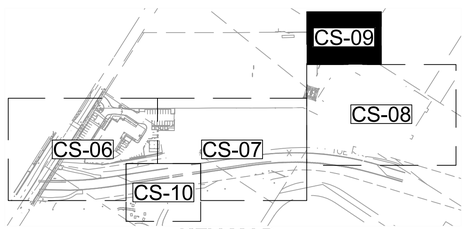
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NOTES

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DG	DECOMPOSED GRANITE
ELEC	ELECTRICAL
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FN	FENCE
MH	MANHOLE
STRC	STRUCTURE
WC	WALL CENTERLINE



KEY MAP

SCALE: 1"=250'

POINT TABLE

POINT #	NORTHING	EASTING	DESCRIPTION
1	1874090.11	6535708.60	CONC PAD CORNER
2	1874084.11	6535718.60	CONC PAD CORNER
3	1873795.67	6535864.35	DIVERSION CONNECTION
4	1873837.96	6535911.96	VALVE VAULT
5	1873848.81	6535924.17	TRASH TRAP
6	1873863.53	6535940.78	PUMP STATION
7	1873848.10	6535957.10	CHECK VALVE VAULT
8	1873834.39	6535971.61	PRE-TREATMENT UNIT
9	1873794.39	6535978.06	UG STORAGE PIPE INLET
10	1873811.62	6536004.67	UG STORAGE OUTLET CONNECTION
11	1873809.90	6536005.79	FLOW CONTROL STRUCTURE
12	1873693.64	6536157.31	AIR VENT
13	1873733.49	6535998.08	AIR VENT
14	1873565.06	6536231.04	GALLERY CORNER
15	1873547.67	6536204.18	GALLERY CORNER
16	1873567.81	6536191.13	GALLERY CORNER
17	1873559.12	6536177.70	GALLERY CORNER
18	1873599.41	6536151.62	GALLERY CORNER
19	1873590.71	6536138.19	GALLERY CORNER
20	1873631.00	6536112.10	GALLERY CORNER
21	1873622.31	6536098.67	GALLERY CORNER
22	1873649.17	6536081.27	GALLERY CORNER
23	1873640.47	6536067.84	GALLERY CORNER
24	1873789.88	6535971.10	GALLERY CORNER
25	1873555.67	6536227.59	MANWAY & EQUIPMENT ACCESS
26	1873842.06	6536051.68	GALLERY CORNER
27	1873834.05	6536028.27	MANWAY & EQUP ACCESS
28	1873833.34	6535924.26	MANHOLE
29	1873779.50	6535878.71	CHANNEL OUTLET
30	1873816.86	6536001.28	MANHOLE
31	1873737.84	6536004.79	AIRVENT POC
32	1873689.29	6536150.60	AIR VENT POC
33	1873818.96	6535991.49	FILTRATION UNIT
34	1873523.82	6536273.80	FENCE CORNER
35	1873448.62	6536274.08	FENCE CORNER
36	1873448.49	6536256.96	FENCE CORNER
37	1873892.51	6535950.78	FENCE CORNER
38	1873565.59	6536155.61	FENCE CORNER
39	1873844.30	6535896.45	FENCE CORNER
40	1873590.03	6536193.88	FENCE CORNER
41	1873584.65	6536185.45	PLANTER CORNER
42	1873581.19	6536199.53	PLANTER CORNER

POINT TABLE

POINT #	NORTHING	EASTING	DESCRIPTION
43	1873575.80	6536191.10	PLANTER CORNER
44	1873521.95	6536183.56	FENCE CORNER
45	1873486.26	6536213.06	FENCE CORNER
46	1873495.66	6536179.20	FENCE CORNER
47	1873501.15	6536175.77	FENCE CORNER
48	1873465.06	6536256.56	FENCE CORNER
49	1873460.94	6536236.04	FENCE CORNER
50	1873465.12	6536240.95	FENCE CORNER
51	1873462.00	6536274.03	FENCE CORNER
52	1873541.81	6536224.68	FENCE CORNER
53	1873550.40	6536238.08	FENCE CORNER
54	1873887.79	6536040.29	FENCE CORNER
55	1873829.15	6535943.86	FLOW METER VAULT
56	1873807.13	6535967.82	WATER FEATURE CENTER
58	1873672.45	6536012.95	FENCE CORNER
59	1873676.92	6536016.97	FENCE CORNER
60	1873736.36	6535955.39	FENCE CORNER
61	1873753.69	6535974.42	FENCE CORNER
62	1873791.86	6535958.80	BRIDGE TOUCHDOWN PILE
63	1873800.67	6535951.56	BRIDGE TOUCHDOWN PILE
64	1873829.41	6536071.80	BUILDING CORNER
65	1873824.00	6536063.39	BUILDING CORNER
66	1873821.00	6536077.21	BUILDING CORNER
67	1873815.59	6536068.80	BUILDING CORNER
68	1873754.82	6535976.77	KIOSK CORNER
69	1873762.28	6535973.45	KIOSK CORNER
70	1873766.35	6535982.58	KIOSK CORNER
71	1873758.89	6535985.90	KIOSK CORNER
80	1873337.90	6536275.89	FENCE CORNER
81	1873324.73	6536253.69	FENCE CORNER
82	1873351.16	6536465.10	FENCE CORNER
83	1873350.51	6536416.99	FENCE CORNER
84	1873339.12	6536417.07	FENCE CORNER
85	1873329.12	6536417.10	FENCE CORNER
86	1873186.92	6536417.84	FENCE CORNER
87	1873303.41	6536322.22	MANHOLE
88	1873313.13	6536330.36	UNDERDRAIN
89	1873350.08	6536335.55	UNDERDRAIN
90	1873370.08	6536335.55	UNDERDRAIN
91	1873402.15	6536350.49	UNDERDRAIN
92	1873446.60	6536305.70	SHADE STRC POLE
93	1873444.01	6536296.09	SHADE STRC POLE

POINT TABLE

POINT #	NORTHING	EASTING	DESCRIPTION
94	1873427.63	6536287.98	SHADE STRC POLE
95	1873418.71	6536292.41	SHADE STRC POLE
96	1873413.25	6536303.80	SHADE STRC POLE
97	1873415.84	6536313.42	SHADE STRC POLE
98	1873338.84	6536331.64	SHADE STRC POLE
99	1873340.88	6536321.89	SHADE STRC POLE
100	1873324.02	6536315.48	SHADE STRC POLE
101	1873318.34	6536323.66	SHADE STRC POLE
102	1873321.40	6536423.95	SHADE STRC POLE
103	1873321.46	6536433.91	SHADE STRC POLE
104	1873343.39	6536432.67	SHADE STRC POLE
105	1873343.46	6536442.63	SHADE STRC POLE
106	1873204.55	6536438.75	SHADE STRC POLE
107	1873204.63	6536428.79	SHADE STRC POLE
108	1873476.93	6536273.97	FENCE CORNER
109	1873478.84	6536296.20	FENCE CORNER
110	1873541.94	6536509.11	FENCE CORNER
111	1873542.05	6536524.29	FENCE CORNER
112	1873690.71	6535834.56	BRIDGE TOUCHDOWN
113	1873698.43	6535828.21	BRIDGE TOUCHDOWN
114	1873509.88	6536238.60	SHADE STRC POLE
115	1873509.43	6536237.90	SHADE STRC POLE
116	1873502.87	6536243.11	SHADE STRC POLE
117	1873502.42	6536242.41	SHADE STRC POLE
118	1873534.55	6536181.11	SHADE STRC POLE
119	1873534.10	6536180.41	SHADE STRC POLE
120	1873527.55	6536185.62	SHADE STRC POLE
121	1873527.10	6536184.92	SHADE STRC POLE
122	1873976.24	6535775.07	ELEC STRC (PULL BOX)
127	1874087.14	6535711.91	ELEC STRC
128	1874087.14	6535714.95	ELEC STRC
129	1874113.05	6535755.60	ELEC MH CONNECTION
130	1873879.63	6535947.20	ELEC STRC
131	1873875.89	6535950.52	ELEC STRC
132	1873873.46	6535952.68	ELEC STRC
133	1873870.28	6535955.51	ELEC STRC
134	1873866.82	6535958.58	ELEC STRC

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: HORIZONTAL CONTROL PLAN 4

SCALE: AS SHOWN

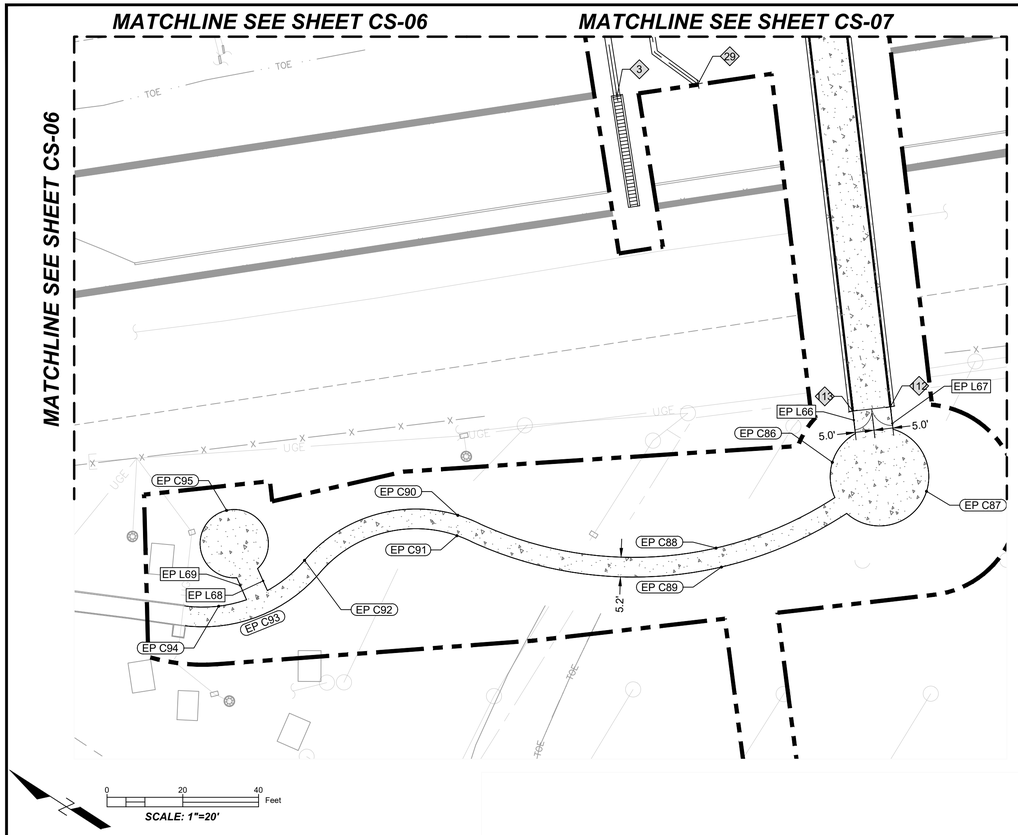
ACCOUNT NUMBER: XXXXXX

SHEET: CS-09

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-HORIZONTAL_CONTROL_PLAN.DWG



CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	START NORTHING	START EASTING
DG C1	1.28	85.00	0.86	1873790.43	6535996.82
DG C2	14.74	97.00	8.71	1873772.30	6535999.79
DG C3	5.41	95.00	3.27	1873758.72	6536005.13
DG C4	89.63	95.00	54.06	1873694.55	6536078.26
DG C5	23.07	291.00	4.54	1873673.99	6536067.83
DG C6	5.48	87.00	3.61	1873702.09	6536081.62
DG C7	88.37	85.00	59.57	1873708.69	6536064.87
DG C8	10.52	59.20	10.18	1873797.88	6536023.12
DG C9	15.50	133.00	6.68	1873787.55	6536025.02
DG C10	16.95	141.00	6.89	1873778.96	6536010.85
DG C11	3.62	59.20	3.50	1873779.79	6536027.78
DG C12	35.49	416.00	4.89	1873729.05	6536044.61
DG C13	10.49	416.00	1.44	1873765.27	6536062.74
DG C14	41.46	165.00	14.40	1873790.96	6536091.85
DG C15	47.98	170.00	16.17	1873746.10	6536097.91
DG C16	34.40	115.00	17.14	1873749.64	6536093.24
DG C17	36.24	110.00	18.87	1873760.68	6536060.68
DG C18	18.35	115.00	9.14	1873733.55	6536111.27
DG C19	40.82	11.00	212.62	1873716.68	6536123.97
DG C20	17.01	11.00	88.61	1873728.38	6536109.18
DG C21	40.23	153.00	15.06	1873700.84	6536089.70
DG C22	43.35	160.00	15.52	1873743.89	6536092.61
DG C23	26.50	115.00	13.20	1873692.74	6536135.19
DG C24	24.26	110.00	12.64	1873716.10	6536118.42
DG C25	5.52	66.00	4.80	1873694.47	6536129.28
DG C26	9.88	58.00	9.76	1873685.30	6536132.23
DG C27	32.14	110.00	16.74	1873685.30	6536132.23
DG C28	54.20	66.00	47.05	1873657.16	6536174.05
DG C29	46.46	58.00	45.90	1873649.60	6536168.45
DG C30	28.78	115.00	14.34	1873654.48	6536141.12
DG C31	48.02	14.00	196.54	1873627.03	6536137.36
DG C32	29.65	14.00	121.36	1873653.51	6536136.10

CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	START NORTHING	START EASTING
DG C33	10.10	115.00	5.03	1873617.39	6536134.37
DG C34	35.45	110.00	18.46	1873629.32	6536132.78
DG C35	13.62	115.00	6.79	1873594.00	6536122.83
DG C36	3.48	10.00	19.96	1873590.99	6536124.55
DG C37	12.41	10.00	71.09	1873596.93	6536118.76
DG C38	65.63	112.69	33.37	1873602.64	6536188.20
DG C39	65.99	194.64	19.43	1873582.39	6536127.20
DG C40	25.24	110.00	13.15	1873603.13	6536187.89
DG C41	23.40	102.00	13.15	1873607.44	6536194.63
DG C42	37.04	29.00	73.18	1873580.49	6536237.44
DG C43	8.42	29.00	16.64	1873565.41	6536247.12
DG C44	7.07	9.00	45.00	1873543.54	6536251.99
DG C45	0.79	1.00	45.00	1873539.22	6536245.25
DG C46	7.06	9.00	44.93	1873519.99	6536249.54
DG C47	13.33	17.00	44.93	1873521.69	6536241.73
DG C48	25.48	168.00	8.69	1873641.58	6536047.30
DG C49	23.28	660.00	2.02	1873631.60	6536058.44
DG C50	32.51	271.00	6.87	1873662.79	6536075.66
DG C51	16.91	110.00	8.81	1873740.25	6536097.16
DG C52	10.44	50.45	11.85	1873457.43	6536276.95
DG C53	12.09	58.45	11.85	1873461.74	6536283.69
DG C54	17.42	68.16	14.64	1873448.12	6536281.63
DG C55	11.49	60.13	10.95	1873450.96	6536289.11
DG C56	22.38	15.00	85.47	1873440.94	6536314.54
DG C57	37.83	15.00	144.51	1873432.79	6536289.81
DG C58	11.64	15.00	44.48	1873425.72	6536318.94
DG C59	49.94	95.35	30.01	1873424.88	6536319.93
DG C60	61.48	87.35	40.33	1873418.81	6536314.73
DG C61	35.35	34.93	57.99	1873366.25	6536344.13
DG C62	44.14	9.54	265.07	1873334.03	6536333.72
DG C63	30.88	42.17	41.96	1873342.74	6536349.49
DG C64	33.72	35.02	55.16	1873328.63	6536378.69

CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	START NORTHING	START EASTING
DG C65	36.93	25.02	84.56	1873338.63	6536378.43
DG C66	35.03	21.38	93.86	1873386.08	6536373.11
DG C67	22.22	26.91	47.30	1873395.08	6536366.43
DG C68	77.31	173.96	25.46	1873480.64	6536380.13
DG C69	75.60	168.96	25.64	1873475.91	6536381.74
DG C70	94.88	404.03	13.46	1873521.83	6536465.37
DG C71	96.12	409.03	13.46	1873517.63	6536468.09
DG C72	20.14	173.81	6.64	1873531.88	6536482.81
DG C73	19.59	168.81	6.65	1873527.41	6536485.05
DG C74	42.92	86.68	28.37	1873541.03	6536524.30
DG C75	40.64	81.71	28.49	1873536.03	6536524.34
EP C76	55.57	20.00	159.18	1873863.56	6536005.87
EP C77	9.42	6.00	90.00	1873856.43	6535916.03
EP C78	32.12	20.00	92.01	1873832.49	6535928.22
EP C79	30.04	50.00	34.43	1873830.29	6535956.91
EP C80	12.70	8.00	90.95	1873874.89	6536036.66
EP C81	12.57	8.00	90.00	1873852.57	6536051.89
EP C82	3.14	2.00	90.00	1873834.87	6536045.12
EP C83	8.65	3.50	141.59	1873812.21	6536014.51
EP C84	18.36	70.00	15.03	1873810.67	6536008.09
EP C85	24.02	20.00	68.80	1873814.09	6535981.68
EP C86	19.49	13.00	85.89	1873694.63	6535823.57
EP C87	46.68	13.00	205.75	1873686.90	6535829.92
EP C88	98.13	97.40	57.73	1873690.05	6535806.46
EP C89	103.76	102.60	57.95	1873685.17	6535804.63
EP C90	50.37	38.60	74.76	1873765.18	6535749.90
EP C91	43.59	33.40	74.77	1873764.50	6535744.75
EP C92	13.12	35.40	21.24	1873798.76	6535717.21
EP C93	40.00	40.60	56.45	1873793.61	6535716.50
EP C94	16.52	35.40	26.75	1873806.05	6535699.77
EP C95	50.43	9.00	321.06	1873808.09	6535708.29

SITE LINE TABLE		
LINE #	LENGTH	DIRECTION
DG L1	17.10	S9° 18' 08.59"E
DG L2	18.38	N9° 18' 08.59"W
DG L3	16.75	N57° 04' 34.71"E
DG L4	7.67	S61° 38' 09.13"W
DG L5	6.00	N34° 32' 46.90"W
DG L6	6.00	S45° 40' 06.87"E
DG L7	5.99	S55° 25' 10.10"E
DG L8	7.14	N68° 22' 10.13"E
DG L9	12.50	N21° 37' 49.87"W
DG L10	7.16	S68° 22' 10.13"W
DG L11	7.01	S16° 54' 32.58"W
DG L12	7.01	N16° 54' 32.58"E
DG L13	12.50	S73° 05' 27.42"E
DG L14	3.44	N57° 19' 00.81"E
DG L15	29.71	N57° 19' 00.81"E
DG L16	7.00	N8° 48' 49.59"E
DG L17	12.50	S81° 11' 10.41"E
DG L18	7.00	S8° 48' 49.59"W
DG L19	11.88	N81° 11' 10.41"W

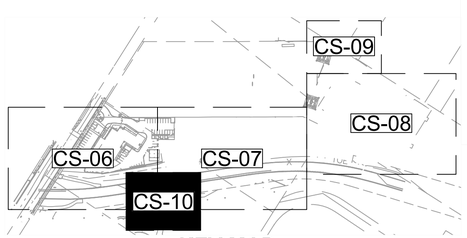
SITE LINE TABLE		
LINE #	LENGTH	DIRECTION
DG L20	10.20	N81° 11' 10.41"W
DG L21	35.70	N81° 11' 10.41"W
DG L22	25.27	N19° 25' 08.04"W
DG L23	0.58	N32° 33' 53.64"W
DG L24	7.12	N69° 39' 26.67"E
DG L25	12.50	S20° 20' 33.33"E
DG L26	7.11	S69° 39' 26.67"W
DG L27	18.04	N19° 25' 08.04"W
DG L28	6.22	N32° 33' 53.64"W
DG L29	6.99	N57° 14' 51.38"E
DG L30	12.50	S32° 45' 08.62"E
DG L31	7.02	S57° 14' 51.38"W
DG L32	8.68	N32° 33' 53.64"W
DG L33	2.00	N57° 26' 06.36"E
DG L34	12.50	S22° 52' 13.48"W
DG L35	5.12	N67° 07' 46.52"W
DG L36	2.00	N57° 26' 06.36"E
DG L37	44.72	S32° 33' 53.64"E
DG L38	13.91	N57° 19' 00.81"E

SITE LINE TABLE		
LINE #	LENGTH	DIRECTION
DG L39	17.72	S32° 40' 59.19"E
DG L40	17.17	S12° 19' 00.81"W
DG L41	17.17	S12° 19' 00.81"W
DG L42	15.28	S32° 40' 59.19"E
DG L43	43.08	S32° 36' 57.36"E
DG L44	55.69	S32° 36' 57.36"E
DG L45	18.03	S32° 36' 37.04"E
DG L46	11.63	S32° 36' 57.36"E
DG L47	9.00	N0° 00' 00.00"E
DG L48	29.82	N90° 00' 00.00"E
DG L49	38.63	S89° 16' 21.15"W
DG L50	38.42	S89° 16' 17.63"W
DG L107	5.12	S67° 07' 46.52"E
EP L51	47.35	N41° 36' 59.73"W
EP L52	33.21	S48° 23' 00.27"W
EP L53	0.12	S41° 36' 59.73"E
EP L54	16.27	S48° 23' 00.27"W
EP L55	20.00	S41° 36' 59.73"E
EP L56	15.49	N48° 23' 00.27"E

SITE LINE TABLE		
LINE #	LENGTH	DIRECTION
EP L57	6.29	S6° 38' 11.06"E
EP L58	10.02	S57° 19' 00.81"W
EP L59	1.07	N31° 44' 06.64"W
EP L60	9.25	S57° 19' 00.81"W
EP L61	17.25	S32° 40' 59.19"E
EP L62	7.25	S57° 19' 00.81"W
EP L63	16.75	S32° 40' 59.19"E
EP L64	36.00	S57° 19' 00.81"W
EP L65	16.21	N32° 40' 59.19"W
EP L66	6.00	S50° 35' 54.38"W
EP L67	6.00	S50° 35' 54.38"W
EP L68	6.39	N33° 18' 51.32"E
EP L69	6.39	S33° 18' 51.32"W
FN L70	30.83	N48° 18' 18.35"E
FN L71	24.99	N48° 42' 52.65"E
FN L72	16.74	N48° 01' 59.45"E
FN L73	51.10	S32° 11' 54.70"E
FN L74	31.22	N58° 15' 53.36"E
FN L75	432.44	S32° 40' 59.19"E

SITE LINE TABLE		
LINE #	LENGTH	DIRECTION
FN L76	68.38	N40° 40' 31.97"W
FN L77	39.12	N40° 40' 31.97"W
FN L78	25.74	N47° 41' 09.80"E
FN L79	7.84	N44° 51' 30.39"W
FN L80	27.15	N44° 31' 24.14"W
FN L81	39.89	N46° 47' 54.93"W
FN L82	10.72	N47° 42' 34.39"W
FN L83	6.01	N41° 56' 52.88"E
FN L84	60.78	N48° 03' 07.12"W
FN L85	61.12	N52° 27' 14.87"W
FN L86	56.94	N59° 23' 17.15"W
FN L87	51.82	N32° 38' 25.62"W
FN L88	22.21	N20° 31' 00.57"E
FN L89	6.47	N32° 00' 39.03"W
FN L90	35.14	N74° 29' 24.40"W
FN L91	34.20	N42° 13' 10.88"W
FN L92	6.45	S49° 33' 53.08"W
FN L93	15.61	N89° 46' 35.16"W
FN L94	16.57	N1° 23' 01.40"W

SITE LINE TABLE		
LINE #	LENGTH	DIRECTION
FN L95	17.12	S89° 33' 55.08"W
FN L96	34.62	S0° 12' 57.19"E
FN L97	40.58	S0° 12' 57.19"E
FN L98	22.31	S85° 05' 01.09"W
FN L99	74.59	S73° 29' 32.31"W
FN L100	127.47	S73° 29' 32.31"W
FN L101	15.18	S89° 35' 26.90"W
FN L102	110.73	S0° 56' 05.68"E
FN L103	25.82	S59° 19' 07.91"W
FN L104	48.11	S89° 13' 19.43"W
FN L105	11.39	S0° 22' 44.90"E
FN L106	142.20	S0° 17' 47.25"E
WC L108	70.45	N48° 18' 18.35"E
WC L109	51.35	S32° 12' 35.28"E
WC L110	9.02	N58° 15' 53.36"E



90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
EJM	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
DESIGNED BY						
AMT, EJM						
CHECKED BY						
CAS			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: HORIZONTAL CONTROL PLAN 5

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: CS-10

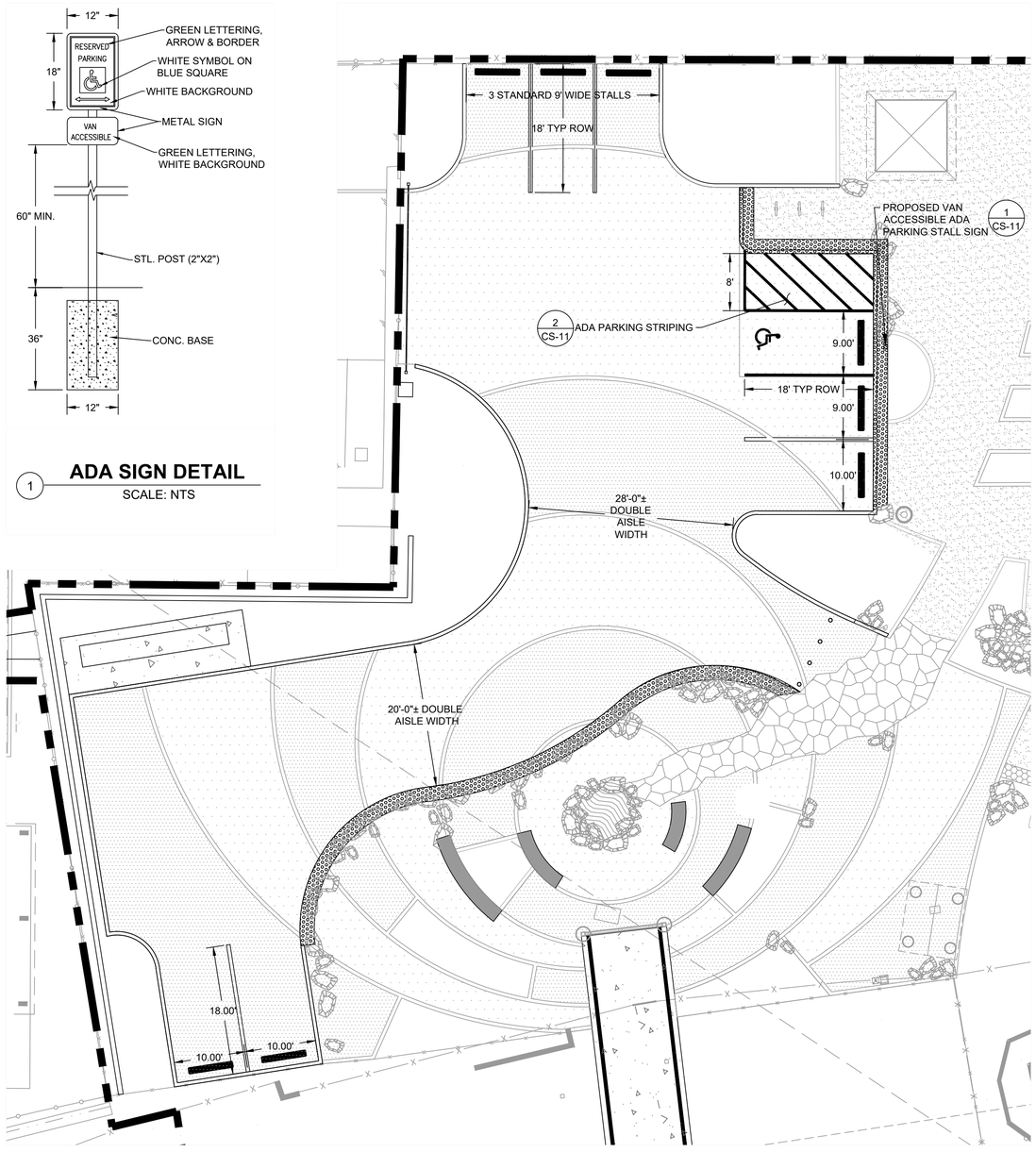
23 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-HORIZONTAL_CONTROL_PLAN.DWG

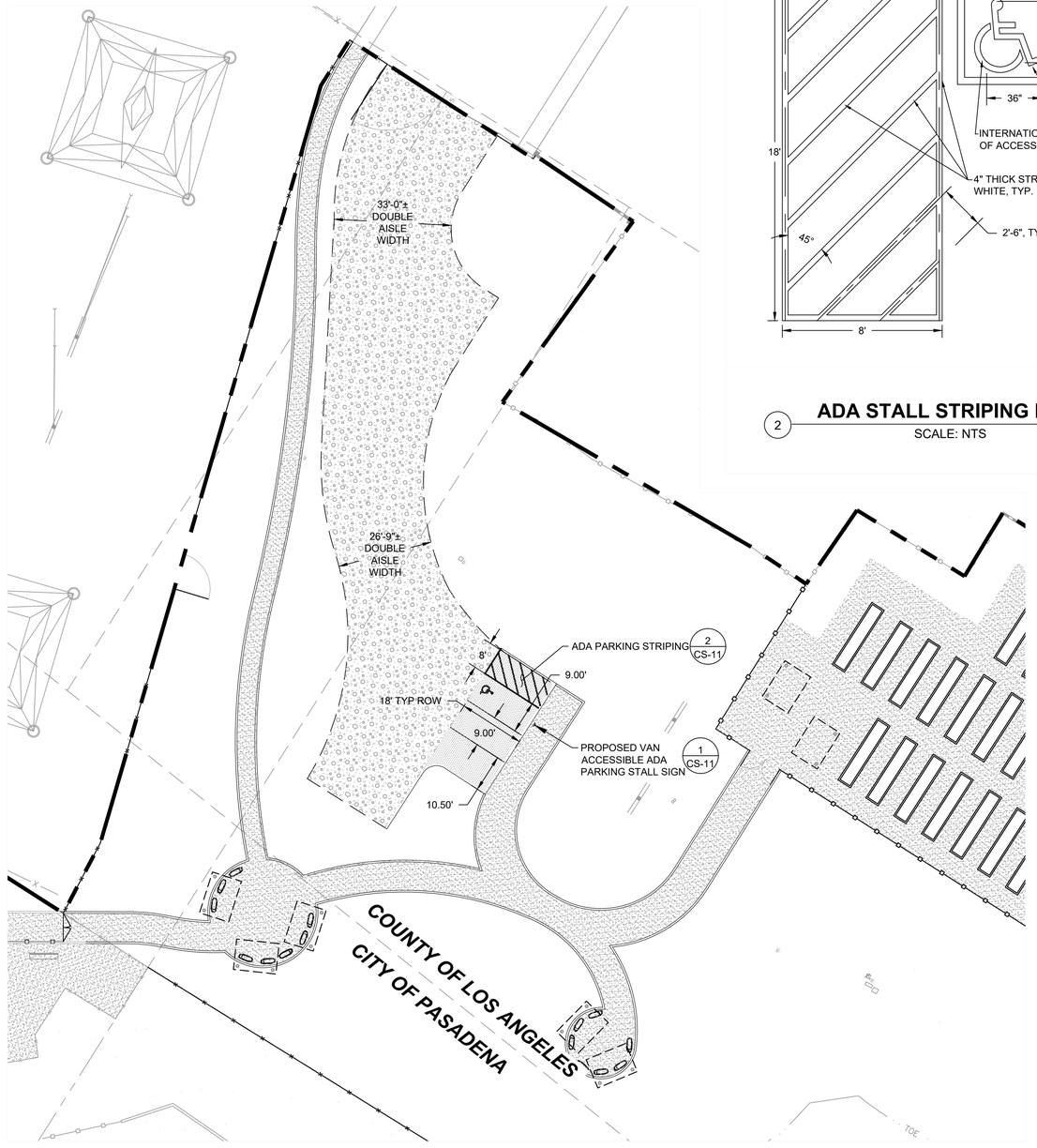
MAIN SITE PARKING LOT

1 **ADA SIGN DETAIL**
SCALE: NTS

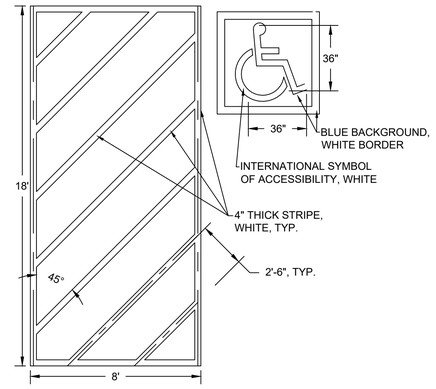


0 20 40 Feet
SCALE: 1"=10'

SCE EASEMENT PARKING LOT



0 40 80 Feet
SCALE: 1"=20'



2 **ADA STALL STRIPING DETAIL**
SCALE: NTS

STRIPING NOTES

1. PARKING STALL STRIPING MEASUREMENTS ARE TAKEN FROM THE CENTERLINE OF THE 4" TYPICAL STRIPE THICKNESS.
2. ALL PROPOSED STRIPING SHALL BE MARKED WITH WHITE PAINT UNLESS OTHERWISE NOTED ON THIS SHEET.

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: PARKING LOT STRIPING AND LAYOUT PLAN

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: CS-11

24 OF 111

DWG. NO.

Date: July 8, 2022

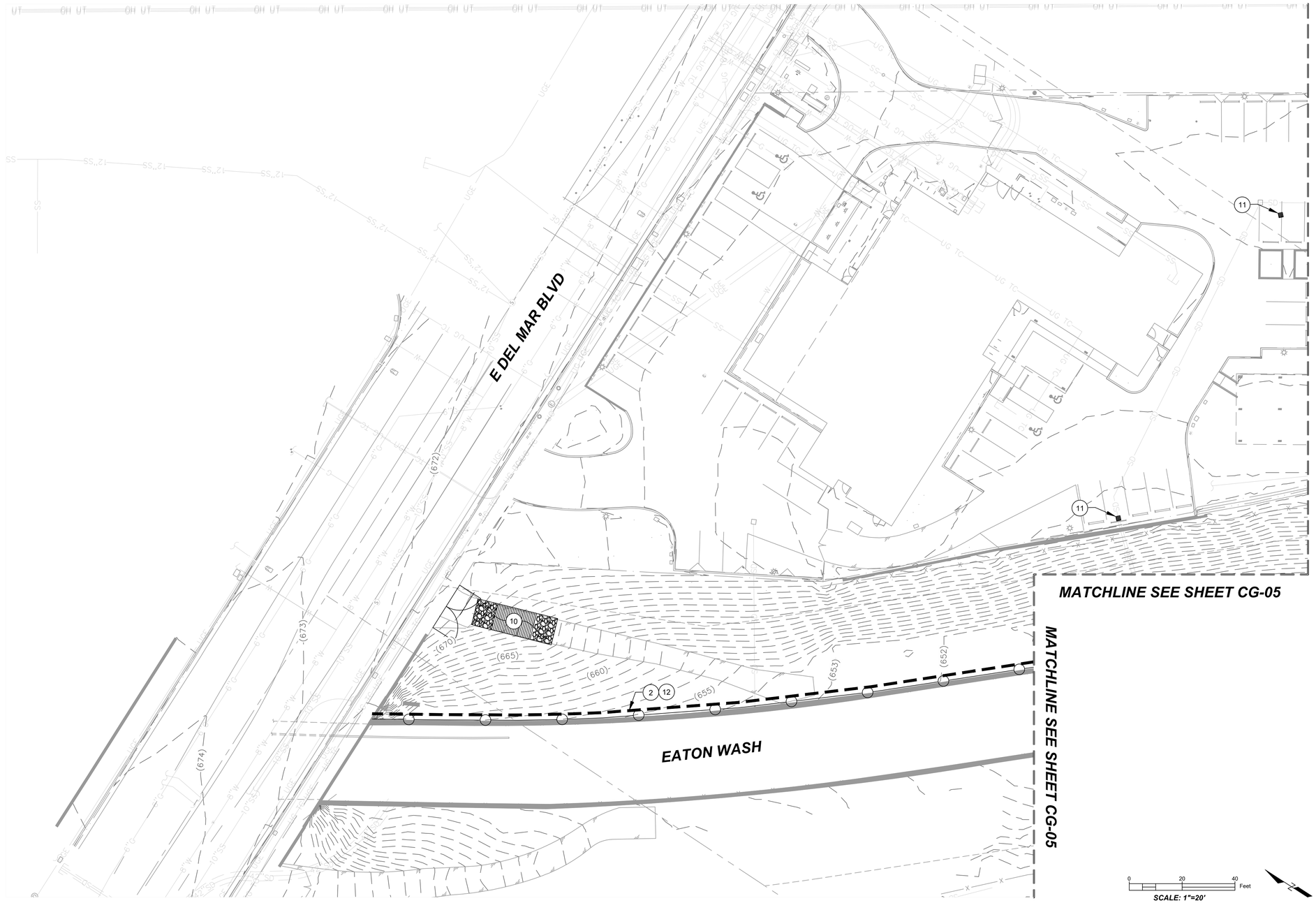
P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-STRIPING.DWG

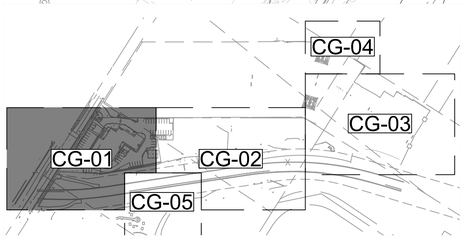
LEGEND

	CONSTRUCTION FENCE AND WIND SCREEN
	SILT FENCE
	GRAVEL BAGS
	FIBER ROLLS
	STORMWATER FLOW DIRECTION
	CONSTRUCTION EQUIPMENT STORAGE AREA
	MATERIAL STORAGE AREA
	STOCKPILE AREA
	CONSTRUCTION PARKING AREA
	STABILIZED CONSTRUCTION ENTRANCE/EXIT
	DEEP EXCAVATION AREA
	TEMPORARY INLET SEDIMENT FILTER BAG

EROSION CONTROL NOTES

1	INSTALL 6' HIGH CONSTRUCTION FENCE AND WIND SCREEN.
2	INSTALL SILT FENCE PER CASQA SE-1.
3	INSTALL GRAVEL BAGS, 3 HIGH, PER CASQA SE-6
4	PROPOSED DEEP EXCAVATION AREA. SUPERFICIAL DEWATERING TO BE DONE IN COORDINATION WITH PROJECT QSD.
5	PROVIDE AND MANAGE CONSTRUCTION EQUIPMENT STORAGE AREA PER SC-20, SC-21, SC-22, AND SC-32. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
6	PROVIDE AND MANAGE MATERIAL STORAGE AREA PER CASQA SD-34 AND SC-43. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
7	PROVIDE AND MANAGE STOCKPILE AREA PER CASQA SC-33. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
8	POVIDE AND MANAGE PORTABLE RESTROOMS AND DOUBLE CONTAINMENT PER SC-31. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
9	PROVIDE AND MANAGE CONSTRUCTION PARKING AREA PER CASQA SC-20, SC-21, SC-22, AND SC-43. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
10	INSTALL STABILIZED CONSTRUCTION ENTRANCE/EXIT PER CASQA TC-1.
11	INSTALL TEMPORARY INLET SEDIMENT FILTER BAG
12	INSTALL FIBER ROLLS AT THE TOP OF THE SLOPE PER CASQA SE-5.
13	ALL EROSION CONTROL MEASURES ARE BASED ON A SINGLE-PHASE CONSTRUCTION PLAN. PHASED CONSTRUCTION ALTERNATIVES ARE PER CONTRACTORS' DISCRETION. THE EROSION CONTROL PLAN SHALL BE UPDATED ACCORDINGLY BY A QUALIFIED SWPPP DESIGNER (QSD).





KEY MAP
SCALE: 1"=250'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: EROSION CONTROL PLAN 1

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: CG-01

25 OF 111

DWG. NO.

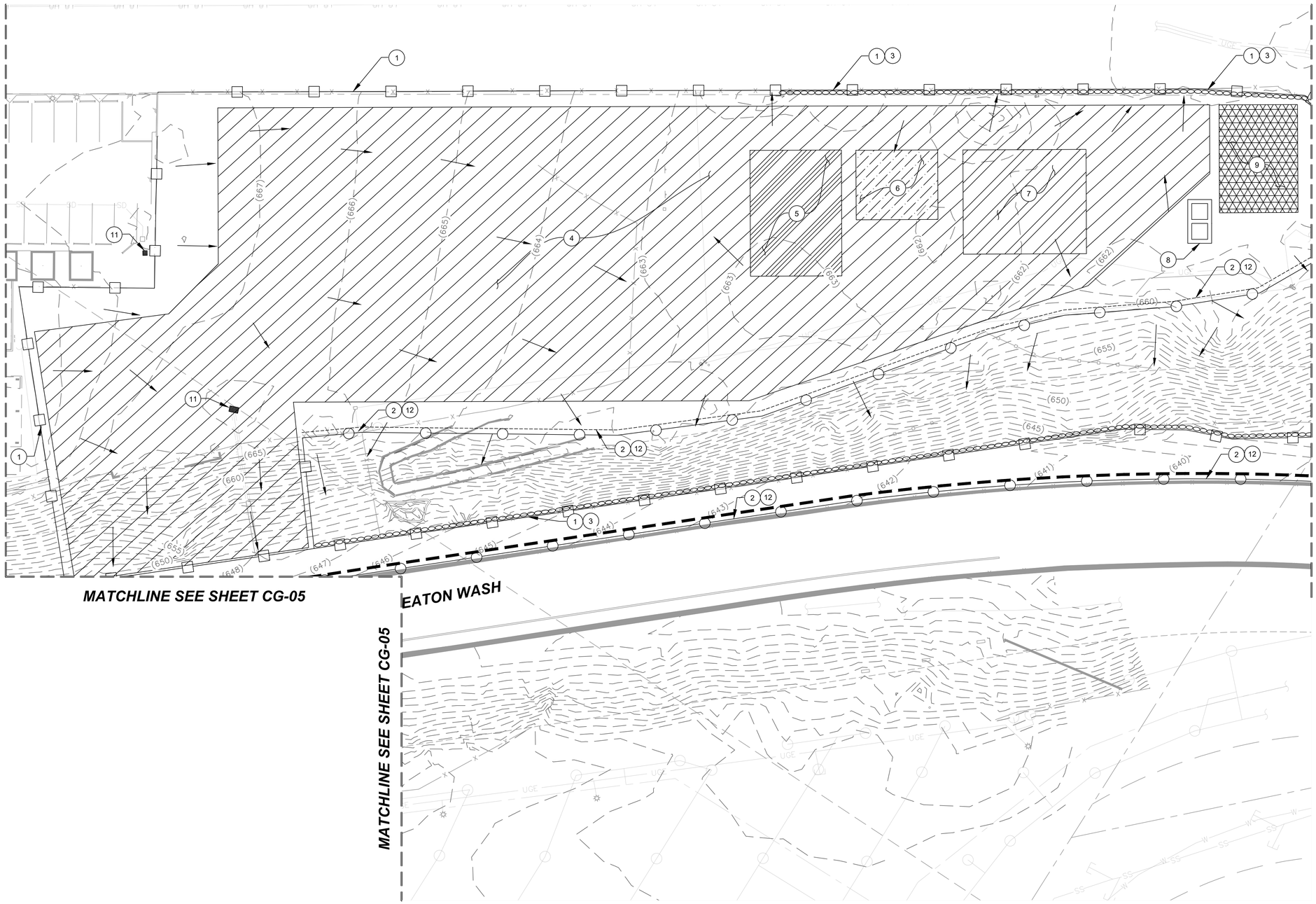
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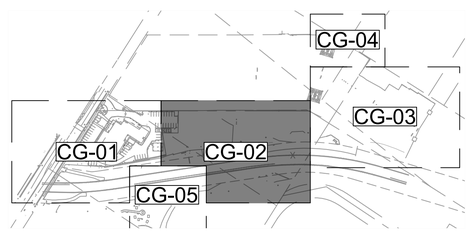
LEGEND

	CONSTRUCTION FENCE AND WIND SCREEN
	SILT FENCE
	GRAVEL BAGS
	FIBER ROLLS
	STORMWATER FLOW DIRECTION
	CONSTRUCTION EQUIPMENT STORAGE AREA
	MATERIAL STORAGE AREA
	STOCKPILE AREA
	CONSTRUCTION PARKING AREA
	STABILIZED CONSTRUCTION ENTRANCE/EXIT
	DEEP EXCAVATION AREA
	TEMPORARY INLET SEDIMENT FILTER BAG

EROSION CONTROL NOTES

1	INSTALL 6' HIGH CONSTRUCTION FENCE AND WIND SCREEN.
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9	PROVIDE AND MANAGE CONSTRUCTION PARKING AREA PER CASQA SC-20, SC-21, SC-22, AND SC-43. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
10	INSTALL STABILIZED CONSTRUCTION ENTRANCE/EXIT PER CASQA TC-1.
11	INSTALL TEMPORARY INLET SEDIMENT FILTER BAG
12	INSTALL FIBER ROLLS AT THE TOP OF THE SLOPE PER CASQA SE-5.
13	ALL EROSION CONTROL MEASURES ARE BASED ON A SINGLE-PHASE CONSTRUCTION PLAN. PHASED CONSTRUCTION ALTERNATIVES ARE PER CONTRACTORS' DISCRETION. THE EROSION CONTROL PLAN SHALL BE UPDATED ACCORDINGLY BY A QUALIFIED SWPPP DESIGNER (QSD).





KEY MAP
SCALE: 1"=250'

SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: EROSION CONTROL PLAN 2

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET CG-02

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-EROSION_CONTROL_PLAN.DWG

LEGEND

	CONSTRUCTION FENCE AND WIND SCREEN
	SILT FENCE
	GRAVEL BAGS
	FIBER ROLLS
	STORMWATER FLOW DIRECTION
	CONSTRUCTION EQUIPMENT STORAGE AREA
	MATERIAL STORAGE AREA
	STOCKPILE AREA
	CONSTRUCTION PARKING AREA
	STABILIZED CONSTRUCTION ENTRANCE/EXIT
	DEEP EXCAVATION AREA
	TEMPORARY INLET SEDIMENT FILTER BAG

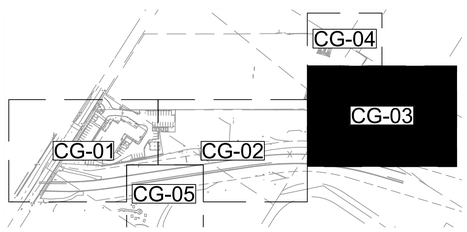
EROSION CONTROL NOTES

1	INSTALL 6' HIGH CONSTRUCTION FENCE AND WIND SCREEN.
2	INSTALL SILT FENCE PER CASQA SE-1.
3	INSTALL GRAVEL BAGS, 3 HIGH, PER CASQA SE-6
4	PROPOSED DEEP EXCAVATION AREA. SUPERFICIAL DEWATERING TO BE DONE IN COORDINATION WITH PROJECT QSD.
5	PROVIDE AND MANAGE CONSTRUCTION EQUIPMENT STORAGE AREA PER SC-20, SC-21, SC-22, AND SC-32. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
6	PROVIDE AND MANAGE MATERIAL STORAGE AREA PER CASQA SD-34 AND SC-43. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
7	PROVIDE AND MANAGE STOCKPILE AREA PER CASQA SC-33. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
8	POVIDE AND MANAGE PORTABLE RESTROOMS AND DOUBLE CONTAINMENT PER SC-31. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
9	PROVIDE AND MANAGE CONSTRUCTION PARKING AREA PER CASQA SC-20, SC-21, SC-22, AND SC-43. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
10	INSTALL STABILIZED CONSTRUCTION ENTRANCE/EXIT PER CASQA TC-1.
11	INSTALL TEMPORARY INLET SEDIMENT FILTER BAG
12	INSTALL FIBER ROLLS AT THE TOP OF THE SLOPE PER CASQA SE-5.
13	ALL EROSION CONTROL MEASURES ARE BASED ON A SINGLE-PHASE CONSTRUCTION PLAN. PHASED CONSTRUCTION ALTERNATIVES ARE PER CONTRACTORS' DISCRETION. THE EROSION CONTROL PLAN SHALL BE UPDATED ACCORDINGLY BY A QUALIFIED SWPPP DESIGNER (QSD).

MATCHLINE SEE SHEET CG-04

MATCHLINE SEE SHEET CG-02

EATON WASH



KEY MAP
SCALE: 1"=250'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: EROSION CONTROL PLAN 3

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: CG-03

27 OF 111

DWG. NO.

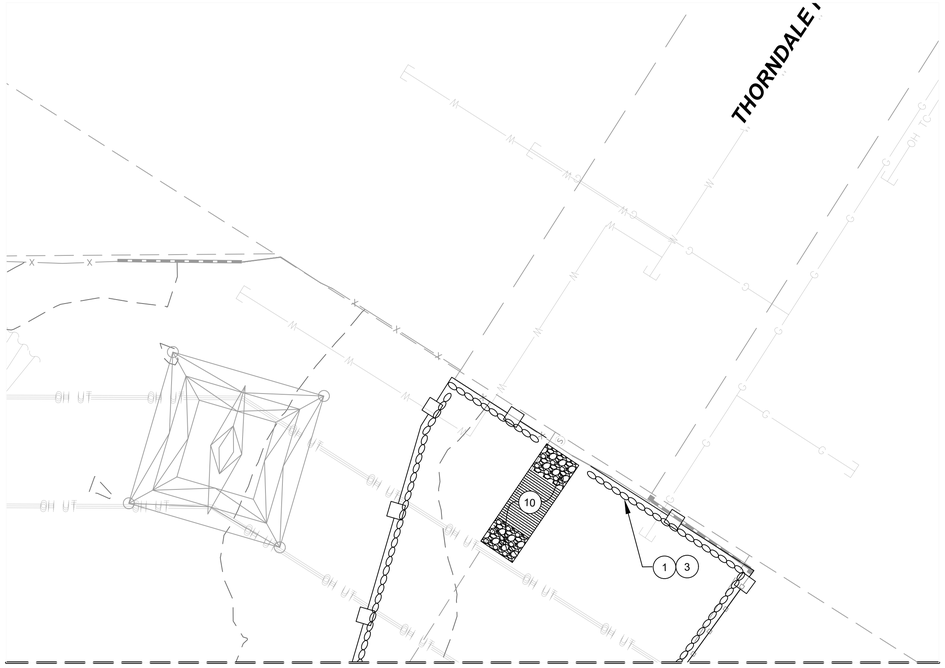
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LEGEND

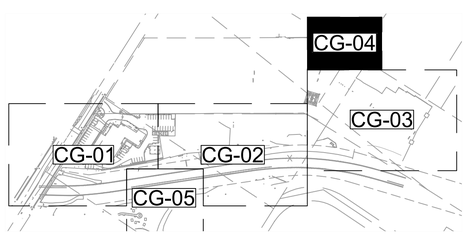
	CONSTRUCTION FENCE AND WIND SCREEN
	SILT FENCE
	GRAVEL BAGS
	FIBER ROLLS
	STORMWATER FLOW DIRECTION
	CONSTRUCTION EQUIPMENT STORAGE AREA
	MATERIAL STORAGE AREA
	STOCKPILE AREA
	CONSTRUCTION PARKING AREA
	STABILIZED CONSTRUCTION ENTRANCE/EXIT
	DEEP EXCAVATION AREA
	TEMPORARY INLET SEDIMENT FILTER BAG

EROSION CONTROL NOTES

1	INSTALL 6' HIGH CONSTRUCTION FENCE AND WIND SCREEN.
2	INSTALL SILT FENCE PER CASQA SE-1.
3	INSTALL GRAVEL BAGS, 3 HIGH, PER CASQA SE-6
4	PROPOSED DEEP EXCAVATION AREA. SUPERFICIAL DEWATERING TO BE DONE IN COORDINATION WITH PROJECT QSD.
5	PROVIDE AND MANAGE CONSTRUCTION EQUIPMENT STORAGE AREA PER SC-20, SC-21, SC-22, AND SC-32. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
6	PROVIDE AND MANAGE MATERIAL STORAGE AREA PER CASQA SD-34 AND SC-43. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
7	PROVIDE AND MANAGE STOCKPILE AREA PER CASQA SC-33. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
8	POVIDE AND MANAGE PORTABLE RESTROOMS AND DOUBLE CONTAINMENT PER SC-31. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
9	PROVIDE AND MANAGE CONSTRUCTION PARKING AREA PER CASQA SC-20, SC-21, SC-22, AND SC-43. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
10	INSTALL STABILIZED CONSTRUCTION ENTRANCE/EXIT PER CASQA TC-1.
11	INSTALL TEMPORARY INLET SEDIMENT FILTER BAG
12	INSTALL FIBER ROLLS AT THE TOP OF THE SLOPE PER CASQA SE-5.
13	ALL EROSION CONTROL MEASURES ARE BASED ON A SINGLE-PHASE CONSTRUCTION PLAN. PHASED CONSTRUCTION ALTERNATIVES ARE PER CONTRACTORS' DISCRETION. THE EROSION CONTROL PLAN SHALL BE UPDATED ACCORDINGLY BY A QUALIFIED SWPPP DESIGNER (QSD).



MATCHLINE SEE SHEET CG-03



KEY MAP
SCALE: 1"=250'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY EJM	REVISIONS					
DESIGNED BY AMT, EJM	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
CHECKED BY CAS			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: EROSION CONTROL PLAN 4

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: CG-04

28 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-EROSION_CONTROL_PLAN.DWG

LEGEND

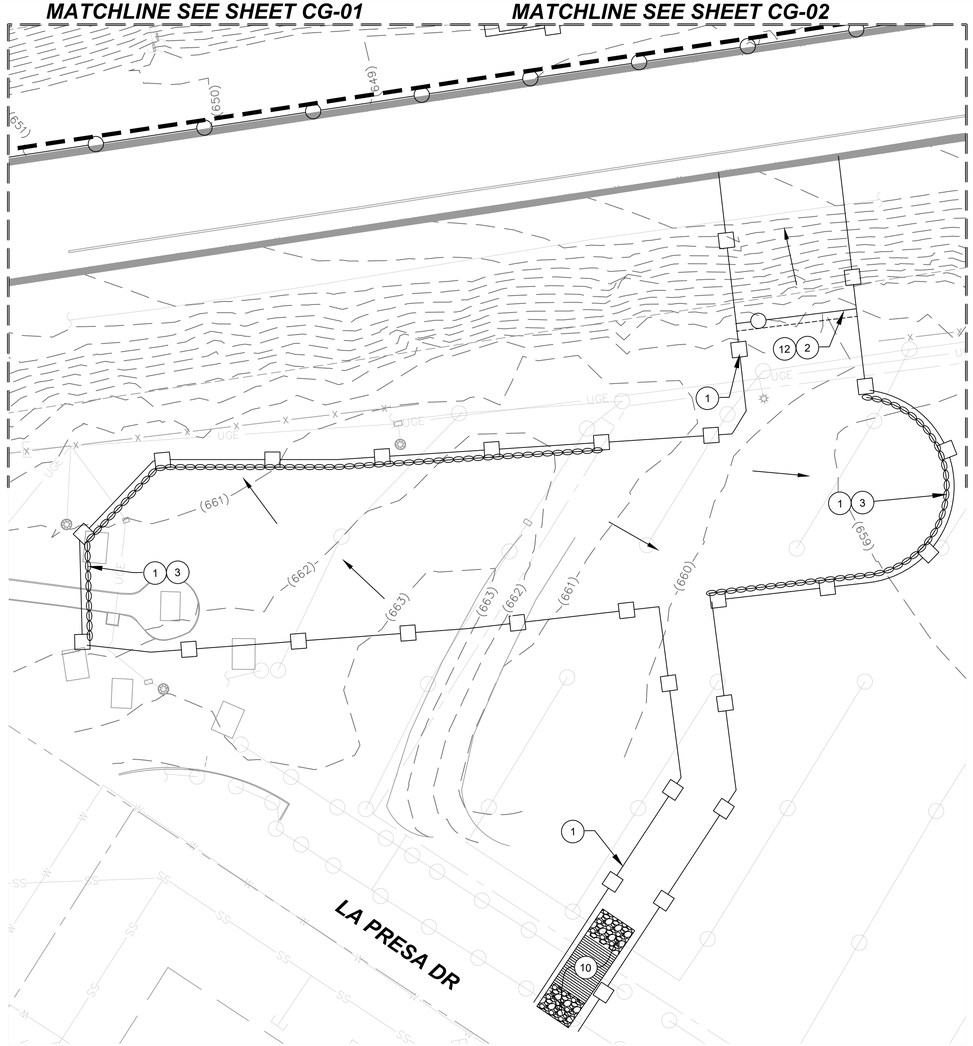
	CONSTRUCTION FENCE AND WIND SCREEN
	SILT FENCE
	GRAVEL BAGS
	FIBER ROLLS
	STORMWATER FLOW DIRECTION
	CONSTRUCTION EQUIPMENT STORAGE AREA
	MATERIAL STORAGE AREA
	STOCKPILE AREA
	CONSTRUCTION PARKING AREA
	STABILIZED CONSTRUCTION ENTRANCE/EXIT
	DEEP EXCAVATION AREA
	TEMPORARY INLET SEDIMENT FILTER BAG

EROSION CONTROL NOTES

1	INSTALL 6' HIGH CONSTRUCTION FENCE AND WIND SCREEN.
2	INSTALL SILT FENCE PER CASQA SE-1.
3	INSTALL GRAVEL BAGS, 3 HIGH, PER CASQA SE-6
4	PROPOSED DEEP EXCAVATION AREA. SUPERFICIAL DEWATERING TO BE DONE IN COORDINATION WITH PROJECT QSD.
5	PROVIDE AND MANAGE CONSTRUCTION EQUIPMENT STORAGE AREA PER SC-20, SC-21, SC-22, AND SC-32. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
6	PROVIDE AND MANAGE MATERIAL STORAGE AREA PER CASQA SD-34 AND SC-43. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
7	PROVIDE AND MANAGE STOCKPILE AREA PER CASQA SC-33. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
8	POVIDE AND MANAGE PORTABLE RESTROOMS AND DOUBLE CONTAINMENT PER SC-31. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
9	PROVIDE AND MANAGE CONSTRUCTION PARKING AREA PER CASQA SC-20, SC-21, SC-22, AND SC-43. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
10	INSTALL STABILIZED CONSTRUCTION ENTRANCE/EXIT PER CASQA TC-1.
11	INSTALL TEMPORARY INLET SEDIMENT FILTER BAG
12	INSTALL FIBER ROLLS AT THE TOP OF THE SLOPE PER CASQA SE-5.
13	ALL EROSION CONTROL MEASURES ARE BASED ON A SINGLE-PHASE CONSTRUCTION PLAN. PHASED CONSTRUCTION ALTERNATIVES ARE PER CONTRACTORS' DISCRETION. THE EROSION CONTROL PLAN SHALL BE UPDATED ACCORDINGLY BY A QUALIFIED SWPPP DESIGNER (QSD).

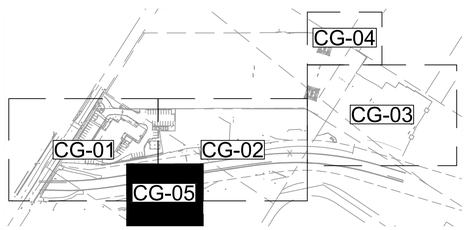
MATCHLINE SEE SHEET CG-01

MATCHLINE SEE SHEET CG-02



MATCHLINE SEE SHEET CG-01

MATCHLINE SEE SHEET CG-02



KEY MAP
SCALE: 1"=250'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: EROSION CONTROL PLAN 5

SCALE: AS SHOWN

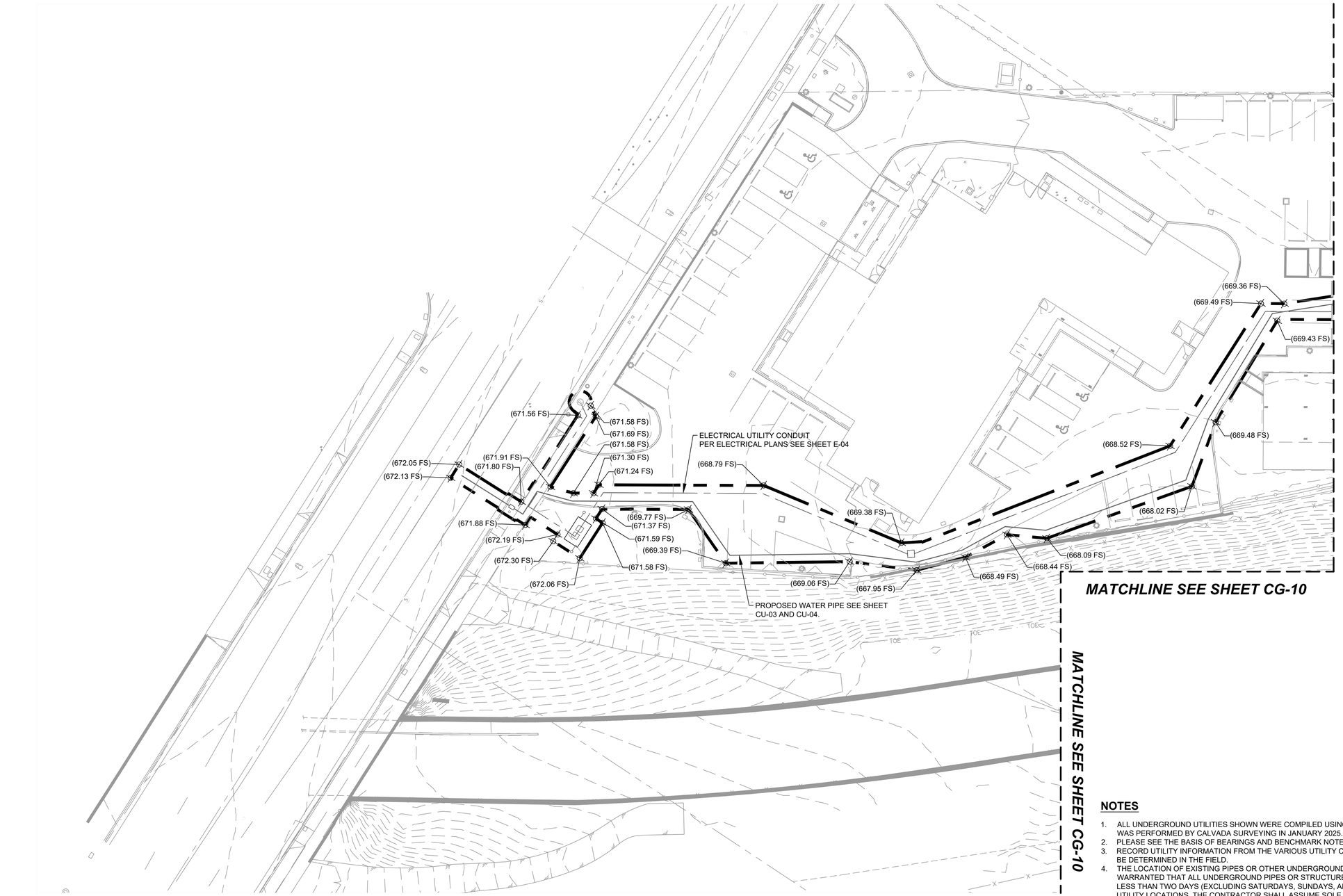
ACCOUNT NUMBER: XXXXXX

SHEET: CG-05

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-EROSION_CONTROL_PLAN.DWG

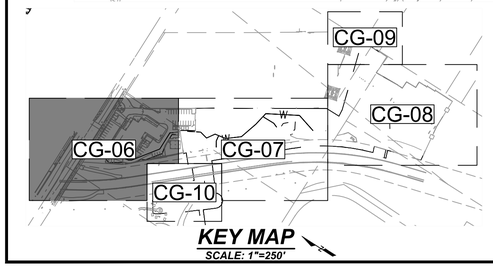


LEGEND

- DECOMPOSED GRANITE PAVING
- PERMEABLE PAVERS
- PERMEABLE PAVERS B
- OPEN CELL PAVERS
- FLAGSTONE PAVERS
- STORMWATER CREEK
- STORMWATER BASIN
- STORMWATER SPRING
- CONCRETE
- (660) EXISTING CONTOUR WITH ELEV
- 660 PROPOSED CONTOUR WITH ELEV
- LIMITS OF WORK (LOW)
- LIMITS OF GRADING (LOG)
- CENTERLINE
- PERIMETER FENCE
- DOG PARK FENCE
- ⊗(660.00 FS) EXISTING SPOT ELEVATION
- ⊗660.00 FS PROPOSED SPOT ELEVATION
- -2.0% SLOPE ARROW WITH SLOPE

ABBREVIATIONS

FG	FINISHED GRADE
FS	FINISHED SURFACE
FL	FLOWLINE
TC	TOP OF CURB
TW	TOP OF WALL
RIM	RIM ELEVATION
EX	EXISTING
PR	PROPOSED
JOIN	JOIN EXISTING
TF	TOP OF FOOTING



KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

NOTES

1. ALL UNDERGROUND UTILITIES SHOWN WERE COMPILED USING FIELD SURVEY INFORMATION AND AVAILABLE RECORD INFORMATION. A GROUND SURVEY WAS PERFORMED BY CALVADA SURVEYING IN JANUARY 2025.
2. PLEASE SEE THE BASIS OF BEARINGS AND BENCHMARK NOTES FOR HORIZONTAL AND VERTICAL CONTROL.
3. RECORD UTILITY INFORMATION FROM THE VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES ARE APPROXIMATE ONLY AND ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD.
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5. THE EXISTING CONDITIONS PLAN IS TO BE USED FOR THE SPECIFIED PROJECT ONLY AND IS NOT WARRANTED TO BE COMPLETE FOR ANY OTHER FUTURE PROJECTS.
6. ALL ELEVATIONS SHOWN ON PLAN ARE EXISTING AND POST CONSTRUCTION ELEVATIONS SHALL BE RESTORED TO MATCH PRECONSTRUCTION ELEVATIONS.
7. ALL SITE FURNISHING AND SURFACE IMPROVEMENT FINISHES SHALL BE PER LANDSCAPE PLANS.
8. ALL AREAS SHOWN OUTSIDE OF LIMITS OF GRADING SHALL BE RESTORED TO EXISTING ELEVATION AND CONDITION UNLESS OTHERWISE SPECIFIED IN THE PLANS.

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: GRADING PLAN 1

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: CG-06

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-GRADING_PLAN.DWG

MATCHLINE SEE SHEET CG-06

MATCHLINE SEE SHEET CG-08

MATCHLINE SEE SHEET CG-10

MATCHLINE SEE SHEET CG-10

LEGEND

- DECOMPOSED GRANITE PAVING
- PERMEABLE PAVERS
- PERMEABLE PAVERS B
- OPEN CELL PAVERS
- FLAGSTONE PAVERS
- STORMWATER CREEK
- STORMWATER BASIN
- STORMWATER SPRING
- CONCRETE
- (660) EXISTING CONTOUR WITH ELEV
- 660 PROPOSED CONTOUR WITH ELEV
- LIMITS OF WORK (LOW)
- LIMITS OF GRADING (LOG)
- CENTERLINE
- PERIMETER FENCE
- DOG PARK FENCE
- ⊗(660.00 FS) EXISTING SPOT ELEVATION
- ⊗660.00 FS PROPOSED SPOT ELEVATION
- -2.0% SLOPE ARROW WITH SLOPE

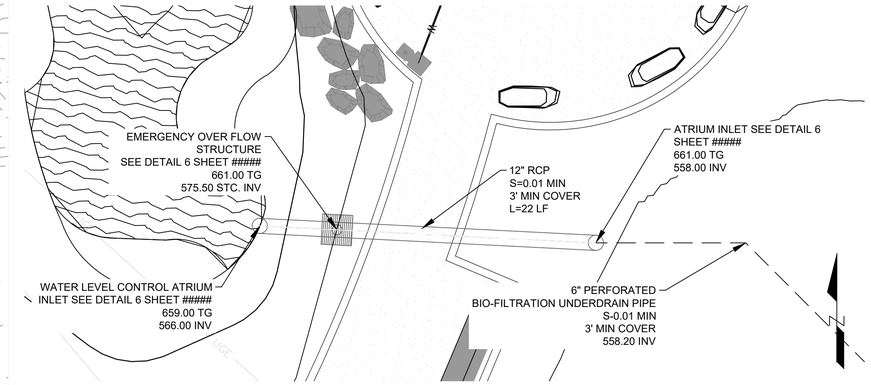
ABBREVIATIONS

FG	FINISHED GRADE
FS	FINISHED SURFACE
FL	FLOWLINE
TC	TOP OF CURB
TW	TOP OF WALL
RIM	RIM ELEVATION
EX	EXISTING
PR	PROPOSED
JOIN	JOIN EXISTING
TF	TOP OF FOOTING

668.24 TC (667.74 FS)
(667.29 FS) JOIN
(667.05 FS=TC) JOIN
665.64 FG
667.79 TC 667.29 FS
666.82 FS=TC
665.74 FG 665.59 FG
665.61 FG
663.33 FG
663.51 FG
663.10 FG
663.11 FG
(661.00 FS) JOIN
(661.08 FS) JOIN
(660.89 FG) JOIN
668.20 TC (667.70 FS)
667.80 TC (667.10 FS)
666.53 FS=TC
⊗664.63 FG
663.74 FG
663.21 FG
⊗662.98 FG
663.30 FG
662.38 FG
661.98 FG
661.44 FG
661.88 FG
661.26 FG
661.21 FG
661.32 FG
661.25 FG
661.31 FG
661.38 FG
(669.44 FG) JOIN
671.00 TW
666.62 FG-LOW
669.72 FG-HIGH
665.12 TF
CIP RETAINING WALL PER SPPWC STD DETAIL 610-3.
⊗667.50 FS
666.32 FS=TC
666.38 FS=TC
⊗665.34 FG
663.73 FG
663.28 FG
662.64 FG
663.28 FG
662.68 FG
663.20 FG
663.26 FG
662.30 FG
661.95 FG
661.80 FG
661.75 FG
661.65 FG
661.39 FG
661.39 FG
661.23 FG
661.38 FG
⊗666.71 FS
666.19 FS
666.43 RIM
666.28 RIM
666.30 FS=TC
665.42 FG
663.61 FG
663.20 FG
663.00 FG
662.41 FG
662.00 FG
662.11 FG
662.49 FG
661.92 FG
661.90 FG
661.00 FG
661.36 FG
661.34 FG
671.00 TW
667.62 FG-LOW
665.12 TF
666.06 FS
666.22 FS=TC
662.64 FG
662.48 FG
663.69 FG
665.22 FG
665.17 FG
664.01 FG
662.13 FG
661.92 FG
WATER FEATURE OUTLET SYSTEM SEE INSET HEREON
PERFORATED DRAINAGE PIPE PER DETAIL 5 SHEET CU-06
656.00 INV
666.02 FG-LOW
671.00 TW
667.68 FG-HIGH
664.52 TF
CONCRETE ELECTRICAL PEDESTAL PER ELECTRICAL PLANS
665.64 TOP OF PAD
665.42 FG
665.86 FG
664.25 FG
664.38 FG
662.15 FG
661.70 FG
661.67 FG
PROTECTED DRAINAGE INLET PER DETAIL 10 SHEET CU-07
660.25 TG
669.58
666.71 TC 666.21 FS
666.04 FS=TC
665.84 RIM
665.66 FS=TC
665.71 FG
665.76 FG
662.81 FG
662.45 FG
662.01 FG
661.47 FG
661.53 FG
661.55 FG
661.54 FG
660.25 TG
(662.03 FG) JOIN
(660.45 FG) JOIN
666.08 TC 665.58 FS
665.87 RIM
665.62 RIM
665.75 RIM
665.73 RIM=TC
665.54 FS
665.62 FS
664.04 FG
663.86 FL
662.59 FG
661.97 FG
661.37 FG
(660.31 FG) JOIN
(660.56 FG) JOIN
(660.91 FG) JOIN
(669.49 FS)
(669.52 FS)
666.62 TC 666.12 FS
665.73 RIM
665.60 RIM
665.70 RIM
663.59 FL
663.01 FL
12" CULVERT 663.01 INV
661.04 FL
12" CULVERT 661.04 INV
659.07 FL
⊗659.35 FG
661.16 FG
661.12 FG
(660.55 FG) JOIN
(661.90 FG) JOIN
(662.00 FG) JOIN
WATER FEATURE OUTLET 6" HDPE 664.00 INV
665.91 FG
665.78 FG
665.77 FS
665.94 RIM
665.51 RIM
665.72 RIM
SPRING FEATURE OUTLET 6" HDPE 664.75 INV
665.74 FG
665.26 FG
(663.77 FG)
660.32 FL
⊗661.65 FG
⊗659.26 FG
OVERFLOW GRATE AND PERFORATED DRAINAGE PIPE
659.50 TG
655.71 INV
665.57 FS
663.26 RIM
665.64 RIM
665.95 FS
665.77 FS
665.04 FG
(663.55 FG)
⊗662.88 FG
(663.86 FG)
665.59 FG
665.96 FS
(665.12 FG)
(663.14 FG) JOIN
(662.62 FG) JOIN
⊗661.59 FG
661.60 FG
(661.55 FG) JOIN
(661.59 FG)
(661.00 FG) JOIN
PROPOSED SURFACE WATER FEATURE. EDGING AND PLANTING PER LANDSCAPE PLANS SHEET LS-06.
658.50 INV
659.00 WSE
PROPOSED BIO-RETENTION AREA PER DETAIL 5 SHEET CU-06.
665.96 RIM
666.55 TC
666.05 FS
666.57 TC
666.07 FS
666.29 RIM
666.16 TC 665.66 FS
665.82 RIM
665.76 FS
(663.81 FG) JOIN
(661.57 FG) JOIN
(664.84-664.42 FG)
(663.61 FG) JOIN
(663.36 FG) JOIN
(662.23 FG)
(658.12 FG)
666.60 TC
666.10 FS
666.80 TC
666.30 FS
667.00 TC
666.50 FS
671.00 TW
667.06 FG-LOW
667.05 FG-HIGH
665.56 TF
PEDESTRIAN BRIDGE PER DETAIL ON SHEET CU-09
(652.03 FG)
(642.47 TW)
⊗(628.75 FS)
⊗(631.75 FS)
(632.18 TC)
(631.55 FS)
(645.39 TW)
(642.06 TW)
⊗(634.78 FS)
(635.48 TC)
(634.81 FS)
(645.53 TW)

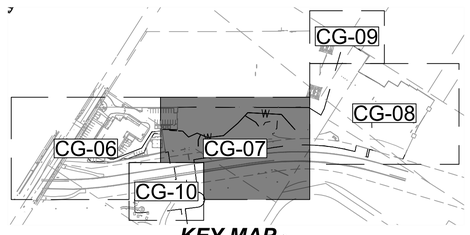
NOTES

1. ALL UNDERGROUND UTILITIES SHOWN WERE COMPILED USING FIELD SURVEY INFORMATION AND AVAILABLE RECORD INFORMATION. A GROUND SURVEY WAS PERFORMED BY CALVADA SURVEYING IN JANUARY 2025.
2. PLEASE SEE THE BASIS OF BEARINGS AND BENCHMARK NOTES FOR HORIZONTAL AND VERTICAL CONTROL.
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5. THE EXISTING CONDITIONS PLAN IS TO BE USED FOR THE SPECIFIED PROJECT ONLY AND IS NOT WARRANTED TO BE COMPLETE FOR ANY OTHER FUTURE PROJECTS.
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8. ALL AREAS SHOWN OUTSIDE OF LIMITS OF GRADING SHALL BE RESTORED TO EXISTING ELEVATION AND CONDITION UNLESS OTHERWISE SPECIFIED IN THE PLANS.



WATER FEATURE OUTLET

0 5 10 Feet



KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: GRADING PLAN 2

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

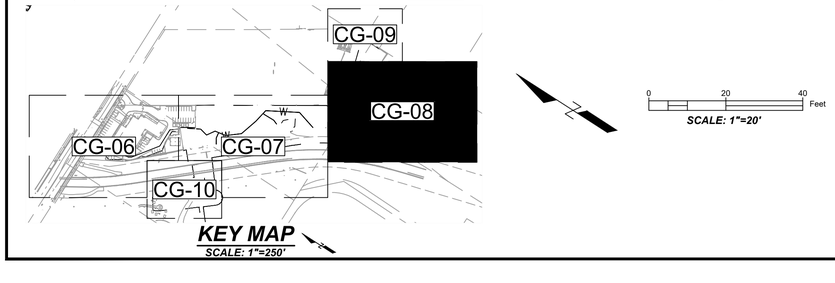
SHEET CG-07

31 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-GRADING_PLAN.DWG





0 20 40 Feet

SCALE: 1"=20'

LEGEND

- DECOMPOSED GRANITE PAVING
- PERMEABLE PAVERS
- PERMEABLE PAVERS B
- OPEN CELL PAVERS
- FLAGSTONE PAVERS
- STORMWATER CREEK
- STORMWATER BASIN
- STORMWATER SPRING
- CONCRETE
- (660) EXISTING CONTOUR WITH ELEV
- 660 PROPOSED CONTOUR WITH ELEV
- LIMITS OF WORK (LOW)
- LIMITS OF GRADING (LOG)
- CENTERLINE
- PERIMETER FENCE
- DOG PARK FENCE
- ⊗(660.00 FS) EXISTING SPOT ELEVATION
- ⊗660.00 FS PROPOSED SPOT ELEVATION
- -2.0% SLOPE ARROW WITH SLOPE

ABBREVIATIONS

FG	FINISHED GRADE
FS	FINISHED SURFACE
FL	FLOWLINE
TC	TOP OF CURB
TW	TOP OF WALL
RIM	RIM ELEVATION
EX	EXISTING
PR	PROPOSED
JOIN	JOIN EXISTING
TF	TOP OF FOOTING

NOTES

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90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: GRADING PLAN 3

SCALE: AS SHOWN

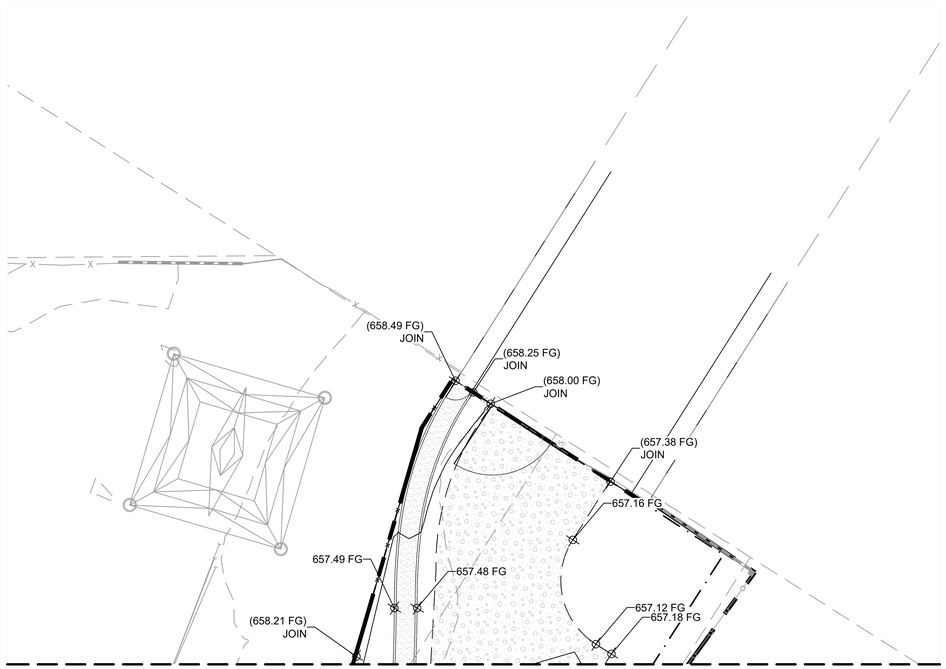
ACCOUNT NUMBER: XXXXXX

SHEET CG-08

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-GRADING_PLAN.DWG



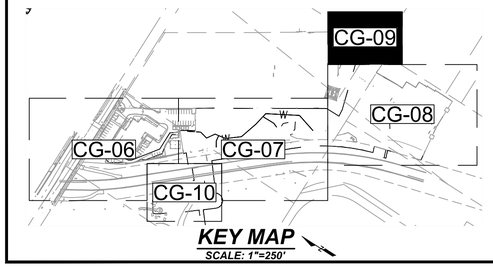
MATCHLINE SEE SHEET CG-08

LEGEND

- DECOMPOSED GRANITE PAVING
- PERMEABLE PAVERS
- PERMEABLE PAVERS B
- OPEN CELL PAVERS
- FLAGSTONE PAVERS
- STORMWATER CREEK
- STORMWATER BASIN
- STORMWATER SPRING
- CONCRETE
- (660) EXISTING CONTOUR WITH ELEV
- 660 PROPOSED CONTOUR WITH ELEV
- LIMITS OF WORK (LOW)
- LIMITS OF GRADING (LOG)
- CENTERLINE
- PERIMETER FENCE
- DOG PARK FENCE
- ⊗(660.00 FS) EXISTING SPOT ELEVATION
- ⊗660.00 FS PROPOSED SPOT ELEVATION
- -2.0% SLOPE ARROW WITH SLOPE

ABBREVIATIONS

FG	FINISHED GRADE
FS	FINISHED SURFACE
FL	FLOWLINE
TC	TOP OF CURB
TW	TOP OF WALL
RIM	RIM ELEVATION
EX	EXISTING
PR	PROPOSED
JOIN	JOIN EXISTING
TF	TOP OF FOOTING



KEY MAP
SCALE: 1"=250'

0 20 40 Feet

SCALE: 1"=20'

NOTES

1. ALL UNDERGROUND UTILITIES SHOWN WERE COMPILED USING FIELD SURVEY INFORMATION AND AVAILABLE RECORD INFORMATION. A GROUND SURVEY WAS PERFORMED BY CALVADA SURVEYING IN JANUARY 2025.
2. PLEASE SEE THE BASIS OF BEARINGS AND BENCHMARK NOTES FOR HORIZONTAL AND VERTICAL CONTROL.
3. RECORD UTILITY INFORMATION FROM THE VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES ARE APPROXIMATE ONLY AND ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD.
4. THE LOCATION OF EXISTING PIPES OR OTHER UNDERGROUND STRUCTURES OR PROPERTY LINES ARE NOT WARRANTED TO BE EXACT, NOR IS IT WARRANTED THAT ALL UNDERGROUND PIPES OR STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL CALL THE USA UNDERGROUND 811 ALERT NO LESS THAN TWO DAYS (EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS) NOR MORE THAN 7 DAYS PRIOR TO ANY EXCAVATION TO OBTAIN ACCURATE UTILITY LOCATIONS. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR ANY DAMAGE DONE TO EXISTING UTILITIES OR STREET IMPROVEMENTS INCLUDING CONCRETE AND LANDSCAPING DURING CONSTRUCTION.
5. THE EXISTING CONDITIONS PLAN IS TO BE USED FOR THE SPECIFIED PROJECT ONLY AND IS NOT WARRANTED TO BE COMPLETE FOR ANY OTHER FUTURE PROJECTS.
6. ALL ELEVATIONS SHOWN ON PLAN ARE EXISTING AND POST CONSTRUCTION ELEVATIONS SHALL BE RESTORED TO MATCH PRECONSTRUCTION ELEVATIONS.
7. ALL SITE FURNISHING AND SURFACE IMPROVEMENT FINISHES SHALL BE PER LANDSCAPE PLANS.
8. ALL AREAS SHOWN OUTSIDE OF LIMITS OF GRADING SHALL BE RESTORED TO EXISTING ELEVATION AND CONDITION UNLESS OTHERWISE SPECIFIED IN THE PLANS.

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: GRADING PLAN 4

SCALE: AS SHOWN

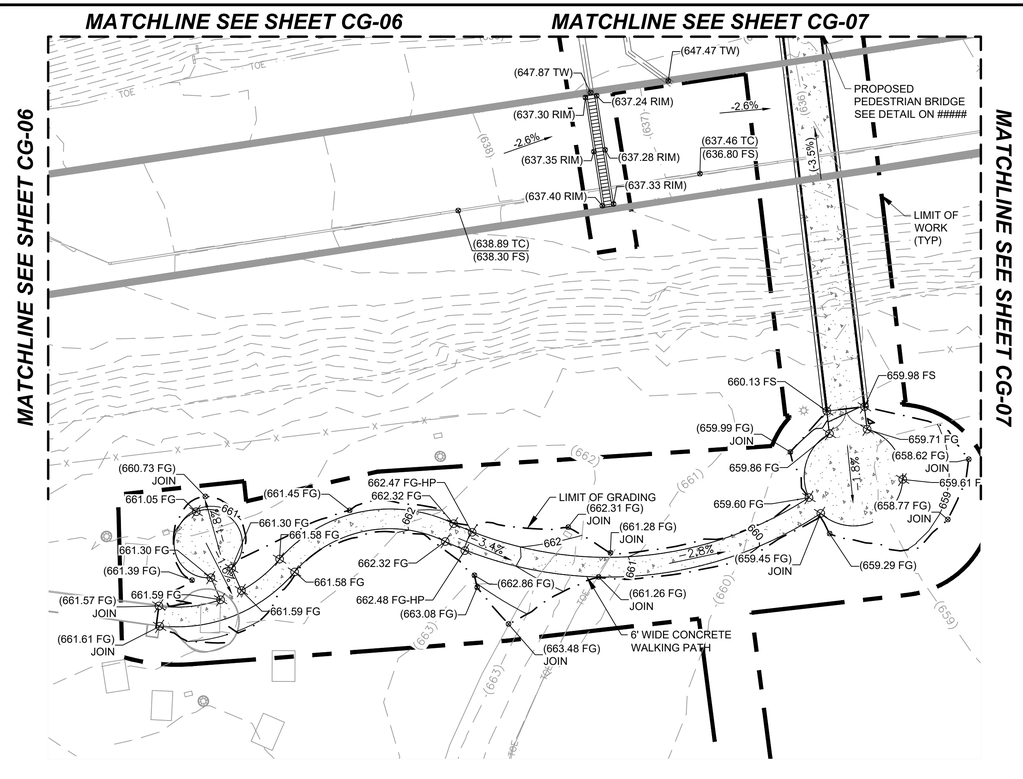
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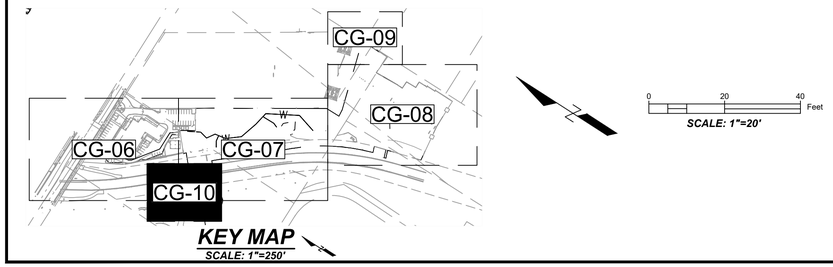
SHEET CG-09

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-GRADING_PLAN.DWG





KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

LEGEND

- DECOMPOSED GRANITE PAVING
- PERMEABLE PAVERS
- PERMEABLE PAVERS B
- OPEN CELL PAVERS
- FLAGSTONE PAVERS
- STORMWATER CREEK
- STORMWATER BASIN
- STORMWATER SPRING
- CONCRETE
- (660) EXISTING CONTOUR WITH ELEV
- 660 PROPOSED CONTOUR WITH ELEV
- LIMITS OF WORK (LOW)
- LIMITS OF GRADING (LOG)
- CENTERLINE
- PERIMETER FENCE
- DOG PARK FENCE
- ⊗(660.00 FS) EXISTING SPOT ELEVATION
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ABBREVIATIONS

FG	FINISHED GRADE
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NOTES

1. ALL UNDERGROUND UTILITIES SHOWN WERE COMPILED USING FIELD SURVEY INFORMATION AND AVAILABLE RECORD INFORMATION. A GROUND SURVEY WAS PERFORMED BY CALVADA SURVEYING IN JANUARY 2025.
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90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: GRADING PLAN 5

SCALE: AS SHOWN

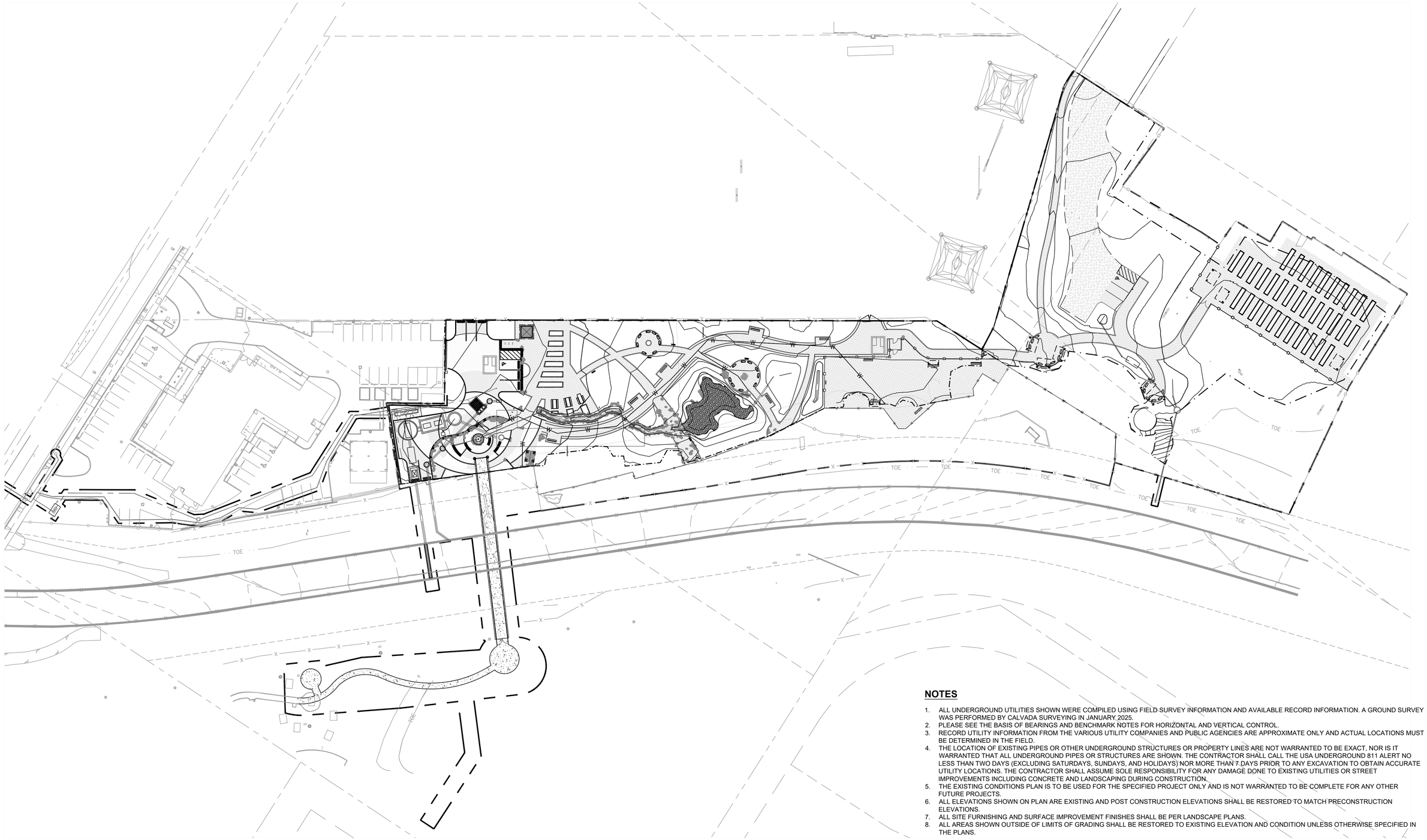
ACCOUNT NUMBER: XXXXXX

SHEET CG-10

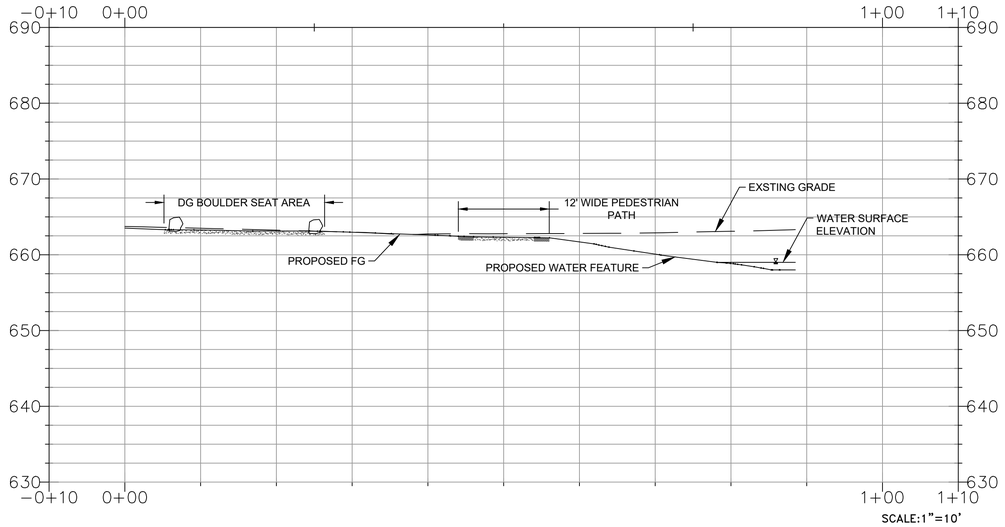
34 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-GRADING_PLAN.DWG

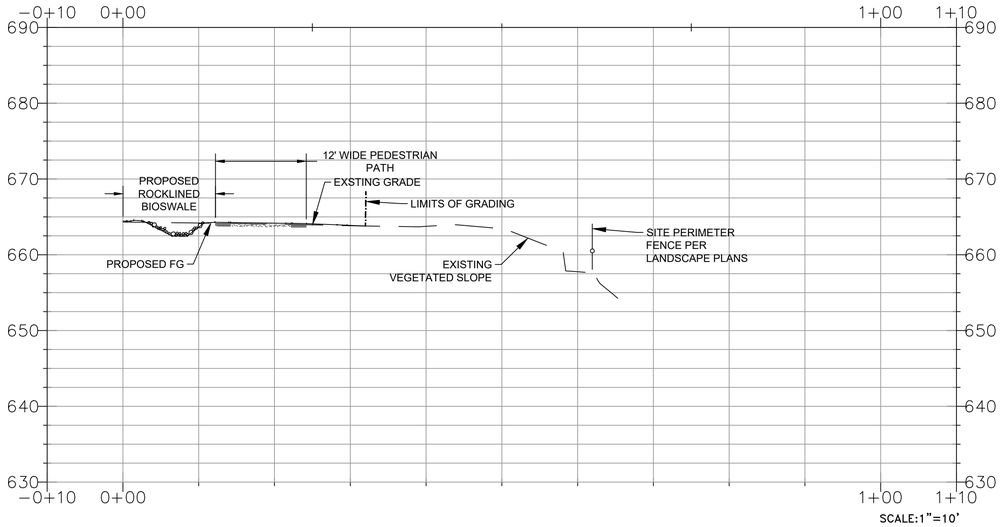

TOE
TOE
TOE

GRADING SECTION A–A PROFILE



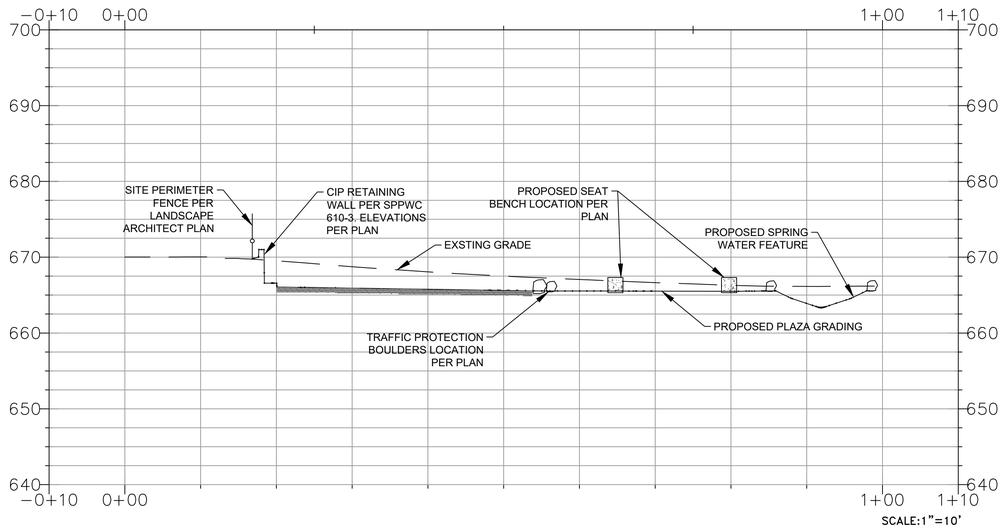
SCALE:1"=10'

GRADING SECTION B–B PROFILE



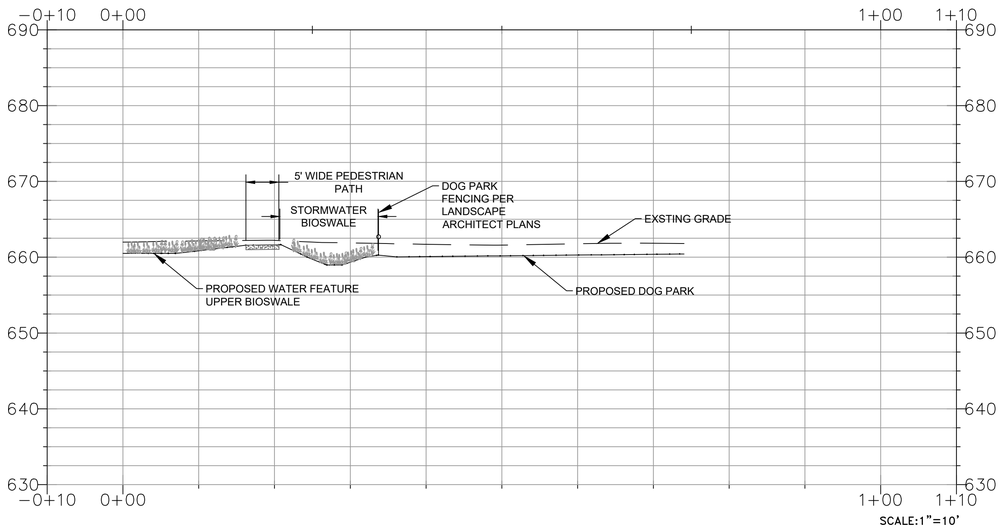
SCALE:1"=10'

GRADING SECTION C–C PROFILE



SCALE:1"=10'

GRADING SECTION D–D PROFILE



SCALE:1"=10'

0 10 20 Feet

90% DESIGN PLANS NOT FOR CONSTRUCTION

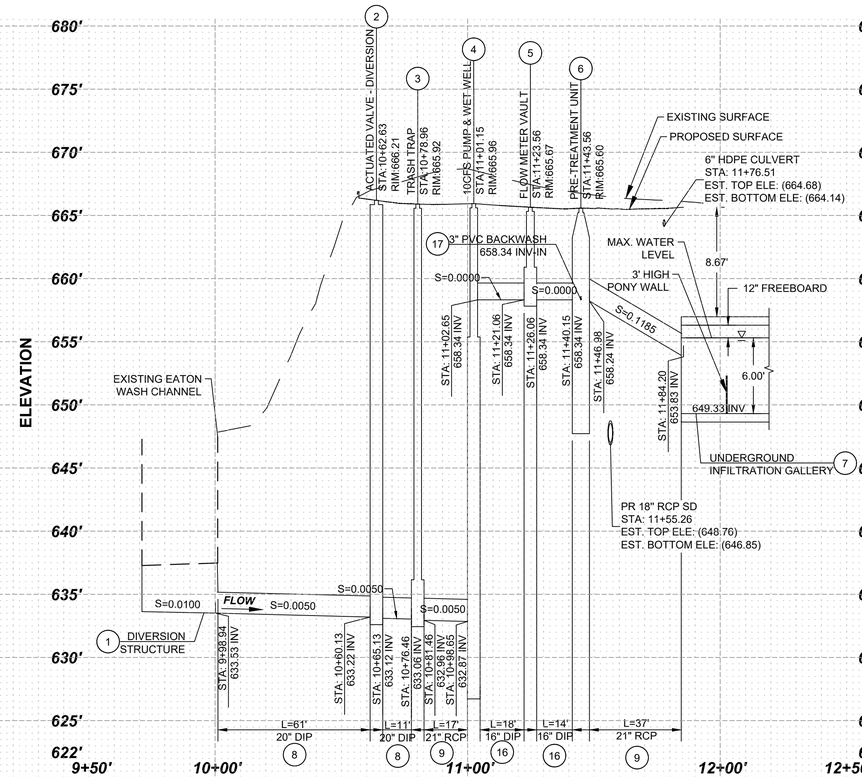
DRAWN BY	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS	
EJM	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	EATON WASH STORMWATER CAPTURE PROJECT	SHEET CG-12
DESIGNED BY							SHEET TITLE GRADING PLAN 5	36 OF 111
AMT, EJM							SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX
CHECKED BY								DWG. NO.
CAS			AS BUILT					

Date: July 6, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-GRADING_PLAN.DWG

DIVERSION LINE PROFILE

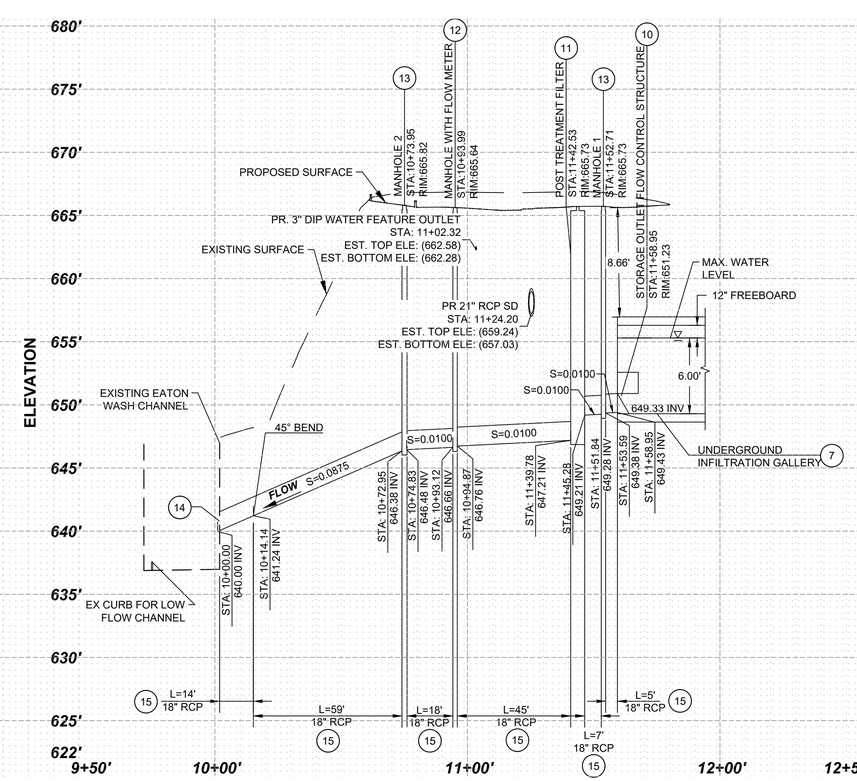
NOT TO BE OWNED/MAINTAINED BY LACFCD, TO BE OWNED/MAINTAINED BY CITY OF PASADENA

HORIZ. SCALE: 1"=30' VERT. SCALE: 1"=6'



OUTLET LINE PROFILE

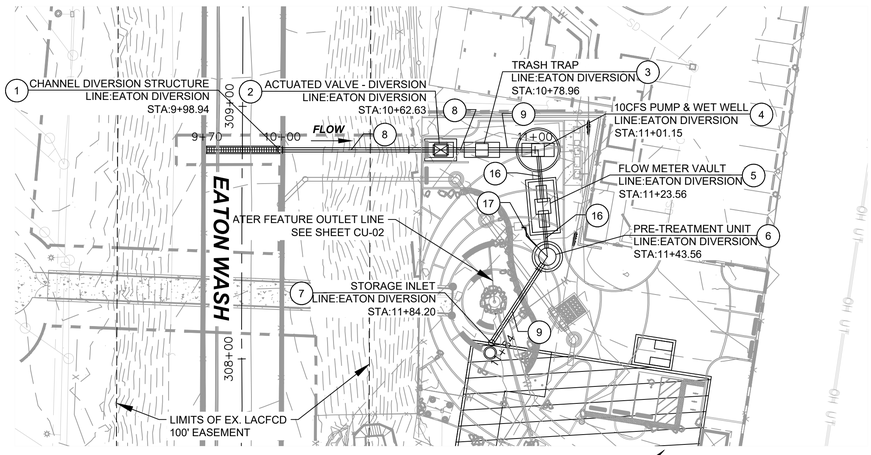
HORIZ. SCALE: 1"=30' VERT. SCALE: 1"=6'



PROFILE SCALE
HORIZ.: 1" = 30'
VERT.: 1" = 6'

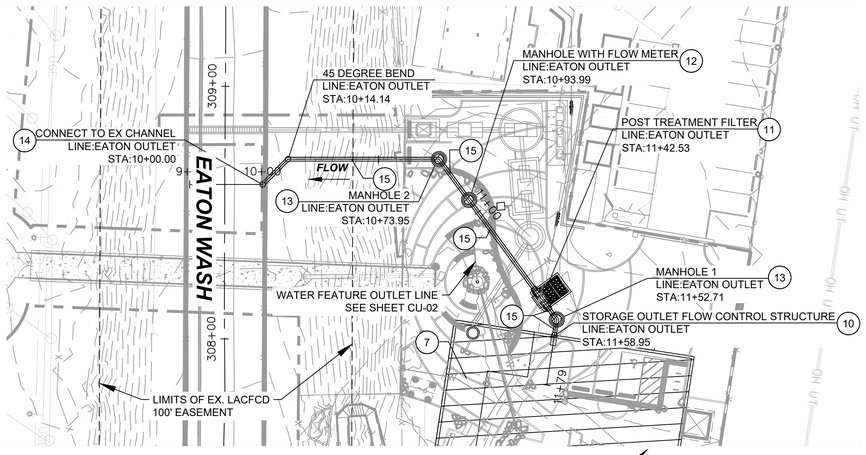
CONSTRUCTION NOTES

1	INSTALL CONCRETE DIVERSION STRUCTURE PER STRUCTURAL PLAN ON **SHEET S-03**
2	INSTALL ACTUATED VALVE AND VAULT PER **DETAIL 1** ON **SHEET CU-06**
3	INSTALL TRASH TRAP. INSTALLATION AND SPECIFICATIONS PER MANUFACTURER. SEE **DETAIL 9** ON **SHEET CU-07**
4	CONSTRUCT WET WELL AND PUMP STATION PER **SHEET M-02**
5	INSTALL FLOW METER PER **SHEET M-02**
6	INSTALL HYDRODYNAMIC SEPARATOR. INSTALLATION AND SPECIFICATIONS PER **DETAIL 8** ON **SHEET CU-07**
7	INSTALL UNDERGROUND STORMWATER INFILTRATION GALLERY. INSTALLATION AND SPECIFICATIONS PER MANUFACTURER. SEE **DETAIL 17** ON **SHEET CU-11** TO **SHEET CU-14**
8	INSTALL 20" DUCTILE IRON PIPE. TRENCHING AND BEDDING PER LACDPW 3080-3
9	INSTALL 21" REINFORCED CONCRETE PIPE. TRENCHING AND BEDDING PER LACDPW 3080-3
10	INSTALL FLOW CONTROL STRUCTURE. INSTALLATION AND SPECIFICATIONS PER **DETAIL 2** ON **SHEET CU-06**
11	INSTALL 5.76 CFS FILTER. INSTALLATION AND SPECIFICATIONS PER **DETAIL 12** ON **SHEET CU-08**
12	INSTALL MANHOLE WITH FLOW METER PER **DETAIL 3** ON **SHEET CU-06**
13	INSTALL MANHOLE PER SPPWC 321-2 CASE-1.
14	INSTALL PIPE CONNECTION TO EXISTING CHANNEL PER **SHEET S-04**
15	INSTALL 18" REINFORCED CONCRETE PIPE. TRENCHING AND BEDDING PER LACDPW 3080-3
16	INSTALL 16" DUCTILE IRON PIPE. TRENCHING AND BEDDING PER LACDPW 3080-3
17	INSTALL 3" PVC BACKWASH PIPE FROM RAINBIRD DISC FILTER TO PRETREATMENT UNIT. TRENCHING AND BEDDING PER LACDPW 3080-3



DIVERSION LINE PLAN

SCALE: 1" = 30'



OUTLET LINE PLAN

SCALE: 1" = 30'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: UTILITY PLAN AND PROFILE 1

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: CU-01

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DWG. NO.

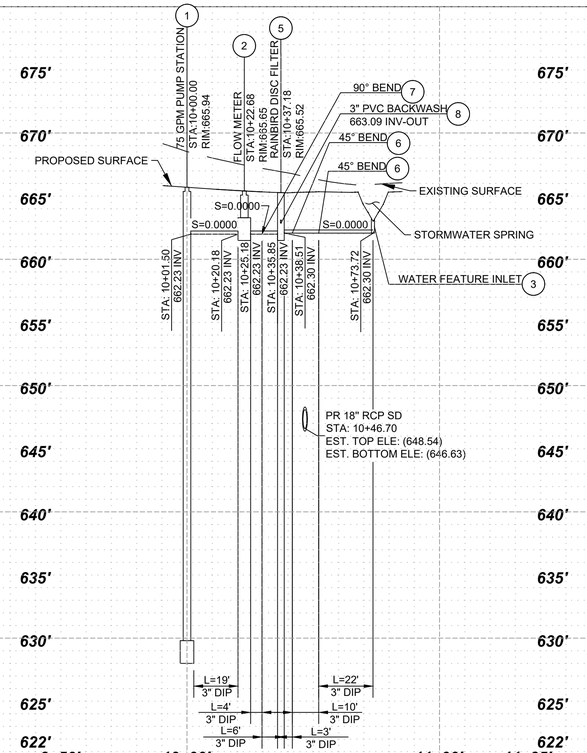
Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-UTILITY_PLAN&PROFILE.DWG

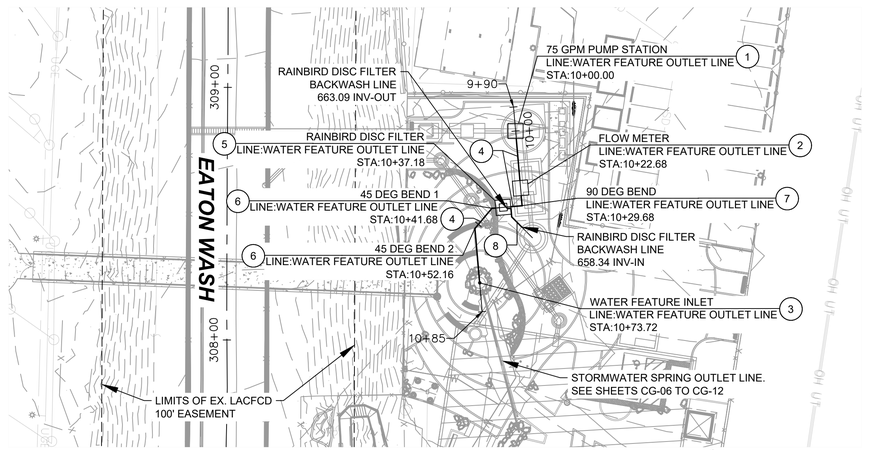
WATER FEATURE OUTLET PROFILE

NOT TO BE OWNED/MAINTAINED BY LACFCD, TO BE OWNED/MAINTAINED BY CITY OF PASADENA

HORIZ. SCALE: 1"=30' VERT. SCALE: 1"=6'

PROFILE SCALE
HORIZ.: 1" = 30'
VERT.: 1" = 6'





WATER FEATURE OUTLET PLAN

SCALE: 1" = 30'

CONSTRUCTION NOTES

1	CONSTRUCT WET WELL AND PUMP STATION PER **SHEET M-02**
2	INSTALL FLOW METER PER **SHEET M-02**
3	INSTALL WATER FEATURE INLET PER **DETAIL XX** ON **SHEET C-XX**
4	INSTALL 3" DIP PIPE. TRENCHING AND BEDDING PER LACDPW 3080-3
5	INSTALL RAINBIRD DISC FILTER PER **DETAIL 13** ON **SHEET CU-08**
6	INSTALL 45° BEND AND THRUST BLOCK PER **DETAIL 18** ON **SHEET CU-14**
7	INSTALL 90° MECHANICALLY RESTRAINED BEND
8	INSTALL 3" PVC BACKWASH PIPE FROM RAINBIRD DISC FILTER TO PRETREATMENT UNIT. TRENCHING AND BEDDING PER LACDPW 3080-3

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: UTILITY PLAN AND PROFILE 2

SCALE: AS SHOWN

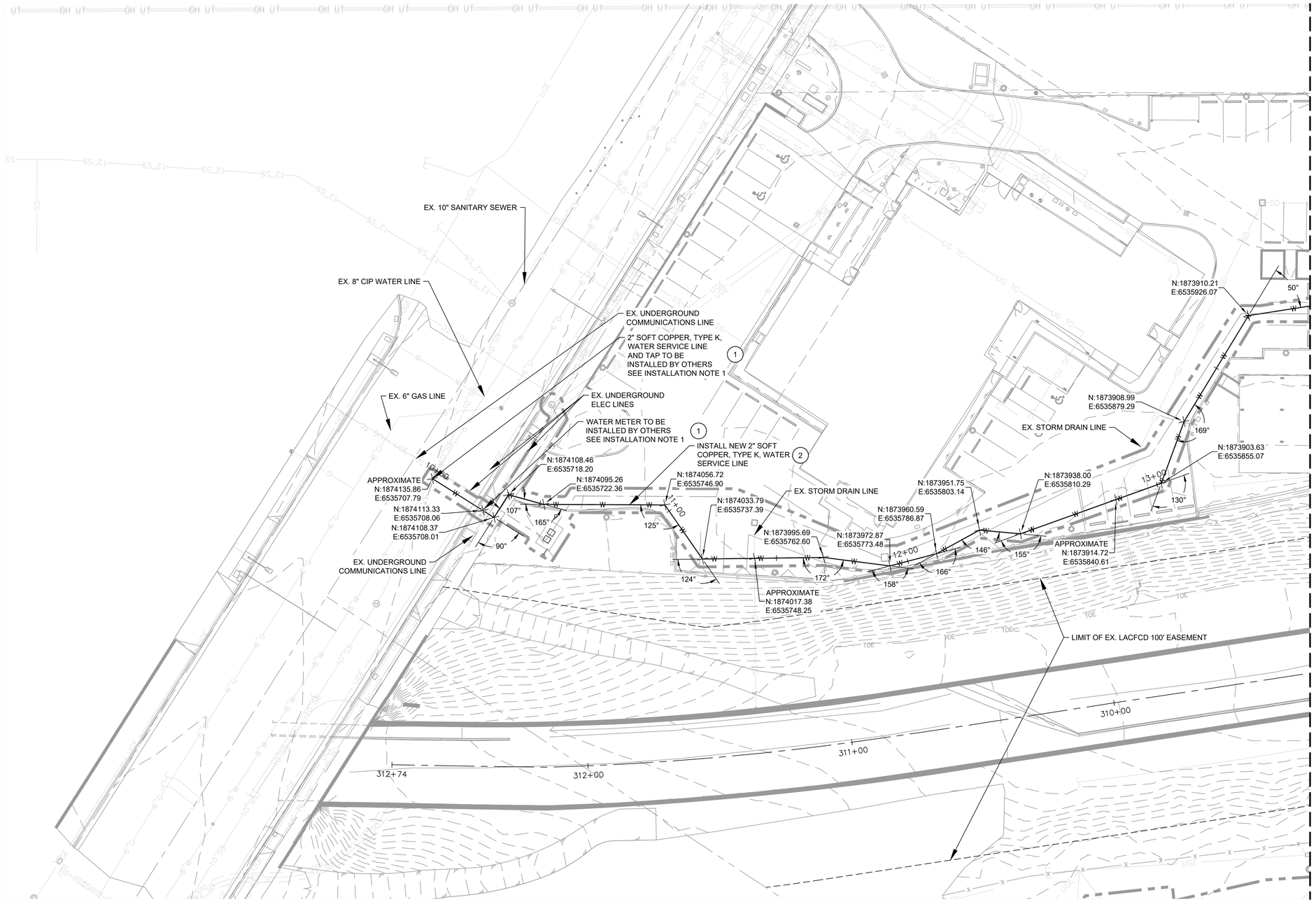
ACCOUNT NUMBER: XXXXXX

SHEET CU-02

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-UTILITY_PLAN&PROFILE.DWG



CONSTRUCTION NOTES

1	CITY WATER DEPARTMENT TO FURNISH AND INSTALL WATER MAIN TAP, 2" SOFT COPPER TYPE K WATER SERVICE LINE, AND APPURTENANCES FROM CONNECTION POINT WITH EX. 8" CIP WATER MAIN TO WATER METER PER CITY STANDARD W-102
2	INSTALL 2" SOFT COPPER, TYPE K, WATER SERVICE LINE. TRENCHING AND BEDDING PER 3080-3 OF LACDPW STANDARD PLANS

WATER LINE INSTALLATION NOTES:

1. NEW 2" SOFT COPPER WATER SERVICE LINE AND APPURTENANCES FROM THE WATER MAIN TO THE WATER METER SHALL BE INSTALLED BY PASADENA WATER AND POWER PER CITY STANDARD W-102.
2. TRENCHING AND BEDDING FOR NEW WATER LINES PER 3080-3 OF LACDPW STANDARD PLANS.
3. PROPOSED WATER LINE BENDS AND CONNECTION POINTS SHOWN ARE BASED ON AVAILABLE AS-BUILT INFORMATION FOR THE EXISTING WATER LINE AND SHOULD BE ADJUSTED AS NEEDED TO MEET FIELD CONDITIONS.
4. RECORD UTILITY INFORMATION FROM VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES ARE APPROXIMATE ONLY AND ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD.
5. REFER TO IRRIGATION PLANS (LI-01 TO LI-07) FOR IRRIGATION SYSTEM LAYOUT, PIPING, APPURTENANCES, AND RELATED DETAILS.

WATER SERVICE LINE PLAN 1

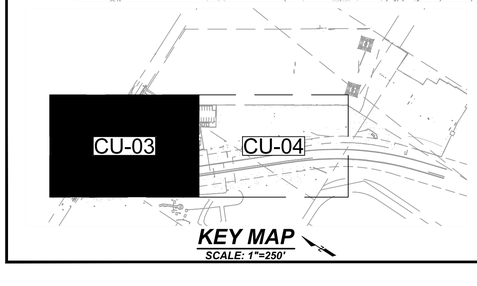
SCALE: 1" = 20'

0 20 40 Feet

SCALE: 1"=20'

LEGEND

/ C-# DETAIL AND SHEET NUMBER CALLOUT



KEY MAP

SCALE: 1"=250'

MATCHLINE SEE SHEET CU-04

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: UTILITY PLAN 3

SCALE: AS SHOWN

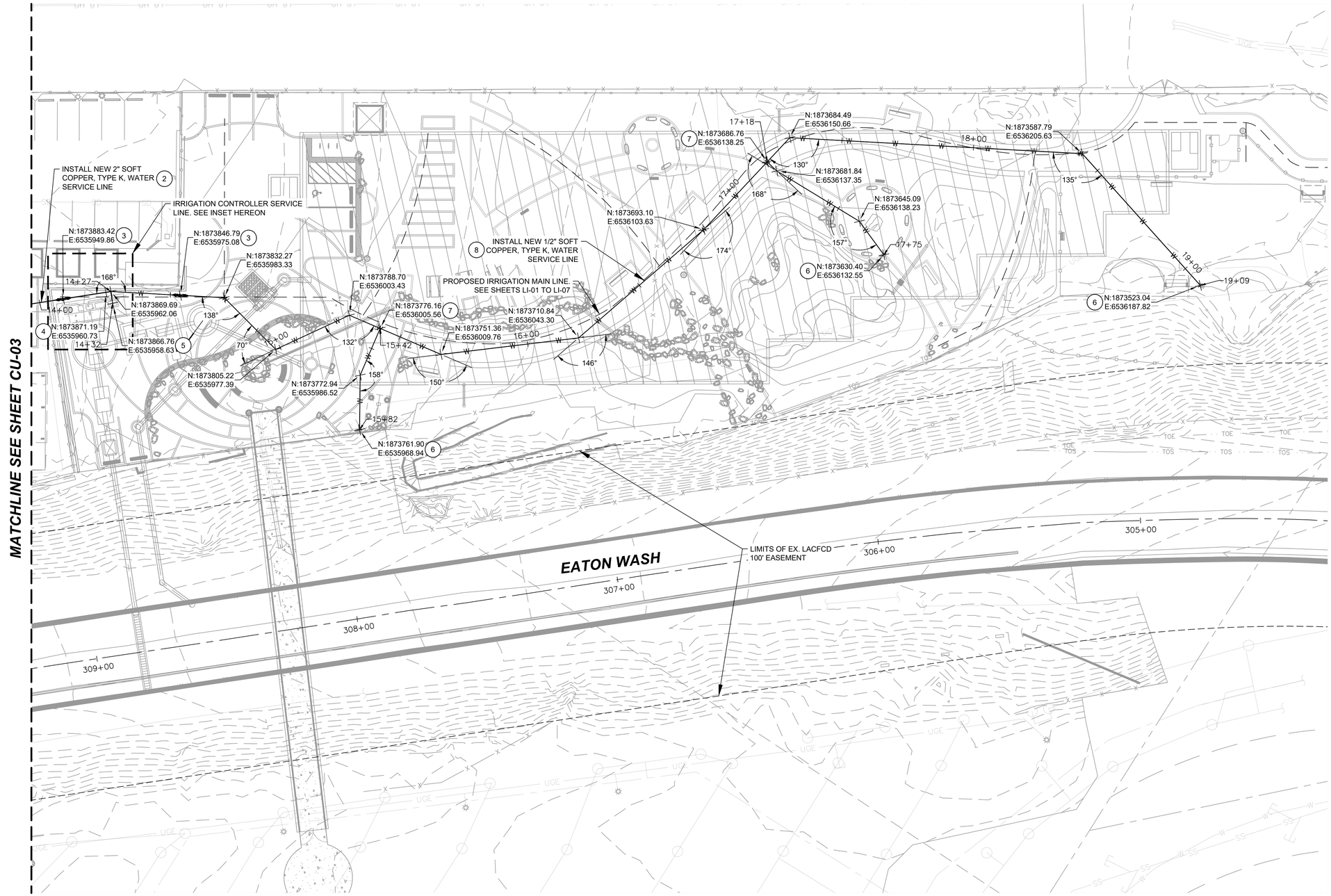
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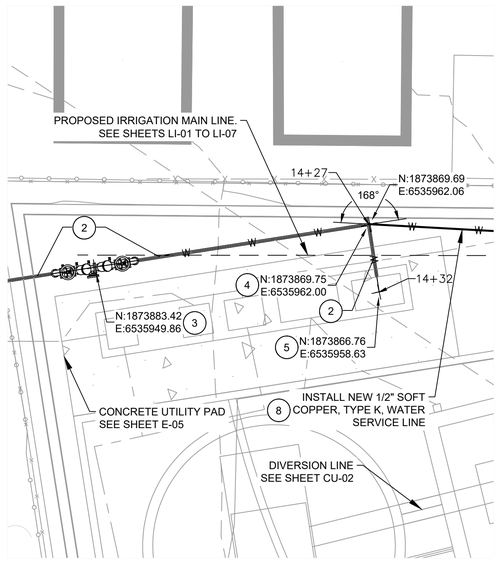
SHEET: CU-03

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-UTILITY_PLAN&PROFILE.DWG





IRRIGATION CONTROLLER SERVICE LINE

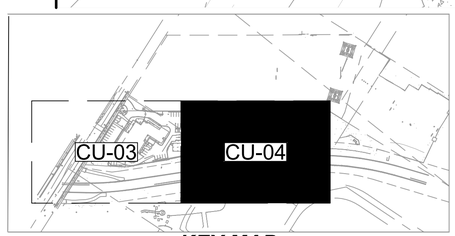
SCALE: 1" = 5'

CONSTRUCTION NOTES

(1)	CITY WATER DEPARTMENT TO FURNISH AND INSTALL WATER MAIN TAP, 2" SOFT COPPER TYPE K WATER SERVICE LINE, AND APPURTENANCES FROM CONNECTION POINT WITH EX. 8" CIP WATER MAIN TO WATER METER PER CITY STANDARD W-102
(2)	INSTALL 2" SOFT COPPER, TYPE K, WATER SERVICE LINE. TRENCHING AND BEDDING PER 3080-3 OF LACDPW STANDARD PLANS
(3)	INSTALL BACKFLOW PREVENTION ASSEMBLY PER **DETAIL 3** ON **SHEET LI-05.**
(4)	INSTALL 2" x 2" x 1/2" COPPER REDUCING TEE
(5)	INSTALL IRRIGATION CONTROLLER PER **DETAIL 1** ON **SHEET LI-05**
(6)	INSTALL DRINKING FOUNTAIN AND CONNECTION TO WATER SERVICE LINE PER **DETAIL 14** ON **SHEET CU-08**.
(7)	INSTALL 1/2" x 1/2" x 1/2" COPPER TEE
(8)	INSTALL 2" SOFT COPPER, TYPE K, WATER SERVICE LINE. TRENCHING AND BEDDING PER 3080-3 OF LACDPW STANDARD PLANS

WATER LINE INSTALLATION NOTES:

1. NEW 2" SOFT COPPER WATER SERVICE LINE AND APPURTENANCES FROM THE WATER MAIN TO THE WATER METER SHALL BE INSTALLED BY PASADENA WATER AND POWER PER CITY STANDARD W-102.
2. TRENCHING AND BEDDING FOR NEW WATER LINES PER 3080-3 OF LACDPW STANDARD PLANS.
3. PROPOSED WATER LINE BENDS AND CONNECTION POINTS SHOWN ARE BASED ON AVAILABLE AS-BUILT INFORMATION FOR THE EXISTING WATER LINE AND SHOULD BE ADJUSTED AS NEEDED TO MEET FIELD CONDITIONS.
4. RECORD UTILITY INFORMATION FROM VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES ARE APPROXIMATE ONLY AND ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD.
5. REFER TO IRRIGATION PLANS (LI-01 TO LI-07) FOR IRRIGATION SYSTEM LAYOUT, PIPING, APPURTENANCES, AND RELATED DETAILS.



KEY MAP
SCALE: 1"=250'

WATER SERVICE LINE PLAN 2

SCALE: 1" = 20'

0 20 40 Feet
SCALE: 1"=20'

LEGEND

(#/C-#) DETAIL AND SHEET NUMBER CALLOUT

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: UTILITY PLAN 4

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET CU-04

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-UTILITY_PLAN&PROFILE.DWG

EXIT TO THORNDALE AVE

EX. SCE TRANSMISSION TOWER

EX. SCE TRANSMISSION TOWER

BIO-FILTRATION BASIN (BFB-1) PER DETAIL 5 ON SHEET CU-06 A=210 SF

6" PERFORATED PVC UNDERDRAIN PIPE. PER DETAIL 5 ON SHEET CU-06 L = 7 LF S=0.01 MIN

12" OVERFLOW DRAIN PER DETAIL 4 ON SHEET CU-06 649.50 INV

INSTALL 8" DOUBLE WALL HDPE. TRENCHING AND BEDDING PER LACDPW 3080-3.

12" OVERFLOW DRAIN PER DETAIL 4 ON SHEET CU-06 649.15 INV

6" PERFORATED PVC UNDERDRAIN PIPE. PER DETAIL 5 ON SHEET CU-06 L = 20 LF S=0.01 MIN

12" OVERFLOW DRAIN PER DETAIL 4 ON SHEET CU-06 648.95 INV

INSTALL 8" DOUBLE WALL HDPE. TRENCHING AND BEDDING PER LACDPW 3080-3. L=35 LF S=0.01 MIN

L=46 LF S=0.01 MIN

BIO-FILTRATION BASIN (BFB-2) PER DETAIL 5 ON SHEET CU-06 A=300 SF

INSTALL CONCRETE MANHOLE PER LACDPW 321-2. 648.49 INV-IN (BFB-2) 650.16 INV-IN (BFB-3) 648.39 INV-OUT

BIO-FILTRATION BASIN (BFB-3) PER DETAIL 5 ON SHEET CU-06 A=272 SF

6" PERFORATED PVC UNDERDRAIN PIPE. PER DETAIL 5 ON SHEET CU-06 L = 20 LF S=0.01 MIN

12" OVERFLOW DRAIN PER DETAIL 4 ON SHEET CU-06 650.28 INV

INSTALL 8" DOUBLE WALL HDPE. TRENCHING AND BEDDING PER LACDPW 3080-3. L=12 LF

L=78 LF S=0.04

INSTALL 8" DOUBLE WALL HDPE. TRENCHING AND BEDDING PER LACDPW 3080-3.

INSTALL WINGED HEADWALL WITH RIP RAP ENERGY DISSIPATER AND CONNECT 8" HDPE PIPE PER DETAIL 11 ON SHEET CU-07. 634.00 INV

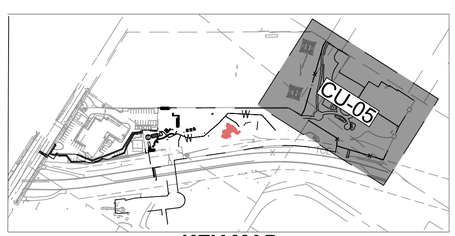
LIMIT OF EX. LACFCD 100' EASEMENT

EX LACFCD DIRT ACCESS ROAD

EATON WASH

0 20 40 Feet

SCALE: 1"=20'

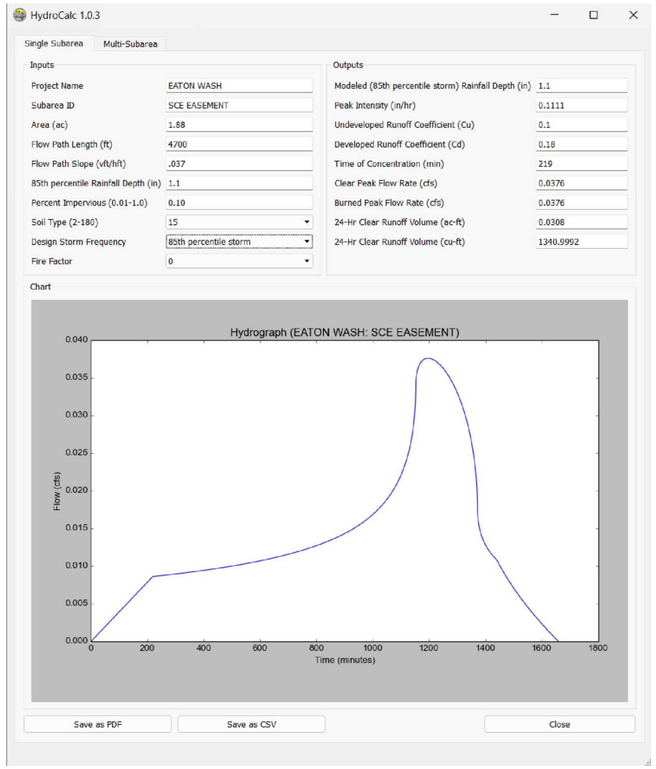


KEY MAP
SCALE: 1"=250'

LID CALCULATIONS (85TH PERCENTILE STORM)

BMP SITE	PERFORMANCE INFILTRATION RATE	FLOW CAPTURE CAPACITY [CFS]	VOLUME PROVIDED (36"AND 0.4 VOID) [CF]	AREA PROVIDED [SF]
BFB-1	35 IN/HR	0.16	252	210
BFB-2	35 IN/HR	0.24	1080	300
BFB-3	35 IN/HR	0.22	326	272
TOTALS PROVIDED		0.62	1658	782
TOTALS NEEDED (85TH PERCENTILE)		0.04 CFS (PEAK)	1341	500**

NOTE (**) ASSUMES 90% CLOGGING FACTOR



HYDROCALC OUTPUT FOR SCE EASEMENT AREA

NOTES

1. ALL UNDERGROUND UTILITIES SHOWN WERE COMPILED USING FIELD SURVEY INFORMATION AND AVAILABLE RECORD INFORMATION. A GROUND SURVEY WAS PERFORMED BY CALVADA SURVEYING IN JANUARY 2025.
2. PLEASE SEE THE BASIS OF BEARINGS AND BENCHMARK NOTES FOR HORIZONTAL AND VERTICAL CONTROL.
3. RECORD UTILITY INFORMATION FROM THE VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES ARE APPROXIMATE ONLY AND ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD.
4. THE LOCATION OF EXISTING PIPES OR OTHER UNDERGROUND STRUCTURES OR PROPERTY LINES ARE NOT WARRANTED TO BE EXACT, NOR IS IT WARRANTED THAT ALL UNDERGROUND PIPES OR STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL CALL THE USA UNDERGROUND 811 ALERT NO LESS THAN TWO DAYS (EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS) NOR MORE THAN 7 DAYS PRIOR TO ANY EXCAVATION TO OBTAIN ACCURATE UTILITY LOCATIONS. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR ANY DAMAGE DONE TO EXISTING UTILITIES OR STREET IMPROVEMENTS INCLUDING CONCRETE AND LANDSCAPING DURING CONSTRUCTION.
5. THE EXISTING CONDITIONS PLAN IS TO BE USED FOR THE SPECIFIED PROJECT ONLY AND IS NOT WARRANTED TO BE COMPLETE FOR ANY OTHER FUTURE PROJECTS.

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: SCE EASEMENT LID AND DRAINAGE PLAN

SCALE: AS SHOWN

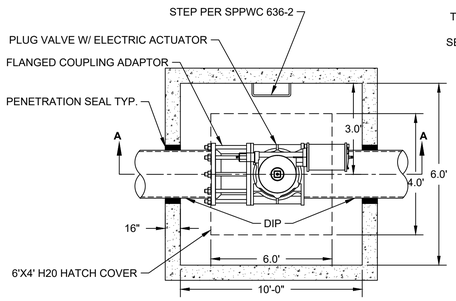
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SHEET: CU-05

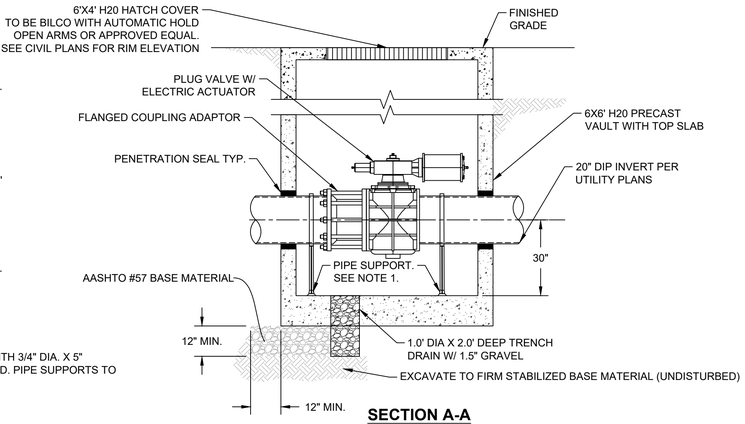
41 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-SCE_LID_PLAN.DWG



PLAN



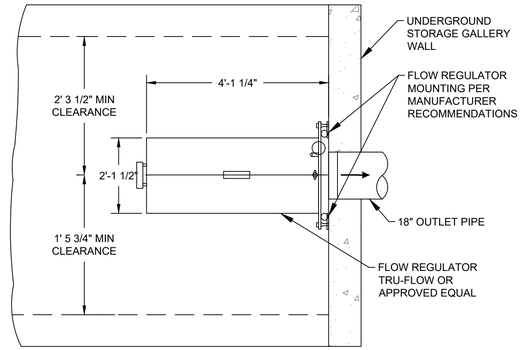
SECTION A-A

NOTES:

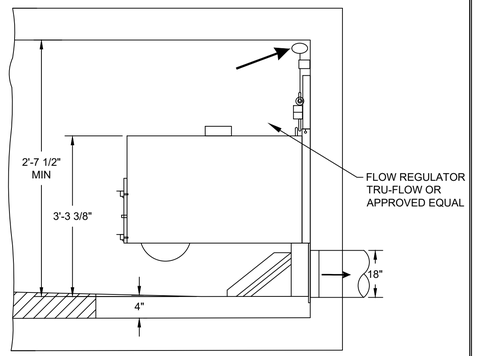
1. PROVIDE 4" CAST IRON PIPE SUPPORT WITH WELDED BASE PLATE ANCHORED WITH 3/4" DIA. X 5" BOLTS. ALL SURFACES OF PIPE SUPPORT SHALL BE GALVANIZED OR ZINC-PLATED. PIPE SUPPORTS TO BE PLACED AT CENTER OF EACH PIPE SECTION

1 ACTUATED VALVE VAULT

SCALE: NTS



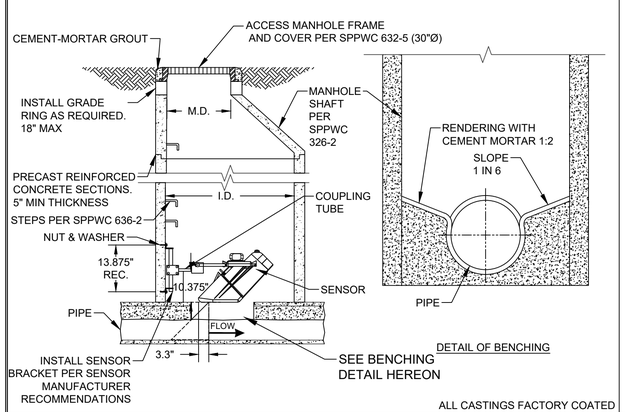
PLAN



SECTION

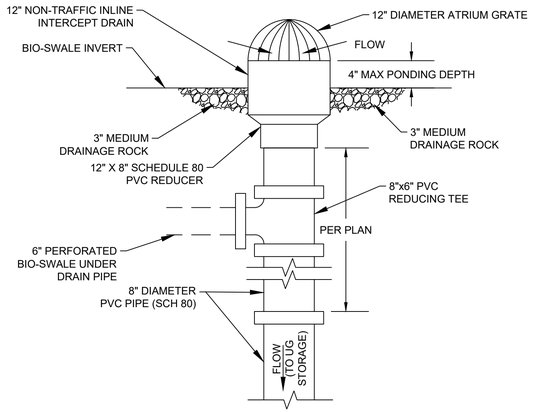
2 FLOW CONTROL DEVICE

SCALE: NTS



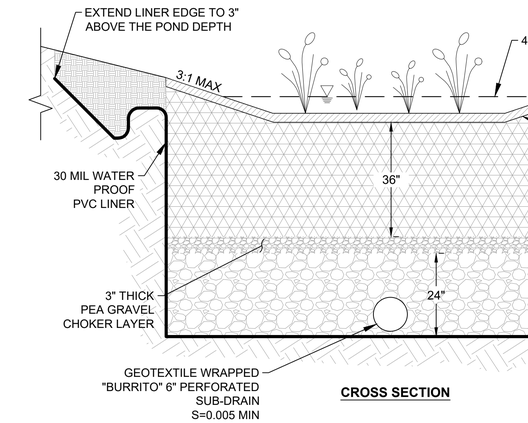
3 FLOW METER

SCALE: NTS



4 BIO-SWALE OUTLET

SCALE: NTS



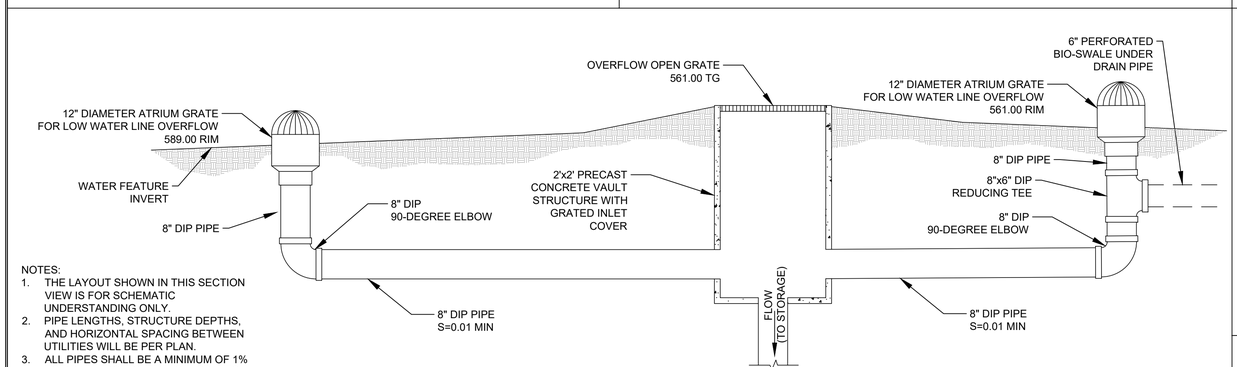
CROSS SECTION

NOTES:

1. UNDERDRAIN REQUIRED WHEN NATIVE SOILS INFILTRATE LESS THAN 0.5 INCHES PER HOUR
2. PROFILE SLOPES OF BIOFITLRATION SHALL NOT EXCEED 2%
3. IF IRREGULARITIES CAN NOT BE REMOVED, A PROTECTIVE GEOTEXTILE LAYER SHOULD BE PLACED BETWEEN THE SURFACE AND THE 30 MIL PVC LINER
4. BIOFILTRATION MEDIA SHOULD HAVE A PERCOLATION RATE OF 36" PER HOUR.

5 BIO-FILTRATION BASIN

SCALE: NTS

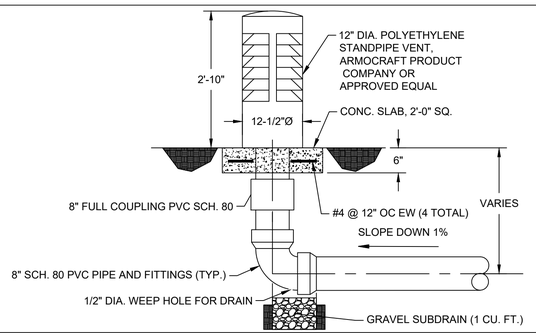


NOTES:

1. THE LAYOUT SHOWN IN THIS SECTION VIEW IS FOR SCHEMATIC UNDERSTANDING ONLY.
2. PIPE LENGTHS, STRUCTURE DEPTHS, AND HORIZONTAL SPACING BETWEEN UTILITIES WILL BE PER PLAN.
3. ALL PIPES SHALL BE A MINIMUM OF 1% TO DRAIN FROM OVERFLOW GRATES TO THE OUTLET CONNECTION STRUCTURE.
4. IF OPEN GRATE IS PLACED IN WALKWAY, GRATE STYLE TO BE ADA "HEEL-PROOF" COMPLIANT.

6 STORMWATER BASIN OUTLET CONTROL STRUCTURE

SCALE: NTS



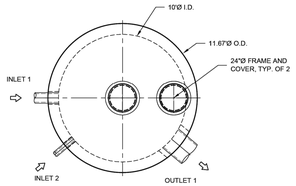
7 AIR VENT FOR SUBSURFACE INFILTRATION GALLERY

SCALE: NTS

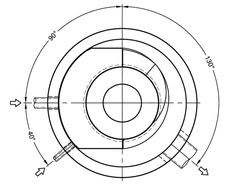
90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS		
EJM	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	EATON WASH STORMWATER CAPTURE PROJECT	SHEET	CU-06
DESIGNED BY									42 OF 111
AMT, EJM							SHEET TITLE CIVIL DETAILS		
CHECKED BY							SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX	DWG. NO.
CAS			AS BUILT						

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-DETAILS.DWG



PLAN VIEW
INTERNALS NOT SHOWN



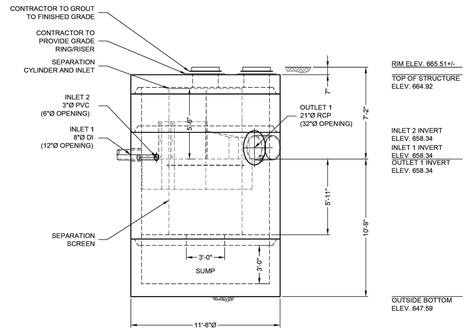
PLAN VIEW FOR PIPE ORIENTATION
TOP SLAB NOT SHOWN

MATERIAL LIST (PROVIDED BY CONTECH)

COUNT	DESCRIPTION	INSTALLED BY
1	5653-10 CONCENTRIC FIBERGLASS INSERT	CONTRACTOR
1	5653, 4700 micron, 5.71' O.D. x 5.42' SCREEN, GREEN FLANGE UP	CONTRACTOR
1	56 SERIES HARDWARE KIT	CONTRACTOR
1	SEALANT FOR JOINTS	CONTRACTOR
2	24"Ø X 4" FRAME AND COVER, EJ #416003009A01, NV	CONTRACTOR

SITE DESIGN DATA

WATER QUALITY FLOW RATE	10.00 CFS
PEAK FLOW RATE	TBD CFS
RETURN PERIOD OF PEAK FLOW	TBD YRS



ELEVATION VIEW

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

STRUCTURE WEIGHT
APPROXIMATE HEAVIEST PICK = 50000 LBS.
STRUCTURE IS DELIVERED IN 4 PIECES

MAX FOOTPRINT = 11.67'Ø

CONTECH
PROPOSAL
DRAWING

RVRSD
LAYOUT 1E

The drawings and specifications and the designs incorporated therein, as instruments of service, are and shall remain the property of CONTECH ENGINEERED SOLUTIONS LLC. The use of these documents shall be restricted to the original project for which they were prepared, and no part of any of the aforementioned documents may be disclosed to any person, firm or corporation for any purposes whatsoever without the written permission of CONTECH ENGINEERED SOLUTIONS LLC. Visual contact with these documents shall constitute prima facie evidence of acceptance of these restrictions.

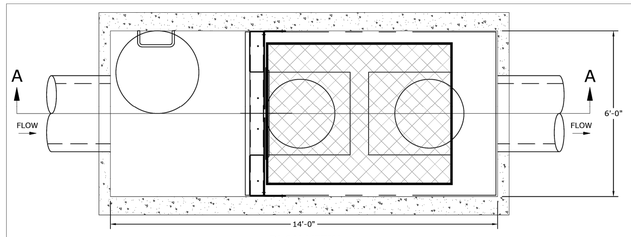
MARK	DATE	REVISION/DESCRIPTION	BY

CDS5653-10-C - 837563-010
EATON WASH
PASADENA, CA
SITE DESIGNATION: PRE-TREATMENT UNIT

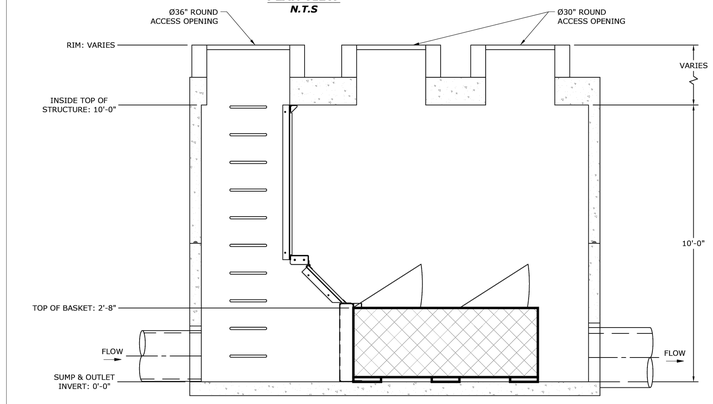
CONTECH ENGINEERED SOLUTIONS LLC
1411 BROADFIELD BLVD, SUITE 200
HOUSTON, TEXAS 77084
800.338.1122 / 281.578.7000
FAX 281.578.7010
www.conteches.com

DATE: 10/23/25
DESIGNED: ALF
DRAWN: ALF
CHECKED: ALF
APPROVED: ALF
PROJECT No.: 837563
SEQUENCE No.: 010
SHEET: 1 OF 1

CONTECH ENGINEERED SOLUTIONS LLC PROVIDES THIS DRAWING FOR USE BY OUR CUSTOMER OR HIS AGENT ONLY FOR PURPOSES RELATED TO THE DESIGN, MANUFACTURE OR INSTALLATION OF A CONTECH STORMWATER SOLUTION. ANY REUSE OF THE DRAWING FOR ANY OTHER PURPOSE OR PROJECT WITHOUT WRITTEN VERIFICATION BY CONTECH ENGINEERED SOLUTIONS LLC SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO CONTECH ENGINEERED SOLUTIONS LLC. THE USER SHALL INDEMNIFY CONTECH ENGINEERED SOLUTIONS LLC AGAINST ALL CLAIMS, COSTS, DAMAGES AND EXPENSES ARISING FROM SUCH UNAUTHORIZED USE. ANY UNAUTHORIZED USE OF THIS DRAWING IS STRICTLY PROHIBITED.



PLAN VIEW
N.T.S



SECTION A-A
N.T.S

DRAWINGS ARE FOR REFERENCE ONLY AND SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.

SITE SPECIFIC DATA			
WATER QUALITY FLOW RATE (CFS)			15
PEAK FLOW RATE (CFS)			OFFLINE
FLOATABLES STORAGE CAPACITY (CF)			83
BASKET OPENING SIZE			5mm
RIM ELEVATION			665.92'
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE	633.06'	DIP	20"
OUTLET PIPE	632.96'	RCP	21"

STORMTRAP CONTACT INFORMATION

STORMTRAP SUPPLIER: STORMTRAP
CONTACT NAME: JOHN SHALLAHAMER
CELL PHONE: 415-405-6355
SALES EMAIL: JSHALLAHAMER@STORMTRAP.COM

DESIGN NOTES:

1. DESIGN LOADING:
   a. LOAD RATING = AASHTO HS-20
   b. MINUMUM COVER = 0.50', MAXIMUM COVER = 22.50'. CONTACT STORMTRAP FOR ADDITIONAL COVER OPTIONS.
   c. WATER TABLE AT OR BELOW OUTLET PIPE INVERT ELEVATION.
   d. NO LATERAL SURCHARGE FROM ADJACENT STRUCTURES SUCH AS VEGETATION, BUILDINGS, WALLS, OR FOUNDATIONS.
2. ENGINEER OF RECORD TO CONFIRM THE DESIGN LOADINGS MEET PROJECT REQUIREMENTS. CONTACT STORMTRAP FOR ALTERNATIVE DESIGN LOAD OPTIONS.

GENERAL NOTES:

1. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS, WEIGHTS, AND ACCESSORIES, PLEASE CONTACT YOUR STORMTRAP REPRESENTATIVE.
2. CONCRETE COMPONENTS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C857 & ACI318.
3. CONTRACTOR TO INSTALL THE STRUCTURE IN ACCORDANCE WITH ASTM C891.
4. CONTRACTOR TO PROVIDE ALL LABOR AND EQUIPMENT REQUIRED TO OFFLOAD AND INSTALL UNIT.
5. CONTRACTOR TO PROVIDE AND INSTALL ALL PIPES, FRAMES, COVERS, HATCHES, AND RISERS UNLESS SPECIFIED OTHERWISE.
6. CONTRACTOR TO ADD JOINT SEALANT (PROVIDED BY STORMTRAP) BETWEEN ALL STRUCTURE SECTIONS.
7. BASKET SIZE IS 60"W X 30"H X 80"L, FOR OTHER SIZES CONTACT YOUR STORMTRAP REPRESENTATIVE.

StormTrap
PATENTS LISTED AT: [HTTP://STORMTRAP.COM/PATENT]
1287 WINDHAM PARKWAY
ROMEOVILLE, IL 60446
P:815-941-4949 / F:331-318-5347

ENGINEER INFORMATION:
CRAFTWATER ENGINEERING
117 EAST COLORADO BLVD.
SUITE 550
PASADENA, CA 91105

PROJECT INFORMATION:
EATON WASH
PASADENA, CA
PRETREATMENT

CURRENT ISSUE DATE: 3-NOV-2025

ISSUED FOR: PRELIMINARY

REVISIONS:

REV	DATE	ISSUED FOR	DWN
2	11/3/25	PRELIM	JPH
1	5/8/25	PRELIM	JPH
	4/29/25	PRELIM	JPH

SCALE: N.T.S.

PRECASTER:

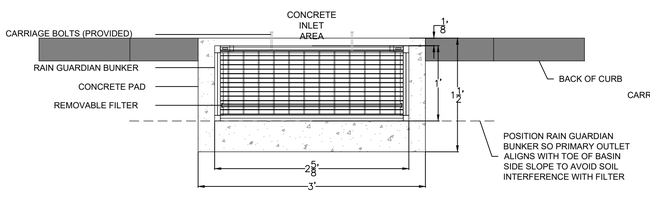
SHEET TITLE: TRASHTRAP FBXL DETAIL

SHEET NUMBER: 0.0

TrashTrap

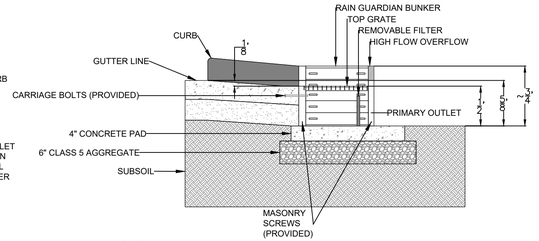
8 CDS PRE-TREATMENT UNIT
SCALE: NTS

9 TRASH TRAP PRE-TREATMENT
SCALE: NTS



NOTES:
1. INLET WIDTH AND DISTANCE BETWEEN BACK OF CURB AND RAIN GUARDIAN BUNKER MAY VARY WITH SITE CONDITIONS. INSTALLATION FLUSH WITH THE BACK OF THE CURB CAN ALSO BE COMPLETED WITH THE RAIN GUARDIAN BUNKER.
2. CONCRETE PAD EXTENDS BEYOND THE FILTER WALL OF THE RAIN GUARDIAN BUNKER TO SERVE AS A SPLASH DISSIPATOR.

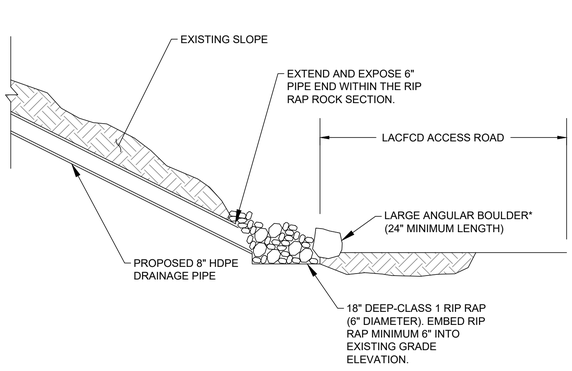
RAIN GUARDIAN BUNKER - PLAN VIEW

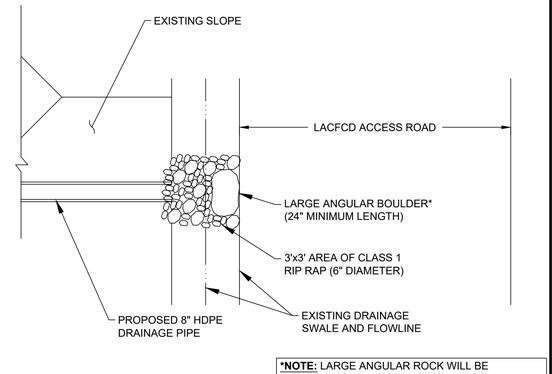


NOTES:
1. THE TOP OF THE CLASS 5 BASE (COMPACTED TO 95% STANDARD PROCTOR) IS PRECISELY 1'-4" BELOW THE GUTTERLINE ELEVATION.
2. THE TOP OF THE CONCRETE PAD IS PRECISELY 12" BELOW THE GUTTERLINE.

RAIN GUARDIAN BUNKER - SECTION VIEW

10 RAIN GUARDIAN INLET
SCALE: NTS





***NOTE:** LARGE ANGULAR ROCK WILL BE SELECTED TO HAVE A MINIMUM OF ONE FLAT SIDE POSITIONED FACING THE OUTLET PIPE. FINAL SHAPE AND DIMENSIONS TO BE APPROVED BY ENGINEER.

11 LID OVERFLOW OUTLET
SCALE: NTS

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
EJM	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
DESIGNED BY						
AMT, EJM						
CHECKED BY						
CAS			AS BUILT			

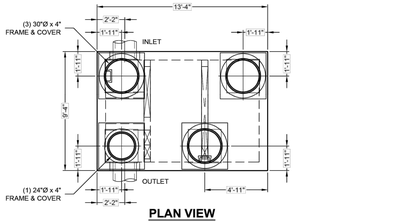
CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT — SHEET CU-07

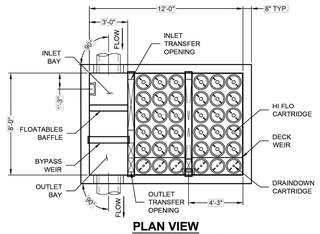
SHEET TITLE: CIVIL DETAILS — 43 OF 111

SCALE: AS SHOWN — ACCOUNT NUMBER: XXXXXX — DWG. NO.

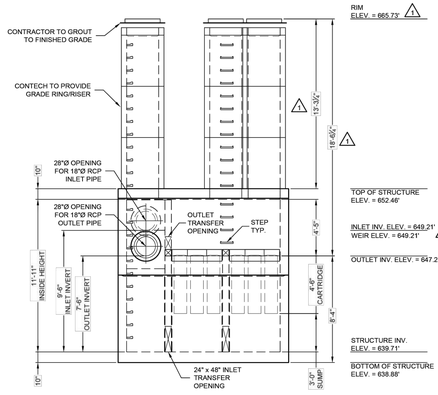
Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-DETAILS.DWG



PLAN VIEW



PLAN VIEW
(TOP SLAB NOT SHOWN FOR CLARITY)



ELEVATION VIEW

TOP OF STRUCTURE
ELEV. = 652.46'

INLET INV. ELEV. = 649.21'
WEIR ELEV. = 649.21'
1

OUTLET INV. ELEV. = 647.21'
1

STRUCTURE INV.
ELEV. = 639.71'

BOTTOM OF STRUCTURE
ELEV. = 638.88'

MATERIAL LIST - PROVIDED BY CONTECH

COUNT	DESCRIPTION	INSTALLED BY
30	54" HI-FLO CARTRIDGE (70 mm ORIFICE)	CONTECH
6	54" DRAINDOWN CARTRIDGE (35 mm ORIFICE)	CONTECH
2	JELLYFISH VAULT 18-CARTRIDGE DECK, STANDARD	CONTECH
1	JOINT SEALANT (BY PRECASTER)	CONTRACTOR
3	30"Ø X 4" FRAME & COVER, EJ #00181019A02, NV	CONTRACTOR
1	24"Ø X 4" FRAME & COVER, EJ #416003009A01, NV	CONTRACTOR
4 PLCS.	GRADE RING/RISER	CONTRACTOR
36	STEPS	CONTECH

SITE DESIGN DATA

WATER QUALITY FLOW RATE	5.76 CFS
PEAK FLOW RATE	14.19 CFS
RETURN PERIOD OF PEAK FLOW	10 YRS

EOR TO PROVIDE PEAK FLOW RATE AND RETURN PERIOD OF PEAK FLOW PRIOR TO ORDER

GENERAL NOTES:
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. WWW.ContechES.COM
3. JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS-20, ASSUMING EARTH COVER OF 0' - 14', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
5. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.
C. CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT)
D. WHEN ACTIVATED PRIOR TO SITE STABILIZATION, CONTRACTOR TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
E. CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ACCORDING TO THE PROVISIONS IN THE ACTIVATION CHECKLIST AND THE QUOTED SCOPE OF WORK. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION AT (800) 338-1122.

STRUCTURE WEIGHT:
APPROXIMATE HEAVIEST PICK OF (3) PIECES = 49,500 LBS.

CONTECH
CONTRACT
DRAWING

RVRSD
6505 / 0
LAYOUT 7
CLASS 1200

MARK	DATE	INLET, OUTLET AND RIM ELEVATIONS REVISION DESCRIPTION	BY
1	10/24/25		BEP

8' X 12' JELLYFISH - 837563-015
EATON WASH
VENICE, CA
SITE DESIGNATION: POST TREATMENT FILTER

CONTECH ENGINEERED SOLUTIONS LLC
DESIGNED TO EXCEED YOUR EXPECTATIONS
Jellyfish Filter

DATE: 07/17/25
DESIGNED: STS
DRAWN: BEP
CHECKED: STS
APPROVED: STS
PROJECT No.: 837563
SEQUENCE No.: 015
SHEET: 1 OF 2

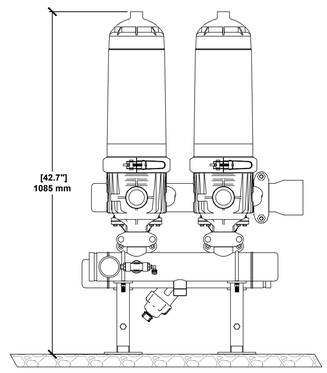
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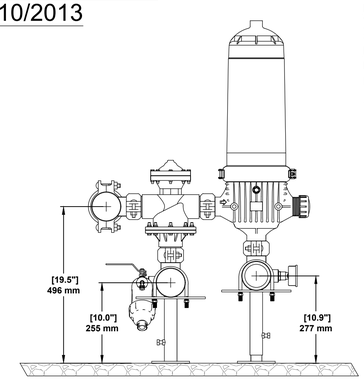
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S:\GRAPHICS_NET\CAD\RELEASE\JELLYFISH\837563\837563-015-JELLYFISH8X12WASH\837563-015-JFP08X12-COMPA.DWG 10/24/2025 8:29 AM

POST-TREATMENT FILTER
12
SCALE: NTS

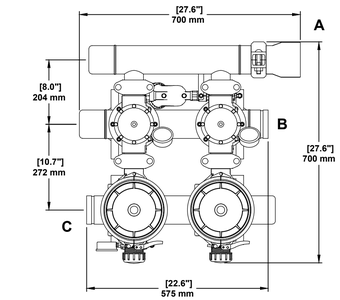
APPROVAL DRAWING
9/10/2013





POWER: 460/60/3 V/HZ/PH
TOTAL FLA: xxx A
SERVICE REQ: xxx A
FLOW: xxxx GPM
DISCHARGE PRESSURE: xxx PSI
BOOST PRESSURE: xxx FT.
SUCTION PRESSURE: xxx PSI

NOTE: DRAWING BASED ON QUOTE #GVT112608304F



A - 3" Drainage manifold
B - 3" Inlet manifold
C - 3" Outlet manifold

SIGN BLOCK FOR PRODUCTION RELEASE

GENERAL ARRANGEMENT APPROVAL (INCLUDING ELECTRICAL REQUIREMENTS)

SIGNATURE_____

DATE_____

TITLE_____

SIGNATURE VERIFIES DRAWING DIMENSIONS MEET SITE REQUIREMENTS AND SCOPE OF THE ABOVE REFERENCED QUOTE. CHANGES AFTER APPROVAL COULD RESULT IN DELIVERY DELAYS AND ADDITIONAL COST.

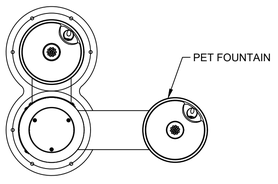
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UNLESS OTHERWISE SPECIFIED:	DRAWN	DATE
FRACTIONAL ± 1/64"	CHECKED	DATE
TOLERANCE	SB	9/10/2013
DRILLED HOLE Ø ± .005"	SCALE 1/12	DATE
ANGULAR ± 1°	DO NOT SCALE DRAWING	
DECIMAL TOLERANCE	LAST MODIFIED IN VERSION AutoCAD 2013	
	DWG SYMBOLS PER ANSI	

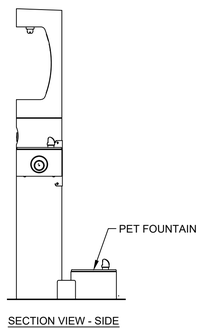
RAIN BIRD
SYSTEMS MFG. DIV.
TUCSON, ARIZONA

PROJ. NAME: DSC FILTER ASSY HDF 2X2/3G
PROJ. NO.: GP12Y3100999
TITLE: DISC FILTER ASSY HDF 2X2/3G
DRAWING NUMBER: SS22S2XXX-M1 - A
PART NO.: REV.
SHEET 1 OF 1

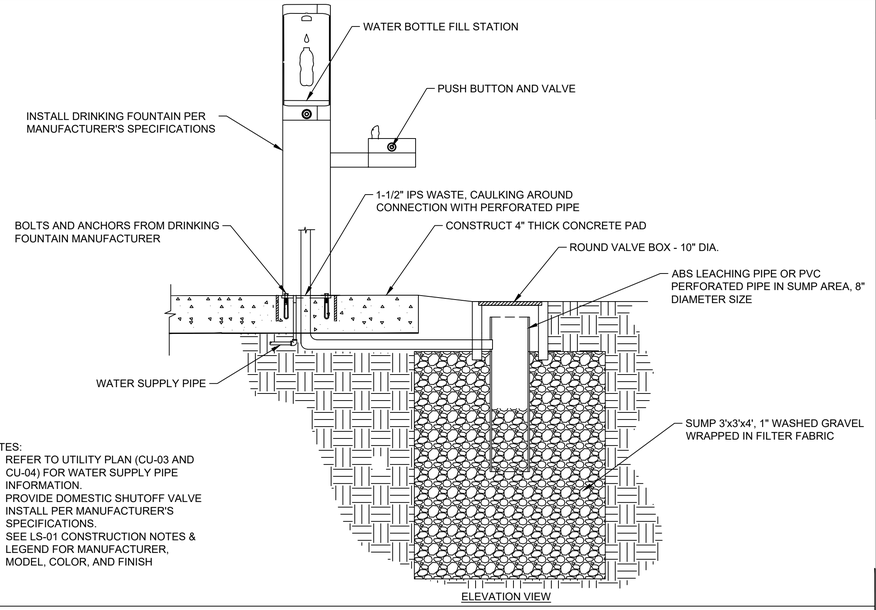
RAINBIRD DISC FILTER ASSY HDF 2X2/3G
13
SCALE: NTS



PLAN VIEW



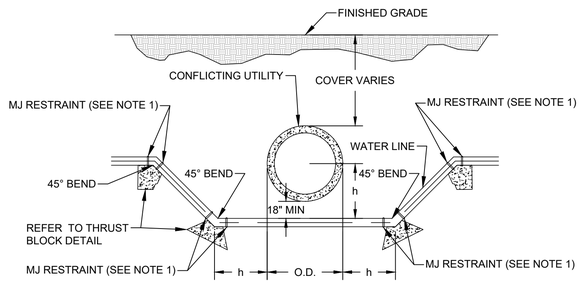
SECTION VIEW - SIDE



ELEVATION VIEW

NOTES:
1. REFER TO UTILITY PLAN (CU-03 AND CU-04) FOR WATER SUPPLY PIPE INFORMATION.
2. PROVIDE DOMESTIC SHUTOFF VALVE
3. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
4. SEE LS-01 CONSTRUCTION NOTES & LEGEND FOR MANUFACTURER, MODEL, COLOR, AND FINISH

DRINKING FOUNTAIN, DRAIN, AND SUMP
14
SCALE: NTS



NOTES:
1. ALL FOUR VERTICAL 45-DEGREE BENDS SHALL BE RESTRAINED BY MECHANICAL JOINT RESTRAINS AND THRUST BLOCKS PER THE LATEST REVISION OF WATER STANDARD THRUST BLOCK DETAILS. ALL BURIED PIPE, FITTINGS, AND APPURTENANCES SHALL BE RESTRAINED AND INSTALLED PER WATER STANDARD SPECIFICATIONS.
2. INSTALL TRACER WIRE ACCORDING TO WATER STANDARD SPECIFICATIONS AND STANDARD UTILITY LOCATING ("UL") DETAILS.
3. MINIMUM CLEARANCE FROM CONFLICTING UTILITY SHALL BE NO LESS THAN 18 INCHES AT THE NEAREST DIMENSION OR ENCASED.
4. INSULATION BOARD ABOVE THE WATERLINE IS REQUIRED IF THE WATER LINE CROSSES WITHIN 4 FEET OF STORMWATER CROSSINGS OR OTHER OPEN-AIR CONDUITS. IN SUCH CASES, INSULATION BOARD SHALL EXTEND 5 FEET HORIZONTALLY ON EITHER SIDE OF THE CROSSING.
5. WHERE NEW WATER MAIN IS LESS THAN 18 INCHES CLEAR DISTANCE ABOVE A SEWER OR STORM DRAIN OR PASSES BENEATH A SEWER OR STORM DRAIN, ENCASE SEWER OR DRAIN IN 6 INCHES OF CONCRETE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING WATER MAIN.

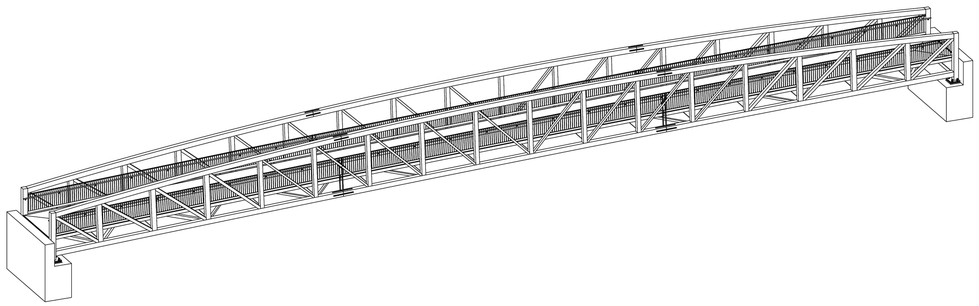
UTILITY CROSSING
15
SCALE: NTS

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS		
EJM	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	EATON WASH STORMWATER CAPTURE PROJECT	SHEET	CU-08
DESIGNED BY								44 OF 111	
AMT, EJM							SHEET TITLE CIVIL DETAILS	DWG. NO.	
CHECKED BY							SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX	
CAS			AS BUILT						

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-DETAILS.DWG

EATON WASH
PEDESTRIAN BRIDGE
PASADENA, CA



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MARK	DATE	REVISION DESCRIPTION	BY

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A QUIKRETE® COMPANY
8301 State Highway 29 North, Alexandria, MN 56308
800-328-2047 320-345-9126

CONTINENTAL BRIDGE
CONTECH **PROPOSAL** DRAWING

160'-0" x 10'-6 3/4"
EATON WASH
PEDESTRIAN BRIDGE
PASADENA, CA

PROJECT No.: 845292	REQ. No.: 015
DATE: 10/16/2025	
DESIGNED: ENL	DRAWN: RJP
CHECKED: ENL	APPROVED:
SHEET NO.: 1 OF 5	

AISC IAS CERTIFIED FABRICATOR

GENERAL NOTES

1. DESIGN PROCEDURE IS IN ACCORDANCE WITH *"GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES"*, 2009 (INCLUDING 2015 INTERIM REVISIONS) & "LRFD BRIDGE DESIGN SPECIFICATIONS", 2020 (9TH EDITION) BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO).

2. MATERIALS (UNLESS NOTED OTHERWISE):
   A. STRUCTURAL STEEL:
      i. HSS SECTIONS: ASTM A847 WEATHERING STEEL
      ii. SHAPES & PLATES: ASTM A588 WEATHERING STEEL
      iii. ROLL FORM: A606 WEATHERING STEEL
   B. STRUCTURAL BOLTS: ASTM F3125 GRADE A325 TYPE 3 (WEATHERING) WITH MATCHING DH3 A563 NUTS & F436 WASHERS.
   C. PIPE HANDRAIL: ASTM A53 GRADE B OR A500 GRADE B OR C (GALVANIZED).
   D. FORM DECK: GALVANIZED (G90 MIN.)

3. BRIDGE DESIGN IS BASED ON LOAD COMBINATIONS IN ACCORDANCE WITH AASHTO OF THE FOLLOWING LOADS
   A. BRIDGE DEAD LOAD.
   B. UNIFORM PEDESTRIAN LIVE LOAD OF 90 PSF.
   C. VEHICLE LIVE LOAD: HS TRUCK (10,000 LBS).
   D. WIND LOADING PER LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 1ST EDITION, 2015 SECTION 3.8.
      i. DESIGN WIND SPEED: 110 MPH
      ii. SERVICE WIND SPEED: 72 MPH
      iii. EXPOSURE CATEGORY: C
   E. SEISMIC LOADING PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 3.10. TRANSVERSE LOADS CALCULATED USING THE TRANSVERSE PERIOD OF THE BRIDGE AND LONGITUDINAL LOADS CALCULATED USING A PERIOD OF ZERO. A RESPONSE MODIFICATION FACTOR OF 0.8 IS USED FOR THE CALCULATION OF FORCES APPLIED TO THE BRIDGE ANCHORAGE AND A RESPONSE MODIFICATION FACTOR OF 1.0 IS USED FOR THE CALCULATION OF BEARING REACTIONS. IT SHALL BE THE RESPONSIBILITY OF THE FOUNDATION ENGINEER TO DETERMINE THE FORCES USED FOR THE FOUNDATION DESIGN. SEISMIC PARAMETERS USED ARE AS FOLLOWS:
      i. SITE CLASS = D
      ii. PGA = 0.825
      iii. S_s = 1.956
      iv. S_1 = 0.673

4. BRIDGE TO BE BUILT TO THE REQUIREMENTS OF AWS D1.1.

5. ALL SHOP WELDING SHALL USE THE GAS METAL ARC WELDING OR FLUX CORED ARC WELDING PROCESS.

6. FINISH: ALL EXPOSED SURFACES OF WEATHERING STEEL TO BE CLEANED IN ACCORDANCE WITH STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SPECIFICATIONS NO. 7, SSPC-SP7 BRUSH-OFF BLAST CLEANING. EXPOSED SURFACES OF STEEL SHALL BE DEFINED AS THOSE SURFACES SEEN FROM THE DECK OR FROM THE OUTSIDE OF THE STRUCTURE. FLOOR BEAMS, BRACE DIAGONALS AND INSIDE OF SIDE DAM WILL NOT BE BLAST CLEANED.

7. ALL BOLTED CONNECTIONS ARE CONSIDERED TO BE PRETENSIONED OR SLIP-CRITICAL CONNECTIONS. ALL BOLTS ARE TO BE PRETENSIONED PER THE REQUIREMENTS OF SECTION 8.2 OF THE SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS BY RCSC.

8. ALL STRUCTURAL BOLTS, NUTS AND WASHERS SHALL BE FURNISHED IN THE AMOUNT OF 3% OR QUANTITY OF 10 (WHICHEVER IS GREATER) IN EXCESS OF THE NUMBER REQUIRED FOR EACH SIZE AND LENGTH.

9. IF BOLTS DO NOT SMOOTHLY ENGAGE UP TO SNUG-TIGHT, THERE MAY BE AN OBSTRUCTION WITHIN THE THREADS. THE BOLTS SHOULD BE REMOVED, THE THREADS ON THE BOLT AND NUT CLEANED AND RETAPPED IF NECESSARY TO ALLOW SMOOTH INSTALLATION OF THE BOLT. (IF APPLICABLE).

10. MAINTENANCE NOTE: CONTECH ENGINEERED SOLUTIONS RECOMMENDS NOT APPLYING DEICING OR DUST PROHIBITIVE CHEMICALS OR SALTS TO ANY PART OF THE BRIDGE STRUCTURE. IF DEICING OR DUST PROHIBITIVE CHEMICALS OR SALTS ARE APPLIED TO ANY PART OF THE BRIDGE STRUCTURE, CONTECH ENGINEERED SOLUTIONS WILL NOT BE RESPONSIBLE FOR ANY RESULTANT ACCELERATED CORROSION.

11. SHOP SPLICES:
   A. ALL TOP AND BOTTOM CHORD SHOP SPLICES TO BE COMPLETE PENETRATION TYPE WELDS.
   B. ALL HORIZONTAL RAIL COMPONENT SPLICES TO BE LOCATED AT THE CENTERLINE OF VERTICALS, EACH END WELDED TO THE VERTICAL AND SEAL WELDED TOGETHER. SEAL WELDS TO BE GROUND SMOOTH AND VISUAL INSPECTION ONLY REQUIRED.

DECK & CONCRETE NOTES

1. FORM DECK SHALL SPAN A MINIMUM OF 2 SPANS AND SHALL BE TIGHT FITTING WITH A GAP NO LARGER THAN 1/4" IN ANY DIRECTION. FORM DECK WILL BE SHOP ATTACHED TO FLOOR BEAMS WITH #12-24 x 1 1/4" SELF-DRILLING FASTENERS WITH 1" O.D. WASHERS, 1" x 3/16" POWER ACTUATED FASTENERS, OR 5/8" PUDDLE WELDS. FORM DECK OVER SPLICE LOCATIONS WILL BE SHIPPED LOOSE AND FIELD ATTACHED AS SPECIFIED FOR SHOP ATTACHMENTS.

2. CONTECH ENGINEERED SOLUTIONS IS RESPONSIBLE FOR THE STRUCTURAL DESIGN OF THE CONCRETE DECK. ALL ISSUES RELATED TO MATERIAL SUPPLY, TESTING AND INSTALLATION IS OUTSIDE OF CONTECH ENGINEERED SOLUTIONS' RESPONSIBILITY.

3. CONCRETE MIX DESIGN, MATERIALS, MIXING, PLACEMENT, FINISHING AND TESTING SHALL BE IN ACCORDANCE WITH THE PROJECT CONTRACT DOCUMENTS. IF THESE ITEMS ARE NOT COVERED IN THE PROJECT CONTRACT DOCUMENTS THE REQUIREMENTS OF SECTION 502 OF FEDERAL HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS (FP-14) SHALL BE USED. FP-14 CAN BE VIEWED OR DOWNLOADED AT: HTTPS://HIGHWAYS.DOT.GOV/FEDERAL-LANDS/SPECS

4. MINIMUM MATERIAL REQUIREMENTS:
   A. CONCRETE:
      i. f'c = 4,500 PSI
      ii. AIR CONTENT OF 6% ± 1.5%
      iii. UNIT WEIGHT OF 145 PCF MAX
   B. REINFORCING STEEL:
      i. ASTM A615 OR AASHTO M31 GRADE 60

5. THE USE OF EPOXY COATED REBAR, GALVANIZED REBAR, DECK SEALERS OR ANY OTHER FORM OF PROTECTION OF THE REBAR SHALL BE DONE AS NEEDED FOR LOCAL CONDITIONS OR AS REQUIRED PER THE PROJECT CONTRACT DOCUMENTS AND IS NOT THE RESPONSIBILITY OF CONTECH ENGINEERED SOLUTIONS.

6. THE CONTRACTOR MUST EXERCISE CARE TO CONTROL TRAFFIC AND STORAGE OF MATERIALS ON THE FORM DECK BEFORE CONCRETE IS PLACED.

7. LONGITUDINAL BARS MAY BE SPLICED IF REQUIRED. SPLICES SHALL BE STAGGERED EVERY OTHER LONGITUDINAL BAR. SPLICES SHALL BE LOCATED AT OR NEAR THE 1/3 POINT OF THE BAY SPANS FROM FLOOR BEAM TO FLOOR BEAM. REQUIRED SPLICE LENGTHS ARE AS FOLLOWS:

BAR SIZE	HOOK LENGTH	SPLICE LENGTH
#4	8"	25"
#5	9"	31"
#6	10"	37"

8. THE USE OF GROOVED CONTROL JOINTS SHALL BE PUT IN PER THE PROJECT CONTRACT DOCUMENTS OR AT THE DISCRETION OF THE ENGINEER AND OWNER. IF CONTRACTION JOINTS ARE USED, THEY SHALL BE PLACED OVER THE CENTERLINE OF THE FLOOR BEAMS AS NEEDED.

QUALITY ASSURANCE NOTES

1. ALL WELDS SHALL BE VISUALLY INSPECTED I.A.W. AWS SPECIFICATION BY AN AWS CERTIFIED WELDING INSPECTOR (CWI).

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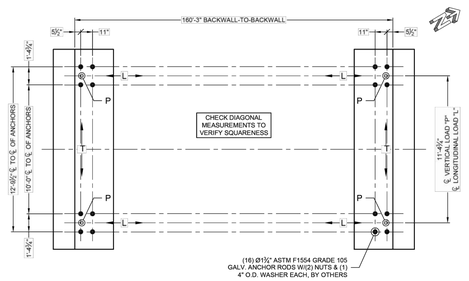
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CONTINENTAL BRIDGE
CONTECH **PROPOSAL** DRAWING

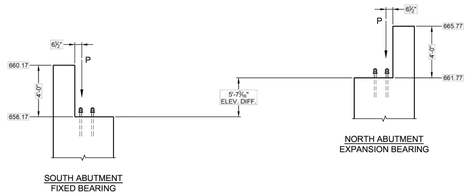
160'-0" x 10'-6 3/4"
EATON WASH
PEDESTRIAN BRIDGE
PASADENA, CA

PROJECT No.: 845292 | REQ. No.: 015 | DATE: 10/16/2025
DESIGNED: ENL | DRAWN: RJP
CHECKED: ENL | APPROVED:
SHEET NO.: 2 OF 5

AISC IAS CERTIFIED FABRICATOR



ANCHOR BOLT PLAN



ANCHOR BOLT ELEVATION

COMBINE REACTIONS AS PER LOCAL OR GOVERNING BUILDING CODES AS REQUIRED

BRIDGE REACTIONS		+ DOWNWARD LOAD -UPWARD LOAD			
		P (LBS)	T (LBS)	L_T (LBS)	L_L (LBS)
DEAD LOAD		47,900			
UNIFORM LIVE LOAD		36,000			
VEHICLE LOAD		5,000			
WIND UPLIFT 35 PSF	WINDWARD	12,150			
	LEEWARD	-4,700			
WIND		±12,500	25,800		
THERMAL				6,800	
SEISMIC		±60,600	186,600		79,300

"P" - VERTICAL LOAD EACH BEARING PLATE (4 PER BRIDGE)
"T" - HORIZONTAL LOAD EACH ABUTMENT (2 PER BRIDGE)
"L_T" - LONGITUDINAL THERMAL LOAD EACH BEARING PLATE (4 PER BRIDGE)
"L_L" - LONGITUDINAL SEISMIC LOAD EACH FIXED BEARING PLATE (2 PER BRIDGE)

BRIDGE LIFTING WEIGHT: 76,100 LBS

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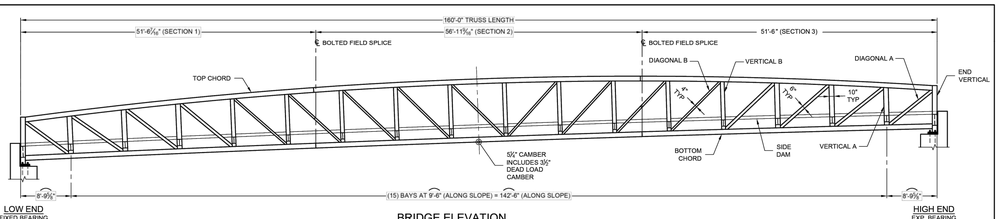
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CONTINENTAL BRIDGE
CONTECH **PROPOSAL** DRAWING

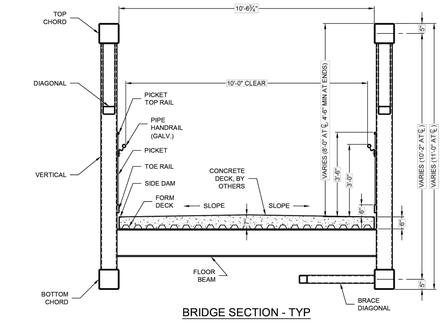
160'-0" x 10'-6 3/4"
EATON WASH
PEDESTRIAN BRIDGE
PASADENA, CA

PROJECT No.: 845292 | REQ. No.: 015 | DATE: 10/16/2025
DESIGNED: ENL | DRAWN: RJP
CHECKED: ENL | APPROVED:
SHEET NO.: 3 OF 5

AISC IAS CERTIFIED FABRICATOR



BRIDGE ELEVATION



BRIDGE SECTION - TYP

STRUCTURAL MEMBERS	
TOP CHORD	HSS 10 x 10
BOTTOM CHORD	HSS 10 x 10
VERTICAL A	HSS 10 x 8
VERTICAL B	HSS 8 x 8
END VERTICAL	HSS 10 x 10
DIAGONAL A	HSS 8 x 6
DIAGONAL B	HSS 6 x 4
BRACE DIAGONAL A	HSS 6 x 6
BRACE DIAGONAL B	HSS 4 x 4
FLOOR BEAM	W 14
END FLOOR BEAM	W 24

PEDESTRIAN BRIDGE

16 SCALE: NTS

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

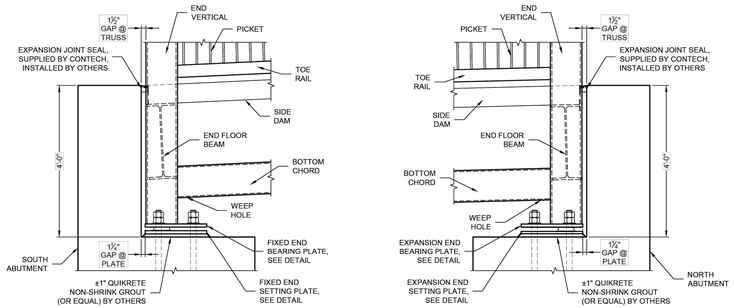
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SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET CU-09
45 OF 111
DWG. NO.

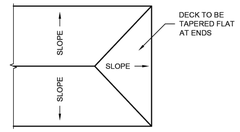
Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-DETAILS.DWG



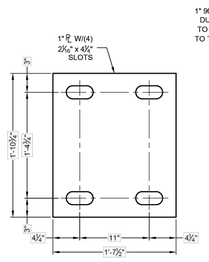
LOW END BEARING ELEVATION
FIXED END

HIGH END BEARING ELEVATION
EXPANSION END

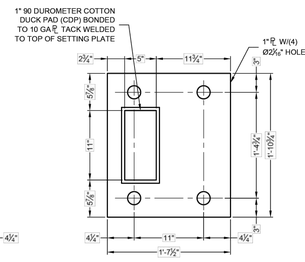
ANCHOR NOTE:
BOTTOM NUT FINGER TIGHT, TOP NUT TIGHT AT EXPANSION END. BOTH NUTS TIGHT AT FIXED END ONLY



DECK CROWN AT ENDS
TYP BOTH ENDS

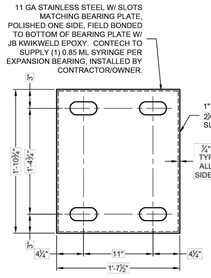


BEARING PLATE

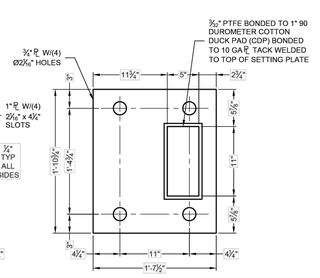


SETTING PLATE

FIXED BEARING DETAILS



BEARING PLATE



SETTING PLATE

EXPANSION BEARING DETAILS

AISC CERTIFIED FABRICATOR

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800-328-2047 320-345-9126

CONTINENTAL BRIDGE

CONTECH
CONTRACT DRAWING

160'-0" x 10'-6 3/4"
EATON WASH
PEDESTRIAN BRIDGE
PASADENA, CA

PROJECT No.: 845292	SEQ. No.: 015
DATE: 10/16/2025	
DESIGNED: ENL	DRAWN: RJP
CHECKED: ENL	APPROVED:
SHEET NO.: 5 OF 5	

16 **PEDESTRIAN BRIDGE**
SCALE: NTS

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: CIVIL DETAILS

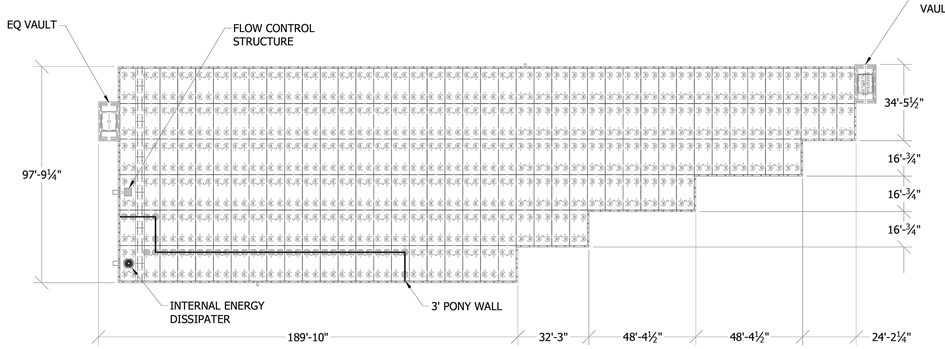
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ACCOUNT NUMBER: XXXXXX

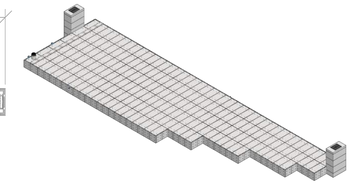
SHEET: CU-10
46 OF 111

DWG. NO.

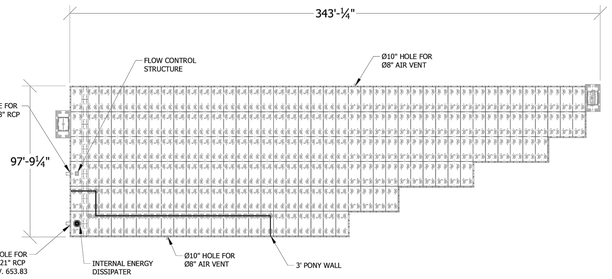
Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-DETAILS.DWG



PLAN VIEW
SCALE: 1"=20'-0"
1



ISOMETRIC VIEW
SCALE: 1"=20'-0"
3





PROFILE VIEW
SCALE: 1"=20'-0"
2

NUMBER OF MODLES: 202	MODULE HEIGHT: 7'
NUMBER OF WALLS: 108	FREEBOARD HEIGHT: 12"
TOTAL VOLUME (CF)	**149,968.84**
ACRE FEET	**3.44**
GALLONS	**1,121,767**

PART INFORMATION		
PART No.	QTY	APPROX. WEIGHT
STORMPRISM BASE	202	12,700 LBS
STORMPRISM 7'-0" TOP	202	16,500 LBS
WALLS	108	TBD
STAIR VAULT	1	TBD
EQUIPMENT VAULT	1	TBD
TOP EXT 4'-0"	12	3,800 LBS
BASE EXT 2'-0"	6	3,160 LBS

DO NOT SCALE

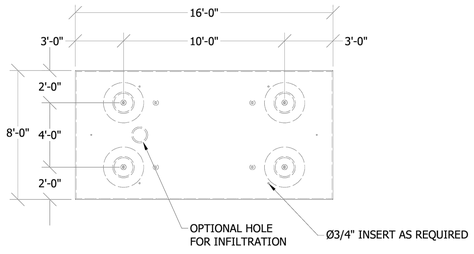
PRE-CON PRODUCTS
240 W. LOS ANGELES AVE. SIMI VALLEY, CA 93065
P: (805) 527-0841 F: (805) 584-0709,
WWW.PRE-CONPRODUCTS.COM

STORMPRISM
7'-0" INFILTRATION SYSTEM
OVERVIEW
EATON WASH CAPTURE PROJECT

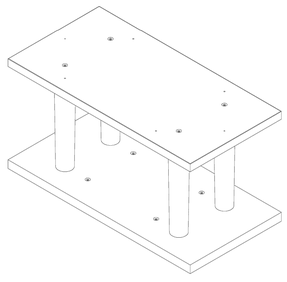
DRAWN BY: J.STARK
DATE: 4/4/2025
SHEET: 5 OF 17

LOCATION:T:\Drawings\Hall\DESIGN\Storm Prism\Customer\Eaton Wash Capture Project\Eaton Wash Capture Project 7ft Infiltration sys@n Rev.01.dwg

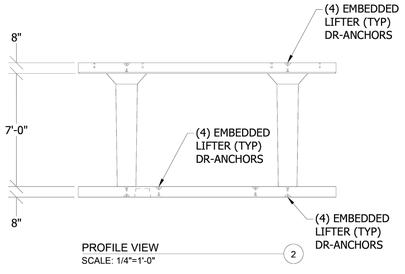
7'-0" UNIT DETAIL



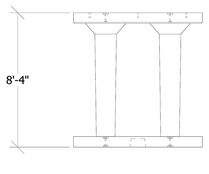
PLAN VIEW
SCALE: 1/4"=1'-0"
1



ISOMETRIC VIEW
SCALE: 1/4"=1'-0"
4



PROFILE VIEW
SCALE: 1/4"=1'-0"
2



SIDE VIEW
SCALE: 1/4"=1'-0"
3

DO NOT SCALE

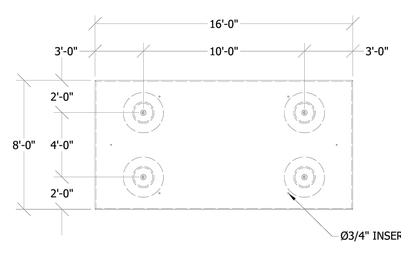
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STORMPRISM
7'-0" INFILTRATION UNIT
EATON WASH CAPTURE PROJECT

DRAWN BY: J.STARK
DATE: 4/4/2025
SHEET: 6 OF 17

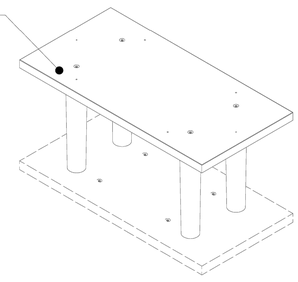
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STANDARD 7'-0" INFILTRATION TOP

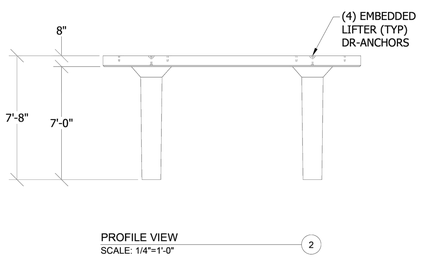


PLAN VIEW
SCALE: 1/4"=1'-0"
1

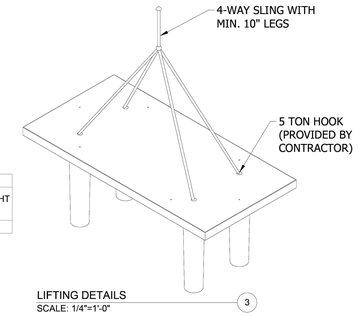
STANDARD 7'-0" DETENTION TOP



ISOMETRIC VIEW
SCALE: 1/4"=1'-0"
4



PROFILE VIEW
SCALE: 1/4"=1'-0"
2



LIFTING DETAILS
SCALE: 1/4"=1'-0"
3

PART INFORMATION	
DESCRIPTION	APPROX. WEIGHT IN LBS
EQ 7'-0" TOP	18,700 LBS

DO NOT SCALE

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STORMPRISM
7'-0" INFILTRATION TOP
EATON WASH CAPTURE PROJECT

DRAWN BY: J.STARK
DATE: 4/4/2025
SHEET: 7 OF 17

LOCATION:T:\Drawings\Hall\DESIGN\Storm Prism\Customer\Eaton Wash Capture Project\Eaton Wash Capture Project 7ft Infiltration sys@n Rev.01.dwg

17 **SUBSURFACE INFILTRATION GALLERY**
SCALE: NTS

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: CIVIL DETAILS

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

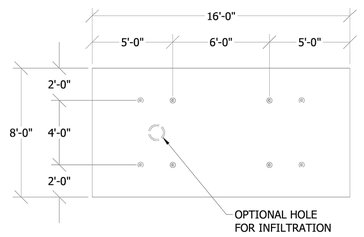
SHEET CU-11

47 OF 111

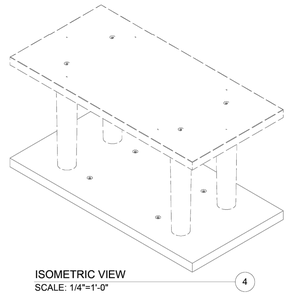
DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-DETAILS.DWG

7'-0" BASE DETAIL

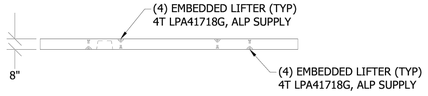


PLAN VIEW
SCALE: 1/4"=1'-0" (1)

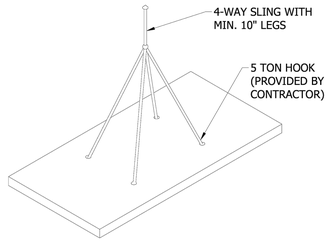


ISOMETRIC VIEW
SCALE: 1/4"=1'-0" (4)

PART INFORMATION	
DESCRIPTION	APPROX. WEIGHT IN LBS
EQ BASE	12,700 LBS



PROFILE VIEW
SCALE: 1/4"=1'-0" (2)



LIFTING DETAILS
SCALE: 1/4"=1'-0" (3)

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TITLE: STORMPRISM
7'-0" UNIT BASE DETAIL
EATON WASH CAPTURE PROJECT

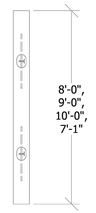
DRAWN BY: J.STARK

DATE: 4/4/2025

SHEET: 8 OF 17

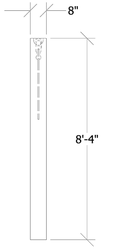
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STANDARD 7'-4" WALL

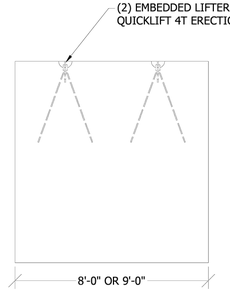


PLAN VIEW
SCALE: 3/8"=1'-0" (1)

PART INFORMATION	
DESCRIPTION	APPROX. WEIGHT IN LBS
EXTERNAL WALLS 8'Wx 8'-4" T	6,650 LBS
EXTERNAL WALLS 9'Wx 8'-4" T	7,600 LBS



PROFILE VIEW
SCALE: 3/8"=1'-0" (2)



LIFTING DETAILS
SCALE: 3/8"=1'-0" (3)

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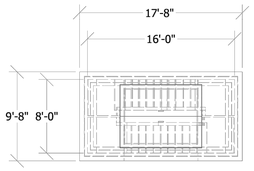
TITLE: STORMPRISM
8'-4" WALL INFORMATION
EATON WASH CAPTURE PROJECT

DRAWN BY: J.STARK

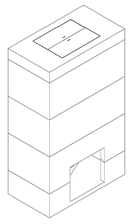
DATE: 4/4/2025

SHEET: 9 OF 17

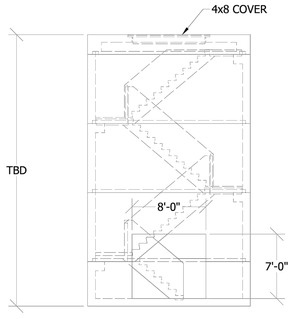
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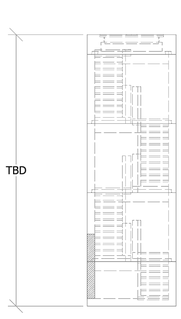
PLAN VIEW
SCALE: 1/8"=1'-0" (1)



ISOMETRIC VIEW
SCALE: 3/32"=1'-0" (4)



PROFILE VIEW
SCALE: 1/8"=1'-0" (2)



SIDE VIEW
SCALE: 1/8"=1'-0" (3)

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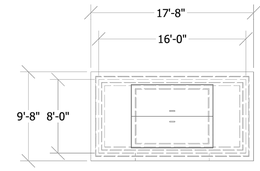
TITLE: STORMPRISM
STAIR VAULT DETAIL
EATON WASH CAPTURE PROJECT

DRAWN BY: J.STARK

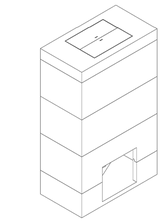
DATE: 4/4/2025

SHEET: 10 OF 17

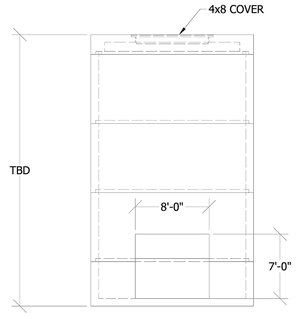
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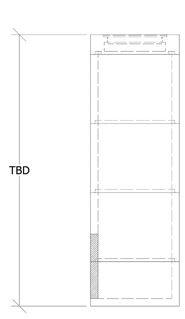
PLAN VIEW
SCALE: 1/8"=1'-0" (1)



ISOMETRIC VIEW
SCALE: 3/32"=1'-0" (4)



PROFILE VIEW
SCALE: 1/8"=1'-0" (2)



SIDE VIEW
SCALE: 1/8"=1'-0" (3)

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TITLE: STORMPRISM
EQUIPMENT VAULT DETAIL
EATON WASH CAPTURE PROJECT

DRAWN BY: J.STARK

DATE: 4/4/2025

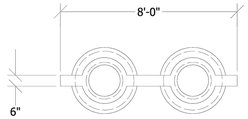
SHEET: 11 OF 17

17 **SUBSURFACE INFILTRATION GALLERY**
SCALE: NTS

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS		
EJM	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	EATON WASH STORMWATER CAPTURE PROJECT	SHEET CU-12	
DESIGNED BY								48 OF 111	
AMT, EJM							SHEET TITLE CIVIL DETAILS		
CHECKED BY							SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX	DWG. NO.
CAS			AS BUILT						

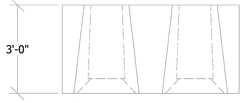
Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-DETAILS.DWG



PLAN VIEW
8' STD PONY WALL



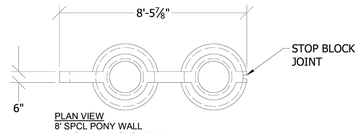
ISOMETRIC VIEW
8' STD PONY WALL



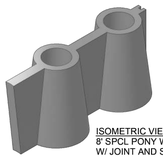
PROFILE VIEW
8' STD PONY WALL



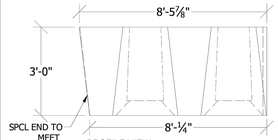
END VIEW
8' STD PONY WALL



PLAN VIEW
8' SPCL PONY WALL
W/ JOINT AND SPCL END



ISOMETRIC VIEW
8' SPCL PONY WALL
W/ JOINT AND SPCL END



PROFILE VIEW
8' SPCL PONY WALL W/ JOINT AND SPCL END



END VIEW
8' SPCL PONY WALL W/ JOINT AND SPCL END

PART INFORMATION		
PART NUMBER	QTY	APPROX. WEIGHT IN LBS
8' STD PONY WALL	10	6,900
8' PONY WALL W/ JOINT AND SPCL END	2	4,550

NO.	DATE	DESCRIPTION

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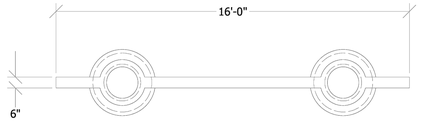
TITLE: 8' PONTY WALL INFORMATION

DRAWN BY: J.STARK

DATE: 4/4/2025

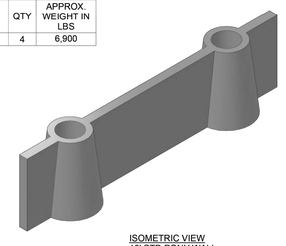
SHEET: 12 OF 17

LOCATION: I:\Drawings\Hydr\DESIGN\Storm Prism\Customer\Eaton Wash Capture Project\Eaton Wash Capture Project 7ft Infiltration system Rev.03.dwg



PLAN VIEW
16' STD PONY WALL

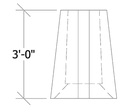
PART INFORMATION		
PART NUMBER	QTY	APPROX. WEIGHT IN LBS
16' STD PONY WALL	4	6,900



ISOMETRIC VIEW
16' STD PONY WALL



PROFILE VIEW
16' STD PONY WALL



END VIEW
16' STD PONY WALL

NO.	DATE	DESCRIPTION

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TITLE: 16' PONY WALL INFORMATION

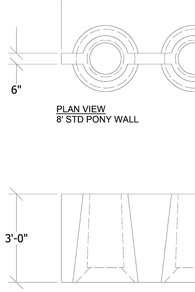
DRAWN BY: J. STARK

DATE: 4/4/2025

SHEET: 13 OF 17

LOCATION: I:\Drawings\Hydr\DESIGN\Storm Prism\Customer\Eaton Wash Capture Project\Eaton Wash Capture Project 7ft Infiltration system Rev.03.dwg

EXTENTIONS TOP AND BASE



PLAN VIEW

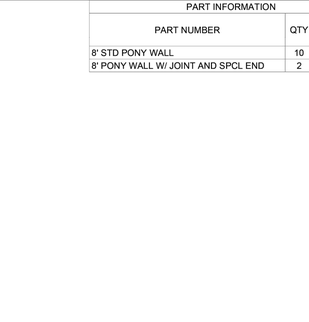


PLAN VIEW

PROFILE VIEW



PROFILE VIEW



ISOMETRIC VIEW



KEYWAY SEALING DETAIL

PART INFORMATION	
DESCRIPTION	APPROX. WEIGHT IN LBS
SPEQ-EXT-TOP	4,800
SPEQ-EXT-BASE	3,160

NO.	DATE	DESCRIPTION

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TITLE: EXTENTION INFORMATION
EATON WASH CAPTURE PROJECT

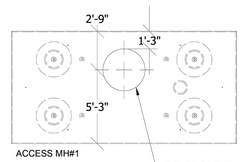
DRAWN BY: J.STARK

DATE: 4/4/2025

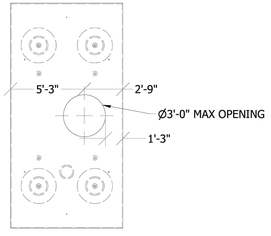
SHEET: 14 OF 17

LOCATION: I:\Drawings\Hydr\DESIGN\Storm Prism\Customer\Eaton Wash Capture Project\Eaton Wash Capture Project 7ft Infiltration system Rev.03.dwg

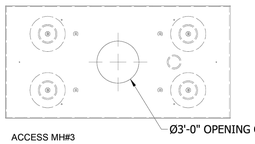
OPTIONAL MANWAY ACCESS LOCATIONS



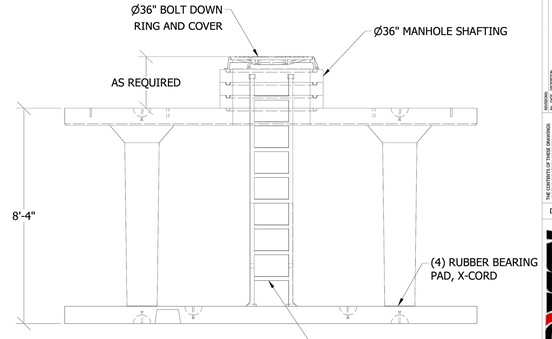
ACCESS MH#1



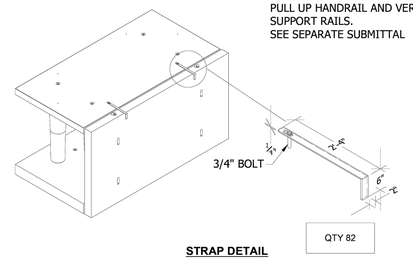
ACCESS MH#2



ACCESS MH#3



LADDER DETAIL



STRAP DETAIL

NO.	DATE	DESCRIPTION

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TITLE: STORMPRISM INFILTRATION SYSTEM
MANWAY ACCESS LOCATIONS
AND LADDER INFORMATION

DRAWN BY: J.STARK

DATE: 4/4/2025

SHEET: 15 OF 17

17

SUBSURFACE INFILTRATION GALLERY

SCALE: NTS

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
EJM	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
DESIGNED BY						
AMT, EJM						
CHECKED BY						
CAS			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: CIVIL DETAILS

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

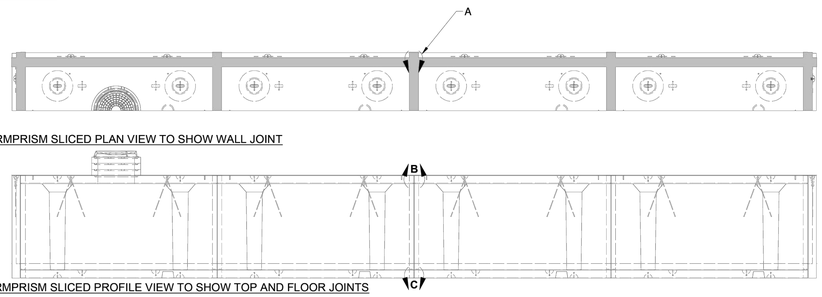
SHEET CU-13

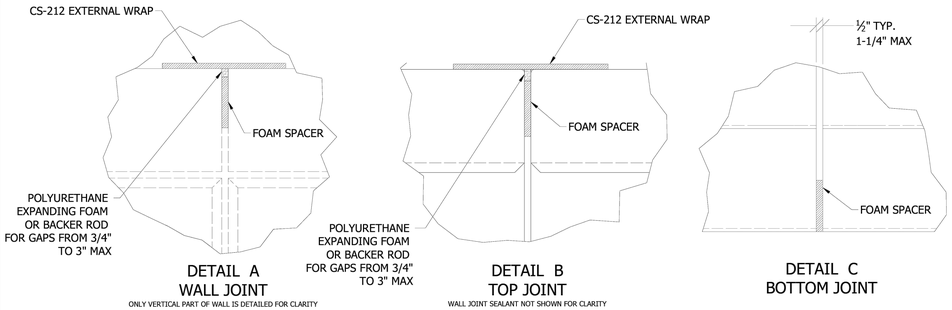
49 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-DETAILS.DWG

JOINT SEALANT DETAIL





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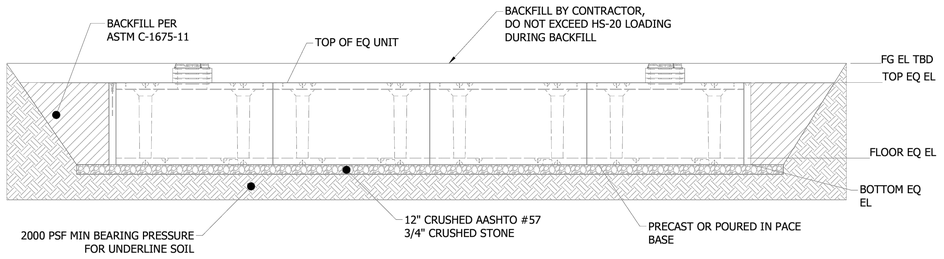
TITLE: STORMPRISM INFILTRATION SYSTEM JOINT DETAIL

DRAWN BY: J.STARK

DATE: 4/4/2025

SHEET: 16 OF 17

LOCATION:T:\Drawings\Hazel\DESIGN\Storm Prism\Customer\Eaton Wash Capture Project\Eaton Wash Capture Project- PE Infiltration system- Rev.01.dwg



INSTALLATION SPECIFICATIONS

Storm Prism shall be installed in accordance with ASTM C-891-11 Standard Practice for Installation of Underground Precast Concrete Utility Structures.
The bearing pressure of the underlying soil must be verified by the geotechnical engineer prior to placing aggregate sub base.
The leveling bed material shall comply with APWA 216-2.4.
The leveling bed shall be graded to a tolerance of ¼" of the plan elevation.
The leveling bed shall extend beyond the Storm Prism perimeter by at least 24".
The Storm Prism modules shall be placed on line and grade per the site plans. Space between modules shall be 1/2" plus / minus 1/2"
Storm Prism modules are designed to be soil tight. All exterior joints between adjacent modules shall be sealed using a preformed, cold applied, self-adhering, polymer wrap conforming to: ASTM E-1745, C-877,
C-990 Specifications, and AASHTO M198 Type B.
Wrap shall be applied per manufacture's recommendations.

BACKFILL

Fill placed around the Storm Prism Modules shall be placed evenly around the entire system in 8" lifts, per APWA 300-3.5.2.
Backfill shall be mechanically compacted (no jetting).
Special care should be taken when compacting adjacent to or near the tape seal not to disrupt the seal.
Fill placement over top of Storm Prism shall be done in accordance with ASTM C1675. Fill material not to exceed 120 PCF. At no time shall machinery or vehicles exceeding HS-20 travel over the Storm Prism.

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TITLE: STORMPRISM INFILTRATION SYSTEM BACKFILL AND ELEVATION INFORMATION

DRAWN BY: J.STARK

DATE: 4/4/2025

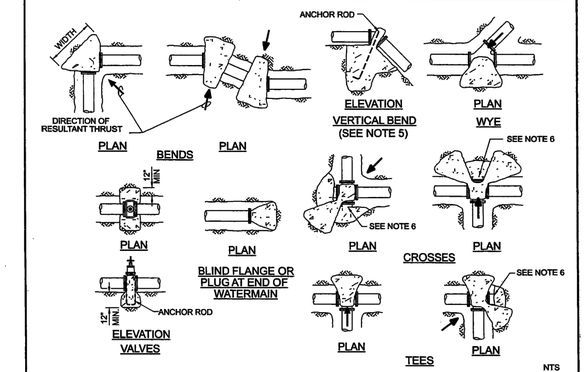
SHEET: 17 OF 17

LOCATION:T:\Drawings\Hazel\DESIGN\Storm Prism\Customer\Eaton Wash Capture Project\Eaton Wash Capture Project- PE Infiltration system- Rev.01.dwg

17 **SUBSURFACE INFILTRATION GALLERY**
SCALE: NTS

90% DESIGN PLANS NOT FOR CONSTRUCTION

CONCRETE THRUST BLOCKS



NTS

TABLE I

MINIMUM BEARING AREAS IN SQ FT *				
MAIN SIZE	TEE **	90° BEND	45° BEND	22 1/2° BEND
6"	4	4	4	3
8"	5	7	4	3
10"	9	12	6	4
12"	12	16	9	6

* BASED ON 150 PSI WWP PRESSURE & SOIL BEARING LOADS OF 2000 PSF. THE RATIO OF WIDTH TO HEIGHT SHALL NOT EXCEED 1 1/2 TO 1.
** TEES, PLUGS, CAPS, AND HYDRANTS.

TABLE II

*** SOIL TYPE	**** MAX ALLOWABLE SOIL BEARING VALUES	FACTORS FOR INCREASING AREAS IN TABLE 1
LOOSE SAND	500 PSF	4
SOFT SANDY CLAY	1000 PSF	2
ADOBE	1000 PSF	2
COMPACT FINE SAND	2000 PSF	1
COMPACT COARSE SAND	2000 PSF	1
MEDIUM STIFF CLAY	2000 PSF	1

*** THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE SAFE SOIL BEARING VALUES AND THE POSITION AND SIZE OF BEARING AREAS.
**** BASED ON 2 FEET MINIMUM DEPTH OF COVER OVER THE PIPE.

GENERAL NOTES:

1. ALL ANCHOR AND THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED SOIL.
2. MINIMUM ALLOWABLE WATER PRESSURE FOR DESIGN OF THRUST BLOCKS IS 150 PSI. BEARING AREA INCREASES DIRECTLY WITH INCREASE IN PRESSURE.
3. ALL CONCRETE USED IN THRUST BLOCKS SHALL ATTAIN 2000 PSI STRENGTH.
4. ALL ANCHOR RODS SHALL BE REINFORCING STEEL AND A MINIMUM OF 1/2 INCH IN DIAMETER.
5. USE ANCHOR BLOCKS AT VERTICAL BENDS WHEN PIPE IS ABOVE OR BELOW GROUND. SIZE OF BLOCK AND ROD SHALL BE AS SHOWN ON THE PLANS OR AS DETERMINED BY THE DISTRICT.
6. USE 30 POUND FELT TO INSURE COLD JOINT.
7. CONCRETE SHALL NOT COME INTO DIRECT CONTACT WITH ASBESTOS-CEMENT PIPE.
8. FOR PIPE GREATER THAN 12" IN DIAMETER, ENGINEER IS TO SUBMIT CALCULATIONS FOR APPROVAL.

LOS ANGELES COUNTY WATERWORKS DISTRICTS

DEPARTMENT OF PUBLIC WORKS

STANDARD PLAN W-21 SHEET 1 OF 1

APPROVED _____ APRIL 2004
ASSISTANT DEPUTY DIRECTOR — DATE

18 **CONCRETE THRUST BLOCKS**
SCALE: NTS

DRAWN BY	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS		
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DESIGNED BY								50 OF	111
AMT, EJM							SHEET TITLE CIVIL DETAILS		
CHECKED BY							SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX	DWG. NO.
CAS			AS BUILT						

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-DETAILS.DWG

Tree Disposition Matrix

Tree ID No.	Botanical Name	Common Name	Health	Structural Integrity	Height (ft.)	Crown Width (ft.)	Stems	Individual Stem Diameter (in.)						Cumulative Stem Diameter (in.)	Notes	Latitude	Longitude	Protected Status	On City List	Native Species	Maturity	Public	Invasive	Disposition (Remove = X, Retain = R)
								D1	D2	D3	D4	D5	D6											
1	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	25	15	1	16	-	-	-	-	-	16		34.14053254	-118.0839642	Native, Public	Yes	Yes	Immature	Public	No	R
2	*Heteromeles arbutifolia*	Toyon	Fair	Fair	10	8	9	3	2	2	2	2	2	19	Additional diameters: 2, 2, 2	34.14049205	-118.0839886	Mature, Public	Yes	Yes	Mature	Public	No	R
3	*Heteromeles arbutifolia*	Toyon	Good	Fair	15	10	9	4	4	3	3	3	2	25	Additional diameters: 2, 2, 2	34.14047475	-118.0839591	Mature, Public	Yes	Yes	Mature	Public	No	R
4	*Umbellularia californica*	California Laurel	Good	Fair	15	8	5	3	3	1	1	1	-	9		34.14049064	-118.0839482	Native, Public	Yes	Yes	Immature	Public	No	R
5	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	15	10	3	5	4	3	-	-	-	12		34.14043841	-118.0839476	Native, Public	Yes	Yes	Immature	Public	No	R
6	*Sambucus mexicana*	Blue Elderberry	Poor	Critical	20	20	1	25	-	-	-	-	-	25	Trunk split, half fallen.	34.14040135	-118.0839652	Mature, Public	Yes	Yes	Mature	Public	No	X
7	*Heteromeles arbutifolia*	Toyon	Fair	Fair	20	15	7	6	6	5	5	5	3	33	Additional diameter: 3	34.14036916	-118.084054	Mature, Public	Yes	Yes	Mature	Public	No	R
8	*Quercus agrifolia*	Coast Live Oak	Critical	Critical	5	5	1	14	-	-	-	-	-	14	Failed totem with base resprout	34.14034896	-118.0839568	Native, Public	Yes	Yes	Immature	Public	No	R
9	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	20	12	1	15	-	-	-	-	-	15		34.14034124	-118.0839462	Native, Public	Yes	Yes	Immature	Public	No	R
10	*Sambucus mexicana*	Blue Elderberry	Dead	Dead	15	10	2	5	4	-	-	-	-	9		34.14031723	-118.0839597	Public	Yes	Yes	Immature	Public	No	X
11	*Cupaniopsis anacardioides*	Carrotwood	Good	Fair	20	10	2	3	8	-	-	-	-	11		34.14032468	-118.0839454	Public	No	No	Immature	Public	Yes	R
12	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	20	8	1	4	-	-	-	-	-	4		34.14031253	-118.0839631	Public	Yes	Yes	Immature	Public	No	R
13	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	20	5	2	3	2	-	-	-	-	5		34.14029293	-118.0839548	Public	Yes	Yes	Immature	Public	No	R
14	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	20	15	1	9	-	-	-	-	-	9		34.14027527	-118.0839775	Native, Public	Yes	Yes	Immature	Public	No	R
15	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	15	8	2	5	2	-	-	-	-	7		34.14028167	-118.0839836	Public	Yes	Yes	Immature	Public	No	R
16	*Quercus agrifolia*	Coast Live Oak	Fair	Critical	8	12	1	4	-	-	-	-	-	4		34.14028217	-118.084015	Public	Yes	Yes	Immature	Public	No	R
17	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	20	10	1	7	-	-	-	-	-	7		34.14030373	-118.084012	Public	Yes	Yes	Immature	Public	No	R
18	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	15	10	2	5	5	-	-	-	-	10		34.14029699	-118.0840496	Native, Public	Yes	Yes	Immature	Public	No	R
19	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	20	12	3	6	3	2	-	-	-	11		34.14033019	-118.0840241	Native, Public	Yes	Yes	Immature	Public	No	R
20	*Quercus berberidifolia*	Scrub Oak	Poor	Fair	10	12	6	5	5	5	4	3	2	24		34.14035386	-118.0841109	Native, Mature, Public	No	Yes	Mature	Public	No	R
21	*Prunus ilicifolia*	Holly Leaf Cherry	Fair	Poor	15	10	5	3	1	1	1	1	-	7		34.14018596	-118.0839389	Public	No	Yes	Immature	Public	No	R
22	*Unknown Dead Tree*	Unknown Dead Tree	Dead	Dead	15	0	1	12	-	-	-	-	-	12	Dead and fallen.	34.1401926	-118.083983	Public	No	No	Immature	Public	Yes	X
23	*Unknown Dead Tree*	Unknown Dead Tree	Dead	Dead	15	0	1	12	-	-	-	-	-	12	Dead and fallen.	34.14018337	-118.0840126	Public	No	No	Immature	Public	Yes	X
24	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	15	10	4	3	2	2	1	-	-	8		34.14021376	-118.0839976	Public	No	No	Immature	Public	Yes	X
25	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	8	1	3	-	-	-	-	-	3		34.14022657	-118.0840092	Public	No	No	Immature	Public	Yes	X
26	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	10	1	4	-	-	-	-	-	4		34.14024136	-118.0840254	Public	No	No	Immature	Public	Yes	X
27	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	10	1	4	-	-	-	-	-	4		34.1402436	-118.0840298	Public	No	No	Immature	Public	Yes	X
28	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	15	8	1	3	-	-	-	-	-	3		34.14024708	-118.0840528	Public	No	No	Immature	Public	Yes	X
29	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	15	2	5	4	-	-	-	-	9		34.14020687	-118.0840252	Public	No	No	Immature	Public	Yes	X
30	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	15	8	1	3	-	-	-	-	-	3		34.14020743	-118.0840373	Public	No	No	Immature	Public	Yes	X
31	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	15	8	1	3	-	-	-	-	-	3		34.14022449	-118.0840483	Public	No	No	Immature	Public	Yes	X
32	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	12	1	5	-	-	-	-	-	5		34.14023632	-118.0840506	Public	No	No	Immature	Public	Yes	X
33	*Adenostoma sparsifolium*	Red Shanks	Fair	Poor	15	15	2	6	5	-	-	-	-	11		34.14020543	-118.0840629	Public	No	Yes	Immature	Public	No	R
34	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	15	8	2	3	2	-	-	-	-	5		34.14020132	-118.0840697	Public	No	No	Immature	Public	Yes	X
35	*Quercus berberidifolia*	Scrub Oak	Fair	Fair	10	8	4	3	1	1	1	-	-	6	Tagged as 34	34.14023723	-118.0841347	Public	No	Yes	Immature	Public	No	R
36	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	15	12	14	3	3	3	2	2	1	22	Additional diameters: 1, 1, 1, 1, 1, 1, 1	34.14017542	-118.084129	Native, Mature, Public	Yes	Yes	Mature	Public	No	R
37	*Quercus ilex*	Holly Oak	Fair	Poor	10	7	3	2	1	1	-	-	-	4		34.14019183	-118.0841435	Public	No	No	Immature	Public	Yes	R
38	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	10	7	5	1	1	1	1	1	-	5		34.14018381	-118.0841653	Public	Yes	Yes	Immature	Public	No	R
39	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	20	15	1	14	-	-	-	-	-	14		34.1402214	-118.0842342	Native, Public	Yes	Yes	Immature	Public	No	R
40	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	15	15	5	7	6	6	6	5	-	30		34.14029901	-118.0842284	Native, Mature, Public	Yes	Yes	Mature	Public	No	R
41	*Quercus agrifolia*	Coast Live Oak	Poor	Poor	12	10	8	3	2	2	1	1	1	12	Additional diameters: 1, 1	34.1403052	-118.0842526	Native, Public	Yes	Yes	Immature	Public	No	R
42	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	15	10	4	4	3	2	2	-	-	11		34.14035581	-118.0842278	Native, Public	Yes	Yes	Immature	Public	No	R
43	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	10	12	6	5	4	3	3	3	2	20		34.14040099	-118.0842346	Native, Mature, Public	Yes	Yes	Mature	Public	No	R
44	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	15	15	5	7	6	5	4	2	-	24		34.14035327	-118.0843118	Native, Mature, Public	Yes	Yes	Mature	Public	No	R
45	*Quercus agrifolia*	Coast Live Oak	Critical	Critical	15	15	1	16	-	-	-	-	-	16		34.14040621	-118.0843464	Native, Public	Yes	Yes	Immature	Public	No	R
46	*Quercus lobata*	Valley Oak	Poor	Fair	20	15	1	13	-	-	-	-	-	13		34.14049596	-118.084437	Native, Public	Yes	Yes	Immature	Public	No	R
47	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	22	20	4	12	10	7	3	-	-	32		34.14054736	-118.0844493	Native, Mature, Public	Yes	Yes	Mature	Public	No	R
48	*Heteromeles arbutifolia*	Toyon	Fair	Fair	10	15	8	3	2	2	2	2	1	14	Additional diameters: 1, 1	34.14045356	-118.0841996	Public	Yes	Yes	Immature	Public	No	R
49	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	8	3	2	1	1	-	-	-	-	2		34.14046671	-118.0842142	Public	Yes	Yes	Immature	Public	No	R
50	*Platanus racemosa*	California Sycamore	Poor	Critical	25	20	1	22	-	-	-	-	-	22		34.14055783	-118.084264	Mature, Public	Yes	Yes	Mature	Public	No	R
51	*Heteromeles arbutifolia*	Toyon	Poor	Poor	14	10	9	5	5	4	3	3	3	30	Additional diameters: 3, 2, 2	34.14066923	-118.0843736	Mature, Public	Yes	Yes	Mature	Public	No	X
52	*Unknown Dead Tree*	Unknown Dead Tree	Dead	Dead	20	8	1	8	-	-	-	-	-	8		34.1406841	-118.0844655	Public	No	No	Immature	Public	Yes	X
53	*Unknown Dead Tree*	Unknown Dead Tree	Dead	Dead	25	20	2	16	16	-	-	-	-	32	Dead and fallen.	34.14073908	-118.0845268	Mature, Public	No	No	Mature	Public	Yes	X
54	*Ailanthus altissima*	Tree of Heaven	Fair	Poor	20	10	1	5	-	-	-	-	-	5		34.14069283	-118.0845331	Public	No	No	Immature	Public	Yes	X
55	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	15	8	2	3	2	-	-	-	-	5		34.14069036	-118.0845383	Public	No	No	Immature	Public	Yes	X
56	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	15	4	6	4	4	3	-	-	17		34.14069329	-118.0845666	Public	No	No	Immature	Public	Yes	X
57	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	15	8	3	3	1	1	-	-	-	5		34.14065416	-118.0845713	Public	No	No	Immature	Public	Yes	X
58	*Unknown Dead Tree*	Unknown Dead Tree	Dead	Dead	15	10	2	6	3	-	-	-	-	9		34.14074042	-118.0846264	Public	No	No	Immature	Public	Yes	X
59	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	12	8	1	3	-	-	-	-	-	3		34.14076541	-118.0846321	Public	No	No	Immature	Public	Yes	X
60	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	15	10	2	4	1	-	-	-	-	5		34.14076884	-118.0846235	Public	No	No	Immature	Public	Yes	X

TREE DISPOSITION NOTES

1. CITY APPROVAL: ALL PUBLIC TREE REMOVALS MUST BE APPROVED BY THE CITY OF PASADENA URBAN FORESTRY ADVISORY COUNCIL BEFORE ANY WORK WITHIN THEIR TREE PROTECTION ZONES IS CONDUCTED.
2. ARBORIST DIRECTION: THE PROJECT ARBORIST'S RECOMMENDATIONS AND FIELD DIRECTION SHALL GOVERN TREE PROTECTION, REMOVAL, AND PRESERVATION REQUIREMENTS. IN THE EVENT OF CONFLICT BETWEEN THESE NOTES AND ARBORIST DIRECTION, THE ARBORIST SHALL PREVAIL.
3. TREE VERIFICATION: CONTRACTOR SHALL CONTACT THE PROJECT ARBORIST TO FIELD VERIFY ALL TREES TO BE RELOCATED OR REMOVED PRIOR TO ANY ACTION. LOCATIONS WERE OBTAINED VIA GPS AND MAY NOT MATCH FIELD CONDITIONS. CONTRACTOR SHALL VERIFY LOCATIONS IN THE FIELD PRIOR TO COMMENCING WORK.
4. URGENT CARE TREE VERIFICATION: TREE LOCATIONS SHOWN WITHIN THE URGENT CARE AREA ARE BASED ON THE TOPOGRAPHIC SURVEY, NOT THE ARBORIST'S SURVEY. LOCATIONS MAY NOT MATCH ACTUAL FIELD CONDITIONS. CONTRACTOR SHALL VERIFY TREE LOCATIONS IN THE FIELD PRIOR TO COMMENCING WORK.
5. TREE PROTECTION ZONE (TPZ): TREE PROTECTION ZONE LIMITS SHALL BE ESTABLISHED IN ACCORDANCE WITH CITY STANDARD S-642, DEFINED AS THE TREE DRIPLINE PLUS FOUR (4) RADIAL FEET. SEE DETAIL 1 ON SHEET LP-06.
6. UNSURVEYED TREE TPZ: FOR TREES NOT INCLUDED IN THE ARBORIST'S SURVEY, THE TREE PROTECTION ZONE IS DETERMINED BASED ON A RATIO OF ONE INCH (1") TRUNK DIAMETER = ONE FOOT (1') RADIAL TREE PROTECTION ZONE. CONTRACTOR SHALL ESTABLISH TREE PROTECTION ZONE LIMITS IN ACCORDANCE WITH CITY STANDARD S-642, DEFINED AS THE TREE DRIPLINE PLUS 4 RADIAL FEET. SEE DETAIL 1 ON SHEET LP-06.
7. TREE PROTECTION BARRIER: A PROTECTION BARRIER SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, DEMOLITION, OR GRADING WORK. THE BARRIER SHALL BE ERECTED AT THE OUTER EDGE OF THE TREE'S DRIPLINE OR AT A MINIMUM DISTANCE OF TEN (10) FEET FROM THE TRUNK, WHICHEVER IS GREATER, UNLESS OTHERWISE APPROVED BY THE PROJECT ARBORIST OR AUTHORITY HAVING JURISDICTION.
8. SIGNAGE: WARNING SIGNS SHALL BE POSTED ON ALL SIDES OF THE TREE PROTECTION FENCE, READING "TREE PROTECTION AREA — KEEP OUT." SIGNS SHALL BE INSTALLED AT A MINIMUM OF EVERY FIFTY (50) FEET ALONG THE BARRIER OR AS REQUIRED BY THE PROJECT ARBORIST.
9. FENCING: THE TREE PROTECTION FENCE SHALL BE A MINIMUM OF FOUR (4) FEET HIGH AND CONSTRUCTED OF ORANGE PLASTIC SNOW FENCING OR CHAIN-LINK FENCE SECURED TO METAL POSTS DRIVEN INTO THE GROUND. POSTS SHALL BE SPACED NO MORE THAN TEN (10) FEET APART.
10. ROOT PROTECTION: WHERE ROOTS CANNOT BE PROTECTED BY FENCING, THEY SHALL BE COVERED WITH A SIX-INCH (6") LAYER OF MULCH OR WOOD CHIPS AND A THREE-QUARTER-INCH (¾") PLYWOOD DRIVING SURFACE TO PREVENT SOIL COMPACTION.
11. PROTECT EXISTING TREES: CONTRACTOR SHALL PROTECT IN PLACE ALL EXISTING TREES AROUND THE CONSTRUCTION PERIMETER UNLESS OTHERWISE SPECIFIED. PROTECTION SHALL INCLUDE THE ROOT BALLS AND CANOPIES OF TREES ADJACENT TO CONSTRUCTION AREAS.
12. RESTRICTED ACTIVITIES: NO EQUIPMENT, MATERIALS, DEBRIS, OR SOIL SHALL BE STORED OR COMPACTED WITHIN TREE PROTECTION AREAS. NO CLEANING OF EQUIPMENT OR DISPOSAL OF MATERIALS SHALL BE PERMITTED WITHIN THESE AREAS. DO NOT LEAN EQUIPMENT OR STORE MATERIALS AGAINST TREES.
13. CHEMICAL STORAGE: NO CHEMICALS, GASOLINE, OIL, OR OTHER SUBSTANCES THAT MAY BE HARMFUL TO TREES SHALL BE STORED, MIXED, OR DUMPED WITHIN ONE HUNDRED (100) FEET OF THE TREE PROTECTION AREA.
14. WORK WITHIN TPZs: WORK WITHIN TREE PROTECTION ZONES SHALL BE MINIMIZED TO THE EXTENT FEASIBLE. WHERE WORK IS NECESSARY, PROTECTIVE MEASURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE PROJECT ARBORIST'S RECOMMENDATIONS TO AVOID OR MINIMIZE DAMAGE TO ROOTS, TRUNKS, AND CANOPIES.
15. TREE REMOVAL: TREE REMOVAL SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL BRANCHES, LEAVES, LITTER, TRUNKS, STUMPS, AND ROOTS. ALL TREE STUMPS SHALL BE GROUND TO A MINIMUM DEPTH OF TWELVE (12) INCHES BELOW FINISH GRADE OR AS DIRECTED BY THE PROJECT ARBORIST. HOLES RESULTING FROM REMOVAL SHALL BE BACKFILLED WITH CLEAN TOPSOIL AND COMPACTED IN TWELVE (12) INCH LIFTS. ALL GRINDINGS SHALL BE REMOVED FROM THE AREA AND SURFACES LEFT LEVEL AND FREE OF DEBRIS.
16. INVASIVE VEGETATION CONTROL: INVASIVE VEGETATION CONTROL SHALL INCLUDE THE HERBICIDE TREATMENT AND/OR CUTTING TO GRADE AND COMPLETE REMOVAL OF ALL INVASIVE VEGETATION SPECIES IDENTIFIED ON THESE PLANS, AS INDICATED IN THE NOTES, OR IDENTIFIED IN THE FIELD BY THE PROJECT BIOLOGIST.

    i. INVASIVE VEGETATION LOCATED WITHIN THE EATON WASH SW PROJECT IMPACT AREAS SHALL BE REMOVED AND TREATED ON A ONE-TIME BASIS.

    ii. INVASIVE VEGETATION THROUGHOUT THE PROJECT LIMITS, BUT OUTSIDE THE EATON WASH SW PROJECT IMPACT AREAS SHALL BE INITIALLY REMOVED AND TREATED, WITH FOLLOW-UP TREATMENT OF RESPROUTS AND NEW SEEDLINGS CONDUCTED A MINIMUM OF MONTHLY THROUGH THE DURATION OF THE CONTRACT PERIOD.
17. INVASIVE SPECIES TREATMENT: SPECIES IDENTIFIED (NON-EXCLUSIVE) AND TREATMENT REQUIRED INCLUDES:

    i. WOODY SPECIES INCLUDING, BUT NOT LIMITED TO, TREE OF HEAVEN (AILANTHUS ALTISSIMA). INVASIVE VEGETATION SHALL BE CUT TO GRADE, AND ALL VEGETATIVE DEBRIS, INCLUDING ASSOCIATED LEAF LITTER SHALL BE REMOVED FROM THE SITE AND DISPOSED OF OFF SITE AT AN APPROVED GREEN WASTE FACILITY. TREES SHALL BE STUMP TREATED WITH AN APPROPRIATE HERBICIDE (I.E., TRICLOPYR, GLYPHOSATE, IMAZAPYR) WITHIN FIVE (5) MINUTES OF INITIAL CUT, WITH FOLLOW-UP TREATMENT REQUIRED FOR STUMP SPROUTS, ROOT SUCKERS, AND SEEDLING GERMINATION.
18. HERBICIDE RESTRICTIONS: HERBICIDES SHALL NOT BE USED TO TREAT INVASIVE VEGETATION DIRECTLY ADJACENT TO OR IN THE UNDERSTORY OF RETAINED OR PRESERVED VEGETATION. ONLY HAND-REMOVAL IS ALLOWED IN THESE AREAS.
19. HERBICIDE APPLICATION: HERBICIDE APPLICATION SHALL BE CONDUCTED IN ACCORDANCE WITH MANUFACTURER'S LABEL INSTRUCTIONS AND UNDER THE DIRECTION OF A STATE-CERTIFIED QUALIFIED PEST CONTROL APPLICATOR AND STATE-LICENSED PEST CONTROL ADVISOR. ONLY HERBICIDES APPROVED FOR AQUATIC USES SHALL BE USED IN STREAMBEDS, STANDING WATER, OR RIPARIAN AREAS.
20. PRUNING: PRUNING OF TREES SHALL BE PERFORMED ONLY BY A CERTIFIED ARBORIST. NO MORE THAN TWENTY-FIVE PERCENT (25%) OF A TREE'S CANOPY SHALL BE REMOVED IN ANY TWELVE (12) MONTH PERIOD UNLESS OTHERWISE APPROVED BY THE PROJECT ARBORIST. PRUNE TREES WITHIN BRIDGE INSTALLATION AREAS AND ALL OTHER OVERGROWN TREES WITHIN THE SITE AS DIRECTED BY THE CITY AND PROJECT ARBORIST.
21. DAMAGE REPORTING: ANY DAMAGE TO TREES OR ROOT SYSTEMS SHALL BE IMMEDIATELY REPORTED TO THE PROJECT ARBORIST. ROOTS GREATER THAN TWO (2) INCHES IN DIAMETER SHALL NOT BE CUT WITHOUT APPROVAL. DAMAGED AREAS SHALL BE CLEANLY CUT AND PROTECTED FROM DRYING OUT.
22. INSPECTION: TREE PROTECTION BARRIERS SHALL BE INSPECTED AND APPROVED BY THE PROJECT ARBORIST OR AUTHORITY HAVING JURISDICTION PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
23. MAINTENANCE: TREE PROTECTION BARRIERS SHALL BE MAINTAINED IN GOOD CONDITION FOR THE DURATION OF CONSTRUCTION. IF BARRIERS ARE DAMAGED OR REMOVED, THEY SHALL BE REPLACED IMMEDIATELY.
24. MONITORING: THE PROJECT ARBORIST SHALL BE RESPONSIBLE FOR PERIODIC MONITORING OF TREE HEALTH DURING CONSTRUCTION AND SHALL RECOMMEND ADDITIONAL MEASURES IF A DECLINE IN TREE CONDITION IS NOTED.
25. ENFORCEMENT: FAILURE TO INSTALL OR MAINTAIN TREE PROTECTION MEASURES AS SPECIFIED MAY RESULT IN WORK STOPPAGE AND/OR FINES AS DETERMINED BY THE AUTHORITY HAVING JURISDICTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE HEALTH AND PRESERVATION OF ALL TREES TO REMAIN ON SITE AND SHALL CONTACT THE PROJECT ARBORIST IF A DECLINE IN TREE CONDITION IS OBSERVED.

LEGEND



TREE, ID NUMBER "XX," PROTECT IN PLACE



TREE PROTECTION ZONE (TPZ), SEE NOTE 5



TREE, ID NUMBER "XX," REMOVE

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM, SH
DESIGNED BY	EH, EJM
CHECKED BY	JP

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: TREE DISPOSITION NOTES AND LEGEND

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET LD-01

51 OF 111

DWG. NO.

Date: July 6, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-TREE_DISPOSITION_PLAN.DWG

Tree Disposition Matrix

Tree ID No.	Botanical Name	Common Name	Health	Structural Integrity	Height (ft.)	Crown Width (ft.)	Stems	Individual Stem Diameter (in.)						Cumulative Stem Diameter (in.)	Notes	Latitude	Longitude	Protected Status	On City List	Native Species	Maturity	Public	Invasive	Disposition (Remove = X, Retain = R)
								D1	D2	D3	D4	D5	D6											
61	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	25	15	4	7	6	5	5	-	-	23		34.14085632	-118.0846874	Mature, Public	No	No	Mature	Public	Yes	X
62	*Platanus racemosa*	California Sycamore	Critical	Critical	20	12	2	18	10	-	-	-	-	28	No tag, homeless encampment. Two additional burnt and fallen trunks.	34.14089884	-118.0846731	Mature, Public	Yes	Yes	Mature	Public	No	X
63	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	10	7	2	2	1	-	-	-	-	3		34.14095118	-118.0846704	Public	Yes	Yes	Immature	Public	No	X
64	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	12	8	3	2	1	1	-	-	-	4	No tag, homeless encampment.	34.14086578	-118.0847108	Public	Yes	Yes	Immature	Public	No	R
65	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	15	10	2	4	3	-	-	-	-	7		34.14087019	-118.0847408	Public	No	No	Immature	Public	Yes	X
66	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	15	10	1	5	-	-	-	-	-	5		34.14088427	-118.0847431	Public	No	No	Immature	Public	Yes	X
67	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	15	10	1	5	-	-	-	-	-	5	No tag, no access.	34.14087843	-118.0847676	Public	No	No	Immature	Public	Yes	X
68	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	12	5	5	4	4	3	2	-	18	No tag, no access.	34.14088998	-118.0847794	Public	No	No	Immature	Public	Yes	X
69	*Acacia dealbata*	Silver Wattle	Fair	Poor	10	15	9	3	3	3	2	2	2	21	Additional diameters: 2, 2, 2. No tag, no access, estimated data.	34.1408763	-118.0847869	Mature, Public	No	No	Mature	Public	Yes	R
70	*Quercus agrifolia*	Coast Live Oak	Critical	Fair	12	8	2	6	1	-	-	-	-	7	No tag, homeless encampment.	34.14092344	-118.0847787	Public	Yes	Yes	Immature	Public	No	R
71	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	7	5	2	1	1	-	-	-	-	2	No tag, homeless encampment.	34.14092089	-118.0847865	Public	Yes	Yes	Immature	Public	No	R
72	*Pinus canariensis*	Canary Island Pine	Fair	Fair	60	30	1	26	-	-	-	-	-	26		34.14140236	-118.0848436	Mature, Public	Yes	No	Mature	Public	Yes	R
73	*Pinus canariensis*	Canary Island Pine	Fair	Fair	60	25	1	24	-	-	-	-	-	24		34.14142447	-118.0847739	Mature, Public	Yes	No	Mature	Public	Yes	X
74	*Pinus torreyana*	Torrey Pine	Fair	Fair	65	25	1	39	-	-	-	-	-	39	Some stub cuts and broken off branches.	34.14146578	-118.0847486	Mature, Public	Yes	No	Mature	Public	Yes	X
75	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	15	8	2	3	1	-	-	-	-	4		34.14126753	-118.0845363	Public	Yes	Yes	Immature	Public	No	X
76	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	10	4	6	6	5	4	-	-	21		34.14122271	-118.0844985	Mature, Public	No	No	Mature	Public	Yes	X
77	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	10	8	3	3	2	1	-	-	-	6		34.14120683	-118.0844761	Public	Yes	Yes	Immature	Public	No	X
78	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	10	2	3	3	-	-	-	-	6		34.14118366	-118.0844689	Public	No	No	Immature	Public	Yes	X
79	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	12	4	3	3	2	2	-	-	10		34.14117887	-118.0844614	Public	No	No	Immature	Public	Yes	X
80	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	15	7	4	4	3	3	3	3	22	Additional diameter: 2	34.14116554	-118.0844613	Mature, Public	No	No	Mature	Public	Yes	X
81	*Platanus racemosa*	California Sycamore	Fair	Poor	30	15	12	25	6	6	6	5	5	77	Additional diameters: 5, 5, 4, 4, 3, 3	34.14112188	-118.0844621	Mature, Public	Yes	Yes	Mature	Public	No	X
82	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	7	5	4	1	1	1	1	-	-	4		34.14115706	-118.084438	Public	Yes	Yes	Immature	Public	No	X
83	*Platanus racemosa*	California Sycamore	Fair	Poor	15	15	4	5	4	2	2	-	-	13		34.14113914	-118.0844195	Public	Yes	Yes	Immature	Public	No	X
84	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	20	12	2	8	5	-	-	-	-	13		34.14113491	-118.084425	Native, Public	Yes	Yes	Immature	Public	No	X
85	*Cupaniopsis anacardioides*	Carrotwood	Fair	Poor	20	12	5	3	1	1	1	1	-	7		34.14111645	-118.0844045	Public	No	No	Immature	Public	Yes	X
86	*Quercus ilex*	Holly Oak	Fair	Poor	25	15	4	9	6	5	3	-	-	23		34.14108519	-118.084403	Native, Mature, Public	No	No	Mature	Public	Yes	X
87	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	10	8	3	3	3	2	-	-	-	8		34.14099821	-118.0845388	Native, Public	Yes	Yes	Immature	Public	No	X
88	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	25	15	2	11	3	-	-	-	-	14		34.14122187	-118.0844894	Public	No	No	Immature	Public	Yes	X
89	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	30	20	2	12	8	-	-	-	-	20		34.14121575	-118.084487	Mature, Public	No	No	Mature	Public	Yes	X
90	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Critical	4	5	0	-	-	-	-	-	-	0	Stump resprouts.	34.14067648	-118.0840777	Public	No	No	Immature	Public	Yes	X
91	*Prunus ilicifolia*	Holly Leaf Cherry	Good	Fair	10	14	7	4	2	2	2	2	2	16	Additional diameter: 2	34.14074965	-118.0841325	Public	No	Yes	Immature	Public	No	X
92	*Prunus ilicifolia*	Holly Leaf Cherry	Good	Fair	12	10	3	4	2	2	-	-	-	8		34.14079683	-118.0841892	Public	No	Yes	Immature	Public	No	X
93	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	15	10	1	4	-	-	-	-	-	4		34.14087644	-118.0842294	Public	No	No	Immature	Public	Yes	X
94	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	25	15	6	6	5	5	5	5	4	30		34.14088733	-118.0842361	Mature, Public	No	No	Mature	Public	Yes	X
95	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	25	15	1	6	-	-	-	-	-	6		34.14089376	-118.0842452	Public	No	No	Immature	Public	Yes	X
96	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	30	15	2	17	7	-	-	-	-	24		34.14089716	-118.0842467	Mature, Public	No	No	Mature	Public	Yes	X
97	*Ailanthus altissima*	Tree of Heaven	Fair	Poor	20	12	2	5	4	-	-	-	-	9		34.14090332	-118.0842576	Public	No	No	Immature	Public	Yes	X
98	*Ailanthus altissima*	Tree of Heaven	Fair	Poor	12	10	1	4	-	-	-	-	-	4		34.14091571	-118.0842562	Public	No	No	Immature	Public	Yes	X
99	*Ailanthus altissima*	Tree of Heaven	Fair	Poor	18	12	1	4	-	-	-	-	-	4		34.14092466	-118.0842588	Public	No	No	Immature	Public	Yes	X
100	*Ailanthus altissima*	Tree of Heaven	Fair	Poor	12	10	1	4	-	-	-	-	-	4		34.14091243	-118.0842836	Public	No	No	Immature	Public	Yes	X
101	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	15	7	2	3	2	-	-	-	-	5		34.14097574	-118.0843079	Public	Yes	Yes	Immature	Public	No	X
102	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	20	12	1	12	-	-	-	-	-	12		34.14098341	-118.0843205	Native, Public	Yes	Yes	Immature	Public	No	X
103	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	12	6	2	2	2	-	-	-	-	4		34.14101516	-118.0843361	Public	Yes	Yes	Immature	Public	No	X
104	*Quercus agrifolia*	Coast Live Oak	Poor	Poor	10	7	3	3	3	1	-	-	-	7	No tag, estimated data, homeless encampment.	34.14096892	-118.0847783	Public	Yes	Yes	Immature	Public	No	R
105	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	15	8	1	4	-	-	-	-	-	4		34.14101095	-118.08478	Public	No	No	Immature	Public	Yes	X
106	*Acacia dealbata*	Silver Wattle	Fair	Poor	20	15	5	7	6	4	2	2	-	21		34.14101992	-118.0848019	Mature, Public	No	No	Mature	Public	Yes	R
107	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	12	2	5	4	-	-	-	-	9		34.14103793	-118.0848222	Public	No	No	Immature	Public	Yes	X
108	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	25	15	3	7	5	5	-	-	-	17	No tag, estimated data, homeless encampment.	34.14101886	-118.084821	Public	No	No	Immature	Public	Yes	X
109	*Heteromeles arbutifolia*	Toyon	Fair	Fair	12	10	6	2	2	2	2	1	1	10	No tag, estimated data, homeless encampment.	34.1410164	-118.0848334	Public	Yes	Yes	Immature	Public	No	R
110	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	20	12	1	10	-	-	-	-	-	10	No tag, estimated data, homeless encampment.	34.14103136	-118.0848378	Native, Public	Yes	Yes	Immature	Public	No	R
111	*Quercus agrifolia*	Coast Live Oak	Good	Fair	15	8	1	4	-	-	-	-	-	4		34.14107343	-118.0848641	Public	Yes	Yes	Immature	Public	No	R
112	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	15	15	2	8	3	-	-	-	-	11		34.14109237	-118.0848815	Native, Public	Yes	Yes	Immature	Public	No	R
113	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	15	3	4	3	3	-	-	-	10	No tag, estimated data, homeless encampment.	34.14108122	-118.084902	Public	No	No	Immature	Public	Yes	X

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3. TREE VERIFICATION: CONTRACTOR SHALL CONTACT THE PROJECT ARBORIST TO FIELD VERIFY ALL TREES TO BE RELOCATED OR REMOVED PRIOR TO ANY ACTION. LOCATIONS WERE OBTAINED VIA GPS AND MAY NOT MATCH FIELD CONDITIONS. CONTRACTOR SHALL VERIFY LOCATIONS IN THE FIELD PRIOR TO COMMENCING WORK.
4. URGENT CARE TREE VERIFICATION: TREE LOCATIONS SHOWN WITHIN THE URGENT CARE AREA ARE BASED ON THE TOPOGRAPHIC SURVEY, NOT THE ARBORIST'S SURVEY. LOCATIONS MAY NOT MATCH ACTUAL FIELD CONDITIONS. CONTRACTOR SHALL VERIFY TREE LOCATIONS IN THE FIELD PRIOR TO COMMENCING WORK.
5. TREE PROTECTION ZONE (TPZ): TREE PROTECTION ZONE LIMITS SHALL BE ESTABLISHED IN ACCORDANCE WITH CITY STANDARD S-642, DEFINED AS THE TREE DRIPLINE PLUS FOUR (4) RADIAL FEET. SEE DETAIL 1 ON SHEET LP-06.
6. UNSURVEYED TREE TPZ: FOR TREES NOT INCLUDED IN THE ARBORIST'S SURVEY, THE TREE PROTECTION ZONE IS DETERMINED BASED ON A RATIO OF ONE INCH (1") TRUNK DIAMETER = ONE FOOT (1') RADIAL TREE PROTECTION ZONE. CONTRACTOR SHALL ESTABLISH TREE PROTECTION ZONE LIMITS IN ACCORDANCE WITH CITY STANDARD S-642, DEFINED AS THE TREE DRIPLINE PLUS 4 RADIAL FEET. SEE DETAIL 1 ON SHEET LP-06.
7. TREE PROTECTION BARRIER: A PROTECTION BARRIER SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, DEMOLITION, OR GRADING WORK. THE BARRIER SHALL BE ERECTED AT THE OUTER EDGE OF THE TREE'S DRIPLINE OR AT A MINIMUM DISTANCE OF TEN (10) FEET FROM THE TRUNK, WHICHEVER IS GREATER, UNLESS OTHERWISE APPROVED BY THE PROJECT ARBORIST OR AUTHORITY HAVING JURISDICTION.
8. SIGNAGE: WARNING SIGNS SHALL BE POSTED ON ALL SIDES OF THE TREE PROTECTION FENCE, READING "TREE PROTECTION AREA — KEEP OUT." SIGNS SHALL BE INSTALLED AT A MINIMUM OF EVERY FIFTY (50) FEET ALONG THE BARRIER OR AS REQUIRED BY THE PROJECT ARBORIST.
9. FENCING: THE TREE PROTECTION FENCE SHALL BE A MINIMUM OF FOUR (4) FEET HIGH AND CONSTRUCTED OF ORANGE PLASTIC SNOW FENCING OR CHAIN-LINK FENCE SECURED TO METAL POSTS DRIVEN INTO THE GROUND. POSTS SHALL BE SPACED NO MORE THAN TEN (10) FEET APART.
10. ROOT PROTECTION: WHERE ROOTS CANNOT BE PROTECTED BY FENCING, THEY SHALL BE COVERED WITH A SIX-INCH (6") LAYER OF MULCH OR WOOD CHIPS AND A THREE-QUARTER-INCH (¾") PLYWOOD DRIVING SURFACE TO PREVENT SOIL COMPACTION.
11. PROTECT EXISTING TREES: CONTRACTOR SHALL PROTECT IN PLACE ALL EXISTING TREES AROUND THE CONSTRUCTION PERIMETER UNLESS OTHERWISE SPECIFIED. PROTECTION SHALL INCLUDE THE ROOT BALLS AND CANOPIES OF TREES ADJACENT TO CONSTRUCTION AREAS.
12. RESTRICTED ACTIVITIES: NO EQUIPMENT, MATERIALS, DEBRIS, OR SOIL SHALL BE STORED OR COMPACTED WITHIN TREE PROTECTION AREAS. NO CLEANING OF EQUIPMENT OR DISPOSAL OF MATERIALS SHALL BE PERMITTED WITHIN THESE AREAS. DO NOT LEAN EQUIPMENT OR STORE MATERIALS AGAINST TREES.
13. CHEMICAL STORAGE: NO CHEMICALS, GASOLINE, OIL, OR OTHER SUBSTANCES THAT MAY BE HARMFUL TO TREES SHALL BE STORED, MIXED, OR DUMPED WITHIN ONE HUNDRED (100) FEET OF THE TREE PROTECTION AREA.
14. WORK WITHIN TPZs: WORK WITHIN TREE PROTECTION ZONES SHALL BE MINIMIZED TO THE EXTENT FEASIBLE. WHERE WORK IS NECESSARY, PROTECTIVE MEASURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE PROJECT ARBORIST'S RECOMMENDATIONS TO AVOID OR MINIMIZE DAMAGE TO ROOTS, TRUNKS, AND CANOPIES.
15. TREE REMOVAL: TREE REMOVAL SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL BRANCHES, LEAVES, LITTER, TRUNKS, STUMPS, AND ROOTS. ALL TREE STUMPS SHALL BE GROUND TO A MINIMUM DEPTH OF TWELVE (12) INCHES BELOW FINISH GRADE OR AS DIRECTED BY THE PROJECT ARBORIST. HOLES RESULTING FROM REMOVAL SHALL BE BACKFILLED WITH CLEAN TOPSOIL AND COMPACTED IN TWELVE (12) INCH LIFTS. ALL GRINDINGS SHALL BE REMOVED FROM THE AREA AND SURFACES LEFT LEVEL AND FREE OF DEBRIS.
16. INVASIVE VEGETATION CONTROL: INVASIVE VEGETATION CONTROL SHALL INCLUDE THE HERBICIDE TREATMENT AND/OR CUTTING TO GRADE AND COMPLETE REMOVAL OF ALL INVASIVE VEGETATION SPECIES IDENTIFIED ON THESE PLANS, AS INDICATED IN THE NOTES, OR IDENTIFIED IN THE FIELD BY THE PROJECT BIOLOGIST.

    i. INVASIVE VEGETATION LOCATED WITHIN THE EATON WASH SW PROJECT IMPACT AREAS SHALL BE REMOVED AND TREATED ON A ONE-TIME BASIS.

    ii. INVASIVE VEGETATION THROUGHOUT THE PROJECT LIMITS, BUT OUTSIDE THE EATON WASH SW PROJECT IMPACT AREAS SHALL BE INITIALLY REMOVED AND TREATED, WITH FOLLOW-UP TREATMENT OF RESPROUTS AND NEW SEEDLINGS CONDUCTED A MINIMUM OF MONTHLY THROUGH THE DURATION OF THE CONTRACT PERIOD.
17. INVASIVE SPECIES TREATMENT: SPECIES IDENTIFIED (NON-EXCLUSIVE) AND TREATMENT REQUIRED INCLUDES:

    i. WOODY SPECIES INCLUDING, BUT NOT LIMITED TO, TREE OF HEAVEN (AILANTHUS ALTISSIMA). INVASIVE VEGETATION SHALL BE CUT TO GRADE, AND ALL VEGETATIVE DEBRIS, INCLUDING ASSOCIATED LEAF LITTER SHALL BE REMOVED FROM THE SITE AND DISPOSED OF OFF SITE AT AN APPROVED GREEN WASTE FACILITY. TREES SHALL BE STUMP TREATED WITH AN APPROPRIATE HERBICIDE (I.E., TRICLOPYR, GLYPHOSATE, IMAZAPYR) WITHIN FIVE (5) MINUTES OF INITIAL CUT, WITH FOLLOW-UP TREATMENT REQUIRED FOR STUMP SPROUTS, ROOT SUCKERS, AND SEEDLING GERMINATION.
18. HERBICIDE RESTRICTIONS: HERBICIDES SHALL NOT BE USED TO TREAT INVASIVE VEGETATION DIRECTLY ADJACENT TO OR IN THE UNDERSTORY OF RETAINED OR PRESERVED VEGETATION. ONLY HAND-REMOVAL IS ALLOWED IN THESE AREAS.
19. HERBICIDE APPLICATION: HERBICIDE APPLICATION SHALL BE CONDUCTED IN ACCORDANCE WITH MANUFACTURER'S LABEL INSTRUCTIONS AND UNDER THE DIRECTION OF A STATE-CERTIFIED QUALIFIED PEST CONTROL APPLICATOR AND STATE-LICENSED PEST CONTROL ADVISOR. ONLY HERBICIDES APPROVED FOR AQUATIC USES SHALL BE USED IN STREAMBEDS, STANDING WATER, OR RIPARIAN AREAS.
20. PRUNING: PRUNING OF TREES SHALL BE PERFORMED ONLY BY A CERTIFIED ARBORIST. NO MORE THAN TWENTY-FIVE PERCENT (25%) OF A TREE'S CANOPY SHALL BE REMOVED IN ANY TWELVE (12) MONTH PERIOD UNLESS OTHERWISE APPROVED BY THE PROJECT ARBORIST. PRUNE TREES WITHIN BRIDGE INSTALLATION AREAS AND ALL OTHER OVERGROWN TREES WITHIN THE SITE AS DIRECTED BY THE CITY AND PROJECT ARBORIST.
21. DAMAGE REPORTING: ANY DAMAGE TO TREES OR ROOT SYSTEMS SHALL BE IMMEDIATELY REPORTED TO THE PROJECT ARBORIST. ROOTS GREATER THAN TWO (2) INCHES IN DIAMETER SHALL NOT BE CUT WITHOUT APPROVAL. DAMAGED AREAS SHALL BE CLEANLY CUT AND PROTECTED FROM DRYING OUT.
22. INSPECTION: TREE PROTECTION BARRIERS SHALL BE INSPECTED AND APPROVED BY THE PROJECT ARBORIST OR AUTHORITY HAVING JURISDICTION PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
23. MAINTENANCE: TREE PROTECTION BARRIERS SHALL BE MAINTAINED IN GOOD CONDITION FOR THE DURATION OF CONSTRUCTION. IF BARRIERS ARE DAMAGED OR REMOVED, THEY SHALL BE REPLACED IMMEDIATELY.
24. MONITORING: THE PROJECT ARBORIST SHALL BE RESPONSIBLE FOR PERIODIC MONITORING OF TREE HEALTH DURING CONSTRUCTION AND SHALL RECOMMEND ADDITIONAL MEASURES IF A DECLINE IN TREE CONDITION IS NOTED.
25. ENFORCEMENT: FAILURE TO INSTALL OR MAINTAIN TREE PROTECTION MEASURES AS SPECIFIED MAY RESULT IN WORK STOPPAGE AND/OR FINES AS DETERMINED BY THE AUTHORITY HAVING JURISDICTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE HEALTH AND PRESERVATION OF ALL TREES TO REMAIN ON SITE AND SHALL CONTACT THE PROJECT ARBORIST IF A DECLINE IN TREE CONDITION IS OBSERVED.

LEGEND



TREE, ID NUMBER "XX," PROTECT IN PLACE

TREE PROTECTION ZONE (TPZ), SEE NOTE 5

TREE, ID NUMBER "XX," REMOVE

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM, SH
DESIGNED BY	EH, EJM
CHECKED BY	JP

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: TREE DISPOSITION NOTES AND LEGEND

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: LD-02

52 OF 111

DWG. NO.

Date: July 6, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-TREE_DISPOSITION_PLAN.DWG

Tree Disposition Matrix

Tree ID No.	Botanical Name	Common Name	Health	Structural Integrity	Height (ft.)	Crown Width (ft.)	Stems	Individual Stem Diameter (in.)						Cumulative Stem Diameter (in.)	Notes	Latitude	Longitude	Protected Status	On City List	Native Species	Maturity	Public	Invasive	Disposition (Remove = X, Retain = R)
								D1	D2	D3	D4	D5	D6											
114	*Heteromeles arbutifolia*	Toyon	Fair	Fair	12	12	5	3	3	2	2	1	-	11	No tag, estimated data, homeless encampment.	34.14109834	-118.0849348	Public	Yes	Yes	Immature	Public	No	R
115	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	12	3	3	2	2	-	-	-	7	No tag, estimated data, homeless encampment.	34.14110123	-118.0849587	Public	No	No	Immature	Public	Yes	X
116	*Unknown Dead Tree*	Unknown Dead Tree	Dead	Dead	12	10	3	3	2	1	-	-	-	6		34.1411516	-118.0849542	Public	No	No	Immature	Public	Yes	X
117	*Washingtonia robusta*	Mexican Fan Palm	Fair	Fair	30	10	1	20	-	-	-	-	-	20	No tag, estimated data, homeless encampment.	34.140897	-118.0848566	Mature, Public	No	No	Mature	Public	Yes	R
118	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	15	8	1	5	-	-	-	-	-	5	No tag, estimated data, homeless encampment.	34.14091456	-118.0848477	Public	Yes	Yes	Immature	Public	No	R
119	*Heteromeles arbutifolia*	Toyon	Fair	Fair	10	7	4	1	1	1	1	-	-	4		34.1409199	-118.0848545	Public	Yes	Yes	Immature	Public	No	R
120	*Acacia dealbata*	Silver Wattle	Fair	Poor	15	12	12	3	2	2	2	1	1	17	Additional diameters: 1s. No tag, estimated data, homeless encampment.	34.14092284	-118.0848612	Public	No	No	Immature	Public	Yes	R
121	*Washingtonia robusta*	Mexican Fan Palm	Fair	Fair	40	12	1	17	-	-	-	-	-	17	No tag, estimated data, homeless encampment.	34.14093394	-118.0848838	Public	No	No	Immature	Public	Yes	R
122	*Washingtonia robusta*	Mexican Fan Palm	Fair	Fair	25	12	1	17	-	-	-	-	-	17	No tag, estimated data, homeless encampment.	34.14097207	-118.0848631	Public	No	No	Immature	Public	Yes	R
123	*Washingtonia robusta*	Mexican Fan Palm	Fair	Fair	40	15	1	20	-	-	-	-	-	20	No tag, estimated data, homeless encampment.	34.14096382	-118.0848967	Mature, Public	No	No	Mature	Public	Yes	R
124	*Washingtonia robusta*	Mexican Fan Palm	Fair	Fair	40	15	1	20	-	-	-	-	-	20	No tag, estimated data, homeless encampment.	34.14098797	-118.084886	Mature, Public	No	No	Mature	Public	Yes	R
125	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	12	9	3	3	1	1	-	-	-	5	No tag, estimated data, homeless encampment.	34.14097197	-118.0849029	Public	Yes	Yes	Immature	Public	No	R
126	*Washingtonia robusta*	Mexican Fan Palm	Fair	Fair	30	15	1	19	-	-	-	-	-	19	No tag, estimated data, homeless encampment.	34.14098816	-118.0849147	Mature, Public	No	No	Mature	Public	Yes	R
127	*Washingtonia robusta*	Mexican Fan Palm	Fair	Fair	35	15	1	23	-	-	-	-	-	23	No tag, estimated data, homeless encampment.	34.14100475	-118.0849366	Mature, Public	No	No	Mature	Public	Yes	R
128	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	12	10	3	3	3	3	-	-	-	9	No tag, estimated data, homeless encampment.	34.14100971	-118.084973	Native, Public	Yes	Yes	Immature	Public	No	R
129	*Washingtonia robusta*	Mexican Fan Palm	Fair	Fair	20	12	1	20	-	-	-	-	-	20	No tag, estimated data, homeless encampment.	34.14103935	-118.0849658	Mature, Public	No	No	Mature	Public	Yes	R
130	*Washingtonia robusta*	Mexican Fan Palm	Fair	Fair	35	15	1	20	-	-	-	-	-	20	No tag, estimated data, homeless encampment.	34.14104403	-118.0849891	Mature, Public	No	No	Mature	Public	Yes	R
131	*Washingtonia robusta*	Mexican Fan Palm	Fair	Fair	40	15	1	20	-	-	-	-	-	20	No tag, estimated data, homeless encampment.	34.14105623	-118.0850168	Mature, Public	No	No	Mature	Public	Yes	R
132	*Washingtonia robusta*	Mexican Fan Palm	Fair	Fair	40	15	1	22	-	-	-	-	-	22	No tag, estimated data, homeless encampment.	34.14108006	-118.0850252	Mature, Public	No	No	Mature	Public	Yes	R
133	*Washingtonia robusta*	Mexican Fan Palm	Fair	Fair	35	15	1	22	-	-	-	-	-	22	No tag, estimated data, homeless encampment.	34.14109513	-118.0850045	Mature, Public	No	No	Mature	Public	Yes	R

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8. SIGNAGE: WARNING SIGNS SHALL BE POSTED ON ALL SIDES OF THE TREE PROTECTION FENCE, READING "TREE PROTECTION AREA — KEEP OUT." SIGNS SHALL BE INSTALLED AT A MINIMUM OF EVERY FIFTY (50) FEET ALONG THE BARRIER OR AS REQUIRED BY THE PROJECT ARBORIST.
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12. RESTRICTED ACTIVITIES: NO EQUIPMENT, MATERIALS, DEBRIS, OR SOIL SHALL BE STORED OR COMPACTED WITHIN TREE PROTECTION AREAS. NO CLEANING OF EQUIPMENT OR DISPOSAL OF MATERIALS SHALL BE PERMITTED WITHIN THESE AREAS. DO NOT LEAN EQUIPMENT OR STORE MATERIALS AGAINST TREES.
13. CHEMICAL STORAGE: NO CHEMICALS, GASOLINE, OIL, OR OTHER SUBSTANCES THAT MAY BE HARMFUL TO TREES SHALL BE STORED, MIXED, OR DUMPED WITHIN ONE HUNDRED (100) FEET OF THE TREE PROTECTION AREA.
14. WORK WITHIN TPZs: WORK WITHIN TREE PROTECTION ZONES SHALL BE MINIMIZED TO THE EXTENT FEASIBLE. WHERE WORK IS NECESSARY, PROTECTIVE MEASURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE PROJECT ARBORIST'S RECOMMENDATIONS TO AVOID OR MINIMIZE DAMAGE TO ROOTS, TRUNKS, AND CANOPIES.
15. TREE REMOVAL: TREE REMOVAL SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL BRANCHES, LEAVES, LITTER, TRUNKS, STUMPS, AND ROOTS. ALL TREE STUMPS SHALL BE GROUND TO A MINIMUM DEPTH OF TWELVE (12) INCHES BELOW FINISH GRADE OR AS DIRECTED BY THE PROJECT ARBORIST. HOLES RESULTING FROM REMOVAL SHALL BE BACKFILLED WITH CLEAN TOPSOIL AND COMPACTED IN TWELVE (12) INCH LIFTS. ALL GRINDINGS SHALL BE REMOVED FROM THE AREA AND SURFACES LEFT LEVEL AND FREE OF DEBRIS.
16. INVASIVE VEGETATION CONTROL: INVASIVE VEGETATION CONTROL SHALL INCLUDE THE HERBICIDE TREATMENT AND/OR CUTTING TO GRADE AND COMPLETE REMOVAL OF ALL INVASIVE VEGETATION SPECIES IDENTIFIED ON THESE PLANS, AS INDICATED IN THE NOTES, OR IDENTIFIED IN THE FIELD BY THE PROJECT BIOLOGIST.

    i. INVASIVE VEGETATION LOCATED WITHIN THE EATON WASH SW PROJECT IMPACT AREAS SHALL BE REMOVED AND TREATED ON A ONE-TIME BASIS.

    ii. INVASIVE VEGETATION THROUGHOUT THE PROJECT LIMITS, BUT OUTSIDE THE EATON WASH SW PROJECT IMPACT AREAS SHALL BE INITIALLY REMOVED AND TREATED, WITH FOLLOW-UP TREATMENT OF RESPROUTS AND NEW SEEDLINGS CONDUCTED A MINIMUM OF MONTHLY THROUGH THE DURATION OF THE CONTRACT PERIOD.
17. INVASIVE SPECIES TREATMENT: SPECIES IDENTIFIED (NON-EXCLUSIVE) AND TREATMENT REQUIRED INCLUDES:

    i. WOODY SPECIES INCLUDING, BUT NOT LIMITED TO, TREE OF HEAVEN (AILANTHUS ALTISSIMA). INVASIVE VEGETATION SHALL BE CUT TO GRADE, AND ALL VEGETATIVE DEBRIS, INCLUDING ASSOCIATED LEAF LITTER SHALL BE REMOVED FROM THE SITE AND DISPOSED OF OFF SITE AT AN APPROVED GREEN WASTE FACILITY. TREES SHALL BE STUMP TREATED WITH AN APPROPRIATE HERBICIDE (I.E., TRICLOPYR, GLYPHOSATE, IMAZAPYR) WITHIN FIVE (5) MINUTES OF INITIAL CUT, WITH FOLLOW-UP TREATMENT REQUIRED FOR STUMP SPROUTS, ROOT SUCKERS, AND SEEDLING GERMINATION.
18. HERBICIDE RESTRICTIONS: HERBICIDES SHALL NOT BE USED TO TREAT INVASIVE VEGETATION DIRECTLY ADJACENT TO OR IN THE UNDERSTORY OF RETAINED OR PRESERVED VEGETATION. ONLY HAND-REMOVAL IS ALLOWED IN THESE AREAS.
19. HERBICIDE APPLICATION: HERBICIDE APPLICATION SHALL BE CONDUCTED IN ACCORDANCE WITH MANUFACTURER'S LABEL INSTRUCTIONS AND UNDER THE DIRECTION OF A STATE-CERTIFIED QUALIFIED PEST CONTROL APPLICATOR AND STATE-LICENSED PEST CONTROL ADVISOR. ONLY HERBICIDES APPROVED FOR AQUATIC USES SHALL BE USED IN STREAMBEDS, STANDING WATER, OR RIPARIAN AREAS.
20. PRUNING: PRUNING OF TREES SHALL BE PERFORMED ONLY BY A CERTIFIED ARBORIST. NO MORE THAN TWENTY-FIVE PERCENT (25%) OF A TREE'S CANOPY SHALL BE REMOVED IN ANY TWELVE (12) MONTH PERIOD UNLESS OTHERWISE APPROVED BY THE PROJECT ARBORIST. PRUNE TREES WITHIN BRIDGE INSTALLATION AREAS AND ALL OTHER OVERGROWN TREES WITHIN THE SITE AS DIRECTED BY THE CITY AND PROJECT ARBORIST.
21. DAMAGE REPORTING: ANY DAMAGE TO TREES OR ROOT SYSTEMS SHALL BE IMMEDIATELY REPORTED TO THE PROJECT ARBORIST. ROOTS GREATER THAN TWO (2) INCHES IN DIAMETER SHALL NOT BE CUT WITHOUT APPROVAL. DAMAGED AREAS SHALL BE CLEANLY CUT AND PROTECTED FROM DRYING OUT.
22. INSPECTION: TREE PROTECTION BARRIERS SHALL BE INSPECTED AND APPROVED BY THE PROJECT ARBORIST OR AUTHORITY HAVING JURISDICTION PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
23. MAINTENANCE: TREE PROTECTION BARRIERS SHALL BE MAINTAINED IN GOOD CONDITION FOR THE DURATION OF CONSTRUCTION. IF BARRIERS ARE DAMAGED OR REMOVED, THEY SHALL BE REPLACED IMMEDIATELY.
24. MONITORING: THE PROJECT ARBORIST SHALL BE RESPONSIBLE FOR PERIODIC MONITORING OF TREE HEALTH DURING CONSTRUCTION AND SHALL RECOMMEND ADDITIONAL MEASURES IF A DECLINE IN TREE CONDITION IS NOTED.
25. ENFORCEMENT: FAILURE TO INSTALL OR MAINTAIN TREE PROTECTION MEASURES AS SPECIFIED MAY RESULT IN WORK STOPPAGE AND/OR FINES AS DETERMINED BY THE AUTHORITY HAVING JURISDICTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE HEALTH AND PRESERVATION OF ALL TREES TO REMAIN ON SITE AND SHALL CONTACT THE PROJECT ARBORIST IF A DECLINE IN TREE CONDITION IS OBSERVED.

LEGEND



TREE, ID NUMBER "XX," PROTECT IN PLACE

TREE PROTECTION ZONE (TPZ), SEE NOTE 5

TREE, ID NUMBER "XX," REMOVE

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS	
EJM, SH	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	EATON WASH STORMWATER CAPTURE PROJECT	SHEET LD-03
DESIGNED BY							SHEET TITLE TREE DISPOSITION NOTES AND LEGEND	53 OF 111
EH, EJM							SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX
CHECKED BY								DWG. NO.
JP			AS BUILT					

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-TREE_DISPOSITION_PLAN.DWG

Tree Disposition Matrix

Tree ID No.	Botanical Name	Common Name	Health	Structural Integrity	Height (ft.)	Crown Width (ft.)	Stems	Individual Stem Diameter (in.)						Cumulative Stem Diameter (in.)	Notes	Latitude	Longitude	Protected Status	On City List	Native Species	Maturity	Public	Invasive	Disposition (Remove = X, Retain = R)
								D1	D2	D3	D4	D5	D6											
134	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	12	10	2	4	3	-	-	-	-	7	No tag, estimated data, homeless encampment.	34.14108464	-118.085026	Public	Yes	Yes	Immature	Public	No	R
135	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	12	10	1	5	-	-	-	-	-	5		34.1411146	-118.0850018	Public	Yes	Yes	Immature	Public	No	R
136	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	15	10	5	2	2	2	2	2	-	10		34.14121463	-118.0850675	Public	No	No	Immature	Public	Yes	X
137	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	20	20	8	5	5	5	5	4	4	32	Additional diameters: 2, 2	34.14125993	-118.085119	Native, Mature, Public	Yes	Yes	Mature	Public	No	X
138	*Quercus agrifolia*	Coast Live Oak	Poor	Fair	25	10	1	12	-	-	-	-	-	12		34.14124208	-118.0851654	Native, Public	Yes	Yes	Immature	Public	No	X
139	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	25	20	1	16	-	-	-	-	-	16		34.1412291	-118.0852003	Native, Public	Yes	Yes	Immature	Public	No	X
140	*Washingtonia robusta*	Mexican Fan Palm	Fair	Fair	40	15	1	20	-	-	-	-	-	20		34.14202496	-118.0859758	Mature, Public	No	No	Mature	Public	Yes	R
141	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	20	20	1	18	-	-	-	-	-	18		34.1415042	-118.0853455	Native, Public	Yes	Yes	Immature	Public	No	R
142	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	25	15	1	15	-	-	-	-	-	15		34.1414627	-118.0853252	Native, Public	Yes	Yes	Immature	Public	No	R
143	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	8	1	5	-	-	-	-	-	5		34.14142647	-118.0853193	Public	No	No	Immature	Public	Yes	R
144	*Ailanthus altissima*	Tree of Heaven	Fair	Poor	20	15	4	5	4	3	3	-	-	15		34.14142837	-118.0852743	Public	No	No	Immature	Public	Yes	R
145	*Ailanthus altissima*	Tree of Heaven	Fair	Poor	20	15	5	5	4	4	4	2	-	19		34.14138302	-118.0852084	Mature, Public	No	No	Mature	Public	Yes	X
146	*Ailanthus altissima*	Tree of Heaven	Fair	Poor	20	15	5	6	4	4	3	3	-	20		34.14136473	-118.0851788	Mature, Public	No	No	Mature	Public	Yes	X
147	*Ailanthus altissima*	Tree of Heaven	Fair	Poor	20	15	6	5	4	4	4	3	3	23		34.1413543	-118.0851747	Mature, Public	No	No	Mature	Public	Yes	X
148	*Ailanthus altissima*	Tree of Heaven	Fair	Poor	20	12	3	4	4	4	-	-	-	12		34.14133157	-118.0851512	Public	No	No	Immature	Public	Yes	X
149	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	12	10	2	3	2	-	-	-	-	5		34.14131249	-118.085106	Public	No	No	Immature	Public	Yes	X
150	*Unknown Dead Tree*	Unknown Dead Tree	Dead	Dead	30	0	1	18	-	-	-	-	-	18		34.14015119	-118.0839582	Public	No	No	Immature	Public	Yes	X
151	*Prunus ilicifolia*	Holly Leaf Cherry	Fair	Fair	8	10	7	2	2	1	1	1	1	9	Additional diameter: 1	34.14011923	-118.083938	Public	No	Yes	Immature	Public	No	R
152	*Quercus agrifolia*	Coast Live Oak	Poor	Poor	25	20	1	20	-	-	-	-	-	20		34.14012692	-118.0840127	Native, Mature, Public	Yes	Yes	Mature	Public	No	R
153	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	25	20	1	16	-	-	-	-	-	16		34.1400375	-118.0841046	Native, Public	Yes	Yes	Immature	Public	No	R
154	*Unknown Dead Tree*	Unknown Dead Tree	Dead	Dead	30	0	1	23	-	-	-	-	-	23		34.14008837	-118.0839371	Mature, Public	No	No	Mature	Public	Yes	X
155	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	10	10	5	3	3	2	2	2	-	12		34.14007085	-118.0839365	Native, Public	Yes	Yes	Immature	Public	No	R
156	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	10	10	2	4	2	-	-	-	-	6		34.1400498	-118.0839637	Public	Yes	Yes	Immature	Public	No	R
157	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	10	8	2	2	2	-	-	-	-	4		34.14004194	-118.0839528	Public	Yes	Yes	Immature	Public	No	R
158	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	12	2	4	3	-	-	-	-	7		34.1400303	-118.0840044	Public	No	No	Immature	Public	Yes	X
159	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	25	20	1	14	-	-	-	-	-	14		34.1400255	-118.084046	Native, Public	Yes	Yes	Immature	Public	No	R
160	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	10	10	4	3	2	1	1	-	-	7		34.14001578	-118.0840404	Public	Yes	Yes	Immature	Public	No	R
161	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	12	6	2	2	2	-	-	-	-	4		34.13997664	-118.0840363	Public	Yes	Yes	Immature	Public	No	R
162	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	10	6	3	2	1	1	-	-	-	4		34.13998839	-118.0840725	Public	Yes	Yes	Immature	Public	No	R
163	*Cupaniopsis anacardioides*	Carrotwood	Fair	Poor	15	15	5	6	3	3	2	2	-	16		34.13994902	-118.0840675	Public	No	No	Immature	Public	Yes	R
164	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	15	12	2	6	5	-	-	-	-	11		34.13994464	-118.0840449	Native, Public	Yes	Yes	Immature	Public	No	R
165	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	20	15	7	7	7	6	5	5	5	38	Additional diameter: 3	34.13965861	-118.0839	Native, Mature, Public	Yes	Yes	Mature	Public	No	R
166	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	15	12	1	7	-	-	-	-	-	7		34.13955794	-118.0838275	Public	Yes	Yes	Immature	Public	No	R
167	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	10	8	2	5	5	-	-	-	-	10		34.13955998	-118.0837943	Native, Public	Yes	Yes	Immature	Public	No	R
168	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	15	8	1	4	-	-	-	-	-	4		34.13958775	-118.0836592	Public	Yes	Yes	Immature	Public	No	R
169	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	12	8	2	4	3	-	-	-	-	7		34.13959315	-118.0836591	Public	Yes	Yes	Immature	Public	No	R
170	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	18	14	1	8	-	-	-	-	-	8		34.13958718	-118.0836293	Native, Public	Yes	Yes	Immature	Public	No	R
171	*Lagerstroemia indica*	Crape Myrtle	Fair	Good	10	5	1	3	-	-	-	-	-	3	No tag, planted in ground in nursery.	34.13976174	-118.0835728	Public	Yes	No	Immature	Public	Yes	X
172	*Ficus benjamina*	Weeping Fig	Fair	Poor	7	6	3	1	1	1	-	-	-	3	No tag, planted in ground in nursery.	34.13980002	-118.0835438	Public	No	No	Immature	Public	Yes	X
173	*Platanus racemosa*	California Sycamore	Fair	Poor	25	20	9	6	5	4	4	3	3	32	Additional diameters: 3, 2, 2. No tag, private property.	34.13956295	-118.0835784	Mature, Public	Yes	Yes	Mature	Public	No	R
174	*Citrus limon*	Lemon	Fair	Poor	15	15	5	5	5	4	3	2	-	19	No tag, in yard.	34.13956314	-118.0835058	Mature, Public	No	No	Mature	Public	Yes	R
175	*Platanus racemosa*	California Sycamore	Fair	Fair	35	20	1	15	-	-	-	-	-	15	No tag, in yard.	34.13956322	-118.0834127	Public	Yes	Yes	Immature	Public	No	R
176	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	30	30	2	30	18	-	-	-	-	48	No tag, in yard, estimated data.	34.13957695	-118.0832212	Native, Mature, Public	Yes	Yes	Mature	Public	No	R
177	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	30	25	1	26	-	-	-	-	-	26	No tag, in yard, estimated data.	34.13959833	-118.0831068	Native, Mature, Public	Yes	Yes	Mature	Public	No	R
178	*Phoenix canariensis*	Canary Island Date Palm	Fair	Fair	12	8	1	8	-	-	-	-	-	8	No tag, in yard, estimated data.	34.1396742	-118.0831074	Public	Yes	No	Immature	Public	Yes	R
179	*Pittosporum undulatum*	Victorian Box	Fair	Fair	8	6	2	3	2	-	-	-	-	5	No tag, in yard, estimated data.	34.13971021	-118.0831079	Public	Yes	No	Immature	Public	Yes	R
180	*Trachycarpus fortunei*	Windmill Palm	Fair	Fair	12	8	3	8	7	6	-	-	-	21	No tag, in yard, estimated data.	34.13973157	-118.0831095	Mature, Public	No	No	Mature	Public	Yes	R
181	*Schinus terebinthifolius*	Brazilian Pepper	Poor	Fair	12	10	1	16	-	-	-	-	-	16	No tag, in yard, estimated data.	34.13975069	-118.0831136	Public	No	No	Immature	Public	Yes	R
182	*Cupaniopsis anacardioides*	Carrotwood	Fair	Fair	15	12	1	12	-	-	-	-	-	12	No tag, in yard, estimated data.	34.13990467	-118.0831407	Public	No	No	Immature	Public	Yes	R
183	*Citrus limon*	Lemon	Fair	Fair	12	8	3	3	3	2	-	-	-	8	No tag, in yard, estimated data.	34.13995394	-118.0831633	Public	No	No	Immature	Public	Yes	R
184	*Cupaniopsis anacardioides*	Carrotwood	Fair	Fair	15	8	1	6	-	-	-	-	-	6	No tag, in yard, estimated data.	34.13993513	-118.0832016	Public	No	No	Immature	Public	Yes	R
185	*Citrus limon*	Lemon	Fair	Fair	15	10	1	8	-	-	-	-	-	8	No tag, in yard, estimated data.	34.13995607	-118.0832059	Public	No	No	Immature	Public	Yes	R
186	*Annona cherimola*	Cherimoya	Fair	Fair	15	10	2	4	3	-	-	-	-	7	No tag, in yard, estimated data.	34.13996887	-118.0832059	Public	No	No	Immature	Public	Yes	R

TREE DISPOSITION NOTES

1. CITY APPROVAL: ALL PUBLIC TREE REMOVALS MUST BE APPROVED BY THE CITY OF PASADENA URBAN FORESTRY ADVISORY COUNCIL BEFORE ANY WORK WITHIN THEIR TREE PROTECTION ZONES IS CONDUCTED.
2. ARBORIST DIRECTION: THE PROJECT ARBORIST'S RECOMMENDATIONS AND FIELD DIRECTION SHALL GOVERN TREE PROTECTION, REMOVAL, AND PRESERVATION REQUIREMENTS. IN THE EVENT OF CONFLICT BETWEEN THESE NOTES AND ARBORIST DIRECTION, THE ARBORIST SHALL PREVAIL.
3. TREE VERIFICATION: CONTRACTOR SHALL CONTACT THE PROJECT ARBORIST TO FIELD VERIFY ALL TREES TO BE RELOCATED OR REMOVED PRIOR TO ANY ACTION. LOCATIONS WERE OBTAINED VIA GPS AND MAY NOT MATCH FIELD CONDITIONS. CONTRACTOR SHALL VERIFY LOCATIONS IN THE FIELD PRIOR TO COMMENCING WORK.
4. URGENT CARE TREE VERIFICATION: TREE LOCATIONS SHOWN WITHIN THE URGENT CARE AREA ARE BASED ON THE TOPOGRAPHIC SURVEY, NOT THE ARBORIST'S SURVEY. LOCATIONS MAY NOT MATCH ACTUAL FIELD CONDITIONS. CONTRACTOR SHALL VERIFY TREE LOCATIONS IN THE FIELD PRIOR TO COMMENCING WORK.
5. TREE PROTECTION ZONE (TPZ): TREE PROTECTION ZONE LIMITS SHALL BE ESTABLISHED IN ACCORDANCE WITH CITY STANDARD S-642, DEFINED AS THE TREE DRIPLINE PLUS FOUR (4) RADIAL FEET. SEE DETAIL 1 ON SHEET LP-06.
6. UNSURVEYED TREE TPZ: FOR TREES NOT INCLUDED IN THE ARBORIST'S SURVEY, THE TREE PROTECTION ZONE IS DETERMINED BASED ON A RATIO OF ONE INCH (1") TRUNK DIAMETER = ONE FOOT (1') RADIAL TREE PROTECTION ZONE. CONTRACTOR SHALL ESTABLISH TREE PROTECTION ZONE LIMITS IN ACCORDANCE WITH CITY STANDARD S-642, DEFINED AS THE TREE DRIPLINE PLUS 4 RADIAL FEET. SEE DETAIL 1 ON SHEET LP-06.
7. TREE PROTECTION BARRIER: A PROTECTION BARRIER SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, DEMOLITION, OR GRADING WORK. THE BARRIER SHALL BE ERECTED AT THE OUTER EDGE OF THE TREE'S DRIPLINE OR AT A MINIMUM DISTANCE OF TEN (10) FEET FROM THE TRUNK, WHICHEVER IS GREATER, UNLESS OTHERWISE APPROVED BY THE PROJECT ARBORIST OR AUTHORITY HAVING JURISDICTION.
8. SIGNAGE: WARNING SIGNS SHALL BE POSTED ON ALL SIDES OF THE TREE PROTECTION FENCE, READING "TREE PROTECTION AREA — KEEP OUT." SIGNS SHALL BE INSTALLED AT A MINIMUM OF EVERY FIFTY (50) FEET ALONG THE BARRIER OR AS REQUIRED BY THE PROJECT ARBORIST.
9. FENCING: THE TREE PROTECTION FENCE SHALL BE A MINIMUM OF FOUR (4) FEET HIGH AND CONSTRUCTED OF ORANGE PLASTIC SNOW FENCING OR CHAIN-LINK FENCE SECURED TO METAL POSTS DRIVEN INTO THE GROUND. POSTS SHALL BE SPACED NO MORE THAN TEN (10) FEET APART.
10. ROOT PROTECTION: WHERE ROOTS CANNOT BE PROTECTED BY FENCING, THEY SHALL BE COVERED WITH A SIX-INCH (6") LAYER OF MULCH OR WOOD CHIPS AND A THREE-QUARTER-INCH (¾") PLYWOOD DRIVING SURFACE TO PREVENT SOIL COMPACTION.
11. PROTECT EXISTING TREES: CONTRACTOR SHALL PROTECT IN PLACE ALL EXISTING TREES AROUND THE CONSTRUCTION PERIMETER UNLESS OTHERWISE SPECIFIED. PROTECTION SHALL INCLUDE THE ROOT BALLS AND CANOPIES OF TREES ADJACENT TO CONSTRUCTION AREAS.
12. RESTRICTED ACTIVITIES: NO EQUIPMENT, MATERIALS, DEBRIS, OR SOIL SHALL BE STORED OR COMPACTED WITHIN TREE PROTECTION AREAS. NO CLEANING OF EQUIPMENT OR DISPOSAL OF MATERIALS SHALL BE PERMITTED WITHIN THESE AREAS. DO NOT LEAN EQUIPMENT OR STORE MATERIALS AGAINST TREES.
13. CHEMICAL STORAGE: NO CHEMICALS, GASOLINE, OIL, OR OTHER SUBSTANCES THAT MAY BE HARMFUL TO TREES SHALL BE STORED, MIXED, OR DUMPED WITHIN ONE HUNDRED (100) FEET OF THE TREE PROTECTION AREA.
14. WORK WITHIN TPZs: WORK WITHIN TREE PROTECTION ZONES SHALL BE MINIMIZED TO THE EXTENT FEASIBLE. WHERE WORK IS NECESSARY, PROTECTIVE MEASURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE PROJECT ARBORIST'S RECOMMENDATIONS TO AVOID OR MINIMIZE DAMAGE TO ROOTS, TRUNKS, AND CANOPIES.
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16. INVASIVE VEGETATION CONTROL: INVASIVE VEGETATION CONTROL SHALL INCLUDE THE HERBICIDE TREATMENT AND/OR CUTTING TO GRADE AND COMPLETE REMOVAL OF ALL INVASIVE VEGETATION SPECIES IDENTIFIED ON THESE PLANS, AS INDICATED IN THE NOTES, OR IDENTIFIED IN THE FIELD BY THE PROJECT BIOLOGIST.

    i. INVASIVE VEGETATION LOCATED WITHIN THE EATON WASH SW PROJECT IMPACT AREAS SHALL BE REMOVED AND TREATED ON A ONE-TIME BASIS.

    ii. INVASIVE VEGETATION THROUGHOUT THE PROJECT LIMITS, BUT OUTSIDE THE EATON WASH SW PROJECT IMPACT AREAS SHALL BE INITIALLY REMOVED AND TREATED, WITH FOLLOW-UP TREATMENT OF RESPROUTS AND NEW SEEDLINGS CONDUCTED A MINIMUM OF MONTHLY THROUGH THE DURATION OF THE CONTRACT PERIOD.
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    i. WOODY SPECIES INCLUDING, BUT NOT LIMITED TO, TREE OF HEAVEN (AILANTHUS ALTISSIMA). INVASIVE VEGETATION SHALL BE CUT TO GRADE, AND ALL VEGETATIVE DEBRIS, INCLUDING ASSOCIATED LEAF LITTER SHALL BE REMOVED FROM THE SITE AND DISPOSED OF OFF SITE AT AN APPROVED GREEN WASTE FACILITY. TREES SHALL BE STUMP TREATED WITH AN APPROPRIATE HERBICIDE (I.E., TRICLOPYR, GLYPHOSATE, IMAZAPYR) WITHIN FIVE (5) MINUTES OF INITIAL CUT, WITH FOLLOW-UP TREATMENT REQUIRED FOR STUMP SPROUTS, ROOT SUCKERS, AND SEEDLING GERMINATION.
18. HERBICIDE RESTRICTIONS: HERBICIDES SHALL NOT BE USED TO TREAT INVASIVE VEGETATION DIRECTLY ADJACENT TO OR IN THE UNDERSTORY OF RETAINED OR PRESERVED VEGETATION. ONLY HAND-REMOVAL IS ALLOWED IN THESE AREAS.
19. HERBICIDE APPLICATION: HERBICIDE APPLICATION SHALL BE CONDUCTED IN ACCORDANCE WITH MANUFACTURER'S LABEL INSTRUCTIONS AND UNDER THE DIRECTION OF A STATE-CERTIFIED QUALIFIED PEST CONTROL APPLICATOR AND STATE-LICENSED PEST CONTROL ADVISOR. ONLY HERBICIDES APPROVED FOR AQUATIC USES SHALL BE USED IN STREAMBEDS, STANDING WATER, OR RIPARIAN AREAS.
20. PRUNING: PRUNING OF TREES SHALL BE PERFORMED ONLY BY A CERTIFIED ARBORIST. NO MORE THAN TWENTY-FIVE PERCENT (25%) OF A TREE'S CANOPY SHALL BE REMOVED IN ANY TWELVE (12) MONTH PERIOD UNLESS OTHERWISE APPROVED BY THE PROJECT ARBORIST. PRUNE TREES WITHIN BRIDGE INSTALLATION AREAS AND ALL OTHER OVERGROWN TREES WITHIN THE SITE AS DIRECTED BY THE CITY AND PROJECT ARBORIST.
21. DAMAGE REPORTING: ANY DAMAGE TO TREES OR ROOT SYSTEMS SHALL BE IMMEDIATELY REPORTED TO THE PROJECT ARBORIST. ROOTS GREATER THAN TWO (2) INCHES IN DIAMETER SHALL NOT BE CUT WITHOUT APPROVAL. DAMAGED AREAS SHALL BE CLEANLY CUT AND PROTECTED FROM DRYING OUT.
22. INSPECTION: TREE PROTECTION BARRIERS SHALL BE INSPECTED AND APPROVED BY THE PROJECT ARBORIST OR AUTHORITY HAVING JURISDICTION PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
23. MAINTENANCE: TREE PROTECTION BARRIERS SHALL BE MAINTAINED IN GOOD CONDITION FOR THE DURATION OF CONSTRUCTION. IF BARRIERS ARE DAMAGED OR REMOVED, THEY SHALL BE REPLACED IMMEDIATELY.
24. MONITORING: THE PROJECT ARBORIST SHALL BE RESPONSIBLE FOR PERIODIC MONITORING OF TREE HEALTH DURING CONSTRUCTION AND SHALL RECOMMEND ADDITIONAL MEASURES IF A DECLINE IN TREE CONDITION IS NOTED.
25. ENFORCEMENT: FAILURE TO INSTALL OR MAINTAIN TREE PROTECTION MEASURES AS SPECIFIED MAY RESULT IN WORK STOPPAGE AND/OR FINES AS DETERMINED BY THE AUTHORITY HAVING JURISDICTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE HEALTH AND PRESERVATION OF ALL TREES TO REMAIN ON SITE AND SHALL CONTACT THE PROJECT ARBORIST IF A DECLINE IN TREE CONDITION IS OBSERVED.

LEGEND



TREE, ID NUMBER "XX," PROTECT IN PLACE



TREE PROTECTION ZONE (TPZ), SEE NOTE 5

TREE, ID NUMBER "XX," REMOVE

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
EJM, SH	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
DESIGNED BY						
EH, EJM						
CHECKED BY						
JP			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: TREE DISPOSITION NOTES AND LEGEND

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET LD-04

54 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-TREE_DISPOSITION_PLAN.DWG

Tree Disposition Matrix

Tree ID No.	Botanical Name	Common Name	Health	Structural Integrity	Height (ft.)	Crown Width (ft.)	Stems	Individual Stem Diameter (in.)						Cumulative Stem Diameter (in.)	Notes	Latitude	Longitude	Protected Status	On City List	Native Species	Maturity	Public	Invasive	Disposition (Remove = X, Retain = R)
								D1	D2	D3	D4	D5	D6											
187	*Psidium guajava*	Guava	Fair	Fair	12	10	5	3	2	2	1	1	-	9	No tag, in yard, estimated data.	34.13998515	-118.0832048	Public	No	No	Immature	Public	Yes	R
188	*Psidium guajava*	Guava	Fair	Fair	15	12	2	6	5	-	-	-	-	11	No tag, in yard, estimated data.	34.14004855	-118.0831398	Public	No	No	Immature	Public	Yes	R
189	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	25	25	1	28	-	-	-	-	-	28	No tag, in yard, estimated data.	34.14017529	-118.0832148	Native, Mature, Public	Yes	Yes	Mature	Public	No	R
190	*Citrus limon*	Lemon	Fair	Fair	10	8	3	3	2	2	-	-	-	7	No tag, in yard, estimated data.	34.14004997	-118.0832917	Public	No	No	Immature	Public	Yes	R
191	*Lagerstroemia indica*	Crape Myrtle	Fair	Fair	10	8	5	3	2	1	1	1	-	8	No tag, in yard, estimated data.	34.14028551	-118.083213	Public	Yes	No	Immature	Public	Yes	R
192	*Eucalyptus polyanthemos*	Silver Dollar Gum	Fair	Fair	35	20	1	26	-	-	-	-	-	26	No tag, in yard, estimated data.	34.14070845	-118.0830745	Mature, Public	No	No	Mature	Public	Yes	R
193	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	18	8	1	5	-	-	-	-	-	5		34.1410527	-118.0833976	Public	No	No	Immature	Public	Yes	R
194	*Cinnamomum camphora*	Camphor Tree	Poor	Fair	12	8	1	5	-	-	-	-	-	5	No tag, street tree.	34.14211564	-118.0860006	Public	Yes	No	Immature	Public	Yes	R
195	*Parkinsonia florida*	Blue Palo Verde	Fair	Fair	15	10	1	8	-	-	-	-	-	8	No tag, in yard.	34.14153579	-118.0850915	Public	No	No	Immature	Public	Yes	R
196	*Parkinsonia florida*	Blue Palo Verde	Fair	Fair	15	10	1	4	-	-	-	-	-	4	No tag, in yard.	34.14145597	-118.0850907	Public	No	No	Immature	Public	Yes	R
197	*Parkinsonia florida*	Blue Palo Verde	Good	Fair	12	8	3	2	1	1	-	-	-	4	No tag, in yard.	34.14141841	-118.0851315	Public	No	No	Immature	Public	Yes	R
198	*Parkinsonia florida*	Blue Palo Verde	Fair	Fair	15	12	3	5	4	3	-	-	-	12	No tag, in yard.	34.14141993	-118.0852379	Public	No	No	Immature	Public	Yes	R
199	*Parkinsonia florida*	Blue Palo Verde	Fair	Fair	20	15	3	6	6	5	-	-	-	17	No tag, in yard.	34.14147239	-118.0853007	Public	No	No	Immature	Public	Yes	R
200	*Quercus ilex*	Holly Oak	Fair	Fair	35	25	1	28	-	-	-	-	-	28	No tag, in park.	34.14201413	-118.0863587	Native, Mature, Public	No	No	Mature	Public	Yes	R
201	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	25	15	2	2	2	-	-	-	-	4		34.14197757	-118.086293	Public	No	No	Immature	Public	Yes	R
202	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	25	8	1	5	-	-	-	-	-	5		34.14195941	-118.0862733	Public	No	No	Immature	Public	Yes	R
203	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	30	12	10	4	4	4	4	3	2	28	Additional diameters: 2, 2, 2, 1	34.14194568	-118.086284	Mature, Public	No	No	Mature	Public	Yes	R
204	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	25	12	6	4	3	3	3	2	2	17		34.14195207	-118.0862787	Public	No	No	Immature	Public	Yes	R
205	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	25	10	3	4	2	1	-	-	-	7		34.14191978	-118.086275	Public	No	No	Immature	Public	Yes	R
206	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	15	8	4	3	3	2	2	1	17	Additional diameters: 1, 1	34.14192325	-118.0862579	Public	No	No	Immature	Public	Yes	R
207	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	12	12	4	4	3	3	3	2	27	Additional diameters: 2, 2, 1, 1, 1, 1	34.14191637	-118.0862466	Mature, Public	No	No	Mature	Public	Yes	R
208	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	12	4	4	3	3	1	-	-	11		34.14187046	-118.0862087	Public	No	No	Immature	Public	Yes	R
209	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	8	1	4	-	-	-	-	-	4		34.14186218	-118.0862135	Public	No	No	Immature	Public	Yes	R
210	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	12	4	4	3	3	2	-	-	12		34.14185249	-118.0862043	Public	No	No	Immature	Public	Yes	R
211	*Ailanthus altissima*	Tree of Heaven	Fair	Fair	20	12	4	4	2	2	2	-	-	10		34.14185099	-118.0862055	Public	No	No	Immature	Public	Yes	R
212	*Quercus ilex*	Holly Oak	Fair	Fair	12	8	4	2	2	1	1	-	-	6		34.14183364	-118.0861787	Public	No	No	Immature	Public	Yes	R
213	*Quercus agrifolia*	Coast Live Oak	Poor	Fair	14	8	3	3	2	2	-	-	-	7		34.14184157	-118.0861397	Public	Yes	Yes	Immature	Public	No	R
214	*Quercus ilex*	Holly Oak	Fair	Fair	15	8	2	2	2	-	-	-	-	4		34.14183742	-118.0861603	Public	No	No	Immature	Public	Yes	R
215	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	15	10	5	5	4	3	2	2	-	16		34.14183367	-118.0861662	Native, Public	Yes	Yes	Immature	Public	No	R
216	*Quercus ilex*	Holly Oak	Fair	Fair	12	7	3	2	1	1	-	-	-	4		34.14177435	-118.0861371	Public	No	No	Immature	Public	Yes	R
217	*Quercus ilex*	Holly Oak	Fair	Fair	20	12	3	7	2	1	-	-	-	10		34.14172173	-118.0860419	Native, Public	No	No	Immature	Public	Yes	R
218	*Eucalyptus polyanthemos*	Silver Dollar Gum	Poor	Poor	20	25	1	18	-	-	-	-	-	18		34.14166721	-118.085975	Public	No	No	Immature	Public	Yes	R
219	*Quercus ilex*	Holly Oak	Fair	Fair	30	15	1	16	-	-	-	-	-	16		34.14152758	-118.0857495	Native, Public	No	No	Immature	Public	Yes	R
220	*Quercus ilex*	Holly Oak	Fair	Fair	30	15	1	12	-	-	-	-	-	12		34.14148752	-118.0857558	Native, Public	No	No	Immature	Public	Yes	R
221	*Fraxinus uhdei*	Evergreen Ash	Fair	Poor	40	25	4	26	16	15	4	-	-	61		34.14118497	-118.0855528	Mature, Public	No	No	Mature	Public	Yes	R
222	*Fraxinus uhdei*	Evergreen Ash	Fair	Fair	40	30	1	32	-	-	-	-	-	32		34.14110914	-118.0854655	Mature, Public	No	No	Mature	Public	Yes	R
223	*Quercus ilex*	Holly Oak	Fair	Fair	18	12	1	6	-	-	-	-	-	6		34.14112487	-118.0854671	Public	No	No	Immature	Public	Yes	R
224	*Pinus canariensis*	Canary Island Pine	Fair	Poor	50	20	1	21	-	-	-	-	-	21		34.14123453	-118.0854556	Mature, Public	Yes	No	Mature	Public	Yes	R
225	*Quercus ilex*	Holly Oak	Fair	Fair	15	10	1	7	-	-	-	-	-	7		34.14114704	-118.0854318	Public	No	No	Immature	Public	Yes	R
226	*Quercus ilex*	Holly Oak	Fair	Poor	12	10	1	7	-	-	-	-	-	7		34.14114259	-118.0854221	Public	No	No	Immature	Public	Yes	R
227	*Pinus canariensis*	Canary Island Pine	Fair	Poor	15	15	1	10	-	-	-	-	-	10		34.1411385	-118.0854399	Public	Yes	No	Immature	Public	Yes	R
228	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Poor	20	20	6	15	6	6	6	6	6	45		34.14110346	-118.0854439	Mature, Public	No	No	Mature	Public	Yes	R
229	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Poor	20	8	3	6	4	2	-	-	-	12		34.14105721	-118.0854344	Public	No	No	Immature	Public	Yes	R
230	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Poor	15	8	1	4	-	-	-	-	-	4		34.14105983	-118.0854408	Public	No	No	Immature	Public	Yes	R
231	*Phoenix canariensis*	Canary Island Date Palm	Fair	Fair	12	12	1	24	-	-	-	-	-	24		34.14103938	-118.0853966	Mature, Public	Yes	No	Mature	Public	Yes	X
232	*Phoenix canariensis*	Canary Island Date Palm	Fair	Fair	10	8	1	14	-	-	-	-	-	14		34.14104393	-118.0853895	Public	Yes	No	Immature	Public	Yes	X
233	*Quercus agrifolia*	Coast Live Oak	Poor	Fair	30	20	1	18	-	-	-	-	-	18		34.14101006	-118.0853716	Native, Public	Yes	Yes	Immature	Public	No	X
234	*Cupaniopsis anacardioides*	Carrotwood	Poor	Poor	15	10	2	4	3	-	-	-	-	7		34.1409903	-118.0853821	Public	No	No	Immature	Public	Yes	X
235	*Phoenix canariensis*	Canary Island Date Palm	Fair	Fair	30	18	1	24	-	-	-	-	-	24		34.14099381	-118.0853469	Mature, Public	Yes	No	Mature	Public	Yes	X
236	*Quercus ilex*	Holly Oak	Poor	Poor	15	12	1	9	-	-	-	-	-	9		34.14097134	-118.0853636	Native, Public	No	No	Immature	Public	Yes	X
237	*Quercus agrifolia*	Coast Live Oak	Poor	Fair	20	12	1	5	-	-	-	-	-	5		34.14103213	-118.0853502	Public	Yes	Yes	Immature	Public	No	X
238	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	25	15	1	7	-	-	-	-	-	7		34.14103009	-118.0853422	Public	Yes	Yes	Immature	Public	No	X
239	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	10	8	2	3	3	-	-	-	-	6		34.14104447	-118.0853231	Public	Yes	Yes	Immature	Public	No	X
240	*Fraxinus uhdei*	Evergreen Ash	Fair	Fair	30	15	1	7	-	-	-	-	-	7		34.14108527	-118.0853538	Public	No	No	Immature	Public	Yes	R
241	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	25	15	1	10	-	-	-	-	-	10		34.14111374	-118.0853561	Native, Public	Yes	Yes	Immature	Public	No	R
242	*Pinus canariensis*	Canary Island Pine	Fair	Fair	45	30	1	23	-	-	-	-	-	23		34.14099483	-118.0852699	Mature, Public	Yes	No	Mature	Public	Yes	X
243	*Quercus agrifolia*	Coast Live Oak	Poor	Fair	20	12	1	6	-	-	-	-	-	6		34.14102189	-118.0852895	Public	Yes	Yes	Immature	Public	No	X
244	*Quercus agrifolia*	Coast Live Oak	Poor	Fair	20	10	1	5	-	-	-	-	-	5		34.1409857	-118.0853138	Public	Yes	Yes	Immature	Public	No	X
245	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	20	15	1	10	-	-	-	-	-	10		34.14095388	-118.0852324	Native, Public	Yes	Yes	Immature	Public	No	R
246	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	15	10	1	6	-	-	-	-	-	6		34.14096671	-118.085284	Public	Yes	Yes	Immature	Public	No	R
247	*Quercus ilex*	Holly Oak	Fair	Poor	25	20	4	13	9	5	3	-	-	30		34.14093451	-118.0853232	Native, Mature, Public	No	No	Mature	Public	Yes	R
248	*Cupressus sempervirens*	Italian Cypress	Fair	Fair	35	12	1	18	-	-	-	-	-	18		34.14092879	-118.0852777	Public	No	No	Immature	Public	Yes	R
249	*Quercus ilex*	Holly Oak	Fair	Poor	20	12	3	3	3	3	-	-	-	9		34.14092443	-118.0852015	Native, Public	No	No	Immature	Public	Yes	R

TREE DISPOSITION NOTES

1. CITY APPROVAL: ALL PUBLIC TREE REMOVALS MUST BE APPROVED BY THE CITY OF PASADENA URBAN FORESTRY ADVISORY COUNCIL BEFORE ANY WORK WITHIN THEIR TREE PROTECTION ZONES IS CONDUCTED.
2. ARBORIST DIRECTION: THE PROJECT ARBORIST'S RECOMMENDATIONS AND FIELD DIRECTION SHALL GOVERN TREE PROTECTION, REMOVAL, AND PRESERVATION REQUIREMENTS. IN THE EVENT OF CONFLICT BETWEEN THESE NOTES AND ARBORIST DIRECTION, THE ARBORIST SHALL PREVAIL.
3. TREE VERIFICATION: CONTRACTOR SHALL CONTACT THE PROJECT ARBORIST TO FIELD VERIFY ALL TREES TO BE RELOCATED OR REMOVED PRIOR TO ANY ACTION. LOCATIONS WERE OBTAINED VIA GPS AND MAY NOT MATCH FIELD CONDITIONS. CONTRACTOR SHALL VERIFY LOCATIONS IN THE FIELD PRIOR TO COMMENCING WORK.
4. URGENT CARE TREE VERIFICATION: TREE LOCATIONS SHOWN WITHIN THE URGENT CARE AREA ARE BASED ON THE TOPOGRAPHIC SURVEY, NOT THE ARBORIST'S SURVEY. LOCATIONS MAY NOT MATCH ACTUAL FIELD CONDITIONS. CONTRACTOR SHALL VERIFY TREE LOCATIONS IN THE FIELD PRIOR TO COMMENCING WORK.
5. TREE PROTECTION ZONE (TPZ): TREE PROTECTION ZONE LIMITS SHALL BE ESTABLISHED IN ACCORDANCE WITH CITY STANDARD S-642, DEFINED AS THE TREE DRIPLINE PLUS FOUR (4) RADIAL FEET. SEE DETAIL 1 ON SHEET LP-06.
6. UNSURVEYED TREE TPZ: FOR TREES NOT INCLUDED IN THE ARBORIST'S SURVEY, THE TREE PROTECTION ZONE IS DETERMINED BASED ON A RATIO OF ONE INCH (1") TRUNK DIAMETER = ONE FOOT (1') RADIAL TREE PROTECTION ZONE. CONTRACTOR SHALL ESTABLISH TREE PROTECTION ZONE LIMITS IN ACCORDANCE WITH CITY STANDARD S-642, DEFINED AS THE TREE DRIPLINE PLUS 4 RADIAL FEET. SEE DETAIL 1 ON SHEET LP-06.
7. TREE PROTECTION BARRIER: A PROTECTION BARRIER SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, DEMOLITION, OR GRADING WORK. THE BARRIER SHALL BE ERECTED AT THE OUTER EDGE OF THE TREE'S DRIPLINE OR AT A MINIMUM DISTANCE OF TEN (10) FEET FROM THE TRUNK, WHICHEVER IS GREATER, UNLESS OTHERWISE APPROVED BY THE PROJECT ARBORIST OR AUTHORITY HAVING JURISDICTION.
8. SIGNAGE: WARNING SIGNS SHALL BE POSTED ON ALL SIDES OF THE TREE PROTECTION FENCE, READING "TREE PROTECTION AREA — KEEP OUT." SIGNS SHALL BE INSTALLED AT A MINIMUM OF EVERY FIFTY (50) FEET ALONG THE BARRIER OR AS REQUIRED BY THE PROJECT ARBORIST.
9. FENCING: THE TREE PROTECTION FENCE SHALL BE A MINIMUM OF FOUR (4) FEET HIGH AND CONSTRUCTED OF ORANGE PLASTIC SNOW FENCING OR CHAIN-LINK FENCE SECURED TO METAL POSTS DRIVEN INTO THE GROUND. POSTS SHALL BE SPACED NO MORE THAN TEN (10) FEET APART.
10. ROOT PROTECTION: WHERE ROOTS CANNOT BE PROTECTED BY FENCING, THEY SHALL BE COVERED WITH A SIX-INCH (6") LAYER OF MULCH OR WOOD CHIPS AND A THREE-QUARTER-INCH (¾") PLYWOOD DRIVING SURFACE TO PREVENT SOIL COMPACTION.
11. PROTECT EXISTING TREES: CONTRACTOR SHALL PROTECT IN PLACE ALL EXISTING TREES AROUND THE CONSTRUCTION PERIMETER UNLESS OTHERWISE SPECIFIED. PROTECTION SHALL INCLUDE THE ROOT BALLS AND CANOPIES OF TREES ADJACENT TO CONSTRUCTION AREAS.
12. RESTRICTED ACTIVITIES: NO EQUIPMENT, MATERIALS, DEBRIS, OR SOIL SHALL BE STORED OR COMPACTED WITHIN TREE PROTECTION AREAS. NO CLEANING OF EQUIPMENT OR DISPOSAL OF MATERIALS SHALL BE PERMITTED WITHIN THESE AREAS. DO NOT LEAN EQUIPMENT OR STORE MATERIALS AGAINST TREES.
13. CHEMICAL STORAGE: NO CHEMICALS, GASOLINE, OIL, OR OTHER SUBSTANCES THAT MAY BE HARMFUL TO TREES SHALL BE STORED, MIXED, OR DUMPED WITHIN ONE HUNDRED (100) FEET OF THE TREE PROTECTION AREA.
14. WORK WITHIN TPZs: WORK WITHIN TREE PROTECTION ZONES SHALL BE MINIMIZED TO THE EXTENT FEASIBLE. WHERE WORK IS NECESSARY, PROTECTIVE MEASURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE PROJECT ARBORIST'S RECOMMENDATIONS TO AVOID OR MINIMIZE DAMAGE TO ROOTS, TRUNKS, AND CANOPIES.
15. TREE REMOVAL: TREE REMOVAL SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL BRANCHES, LEAVES, LITTER, TRUNKS, STUMPS, AND ROOTS. ALL TREE STUMPS SHALL BE GROUND TO A MINIMUM DEPTH OF TWELVE (12) INCHES BELOW FINISH GRADE OR AS DIRECTED BY THE PROJECT ARBORIST. HOLES RESULTING FROM REMOVAL SHALL BE BACKFILLED WITH CLEAN TOPSOIL AND COMPACTED IN TWELVE (12) INCH LIFTS. ALL GRINDINGS SHALL BE REMOVED FROM THE AREA AND SURFACES LEFT LEVEL AND FREE OF DEBRIS.
16. INVASIVE VEGETATION CONTROL: INVASIVE VEGETATION CONTROL SHALL INCLUDE THE HERBICIDE TREATMENT AND/OR CUTTING TO GRADE AND COMPLETE REMOVAL OF ALL INVASIVE VEGETATION SPECIES IDENTIFIED ON THESE PLANS, AS INDICATED IN THE NOTES, OR IDENTIFIED IN THE FIELD BY THE PROJECT BIOLOGIST.

    i. INVASIVE VEGETATION LOCATED WITHIN THE EATON WASH SW PROJECT IMPACT AREAS SHALL BE REMOVED AND TREATED ON A ONE-TIME BASIS.

    ii. INVASIVE VEGETATION THROUGHOUT THE PROJECT LIMITS, BUT OUTSIDE THE EATON WASH SW PROJECT IMPACT AREAS SHALL BE INITIALLY REMOVED AND TREATED, WITH FOLLOW-UP TREATMENT OF RESPROUTS AND NEW SEEDLINGS CONDUCTED A MINIMUM OF MONTHLY THROUGH THE DURATION OF THE CONTRACT PERIOD.
17. INVASIVE SPECIES TREATMENT: SPECIES IDENTIFIED (NON-EXCLUSIVE) AND TREATMENT REQUIRED INCLUDES:

    i. WOODY SPECIES INCLUDING, BUT NOT LIMITED TO, TREE OF HEAVEN (AILANTHUS ALTISSIMA). INVASIVE VEGETATION SHALL BE CUT TO GRADE, AND ALL VEGETATIVE DEBRIS, INCLUDING ASSOCIATED LEAF LITTER SHALL BE REMOVED FROM THE SITE AND DISPOSED OF OFF SITE AT AN APPROVED GREEN WASTE FACILITY. TREES SHALL BE STUMP TREATED WITH AN APPROPRIATE HERBICIDE (I.E., TRICLOPYR, GLYPHOSATE, IMAZAPYR) WITHIN FIVE (5) MINUTES OF INITIAL CUT, WITH FOLLOW-UP TREATMENT REQUIRED FOR STUMP SPROUTS, ROOT SUCKERS, AND SEEDLING GERMINATION.
18. HERBICIDE RESTRICTIONS: HERBICIDES SHALL NOT BE USED TO TREAT INVASIVE VEGETATION DIRECTLY ADJACENT TO OR IN THE UNDERSTORY OF RETAINED OR PRESERVED VEGETATION. ONLY HAND-REMOVAL IS ALLOWED IN THESE AREAS.
19. HERBICIDE APPLICATION: HERBICIDE APPLICATION SHALL BE CONDUCTED IN ACCORDANCE WITH MANUFACTURER'S LABEL INSTRUCTIONS AND UNDER THE DIRECTION OF A STATE-CERTIFIED QUALIFIED PEST CONTROL APPLICATOR AND STATE-LICENSED PEST CONTROL ADVISOR. ONLY HERBICIDES APPROVED FOR AQUATIC USES SHALL BE USED IN STREAMBEDS, STANDING WATER, OR RIPARIAN AREAS.
20. PRUNING: PRUNING OF TREES SHALL BE PERFORMED ONLY BY A CERTIFIED ARBORIST. NO MORE THAN TWENTY-FIVE PERCENT (25%) OF A TREE'S CANOPY SHALL BE REMOVED IN ANY TWELVE (12) MONTH PERIOD UNLESS OTHERWISE APPROVED BY THE PROJECT ARBORIST. PRUNE TREES WITHIN BRIDGE INSTALLATION AREAS AND ALL OTHER OVERGROWN TREES WITHIN THE SITE AS DIRECTED BY THE CITY AND PROJECT ARBORIST.
21. DAMAGE REPORTING: ANY DAMAGE TO TREES OR ROOT SYSTEMS SHALL BE IMMEDIATELY REPORTED TO THE PROJECT ARBORIST. ROOTS GREATER THAN TWO (2) INCHES IN DIAMETER SHALL NOT BE CUT WITHOUT APPROVAL. DAMAGED AREAS SHALL BE CLEANLY CUT AND PROTECTED FROM DRYING OUT.
22. INSPECTION: TREE PROTECTION BARRIERS SHALL BE INSPECTED AND APPROVED BY THE PROJECT ARBORIST OR AUTHORITY HAVING JURISDICTION PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
23. MAINTENANCE: TREE PROTECTION BARRIERS SHALL BE MAINTAINED IN GOOD CONDITION FOR THE DURATION OF CONSTRUCTION. IF BARRIERS ARE DAMAGED OR REMOVED, THEY SHALL BE REPLACED IMMEDIATELY.
24. MONITORING: THE PROJECT ARBORIST SHALL BE RESPONSIBLE FOR PERIODIC MONITORING OF TREE HEALTH DURING CONSTRUCTION AND SHALL RECOMMEND ADDITIONAL MEASURES IF A DECLINE IN TREE CONDITION IS NOTED.
25. ENFORCEMENT: FAILURE TO INSTALL OR MAINTAIN TREE PROTECTION MEASURES AS SPECIFIED MAY RESULT IN WORK STOPPAGE AND/OR FINES AS DETERMINED BY THE AUTHORITY HAVING JURISDICTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE HEALTH AND PRESERVATION OF ALL TREES TO REMAIN ON SITE AND SHALL CONTACT THE PROJECT ARBORIST IF A DECLINE IN TREE CONDITION IS OBSERVED.

LEGEND

XX — TREE, ID NUMBER "XX," PROTECT IN PLACE

TREE PROTECTION ZONE (TPZ), SEE NOTE 5

XX — TREE, ID NUMBER "XX," REMOVE

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM, SH
DESIGNED BY	EH, EJM
CHECKED BY	JP

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: TREE DISPOSITION NOTES AND LEGEND

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET LD-05

55 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-TREE_DISPOSITION_PLAN.DWG

Tree Disposition Matrix

Tree ID No.	Botanical Name	Common Name	Health	Structural Integrity	Height (ft.)	Crown Width (ft.)	Stems	Individual Stem Diameter (in.)						Cumulative Stem Diameter (in.)	Notes	Latitude	Longitude	Protected Status	On City List	Native Species	Maturity	Public	Invasive	Disposition (Remove = X, Retain = R)
								D1	D2	D3	D4	D5	D6											
250	*Quercus agrifolia*	Coast Live Oak	Poor	Fair	25	15	2	13	10	-	-	-	-	23		34.14089761	-118.0852522	Native, Mature, Public	Yes	Yes	Mature	Public	No	R
251	*Ulmus parvifolia*	Chinese Elm	Fair	Poor	20	15	3	5	4	3	-	-	-	12		34.14088719	-118.0851998	Public	Yes	No	Immature	Public	Yes	R
252	*Quercus ilex*	Holly Oak	Fair	Poor	15	7	2	3	3	-	-	-	-	6		34.14086543	-118.0851572	Public	No	No	Immature	Public	Yes	R
253	*Cupaniopsis anacardioides*	Carrotwood	Poor	Poor	20	15	1	7	-	-	-	-	-	7		34.14083154	-118.0851943	Public	No	No	Immature	Public	Yes	R
254	*Trachycarpus fortunei*	Windmill Palm	Fair	Good	15	8	1	6	-	-	-	-	-	6		34.14085966	-118.0851389	Public	No	No	Immature	Public	Yes	R
255	*Fraxinus uhdei*	Evergreen Ash	Fair	Fair	25	20	1	10	-	-	-	-	-	10		34.14093275	-118.0851901	Public	No	No	Immature	Public	Yes	R
256	*Ulmus parvifolia*	Chinese Elm	Fair	Poor	20	20	2	16	11	-	-	-	-	27		34.1408975	-118.0851349	Mature, Public	Yes	No	Mature	Public	Yes	R
257	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Fair	15	8	5	3	3	2	2	2	-	12		34.14083	-118.0851631	Public	No	No	Immature	Public	Yes	R
258	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Fair	15	8	1	5	-	-	-	-	-	5		34.14081426	-118.0851871	Public	No	No	Immature	Public	Yes	R
259	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Fair	15	8	3	3	3	3	-	-	-	9		34.1408092	-118.0851626	Public	No	No	Immature	Public	Yes	R
260	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Fair	15	8	3	5	4	2	-	-	-	11		34.14080309	-118.0851809	Public	No	No	Immature	Public	Yes	R
261	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Fair	15	8	3	3	2	1	-	-	-	6		34.14080678	-118.0851674	Public	No	No	Immature	Public	Yes	R
262	*Quercus agrifolia*	Coast Live Oak	Poor	Fair	30	20	1	17	-	-	-	-	-	17		34.14074334	-118.0850313	Native, Public	Yes	Yes	Immature	Public	No	R
263	*Fraxinus uhdei*	Evergreen Ash	Poor	Fair	25	20	1	11	-	-	-	-	-	11		34.14081905	-118.0850931	Public	No	No	Immature	Public	Yes	R
264	*Fraxinus uhdei*	Evergreen Ash	Poor	Poor	25	20	3	8	7	5	-	-	-	20		34.14081678	-118.0851275	Mature, Public	No	No	Mature	Public	Yes	R
265	*Pinus canariensis*	Canary Island Pine	Fair	Fair	40	20	1	16	-	-	-	-	-	16		34.14085007	-118.085107	Public	Yes	No	Immature	Public	Yes	R
266	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	20	15	1	8	-	-	-	-	-	8		34.1408481	-118.0850749	Native, Public	Yes	Yes	Immature	Public	No	R
267	*Ulmus parvifolia*	Chinese Elm	Fair	Poor	15	15	1	10	-	-	-	-	-	10		34.14076729	-118.085037	Public	Yes	No	Immature	Public	Yes	R
268	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	25	12	1	8	-	-	-	-	-	8		34.14076061	-118.0850107	Native, Public	Yes	Yes	Immature	Public	No	R
269	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	20	15	1	10	-	-	-	-	-	10		34.14078473	-118.0849887	Native, Public	Yes	Yes	Immature	Public	No	R
270	*Trachycarpus fortunei*	Windmill Palm	Fair	Fair	15	10	1	6	-	-	-	-	-	6		34.14077578	-118.0850124	Public	No	No	Immature	Public	Yes	R
271	*Ulmus parvifolia*	Chinese Elm	Fair	Poor	35	25	1	18	-	-	-	-	-	18		34.14074364	-118.0849576	Public	Yes	No	Immature	Public	Yes	R
272	*Quercus ilex*	Holly Oak	Fair	Fair	20	10	1	6	-	-	-	-	-	6		34.14069053	-118.0848936	Public	No	No	Immature	Public	Yes	R
273	*Quercus agrifolia*	Coast Live Oak	Fair	Poor	15	12	1	6	-	-	-	-	-	6		34.14068607	-118.0849089	Public	Yes	Yes	Immature	Public	No	R
274	*Pinus canariensis*	Canary Island Pine	Fair	Fair	45	20	1	22	-	-	-	-	-	22		34.14067266	-118.0849162	Mature, Public	Yes	No	Mature	Public	Yes	R
275	*Ulmus parvifolia*	Chinese Elm	Fair	Poor	15	15	1	10	-	-	-	-	-	10		34.14062729	-118.0848509	Public	Yes	No	Immature	Public	Yes	R
276	*Quercus ilex*	Holly Oak	Fair	Fair	20	10	1	6	-	-	-	-	-	6		34.14059252	-118.0847929	Public	No	No	Immature	Public	Yes	R
277	*Fraxinus uhdei*	Evergreen Ash	Poor	Critical	20	20	3	11	10	7	-	-	-	28		34.14053871	-118.0847579	Mature, Public	No	No	Mature	Public	Yes	R
278	*Quercus agrifolia*	Coast Live Oak	Fair	Fair	25	20	1	14	-	-	-	-	-	14		34.14054592	-118.0848594	Native, Public	Yes	Yes	Immature	Public	No	R
279	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Fair	20	20	2	5	2	-	-	-	-	7		34.14052102	-118.0848784	Public	No	No	Immature	Public	Yes	R
280	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Fair	20	18	1	8	-	-	-	-	-	8		34.14051001	-118.084924	Public	No	No	Immature	Public	Yes	R
281	*Schinus terebinthifolius*	Brazilian Pepper	Poor	Critical	18	15	1	13	-	-	-	-	-	13		34.1405365	-118.0848842	Public	No	No	Immature	Public	Yes	R
282	*Ulmus parvifolia*	Chinese Elm	Fair	Fair	20	8	2	5	4	-	-	-	-	9		34.14050154	-118.0848895	Public	Yes	No	Immature	Public	Yes	R
283	*Unknown Dead Tree*	Unknown Dead Tree	Dead	Dead	25	0	1	17	-	-	-	-	-	17		34.14057661	-118.0849274	Public	No	No	Immature	Public	Yes	R
284	*Fraxinus uhdei*	Evergreen Ash	Fair	Fair	20	8	1	5	-	-	-	-	-	5		34.14056578	-118.0849525	Public	No	No	Immature	Public	Yes	R
285	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Poor	15	12	4	4	4	2	1	-	-	11		34.1405755	-118.0849536	Public	No	No	Immature	Public	Yes	R
286	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Poor	15	10	1	4	-	-	-	-	-	4		34.14057417	-118.0849356	Public	No	No	Immature	Public	Yes	R
287	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Poor	15	12	9	4	4	3	3	3	3	24	Additional diameters: 2, 2	34.14057787	-118.0849569	Mature, Public	No	No	Mature	Public	Yes	R
288	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Poor	15	8	5	2	2	1	1	1	-	7		34.14060515	-118.0849227	Public	No	No	Immature	Public	Yes	R
289	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Poor	15	12	12	6	3	3	2	2	2	26	Additional diameters: 2, 2, 1, 1, 1, 1	34.14063291	-118.0849437	Mature, Public	No	No	Mature	Public	Yes	R
290	*Ulmus parvifolia*	Chinese Elm	Fair	Poor	15	8	2	4	2	-	-	-	-	6		34.14065376	-118.0850151	Public	Yes	No	Immature	Public	Yes	R
291	*Ulmus parvifolia*	Chinese Elm	Fair	Poor	25	20	1	13	-	-	-	-	-	13		34.14068672	-118.0850002	Public	Yes	No	Immature	Public	Yes	R
292	*Quercus ilex*	Holly Oak	Fair	Fair	15	8	3	3	3	2	-	-	-	8		34.14065629	-118.0849595	Native, Public	No	No	Immature	Public	Yes	R
293	*Prunus caroliniana*	Carolina Laurel Cherry	Fair	Fair	15	8	1	4	-	-	-	-	-	4		34.14066931	-118.0850493	Public	No	No	Immature	Public	Yes	R
294	*Schinus terebinthifolius*	Brazilian Pepper	Poor	Poor	20	15	1	28	-	-	-	-	-	28	No tag, in park.	34.14114918	-118.0856118	Mature, Public	No	No	Mature	Public	Yes	R
295	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Fair	20	15	3	11	10	7	-	-	-	28	No tag, in park.	34.14084666	-118.0852414	Mature, Public	No	No	Mature	Public	Yes	R
296	*Schinus terebinthifolius*	Brazilian Pepper	Fair	Fair	20	15	1	16	-	-	-	-	-	16	No tag, in park.	34.14057267	-118.0850078	Public	No	No	Immature	Public	Yes	R
297	*Liquidambar styraciflua*	American Sweetgum	Fair	Fair	45	25	1	23	-	-	-	-	-	23	No tag, in park.	34.14048246	-118.0849104	Mature, Public	Yes	No	Mature	Public	Yes	R
298	*Washingtonia robusta*	Mexican Fan Palm	Fair	Fair	35	15	1	22	-	-	-	-	-	22	No tag, estimated data, homeless encampment.	34.14102557	-118.0849521	Mature, Public	No	No	Mature	Public	Yes	R
299	-	-	-	-	-	-	-	-	-	-	-	-	-	24	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
300	-	-	-	-	-	-	-	-	-	-	-	-	-	24	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
301	-	-	-	-	-	-	-	-	-	-	-	-	-	8	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
302	-	-	-	-	-	-	-	-	-	-	-	-	-	46	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
303	-	-	-	-	-	-	-	-	-	-	-	-	-	8	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
304	-	-	-	-	-	-	-	-	-	-	-	-	-	8	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
305	-	-	-	-	-	-	-	-	-	-	-	-	-	8	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R

TREE DISPOSITION NOTES

1. CITY APPROVAL: ALL PUBLIC TREE REMOVALS MUST BE APPROVED BY THE CITY OF PASADENA URBAN FORESTRY ADVISORY COUNCIL BEFORE ANY WORK WITHIN THEIR TREE PROTECTION ZONES IS CONDUCTED.
2. ARBORIST DIRECTION: THE PROJECT ARBORIST'S RECOMMENDATIONS AND FIELD DIRECTION SHALL GOVERN TREE PROTECTION, REMOVAL, AND PRESERVATION REQUIREMENTS. IN THE EVENT OF CONFLICT BETWEEN THESE NOTES AND ARBORIST DIRECTION, THE ARBORIST SHALL PREVAIL.
3. TREE VERIFICATION: CONTRACTOR SHALL CONTACT THE PROJECT ARBORIST TO FIELD VERIFY ALL TREES TO BE RELOCATED OR REMOVED PRIOR TO ANY ACTION. LOCATIONS WERE OBTAINED VIA GPS AND MAY NOT MATCH FIELD CONDITIONS. CONTRACTOR SHALL VERIFY LOCATIONS IN THE FIELD PRIOR TO COMMENCING WORK.
4. URGENT CARE TREE VERIFICATION: TREE LOCATIONS SHOWN WITHIN THE URGENT CARE AREA ARE BASED ON THE TOPOGRAPHIC SURVEY, NOT THE ARBORIST'S SURVEY. LOCATIONS MAY NOT MATCH ACTUAL FIELD CONDITIONS. CONTRACTOR SHALL VERIFY TREE LOCATIONS IN THE FIELD PRIOR TO COMMENCING WORK.
5. TREE PROTECTION ZONE (TPZ): TREE PROTECTION ZONE LIMITS SHALL BE ESTABLISHED IN ACCORDANCE WITH CITY STANDARD S-642, DEFINED AS THE TREE DRIPLINE PLUS FOUR (4) RADIAL FEET. SEE DETAIL 1 ON SHEET LP-06.
6. UNSURVEYED TREE TPZ: FOR TREES NOT INCLUDED IN THE ARBORIST'S SURVEY, THE TREE PROTECTION ZONE IS DETERMINED BASED ON A RATIO OF ONE INCH (1") TRUNK DIAMETER = ONE FOOT (1') RADIAL TREE PROTECTION ZONE. CONTRACTOR SHALL ESTABLISH TREE PROTECTION ZONE LIMITS IN ACCORDANCE WITH CITY STANDARD S-642, DEFINED AS THE TREE DRIPLINE PLUS 4 RADIAL FEET. SEE DETAIL 1 ON SHEET LP-06.
7. TREE PROTECTION BARRIER: A PROTECTION BARRIER SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, DEMOLITION, OR GRADING WORK. THE BARRIER SHALL BE ERECTED AT THE OUTER EDGE OF THE TREE'S DRIPLINE OR AT A MINIMUM DISTANCE OF TEN (10) FEET FROM THE TRUNK, WHICHEVER IS GREATER, UNLESS OTHERWISE APPROVED BY THE PROJECT ARBORIST OR AUTHORITY HAVING JURISDICTION.
8. SIGNAGE: WARNING SIGNS SHALL BE POSTED ON ALL SIDES OF THE TREE PROTECTION FENCE, READING "TREE PROTECTION AREA — KEEP OUT." SIGNS SHALL BE INSTALLED AT A MINIMUM OF EVERY FIFTY (50) FEET ALONG THE BARRIER OR AS REQUIRED BY THE PROJECT ARBORIST.
9. FENCING: THE TREE PROTECTION FENCE SHALL BE A MINIMUM OF FOUR (4) FEET HIGH AND CONSTRUCTED OF ORANGE PLASTIC SNOW FENCING OR CHAIN-LINK FENCE SECURED TO METAL POSTS DRIVEN INTO THE GROUND. POSTS SHALL BE SPACED NO MORE THAN TEN (10) FEET APART.
10. ROOT PROTECTION: WHERE ROOTS CANNOT BE PROTECTED BY FENCING, THEY SHALL BE COVERED WITH A SIX-INCH (6") LAYER OF MULCH OR WOOD CHIPS AND A THREE-QUARTER-INCH (¾") PLYWOOD DRIVING SURFACE TO PREVENT SOIL COMPACTION.
11. PROTECT EXISTING TREES: CONTRACTOR SHALL PROTECT IN PLACE ALL EXISTING TREES AROUND THE CONSTRUCTION PERIMETER UNLESS OTHERWISE SPECIFIED. PROTECTION SHALL INCLUDE THE ROOT BALLS AND CANOPIES OF TREES ADJACENT TO CONSTRUCTION AREAS.
12. RESTRICTED ACTIVITIES: NO EQUIPMENT, MATERIALS, DEBRIS, OR SOIL SHALL BE STORED OR COMPACTED WITHIN TREE PROTECTION AREAS. NO CLEANING OF EQUIPMENT OR DISPOSAL OF MATERIALS SHALL BE PERMITTED WITHIN THESE AREAS. DO NOT LEAN EQUIPMENT OR STORE MATERIALS AGAINST TREES.
13. CHEMICAL STORAGE: NO CHEMICALS, GASOLINE, OIL, OR OTHER SUBSTANCES THAT MAY BE HARMFUL TO TREES SHALL BE STORED, MIXED, OR DUMPED WITHIN ONE HUNDRED (100) FEET OF THE TREE PROTECTION AREA.
14. WORK WITHIN TPZs: WORK WITHIN TREE PROTECTION ZONES SHALL BE MINIMIZED TO THE EXTENT FEASIBLE. WHERE WORK IS NECESSARY, PROTECTIVE MEASURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE PROJECT ARBORIST'S RECOMMENDATIONS TO AVOID OR MINIMIZE DAMAGE TO ROOTS, TRUNKS, AND CANOPIES.
15. TREE REMOVAL: TREE REMOVAL SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL BRANCHES, LEAVES, LITTER, TRUNKS, STUMPS, AND ROOTS. ALL TREE STUMPS SHALL BE GROUND TO A MINIMUM DEPTH OF TWELVE (12) INCHES BELOW FINISH GRADE OR AS DIRECTED BY THE PROJECT ARBORIST. HOLES RESULTING FROM REMOVAL SHALL BE BACKFILLED WITH CLEAN TOPSOIL AND COMPACTED IN TWELVE (12) INCH LIFTS. ALL GRINDINGS SHALL BE REMOVED FROM THE AREA AND SURFACES LEFT LEVEL AND FREE OF DEBRIS.
16. INVASIVE VEGETATION CONTROL: INVASIVE VEGETATION CONTROL SHALL INCLUDE THE HERBICIDE TREATMENT AND/OR CUTTING TO GRADE AND COMPLETE REMOVAL OF ALL INVASIVE VEGETATION SPECIES IDENTIFIED ON THESE PLANS, AS INDICATED IN THE NOTES, OR IDENTIFIED IN THE FIELD BY THE PROJECT BIOLOGIST.

    i. INVASIVE VEGETATION LOCATED WITHIN THE EATON WASH SW PROJECT IMPACT AREAS SHALL BE REMOVED AND TREATED ON A ONE-TIME BASIS.

    ii. INVASIVE VEGETATION THROUGHOUT THE PROJECT LIMITS, BUT OUTSIDE THE EATON WASH SW PROJECT IMPACT AREAS SHALL BE INITIALLY REMOVED AND TREATED, WITH FOLLOW-UP TREATMENT OF RESPROUTS AND NEW SEEDLINGS CONDUCTED A MINIMUM OF MONTHLY THROUGH THE DURATION OF THE CONTRACT PERIOD.
17. INVASIVE SPECIES TREATMENT: SPECIES IDENTIFIED (NON-EXCLUSIVE) AND TREATMENT REQUIRED INCLUDES:

    i. WOODY SPECIES INCLUDING, BUT NOT LIMITED TO, TREE OF HEAVEN (AILANTHUS ALTISSIMA). INVASIVE VEGETATION SHALL BE CUT TO GRADE, AND ALL VEGETATIVE DEBRIS, INCLUDING ASSOCIATED LEAF LITTER SHALL BE REMOVED FROM THE SITE AND DISPOSED OF OFF SITE AT AN APPROVED GREEN WASTE FACILITY. TREES SHALL BE STUMP TREATED WITH AN APPROPRIATE HERBICIDE (I.E., TRICLOPYR, GLYPHOSATE, IMAZAPYR) WITHIN FIVE (5) MINUTES OF INITIAL CUT, WITH FOLLOW-UP TREATMENT REQUIRED FOR STUMP SPROUTS, ROOT SUCKERS, AND SEEDLING GERMINATION.
18. HERBICIDE RESTRICTIONS: HERBICIDES SHALL NOT BE USED TO TREAT INVASIVE VEGETATION DIRECTLY ADJACENT TO OR IN THE UNDERSTORY OF RETAINED OR PRESERVED VEGETATION. ONLY HAND-REMOVAL IS ALLOWED IN THESE AREAS.
19. HERBICIDE APPLICATION: HERBICIDE APPLICATION SHALL BE CONDUCTED IN ACCORDANCE WITH MANUFACTURER'S LABEL INSTRUCTIONS AND UNDER THE DIRECTION OF A STATE-CERTIFIED QUALIFIED PEST CONTROL APPLICATOR AND STATE-LICENSED PEST CONTROL ADVISOR. ONLY HERBICIDES APPROVED FOR AQUATIC USES SHALL BE USED IN STREAMBEDS, STANDING WATER, OR RIPARIAN AREAS.
20. PRUNING: PRUNING OF TREES SHALL BE PERFORMED ONLY BY A CERTIFIED ARBORIST. NO MORE THAN TWENTY-FIVE PERCENT (25%) OF A TREE'S CANOPY SHALL BE REMOVED IN ANY TWELVE (12) MONTH PERIOD UNLESS OTHERWISE APPROVED BY THE PROJECT ARBORIST. PRUNE TREES WITHIN BRIDGE INSTALLATION AREAS AND ALL OTHER OVERGROWN TREES WITHIN THE SITE AS DIRECTED BY THE CITY AND PROJECT ARBORIST.
21. DAMAGE REPORTING: ANY DAMAGE TO TREES OR ROOT SYSTEMS SHALL BE IMMEDIATELY REPORTED TO THE PROJECT ARBORIST. ROOTS GREATER THAN TWO (2) INCHES IN DIAMETER SHALL NOT BE CUT WITHOUT APPROVAL. DAMAGED AREAS SHALL BE CLEANLY CUT AND PROTECTED FROM DRYING OUT.
22. INSPECTION: TREE PROTECTION BARRIERS SHALL BE INSPECTED AND APPROVED BY THE PROJECT ARBORIST OR AUTHORITY HAVING JURISDICTION PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
23. MAINTENANCE: TREE PROTECTION BARRIERS SHALL BE MAINTAINED IN GOOD CONDITION FOR THE DURATION OF CONSTRUCTION. IF BARRIERS ARE DAMAGED OR REMOVED, THEY SHALL BE REPLACED IMMEDIATELY.
24. MONITORING: THE PROJECT ARBORIST SHALL BE RESPONSIBLE FOR PERIODIC MONITORING OF TREE HEALTH DURING CONSTRUCTION AND SHALL RECOMMEND ADDITIONAL MEASURES IF A DECLINE IN TREE CONDITION IS NOTED.
25. ENFORCEMENT: FAILURE TO INSTALL OR MAINTAIN TREE PROTECTION MEASURES AS SPECIFIED MAY RESULT IN WORK STOPPAGE AND/OR FINES AS DETERMINED BY THE AUTHORITY HAVING JURISDICTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE HEALTH AND PRESERVATION OF ALL TREES TO REMAIN ON SITE AND SHALL CONTACT THE PROJECT ARBORIST IF A DECLINE IN TREE CONDITION IS OBSERVED.

LEGEND



TREE, ID NUMBER "XX," PROTECT IN PLACE



TREE PROTECTION ZONE (TPZ), SEE NOTE 5

TREE, ID NUMBER "XX," REMOVE

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
EJM, SH	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
DESIGNED BY						
EH, EJM						
CHECKED BY						
JP			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: TREE DISPOSITION NOTES AND LEGEND

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: LD-06

56 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-TREE_DISPOSITION_PLAN.DWG

Tree Disposition Matrix

Tree ID No.	Botanical Name	Common Name	Health	Structural Integrity	Height (ft.)	Crown Width (ft.)	Stems	Individual Stem Diameter (in.)						Cumulative Stem Diameter (in.)	Notes	Latitude	Longitude	Protected Status	On City List	Native Species	Maturity	Public	Invasive	Disposition (Remove = X, Retain = R)
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306	-	-	-	-	-	-	-	-	-	-	-	-	-	8	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
307	-	-	-	-	-	-	-	-	-	-	-	-	-	8	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
308	-	-	-	-	-	-	-	-	-	-	-	-	-	8	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
309	-	-	-	-	-	-	-	-	-	-	-	-	-	8	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
310	-	-	-	-	-	-	-	-	-	-	-	-	-	8	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
311	-	-	-	-	-	-	-	-	-	-	-	-	-	8	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
312	-	-	-	-	-	-	-	-	-	-	-	-	-	8	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
313	-	-	-	-	-	-	-	-	-	-	-	-	-	8	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
314	-	-	-	-	-	-	-	-	-	-	-	-	-	8	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
315	-	-	-	-	-	-	-	-	-	-	-	-	-	8	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
316	-	-	-	-	-	-	-	-	-	-	-	-	-	8	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
317	-	-	-	-	-	-	-	-	-	-	-	-	-	6	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
318	-	-	-	-	-	-	-	-	-	-	-	-	-	5	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
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336	-	-	-	-	-	-	-	-	-	-	-	-	-	48	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
337	-	-	-	-	-	-	-	-	-	-	-	-	-	20	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
338	-	-	-	-	-	-	-	-	-	-	-	-	-	28	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
339	-	-	-	-	-	-	-	-	-	-	-	-	-	28	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
340	-	-	-	-	-	-	-	-	-	-	-	-	-	28	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R
341	-	-	-	-	-	-	-	-	-	-	-	-	-	18	Not From Arborist Survey, from topo survey			-	-	-	-	-	-	R

TREE DISPOSITION NOTES

1. CITY APPROVAL: ALL PUBLIC TREE REMOVALS MUST BE APPROVED BY THE CITY OF PASADENA URBAN FORESTRY ADVISORY COUNCIL BEFORE ANY WORK WITHIN THEIR TREE PROTECTION ZONES IS CONDUCTED.
2. ARBORIST DIRECTION: THE PROJECT ARBORIST'S RECOMMENDATIONS AND FIELD DIRECTION SHALL GOVERN TREE PROTECTION, REMOVAL, AND PRESERVATION REQUIREMENTS. IN THE EVENT OF CONFLICT BETWEEN THESE NOTES AND ARBORIST DIRECTION, THE ARBORIST SHALL PREVAIL.
3. TREE VERIFICATION: CONTRACTOR SHALL CONTACT THE PROJECT ARBORIST TO FIELD VERIFY ALL TREES TO BE RELOCATED OR REMOVED PRIOR TO ANY ACTION. LOCATIONS WERE OBTAINED VIA GPS AND MAY NOT MATCH FIELD CONDITIONS. CONTRACTOR SHALL VERIFY LOCATIONS IN THE FIELD PRIOR TO COMMENCING WORK.
4. URGENT CARE TREE VERIFICATION: TREE LOCATIONS SHOWN WITHIN THE URGENT CARE AREA ARE BASED ON THE TOPOGRAPHIC SURVEY, NOT THE ARBORIST'S SURVEY. LOCATIONS MAY NOT MATCH ACTUAL FIELD CONDITIONS. CONTRACTOR SHALL VERIFY TREE LOCATIONS IN THE FIELD PRIOR TO COMMENCING WORK.
5. TREE PROTECTION ZONE (TPZ): TREE PROTECTION ZONE LIMITS SHALL BE ESTABLISHED IN ACCORDANCE WITH CITY STANDARD S-642, DEFINED AS THE TREE DRIPLINE PLUS FOUR (4) RADIAL FEET. SEE DETAIL 1 ON SHEET LP-06.
6. UNSURVEYED TREE TPZ: FOR TREES NOT INCLUDED IN THE ARBORIST'S SURVEY, THE TREE PROTECTION ZONE IS DETERMINED BASED ON A RATIO OF ONE INCH (1") TRUNK DIAMETER = ONE FOOT (1') RADIAL TREE PROTECTION ZONE. CONTRACTOR SHALL ESTABLISH TREE PROTECTION ZONE LIMITS IN ACCORDANCE WITH CITY STANDARD S-642, DEFINED AS THE TREE DRIPLINE PLUS 4 RADIAL FEET. SEE DETAIL 1 ON SHEET LP-06.
7. TREE PROTECTION BARRIER: A PROTECTION BARRIER SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, DEMOLITION, OR GRADING WORK. THE BARRIER SHALL BE ERECTED AT THE OUTER EDGE OF THE TREE'S DRIPLINE OR AT A MINIMUM DISTANCE OF TEN (10) FEET FROM THE TRUNK, WHICHEVER IS GREATER, UNLESS OTHERWISE APPROVED BY THE PROJECT ARBORIST OR AUTHORITY HAVING JURISDICTION.
8. SIGNAGE: WARNING SIGNS SHALL BE POSTED ON ALL SIDES OF THE TREE PROTECTION FENCE, READING "TREE PROTECTION AREA — KEEP OUT." SIGNS SHALL BE INSTALLED AT A MINIMUM OF EVERY FIFTY (50) FEET ALONG THE BARRIER OR AS REQUIRED BY THE PROJECT ARBORIST.
9. FENCING: THE TREE PROTECTION FENCE SHALL BE A MINIMUM OF FOUR (4) FEET HIGH AND CONSTRUCTED OF ORANGE PLASTIC SNOW FENCING OR CHAIN-LINK FENCE SECURED TO METAL POSTS DRIVEN INTO THE GROUND. POSTS SHALL BE SPACED NO MORE THAN TEN (10) FEET APART.
10. ROOT PROTECTION: WHERE ROOTS CANNOT BE PROTECTED BY FENCING, THEY SHALL BE COVERED WITH A SIX-INCH (6") LAYER OF MULCH OR WOOD CHIPS AND A THREE-QUARTER-INCH (¾") PLYWOOD DRIVING SURFACE TO PREVENT SOIL COMPACTION.
11. PROTECT EXISTING TREES: CONTRACTOR SHALL PROTECT IN PLACE ALL EXISTING TREES AROUND THE CONSTRUCTION PERIMETER UNLESS OTHERWISE SPECIFIED. PROTECTION SHALL INCLUDE THE ROOT BALLS AND CANOPIES OF TREES ADJACENT TO CONSTRUCTION AREAS.
12. RESTRICTED ACTIVITIES: NO EQUIPMENT, MATERIALS, DEBRIS, OR SOIL SHALL BE STORED OR COMPACTED WITHIN TREE PROTECTION AREAS. NO CLEANING OF EQUIPMENT OR DISPOSAL OF MATERIALS SHALL BE PERMITTED WITHIN THESE AREAS. DO NOT LEAN EQUIPMENT OR STORE MATERIALS AGAINST TREES.
13. CHEMICAL STORAGE: NO CHEMICALS, GASOLINE, OIL, OR OTHER SUBSTANCES THAT MAY BE HARMFUL TO TREES SHALL BE STORED, MIXED, OR DUMPED WITHIN ONE HUNDRED (100) FEET OF THE TREE PROTECTION AREA.
14. WORK WITHIN TPZs: WORK WITHIN TREE PROTECTION ZONES SHALL BE MINIMIZED TO THE EXTENT FEASIBLE. WHERE WORK IS NECESSARY, PROTECTIVE MEASURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE PROJECT ARBORIST'S RECOMMENDATIONS TO AVOID OR MINIMIZE DAMAGE TO ROOTS, TRUNKS, AND CANOPIES.
15. TREE REMOVAL: TREE REMOVAL SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL BRANCHES, LEAVES, LITTER, TRUNKS, STUMPS, AND ROOTS. ALL TREE STUMPS SHALL BE GROUND TO A MINIMUM DEPTH OF TWELVE (12) INCHES BELOW FINISH GRADE OR AS DIRECTED BY THE PROJECT ARBORIST. HOLES RESULTING FROM REMOVAL SHALL BE BACKFILLED WITH CLEAN TOPSOIL AND COMPACTED IN TWELVE (12) INCH LIFTS. ALL GRINDINGS SHALL BE REMOVED FROM THE AREA AND SURFACES LEFT LEVEL AND FREE OF DEBRIS.
16. INVASIVE VEGETATION CONTROL: INVASIVE VEGETATION CONTROL SHALL INCLUDE THE HERBICIDE TREATMENT AND/OR CUTTING TO GRADE AND COMPLETE REMOVAL OF ALL INVASIVE VEGETATION SPECIES IDENTIFIED ON THESE PLANS, AS INDICATED IN THE NOTES, OR IDENTIFIED IN THE FIELD BY THE PROJECT BIOLOGIST.

    i. INVASIVE VEGETATION LOCATED WITHIN THE EATON WASH SW PROJECT IMPACT AREAS SHALL BE REMOVED AND TREATED ON A ONE-TIME BASIS.

    ii. INVASIVE VEGETATION THROUGHOUT THE PROJECT LIMITS, BUT OUTSIDE THE EATON WASH SW PROJECT IMPACT AREAS SHALL BE INITIALLY REMOVED AND TREATED, WITH FOLLOW-UP TREATMENT OF RESPROUTS AND NEW SEEDLINGS CONDUCTED A MINIMUM OF MONTHLY THROUGH THE DURATION OF THE CONTRACT PERIOD.
17. INVASIVE SPECIES TREATMENT: SPECIES IDENTIFIED (NON-EXCLUSIVE) AND TREATMENT REQUIRED INCLUDES:

    i. WOODY SPECIES INCLUDING, BUT NOT LIMITED TO, TREE OF HEAVEN (AILANTHUS ALTISSIMA). INVASIVE VEGETATION SHALL BE CUT TO GRADE, AND ALL VEGETATIVE DEBRIS, INCLUDING ASSOCIATED LEAF LITTER SHALL BE REMOVED FROM THE SITE AND DISPOSED OF OFF SITE AT AN APPROVED GREEN WASTE FACILITY. TREES SHALL BE STUMP TREATED WITH AN APPROPRIATE HERBICIDE (I.E., TRICLOPYR, GLYPHOSATE, IMAZAPYR) WITHIN FIVE (5) MINUTES OF INITIAL CUT, WITH FOLLOW-UP TREATMENT REQUIRED FOR STUMP SPROUTS, ROOT SUCKERS, AND SEEDLING GERMINATION.
18. HERBICIDE RESTRICTIONS: HERBICIDES SHALL NOT BE USED TO TREAT INVASIVE VEGETATION DIRECTLY ADJACENT TO OR IN THE UNDERSTORY OF RETAINED OR PRESERVED VEGETATION. ONLY HAND-REMOVAL IS ALLOWED IN THESE AREAS.
19. HERBICIDE APPLICATION: HERBICIDE APPLICATION SHALL BE CONDUCTED IN ACCORDANCE WITH MANUFACTURER'S LABEL INSTRUCTIONS AND UNDER THE DIRECTION OF A STATE-CERTIFIED QUALIFIED PEST CONTROL APPLICATOR AND STATE-LICENSED PEST CONTROL ADVISOR. ONLY HERBICIDES APPROVED FOR AQUATIC USES SHALL BE USED IN STREAMBEDS, STANDING WATER, OR RIPARIAN AREAS.
20. PRUNING: PRUNING OF TREES SHALL BE PERFORMED ONLY BY A CERTIFIED ARBORIST. NO MORE THAN TWENTY-FIVE PERCENT (25%) OF A TREE'S CANOPY SHALL BE REMOVED IN ANY TWELVE (12) MONTH PERIOD UNLESS OTHERWISE APPROVED BY THE PROJECT ARBORIST. PRUNE TREES WITHIN BRIDGE INSTALLATION AREAS AND ALL OTHER OVERGROWN TREES WITHIN THE SITE AS DIRECTED BY THE CITY AND PROJECT ARBORIST.
21. DAMAGE REPORTING: ANY DAMAGE TO TREES OR ROOT SYSTEMS SHALL BE IMMEDIATELY REPORTED TO THE PROJECT ARBORIST. ROOTS GREATER THAN TWO (2) INCHES IN DIAMETER SHALL NOT BE CUT WITHOUT APPROVAL. DAMAGED AREAS SHALL BE CLEANLY CUT AND PROTECTED FROM DRYING OUT.
22. INSPECTION: TREE PROTECTION BARRIERS SHALL BE INSPECTED AND APPROVED BY THE PROJECT ARBORIST OR AUTHORITY HAVING JURISDICTION PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
23. MAINTENANCE: TREE PROTECTION BARRIERS SHALL BE MAINTAINED IN GOOD CONDITION FOR THE DURATION OF CONSTRUCTION. IF BARRIERS ARE DAMAGED OR REMOVED, THEY SHALL BE REPLACED IMMEDIATELY.
24. MONITORING: THE PROJECT ARBORIST SHALL BE RESPONSIBLE FOR PERIODIC MONITORING OF TREE HEALTH DURING CONSTRUCTION AND SHALL RECOMMEND ADDITIONAL MEASURES IF A DECLINE IN TREE CONDITION IS NOTED.
25. ENFORCEMENT: FAILURE TO INSTALL OR MAINTAIN TREE PROTECTION MEASURES AS SPECIFIED MAY RESULT IN WORK STOPPAGE AND/OR FINES AS DETERMINED BY THE AUTHORITY HAVING JURISDICTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE HEALTH AND PRESERVATION OF ALL TREES TO REMAIN ON SITE AND SHALL CONTACT THE PROJECT ARBORIST IF A DECLINE IN TREE CONDITION IS OBSERVED.

LEGEND



TREE, ID NUMBER "XX," PROTECT IN PLACE



TREE PROTECTION ZONE (TPZ), SEE NOTE 5

TREE, ID NUMBER "XX," REMOVE

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
EJM, SH	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
DESIGNED BY						
EH, EJM						
CHECKED BY						
JP			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: TREE DISPOSITION NOTES AND LEGEND

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET LD-07

57 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-TREE_DISPOSITION_PLAN.DWG

LEGEND

XX — TREE, ID NUMBER "XX," PROTECT IN PLACE

TREE PROTECTION ZONE (TPZ), SEE NOTE 5

XX — TREE, ID NUMBER "XX," REMOVE

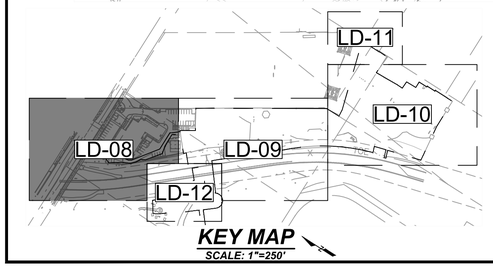
E DEL MAR BLVD

EATON WASH

MATCHLINE SEE SHEET LD-09

MATCHLINE SEE SHEET LD-12

MATCHLINE SEE SHEET LD-12



KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: TREE DISPOSITION PLAN

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: LD-08

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-TREE_DISPOSITION_PLAN.DWG

LEGEND

XX — TREE, ID NUMBER "XX," PROTECT IN PLACE

TREE PROTECTION ZONE (TPZ), SEE NOTE 5

XX — TREE, ID NUMBER "XX," REMOVE

MATCHLINE SEE SHEET LD-08

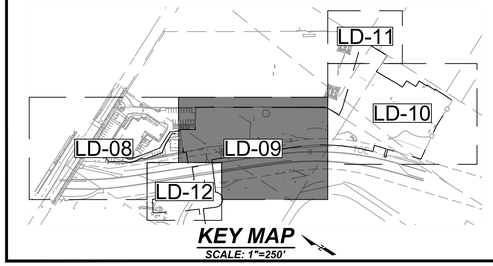
MATCHLINE SEE SHEET CD-03

MATCHLINE SEE SHEET LD-12

MATCHLINE SEE SHEET LD-12

EATON WASH

ONEIDA ST



KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: TREE DISPOSITION PLAN

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: LD-09

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DWG. NO.

Date: July 6, 2022

P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-TREE_DISPOSITION_PLAN.DWG

MATCHLINE SEE SHEET LD-11

MATCHLINE SEE SHEET LD-09

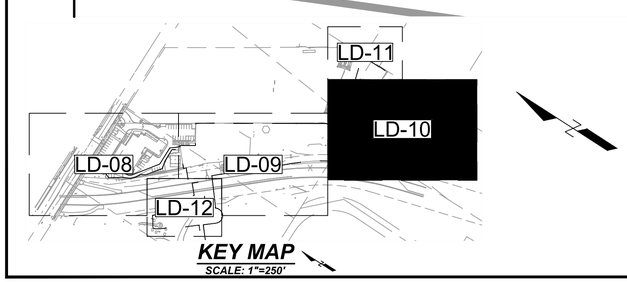
EATON WASH

LEGEND

XX — TREE, ID NUMBER "XX," PROTECT IN PLACE

TREE PROTECTION ZONE (TPZ), SEE NOTE 5

XX — TREE, ID NUMBER "XX," REMOVE



KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: TREE DISPOSITION PLAN

SCALE: AS SHOWN

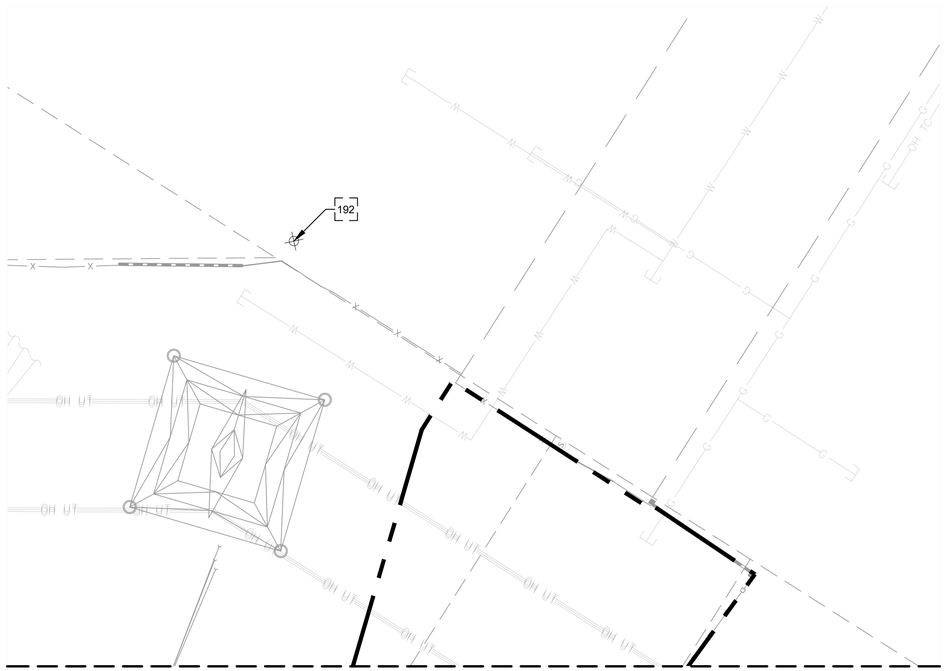
ACCOUNT NUMBER: XXXXXX

SHEET: LD-10

60 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-TREE_DISPOSITION_PLAN.DWG



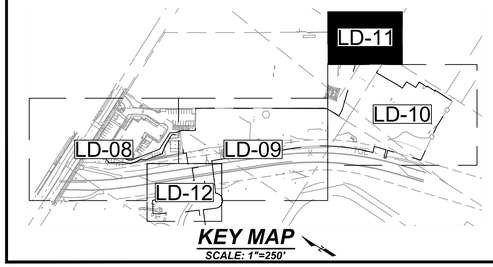
MATCHLINE SEE SHEET LD-10

LEGEND

XX — TREE, ID NUMBER "XX," PROTECT IN PLACE

TREE PROTECTION ZONE (TPZ), SEE NOTE 5

XX — TREE, ID NUMBER "XX," REMOVE



KEY MAP
SCALE: 1"=250'

0 20 40 Feet

SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: TREE DISPOSITION PLAN

SCALE: AS SHOWN

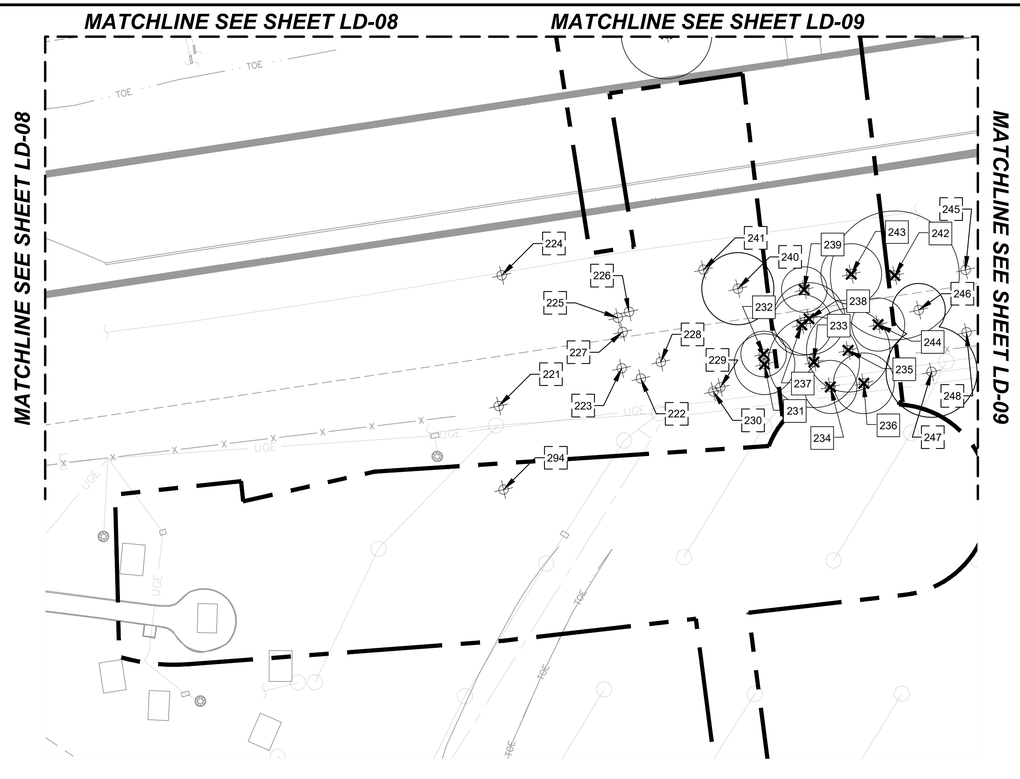
ACCOUNT NUMBER: XXXXXX

SHEET: LD-11

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-TREE_DISPOSITION_PLAN.DWG

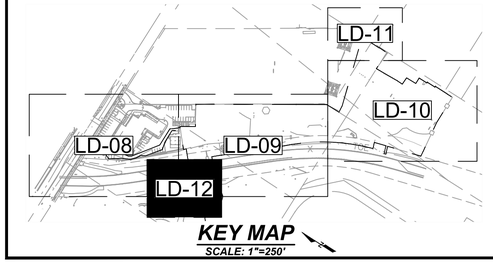


LEGEND

XX — TREE, ID NUMBER "XX," PROTECT IN PLACE

XX — TREE PROTECTION ZONE (TPZ), SEE NOTE 5

XX — TREE, ID NUMBER "XX," REMOVE



KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	EJM
DESIGNED BY	AMT, EJM
CHECKED BY	CAS

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: TREE DISPOSITION PLAN

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: LD-12

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-TREE_DISPOSITION_PLAN.DWG

CONSTRUCTION LEGEND

CODE	DESCRIPTION	DETAIL	MATERIAL / MODEL	MANUFACTURER	COLOR	FINISH	NOTES
BRIDGE LEGEND							
B-101	BRIDGE	CU-09, CU-10		CONTECH		WEATHERING STEEL	
CURB LEGEND							
C-101	RAISED CURB	SPPWC 120-2					
C-102	RETAINING WALL	SPPWC 610-3					
FENCE LEGEND							
F-101	8' WELDED WIRE MESH FENCE	3/LS-06, 7/LS-06	C-OM96BKNN	OMEGA II FENCE SYSTEMS	BLACK	POLYESTER POWDER COAT	
F-102	6' WELDED WIRE MESH FENCE	3/LS-06, 6/LS-06	C-OM72BKNN	OMEGA II FENCE SYSTEMS	BLACK	POLYESTER POWDER COAT	
GATE LEGEND							
G-101	SLIDING VEHICULAR GATE	1/LS-06	ARCHITECTURAL	OMEGA II FENCE SYSTEMS	BLACK	POLYESTER POWDER COAT	
G-102	VEHICULAR SWING GATE	8/LS-06	ARCHITECTURAL	OMEGA II FENCE SYSTEMS	BLACK	POLYESTER POWDER COAT	
G-103	PEDESTRIAN SWING GATE	5/LS-06	ARCHITECTURAL	OMEGA II FENCE SYSTEMS	BLACK	POLYESTER POWDER COAT	
G-104	DOG PARK SWING GATE	4/LS-06	C-GPM20XX72	OMEGA II FENCE SYSTEMS	BLACK	POLYESTER POWDER COAT	
G-105	REMOVABLE BOLLARDS	2/LS-11	SCH. 80 STAINLESS STEEL	CALPIPE		BRUSHED	
PAVING LEGEND							
P-201	PERMEABLE PAVERS A	2/LS-10, 3/LS-10, 5/LS-10	ANTIQUE COBBLE 1	ANGELUS	GRAY-MOSS-CHARCOAL		
P-202	PERMEABLE PAVERS B	2/LS-10, 3/LS-10, 5/LS-10	ANTIQUE COBBLE 1	ANGELUS	SAN-STONE-MOCHA		
P-203	OPEN CELL PAVERS	3/LS-10, 4/LS-10	TURFSTONE	UNILOCK	NATURAL		
P-204	FLAGSTONE PAVERS	5/LS-10	CAMERON	SOUTHWEST BOULDER & STONE			
P-205	PCC	APWA 134-0					
P-206	DECOMPOSED GRANITE PAVING	1/LS-10, 2/LS-10, 4/LS-10, 5/LS-10		SOUTHWEST BOULDER & STONE	SUNSET GOLD		
P-207	GRAVEL VEHICULAR ACCESS PATH	??					
P-208	CONCRETE MOWCURB	5/LP-05					
PARKING LEGEND							
PA-101	PARKING STRIPING	1/CS-11					
PA-102	ADA PARKING SIGNAGE	2/CS-11					
PA-103	WHEEL STOP	5/LS-11					
PA-104	TRUNCATED DOMES	6/LS-11		STEPSTONE	CHARCOAL 511		
SITE AMENITIES LEGEND							
S-101	INTERPRETIVE KIOSK	6/LS-10	SENTINAL MOUNTAIN	NATURAL STRUCTURES	BLACK		
S-102	INTERPRETIVE SIGNAGE	3/LS-09	EXTRUDED ALUMINUM		BLACK	POWDER COAT	
S-103	PEDESTRIAN GATE AT BRIDGE	9/LS-06		CONTECH	BLACK	POLYESTER POWDER COAT	
S-104	PREFABRICATED CUSTOM GARDEN SHED	7/LS-10	PREMIER PRO STUDIO	TUFF SHED	GROUND COFFEE	SMOOTH	EXISTING EARTHSIDE GATEWAY TO BE REPURPOSED
S-105	BOULDER	6/LS-08	DESERT SAND	SOUTHWEST BOULDER & STONE			
S-106	SANDSTONE SEATING BOULDER	1/LS-09	ARIZONA BUFF BENCH BOULDERS	SOUTHWEST BOULDER & STONE			
S-107	CONCRETE SEAT WALL	4/LS-08			NATURAL	SMOOTH	
S-108	BIKE RACK AT DECOMPOSED GRANITE	2/LS-09	OAHU RACK	SPORTWORKS		STAINLESS STEEL	
S-109	RAISED PLANTERS	7/LS-09					
S-110	TABLE BOULDER	6/LS-08	ARIZONA BUFF BENCH BOULDERS	SOUTHWEST BOULDER & STONE			TO BE SELECTED BY LANDSCAPE ARCHITECT
S-111	BACKLESS RECLAIMED TIMBER BENCH	4/LS-09		ANGEL CITY LUMBER			
S-112	RECLAIMED TIMBER BENCH	5/LS-09		ANGEL CITY LUMBER			
S-113	PICNIC TABLE	1/LS-08					
S-114	ADA PICNIC TABLE	2/LS-08					
S-115	DRINKING FOUNTAIN	14/CS-08	10155 SM	MDF FOUNTAINS	BLACK	POWDER COATED STAINLESS STEEL	
S-116	TREE IN DECOMPOSED GRANITE PAVING	2/LP-06					
S-117	SANDBLASTING ON BOULDER	6/LS-09				DARK GREEN	
S-118	BOULDER AT CONCRETE SEAT WALL	3/LS-08	APACHE SUNSET	SOUTHWEST BOULDER & STONE			
S-119	BOULDER IN PAVERS	7/LS-08	APACHE SUNSET	SOUTHWEST BOULDER & STONE			
S-120	PET WASTE BAG DISPENSER - POLE MOUNT	4/LS-11		BARKPARK	GREEN		
S-121	LITTER RECEPTACLE	1/LS-11	SAVANNAH RECEPTACLE	ULTRA-SITE	BLACK	THERMOPLASTIC	
S-122	SHADE STRUCTURE	3/LS-11	CWC 8X12	POLIGON			
S-123	SHADE STRUCTURE - DOG PARK	7/LS-11	SENTINAL MOUNTAIN	NATURAL STRUCTURES	BLACK		
UTILITIES LEGEND							
U-101	24" MANHOLE COVER	5/LS-08	OBLIO	IRON AGE DESIGNS		RAW	CAST DUCTILE IRON
U-102	30" MANHOLE COVER	5/LS-08	OBLIO	IRON AGE DESIGNS		RAW	CAST DUCTILE IRON
U-103	36" MANHOLE COVER	5/LS-08	OBLIO	IRON AGE DESIGNS		RAW	CAST DUCTILE IRON

CONSTRUCTION LEGEND

CODE	DESCRIPTION	DETAIL
WATER FEATURE LEGEND		
WA-101	STORMWATER CREEK	1/LS-07, 2/LS-07, 3/LS-07, 4/LS-07, 8/LS-07
WA-102	STORMWATER BASIN	5/LS-07, 6/LS-07, 7/LS-07
WA-103	STORMWATER SPRING	8/LS-07
WA-104	BASIN EDGE WITH BOULDERS	6/LS-07

HATCH LEGEND

SYMBOL	DESCRIPTION	DETAIL
PAVING LEGEND		
	PERMEABLE PAVERS A	2/LS-10, 3/LS-10, 5/LS-10
	PERMEABLE PAVERS B	2/LS-10, 3/LS-10, 5/LS-10
	OPEN CELL PAVERS	3/LS-10, 4/LS-10
	FLAGSTONE PAVERS	5/LS-10
	PCC	
	DECOMPOSED GRANITE PAVING	1/LS-10, 2/LS-10, 4/LS-10, 5/LS-10
	GRAVEL VEHICULAR ACCESS PATH	??
PARKING LEGEND		
	TRUNCATED DOMES	6/LS-11
SITE AMENITIES LEGEND		
	CONCRETE SEAT WALL	4/LS-08
WATER FEATURE LEGEND		
	STORMWATER CREEK	1/LS-07, 2/LS-07, 3/LS-07, 4/LS-07, 8/LS-07
	STORMWATER BASIN	5/LS-07, 6/LS-07, 7/LS-07
	STORMWATER SPRING	8/LS-07

CONSTRUCTION NOTES

1. REFERENCES OF THE A.S.T.M.S SHALL BE TO THE LATEST EDITIONS.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATION GRADES, EXISTING STRUCTURES. SPECIFICATIONS, AND FIELD CONDITIONS AT THE SITE BEFORE COMMENCING WORK. WHERE CONFLICTS OCCUR, NOTIFY PROJECT REPRESENTATIVE FOR CLARIFICATION. FAILURE TO PROVIDE SUCH NOTIFICATION MAY MAKE CONTRACTOR LIABLE FOR COSTS INCURRED TO RECTIFY THE DISCREPANCY.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONSULT WITH THE PROJECT REPRESENTATIVE AND DRAWINGS FOR VERIFYING LOCATIONS OF UNDERGROUND UTILITIES, PIPES, AND RELATED STRUCTURES. THE CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR COST INCURRED DUE TO DAMAGE OF SAID UTILITIES IF PROPER VERIFICATION WAS NOT PERFORMED.
4. AREAS TO BE GRADED OR PAVED SHALL BE GRUBBED, AND STRIPPED OF ALL VEGETATION, DEBRIS, AND OTHER DELETERIOUS MATERIAL. ALL LOOSE SOIL DISTURBED BY REMOVAL OF TREES, EXISTING FILL AND LOOSE OR DISTURBED TOPSOIL SHALL BE REMOVED.
5. SUBGRADE SHALL BE SCARIFIED TO DEPTH OF 6", MOISTURE CONDITIONED, AND COMPACTED TO MIN 90% RELATIVE COMPACTION. EXISTING SOIL TO BE COMPACTED 4".
6. CONTRACTOR SHALL ENSURE THAT FINE GRADES HAVE BEEN SET CORRECTLY PRIOR TO INSTALLING WALKS, FOOTINGS, WALLS, AND OTHER STRUCTURES.
7. CONTRACTOR SHALL ENSURE THAT DRAINLINES, ELECTRICAL CONDUITS, SLEEVES, ETC., ARE IN PLACE PRIOR TO INSTALLATION OF PAVING AND WALLS.
8. CONTRACTOR SHALL ENSURE THAT CURVED EDGES HAVE SMOOTH AND CONTINUOUS CURVES.
9. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALING OF DRAWINGS.
10. TYPICAL DETAILS SHALL APPLY IN GENERAL CONSTRUCTION WHERE NO DETAILS ARE GIVEN. THE CONSTRUCTION SHALL BE AS FOR SIMILAR WORK. OMISSIONS, AND/OR FIELD CONDITIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK SO INVOLVED.
11. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REFER TO PLANTING PLANS TO DETERMINE LOCATION OF TREES AND TO ROUTE UNDERGROUND STRUCTURES AROUND THESE LOCATIONS.
12. IMPORT SOIL SHALL BE APPROVED ON SITE BY LANDSCAPE ARCHITECT. REFER TO SPECIFICATIONS FOR SOIL REQUIREMENTS. SOIL SHALL BE FREE FROM ROCK, DEBRIS, NUT GRASS, BERMUDA GRASS OR OTHER DELETERIOUS MATERIAL.
13. REINFORCING STEEL: A.S.T.M. A-615, GRADE 40 FOR ALL REINFORCING. MINIMUM CLEARANCE FOR BARS SHALL BE 3" AT BOTTOM OF FOOTING AND 1 $\frac{1}{2}$" AT BOTTOM OF SLABS ON GRADE.
14. SLEEVES: CONTRACTOR SHALL ENSURE USE OF PVC UNDER PAVING AND COORDINATE LOCATIONS.
15. MORTAR SHALL BE 1:3 $\frac{1}{2}$: $\frac{1}{4}$ TO $\frac{1}{2}$ PARTS BY VOLUME OF PORTLAND CEMENT, TO MORTAR SAND, TO LIME PUTTY. USE NO FIRE CLAY, ADD 1 PINT ADMIXTURE PER SACK OF CEMENT TO INHIBIT EFFLORESCENCE.
16. USE AT LEAST A 1-SACK MIXER. MEASURE PARTS BY VOLUME FOR UNIFORMITY.
    - A. FOR MORTAR, LOAD MORTAR SAND, PORTLAND CEMENT, ADMIXTURE, AND WATER INTO MIXER IN THAT ORDER, AND MIX FOR 3 MINUTES THEN ADD LIME PUTTY AND MIX ADDITIONAL 10 MINUTES.
    - B. FOR GROUT, LOAD PEA GRAVEL, IF USED, SAND, PORTLAND CEMENT, ADMIXTURE, AND WATER INTO THE MIXER FOR 3 MINUTES. USE ENOUGH WATER TO FORM A POURING CONSISTENCY AND COLOR PER PLANS.
    - C. DO NOT USE ANY MORTAR OR GROUT AFTER MORE THAT 1 $\frac{1}{2}$ HOURS OF ITS INITIAL MIXING, EXCEPT MORTAR MAYA BE RE-TEMPERED.
    - D. EXCESS SOIL SHALL BE REMOVED FROM SITE.
    - E. REPLACE OR REPAIR EXISTING MATERIAL THAT ARE DAMAGED BY CONTRACTOR DURING CONSTRUCTION OPERATIONS.
    - F. REFER TO CONSTRUCTION LEGEND FOR ADDITIONAL INFORMATION.
17. CONTRACTOR TO SALVAGE BOULDERS OVER 2' IN DIAMETER THAT ARE UNEARTHED DURING EXCAVATION. CLEAN AND STOCKPILE FOUND BOULDERS FOR REUSE WHEREVER BOULDERS ARE SPECIFIED IN THE PLANS. BOULDERS TO BE REUSED MUST BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	SH
DESIGNED BY	EH
CHECKED BY	JP

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: CONSTRUCTION NOTES AND LEGEND

SCALE: AS SHOWN

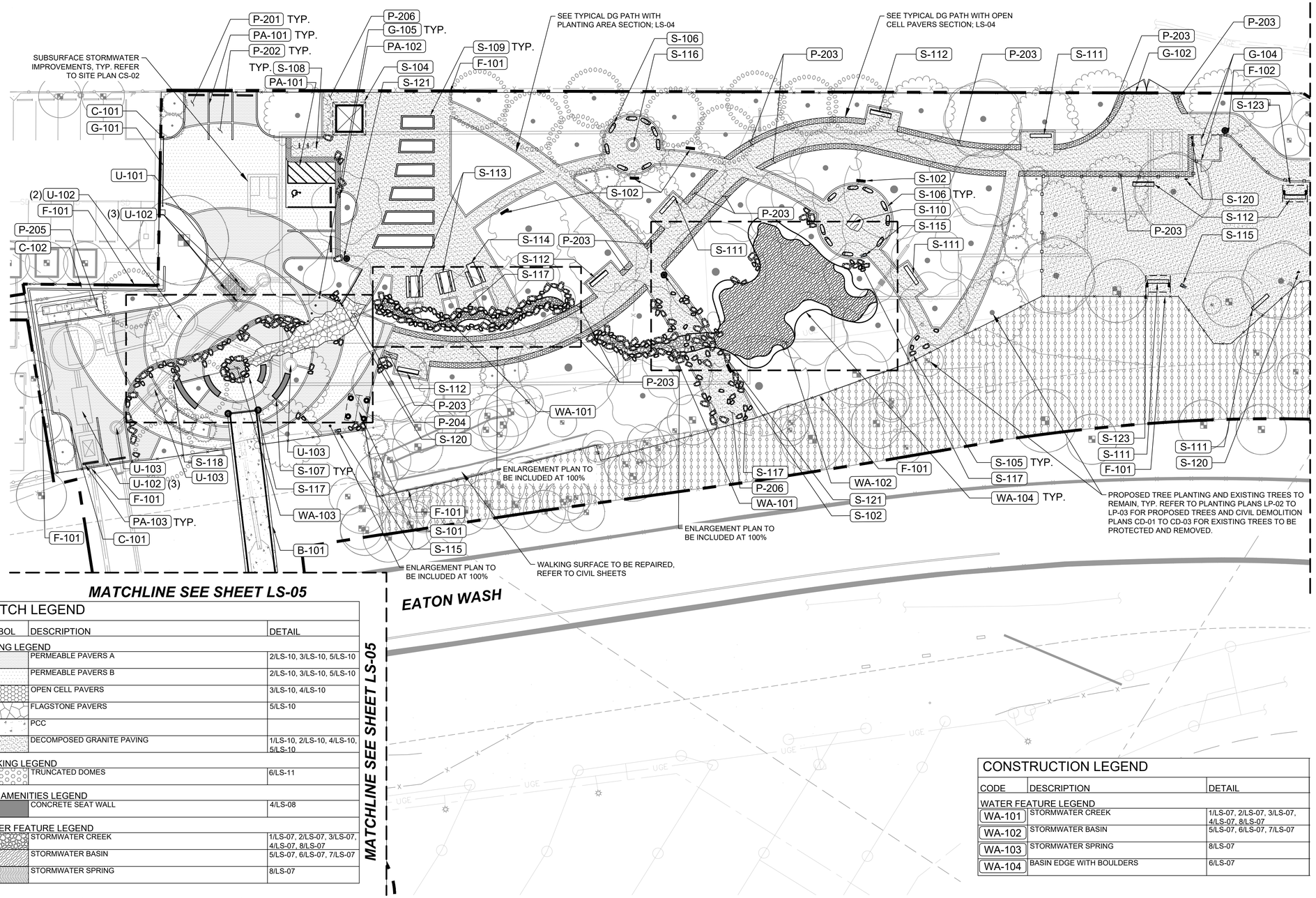
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SHEET: LS-01

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-CONSTRUCTION_NOTES_AND_LEGEND.DWG



MATCHLINE SEE SHEET V-03

MATCHLINE SEE SHEET LS-05

CONSTRUCTION LEGEND

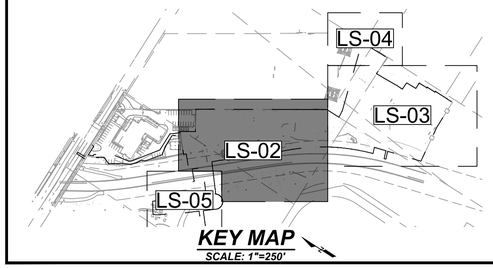
CODE	DESCRIPTION	DETAIL
BRIDGE LEGEND		
B-101	BRIDGE	CU-09, CU-10
CURB LEGEND		
C-101	RAISED CURB	SPPWC 120-2
C-102	RETAINING WALL	SPPWC 610-3
FENCE LEGEND		
F-101	8' WELDED WIRE MESH FENCE	3/LS-06, 7/LS-06
F-102	6' WELDED WIRE MESH FENCE	3/LS-06, 6/LS-06
GATE LEGEND		
G-101	SLIDING VEHICULAR GATE	1/LS-06
G-102	VEHICULAR SWING GATE	8/LS-06
G-104	DOG PARK SWING GATE	4/LS-06
G-105	REMOVABLE BOLLARDS	2/LS-11
PAVING LEGEND		
P-201	PERMEABLE PAVERS A	2/LS-10
P-202	PERMEABLE PAVERS B	2/LS-10
P-203	OPEN CELL PAVERS	4/LS-10
P-204	FLAGSTONE PAVERS	5/LS-10
P-205	PCC	APWA 134-0
P-206	DECOMPOSED GRANITE PAVING	2/LS-10
P-208	CONCRETE MOWCURB	5/LP-05
PARKING LEGEND		
PA-101	PARKING STRIPING	1/CS-11
PA-102	ADA PARKING SIGNAGE	2/CS-11
PA-103	WHEEL STOP	5/LS-11
PA-104	TRUNCATED DOMES	6/LS-11
SITE AMENITIES LEGEND		
S-101	INTERPRETIVE KIOSK	6/LS-10
S-102	INTERPRETIVE SIGNAGE	3/LS-09
S-104	PREFABRICATED CUSTOM GARDEN SHED	7/LS-10
S-105	BOULDER	6/LS-08
S-106	SANDSTONE SEATING BOULDER	1/LS-09
S-107	CONCRETE SEAT WALL	4/LS-08
S-108	BIKE RACK AT DECOMPOSED GRANITE	2/LS-09
S-109	RAISED PLANTERS	7/LS-09
S-110	TABLE BOULDER	6/LS-08
S-111	BACKLESS RECLAIMED TIMBER BENCH	4/LS-09
S-112	RECLAIMED TIMBER BENCH	5/LS-09
S-113	PICNIC TABLE	1/LS-08
S-114	ADA PICNIC TABLE	2/LS-08
S-115	DRINKING FOUNTAIN	14/CS-08
S-116	TREE IN DECOMPOSED GRANITE PAVING	2/LP-06
S-117	SANDBLASTING ON BOULDER	6/LS-09
S-118	BOULDER AT CONCRETE SEAT WALL	3/LS-08
S-119	BOULDER IN PAVERS	7/LS-08
S-120	PET WASTE BAG DISPENSER - POLE MOUNT	4/LS-11
S-121	LITTER RECEPTACLE	1/LS-11
S-122	SHADE STRUCTURE	3/LS-11
S-123	SHADE STRUCTURE - DOG PARK	7/LS-11
UTILITIES LEGEND		
U-101	24" MANHOLE COVER	5/LS-08
U-102	30" MANHOLE COVER	5/LS-08
U-103	36" MANHOLE COVER	5/LS-08

HATCH LEGEND

SYMBOL	DESCRIPTION	DETAIL
PAVING LEGEND		
	PERMEABLE PAVERS A	2/LS-10, 3/LS-10, 5/LS-10
	PERMEABLE PAVERS B	2/LS-10, 3/LS-10, 5/LS-10
	OPEN CELL PAVERS	3/LS-10, 4/LS-10
	FLAGSTONE PAVERS	5/LS-10
	PCC	
	DECOMPOSED GRANITE PAVING	1/LS-10, 2/LS-10, 4/LS-10, 5/LS-10
PARKING LEGEND		
	TRUNCATED DOMES	6/LS-11
SITE AMENITIES LEGEND		
	CONCRETE SEAT WALL	4/LS-08
WATER FEATURE LEGEND		
	STORMWATER CREEK	1/LS-07, 2/LS-07, 3/LS-07, 4/LS-07, 8/LS-07
	STORMWATER BASIN	5/LS-07, 6/LS-07, 7/LS-07
	STORMWATER SPRING	8/LS-07

CONSTRUCTION LEGEND

CODE	DESCRIPTION	DETAIL
WATER FEATURE LEGEND		
WA-101	STORMWATER CREEK	1/LS-07, 2/LS-07, 3/LS-07, 4/LS-07, 8/LS-07
WA-102	STORMWATER BASIN	5/LS-07, 6/LS-07, 7/LS-07
WA-103	STORMWATER SPRING	8/LS-07
WA-104	BASIN EDGE WITH BOULDERS	6/LS-07



KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
SH	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
DESIGNED BY						
EH						
CHECKED BY						
JP			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: CONSTRUCTION PLAN

SCALE: AS SHOWN

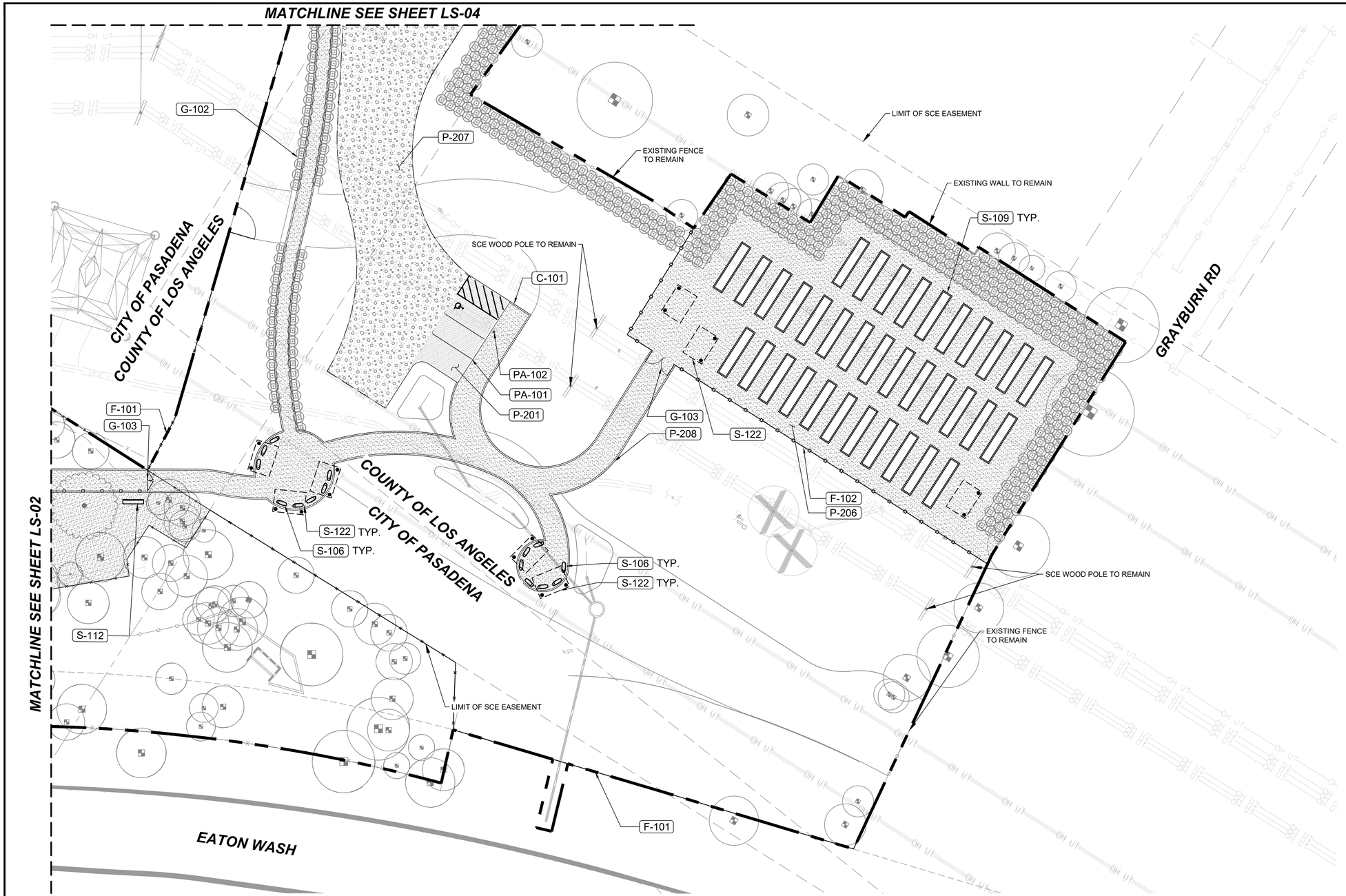
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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-CONSTRUCTION_PLAN.DWG



CONSTRUCTION LEGEND

CODE	DESCRIPTION	DETAIL
CURB LEGEND		
C-101	RAISED CURB	SPPWC 120-2
FENCE LEGEND		
F-101	8' WELDED WIRE MESH FENCE	3/LS-06, 7/LS-06
F-102	6' WELDED WIRE MESH FENCE	3/LS-06, 6/LS-06
GATE LEGEND		
G-102	VEHICULAR SWING GATE	8/LS-06
G-103	PEDESTRIAN SWING GATE	5/LS-06
PAVING LEGEND		
P-201	PERMEABLE PAVERS A	2/LS-10
P-206	DECOMPOSED GRANITE PAVING	2/LS-10
P-207	GRAVEL VEHICULAR ACCESS PATH	??
P-208	CONCRETE MOWCURB	5/LP-05
PARKING LEGEND		
PA-101	PARKING STRIPING	1/CS-11
PA-102	ADA PARKING SIGNAGE	2/CS-11
SITE AMENITIES LEGEND		
S-106	SANDSTONE SEATING BOULDER	1/LS-09
S-109	RAISED PLANTERS	7/LS-09
S-112	RECLAIMED TIMBER BENCH	5/LS-09
S-122	SHADE STRUCTURE	3/LS-11

HATCH LEGEND

SYMBOL	DESCRIPTION	DETAIL
PAVING LEGEND		
	DECOMPOSED GRANITE PAVING	1/LS-10, 2/LS-10, 4/LS-10, 5/LS-10
	GRAVEL VEHICULAR ACCESS PATH	??

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	SH
DESIGNED BY	EH
CHECKED BY	JP

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: CONSTRUCTION PLAN

SCALE: AS SHOWN

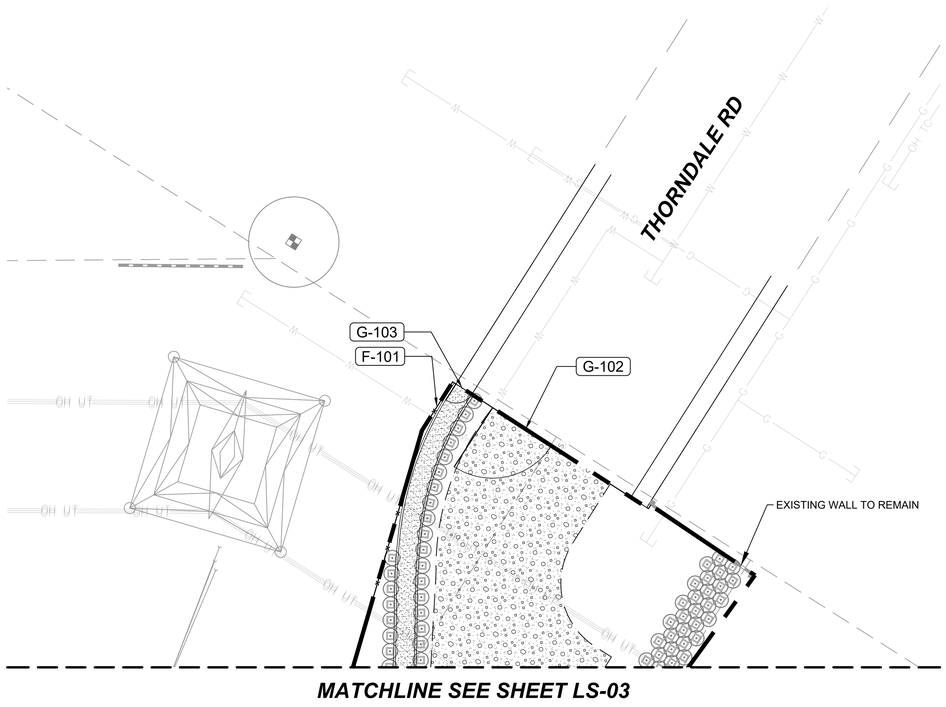
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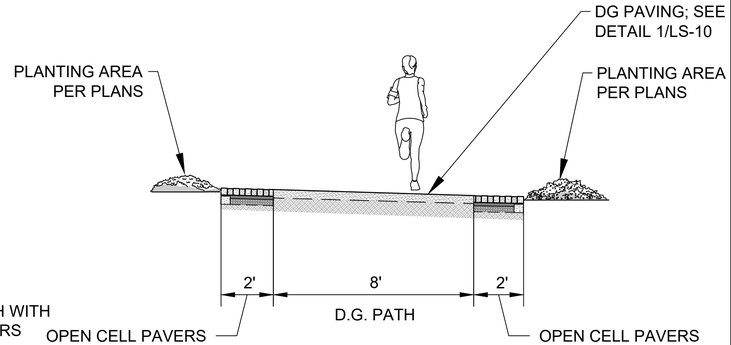
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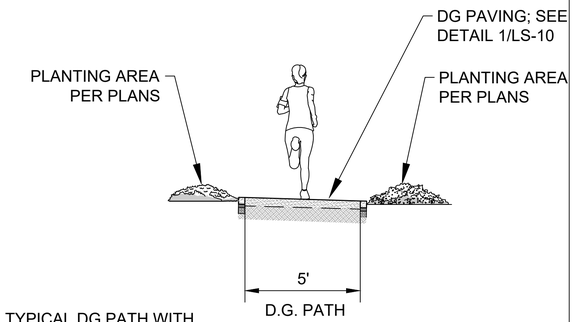
MATCHLINE SEE SHEET LS-03

CONSTRUCTION LEGEND		
CODE	DESCRIPTION	DETAIL
BRIDGE LEGEND		
B-101	BRIDGE	CU-09, CU-10
FENCE LEGEND		
F-101	8' WELDED WIRE MESH FENCE	3/LS-06, 7/LS-06
GATE LEGEND		
G-102	VEHICULAR SWING GATE	8/LS-06
G-103	PEDESTRIAN SWING GATE	5/LS-06

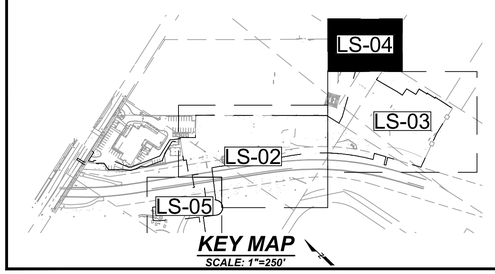
HATCH LEGEND		
SYMBOL	DESCRIPTION	DETAIL
PAVING LEGEND		
	DECOMPOSED GRANITE PAVING	1/LS-10, 2/LS-10, 4/LS-10, 5/LS-10
	GRAVEL VEHICULAR ACCESS PATH	??



TYPICAL DG PATH WITH OPEN CELL PAVERS
N.T.S.



TYPICAL DG PATH WITH PLANTING AREA
N.T.S.



KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	DESIGNED BY	CHECKED BY
SH	EH	JP

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: CONSTRUCTION PLAN

SCALE: AS SHOWN

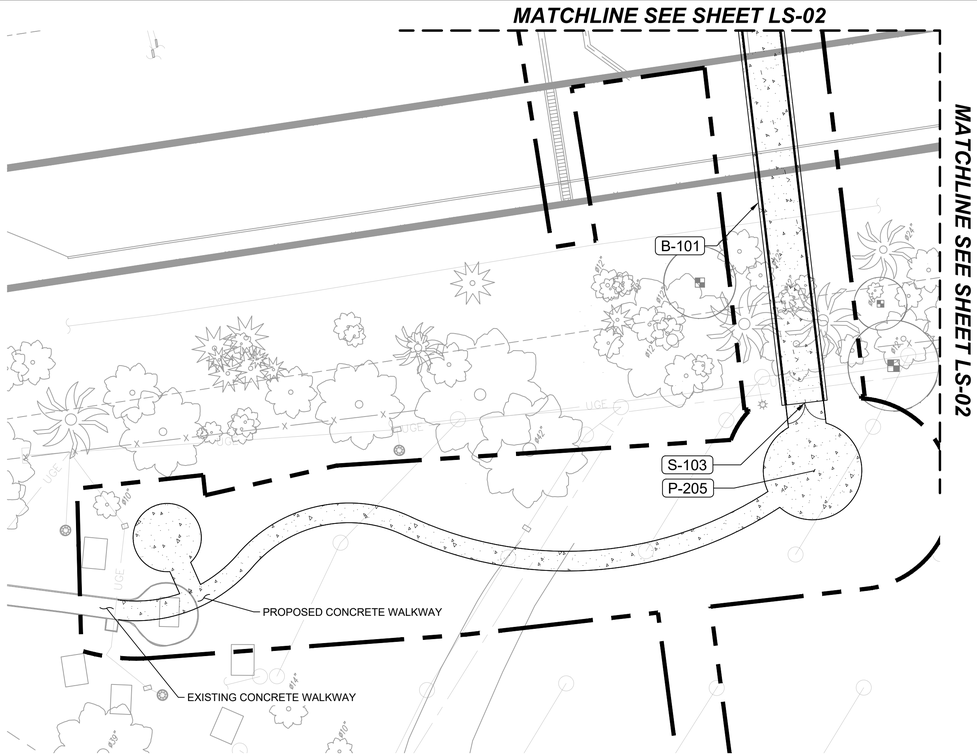
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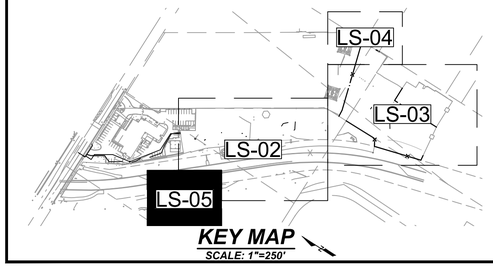
DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-CONSTRUCTION_PLAN.DWG



CONSTRUCTION LEGEND		
CODE	DESCRIPTION	DETAIL
BRIDGE LEGEND		
B-101	BRIDGE	CU-09, CU-10
PAVING LEGEND		
P-205	PCC	APWA 134-0
SITE AMENITIES LEGEND		
S-103	PEDESTRIAN GATE AT BRIDGE	9/LS-06

HATCH LEGEND		
SYMBOL	DESCRIPTION	DETAIL
PAVING LEGEND		
	PCC	



KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
SH	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
DESIGNED BY						
EH						
CHECKED BY						
JP			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: CONSTRUCTION PLAN

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SHEET: LS-05

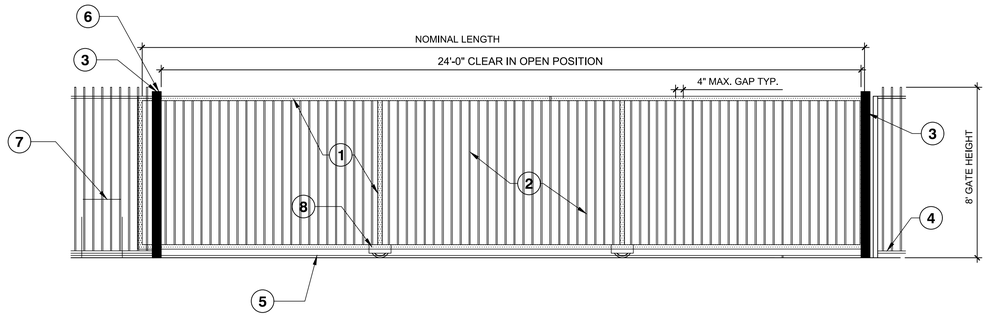
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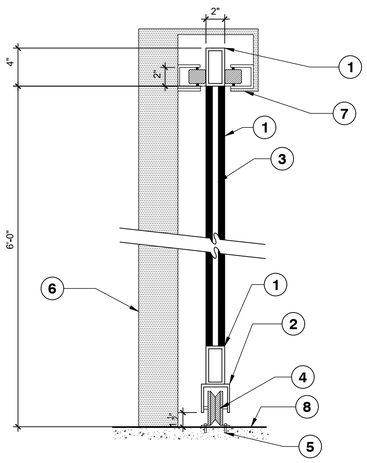
Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-CONSTRUCTION_PLAN.DWG

1. 4" X 2" GALVANIZED STEEL GATE FRAME.
2. 5/8" X 2" TUBULAR STEEL GATE PICKET
3. 4" X 4" GALVANIZED STEEL EMBEDDED POSTS, SEE STRUCTURAL DRAWINGS ON SHEET XXX FOR FOOTING
4. ADJACENT FENCE, TYPE 1
5. SURFACE MOUNTED STEEL GATE TRACK
6. POST-MOUNTED ARM EXTENSION FOR SUPPORT ROLLERS. MOUNT TO GATE POST ON MOTOR SIDE OF FENCE. SEE DETAIL 2, THIS SHEET.
7. GATE MOTOR PER PLAN
8. HEAVY DUTY GATE SHEEL WITH V-GROOVE. SEE DETAIL 2, THIS SHEET.

NOTES:
A. SEE LS-01 CONSTRUCTION NOTES AND LEGEND FOR GATE COLOR.
B. CONTRACTOR TO PROVIDE GATE MOTOR SPEC. FOR ELECTRICAL APPROVAL.
C. CONTRACTOR TO PROVIDE SCALED SHOP DRAWINGS FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO FABRICATION.



1 SLIDING VEHICULAR GATE
N.T.S.

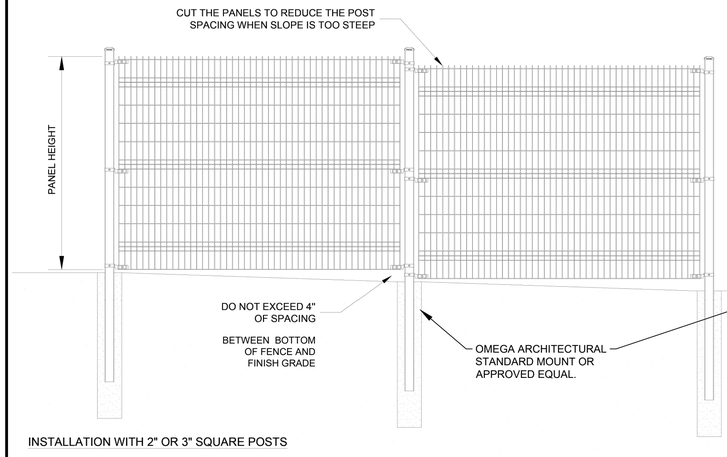


1. 4" X 2" GALVANIZED STEEL TUBE PERIMETER FRAME, HEIGHT TO MATCH TOP OF ADJOINING STEEL PICKET FENCING.
2. 4" X 2" GALVANIZED STEEL TUBE BOTTOM RAIL. PROVIDE 4" OPENINGS ALONG BOTTOM AS NEEDED FOR GATE WHEELS.
3. 5/8" HSS STEEL V-GROOVE WHEEL ASSEMBLY.
4. 4" DIAMETER STEEL V-GROOVE WHEEL ASSEMBLY
5. GALVANIZED STEEL V-TRACK. BOLT INTRO DRIVEWAY
6. POST-MOUNTED ARM EXTENSION FOR SUPPORT ROLLERS.
7. POST-MOUNTED ARM EXTENSION FOR SUPPORT ROLLERS.
8. DRIVEWAY PAVING, SEE LAYOUT PER PLAN.

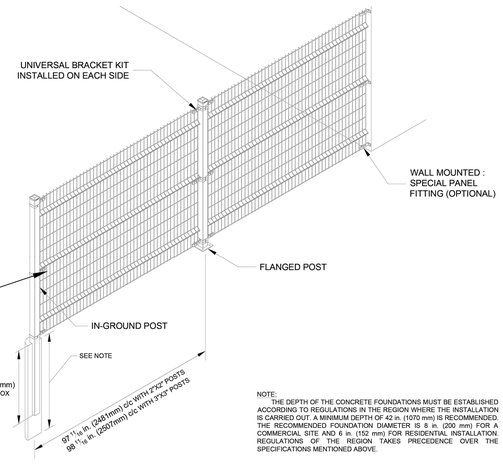
NOTES:
A. ALL GATE & FENCE COMPONENTS SHALL BE SHOP PRIMED WITH ALKYD CORROSION INHIBITING PRIMER (2 COATS), THEN FIELD PAINTED FOLLOWING INSTALLATION.
B. GATE MOTOR AND STANDARD GROUND LOOPS TO BE INCLUDED AS PART OF MOTORIZED VEHICULAR GATE BY CONTRACTOR.
C. GRIND ALL WELDS SMOOTH, REMOVE ALL LOOSE MILL, SCALE, RUST, OIL, & GREASE PRIOR TO PAINTING.
D. CONTRACTOR TO PROVIDE SCALE SHOP DRAWINGS W/ ASSOCIATED PRODUCT SUBMITTAL TO CONFIRM LAYOUT, SPECS, & DIMENSIONAL CLEARANCES FOR GATE PANELS AND ACCESS COMPONENTS WITH LANDSCAPE ARCHITECT.
E. ALL ENDS OF GALVANIZED STEEL TUBING SHALL BE CAPPED, WELDED, & GROUND SMOOTH PRIOR TO PAINTING.
F. CONTRACTOR SHALL CONFIRM LOCATION & DIMENSIONAL CLEARANCE OF ALL ACCESS COMPONENTS W/ LANDSCAPE ARCHITECT IN FIELD PRIOR TO INSTALLATION.
G. CONTRACTOR SHALL PROVIDE POST-MOUNTED KEY PADS FOR ACCESS CONTROL ON THE STREET SIDE OF EACH GATE. ACCESS CONTROL METHOD TO BE CONFIRMED BY OWNER. CONTRACTOR TO CONFIRM ACCESS LOCATIONS WITH OWNER AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION IN THE FIELD.
H. AS APPROVED BY OWNER, DRIVEWAY GATES SHALL BE PROVIDED W/ REMOTE CONTROL OPERATORS AS WELL AS WALL-MOUNTED KEYPADS ON HOUSE-SIDE OF GATES. CONFIRM LOCATION OF KEY PAD WITH OWNER AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
I. A FIRE DISTRICT APPROVED KEY OPERATED SWITCH SHALL BE INSTALLED AT AN APPROVED LOCATION TO ALLOW FOR EMERGENCY RESPONSE ACCESS.
J. DRIVEWAY GATE SHALL BE SUPPLIED W/ A MOTORIZED CLOSER SET TO CLOSE AT A 1 FOOT PER SECOND CYCLE (MAX).
K. DRIVEWAY GATES SHALL BE INSTALLED W/ BACKUP POWER SO THAT MOTORIZED OPERATORS REMAIN FUNCTIONAL IN CASE OF POWER OUTAGE.
L. DRIVEWAY GATES SHALL BE INSTALLED WITH AN OVERRIDE SWITCH SO THAT GATE CAN BE OPENED MANUALLY.

2 VEHICULAR GATE CROSS SECTION
N.T.S.

STEPPED SLOPE

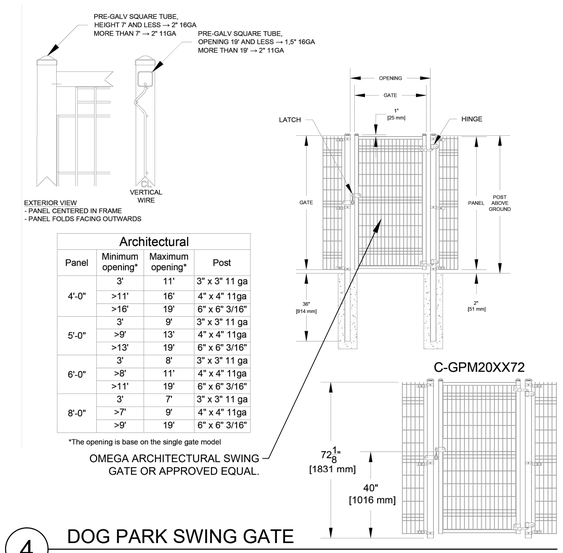


FOR SQUARE POSTS
THE UNIVERSAL BRACKET KIT ALLOWS EASY ADJUSTMENTS TO THE DESIRED HEIGHT.



NOTE:
THE DEPTH OF THE CONCRETE FOUNDATIONS MUST BE ESTABLISHED ACCORDING TO REGULATIONS IN THE REGION WHERE THE INSTALLATION IS CARRIED OUT. A MINIMUM DEPTH OF 42 in. (1070 mm) IS RECOMMENDED. THE RECOMMENDED FOUNDATION DIAMETER IS 8 in. (200 mm) FOR A COMMERCIAL SITE AND 6 in. (152 mm) FOR RESIDENTIAL INSTALLATION. REGULATIONS OF THE REGION TAKES PRECEDENCE OVER THE SPECIFICATIONS MENTIONED ABOVE.

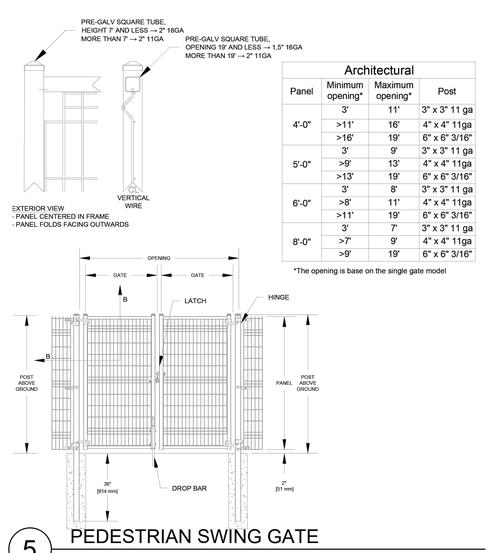
3 STANDARD FENCE INSTALLATION
N.T.S.



Architectural			
Panel	Minimum opening*	Maximum opening*	Post
4'-0"	3'	11'	3" x 3" 11 ga
	>11'	16'	4" x 4" 11ga
	>16'	19'	6" x 6" 3/16"
5'-0"	3'	9'	3" x 3" 11 ga
	>9'	13'	4" x 4" 11ga
	>13'	19'	6" x 6" 3/16"
6'-0"	3'	8'	3" x 3" 11 ga
	>8'	11'	4" x 4" 11ga
	>11'	19'	6" x 6" 3/16"
8'-0"	3'	7'	3" x 3" 11 ga
	>7'	9'	4" x 4" 11ga
	>9'	19'	6" x 6" 3/16"

*The opening is base on the single gate model

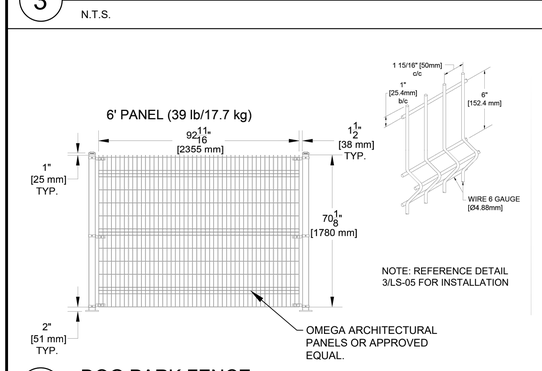
4 DOG PARK SWING GATE
N.T.S.



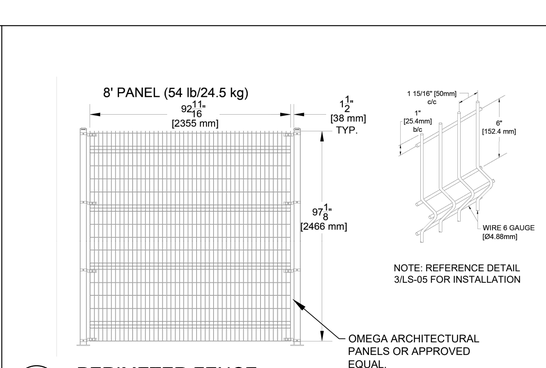
Architectural			
Panel	Minimum opening*	Maximum opening*	Post
4'-0"	3'	11'	3" x 3" 11 ga
	>11'	16'	4" x 4" 11ga
	>16'	19'	6" x 6" 3/16"
5'-0"	3'	9'	3" x 3" 11 ga
	>9'	13'	4" x 4" 11ga
	>13'	19'	6" x 6" 3/16"
6'-0"	3'	8'	3" x 3" 11 ga
	>8'	11'	4" x 4" 11ga
	>11'	19'	6" x 6" 3/16"
8'-0"	3'	7'	3" x 3" 11 ga
	>7'	9'	4" x 4" 11ga
	>9'	19'	6" x 6" 3/16"

*The opening is base on the single gate model

5 PEDESTRIAN SWING GATE
N.T.S.



6 DOG PARK FENCE
N.T.S.



7 PERIMETER FENCE
N.T.S.

TO BE INCLUDED IN 100% DRAWINGS

8 VEHICULAR SWING GATE
N.T.S.

TO BE INCLUDED IN 100% DRAWINGS

9 PEDESTRIAN GATE AT BRIDGE
N.T.S.

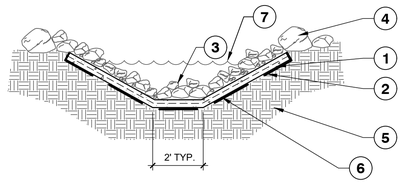
90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS	
KC	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	KC EATON WASH STORMWATER CAPTURE PROJECT	SHEET LS-06
DESIGNED BY							SHEET TITLE CONSTRUCTION DETAILS	68 OF 111
EH							SCALE AS SHOWN / ACCOUNT NUMBER XXXXXX	DWG. NO.
CHECKED BY								
JP			AS BUILT					

Date: July 6, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-CONSTRUCTION_DETAILS.DWG

1. 2" MIN THICK CONCREETE VENEER REINFORCED WITH 1" X 1" X 20 GA WIRE MESH OVER LINER
2. 30 MIL LLDPE-R GEOMEMBRANE LINER PER SPECIFICATIONS
3. 2" - 4" COBBLE STONES MORTARED TO CONCRETE VENEER - SUBMIT SAMPLE TO LANDSCAPE ARCHITECT FOR APPROVAL
4. CREEK BOULDERS GROUTED IN PLACE PER CONSTRUCTION PLAN SHEETS LS-02
5. COMPACTED SUBGRADE PER GEOTECH REPORT
6. 2:1 SLOPE, TYP.
7. FLOW DEPTH OF .006'

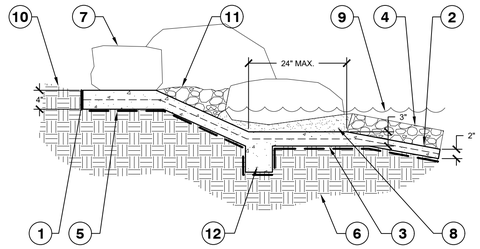
NOTES:
A. REFER TO LS-01 CONSTRUCTION NOTES & LEGEND FOR CREEK STONE SIZES AND TYPES.
B. CONTRACTOR SHALL PROVIDE A 6 LINEAR FOOT MOCK UP SECTION OF CREEK BED FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO STARTING INSTALLATION OF WATER FEATURE. MOCKUP SHALL INCLUDE CONCRETE VENEER, COBBLE AND CREEK BOULDERS.



1 CREEK SECTION
3/4" = 1'-0"

1. 4" MIN THICK CONCRETE VENEER REINFORCED WITH 1" X 1" X 20 GA WIRE MESH OVER LINER
2. 2" MIN THICK CONCRETE VENEER REINFORCED WITH 1" X 1" X 20 GA WIRE MESH OVER LINER
3. 3" THICK CONCRETE BASE
4. 2" - 4" DIAMETER COBBLESTONE
5. GEOMEMBRANE LINER PER SPECIFICATIONS
6. COMPACTED SUBGRADE PER GEOTECH REPORT
7. BOULDER - PER PLAN
8. GROUT
9. WATERLINE
10. ADJACENT PLANTING AREA PER PLAN
11. FILL GAPS BETWEEN BOULDERS WITH COBBLE OR GRAVEL AS NEEDED TO CONCEAL CONCRETE.
12. 8" X 8" CONCRETE KEYWAY

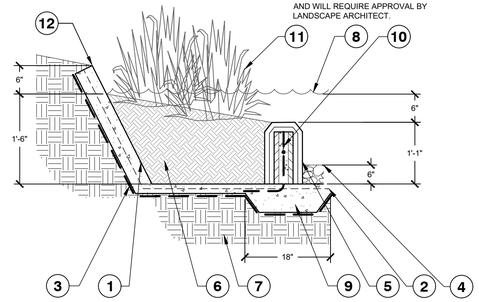
NOTES:
A. REFER TO LS-01 CONSTRUCTION NOTES & LEGEND FOR BOULDER SIZES AND TYPES.
B. GROUT BOULDERS IN PLACE AT BASIN WITH 3" THICK CONCRETE BASE.



2 BOULDER AT CREEK EDGE
3/4" = 1'-0"

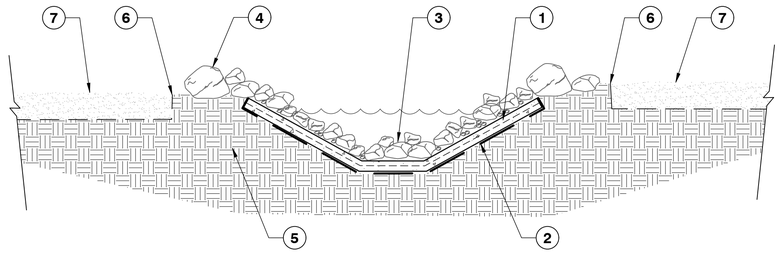
1. 4" MIN THICK CONCRETE VENEER REINFORCED WITH 1" X 1" X 20 GA WIRE MESH OVER LINER
2. 2" MIN THICK CONCRETE VENEER REINFORCED WITH 1" X 2" X 20 GA WIRE MESH OVER LINER
3. GEOMEMBRANE LINER - PER SPECIFICATIONS
4. 2"-4" MIN DIAMETER COBBLESTONE - SUBMIT SAMPLE TO LANDSCAPE ARCHITECT FOR APPROVAL
5. 4" CMU BLOCK
6. PLANTING MIX PER SPECIFICATIONS
7. COMPACTED SUBGRADE PER GEOTECH REPORT
8. WATERLINE
9. 4" THICKENED CONCRETE FOOTING
10. #4 REBAR AT 12" O.C. (ALTERNATE)
11. AQUATIC PLANTS PER PLAN
12. CONCEAL CONCRETE WITH BOULDERS AND COBBLE PER DETAIL 6, THIS SHEET

NOTES:
A. CMU WALL COLOR TO MATCH BOULDER AND WILL REQUIRE APPROVAL BY LANDSCAPE ARCHITECT.



3 CREEK EDGE WITH PLANTING
3/4" = 1'-0"

1. 2" MIN THICK CONCREETE VENEER REINFORCED WITH 1" X 1" X 20 GA WIRE MESH OVER LINER
2. GEOMEMBRANE LINER PER SPECIFICATIONS
3. 2" - 4" COBBLE STONES MORTARED TO CONCRETE VENEER - SUBMIT SAMPLE TO LANDSCAPE ARCHITECT FOR APPROVAL
4. CREEK BOULDERS GROUTED IN PLACE PER CONSTRUCTION PLAN SHEETS LS-02 - LS-04
5. COMPACTED SUBGRADE PER GEOTECH REPORT
6. EDGE RESTRAINT TBD
7. D.G. SURFACE



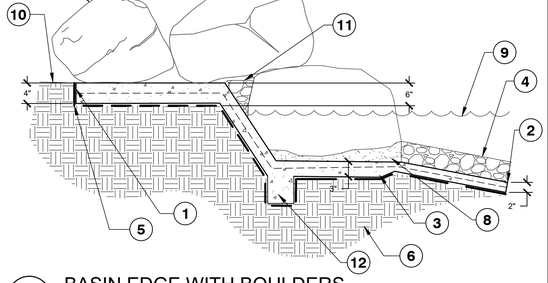
4 CREEK EDGE AT D.G. SURFACING
N.T.S.

TO BE INCLUDED IN 100% DRAWINGS

5 BASIN SECTION

1. 4" MIN THICK CONCRETE VENEER REINFORCED WITH 1" X 1" X 20 GA WIRE MESH OVER LINER
2. 2" MIN THICK CONCRETE BEMEER REINFORCED WITH 1" X 1" X 20 GA WIRE MESH OVER LINER
3. 3" THICK CONCRETE BASE
4. 2"-4" DIAMETER COBBLESTONE
5. GEOMEMBRANE LINER - PER SPECIFICATIONS
6. COMPACTED SUBGRADE PER GEOTECH REPORT
7. BOULDER PER PLAN
8. GROUT
9. WATERLINE
10. ADJACENT PLANTING AREA PER PLAN
11. FILL GAPS BETWEEN BOULDERS WITH COBBLE OR GRAVEL AS NEEDED TO CONCEAL CONCRETE
12. 8" X 8" CONCRETE KEYWAY

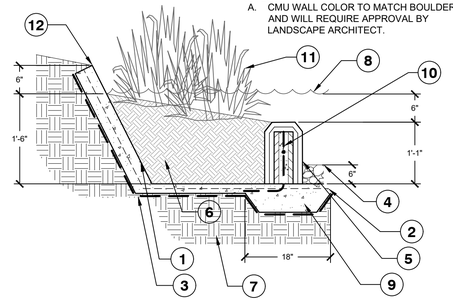
NOTES:
A. REFER TO SHEET LS-01 CONSTRUCTION NOTES & LEGEND FOR BOULDER SIZES AND TYPES.
B. GROUT BOULDERS IN PLACE AT BASIN WITH 3" THICK CONCRETE BASE.



6 BASIN EDGE WITH BOULDERS
3/4" = 1'-0"

1. 4" MIN THICK CONCRETE VENEER REINFORCED WITH 1" X 1" X 20 GA WIRE MESH OVER LINER
2. 2" MIN THICK CONCRETE VENEER REINFORCED WITH 1" X 2" X 20 GA WIRE MESH OVER LINER
3. GEOMEMBRANE LINER - PER SPECIFICATIONS
4. 2"-4" MIN DIAMETER COBBLESTONE - SUBMIT SAMPLE TO LANDSCAPE ARCHITECT FOR APPROVAL
5. 4" CMU BLOCK
6. PLANTING MIX PER SPECIFICATIONS
7. COMPACTED SUBGRADE PER GEOTECH REPORT
8. WATERLINE
9. 4" THICKENED CONCRETE FOOTING
10. #4 REBAR AT 12" O.C. (ALTERNATE)
11. RIPARIAN PLANTS PER PLAN
12. CONCEAL CONCRETE WITH BOULDERS AND COBBLE PER DETAIL 6, THIS SHEET

NOTES:
A. CMU WALL COLOR TO MATCH BOULDER AND WILL REQUIRE APPROVAL BY LANDSCAPE ARCHITECT.



7 BASIN EDGE WITH PLANTING
3/4" = 1'-0"

TO BE INCLUDED IN 100% DRAWINGS

8 SPRING SECTION

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS	
KC	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	EATON WASH STORMWATER CAPTURE PROJECT	SHEET LS-07
DESIGNED BY							SHEET TITLE CONSTRUCTION DETAILS	69 OF 111
EH							SCALE AS SHOWN / ACCOUNT NUMBER XXXXXX	DWG. NO.
CHECKED BY								
JP			AS BUILT					

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-CONSTRUCTION_DETAILS.DWG

PRODUCT: | WEIGHT: (CUSTOMER TO OFFLOAD IF OVER 6000 Lbs.)

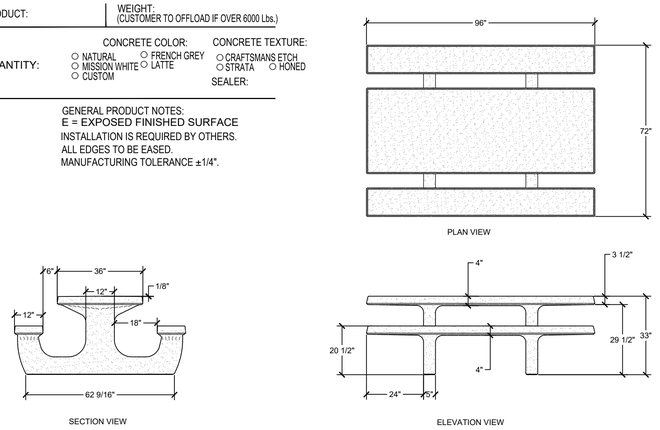
QUANTITY:

CONCRETE COLOR: ○ NATURAL ○ MISSION WHITE ○ CUSTOM ○ FRENCH GREY ○ LATTE

CONCRETE TEXTURE: ○ CRAFTSMANS ETCH ○ STRATA ○ HONED

SEALER:

GENERAL PRODUCT NOTES:
E = EXPOSED FINISHED SURFACE
INSTALLATION IS REQUIRED BY OTHERS.
ALL EDGES TO BE EASED.
MANUFACTURING TOLERANCE ±1/4".



1 PICNIC TABLE

N.T.S.

PRODUCT: | WEIGHT: (CUSTOMER TO OFFLOAD IF OVER 6000 Lbs.)

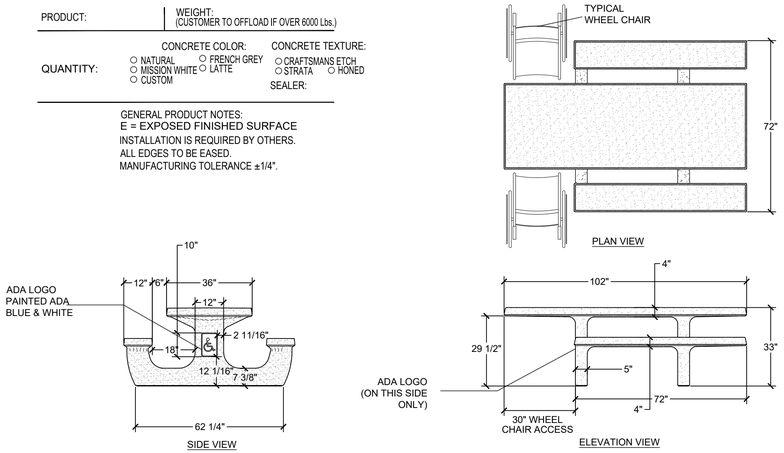
QUANTITY:

CONCRETE COLOR: ○ NATURAL ○ MISSION WHITE ○ CUSTOM ○ FRENCH GREY ○ LATTE

CONCRETE TEXTURE: ○ CRAFTSMANS ETCH ○ STRATA ○ HONED

SEALER:

GENERAL PRODUCT NOTES:
E = EXPOSED FINISHED SURFACE
INSTALLATION IS REQUIRED BY OTHERS.
ALL EDGES TO BE EASED.
MANUFACTURING TOLERANCE ±1/4".

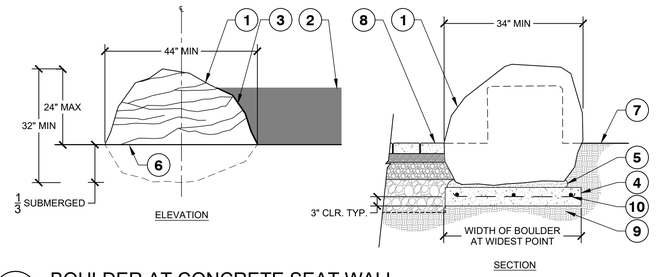


2 ADA PICNIC TABLE

N.T.S.

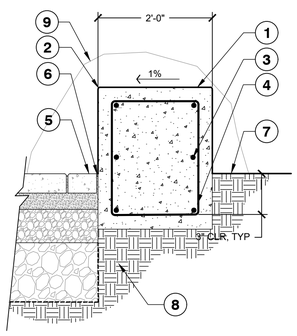
1. BOULDER PER PLAN
2. CONCRETE SEAT WALL PER PLAN
3. EXPANSION JOINT - 1/4" FOAM FILLER WITH MASTIC SEALANT FINISHED WITH CLEAN SILICA SAND IN COLOR TO MATCH ADJACENT CONCRETE. NO ZIP STRIP JOINT CAPS ALLOWED. SUBMIT SAMPLE OF SILICA SAND FOR APPROVAL BY LANDSCAPE ARCHITECT
4. 6" THICK SQUARE CONCRETE BASE
5. MASONRY GROUT
6. FINISH SURFACE PER PLAN
7. ADJACENT PLANTING AREA PER PLAN
8. ADJACENT PAVERS PER PLAN
9. COMPACTED SUBGRADE PER GEOTECHNICAL REPORT
10. NO. 5 @ 12" O.C. EACH WAY

NOTES:
A. BOULDERS ARE TO BE FIELD SELECTED BY LANDSCAPE ARCHITECT.
B. LANDSCAPE ARCHITECT TO DIRECT FINAL BOULDER PLACEMENT ON SITE.
C. BOULDER PLACEMENT TO OCCUR PRIOR TO FLATWORK, IRRIGATION, AND PLANTING INSTALLATION.
D. ALL BOULDERS LOCATED NEXT TO IMPERVIOUS SURFACES SHALL HAVE A CONCRETE SETTING BASE OF AT LEAST 6" OF CONCRETE TO AVOID SETTLEMENT.
E. FACING MARKS (PAINT AND CHALK) AND ALL UNNATURAL MARKINGS SHALL BE REMOVED FROM ALL VISIBLE SURFACES OF THE BOULDER.
F. BOULDER PLACEMENT TO OCCUR PRIOR TO IRRIGATION AND PLANTING INSTALLATION.
G. CUT ADJACENT PAVERS TO FIT AS NECESSARY. LEAVE A GAP 1" OR LESS BETWEEN PAVERS AND BOULDER.



3 BOULDER AT CONCRETE SEAT WALL

N.T.S.

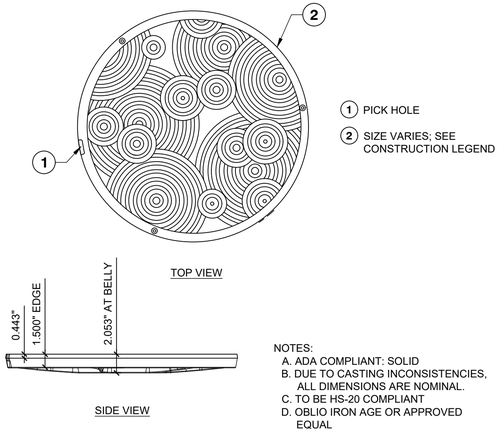


1. POURED IN PLACE CONCRETE SEAT WALL, PITCH TOP @ 1%
2. 1/2" TOOLED RADIUS AT ALL EXPOSED EDGES
3. NO. 4 HORIZONTAL, 3 EQ. SPACED EACH SIDE
4. NO. 4 HOOP AND CROSSTIE @ 9" O.C.
5. ADJACENT PAVING PER PLAN
6. CUT ADJACENT PAVERS TO FIT AS NECESSARY. LEAVE A GAP 1" OR LESS BETWEEN PAVERS AND BOULDER.
7. FINISH GRADE PER PLAN
8. COMPACTED SUBGRADE PER GEOTECH REPORT
9. BOULDER AT SEAT WALL - REFER TO DETAIL 5, THIS SHEET FOR ADDITIONAL INFORMATION

NOTES:
A. COLOR AND FINISH PER LS-01 CONSTRUCTION NOTES & LEGEND.
B. SEAT WALL LENGTHS VARY, REFER TO PLANS.
C. ELEVATIONS AND GRADES PER CIVIL PLANS.
D. TOP OF WALL ELEVATION TO BE CONSISTENT.
E. ALL REINFORCEMENT TO BE 3" CLEAR FROM EDGE OF CONCRETE.
F. ALL CONCRETE STRENGTH TO BE 3,000 PSI AT 28 DAYS.

4 CONCRETE SEAT WALL

N.T.S.



1. PICK HOLE
2. SIZE VARIES; SEE CONSTRUCTION LEGEND

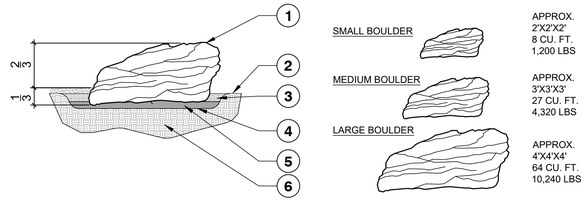
NOTES:
A. ADA COMPLIANT: SOLID
B. DUE TO CASTING INCONSISTENCIES, ALL DIMENSIONS ARE NOMINAL.
C. TO BE HS-20 COMPLIANT
D. OBLIO IRON AGE OR APPROVED EQUAL

5 MANHOLE COVER

N.T.S.

1. BOULDER - EQUAL NUMBERS OF EACH SIZE: LARGE/MEDIUM/SMALL
2. FINISHED GRADE, PLANTING AREA OR D.G.
3. COMPACTED BACKFILL
4. BOTTOM OF PIT - DEPTH AS REQUIRED
5. 3" MIN SAND IN BOTTOM OF PIT
6. SUBGRADE PER GEOTECHNICAL SPECIFICATIONS

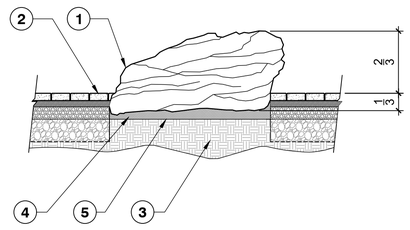
NOTES:
A. FIRMLY INSTALL 1/3 OF BOULDER BELOW FINISHED GRADE.
B. OVER-EXCAVATE PIT PER GEOTECHNICAL REPORT.
C. PLACE BOULDER IN FINAL POSITION AT FINAL DEPTH.
D. LANDSCAPE ARCHITECT TO APPROVE SELECTED BOULDERS AND PLACEMENT.
E. ADJUST AS REQUIRED USING ADDITIONAL SAND TO HOLD IN PLACE.
F. BACKFILL WITH ADDITIONAL SAND AND WET SAND TO FILL VOIDS.
G. COMPLETE BACKFILLING WITH SOIL.
H. COMPACT SOIL AROUND BOULDER IN PLANTING TO 80%.
I. BOULDER PLACEMENT TO OCCUR PRIOR TO IRRIGATION AND PLANTING INSTALLATION.



6 BOULDER

3/8" = 1'-0"

1. BOULDER - SIZE AS SPECIFIED ON PLANS
2. PAVERS PER PLAN
3. COMPACTED SUBGRADE PER GEOTECHNICAL REPORT
4. 3" MINIMUM SAND IN BOTTOM OF PIT
5. BOTTOM OF PIT - DEPTH AS REQUIRED



NOTES:
A. FIRMLY INSTALL 1/3 OF BOULDER BELOW FINISHED GRADE
B. OVER-EXCAVATE PIT
C. PLACE BOULDER IN FINAL POSITION AT FINAL DEPTH
D. LANDSCAPE ARCHITECT TO APPROVE SELECTED BOULDERS AND PLACEMENT
E. ADJUST AS REQUIRED USING ADDITIONAL SAND TO HOLD IN PLACE
F. BACKFILL WITH ADDITIONAL SAND AND WET TO FILL VOIDS
G. COMPLETE BACKFILLING WITH SOIL
H. COMPACT SOIL AROUND BOULDER IN PLANTING TO 80%
I. BOULDER PLACEMENT TO OCCUR PRIOR TO IRRIGATION AND PLANTING INSTALLATION.
J. CUT ADJACENT PAVERS TO FIT AS NECESSARY. LEAVE A GAP 1" OR LESS BETWEEN PAVERS AND BOULDER.

7 BOULDER IN PAVERS

1/2" = 1'-0"

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY KC	REVISIONS					
DESIGNED BY EH	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
CHECKED BY JP			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: CONSTRUCTION DETAILS

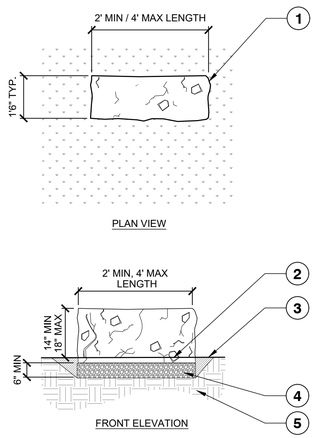
SCALE: AS SHOWN | ACCOUNT NUMBER: XXXXXX

SHEET LS-08

70 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-CONSTRUCTION_DETAILS.DWG

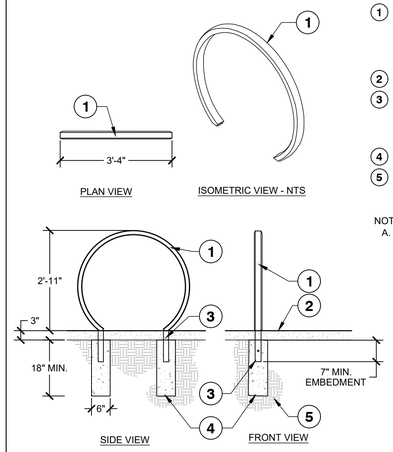


1. ECRU LIMESTONE BENCH BOULDER FROM SOUTHWEST BOULDER & STONE OR APPROVED EQUAL.
2. FINISHED GRADE
3. BACKFILL WITH NATIVE SOIL
4. COMPACTED AGGREGATE SUBBASE MATERIAL
5. SUBGRADE PER GEOTECHNICAL REPORT

NOTES:
A. STONE BENCH IS TO BE SET WITH A MINIMUM OF 2" BELOW FINISHED GRADE.
B. LOCATE BENCHES AS PER PLAN.

1 SANDSTONE SEATING AND TABLE BOULDER

3/8" = 1'-0"



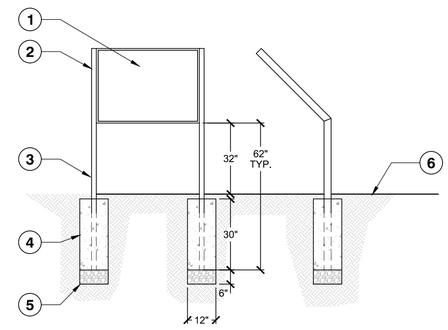
1. SPORTWORKS OAHU RACK. SEE LS-01 CONSTRUCTION NOTES & LEGEND FOR MORE INFORMATION. LOCATION PER PLAN.
2. ADJACENT PAVING PER PLAN
3. EMBEDMENT ANCHOR (PROVIDED BY MANUFACTURER WITH BIKE RACK).
4. CONCRETE FOOTING
5. COMPACTED SUBGRADE PER SPECIFICATIONS

NOTES:
A. CONTRACTOR RESPONSIBLE FOR INSTALLING BIKE RACK PER MANUFACTURER'S SPECIFICATIONS.

2 BIKE RACK AT DECOMPOSED GRANITE

1/2" = 1'-0"

P-PU-EAT-21

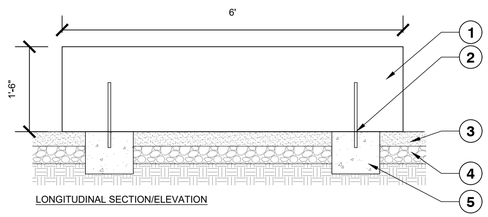


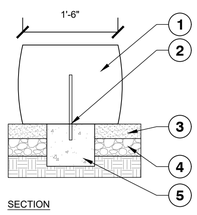
1. 32" X 40" INTERPRETIVE PANEL TO BE PROVIDED BY CLIENT REPRESENTATIVE
2. CANTILEVER STYLE EXHIBIT BASE FROM PANNIER GRAPHICS
   p: (724)265-4900; panniergraphics.com
   OR APPROVED EQUAL SIZED TO FIT 32" X 40" INTERPRETIVE GRAPHIC PANEL
3. 2" X 3" METAL POSTS
4. CONCRETE FOOTING PER MANUFACTURER'S SPECIFICATIONS
5. GRAVEL BASE PER MANUFACTURER'S SPECIFICATIONS
6. FINISHED GRADE

NOTES:
A. INSTALL EXHIBIT BASE 'IN-GROUND' FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS AT LOCATIONS INDICATED ON PLANS.
B. EXHIBIT BASE COLOR TO BE BLACK POWDER COATED.
C. FILL INSTALLATION HOLES IN GROUND WITH CONCRETE PER MANUFACTURER'S SPECIFICATIONS TO WITHIN 2 INCHES OF THE FINISHED GRADE AND BACKFILL

3 INTERPRETIVE SIGNAGE

N.T.S.



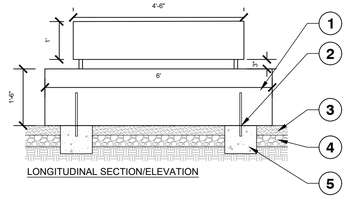


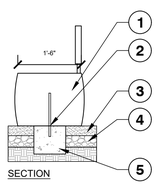
1. LOG, SEE SPECIFICATIONS
2. REBAR DOWEL; EPOXY TO WOOD AT 2/3 HEIGHT OF LOG, EMBEDDED IN CONCRETE FOOTING
3. STABILIZED DG, SEE DETAIL 1/LS-08
4. COMPACTED AGGREGATE SUB-BASE MATERIAL
5. FOOTING PER MANUFACTURER RECOMMENDATION

NOTES:
A. SALVAGED TIMBER TREATED WITH OIL ON ALL SIDES PER SPECIFICATIONS.
B. LANDSCAPE ARCHITECT TO APPROVE SELECTED TIMBER PIECES PRIOR TO INSTALLATION.
C. INSTALL LEVEL AND PLUMB.
D. SUBMIT SHOP DRAWINGS FOR APPROVAL BY LANDSCAPE ARCHITECT AND CIVIL ENGINEER.

4 BACKLESS RECLAIMED TIMBER BENCH

3/4" = 1'-0"





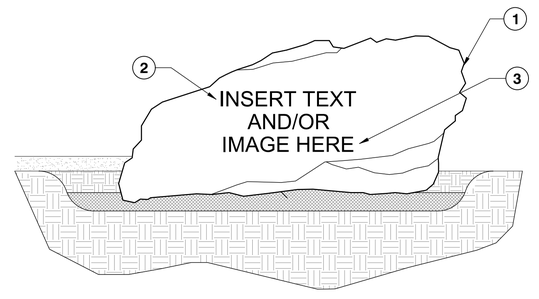
1. LOG, SEE SPECIFICATIONS
2. REBAR DOWEL
   EPOXY TO WOOD AT 2/3 HEIGHT OF LOG, EMBEDDED IN CONCRETE FOOTING
3. STABILIZED DG, SEE DETAIL 1/LS-08
4. COMPACTED AGGREGATE SUB-BASE MATERIAL
5. FOOTING PER MANUFACTURER RECOMMENDATION

NOTES:
A. SALVAGED TIMBER TREATED WITH OIL ON ALL SIDES PER SPECIFICATIONS.
B. LANDSCAPE ARCHITECT TO APPROVE SELECTED TIMBER PIECES PRIOR TO INSTALLATION.
C. INSTALL LEVEL AND PLUMB.
D. SUBMIT SHOP DRAWINGS FOR APPROVAL BY LANDSCAPE ARCHITECT AND CIVIL ENGINEER.

5 RECLAIMED TIMBER BENCH

1/2" = 1'-0"

1. BOULDER - INSTALLED PER DETAIL 6/LS-08
2. SANDBLASTED DESIGN: DIGITAL ARTWORK TO BE PROVIDED BY LANDSCAPE ARCHITECT, SANDBLAST TO A DEPTH OF 1/4" WITH CONCRETE ACID STAIN PAINTED INTO SANDBLASTED AREAS. COLOR: DARK GREEN
3. PLACEMENT OF DESIGN TO BE ON FLAT SURFACE FACING ADJACENT PATHWAYS. FINAL PLACEMENT TO BE APPROVED BY PROJECT REPRESENTATIVE.



6 SANDBLASTING ON BOULDER

N.T.S.

TO BE INCLUDED IN 100% DRAWINGS

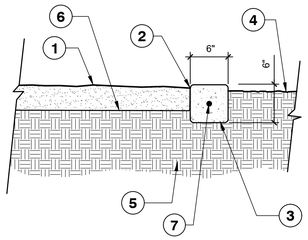
7 RAISED PLANTERS

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS	
KC	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	EATON WASH STORMWATER CAPTURE PROJECT	SHEET LS-09
DESIGNED BY							SHEET TITLE CONSTRUCTION DETAILS	71 OF 111
EH							SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX
CHECKED BY								DWG. NO.
JP			AS BUILT					

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-CONSTRUCTION_DETAILS.DWG

1. STABILIZED DECOMPOSED GRANITE PAVING, PER PLAN @ 4" DEPTH.
2. MAX. 1/4" FREEBOARD BETWEEN CONCRETE MOWCURB AND D.G. FINISHED SURFACE.
3. CONCRETE MOWCURB, PER PLAN
4. ADJACENT PLANTING AREA PER PLAN
5. COMPACTED SUBGRADE PER GEOTECH REPORT
6. MIRAFI 600X FILTER FABRIC
7. #4 REBAR, CONTINUOUS



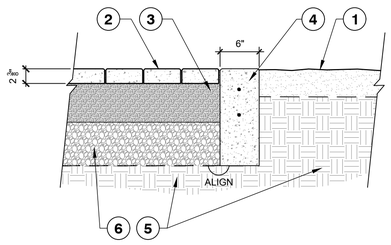
NOTES:
A. SEE CONSTRUCTION NOTES & LEGEND FOR ADDITIONAL INFORMATION.
B. DECOMPOSED GRANITE PATHS TO BE SLOPED TOWARD PLANTING AREAS, AND AWAY FROM SIDEWALKS AND OTHER NON-PERMEABLE SURFACES.
C. DECOMPOSED GRANITE, SUBGRADE AND SHOULDERS SHALL BE COMPACTED TO 95% RELATIVE DENSITY.
D. DECOMPOSED GRANITE SHALL BE MIXED WITH SOLIDIFYING EMULSION TO HARDEN AND STABILIZE THE SURFACE MATERIAL (SEE SPECS).

1 DECOMPOSED GRANITE PAVING

N.T.S.

1. STABILIZED DECOMPOSED GRANITE PAVING PER PLAN @ 4" DEPTH
2. CONCRETE PAVER WITH (1/2"-1" MAX) OPEN SURFACE SPACES
3. 1 IN. (25 MM) COARSE BEDDING SAND
4. CONCRETE EDGE RESTRAINT WITH (2) #4 REBAR, CONTINUOUS
5. COMPACTED SUBGRADE PER GEOTECH REPORT
6. MINIMUM 4" ASTM NO. 57 BASE MATERIAL, ¾"-1" CRUSHED-WASHED STONE

NOTES:
A. REFER TO LS-01 CONSTRUCTION NOTES & LEGEND FOR PRODUCT DETAILS, COLOR, AND FINISH.
B. INSTALLATION TO BE COMPLETED PER MANUFACTURERS SPECIFICATIONS.
C. PLACEMENT TO BE VERIFIED IN FIELD BY LANDSCAPE ARCHITECT.

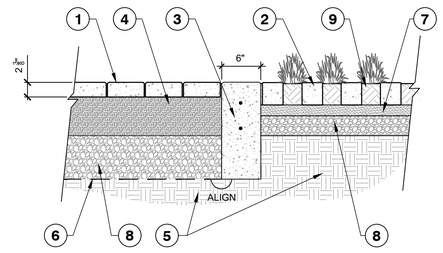


2 PERMEABLE PAVERS AT D.G. EDGE

1" = 1'-0"

1. CONCRETE PAVER WITH (1/2"-1" MAX) OPEN SURFACE SPACES
2. OPEN CELL CONCRETE PAVER PER PLAN
3. CONCRETE EDGE RESTRAINT WITH (2) #4 REBAR, CONTINUOUS
4. 1 IN. (25 MM) COARSE BEDDING SAND
5. COMPACTED SUBGRADE PER GEOTECH REPORT
6. GEOTEXTILE AS REQUIRED
7. 1/2 TO 1 IN. (13 TO 25 MM) BEDDING SAND
8. MINIMUM 4" ASTM NO. 57 BASE MATERIAL, ¾"-1" CRUSHED-WASHED STONE
9. TOPSOIL IN OPENINGS FILL 1/4 IN. (7 MM) BELOW SURFACE

NOTES:
A. REFER TO LS-01 CONSTRUCTION NOTES & LEGEND FOR PRODUCT DETAILS, COLOR, AND FINISH.
B. INSTALLATION TO BE COMPLETED PER MANUFACTURERS SPECIFICATIONS.
C. PLACEMENT TO BE VERIFIED IN FIELD BY LANDSCAPE ARCHITECT.

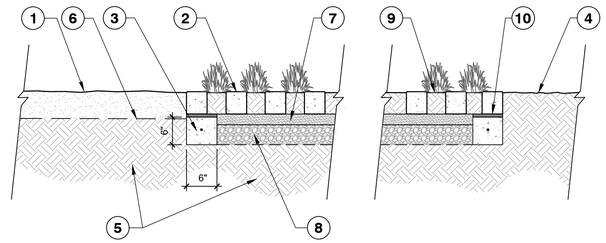


3 OPEN CELL PAVERS AT PERMEABLE PAVER EDGE

1" = 1'-0"

1. STABILIZED DECOMPOSED GRANITE PAVING, PER PLAN @ 4" DEPTH.
2. OPEN CELL CONCRETE PAVER PER PLAN
3. 6" X 6" CONCRETE EDGE RESTRAINT WITH #4 REBAR, CONTINUOUS
4. ADJACENT PLANTING AREA PER PLAN
5. COMPACTED SUBGRADE PER GEOTECH REPORT
6. MIRAFI 600X FILTER FABRIC
7. 1/2 TO 1 IN. (13 TO 25 MM) BEDDING SAND
8. COMPACTED AGGREGATE BASE
9. TOPSOIL IN OPENINGS FILL 1/4 IN. (7 MM) BELOW SURFACE
10. MORTAR PAVEMENT TO CONCRETE EDGE RESTRAINT

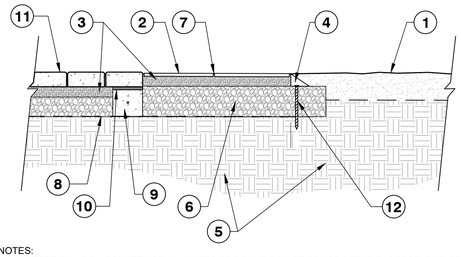
NOTES:
A. SEE LS-01 CONSTRUCTION NOTES & LEGEND FOR ADDITIONAL INFORMATION.
B. DECOMPOSED GRANITE PATHS TO BE SLOPED TOWARD PLANTING AREAS, AND AWAY FROM SIDEWALKS AND OTHER NON-PERMEABLE SURFACES.
C. INSTALL PAVERS PER MANUFACTURER'S SPECIFICATIONS.



4 OPEN CELL PAVERS

N.T.S.

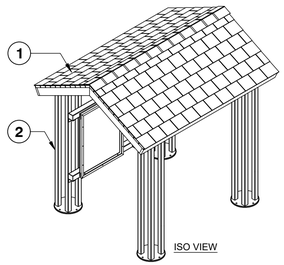
1. STABILIZED DECOMPOSED GRANITE PAVING PER PLAN @ 4" DEPTH
2. FLAGSTONE PAVER (1.75 MM THICK)
3. 1 IN. (25 MM) COARSE BEDDING SAND
4. EDGE RESTRAINT TBD
5. COMPACTED SUBGRADE PER GEOTECH REPORT
6. MINIMUM 4" / MAXIMUM 6" ASTM NO. 57 BASE MATERIAL, ¾"-1" CRUSHED-WASHED STONE
7. POLYMERIC JOINTING SAND BETWEEN SLABS
8. GEOTEXTILE
9. 6" X 6" CONCRETE EDGE RESTRAINT WITH #4 REBAR, CONTINUOUS
10. MORTAR PAVEMENT TO CONCRETE EDGE RESTRAINT
11. CONCRETE PAVER WITH (1/2"-1" MAX) OPEN SURFACE SPACES
12. GALVANIZED SPIKE



NOTES:
A. REFER TO LS-01 CONSTRUCTION NOTES & LEGEND FOR PRODUCT DETAILS, COLOR, AND FINISH.
B. INSTALLATION TO BE COMPLETED PER MANUFACTURERS SPECIFICATIONS.
C. PLACEMENT TO BE VERIFIED IN FIELD BY LANDSCAPE ARCHITECT.

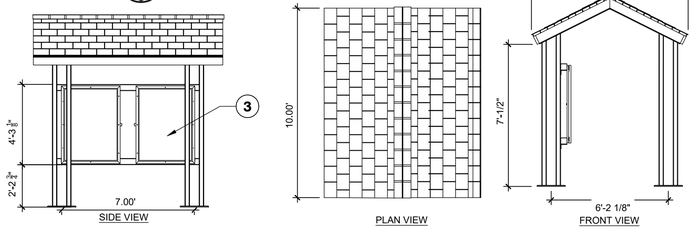
5 FLAGSTONE PAVERS AT D.G. EDGE & PERMEABLE PAVER EDGE

N.T.S.



1. CEDAR SHAKE ROOF
2. (4) 3X3 STEAL POSTS PER COLUMN
3. 3' X 4' READER BOARDS

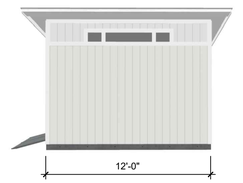
NOTES:
A. PRELIMINARY; NOT FOR CONSTRUCTION.



6 INTERPRETIVE KIOSK

1/4" = 1'-0"

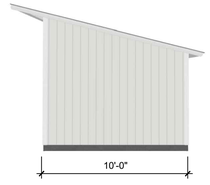
P-PU-EAT-69





NOTES:
A. FINAL DESIGN TBD.





7 PREFABRICATED CUSTOM GARDEN SHED

N.T.S.

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY KC	REVISIONS					
DESIGNED BY EH	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
CHECKED BY JP			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: CONSTRUCTION DETAILS

SCALE: AS SHOWN

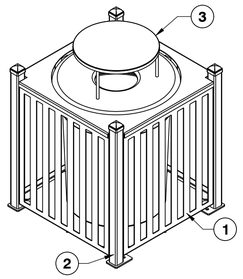
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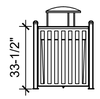
72 OF 111

DWG. NO.

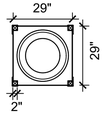
Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-CONSTRUCTION_DETAILS.DWG



ISOMETRIC VIEW



SIDE VIEW



TOP VIEW

1. SLATS WITH THERMOPLASTIC FINISH
2. 2" X 2" ALL MIG WELDED SQUARE TUBE FRAME
3. RAIN BONNET

NOTES:
A. RECEPTACLE HAS A 32 GALLON CAPACITY.
B. STANDARD IN THERMOPLASTIC; POWDERCOATED SURFACE AVAILABLE FOR AN UPCHARGE.
C. LID AND PLASTIC LINER INCLUDED.
D. PORTABLE AND/OR SURFACE MOUNT OPTIONS.

1 LITTER RECEPTACLE

N.T.S.

☑ SELECT DESIRED SURFACE FINISH:

☐ POWDER COAT RAL # _____

☐ OTHER: _____



DOME

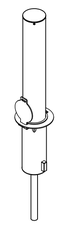


KNIGHT



VIKING

ALTERNATIVE CAP STYLES



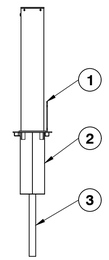
PERSPECTIVE



SIDE ELEVATION



FRONT ELEVATION



FRONT ELEVATION

1. EMBEDMENT SLEEVE LID
2. T304 SS 12GA. EMBEDMENT SLEEVE
3. 2" DRAIN PIPE (BY OTHERS)

SPECIFICATIONS:
BOLLARD CRASH RATING: ASTM F3016-S10
BOLLARD MATERIAL: 6" ASTM A53 PIPE (6-5/8" OD)

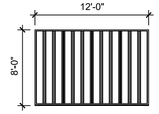
NOTES:
A. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
B. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS, AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
C. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
D. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT WWW.CADDETAILS.COM/INFO AND ENTER REFERENCE NUMBER 2905-067 - ATKORE CALPIPE SECURITY BOLLARDS - F3016-6_REMOVABLE BOLLARD, 36_ABOVE GRADE_18_BELOW GRADE.

2 REMOVABLE BOLLARDS

N.T.S.

GENERAL ROOF NOTES:

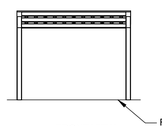
METAL ROOFING:
- 1. 24 GAUGE
- GALVALUME COATED
- KYNAR 500 PAINTED
- TRIM COLOR MATCHES ROOF



TOP VIEW

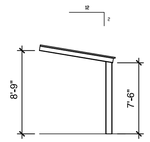


ISOMETRIC VIEW



FRONT VIEW

FINISH GRADE (ASSUMED AT CONSTANT ELEVATION UNLESS OTHERWISE NOTED)



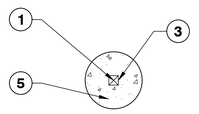
SIDE VIEW

3 SHADE STRUCTURE

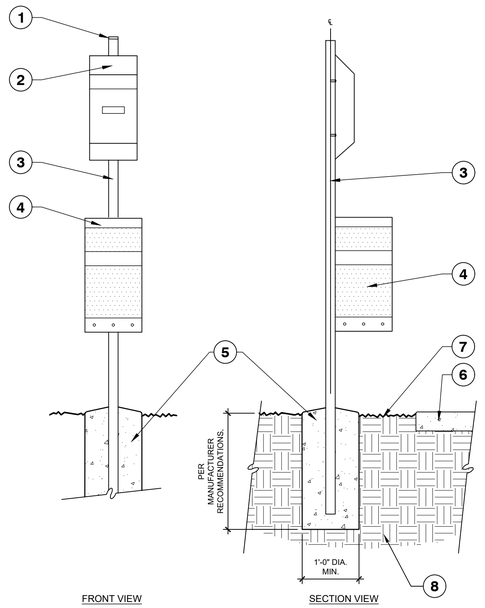
1/2" = 1'-0"

1. POST CAP - MATCH FENCE POST CAP.
2. DOG BAG DISPENSER - ATTACH TO POLE PER MANUFACTURER'S RECOMMENDATIONS.
3. STEEL POST
4. TRASH BIN - FASTEN TO POLE WITH (2) ANCHOR BOLTS PER MANUFACTURER'S RECOMMENDATIONS.
5. CONCRETE FOOTING - SLOPE TOP OF FOOTING TO DRAIN.
6. ADJACENT SURFACE PER PLAN
7. FINISH GRADE
8. COMPACTED SUBGRADE PER GEOTECHNICAL RECOMMENDATIONS.

NOTES:
A. CONTRACTOR SHALL REFER TO LS-01 CONSTRUCTION NOTES & LEGEND FOR ALL MODEL NUMBERS, COLORS, AND FINISHES.
B. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS PRIOR TO CONSTRUCTION FOR APPROVAL BY OWNER/LANDSCAPE ARCHITECT.
C. CONTRACTOR SHALL HAVE LANDSCAPE ARCHITECT LOCATE PRIOR TO INSTALLATION.
D. ALL CONNECTIONS SHALL BE PAINTED TO MATCH POST.



PLAN VIEW



FRONT VIEW

SECTION VIEW

4 PET WASTE BAG DISPENSER - POLE MOUNT

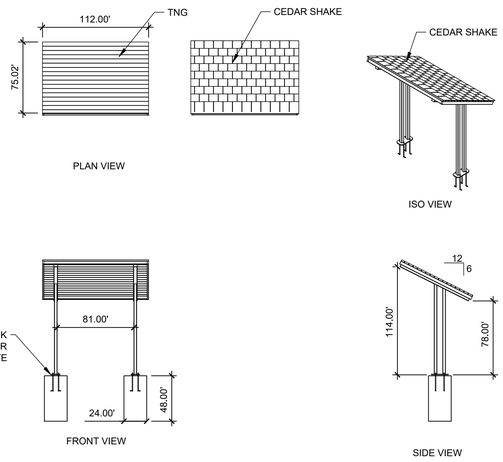
3/4" = 1'-0"

TO BE INCLUDED IN 100% DRAWINGS

5 WHEEL STOP

TO BE INCLUDED IN 100% DRAWINGS

6 TRUNCATED DOMES



7 DOG PARK SHADE STRUCTURE

1" = 80'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY KC	REVISIONS					
DESIGNED BY EH	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
CHECKED BY JP			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: CONSTRUCTION DETAILS

SCALE: AS SHOWN

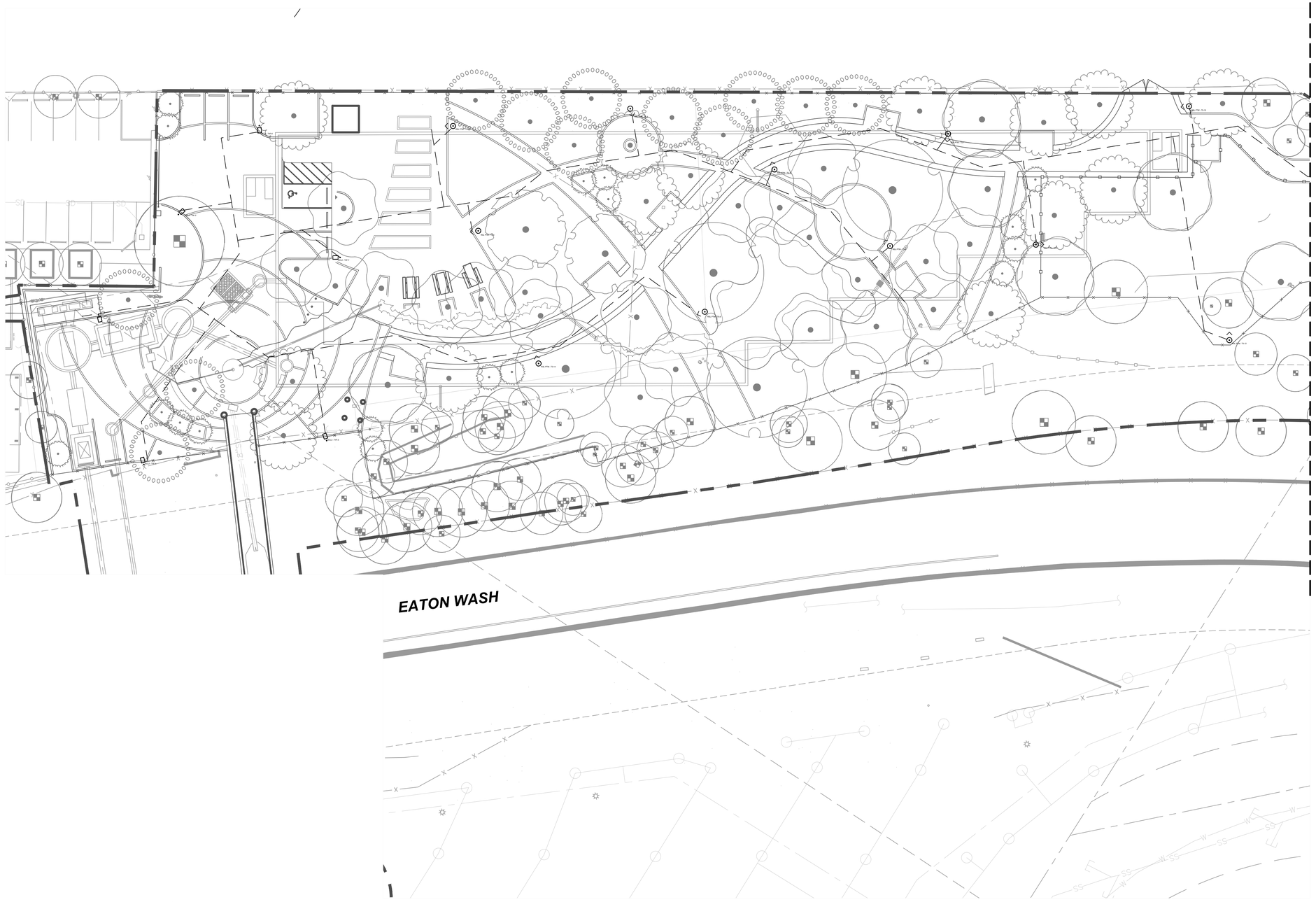
ACCOUNT NUMBER: XXXXXX

SHEET: LS-11

73 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-CONSTRUCTION_DETAILS.DWG



MATCHLINE SEE SHEET LL-02

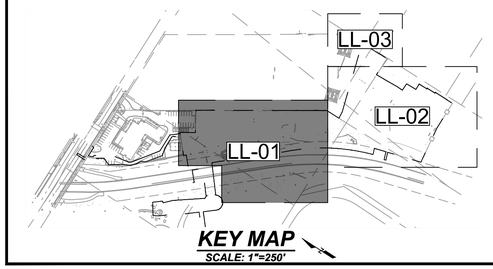
Schedule						
Symbol	Label	Quantity	Manufacturer	Lumens Per Lamp	Light Loss Factor	Wattage
	SCL2 - T4F	6	First Light Technologies	3260	0.9	0
	RSL PTM - T5	12	First Light Technologies Ltd.	3093	0.9	0

NOTES:

1. MOUNTING HEIGHT = SCL2 - 15', RSL - 12'
2. CALCULATION ZONE = GROUND
3. GRID SPACING = 4'
4. POLE SPACING = AS SHOWN
5. PROFILE = TD2300
6. LED COLOR TEMP = 3000K

LIGHTING FUTURE RETROFIT ELECTRICAL LEGEND/NOTES

— — — — 3" EMPTY ELECTRICAL CONDUIT PIPING. EMPTY CONDUIT SHOWN SCHEMATICALLY FOR BIDDING PURPOSES ONLY. CONTRACTOR TO PROVIDE HANDHOLES/PULL BOXES AT 100' INTERVALS OR TO ADHERE DESIGN TO 360° RULE. PULL BOXES TO BE CONSTRUCTED PER CITY OF PASADENA DEPARTMENT OF PUBLIC WORKS DETAIL S-973.



KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
FLT	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
DESIGNED BY						
FLT						
CHECKED BY						
JP			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: LIGHTING PLAN

SCALE: AS SHOWN

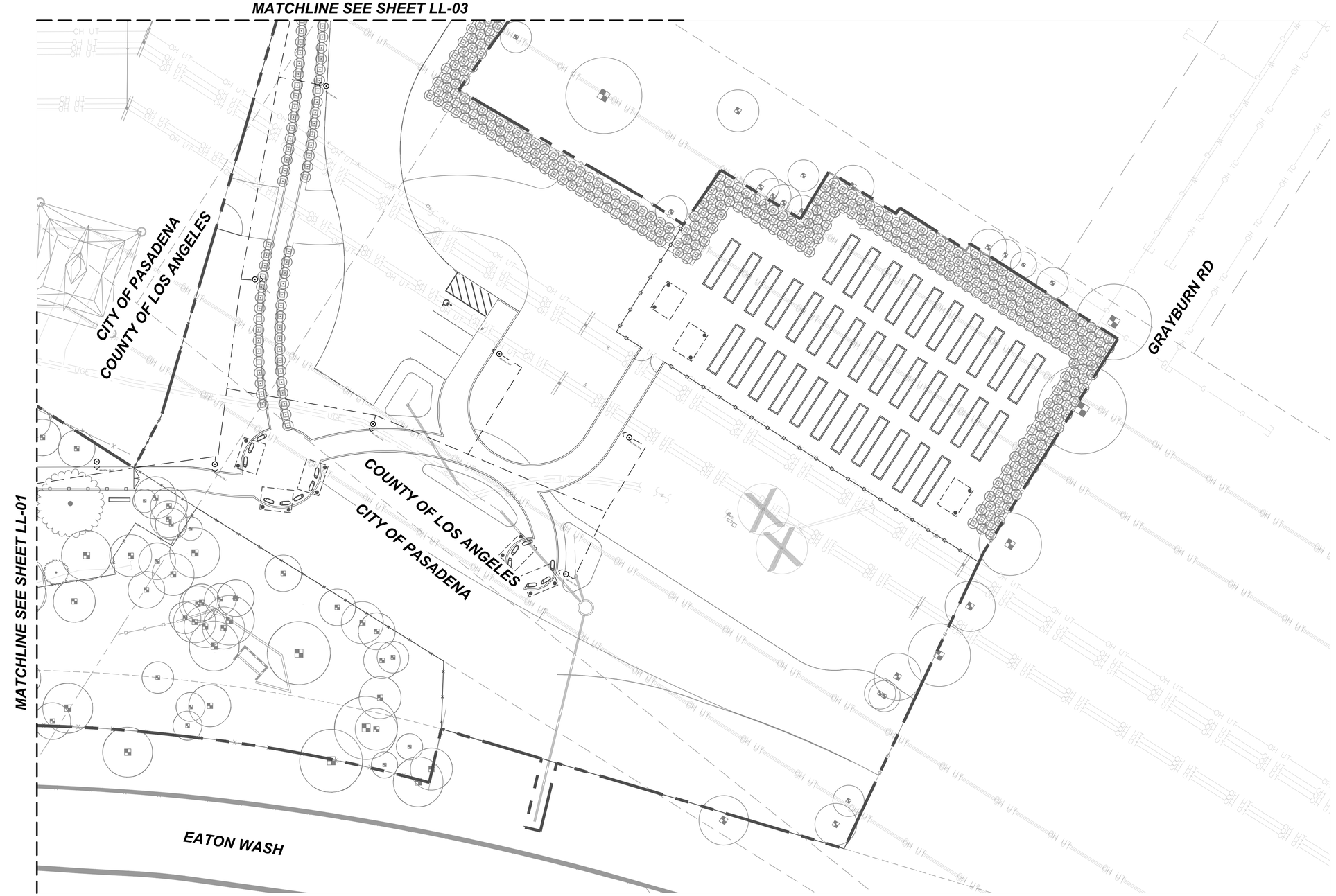
ACCOUNT NUMBER: XXXXXX

SHEET: LL-01

74 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-LIGHTING PLAN.DWG



Schedule						
Symbol	Label	Quantity	Manufacturer	Lumens Per Lamp	Light Loss Factor	Wattage
	SCL2 - T4F	6	First Light Technologies	3260	0.9	0
	RSL PTM - T5	12	First Light Technologies Ltd.	3093	0.9	0

NOTES:

1. MOUNTING HEIGHT = SCL2 - 15', RSL - 12'
2. CALCULATION ZONE = GROUND
3. GRID SPACING = 4'
4. POLE SPACING = AS SHOWN
5. PROFILE = TD2300
6. LED COLOR TEMP = 3000K

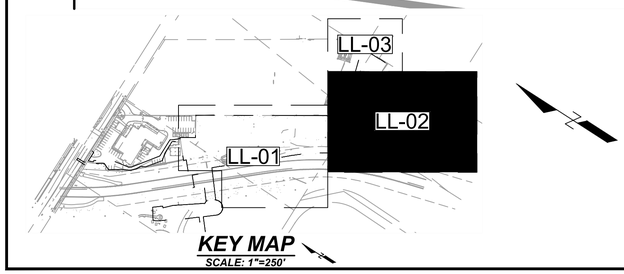
Schedule						
Symbol	Label	Quantity	Manufacturer	Lumens Per Lamp	Light Loss Factor	Wattage
	RSL PTM - T5	8	First Light Technologies Ltd.	3093	0.9	0

NOTES:

1. MOUNTING HEIGHT = 12'
2. CALCULATION ZONE = GROUND
3. GRID SPACING = 4'
4. POLE SPACING = AS SHOWN
5. PROFILE = TD2300
6. LED COLOR TEMP = 3000K

LIGHTING FUTURE RETROFIT ELECTRICAL LEGEND/NOTES

— — — — 3" EMPTY ELECTRICAL CONDUIT PIPING. EMPTY CONDUIT SHOWN SCHEMATICALLY FOR BIDDING PURPOSES ONLY. CONTRACTOR TO PROVIDE HANDHOLES/PULL BOXES AT 100' INTERVALS OR TO ADHERE DESIGN TO 360° RULE. PULL BOXES TO BE CONSTRUCTED PER CITY OF PASADENA DEPARTMENT OF PUBLIC WORKS DETAIL S-973.



KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
FLT	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
DESIGNED BY						
FLT						
CHECKED BY						
JP			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: LIGHTING PLAN

SCALE: AS SHOWN

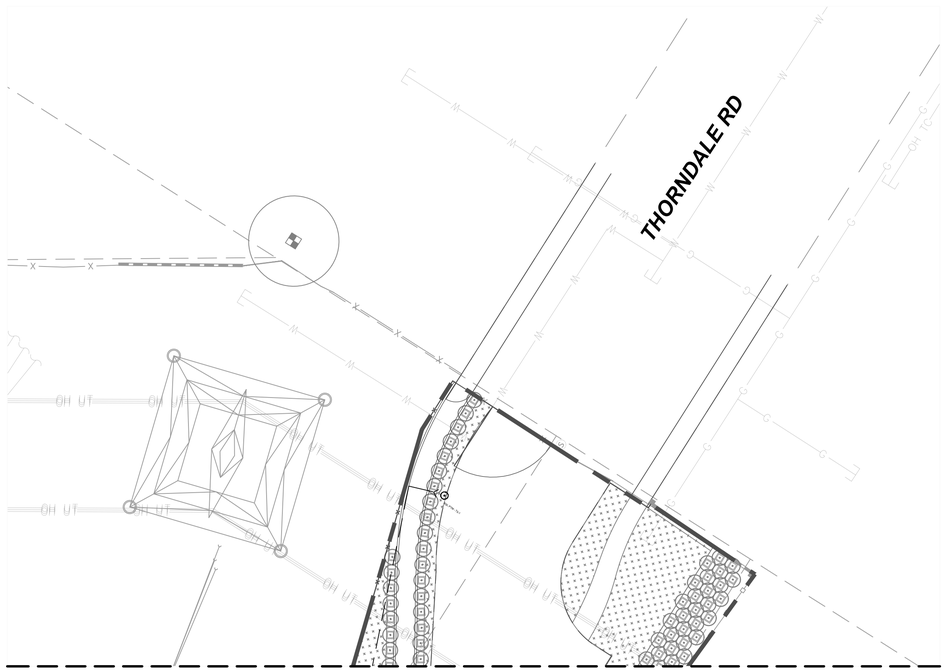
ACCOUNT NUMBER: XXXXXX

SHEET: LL-02

75 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-LIGHTING PLAN.DWG



MATCHLINE SEE SHEET LL-02

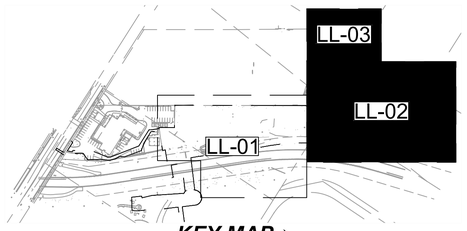
Schedule						
Symbol	Label	Quantity	Manufacturer	Lumens Per Lamp	Light Loss Factor	Wattage
	RSL PTM - T5	8	First Light Technologies Ltd.	3093	0.9	0

NOTES:

1. MOUNTING HEIGHT = 12'
2. CALCULATION ZONE = GROUND
3. GRID SPACING = 4'
4. POLE SPACING = AS SHOWN
5. PROFILE = TD2300
6. LED COLOR TEMP = 3000K

LIGHTING FUTURE RETROFIT ELECTRICAL LEGEND/NOTES

— — — — 3" EMPTY ELECTRICAL CONDUIT PIPING. EMPTY CONDUIT SHOWN SCHEMATICALLY FOR BIDDING PURPOSES ONLY. CONTRACTOR TO PROVIDE HANDHOLES/PULL BOXES AT 100' INTERVALS OR TO ADHERE DESIGN TO 360° RULE. PULL BOXES TO BE CONSTRUCTED PER CITY OF PASADENA DEPARTMENT OF PUBLIC WORKS DETAIL S-973.



KEY MAP
SCALE: 1"=250'

0 20 40 Feet

SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
FLT	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
DESIGNED BY						
FLT						
CHECKED BY						
JP			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: LIGHTING PLAN

SCALE: AS SHOWN

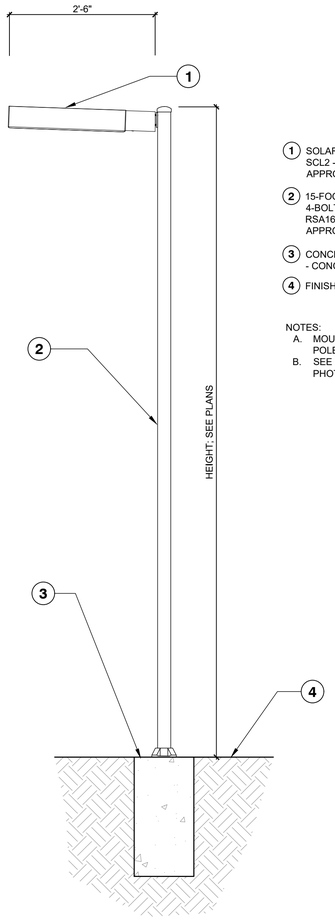
ACCOUNT NUMBER: XXXXXX

SHEET: LL-03

76 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-LIGHTING PLAN.DWG

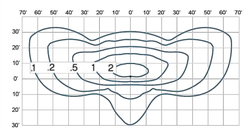


1. SOLAR LED COMMERCIAL AREA LIGHT
   SCL2 - T4F/RSL PTM - T5 BY FIRST LIGHT OR
   APPROVED EQUAL
2. 15-FOOT/12-FOOT ROUND ALUMINUM POLE WITH
   4-BOLT BASE BLACK POWDER COAT
   RSA16B4-4-BA BY HAPCO (800)368-7171 OR
   APPROVED EQUAL
3. CONCRETE FOOTING PER APWA STANDARD PLAN 447-1
   - CONCRETE LIGHTING STANDARD TYPE C-4
4. FINISHED GRADE

NOTES:
A. MOUNT POLE TO CONCRETE FOOTING PER POLE MANUFACTURER'S SPECIFICATIONS.
B. SEE CONSTRUCTION PLAN FOR PHOTOMETRIC TYPE.

Photometrics

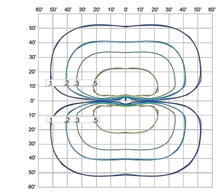
Type II

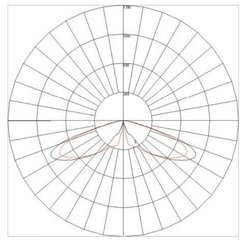


Order Matrix

Series	Mounting	Finish	Distribution	LED	Lighting Profiles	Options
SCL2	SPMU - Side Pole Mount Universal	BK - Black	Type II	2700K	00 - On at dusk > Off at dawn	SEC - Security Fasteners
	NMNT - No Mount	BZ - Bronze	Type III	3000K	01 - On at dusk > Off after 6 hours	MSO - Motion Sensor Off
		SV - Silver	Type IV	4000K	02 - On at dusk > Dim to 30% after 6 hours > Off at dawn	BLS - Backlight Shield
		WH - White	Type V	Amber	03 - On at dusk > Off after 5 hours > On 1 hour before dawn> Off at dawn	BLB - Blue Light Blocker
		CC - Custom			04 - On at dusk > Dim to 30% after 5 hours > Brighten to 100% 1 hour before dawn > Off at dawn	
					05 - On at dusk > Off after 3 hours	
					06 - On at dusk > Off after 4 hours	
					07 - On at dusk > Off after 4 hours > On 1 hour before dawn > Off at dawn	
					08 - Off (typically used with motion sensing)	
					09 (Default) - On at dusk > Dim to 30% after 3 hours > Brighten to 100% 1 hour before dawn > Off at dawn	
					10 - On 30% at dusk > Off at dawn	
					11 - Custom dusk - dawn - time-of-day profile	

Type 5





Order Matrix

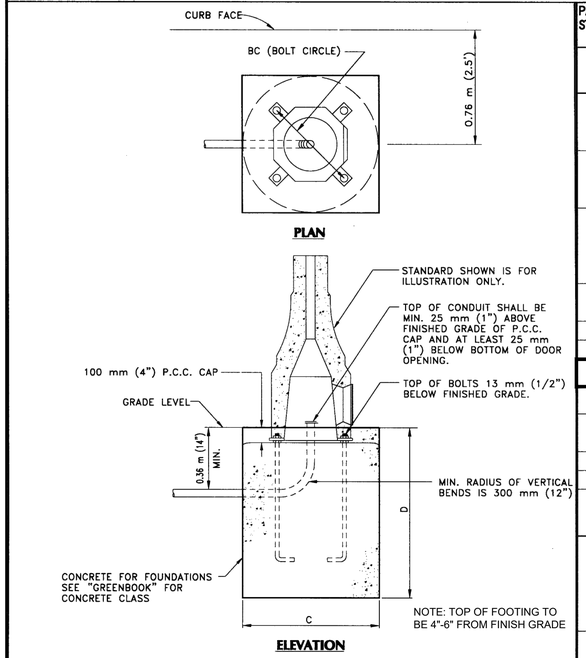
Series	Mounting	Finish	Distribution	LED	Lighting Profiles	Options
RSL	PTM - Pole Top Mount	BK - Black	T2 - Type 2	XW - 2700K	00 - On at dusk > Off at dawn	MSO - Motion Sensor Off
		BZ - Bronze	T3 - Type 3	WW - 3000K	01 - On at dusk > Off after 6 hours	BLS - Backlight Shield
		CC - Custom	T4 - Type 4	NW - 4000K	02 - On at dusk > Dim to 30% after 6 hours > Off at dawn	
			T4F - Type 4F	AMB - Amber	03 - On at dusk > Off after 5 hours > On 1 hour before dawn> Off at dawn	
			T5 - Type 5		04 - On at dusk > Dim to 30% after 5 hours > Brighten to 100% 1 hour before dawn > Off at dawn	
					05 - On at dusk > Off after 3 hours	
					06 - On at dusk > Off after 4 hours	
					07 - On at dusk > Off after 4 hours > On 1 hour before dawn > Off at dawn	
					08 - Off (typically used with motion sensing)	
					09 (Default) - On at dusk > Dim to 30% after 3 hours > Brighten to 100% 1 hour before dawn > Off at dawn	
					10 - On 30% at dusk > Off at dawn	
					TX0000 - On at dusk until time between 1800 & 0600. X = O (Off) or D (Dim). 0000 = time to dim or turn off.	

1 POLE MOUNTED SOLAR AREA LIGHT
N.T.S.

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS	
KC	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	EATON WASH STORMWATER CAPTURE PROJECT	SHEET LL-04
DESIGNED BY							SHEET TITLE LIGHTING PLAN	77 OF 111
EH							SCALE AS SHOWN / ACCOUNT NUMBER XXXXXX	DWG. NO.
CHECKED BY								
JP			AS BUILT					

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-LIGHTING_DETAILS.DWG



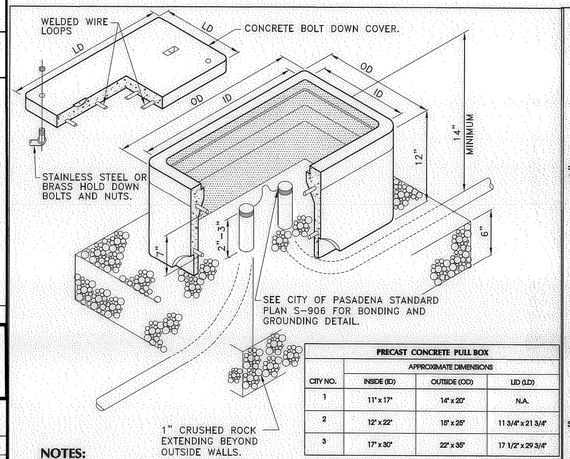
PASADENA STANDARD PLAN	CITY ELECTROLIER TYPE	DESIGN TYPE MANUFACTURER (M) CITY (C) STATE (S)	BOLT CIRCLE "BC"	P.C.C. FOUNDATION "C" ROUND OR SQUARE	P.C.C. FOUNDATION "D"	ANCHOR BOLTS
ELECTROLIERS FOR STREET LIGHTING						
S-920	TYPE I	FA1125 (M)	292 mm (11 1/2")	0.76 m (30")	1.22 m (4')	25.4 mm ø x 0.91 m x 102 mm (1" ø x 36" x 4")
		FA1130 (M)	292 mm (11 1/2")	0.91 m (36")	1.22 m (4')	
		FA1135 (M)	292 mm (11 1/2")	0.91 m (36")	1.52 m (5')	
S-921	TYPE II	25ST (C)	292 mm (11 1/2")	0.61 m (24")	1.22 m (4')	
		30ST (C)	292 mm (11 1/2")	0.91 m (36")	1.22 m (4')	
		35ST (C)	292 mm (11 1/2")	0.91 m (36")	1.52 m (5')	
S-922	TYPE III	52D (M)	584 mm (23")	0.76 m (30")	1.22 m (4')	
		55D (M)	584 mm (23")	0.91 m (36")	1.22 m (4')	
		56D (M)	584 mm (23")	0.91 m (36")	1.22 m (4')	
		58D (M)	584 mm (23")	0.91 m (36")	1.52 m (5')	
S-923	TYPE IV	1017K (M)	356 mm (14")	0.61 m (24")	1.22 m (4')	
		1023K (M)	356 mm (14")	0.61 m (24")	1.22 m (4')	
S-924	TYPE V	SAME AS S-920				
S-930	PT-1	1210T/1212T (M)	368 mm (14 1/2")	0.61 m (24")	0.91 m (3')	19 mm ø x 0.46 m x 76 mm (3/4" ø x 18" x 3")
S-931	PT-2	1348 (M)	559 mm (22")	0.61 m (24") SQ OR 0.76 m (30") ø	0.91 m (3')	
S-932	PT-3	800CL (M)	619 mm (24 3/8")	0.61 m (24") SQ OR 0.76 m (30") ø	0.91 m (3')	
S-910	SP-1	30CD (C)	387 mm (15 1/4")	0.91 m (36")	1.22 m (4')	28.6 mm ø x 1.02 m x 102 mm (1 1/8" ø x 40" x 4")
		35CD (C)	387 mm (15 1/4")	0.91 m (36")	1.52 m (5')	
S-941	SP-2	SAME AS S-922				
S-944T	SP-5	401A (M)	279 mm (11")	0.91 m (36")	1.22 m (4')	25.4 mm ø x 0.91 m x 102 mm (1" ø x 36" x 4")
ELECTROLIERS FOR TRAFFIC SIGNALS						
S-960	MODIFIED TYPE II	30ST(C) with 4.6 m (15') TSMA	292 mm (11 1/2")	0.91 m (36")	1.52 m (5')	38 mm ø x 1.12 m x 152 mm (1 1/2" ø x 44" x 6")
		30ST(C) with 4.6 m (15') TSMA	SEE STANDARD PLAN S-960	0.91 m (36")	1.52 m (5')	
		35ST(C) with 6.1 m (20') TSMA		1.07 m (42")	1.52 m (5')	
		35ST(C) with 7.6 m (25') or 9.1 m (30') TSMA		0.76 m (30") REINFORCED PER CALTRANS STANDARD PLAN	1.83 m (6')	38 mm ø x 1.37 m x 152 mm (1 1/2" ø x 54" x 6")
S-961	MODIFIED TYPE III	56D (M)	584 mm (23")	0.91 m (36")	1.52 m (5')	25.4 mm ø x 0.91 m x 102 mm (1" ø x 36" x 4")
		58D (M)	584 mm (23")	0.91 m (36")	1.52 m (5')	

CITY OF PASADENA - PUBLIC WORKS & TRANSPORTATION DEPARTMENT

DRAWN BY:	FOUNDATION DETAILS FOR ELECTROLIERS	REVISION: 2	UNITS: DUAL
BANG CHAU		STANDARD PLAN: S-972	
CHECKED BY: CATHY CHANG	APPROVED BY: ACTING CITY ENGINEER RCE NO. 46650 EXPIRES JUNE 30, 2004 — 5/7/02 DATE	SHEET 1 OF 2	
SUBMITTED BY: JIM VALENTINE		5972-1-REV2 04/24/02	

CITY OF PASADENA - PUBLIC WORKS & TRANSPORTATION DEPARTMENT

DRAWN BY:	FOUNDATION DETAILS FOR ELECTROLIERS	REVISION: 2	UNITS: DUAL
BANG CHAU		STANDARD PLAN: S-972	
CHECKED BY: CATHY CHANG	APPROVED BY: ACTING CITY ENGINEER RCE NO. 46650 EXPIRES JUNE 30, 2004 — 5/7/02 DATE	SHEET 2 OF 2	
SUBMITTED BY: JIM VALENTINE		5972-2-REV2.DWG 4/24/02	



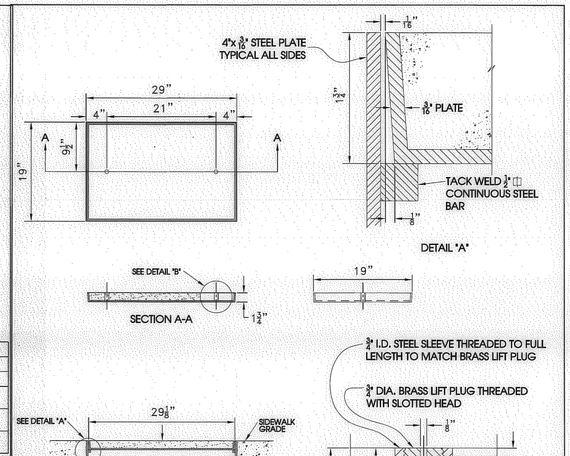
PRECAST CONCRETE PULL BOX			
	APPROXIMATE DIMENSIONS		
CITY NO.	INSIDE (ID)	OUTSIDE (OD)	LID (LD)
1	11" x 17"	14" x 20"	N.A.
2	12" x 22"	15" x 25"	11 3/4" x 21 3/4"
3	17" x 30"	22" x 35"	17 1/2" x 29 3/4"

NOTES:

1. BODY, COVER, AND EXTENSIONS SHALL BE REINFORCED WITH A MINIMUM OF TWO NO. 9 GAGE WELDED WIRE LOOPS, OR EQUIVALENT.
2. COVER SHALL BE OF THE BOLT DOWN TYPE AND SHALL HAVE LIFT EYES OF 3/8" GALVANIZED STEEL CAST IN PLACE.
3. GROUT OPENING AFTER CONDUIT IS IN PLACE.
4. EXTENSIONS (9" MIN. DEPTH) SHALL BE INSTALLED WHERE REQUIRED ON THE PLANS.
5. PULL BOXES SHALL NOT BE PLACED IN DRIVEWAY AREAS, EXCEPT AS PERMITTED BY ENGINEER.
6. BOX OR EXTENSIONS SHALL HAVE ONE BREAKOUT PANEL EACH SIDE.
7. COVER LETTERING SHALL BE 1" INCISED LETTERS APPROPRIATELY READING "TRAFFIC SIGNAL", "STREET LIGHTING" (FOR MULTIPLE SYSTEMS), OR "STREET LIGHTING – HIGH VOLTAGE" (SERIES SYSTEM).
8. CONTRACTOR SHALL SUBMIT DOCUMENTATION FROM THE MANUFACTURER CERTIFYING COMPLIANCE WITH ALL DETAILS ON THIS STANDARD PLAN.
9. SIZE AND TYPE PER HN 02X12 CONCRETE HANDHOLE BOX

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

DRAWN BY:	PULL BOX STREET LIGHT AND TRAFFIC SIGNAL	REVISION: 4	UNITS:
JOSE CONTRERAS		STANDARD PLAN: S-973	
CHECKED BY: ELVIN JIANG	APPROVED BY: CITY ENGINEER RCE NO. C48660 EXPIRES JUNE 30, 2016 — 12/24/15 DATE	SHEET 1 OF 3	
SUBMITTED BY: RICHARD YEE		S973-1-REV4.DWG 12/30/15	



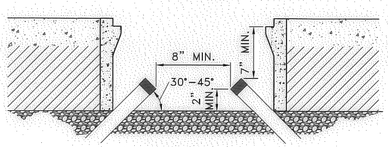
NOTES:

1. ALL METAL SURFACES FOR SPECIAL FRAME AND COVER SHALL BE GALVANIZED.
2. FOR NO. 3 PULL BOX – COVER SHALL BE 2 IDENTICAL SECTIONS.

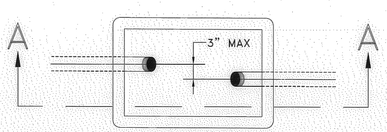
CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

DRAWN BY:	SPECIAL SEATING FRAME AND COVER ASSEMBLY	REVISION: 1	UNITS:
JOSE CONTRERAS		STANDARD PLAN: S-973	
CHECKED BY: ELVIN JIANG	APPROVED BY: CITY ENGINEER RCE NO. C48660 EXPIRES JUNE 30, 2016 — 12/24/15 DATE	SHEET 2 OF 3	
SUBMITTED BY: RICHARD YEE		S973-1-REV4.DWG 12/30/15	

PULL BOX



SECTION A-A



TOP VIEW

NOTES:

1. INSTALL NEW OR MODIFY EXISTING CONDUIT PER THIS STANDARD DRAWING WHERE DESIGNATED ON THE PLANS.
2. ALL NOTES ON SHEET 1 APPLY

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

DRAWN BY:	PULL BOX AND CONDUIT DETAIL FOR COMMUNICATION CABLE	REVISION: 1	UNITS:
JOSE CONTRERAS		STANDARD PLAN: S-973	
CHECKED BY: ELVIN JIANG	APPROVED BY: CITY ENGINEER RCE NO. C48660 EXPIRES JUNE 30, 2016 — 12/24/15 DATE	SHEET 3 OF 3	
SUBMITTED BY: RICHARD YEE		S973-3-REV4.DWG 12/30/15	

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS						CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS		
KC	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	EATON WASH STORMWATER CAPTURE PROJECT	SHEET	LL-05
DESIGNED BY EH							SHEET TITLE LIGHTING PLAN		78 OF 111
CHECKED BY JP			AS BUILT				SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX	DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-LIGHTING_DETAILS.DWG

IRRIGATION COORDINATION

1. CONTRACTOR TO CONNECT TO NEW POTABLE 1.5" METER. EXACT LOCATION PER CIVIL PLANS. CONTRACTOR TO LAYOUT POINT OF CONNECTION EQUIPMENT FOR APPROVAL PRIOR INSTALLATION.
2. ALL IRRIGATION POINT OF CONNECTION EQUIPMENT TO BE LOCATED PER PLAN AND INSTALLED IN A MATTER THAT IS LEAST OBTRUSIVE.
3. THE MAINLINE FROM THE POC EQUIPMENT TO THE CONTROL VALVES SHALL BE PER PLAN AND INSTALLED BY THE IRRIGATION CONTRACTOR.
4. THE IRRIGATION CONTROL VALVES SHALL BE INSTALLED WITHIN THE PLANTER AREAs AS INDICATED ON THE PLAN.
5. CONTROLLER TO BE PEDESTAL MOUNTED PER PLAN AND INSTALLED BY THE IRRIGATION CONTRACTOR.
6. THE CONTROLLER REQUIRES A 120 VOLT POWER SUPPLY, PREFERABLY FROM A DEDICATED 15 AMP CIRCUIT BREAKER. A CONNECTION IN A JUNCTION BOX ADJACENT TO THE CONTROLLER SHOULD BE SHOWN ON THE ELECTRICAL PLANS AND INSTALLED BY THE ELECTRICIAN.
7. THE IRRIGATION CONTRACTOR SHALL MAKE THE FINAL CONNECTION OF THE ELECTRICAL SUPPLY TO THE IRRIGATION CONTROLLER.
8. JACKETED COLOR COATED 2 WIRE WIRING FROM THE CONTROLLER TO THE VALVES.
9. SLOPE STABILIZATION AREA TO RECEIVE TEMPORARY IRRIGATION. ALL LATERALS AND FITTINGS TO BE ON GRADE AND UV RATED SCHED 40 BROWN PIPE.

PRESSURE CALCULATIONS FOR DOMESTIC IRRIGATION

Project Name and/or Tract#: Eaton Canyon Stormwater Capture
Date and Source of Information: 10.27.25
Name of Contact Person and Phone Number: -
P.O.C. Water Meter #: -
Water Meter Size and Type: Potable 1.5"
Hydraulic Grade Level: - FT
Water Meter Elevation: - FT
Highest Head Elevation on the System: - FT
Basis for Calculations: Furthest Largest Capacity

Remote Control Valve#: A37

Size of Remote Control Valve: 1.5"
Demand at Remote Control Valve: 33 GPM

QUANTITY	SIZE	DESCRIPTION	FLOW (GPM)	LOSS (PSI)
1	1.5"	Water Meter	33	2.4
1	2"	Backflow RP	33	12
1	2"	Pressure Regulator	33	1
4	2"	Gate Valve(s)	33	4
-	-	Gate Valve(s)	-	-
1	2"	Master Valve	33	1
1	2"	Flow Sensor	33	1
710'	2"	Mainline	33	6
-	-	Mainline	-	-
-	-	Mainline	-	-
-	-	Mainline	-	-
1	1.5"	Remote Control Valve	33	2
		Lateral Line Losses (10%)		3
		Other Losses (10%)		3
		Elevation Loss or Gain		-
		Total		27

PRESSURE (PSI)

Pressure Required to Operate Irrigation Head	40
Sub-Total Pressure Required for Irrigation System	67
Total Pressure Required for Irrigation System (Sub-Total Pressure + 10%)	74
Static Pressure Available	90
Residual Pressure (Subtract Total Pressure from Static Pressure)	16

114 STATIC PSI AVAILABLE PRESSURE REGULATOR SET AT 90 PSI

GENERAL IRRIGATION NOTES

1. The irrigation contractor shall be responsible for familiarizing themselves with all differences in grade, location of seatwalls, location of retaining walls, etc. The contractor shall be responsible for coordinating all irrigation work with the general contractor, electrical contractor, and all other subcontractors for the location and the installation of irrigation related sleeves through walls, structures, under roadways, paving, etc.
2. The irrigation design presented in these documents is intended to be diagrammatic. All irrigation equipment, piping and valve locations, etc. shown within paved areas are for design clarification and shall only be installed in planting areas. Irrigation contractor shall install all remote control valves, quick couplers, and gate valves, in shrub planting areas or as approved by owner's representative & the landscape irrigation designer. Avoid any conflicts between the sprinkler system, planting and architectural features.
3. The irrigation system design is based upon the minimum operating pressure and the maximum flow demand shown on the irrigation drawings at each point of connection. The irrigation contractor shall verify water pressure prior to construction. Any difference between the water pressure indicated on the drawings and the actual pressure reading at the irrigation point of connection shall be immediately reported in writing to the owner's authorized representative. If the pressure differences are not immediately reported prior to beginning construction, the irrigation contractor shall assume full responsibility for all revisions to the irrigation system deemed necessary by the owner's representative and all costs associated with those revisions.
4. When it is apparent to the landscape contractor in the field that obstructions, grade differences, or differences in the calculated area dimensions exist that may have not been considered in the design of the system, the irrigation contractor shall not willfully install the irrigation system as indicated on the construction drawings. The owner's authorized representative shall be notified in writing of any such obstructions or differences prior to beginning any irrigation installation. If notification is not received prior to beginning installation, the irrigation contractor shall assume full responsibility for all revisions to the irrigation system as deemed necessary by owner's representative and all costs associated with those revisions.
5. The irrigation contractor shall be responsible for installing all control wire sleeving of sufficient size, under all paved areas in addition to the control wire sleeving shown on the drawings.
6. All piping and equipment shall be installed per the irrigation details. Teflon tape or Teflon pipe dope shall be applied to all male PVC pipe threads on all irrigation valve assemblies.
7. All pop-up style irrigation heads located in in shrub or groundcover areas shall be installed so the top of the irrigation head is 1" above finish grade.
8. All pop-up style irrigation heads to be located in turf areas shall initially be installed so the top of the irrigation heads are flush with the adjacent sidewalk or curb. Within 10 days of being notified by the owner's representative, the irrigation contractor shall be responsible for adjusting all turf irrigation heads so the top of the irrigation head is 1/2" above finish grade.
9. The irrigation contractor shall be responsible for flushing and adjusting all irrigation heads for optimum performance and to prevent over spray onto areas not intended for irrigation. This shall include throttling the flow control at each valve to obtain the optimum operating pressure for each system.
10. The irrigation contractor shall be responsible for adjusting the pressure regulator on each electric control valve so the irrigation head farthest and highest in elevation from its associated control valve functions within the operating pressure shown on the irrigation legend (not to exceed 5 PSI above the indicated operating pressure).
11. When installing spray nozzles that require arc patterns other than the standard arc patterns (e.g., 360°, 180°, and 90°), the contractor shall use the appropriate fixed arc pattern (e.g. 120°, 240°, 270°). The contractor shall use Hunter Pro Adjustable nozzles when installing irrigation heads on Pro Spray Bodies only when required pattern is not one of the fixed arc patterns. Select the radius of van nozzles to match site conditions.
12. The irrigation contractor shall be responsible for making field adjustments to the irrigation system by installing a quarter circle or half circle sprinkler head on each side of any vertical element (props, street lights, trees, etc.) which prevents proper coverage by interfering with the spray pattern of the irrigation head. All adjustments shall be made at no additional costs to the owner.
13. Drainage of irrigation water through spray head will not be allowed. Hunter check valve feature shall be used to prevent spray head drainage. During construction, the contractor shall change spray bodies with Hunter Check Valve features for spray heads showing signs of draining after the irrigation system has operated from an ON to OFF position. Installation of Hunter Check Valve feature shall be included in the Bid Price of the irrigation system.
14. The irrigation contractor shall be responsible for making the final connection between the power source and the automatic controller. 120 volt electrical power source shall be provided by others at the automatic controller location.
15. Adhesives, sealants and caulks shall meet local or regional air pollution control or south coast AQMD rule 1168 VOC and statewide VOC standards.

OBSERVATION SCHEDULING

The landscape contractor shall be schedule an irrigation site observation by the irrigation designer, and/or the owner's representative, which shall not occur without at least 48 hours prior notification. The following items shall be reviewed:

1. Pre-job/kick-off meeting with contractor, general contractor, and irrigation designer.
2. Mainline, basket strainers, master valves, flow sensors, booster pump installation and operation, installation review prior to backfilling trenches, irrigation mainline pressure test, etc.
3. Finalizing the location for the controller assemblies - landscape contractor shall coordinate with the irrigation designer to verify connection of flow sensors and associated equipment to each controller assembly and for certification/warranty of equipment.
4. Irrigation coverage test - a dynamic pressure test shall be performed by the landscape contractor and shall be observed by the owner (or the owner's representative) and the irrigation designer for each valve during the irrigation coverage test.

POINT OF CONNECTION NOTES

1. CONTRACTOR TO CONNECT TO NEW 1.5" POTABLE WATER METER SHOWN ON CIVIL PLANS. INSTALL ISOLATION VALVE, BACKFLOW PREVENTER, PRESSURE REGULATOR, MASTER VALVE AND FLOW SENSOR AFTER. VERIFY PRESSURE TO BE AT LEAST 114 PSI. IF ANY OF THE POC INFORMATION SHOWN ON THESE DRAWINGS IS FOUND TO BE DIFFERENT THAN THE ACTUAL POC INFORMATION GATHERED IN THE FIELD, IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT. SHOULD THE CONTRACTOR FAIL TO VERIFY THE POC INFORMATION, ANY CHANGES REQUIRED BY LOW PRESSURE OR VOLUME SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

- STATIC WATER PRESSURE 114 PSI (PROVIDED BY PASADENA WATER AND POWER)
- DESIGN WATER PRESSURE 74 PSI
- MAXIMUM SYSTEM DEMAND 33 GPM @ VALVE A37
- RESIDUAL WATER PRESSURE 16 PSI WITH PRESSURE REGULATOR SET AT 90 PSI

CONTROLLER INFORMATION

1. CONTROLLER SHALL BE WALL MOUNTED IN A METAL BOX. REFER TO LEGEND FOR MODEL AND STATION COUNT. FINAL LOCATION OF CONTROLLER AND ELECTRICAL POC SHALL BE CONFIRMED WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK. THE CONTROLLER IS A SMART WEATHER BASED CONTROLLER.
2. WIRED WEATHER/RAIN SENSOR FOR CONTROLLER SHALL BE MOUNTED OUTSIDE IN AN OPEN AREA OPEN TO THE SKY AND FREE FROM ANY OBSTRUCTIONS, AS APPROVED BY THE OWNER AND THE LANDSCAPE ARCHITECT. WIRE FROM SENSOR TO CONTROLLER SHALL BE INSTALLED IN A STEEL ELECTRICAL CONDUIT.
3. THE 120 VOLT ELECTRICAL POWER SUPPLY AT CONTROLLER LOCATION IS NOT A PART OF THE IRRIGATION SYSTEM. COORDINATE POWER REQUIREMENTS WITH GENERAL CONTRACTOR, LANDSCAPE ARCHITECT AND/OR OWNER.
4. INSTALLATION OF CONTROL WIRES SHALL FOLLOW MAINLINE ROUTING.
5. THE SYSTEM IS DESIGNED FOR THE OPERATION OF ONE VALVE AT A TIME PER CONTROLLER. THE SYSTEM HAS BEEN DESIGNED FOR ONE VALVE OPENING AND ONE VALVE CLOSING.
6. **INSTALLATION OF COLORED JACKETED 2 WIRE SHALL FOLLOW MAINLINE ROUTING. MODEL: HUNTER ID1ORG ORANGE JACKETED 2WIRE**
7. **EACH VALVE TO USE A SINGLE STATION DECODER MODULE HUNTER ICD-100.**
8. **MASTER VALVE AND FLOW SENSOR TO BE DIRECT CONNECTED INTO CONTROLLER.**
9. **FLOW SENSOR TO USE SHIELDED CABLE.**

DRIP ZONE IRRIGATION NOTES

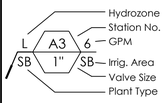
1. DRIP ZONES SHALL CONSIST OF SUPPLY AND EXHAUST HEADERS AND DRIP LINES TO BE SPACED PER MASTER IRRIGATION LEGEND. SNAKE PATTERN LAYOUT METHOD NOT ALLOWED.
2. ONE AIR RELIEF VALVE PER ZONE. LOCATION ON PLAN IS DIAGRAMMATIC AND TRUE LOCATION TO BE PLACED AT HIGHEST ELEVATION ON ZONE.
3. ONE MANUAL FLUSH VALVE PER SECTION IN ZONE. LOCATION ON PLAN IS DIAGRAMMATIC AND TRUE LOCATION TO BE PLACED AT LOWEST ELEVATION ON ZONE.
4. ONE DRIP OPERATION INDICATOR PER ZONE. LOCATION TO BE PLACED IN VISIBLE AREA FOR MAINTENANCE CREWS TO SPOT WHILE PERFORMING SCHEDULED MAINTENANCE CHECKS.
5. MAX DISTANCES FOR DRIP LINE PER DRIP LINE MANUFACTURER SPECIFICATIONS.
6. SECTIONS OF DRIP ZONES EXCEEDING 4' IN ELEVATION TO BE SPLIT INTO DIFFERENT SECTIONS. LATERAL LINES USED TO CONNECT THESE SECTION TO USE INLINE CHECK VALVES.

CALL BEFORE YOU DIG 811

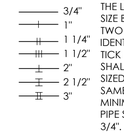
IRRIGATION LEGEND

SYMBOL (F H Q A)	RAD.	MANF.	MODEL NO. WITH NOZZLE SIZE & TYPE
	8'	Hunter	PROS-12-PRS30-CV-F w/MP-800SR-360
	8'	Hunter	PROS-12-PRS30-CV-F w/MP-800SR-90
	8'	Hunter	PROS-12-PRS30-CV-F w/MP-800SR-90
	14'	Hunter	PROS-12-PRS40-CV-F w/MP815-360
	14'	Hunter	PROS-12-PRS40-CV-F w/MP815-90
	14'	Hunter	PROS-12-PRS40-CV-F w/MP815-90
	-	Hunter	RZWS-18-CV
1	18'	Hunter	I-20-04-SS-PRB w/2.0SR Black Nozzle
2	30'	Hunter	I-20-00-PRB w/Blue 1.5 Nozzle and 3' Riser
2	30'	Hunter	I-20-00-PRB w/Blue 1.5 Nozzle and 3' Riser
2	30'	Hunter	I-20-00-PRB w/Blue 1.5 Nozzle and 3' Riser
		Hunter	Point Source Drip SCH40 PVC Hard Pipe Laterals with ½" Threaded Emitter HEB-10-CV w/HE-DIFF on IH-RISER-06
		Hunter	AVR-075 - Air Relief Valve
		Hunter	ECO-ID - Drip Operation Indicator
		Hunter	PLD-BV - Manual Flush Valve
		Hunter	PLD-LOC- 050 - Drip Connector
M	-		New 1.5" Water Meter Per Civil
		Febco	Backflow Preventer | 825YA - 2"
		Nibco	Gate Valve | T-111 Line Size 2 1/2" and smaller.
PR		Zurn	High Range Adjustable Pressure Regulator 500XL3-HR
MV		Hunter	Master Valve | IBV-200G-FS - Normally Closed
FS		Flomec	Flow Sensor | QS-200 - 2"
		Hunter	Quick Coupler Valve | HQ33D-RC
		Champion	Hose Bibb
		Hunter	Brass Remote Control Valve | IBV-FS w/AS-ADJ Size Per Callout on Plan w/ (1) ICD-100 and (1)DCSTAKE10
		Hunter	Brass Drip Control Zone Kit | IBZ-101-LF-40 for .5-15 GPM or IBZ-151-40-XL for 20-50 GPM w/ (1) ICD-100 and (1)DCSTAKE10
		King Bros.	Line Size Check Valve
WS		Hunter	Wireless Solar Sync Sensor | WSS-SEN
A		Hunter	A2C-75D-SS w/PED-SS and A2C-LTEM Communications Mondule
PB	-		Spare Wire Pull Box
			Existing Mainline
			Mainline
			Lateral Line
			PVC Sleeves

IRRIGATION VALVE CALLOUT:



LATERAL LINE SIZING CHART



NOTE: THE LATERAL SIZE BETWEEN TWO IDENTICAL TICK MARKS SHALL BE SIZED THE SAME. MINIMUM PIPE SIZE IS 3/4".

DESCRIPTION	PSI	FLOW RATE IN GPM F	H	Q	A (GPM)	DETAIL
12" Pop-Up Shrub Spray Head	30	.78	-	-	-	E,D/LI-07
12" Pop-Up Shrub Spray Head	30	-	.42	-	-	E,D/LI-07
12" Pop-Up Shrub Spray Head	30	-	-	.23	-	E,D/LI-07
12" Pop-Up Shrub Spray Head	40	1.87	-	-	-	E,D/LI-07
12" Pop-Up Shrub Spray Head	40	-	.93	-	-	E,D/LI-07
12" Pop-Up Shrub Spray Head	40	-	-	.49	-	E,D/LI-07
Bubbler in Sleeve with Grate	30	.50	-	-	-	B/LI-08
4" Pressure Regulated Rotor	45	2.0	-	-	-	A/LI-08
Shrub Pressure Regulated Rotor	45	1.5	-	-	-	E/LI-08
Shrub Pressure Regulated Rotor	45	-	1.5	-	-	E/LI-08
Shrub Pressure Regulated Rotor	45	-	-	1.5	-	E/LI-08
Point Source Drip SCH40 PVC Hard pipe laterals to be buried 4" beneath finish grade. Each Shrub to Receive 2 emitters on each side of root ball.	30	1 GPH Flow Rate				F,G/LI-05
Install in a Hunter - Multi Purpose Box MB-0811						A/LI-07
Install in a visible area.						C/LI-07
Install in a Hunter - Multi Purpose Box MB-0811						B/LI-07
Install per manufacturers specifications.						-
See civil engineers plans for additional information.						-
Verify location in field prior to installation. Install within Strong Box SBBC-45SS Stainless Steel Enclosure per detail.						A,B/LI-05
For mainline sizes 3" and larger, use Nibco F-619-SON, epoxy coated. Assemble with stainless steel hardware. Install in a 10" round valve box.						A/LI-06
Adjustable from 75-125 psi. Set to 100psi. Installed in a 6" round valve box.						-
Master Valve to be installed in rectangle valve box adjacent to flow sensor.						E/LI-05
Size per plan. Install per detail. See irrigation construction notes for additional information and model numbers.						F/LI-05
Install with stabilizing stake.						C/LI-06
Install with stabilizing stake.						B/LI-06
Self cleaning remote control valve with adjustable pressure dial. Install in rectangle valve box per detail with decoder and decoder stake. Wireless valves called out per plan.						D/LI-06
Remote control valve kit with pressure regulating filter. Install in rectangle valve box per detail with decoder and decoder stake. Wireless valves called out per plan.						E/LI-06
Provide swing check valve when direction of water flow is uphill. Provide spring check valve when direction of flow is downhill.						-
Weather/Rain Sensor. Locate in location with most sun. Open to air and free from any obstructions. Verify location in field.						C/LI-08
Smart irrigation controller on pedestal with automatic time adjustments through on site ET Data provided by solar sync sensor. Controller also connected through cell card and central control capable.						D/LI-08
2 Wire Wire 24" coil minimum Gel Capped.						-
Protect in place.						-
Irrigation Mainline - PVC SCH. 40 IPS white pipe. PVC SCH. 40 IPS for mainline sizes 1" to 2" PVC Class 315 IPS for mainline sizes 2 1/2" to 3" Sleeve mainline per notes and details.						C/LI-05
Lateral Pipe - PVC SCH. 40 IPS white pipe below grade. Lateral Pipe - PVC SCH. 40 IPS UV brown pipe on grade. Minimum pipe size shall be 3/4" - size laterals per plan. PVC SCH. 40 IPS for sizes 3/4" to 2 1/2"						C/LI-05
PVC SCH. 40 IPS white pipe - sleeves shall be installed for any mainline, lateral, or wires crossing under hardscape per irrigation construction notes. Size to be two times the pipe diameter or wire bundle.						B/LI-05

LATERAL CAPACITY CHART

3/4"	1-7 GPM
1"	7-11 GPM
1 1/4"	11-20 GPM
1 1/2"	20-28 GPM
2"	28-48 GPM
2 1/2"	48-65 GPM
3"	65-100 GPM

PLANT MATERIAL ABBREVIATIONS:

Plant Type:		Hydrozone:	
TF	Turf	H	High
SB	Shrub/Ground cover	M	Medium
TR	Trees	L	Low
PT	Pots		
DP	Drip		

AT ANY POINT WHEN GPM CAPACITY EXCEEDS THE FOLLOWING BETWEEN TWO IDENTICAL TICK MARKS. PLEASE UPSIZE LATERAL LINE.

COMPLIANCE NOTE

I AGREE TO COMPLY WITH THE REQUIREMENTS OF THE WATER EFFICIENT LANDSCAPE ORDINANCE AND SUBMIT A COMPLETE LANDSCAPE DOCUMENTATION PACKAGE.

SIGN_____ _____
DATE_____

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY: SH
DESIGNED BY: EH
CHECKED BY: JP

REVISIONS MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: MASTER IRRIGATION LEGEND

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET LI-01

79 OF 111

DWG. NO.

Date: July 8, 2022 D:\DESIGN\17 CRAFTWATER\25 001 EATON WASH\CAD\SHEETS\25 001 LI01-LI07 EATON WASH IRRIGATION SET.DWG

CONTRACTOR TO CONNECT TO NEW 2" SERVICE LINE. NEW 1.5" POTABLE METER AND 2" SERVICE LINE ROUTING PER CIVIL PLANS. CONTRACTOR TO VERIFY EXISTING WATER PRESSURE TO BE AT LEAST 114 PSI STATIC. SET PRESSURE REGULATOR TO 90 PSI. DO NOT WILLFULLY CONTINUE WORK IF PRESSURE DIFFERS FROM PLANS. CONTACT LANDSCAPE ARCHITECT IMMEDIATELY. REFER TO POINT OF CONNECTION NOTES SHEET LI-01.

MAINLINE AND IRRIGATION EQUIPMENT SHOWN IN PAVING FOR DESIGN CLARITY ONLY. INSTALL IN PLANTING AREAS UNLESS OTHERWISE SPECIFIED. TYP.

MATCHLINE SEE SHEET LI-03

MASTER VALVE 02 TO BE PROGRAMMED OPEN FOR VEGETABLE BED TIMES OF OPENING HOURS

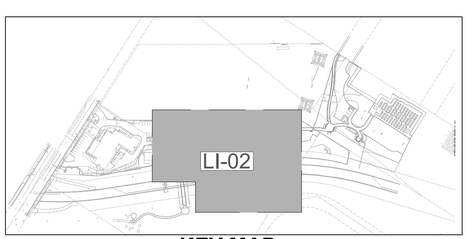
MINIMIZE DISTURBANCE TO EXISTING TREE ROOTS BY ROUTING ON GRADE LATERALS AROUND TREES. TYP.

ALL LATERALS FOR VALVES A41-A44 FOR TEMPORARY IRRIGATION ON SLOPE STABILIZATION SECTION TO BE UV RATED, ON GRADE AND STAKED 10' O.C. TYP.

EATON WASH

INSTALL WEATHER SENSOR IN A LOCATION WITH A MINIMUM OF 6 HOURS OF SUN EXPOSURE. OPEN TO AIR AND FREE FROM ANY OBSTRUCTIONS.

CONTRACTOR TO PROVIDE POWER FOR PEDESTAL MOUNT CONTROLLER AT THIS LOCATION.



KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

ABBREVIATED LEGEND SHOWN. REFER TO SHEET LI-01 FOR MASTER IRRIGATION LEGEND

IRRIGATION LEGEND

SYMBOL (F H Q A)	RAD.	MANF.	MODEL NO. WITH NOZZLE SIZE & TYPE
	8'	Hunter	PROS-12-PRS30-CV-F w/MP-800SR-360
	8'	Hunter	PROS-12-PRS30-CV-F w/MP-800SR-90
	8'	Hunter	PROS-12-PRS30-CV-F w/MP-800SR-90
	14'	Hunter	PROS-12-PRS40-CV-F w/MP815-360
	14'	Hunter	PROS-12-PRS40-CV-F w/MP815-90
	14'	Hunter	PROS-12-PRS40-CV-F w/MP815-90
	-	Hunter	RZWS-18-CV
1	18'	Hunter	I-20-04-SS-PRB w/2.0SR Black Nozzle
2	30'	Hunter	I-20-00-PRB w/Blue 1.5 Nozzle and 3' Riser
2	30'	Hunter	I-20-00-PRB w/Blue 1.5 Nozzle and 3' Riser
2	30'	Hunter	I-20-00-PRB w/Blue 1.5 Nozzle and 3' Riser
		Hunter	Point Source Drip SCH40 PVC Hard Pipe Laterals with ½" Threaded Emitter HEB-10-CV w/HE-DIFF on IH-RISER-06
		Hunter	AVR-075 - Air Relief Valve
		Hunter	ECO-ID - Drip Operation Indicator
		Hunter	PLD-BV - Manual Flush Valve
		Hunter	PLD-LOC- 050 - Drip Connector
M	-		New 1.5" Water Meter Per Civil
		Febco	Backflow Preventer | 825YA - 2"
		Nibco	Gate Valve | T-111 Line Size 2 1/2" and smaller.
PR		Zurn	High Range Adjustable Pressure Regulator 500XL3-HR
MV		Hunter	Master Valve | IBV-200G-FS - Normally Closed
FS		Flomec	Flow Sensor | QS-200 - 2"
		Hunter	Quick Coupler Valve | HQ33D-RC
		Champion	Hose Bibb
		Hunter	Brass Remote Control Valve | IBV-FS w/AS-ADJ Size Per Callout on Plan w/ (1) ICD-100 and (1)DCSTAKE10
		Hunter	Brass Drip Control Zone Kit | IBZ-101-LF-40 for .5-15 GPM or IBZ-151-40-XL for 20-50 GPM w/ (1) ICD-100 and (1)DCSTAKE10
		King Bros.	Line Size Check Valve
WS		Hunter	Wireless Solar Sync Sensor | WSS-SEN
A		Hunter	A2C-75D-SS w/PED-SS and A2C-LTEM Communications Mondule
	-		Spare Wire Pull Box
			Existing Mainline
			Mainline
			Lateral Line
			PVC Sleeves

CONTROL WIRE CONDUIT SIZING CHART

SLEEVE SIZE	2" MIN.	2-1/2"	3"	4"
WIRES IN SLEEVE	0-16	17-24	25-40	41-48

IRRIGATION SLEEVE SIZING CHART

PIPE SIZE	3/4"	1"	1-1/4	1-1/2"	2"	2-1/2"	3"
SLEEVE SIZE	3"	3"	3"	4"	4"	4"	6"

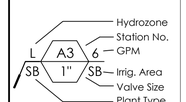
IRRIGATION SLEEVE AND CONDUIT NOTES

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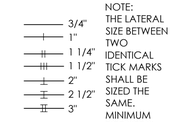
NOTE

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IRRIGATION VALVE CALLOUT:



LATERAL LINE SIZING CHART



NOTE: THE LATERAL SIZE BETWEEN TWO IDENTICAL TICK MARKS SHALL BE SIZED THE SAME. MINIMUM PIPE SIZE IS 3/4".

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	SH
DESIGNED BY	EH
CHECKED BY	JP

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: IRRIGATION PLAN

SCALE: AS SHOWN

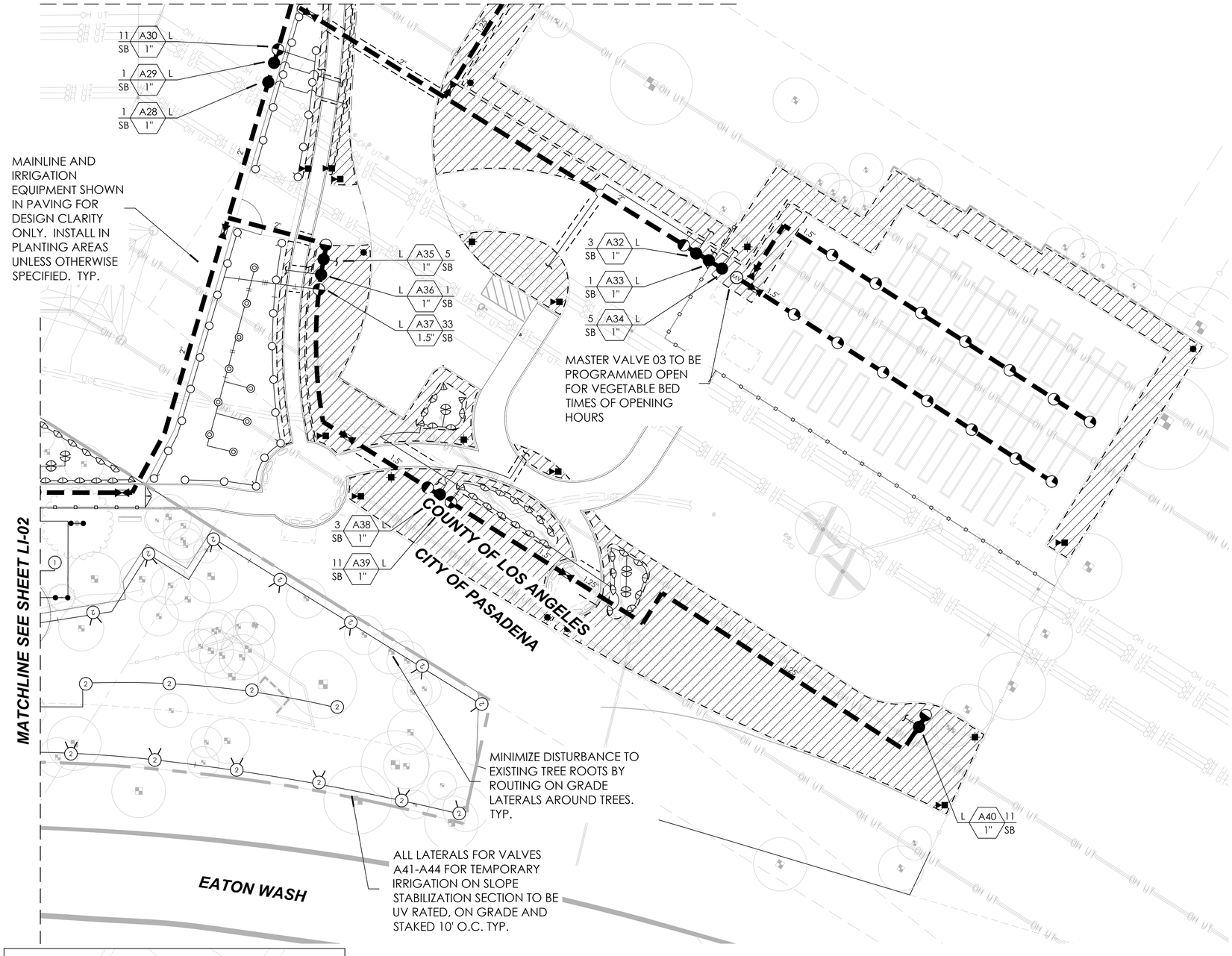
ACCOUNT NUMBER: XXXXXX

SHEET: LI-02

80 OF 111

DWG. NO.

Date: July 8, 2022 D:\DESIGN\17 CRAFTWATER\25 001 EATON WASH\ACAD\SHEETS\25 001 LI01-LI07 EATON WASH IRRIGATION SET.DWG



ABBREVIATED LEGEND SHOWN. REFER TO SHEET LI-01 FOR MASTER IRRIGATION LEGEND

IRRIGATION LEGEND

SYMBOL (F H Q A)	RAD.	MANF.	MODEL NO. WITH NOZZLE SIZE & TYPE
	8'	Hunter	PROS-12-PRS30-CV-F w/MP-800SR-360
	8'	Hunter	PROS-12-PRS30-CV-F w/MP-800SR-90
	8'	Hunter	PROS-12-PRS30-CV-F w/MP-800SR-90
	14'	Hunter	PROS-12-PRS40-CV-F w/MP815-360
	14'	Hunter	PROS-12-PRS40-CV-F w/MP815-90
	14'	Hunter	PROS-12-PRS40-CV-F w/MP815-90
	-	Hunter	RZWS-18-CV
1	18'	Hunter	I-20-04-SS-PRB w/2.0SR Black Nozzle
2	30'	Hunter	I-20-00-PRB w/Blue 1.5 Nozzle and 3' Riser
2	30'	Hunter	I-20-00-PRB w/Blue 1.5 Nozzle and 3' Riser
2	30'	Hunter	I-20-00-PRB w/Blue 1.5 Nozzle and 3' Riser
		Hunter	Point Source Drip SCH40 PVC Hard Pipe Laterals with ½" Threaded Emitter HEB-10-CV w/HE-DIFF on IH-RISER-06
		Hunter	AVR-075 - Air Relief Valve
		Hunter	ECO-ID - Drip Operation Indicator
		Hunter	PLD-BV - Manual Flush Valve
		Hunter	PLD-LOC- 050 - Drip Connector
M		-	New 1.5" Water Meter Per Civil
		Febco	Backflow Preventer | 825YA - 2"
		Nibco	Gate Valve | T-111 Line Size 2 1/2" and smaller.
PR		Zurn	High Range Adjustable Pressure Regulator 500XL3-HR
MV		Hunter	Master Valve | IBV-200G-FS - Normally Closed
FS		Flomec	Flow Sensor | QS-200 - 2"
		Hunter	Quick Coupler Valve | HQ33D-RC
		Champion	Hose Bibb
		Hunter	Brass Remote Control Valve | IBV-FS w/AS-ADJ Size Per Callout on Plan w/ (1) ICD-100 and (1)DCSTAKE10
		Hunter	Brass Drip Control Zone Kit | IBZ-101-LF-40 for .5-15 GPM or IBZ-151-40-XL for 20-50 GPM w/ (1) ICD-100 and (1)DCSTAKE10
		King Bros.	Line Size Check Valve
WS		Hunter	Wireless Solar Sync Sensor | WSS-SEN
A		Hunter	A2C-75D-SS w/PED-SS and A2C-LTEM Communications Mondule
P		-	Spare Wire Pull Box
			Existing Mainline
			Mainline
			Lateral Line
			PVC Sleeves

CONTROL WIRE CONDUIT SIZING CHART

SLEEVE SIZE	2" MIN.	2-1/2"	3"	4"
WIRES IN SLEEVE	0-16	17-24	25-40	41-48

IRRIGATION SLEEVE SIZING CHART

PIPE SIZE	3/4"	1"	1-1/4	1-1/2"	2"	2-1/2"	3"
SLEEVE SIZE	3"	3"	3"	4"	4"	4"	6"

IRRIGATION SLEEVE AND CONDUIT NOTES

1. Sleeves are required for all irrigation pipe and control wire conduit under paving (typical). Refer to Irrigation Sleeve Sizes and Control Wire Conduit Charts for appropriate sleeve and conduit sizing.
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IRRIGATION VALVE CALLOUT:

L A3 6 SB 1" SB
- Hydrozone
- Station No.
- GPM
- Irrig. Area
- Valve Size
- Plant Type

LATERAL LINE SIZING CHART

NOTE: THE LATERAL SIZE BETWEEN TWO IDENTICAL TICK MARKS SHALL BE SIZED THE SAME. MINIMUM PIPE SIZE IS 3/4".

- 3/4"
- 1"
- 1 1/4"
- 1 1/2"
- 2"
- 2 1/2"
- 3"

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	DESIGNED BY	CHECKED BY
SH	EH	JP

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: IRRIGATION PLAN

SCALE: AS SHOWN

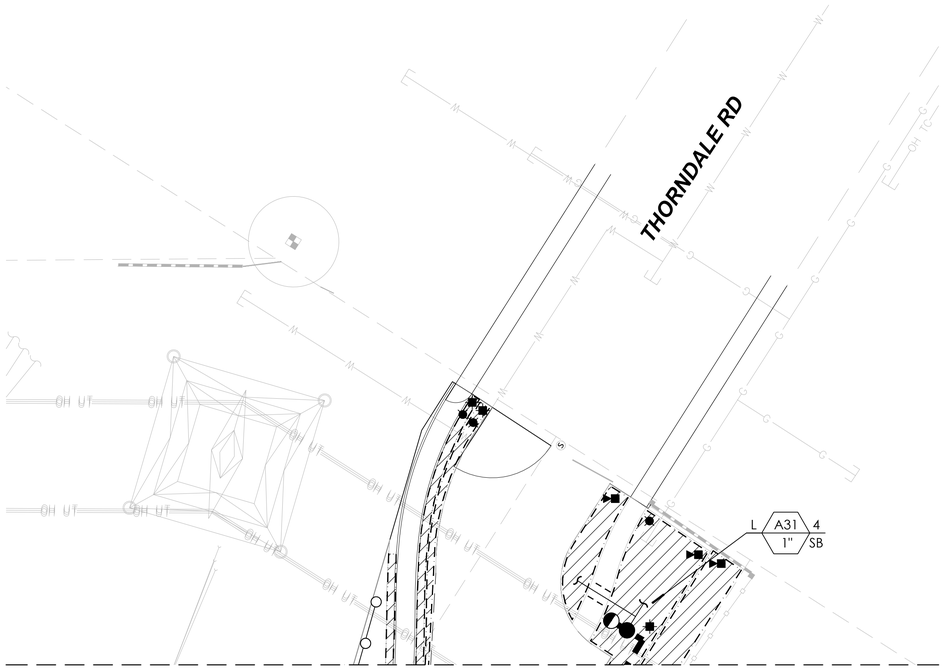
ACCOUNT NUMBER: XXXXXX

SHEET LI-03

81 OF 111

DWG. NO.

Date: July 8, 2022 D:\DESIGN\17 CRAFTWATER\25 001 EATON WASH\CAD\SHEETS\25 001 LI01-LI07 EATON WASH IRRIGATION SET.DWG



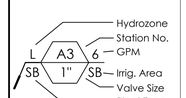
MATCHLINE SEE SHEET LI-03

ABBREVIATED LEGEND SHOWN. REFER TO SHEET LI-01 FOR MASTER IRRIGATION LEGEND

IRRIGATION LEGEND

SYMBOL (F H Q A)	RAD.	MANF.	MODEL NO. WITH NOZZLE SIZE & TYPE
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	8'	Hunter	PROS-12-PRS30-CV-F w/MP-800SR-90
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	14'	Hunter	PROS-12-PRS40-CV-F w/MP815-90
	14'	Hunter	PROS-12-PRS40-CV-F w/MP815-90
	-	Hunter	RZWS-18-CV
1	18'	Hunter	I-20-04-SS-PRB w/2.0SR Black Nozzle
2	30'	Hunter	I-20-00-PRB w/Blue 1.5 Nozzle and 3' Riser
2	30'	Hunter	I-20-00-PRB w/Blue 1.5 Nozzle and 3' Riser
2	30'	Hunter	I-20-00-PRB w/Blue 1.5 Nozzle and 3' Riser
		Hunter	Point Source Drip SCH40 PVC Hard Pipe Laterals with ½" Threaded Emitter HEB-10-CV w/HE-DIFF on IH-RISER-06
		Hunter	AVR-075 - Air Relief Valve
		Hunter	ECO-ID - Drip Operation Indicator
		Hunter	PLD-BV - Manual Flush Valve
		Hunter	PLD-LOC- 050 - Drip Connector
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			Mainline
			Lateral Line
			PVC Sleeves

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LATERAL LINE SIZING CHART

3/4"
1"
1 1/4"
1 1/2"
2"
2 1/2"
3"

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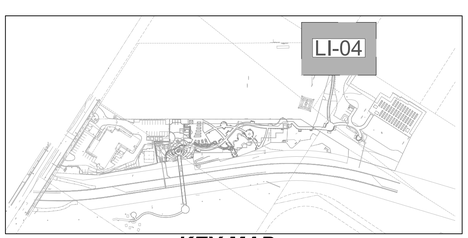
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KEY MAP
SCALE: 1"=250'

0 20 40 Feet

SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
SH	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
DESIGNED BY						
EH						
CHECKED BY						
JP			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: IRRIGATION PLAN

SCALE: AS SHOWN

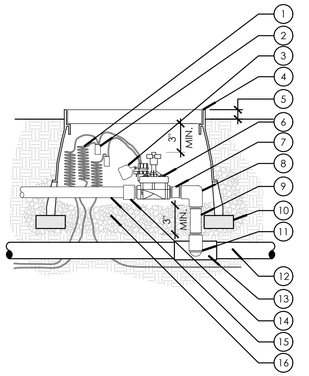
ACCOUNT NUMBER: XXXXXX

SHEET: LI-04

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DWG. NO.

Date: July 8, 2022 D:\DESIGN\17 CRAFTWATER\25 001 EATON WASH\ACAD\SHEETS\25 001 LI01-LI07 EATON WASH IRRIGATION SET.DWG

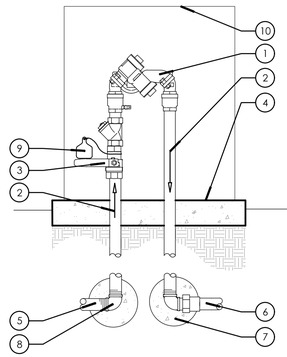


1. 30" LENGTH OF COILED WIRE
2. WATER PROOF CONNECTOR - REFER TO IRRIGATION SPECIFICATIONS
3. ID TAG - REFER TO IRRIGATION SPECIFICATIONS
4. RECTANGULAR, PLASTIC VALVE BOX WITH LOCKING COVER - LID SHALL BE HEAT BRANDED WITH LETTERS "RCV" & STATION NUMBER - FOR CONTROL VALVE AND "MV" FOR MASTER VALVE COLOR OF LID PER MASTER IRRIGATION LEGEND
5. FINISH GRADE:
   - ½" FROM TOP OF BOX LID IN TURF
   - 1 1/2" FROM TOP OF BOX LID IN SHRUB/GC
6. REMOTE CONTROL VALVE - REFER TO IRRIGATION LEGEND
7. SCH. 80 PVC NIPPLE (CLOSE)
8. SCH. 40 PVC ELL
9. SCH. 80 PVC NIPPLE (LENGTH AS REQUIRED)
10. BRICK (1 OF 4)
11. SCH. 80 PVC NIPPLE (2" LENGTH, HIDDEN) AND SCH. 40 PVC ELL
12. PVC MAINLINE PIPE
13. SCH. 40 PVC TEE OR ELL
14. SCH. 40 PVC MALE ADAPTER
15. PVC LATERAL PIPE
16. (3) CUBIC FEET, MIN. OF ¾" MINUS, WASHED GRAVEL

NOTE:
A. ALL THREADS SHALL BE WRAPPED WITH TEFLON TAPE

E Remote Control Valve/Master Valve Box

Scale: 1 1/2"-1'-0"

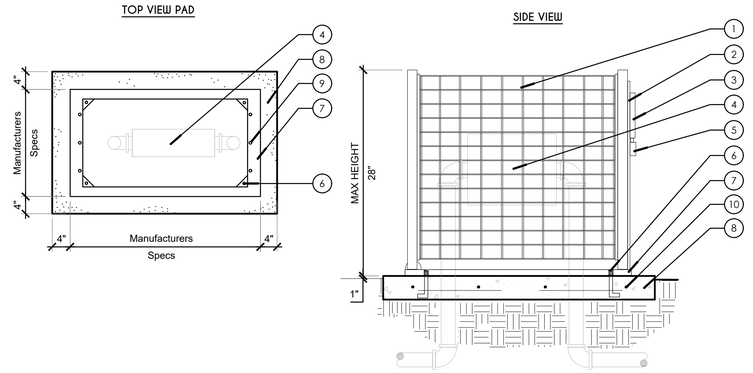


1. REDUCED PRESSURE TYPE BACKFLOW PER LEGEND
2. BRASS RISER
3. BALL VALVE, INLET SIDE
4. CONCRETE BASE PER BACKFLOW ENCLOSURE DETAIL
5. FROM POINT OF CONNECTION - ADAPT AS REQUIRED
6. TO IRRIGATION SYSTEM - ADAPT AS REQUIRED
7. CONCRETE THRUST BLOCK, TYP.
8. BRASS 90 DEG ELL, TYP.
9. CHRISTY'S I.D.TAG
- ID.MAX.Y2.PW017 FOR POTABLE WATER SYSTEM
10. ENCLOSURE IF APPLICABLE PER LEGEND

NOTES:
A. INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES ANDHEALTH DEPARTMENT. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION.

D Backflow Preventer

Scale: NTS

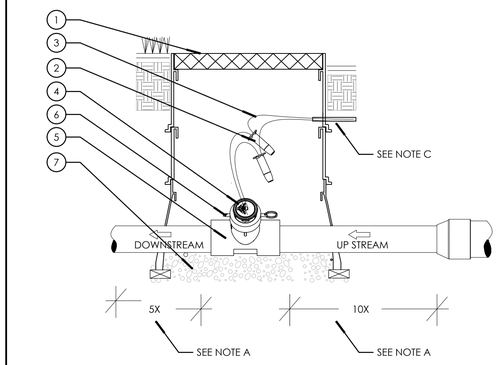


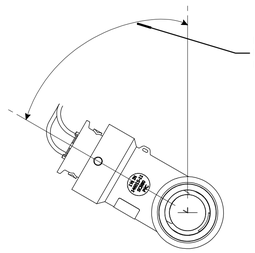
1. SMOOTH TOUCH BACKFLOW CAGE MATERIAL/SIZE PER MANUFACTURER SPECIFICATIONS AND MASTER IRRIGATION LEGEND
2. ENCLOSURE LOCKING SWING DOOR
3. PADLOCK PROTECTIVE COVER
4. BACKFLOW PREVENTER SEE MASTER IRRIGATION LEGEND FOR MODEL
5. PAD LOCK
6. MOUNTING BASE ATTACHED TO CONCRETE PAD. SECURED IN (4) LOCATIONS PER BACKFLOW CAGE MANUFACTURER SPECIFICATIONS
7. ANCHOR BASE MOUNT
8. POURED IN PLACE CONCRETE BASE 6" MINIMUM THICKNESS. DIMENSIONS TO EXTEND BEYOND 4" OUTSIDE DIMENSIONS OF ENCLOSURE PER MANUFACTURER SPECIFICATIONS. FINISH SURFACE OF PAD TO BE 1" HIGHER THAN FINISH GRADE.
9. ⅜" X 3" MOUNTING STUDS (6 LOCATIONS) TO MOUNT ENCLOSURE TO MOUNTING PAD WITH ⅜" NYLOCK NUTS.
10. #4 REBAR @ 1'-0" O.C. EACH WAY

NOTES:
A. ANCHOR BOLTS TO BE SMOOTH TOUCH
B. MOUNTING BASE SECURED TO ENCLOSURE WITH STAINLESS STEEL ⅜" J BOLTS. SECURED IN LOCATIONS PER BACKFLOW CAGE MANUFACTURER SPECIFICATIONS

A Backflow Enclosure

Scale: 1 1/2"-1'-0"





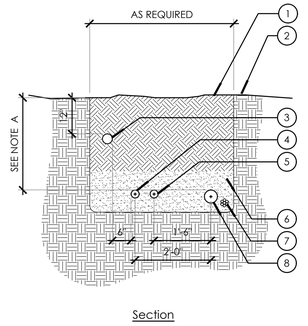
Section View

1. PLASTIC, RECTANGULAR VALVE BOX WITH BOLT DOWN COVER. VALVE BOX COVER TO BE HEAT BRANDED 'FS' COLOR OF LID PER MASTER IRRIGATION LEGEND
2. 3M DBRY/Y-6 DIRECT BURIAL SPLICE KIT
3. DIRECT BURIAL 1 PAIR TWISTED SHIELDED CABLE. RECOMMENDED MINIMUM CONDUCTER SIZE 18AWG. RATED FOR DISTANCES UP TO 2000FT. ENSURE A SERVICE LOOP IS PROVIDED AT THE FLOW SENSOR IN CASE MAINTENANCE IS NEEDED
4. FLOW SENSOR
5. FLOW SENSOR 'TEE'
6. QUICK RELEASE PIN
7. GRAVEL MINIMUM 10" DEEP.

NOTES:
A. 5Xs MEANS 5 TIMES THE PIPES INNER DIAMETER AND 10Xs MEANS 10 TIMES PIPES INNER DIAMETER
B. FOR 1" THROUGH 4" PIPE INSTALLATIONS. THIS ANGLE IS ESPECIALLY IMPORTANT AND SHOULD BE SET AT 60-90 DEGREES FOR MOST ACCURATE READINGS
C. BURIED CABLE EN ROUTE TO IRRIGATION CONTROLLER

F Flow Sensor

NTS



Section

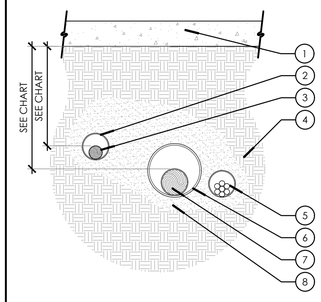
1. MINIMUM BACKFILL COMPACTION TO BE 90%.
2. FINISH GRADE
3. NON-PRESSURIZED LATERAL LINE PIPING
4. COMMUNICATION CABLE CONDUIT (WHERE REQUIRED)
5. FLOW SENSOR CABLE AND CONDUIT
6. APPROVED TOP SOIL OR SAND BACKFILL - PROVIDE 3" UNDER PIPE AND 6" ABOVE PIPE
7. CONTROL WIRES BUNDLED AND TAPED AT 10'-0" INTERVALS - INSTALL ADJACENT TO MAINLINE. SEE MASTER IRRIGATION LEGEND SHEET CONTROLLER NOTE FOR TYPE OF WIRE.
8. PRESSURIZED MAINLINE PIPING

NOTES:
A. MINIMUM BACKFILL DEPTHS FROM FINISH GRADE TO TOP OF MAINLINE SHALL BE AS FOLLOWS:
   - 24" IN PLANTING AREAS
   - 36" UNDER PAVED AREAS
B. ALL PLASTIC PIPING SHALL BE SNAKED IN TRENCHES
C. TIE A LOOSE 20" LOOP IN WIRING AT ANY CHANGE IN DIRECTION GREATER THAN 30° - UNTIE ANY LOOPS AFTER ALL CONNECTIONS HAVE BEEN MADE
D. CLEARANCE BETWEEN PIPE TO EDGE OF TRENCHING LINE SHALL BE MINIMUM 4"

C Trenching Detail

Scale: 1/2"=1'-0"

LINE TYPE	LOCATION	DEPTH
PRESSURIZED MAINLINE	IN LANDSCAPE	24"
	UNDER VEH. PAVING	36"
LATERAL LINES	IN LANDSCAPE	18"
	UNDER VEH. PAVING	30"



1. VEHICULAR or PEDESTRIAN PAVING - REFER TO CONSTRUCTION LAYOUT PLANS FOR SPECIFIC CONDITION
2. LATERAL LINE SLEEVING SHALL BE SCH. 40 PVC - SLEEVE DIA. SHALL BE 2 x LATERAL DIA
3. LATERAL LINE - REFER TO SPECIFICATIONS
4. BACKFILL - 90% RELATIVE COMPACTION, MINIMUM - REFER TO GEOTECHNICAL REPORT
5. CONTROL WIRE BUNDLE SLEEVING SHALL BE SCH. 40 PVC PIPE
6. MAINLINE SLEEVING SHALL BE SCH. 40 PVC PIPE - SLEEVE DIA. SHALL BE 2 x MAINLINE DIA.
7. MAINLINE - REFER TO SPECIFICATIONS
8. SAND BACKFILL - 2" BASE & 6" OF COVER, MIN.

NOTES:
A. ALL IRRIGATION WIRES, LATERALS AND MAINLINE SHALL BE PLACED IN SLEEVES
B. IRRIGATION CONTRACTOR SHALL COORDINATE ALL SLEEVING LOCATIONS & SIZES WITH HARDSCAPE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION
C. ALL SLEEVES SHALL EXTEND A MINIMUM OF 12" BEYOND THE EDGE OF THE HARDSCAPE SURFACE

B Irrigation Sleeving

Scale: 1"=1'-0"

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	SH
DESIGNED BY	EH
CHECKED BY	JP

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: IRRIGATION DETAILS

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

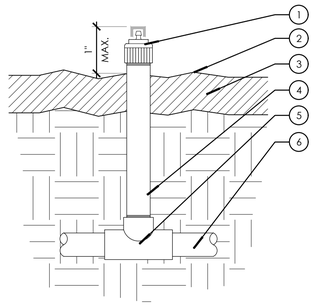
DWG. NO.

SHEET LI-05

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Date: July 8, 2022 D:\DESIGN\17 CRAFTWATER\25 001 EATON WASH\ACAD\SHEETS\25 001 LI01-LI07 EATON WASH IRRIGATION SET.DWG

1. ½" THREADED DRIP EMITTER WITH DIFFUSER CAP
2. FINISHED GRADE
3. ADJACENT MULCH
4. FLEXIBLE PVC RISER HUNTER - IH RISER
5. PVC THREADED T
6. PVC LATERAL PIPE PER PLAN

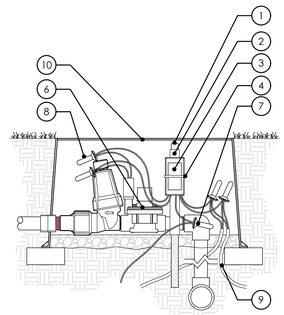


F ½" Threaded Drip Emitter on Flexible PVC Riser

Scale: NTS

1. REBAR
2. DECODER STAKE PER MASTER IRRIGATION LEGEND
3. DECODER MODEL AND MANUFACTURER PER MASTER IRRIGATION LEGEND
4. ELECTRICAL CABLE TIE
5. FINISHED GRADE
6. DRIP VALVE PER MASTER IRRIGATION LEGEND
7. TO EARTH GROUND
8. WATER PROOF WIRE SPLICE NUTS DBR/Y-6 OR EQUAL
9. JACKETED 2WIRE WIRE
10. VALVE BOX WITH HEAT BRANDED LID 'RCV

NOTES:
A. EARTH TO GROUND TO BE A MINIMUM 8' AWAY FROM TWO WIRE PATH. GROUNDING ONLY NEEDS TO OCCUR EVERY 12TH DECODER OR 1000' WHICHEVER COMES FIRST
B. PROVIDE YELLOW VALVE ID TAG LABELED WITH CORRESPONDING CONTROLLER AND VALVE NUMBER

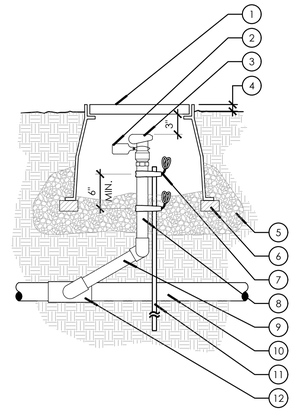


E Remote Control Drip Valve with Decoder

Scale: 1 1/2"-1'-0"

1. PLASTIC, 10" ROUND VALVE BOX WITH BOLT DOWN COVER, HEAT BRANDED, "QCV". COLOR PER MASTER IRRIGATION LEGEND
2. WATER ID TAG
3. QUICK COUPLER VALVE - REFER TO IRRIGATION LEGEND
4. FINISH GRADE:
   - 1/2" BELOW BOX LID IN TURF AREAS
   - 1 1/2" BELOW BOX LID IN SHRUB/GC AREAS
5. ONE (1) CU. FT. (MIN.) OF 3/4" CRUSHED ROCK AT BASE OF VALVE BOX
6. SUPPORT - COMMON RED BRICK
7. V.I.T. STAINLESS STEEL TIES - TYPICAL
8. SCH. 80 PVC NIPPLE - LENGTH AS REQUIRED
9. 1" DIA. SCH. 80 PVC SWING JOINT - PREASSEMBLED BY SPEARS
10. PVC MAINLINE
11. 1/2" DIA. x 24" LENGTH GALVANIZED PIPE STAKE
12. SCH. 80 PVC TEE FITTING

NOTES:
A. ALL THREADS SHALL BE WRAPPED WITH TEFLON TAPE
B. 12" MIN. CLEAR SPACE SHALL BE MAINTAINED BETWEEN THE QUICK COUPLER VALVE BOX AND ANY ADJACENT HARDSCAPE

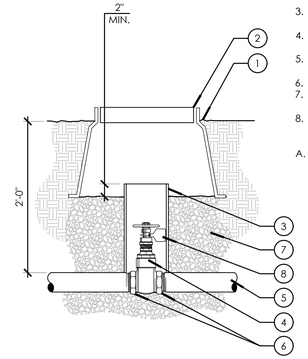


C Quick Coupler Valve

Scale: 3/4"=1'-0"

1. FINISH GRADE
   - 1" IN TURF
   - 2" IN GROUND COVER
2. ROUND, PLASTIC VALVE BOX WITH LOCKING COVER SHALL BE BRANDED "GV" - REFER TO IRRIGATION LEGEND
3. 6" Ø PVC PIPE EXTENSION - LENGTH AS REQUIRED
4. GATE VALVE - REFER TO IRRIGATION LEGEND FOR SPECS.
5. PVC MAINLINE - REFER TO IRRIGATION LEGEND
6. PVC MALE ADAPTER - TWO (2) REQUIRED
7. PEA GRAVEL - TWO (2) CUBIC FEET AT BASE OF VALVE
8. RECLAIMED WATER TAG

NOTE:
A. ALL THREADS SHALL BE WRAPPED WITH TEFLON TAPE

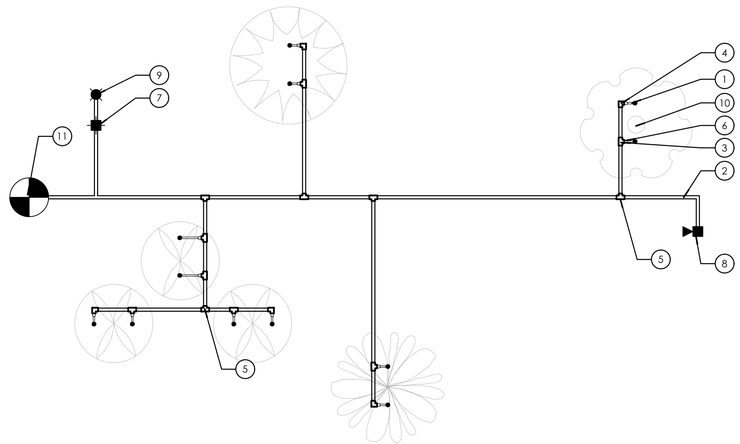


A Gate Valve

Scale: 1"=1'-0"

1. IH RISER WITH POINT SOURCE EMITTER. FLOW RATE AND MODEL PER IRRIGATION LEGEND
2. SCHEDULE 40 PVC PIPE. SEE PIPE SIZING CHART FOR APPROPRIATE SIZE PER FLOW
3. SCHEDULE 40 PVC 'TEE' WITH ½" THREAD
4. SCHEDULE 40 PVC 'ELL' WITH ½" THREAD
5. SHCEDULE 40 PVC FITTINGS
6. HUNTER - PLD - LOC 050
7. DRIP OPERATION INDICATOR
8. MANUAL FLUSH VALVE
9. AIR RELIEF VALVE
10. SHRUB PER PLANTING PLAN
11. DRIP VALVE

NOTES:
A. REFER MASTER IRRIGATION LEGEND FOR MANUFACTURER, MODEL AND TYPE

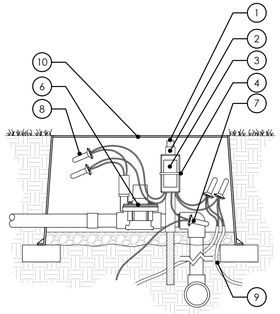


G Drip Point Source Hard Pipe Layout

Scale: 1/2"=1'-0"

1. REBAR
2. DECODER STAKE PER MASTER IRRIGATION LEGEND
3. DECODER MODEL AND MANUFACTURER PER MASTER IRRIGATION LEGEND
4. ELECTRICAL CABLE TIE
5. FINISHED GRADE
6. VALVE PER MASTER IRRIGATION LEGEND
7. TO EARTH GROUND
8. WATER PROOF WIRE SPLICE NUTS DBR/Y-6 OR EQUAL
9. JACKETED 2WIRE WIRE
10. VALVE BOX WITH HEAT BRANDED LID 'RCV

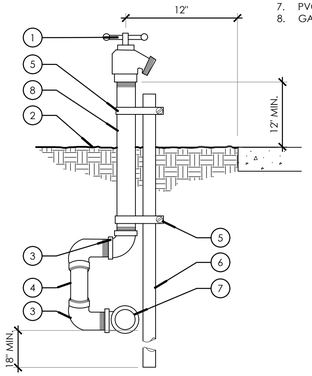
NOTES:
A. EARTH TO GROUND TO BE A MINIMUM 8' AWAY FROM TWO WIRE PATH. GROUNDING ONLY NEEDS TO OCCUR EVERY 12TH DECODER OR 1000' WHICHEVER COMES FIRST
B. PROVIDE YELLOW VALVE ID TAG LABELED WITH CORRESPONDING CONTROLLER AND VALVE NUMBER



D Remote Control Valve with Decoder

Scale: 1 1/2"-1'-0"

1. BRASS HOSE BIB.
2. FINISH GRADE.
3. GALVANIZED STEEL ELL
4. 6' LONG SCH. 80 THREADED PIPE
5. (2) STAINLESS STEEL SERVICE CLAMPS.
6. 1/2"X36" GALVANIZED STEEL ROD.
7. PVC ELL OR TEE MAINLINE.
8. GALVANIZED RISER.



B Hose Bib

NTS

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	SH
DESIGNED BY	EH
CHECKED BY	JP

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: IRRIGATION DETAILS

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

DWG. NO.

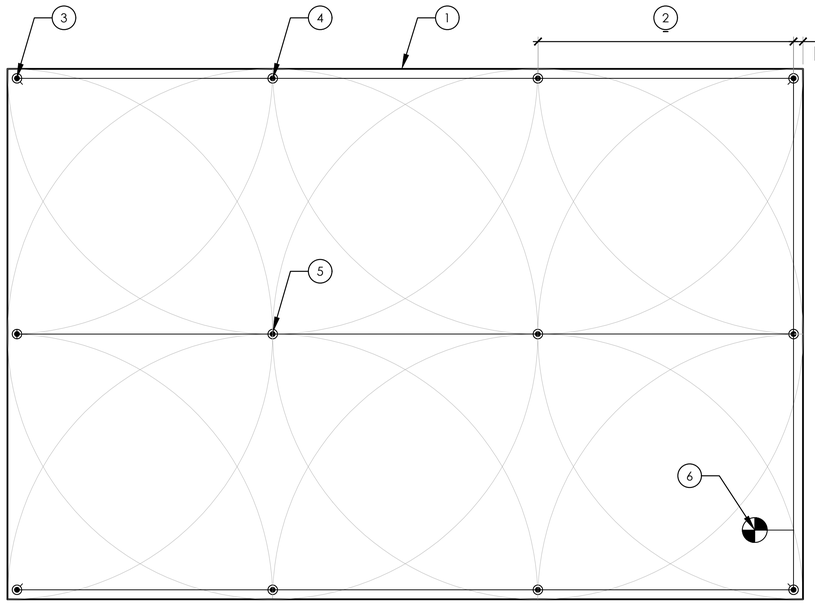
SHEET LI-06

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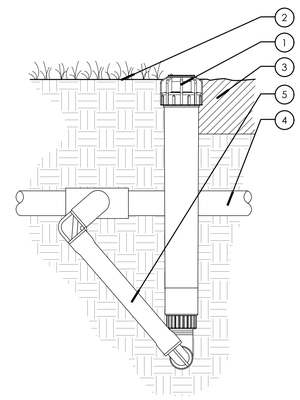
Date: July 8, 2022 D:\DESIGN\17 CRAFTWATER\25 001 EATON WASH\ACAD\SHEETS\25 001 LI01-LI07 EATON WASH IRRIGATION SET.DWG

1. AREA BEING IRRIGATED
2. SPRAY NOZZLE RADIUS THROW DISTANCE. DISTANCE - 1 FOOT PER MASTER IRRIGATION LEGEND. IE. IF THROW RADIUS IS SPECIFIED 8' AT 40 PSI. SPACE HEADS AT 7' TO ACCOUNT FOR WIND.
3. QUARTER PATTERN SPRAY BODY AND NOZZLE PER MASTER IRRIGATION LEGEND
4. HALF PATTERN SPRAY BODY AND NOZZLE PER MASTER IRRIGATION LEGEND
5. FULL PATTERN SPRAY BODY AND NOZZLE PER MASTER IRRIGATION LEGEND
6. VALVE PER MASTER IRRIGATION LEGEND

NOTES:
A. CONTRACTOR TO ADJUST PRESSURE SO THAT LAST NOZZLE ACHIEVES HEAD TO HEAD COVERAGE.



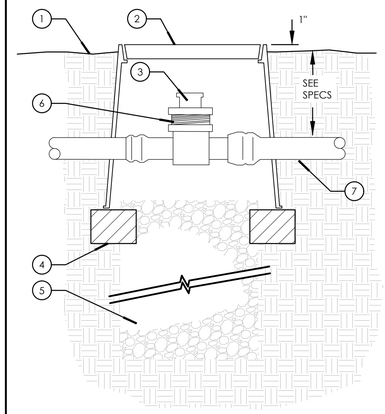
E **Typical Head to Head Coverage Spray Nozzle Detail**
Scale: 1/2"=1'-0"



1. ECO INDICATOR
2. FINISH GRADE
3. ADJACENT PLANTING AREA
4. PVC EXHAUST OR SUPPLY HEADER
5. SWING JOINT

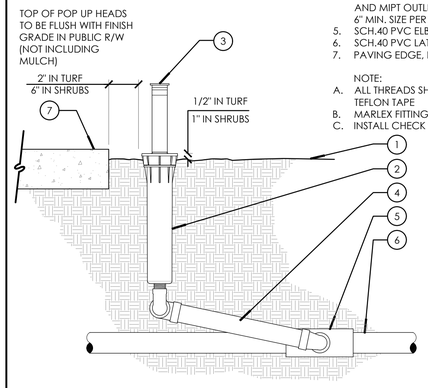
NOTE:
A. ALL THREADS SHALL BE WRAPPED WITH TEFLON TAPE
B. MARLEX FITTINGS NOT ALLOWED
C. INSTALL CHECK VALVES AS REQUIRED

C Drip Operation Indicator
Scale: NTS



1. FINISH GRADE
2. IRRIGATION BOX MODEL PER MASTER IRRIGATION LEGEND. LID TO BE HEAT BRANDED AVR
3. AIR/VACUUM RELIEF VALVE
4. BRICK SUPPORTS (2 REQ.)
5. ¾" GRAVEL SUMP (1 CUBIC FT.)
6. ¾" M X ½" F REDUCTION BUSHING
7. SUBSURFACE DRIP LINE

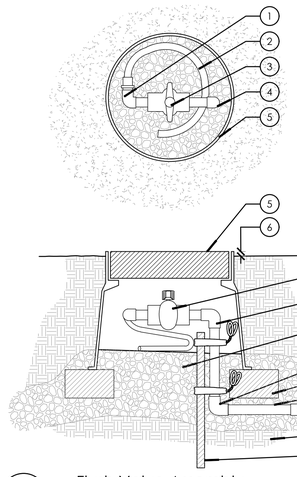
A Air / Vaccum Valve
Scale: NTS



1. FINISH GRADE
2. IRRIGATION SPRAY BODY PER PLAN
3. IRRIGATION NOZZLE
4. TRIPLE SWING JOINT WITH SCH. 40 PVC NIPPLES AND STREET ELLS. MIPT INLET AND MIPT OUTLET - LAY LENGTH TO BE 6" MIN. SIZE PER SPRINKLER INLET
5. SCH.40 PVC ELBOW OR TEE
6. SCH.40 PVC LATERAL LINE
7. PAVING EDGE, HEADER OR WALL

NOTE:
A. ALL THREADS SHALL BE WRAPPED WITH TEFLON TAPE
B. MARLEX FITTINGS NOT ALLOWED
C. INSTALL CHECK VALVES AS REQUIRED

D Pop-Up Irrigation Head
Scale: 3"=1'-0"



1. INSERT X MIP 90 DEGREE ELBOWS.
2. 1½" DIAMETER x 24" FLEX HOSE.
3. SCH. 80 PVC UTILITY BALL VALVE (F X F).
4. SCH. 40 PVC DEGREE ELBOW MIP X FIP.
5. VALVE BOX. MODEL PER MASTER IRRIGATION LEGEND - WITH THE LETTERS 'F.V.' HEAT BRANDED ON THE LID.
6. FINISH GRADE:
   - ½" BELOW TOP OF BOX IN TURF.
   - 2" BELOW TOP OF BOX IN SHRUB/GC.
7. (1) CUBIC FOOT OF PEA GRAVEL SUMP.
8. SCH. 40 PVC 90 DEGREE ELBOW FIP X FIP.
9. BRICK SUPPORT
10. SCH. 80 PVC - LENGTH AS REQUIRED.
11. HARDIE SWIVEL TEE - MODEL #FTS16.
12. COMPACTED SUBGRADE.
13. No. 4 REBAR SPRINKLER SUPPORT.

B Flush Valve Assembly
Scale: 2"=1'-0"

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
SH	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
DESIGNED BY						
EH						
CHECKED BY						
JP			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: IRRIGATION DETAILS

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: LI-07

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DWG. NO.

Date: July 8, 2022 D:\DESIGN\17 CRAFTWATER\25 001 EATON WASH\ACAD\SHEETS\25 001 LI01-LI07 EATON WASH IRRIGATION SET.DWG

WATER EFFICIENT LANDSCAPE WORKSHEET

DATE:	10/30/2025	WUCOLS ZONE:	South Coastal	LA Sq. Ft. :	59,540
PROJECT:	Eaton Wash Stormwater Capture				
CITY:	Pasadena	CIMIS ETo REF. CITY:	Pasadena	SLA Sq. Ft. :	0
CLIENT:	City of Pasadena				
PREPARED BY:	Craftwater	Annual Eto:	52.5		

Point of Connection - 1

MAXIMUM APPLIED WATER ALLOWANCE

	ETo		Total Area		SLA Area		MAWA
Landscape Irrigation MAWA	52.5 x 0.62 x (	59,540 x 0.45	+	0 x 0.6	) =		872,112

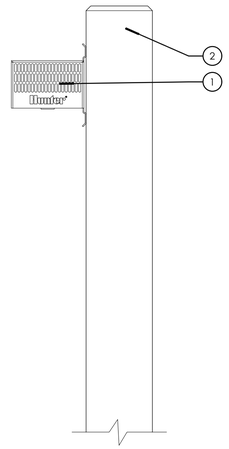
ESTIMATED APPLIED WATER USE

	ETo		Area		PF		IE		ETWU
Special Landscaped Area	43.5 x 0.62 x (	0	x	1.0	/	1.00	) =		0
A1 - Low Trees - Bubbler	52.5 x 0.62 x (	36	x	0.3	/	0.81	) =		434
A2 - Med Trees - Bubbler	52.5 x 0.62 x (	12	x	0.4	/	0.81	) =		193
A3 - Low Shrubs - Drip	52.5 x 0.62 x (	747	x	0.3	/	0.81	) =		9,006
A4 - Low Shrubs - Drip	52.5 x 0.62 x (	844	x	0.3	/	0.81	) =		10,175
A5 - High Trees - Bubbler	52.5 x 0.62 x (	32	x	0.7	/	0.81	) =		900
A6 - Low Shrubs - Drip	52.5 x 0.62 x (	283	x	0.3	/	0.81	) =		3,412
A7 - Low Trees - Bubbler	52.5 x 0.62 x (	24	x	0.3	/	0.81	) =		289
A8 - Low Shrubs - MP Rotator	52.5 x 0.62 x (	1,311	x	0.3	/	0.75	) =		17,069
A9 - Low Shrubs - MP Rotator	52.5 x 0.62 x (	2,171	x	0.3	/	0.75	) =		28,266
A10 - High Trees - Bubbler	52.5 x 0.62 x (	16	x	0.3	/	0.81	) =		193
A11 - Low Shrubs - MP Rotator	52.5 x 0.62 x (	1,533	x	0.3	/	0.75	) =		19,960
A12 - Low Trees - Bubbler	52.5 x 0.62 x (	28	x	0.3	/	0.81	) =		338
A13 - Low Shrubs - MP Rotator	52.5 x 0.62 x (	1,907	x	0.3	/	0.75	) =		24,829
A14 - Med Trees - Bubbler	52.5 x 0.62 x (	32	x	0.3	/	0.81	) =		386
A15 - Low Shrub - MP Rotator	52.5 x 0.62 x (	611	x	0.3	/	0.75	) =		7,955
A16 - Low Shrub - MP Rotator	52.5 x 0.62 x (	1,201	x	0.3	/	0.75	) =		15,637
A17 - High Trees - Bubbler	52.5 x 0.62 x (	16	x	0.7	/	0.81	) =		450
A18 - Low Trees - Bubbler	52.5 x 0.62 x (	16	x	0.3	/	0.81	) =		193
A19 - Low Shrubs - MP Rotator	52.5 x 0.62 x (	1,196	x	0.3	/	0.75	) =		15,572
A20 - Low Shrubs - MP Rotator	52.5 x 0.62 x (	1,762	x	0.3	/	0.75	) =		22,941
A21 - Low Shrubs - MP Rotator	52.5 x 0.62 x (	1,713	x	0.3	/	0.75	) =		22,303
A22 - High Trees - Bubbler	52.5 x 0.62 x (	24	x	0.7	/	0.81	) =		675
A23 - Low Trees - Bubbler	52.5 x 0.62 x (	48	x	0.3	/	0.81	) =		579
A24 - Low Shrubs - MP Rotator	52.5 x 0.62 x (	762	x	0.3	/	0.75	) =		9,921
A25 - Low Shrubs - MP Rotator	52.5 x 0.62 x (	1,010	x	0.3	/	0.75	) =		13,150
A26 - Wash Down	52.5 x 0.62 x (	0	x	0.3	/	0.81	) =		0
A27 - Low Shrubs - MP Rotator	52.5 x 0.62 x (	100	x	0.3	/	0.75	) =		1,302
A28 - Low Shrubs - Drip	52.5 x 0.62 x (	288	x	0.3	/	0.81	) =		3,472
A29 - Low Shrubs - Drip	52.5 x 0.62 x (	454	x	0.3	/	0.81	) =		5,473
A30 - Low Shrubs - MP Rotator	52.5 x 0.62 x (	1,006	x	0.3	/	0.75	) =		13,098
A31 - Low Shrubs - Drip	52.5 x 0.62 x (	2,043	x	0.3	/	0.81	) =		24,630
A32 - Low Shrubs - Drip	52.5 x 0.62 x (	1,370	x	0.3	/	0.81	) =		16,516
A33 - Low Shrubs - Drip	52.5 x 0.62 x (	453	x	0.3	/	0.81	) =		5,461
A34 - Low Shrubs - Drip	52.5 x 0.62 x (	2,507	x	0.3	/	0.81	) =		30,223
A35 - Low Shrubs - Drip	52.5 x 0.62 x (	2,366	x	0.3	/	0.81	) =		28,523
A36 - Low Shrubs - Drip	52.5 x 0.62 x (	279	x	0.3	/	0.81	) =		3,364
A37 - Low Shrubs - MP Rotator	52.5 x 0.62 x (	2,652	x	0.3	/	0.75	) =		34,529
A38 - Low Shrubs - Drip	52.5 x 0.62 x (	1,299	x	0.3	/	0.81	) =		15,660
A39 - Low Shrubs - MP Rotator	52.5 x 0.62 x (	758	x	0.3	/	0.75	) =		9,869
A40 - Low Shrubs - Drip	52.5 x 0.62 x (	5,138	x	0.3	/	0.81	) =		61,941
A41 - Low Shrubs - Rotors	52.5 x 0.62 x (	5,373	x	0.3	/	0.75	) =		69,956
A42 - Low Shrubs - Rotors	52.5 x 0.62 x (	5,373	x	0.3	/	0.75	) =		69,956
A43 - Low Shrubs - Rotors	52.5 x 0.62 x (	5,373	x	0.3	/	0.75	) =		69,956
A44 - Low Shrubs - Rotors	52.5 x 0.62 x (	5,373	x	0.3	/	0.75	) =		69,956
	52.5 x 0.62 x (		x	1.0	/	0.81	) =		0
		59,540				**TOTAL ETWU**	=		**758,714**

ETWU is less than MAWA

HYDROZONE TABLE

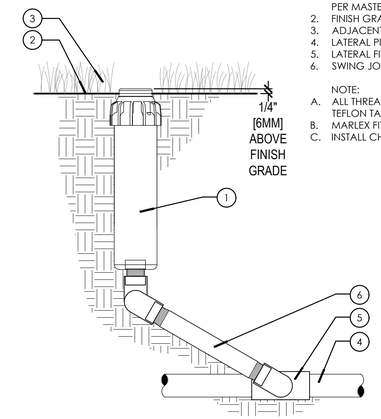
VALVE #	EMISSION TYPE	FLOW RATE	APPLICATION RATE	OPERATING PRESSURE	HYDROZONE	AREA	RUN TIMES
1	BUBBLER	9 GPM	-	30	LOW	36 SQFT	3 min
2	BUBBLER	3 GPM	-	30	MED	12 SQFT	4 min
3	DRIP	2GPM	.8 in/hr	30	LOW	747 SQFT	10 min
4	DRIP	4 GPM	.8 in/hr	30	LOW	844 SQFT	10 min
5	BUBBLER	8 GPM	-	30	HIGH	32 SQFT	5 min
6	DRIP	1 GPM	.8 in/hr	30	LOW	283 SQFT	10 min
7	BUBBLER	6 GPM	-	30	LOW	24 SQFT	3 min
8	MP ROTATOR	16 GPM	.8 in/hr	30	LOW	1311 SQFT	8 min
9	MP ROTATOR	24 GPM	.8 in/hr	30	LOW	2171 SQFT	8 min
10	BUBBLER	4 GPM	-	30	HIGH	16 SQFT	15 min
11	MP ROTATOR	19 GPM	.8 in/hr	30	LOW	1533 SQFT	8 min
12	BUBBLER	7 GPM	-	30	LOW	28 SQFT	3 min
13	MP ROTATOR	23 GPM	.8 in/hr	30	LOW	1907 SQFT	8 min
14	BUBBLER	8 GPM	-	30	MED	32 SQFT	4 min
15	MP ROTATOR	10 GPM	.8 in/hr	30	LOW	611 SQFT	8 min
16	MP ROTATOR	19 GPM	.8 in/hr	30	LOW	1201 SQFT	8 min
17	BUBBLER	4 GPM	-	30	HIGH	16 SQFT	5 min
18	BUBBLER	4 GPM	-	30	LOW	16 SQFT	3 min
19	MP ROTATOR	17 GPM	.8 in/hr	30	LOW	1196 SQFT	8 min
20	MP ROTATOR	20 GPM	.8 in/hr	30	LOW	1762 SQFT	8 min
21	MP ROTATOR	20 GPM	.8 in/hr	30	LOW	1713 SQFT	8 min
22	BUBBLER	6 GPM	.8 in/hr	30	HIGH	24 SQFT	8 min
23	BUBBLER	12 GPM	-	30	LOW	48 SQFT	3 min
24	MP ROTATOR	10 GPM	.8 in/hr	30	LOW	762 SQFT	8 min
25	MP ROTATOR	12 GPM	.8 in/hr	30	LOW	1010 SQFT	8 min
26	ROTOR	14 GPM	.8 in/hr	45	-	-	15 min
27	MP ROTATOR	12 GPM	.8 in/hr	30	LOW	100 SQFT	8 min
28	DRIP	1 GPM	.8 in/hr	30	LOW	288 SQFT	10 min
29	DRIP	1 GPM	.8 in/hr	30	LOW	454 SQFT	10 min
30	MP ROTATOR	11 GPM	.8 in/hr	30	LOW	1006 SQFT	8 min
31	DRIP	4 GPM	.8 in/hr	30	LOW	2043 SQFT	10 min
32	DRIP	3 GPM	.8 in/hr	30	LOW	1370 SQFT	10 min
33	DRIP	1 GPM	.8 in/hr	30	LOW	453 SQFT	10 min
34	DRIP	5 GPM	.8 in/hr	30	LOW	2507 SQFT	10 min
35	DRIP	5 GPM	.8 in/hr	30	LOW	2366 SQFT	10 min
36	DRIP	1 GPM	.8 in/hr	30	LOW	279 SQFT	10 min
37	MP ROTATOR	33 GPM	.8 in/hr	30	LOW	2652 SQFT	8 min
38	DRIP	3 GPM	.8 in/hr	30	LOW	1299 SQFT	10 min
39	MP ROTATOR	11 GPM	.8 in/hr	30	LOW	758 SQFT	8 min
40	DRIP	11 GPM	.8 in/hr	30	LOW	5138 SQFT	10 min
41	ROTOR	15 GPM	.4 in/hr	45	LOW	5138 SQFT	15 min
42	ROTOR	18 GPM	.4 in/hr	45	LOW	5138 SQFT	15 min
43	ROTOR	9 GPM	.4 in/hr	45	LOW	5138 SQFT	15 min
44	ROTOR	17 GPM	.4 in/hr	45	LOW	5138 SQFT	15 min



1. WEATHER/RAIN SENSOR IN VANDAL RESISTANT ENCLOSURE. HUNTER - WS-GUARD
2. ADJACENT MOUNTING SURFACE

NOTES:
A. WEATHER SENSOR TO BE FIELD VERIFIED BY ARCHITECT PRIOR MOUNTING
B. WEATHER SENSOR TO BE LOCATED IN AREA OPEN TO AIR, FREE FROM ANY OBSTRUCTIONS AND AREA RECEIVING THE MOST SUN DURING THE DAY
C. CORRESPONDING FASTENER TO MATERIAL ENCLOSURE TO BE ATTACHED TO. SENSOR LOCATION DETERMINED AND APPROVED ON SITE.

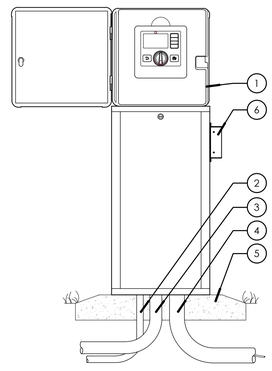
C Weather/Rain Sensor
Scale: NTS



1. ROTOR MODEL AND MANUFACTURER PER MASTER IRRIGATION LEGEND
2. FINISH GRADE
3. ADJACENT LANDSCAPE
4. LATERAL PIPE
5. LATERAL FITTING
6. SWING JOINT

NOTE:
A. ALL THREADS SHALL BE WRAPPED WITH TEFLON TAPE
B. MARLEX FITTINGS NOT ALLOWED
C. INSTALL CHECK VALVES AS REQUIRED

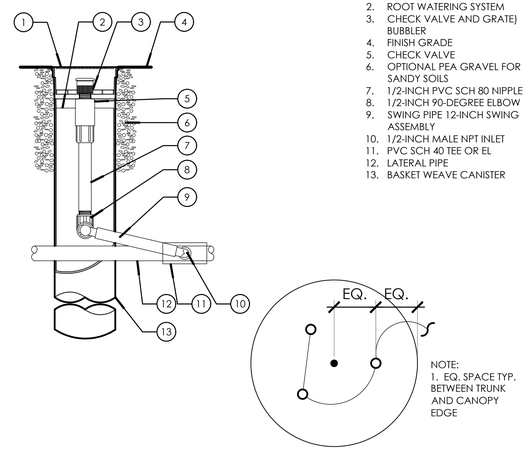
A Pop Up Rotor
Scale: 3"=1'-0"



1. IRRIGATION CONTROLLER PER MASTER IRRIGATION LEGEND
2. ELECTRICAL SUPPLY CONDUIT. CONNECT TO POWER SOURCE. J-BOX INSIDE CONTROLLER
3. GROUND WIRE CONDUIT GROUND PER ASIC GUIDELINES
4. IRRIGATION CONTROL WIRE IN CONDUIT SIZE AND TYPE PER LOCAL CODES
5. PEDESTAL BASE PER PLAN INSURE POSITIVE DRAINAGE AWAY FROM PEDESTAL
6. WEATHER/RAIN SENSOR RECEIVER IN VANDAL RESISTANT ENCLOSURE. MODEL: HUNTER WR-GUARD

NOTES:
A. CONTROLLER SHALL BE HARD-WIRED TO GROUNDED 110 VAC POWER SOURCE

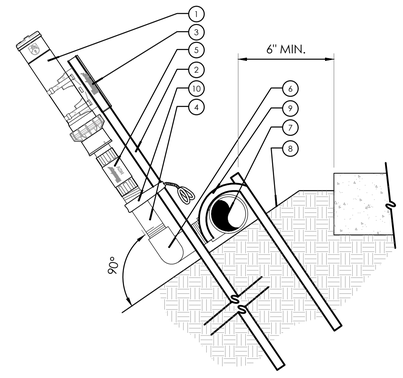
D Pedestal Mounted Controller
NTS

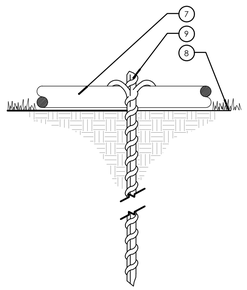


1. 4-INCH GRATE
2. ROOT WATERING SYSTEM
3. CHECK VALVE AND GRATE) BUBBLER
4. FINISH GRADE
5. CHECK VALVE
6. OPTIONAL PEA GRAVEL FOR SANDY SOILS
7. 1/2-INCH PVC SCH 80 NIPPLE
8. 1/2-INCH 90-DEGREE ELBOW
9. SWING PIPE 12-INCH SWING ASSEMBLY
10. 1/2-INCH MALE NPT INLET
11. PVC SCH 40 TEE OR EL
12. LATERAL PIPE
13. BASKET WEAVE CANISTER

NOTE:
1. EQ. SPACE TYP. BETWEEN TRUNK AND CANOPY EDGE

B Root Watering System
NTS





1. ROTOR MODEL AND MANUFACTURER PER MASTER IRRIGATION LEGEND
2. #4 REBAR SPRINKLER SUPPORT
3. ROTOR STAKING KIT MANUFACTURER HUNTER PART#463551
4. RISER. HEIGHT PER MASTER IRRIGATION LEGEND. UVR SCH 80 PVC
5. CHECK VALVE AS REQUIRED
6. UVR PVC STREET ELL
7. UVR PVC LATERAL LINE
8. FINISH GRADE
9. V.I.T. PIPE STABILIZER @ 10'-0" O.C. MIN.
10. V.I.T. STAINLESS STEEL SPRINKLER TIE

NOTE:
A. ALL THREADS SHALL BE WRAPPED WITH TEFLON TAPE
B. MARLEX FITTINGS NOT ALLOWED
C. INSTALL CHECK VALVES AS REQUIRED

E Shrub Rotor on Slope
Scale: 3"=1'-0"

RUN TIMES ARE SET FOR THE HOTTEST DAY OF THE YEAR. DISABLE SOLAR SYNC FUNCTION FOR FIRST 60 DAYS OF ESTABLISHMENT PERIOD. ENABLE SOLAR SYNC FUNCTION IN HYDRAWISE APP. SMART CONTROLLER WILL MAKE RUN TIME ADJUSTMENTS PER LIVE WEATHER DATA FROM ON SITE WEATHER SENSOR.

PROGRAM START TIMES:
RUN ALL STATIONS EVERY DAY FOR THE FIRST 30 DAYS.
ADJUST PROGRAM START TIMES FOR EVERY OTHER DAY FOR FOLLOWING 60 DAYS. AFTER 90 DAY MAINTENANCE PERIOD, ADJUST PROGRAM START TIMES TO THE FOLLOWING

SHRUB ZONES : MONDAY, WEDNESDAY, FRIDAY.

CONTRACTOR TO CONFIRM WITH FACILITIES MANAGER FINAL START TIMES FOR IRRIGATION PROGRAMS AT THE COMPLETION OF PROJECT.

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	SH
DESIGNED BY	EH
CHECKED BY	JP

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: IRRIGATION DETAILS AND WATER CALCS

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: LI-08

86 OF 111

DWG. NO.

Date: July 8, 2022 D:\DESIGN\17 CRAFTWATER\25 001 EATON WASH\ACAD\SHEETS\25 001 LI01-LI07 EATON WASH IRRIGATION SET.DWG

PLANTING NOTES

1. PRIOR TO BEGINNING WORK, LANDSCAPE CONTRACTOR SHALL REVIEW THE CIVIL ENGINEERING DRAWINGS FOR ANY SPECIAL CONDITIONS PARTICULARLY AS THEY PERTAIN TO GRADING FEATURES SUCH AS SWALES, DETENTION BASINS, AND INFILTRATION AREAS THAT MAY HAVE AN EFFECT ON PLANTING AREAS.
2. LOCATIONS OF PLANTS ARE SCHEMATIC. ALL SHRUBS TO BE PLANTED A MINIMUM OFFSET OF TWO (2) FEET FROM ANY EXISTING UTILITIES OR STRUCTURES AND TREES A MINIMUM THREE (3) FEET FROM UTILITIES OR STRUCTURES.
3. ALL TREES TO BE TAGGED BY LANDSCAPE ARCHITECT PRIOR TO PURCHASE.
4. LANDSCAPE ARCHITECT OR PROJECT REPRESENTATIVE TO BE PRESENT TO APPROVE PLANT MATERIAL WHEN DELIVERED TO PROJECT SITE.
5. ALL PLANTS AND TREES STORED ON-SITE TO FOLLOW PROCEDURES IN PROJECT SPECIFICATIONS.
6. PLANTS ARE SHOWN DIAGRAMMATICALLY ON PLAN THEREFORE PLANT SPACING IN PLANTING NOTES AND PLANTING SPECIFICATIONS TAKE PRECEDENCE TO PLANTS SHOWN ON THE PLAN. CONTRACTOR IS TO CALCULATE QUANTITY OF PLANTS CALLED FOR AND INSTALL ALL THAT ARE SHOWN ON PLAN.
7. ALL LANDSCAPE PLANTING, IRRIGATION EQUIPMENT AND SYSTEMS, PAVING, OR SITE FURNISHINGS DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED AND APPROVED BY OWNER'S REPRESENTATIVE BEFORE 100% COMPLETION OF CONSTRUCTION.
8. BEFORE THE DEMOLITION AND REMOVAL OF ANY EXISTING TREES, THE CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE AND THEY WILL DESIGNATE ALL THE TREES TO BE PROTECTED IN PLACE OR TO BE REMOVED.
9. REMAINING TREES TO RECEIVE PRUNING PER DIRECTION OF OWNER'S REPRESENTATIVE. DO NOT PRUNE PRIOR TO RECEIVING DIRECTION.
10. REMOVED TREES SHALL BE COMPLETELY REMOVED, INCLUDING LIMBS AND TRUNK, WITH THE STUMP GROUND DOWN TO WITHIN SIX TO EIGHT INCHES BELOW THE SURFACE OF THE GROUND. STUMP SHALL BE GROUND IN ALL AREAS ACCESSIBLE BY EQUIPMENT.
11. CONTRACTOR SHALL PROTECT ALL PLANTS THAT ARE DESIGNATED "PROTECT IN PLACE" IF A PLANT WITH THIS DESIGNATION IS DAMAGED OR REMOVED THE CONTRACTOR SHALL REPLACE THE PLANT WITH THE SAME SIZE AND SPECIES.
12. APPLY 3" LAYER OF MULCH PER PLANS AND SPECIFICATIONS UNDER AND IN BETWEEN ALL PLANTS SO AS TO LEAVE SOIL COMPLETELY COVERED WITH MULCH. NO MULCH SHALL BE PLACED WITHIN 2' OF TREE CENTER. ALL MULCH TO BE SOURCED AND PROCESSED WITHIN THE LOCAL WATERSHED AS DEFINED BY THIS PROJECT. SUPPLY A MULCH SAMPLE FOR APPROVAL BY LANDSCAPE ARCHITECT THAT INCLUDES THE MULCH SOURCE.
13. ALL PLANTING SOIL SHALL COMPLY WITH SOIL SPECIFICATIONS.
14. SOIL TESTS TO BE CONDUCTED AS DESCRIBED IN LANDSCAPE SPECIFICATIONS. THESE TESTS ARE TO DETERMINE RECOMMENDED AMOUNTS OF FERTILIZER AND ANY HARMFUL SUBSTANCES THAT REQUIRE MITIGATION. SEE SPECIFICATIONS FOR FURTHER INFORMATION.
15. DURING SOIL PREPARATION AMEND WITH GYPSUM (AGRICULTURAL CALCIUM SULFATE CA SO4) PER AMOUNT RECOMMENDED BY THE SOIL TEST RESULTS. SEE SPECIFICATIONS FOR FURTHER INFORMATION.
16. LANDSCAPE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE GENERAL CONTRACTOR TO DISCUSS LANDSCAPE ISSUE BEFORE START OF CONSTRUCTION.
17. PLANT QUANTITIES AND SQUARE FOOTAGES ARE INCLUDED FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES AND COVERAGES PER PLAN.
18. CONTRACTOR TO DEMONSTRATE OPERATIONAL PERMAVOID IRRIGATION SYSTEM TO OWNER'S REPRESENTATIVE PRIOR TO BEGINNING ANY INSTALLATION OF PLANTING SOIL AND PLANTING.
19. ALL TREES WITHIN SCOPE OF CONSTRUCTION, INCLUDING ANY TREE THAT HAS A DRIPLINE WITHIN 5 FEET OF THE PROJECT AREA, SHALL BE PROTECTED IN PLACE UNLESS MARKED FOR REMOVAL.

TREE SCHEDULE

SYMBOL	BOTANICAL / COMMON NAME	SIZE	QTY	DETAIL
TREES				
	AESCULUS CALIFORNICA / CALIFORNIA BUCKEYE	36"	2	3/LP-05
	ALNUS RHOMBIFOLIA / WHITE ALDER	24"	21	3/LP-05
	CERCIS OCCIDENTALIS / WESTERN REDBUD	36"	18	3/LP-05
	PLATANUS RACEMOSA / CALIFORNIA SYCAMORE	36"	4	3/LP-05
	QUERCUS AGRIFOLIA / COAST LIVE OAK	48"	15	3/LP-05
	QUERCUS ENGELMANNII / ENGELMANN OAK	48"	6	3/LP-05
	UMBELLULARIA CALIFORNICA / BAY LAUREL	36"	12	3/LP-05
	Existing Trees to Remain		116	1/LP-06
	New Tree Count		78	
	Total Tree Count		194	

PLANT SCHEDULE

SYMBOL	BOTANICAL / COMMON NAME	SIZE	QTY	DETAIL
SHRUBS				
	ACHILLEA MILLEFOLIUM / COMMON YARROW	1 GAL.	111	1/LP-05
	ANEMOPSIS CALIFORNICA / YERBA MANSA	1 GAL.	31	1/LP-05
	ARTEMISIA CALIFORNICA / CALIFORNIA SAGEBRUSH	5 GAL.	30	1/LP-05
AD	ARTEMISIA DOUGLASIANA / MUGWORT	5 GAL.	48	1/LP-05
	ASCLEPIAS FASCICULARIS / NARROWLEAF MILKWEED	1 GAL.	64	1/LP-05
BB	BACCHARIS SALICIFOLIA / MULEFAT	5 GAL.	35	1/LP-05
	BOUTELOUA GRACILIS / BLUE GRAMA GRASS	1 GAL.	57	1/LP-05
CO	CALYCANTHUS OCCIDENTALIS / WESTERN SPICEBUSH	5 GAL.	18	1/LP-05
	CAREX BARBARAE / SANTA BARBARA SEDGE	1 GAL.	2	1/LP-05
	CAREX NUDATA / NAKED SEDGE	1 GAL.	10	1/LP-05
	CAREX PRAEGRACILIS / CALIFORNIA FIELD SEDGE	1 GAL.	15	1/LP-05
	COREOPSIS GIGANTEA / GIANT COREOPSIS	1 GAL.	14	1/LP-05
	ELYMUS CONDENSATUS 'CANYON PRINCE' / CANYON PRINCE WILD RYE	5 GAL.	10	1/LP-05
EC	ENCELIA CALIFORNICA / CALIFORNIA ENCELIA	5 GAL.	16	1/LP-05
	EPILOBIUM CANUM / CALIFORNIA FUCHSIA	1 GAL.	105	1/LP-05
	EPIPACTIS GIGANTEA / STREAM ORCHID	1 GAL.	41	1/LP-05
EL	EQUISETUM LAEVIGATUM / SMOOTH SCOURING RUSH	5 GAL.	34	1/LP-05
ECA	ERIODICTYON CALIFORNICUM / CALIFORNIA YERBA SANTA	1 GAL.	21	1/LP-05
	ERIOGONUM UMBELLATUM / SULFURFLOWER BUCKWHEAT	5 GAL.	15	1/LP-05
	ERYTHRANTHE CARDINALIS / SCARLET MONKEYFLOWER	5 GAL.	81	1/LP-05
	ERYTHRANTHE GUTTATA / YELLOW MONKEYFLOWER	1 GAL.	89	1/LP-05
	JUNCUS EFFUSUS / SOFT RUSH	5 GAL.	58	1/LP-05
	JUNCUS PATENS / CALIFORNIA GRAY RUSH	5 GAL.	14	1/LP-05
	JUNCUS PATENS 'OCCIDENTAL BLUE' / OCCIDENTAL BLUE RUSH	5 GAL.	50	1/LP-05
	JUNCUS TEXTILIS / BASKET RUSH	5 GAL.	49	1/LP-05
	LEPECHINIA FRAGRANS / ISLAND PITCHERSAGE	5 GAL.	33	1/LP-05
	LINANTHUS CALIFORNICUS / PRICKLY PHLOX	1 GAL.	76	1/LP-05
MA	MALVA ASSURGENTIFLORA / TREE MALLOW	5 GAL.	4	1/LP-05
MR	MUHLENBERGIA RIGENS / DEER GRASS	5 GAL.	47	1/LP-05
	NEMOPHILA MENZIESII / BABY BLUE EYES	1 GAL.	107	1/LP-05
	PENSTEMON HETEROPHYLLUS / FOOTHILL PENSTEMON	5 GAL.	101	1/LP-05
	POLYPODIUM CALIFORNICUM / CALIFORNIA POLYPODY	1 GAL.	53	1/LP-05
	RHAMNUS CALIFORNICA 'LITTLE SUR' / LITTLE SUR COFFEEBERRY	5 GAL.	56	1/LP-05
RV	RIBES VIBURNIFOLIUM / EVERGREEN CURRANT	5 GAL.	29	1/LP-05
RC	ROSA CALIFORNICA / CALIFORNIA WILD ROSE	5 GAL.	44	1/LP-05
RW	ROSA WOODSII ULTRAMONTANA / WOODS' ROSE	1 GAL.	18	1/LP-05
	SALVIA APIANA / WHITE SAGE	5 GAL.	6	1/LP-05
SL	SALVIA LEUCOPHYLLA / PURPLE SAGE	5 GAL.	21	1/LP-05
	SALVIA SPATHACEA / HUMMINGBIRD SAGE	1 GAL.	90	1/LP-05
	SISYRINCHIUM BELLUM / BLUE-EYED GRASS	5 GAL.	97	1/LP-05
SB	STACHYS BULLATA / HEDGE NETTLE	5 GAL.	9	1/LP-05
TL	TRICHOSTEMA LANATUM / WOOLLY BLUE CURLS	5 GAL.	11	1/LP-05

CONCEPT PLANT SCHEDULE

	EXISTING TREES TO BE REMOVED	2
	24" BOXED TREE (SPECIES TBD)	486
	CALIFORNIA NATIVE WILDFLOWER MIX ACHILLEA MILLEFOLIUM / COMMON YARROW DEINANDRA FASCICULATA / FASCICLED TARWEED DICHELOSTEMMA CAPITATUM / BLUE DICKS ERIASTRUM SAPPHIRINUM / SAPPHIRE WOOLLYSTAR ESCHSCHOLZIA CALIFORNICA / CALIFORNIA POPPY LUPINUS MICROCARPUS / CHICK LUPINE PENSTEMON SPECTABILIS / SHOWY PENSTEMON PHACELIA CICUTARIA / CATERPILLAR PHACELIA SALVIA COLUMBARIAE / CHIA	965 SF
	SLOPE STABILIZATION SEED MIX BROMUS CARINATUS 'CUCAMONGA' / CUCAMONGA CALIFORNIA BROME FESTUCA MICROSTACHYS / SMALL FESCUE TRIFOLIUM CILIOLATUM / FOOTHILL CLOVER	21,494 SF

NOTE: SLOPE STABILIZATION SEED MIX SUPPLEMENTED WITH THE FOLLOWING SHRUBS, SPACED ON AVERAGE 10' ON CENTER
CEANOTHUS 'CONCHA' / CONCHA CEANOTHUS
CERCOCARPUS BETULOIDES / MOUNTAIN MAHOGANY
FRANGULA CALIFORNICA / CALIFORNIA COFFEEBERRY
HETEROMELES ARBUTIFOLIA / TOYON
RHUS INTEGRIFOLIA / LEMONADE BERRY
RHUS OVATA / SUGAR BUSH
SAMBUCUS MEXICANA / BLUE ELDERBERRY

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	BR
DESIGNED BY	EH
CHECKED BY	JP

REVISIONS					
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: PLANTING NOTES AND LEGEND

SCALE: AS SHOWN

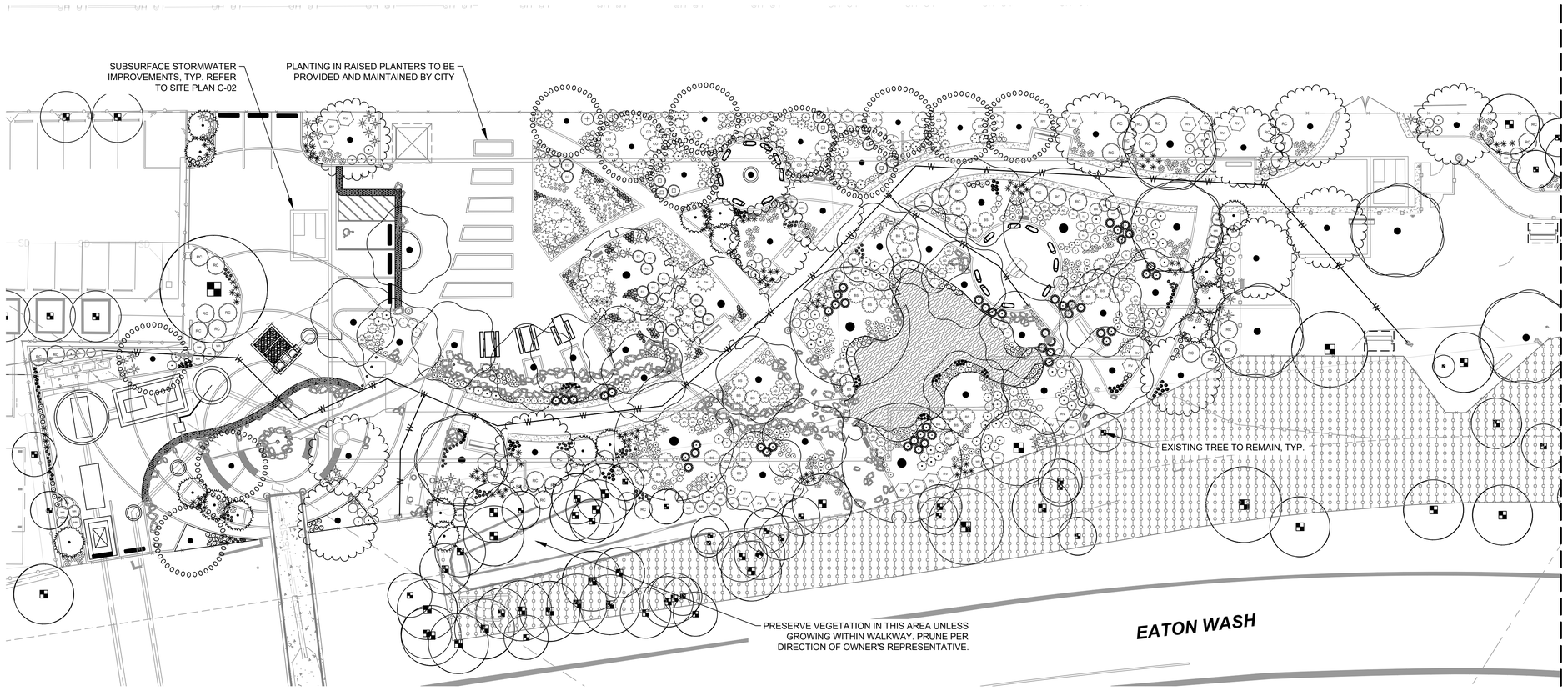
ACCOUNT NUMBER: XXXXXX

SHEET: LP-01

87 OF 111

DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-PLANTING_NOTES_AND_LEGEND.DWG



MATCHLINE SEE SHEET LP-03

PLANT SCHEDULE

SYMBOL	BOTANICAL / COMMON NAME
SHRUBS	
	ACHILLEA MILLEFOLIUM / COMMON YARROW
O	ANEMOPSIS CALIFORNICA / YERBA MANSA
	ARTEMISIA CALIFORNICA / CALIFORNIA SAGEBRUSH
AD	ARTEMISIA DOUGLASIANA / MUGWORT
	ASCLEPIAS FASCICULARIS / NARROWLEAF MILKWEED
BS	BACCHARIS SALICIFOLIA / MULEFAT
	BOUTELOUA GRACILIS / BLUE GRAMA GRASS
CO	CALYCANTHUS OCCIDENTALIS / WESTERN SPICEBUSH
	CAREX BARBARAE / SANTA BARBARA SEDGE
	CAREX NUDATA / NAKED SEDGE
	CAREX PRAEGRACILIS / CALIFORNIA FIELD SEDGE
+	COREOPSIS GIGANTEA / GIANT COREOPSIS
□	ELYMUS CONDENSATUS 'CANYON PRINCE' / CANYON PRINCE WILD RYE
EC	ENCELIA CALIFORNICA / CALIFORNIA ENCELIA
	EPILOBIUM CANUM / CALIFORNIA FUCHSIA
	EPIPACTIS GIGANTEA / STREAM ORCHID
EL	EQUISETUM LAEVIGATUM / SMOOTH SCOURING RUSH
ECA	ERIODICTYON CALIFORNICUM / CALIFORNIA YERBA SANTA
	ERIOGONUM UMBELLATUM / SULFURFLOWER BUCKWHEAT
	ERYTHRANTHE CARDINALIS / SCARLET MONKEYFLOWER
+	ERYTHRANTHE GUTTATA / YELLOW MONKEYFLOWER
	JUNCUS EFFUSUS / SOFT RUSH
	JUNCUS PATENS / CALIFORNIA GRAY RUSH
	JUNCUS PATENS 'OCCIDENTAL BLUE' / OCCIDENTAL BLUE RUSH
	JUNCUS TEXTILIS / BASKET RUSH
+	LEPECHINIA FRAGRANS / ISLAND PITCHERSAGE
	LINANTHUS CALIFORNICUS / PRICKLY PHLOX
MA	MALVA ASSURGENTIFLORA / TREE MALLOW
MR	MUHLENBERGIA RIGENS / DEER GRASS
+	NEMOPHILA MENZIESII / BABY BLUE EYES
	PENSTEMON HETEROPHYLLUS / FOOTHILL PENSTEMON
	POLYPODIUM CALIFORNICUM / CALIFORNIA POLYPODY
	RHAMNUS CALIFORNICA 'LITTLE SUR' / LITTLE SUR COFFEEBERRY
RV	RIBES VIBURNIFOLIUM / EVERGREEN CURRANT
RC	ROSA CALIFORNICA / CALIFORNIA WILD ROSE
RW	ROSA WOODSII ULTRAMONTANA / WOODS' ROSE
+	SALVIA APIANA / WHITE SAGE
SL	SALVIA LEUCOPHYLLA / PURPLE SAGE
	SALVIA SPATHACEA / HUMMINGBIRD SAGE
	SISYRINCHIUM BELLUM / BLUE-EYED GRASS
SB	STACHYS BULLATA / HEDGE NETTLE
TW	TRICHOSTEMA LANATUM / WOOLLY BLUE CURLS

CONCEPT PLANT SCHEDULE

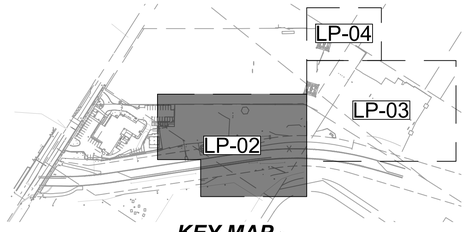
CALIFORNIA NATIVE WILDFLOWER MIX
- ACHILLEA MILLEFOLIUM / COMMON YARROW
- DEINANDRA FASCICULATA / FASCICLED TARWEED
- DICHELOSTEMMA CAPITATUM / BLUE DICKS
- ERIASTRUM SAPPHIRINUM / SAPPHIRE WOOLLYSTAR
- ESCHSCHOLZIA CALIFORNICA / CALIFORNIA POPPY
- LUPINUS MICROCARPUS / CHICK LUPINE
- PENSTEMON SPECTABILIS / SHOWY PENSTEMON
- PHACELIA CICUTARIA / CATERPILLAR PHACELIA
- SALVIA COLUMBARIAE / CHIA

SLOPE STABILIZATION SEED MIX
- BROMUS CARINATUS 'CUCAMONGA' / CUCAMONGA CALIFORNIA BROME
- FESTUCA MICROSTACHYS / SMALL FESCUE
- TRIFOLIUM CILIOLATUM / FOOTHILL CLOVER

NOTE: SLOPE STABILIZATION SEED MIX SUPPLEMENTED WITH THE FOLLOWING SHRUBS, SPACED ON AVERAGE 10' ON CENTER
- CEANOTHUS 'CONCHA' / CONCHA CEANOTHUS
- CERCOCARPUS BETULOIDES / MOUNTAIN MAHOGANY
- FRANGULA CALIFORNICA / CALIFORNIA COFFEEBERRY
- HETEROMELES ARBUTIFOLIA / TOYON
- RHUS INTEGRIFOLIA / LEMONADE BERRY
- RHUS OVATA / SUGAR BUSH
- SAMBUCUS MEXICANA / BLUE ELDERBERRY

TREE SCHEDULE

SYMBOL	BOTANICAL / COMMON NAME
TREES	
	AESCULUS CALIFORNICA / CALIFORNIA BUCKEYE
	ALNUS RHOMBIFOLIA / WHITE ALDER
	CERCIS OCCIDENTALIS / WESTERN REDBUD
	PLATANUS RACEMOSA / CALIFORNIA SYCAMORE
	QUERCUS AGRIFOLIA / COAST LIVE OAK
	QUERCUS ENGELMANNII / ENGELMANN OAK
	UMBELLULARIA CALIFORNICA / BAY LAUREL
	Existing Trees to Remain



KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	DESIGNED BY	CHECKED BY
KC	EH	JP

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: PLANTING PLAN

SCALE: AS SHOWN

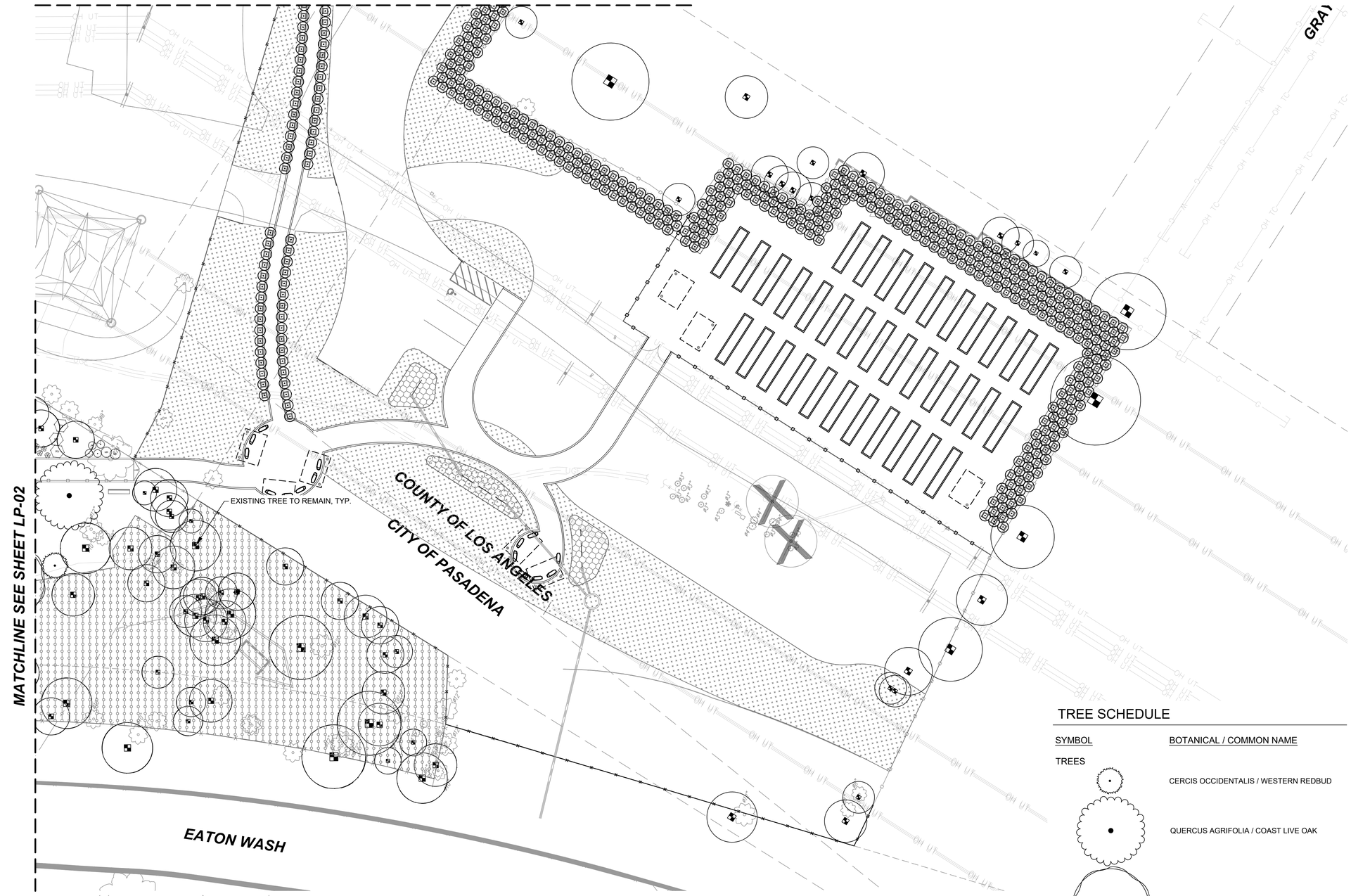
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SHEET: LP-02

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-PLANTING_PLAN.DWG



PLANT SCHEDULE

SYMBOL	BOTANICAL / COMMON NAME
SHRUBS	
MR	MUHLENBERGIA RIGENS / DEER GRASS
•	RHAMNUS CALIFORNICA 'LITTLE SUR' / LITTLE SUR COFFEEBERRY
RIV	RIBES VIBURNIFOLIUM / EVERGREEN CURRANT
	SALVIA SPATHACEA / HUMMINGBIRD SAGE

CONCEPT PLANT SCHEDULE

EXISTING TREES TO BE REMOVED

24" BOXED TREE (SPECIES TBD)

BIOSWALE
FESTUCA CALIFORNICA / CALIFORNIA FESCUE
JUNCUS PATENS 'ELK BLUE' / SPREADING RUSH
ACHILLEA MILLEFOLIUM / COMMON YARROW
ARTEMISIA DOUGLASIANA / MUGWORT
LEPECHINIA FRAGRANS / ISLAND PITCHERSAGE
LEYMUS CONDENSATUS 'CANYON PRINCE' / CANYON PRINCE GIANT WILD RYE
MUHLENBERGIA RIGENS / DEER GRASS

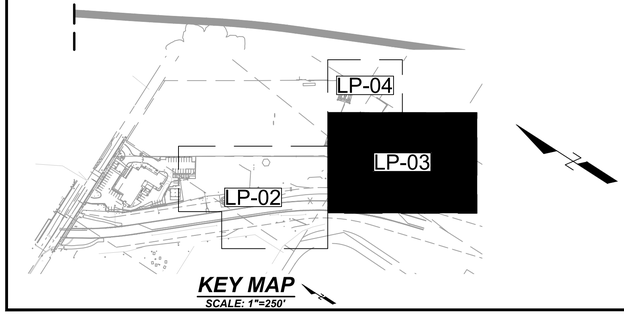
SAGE SCRUB
ACMISPON GLABER / DEERWEED
BACCHARIS PILULARIS 'PIGEON POINT' / PIGEON POINT COYOTE BRUSH
DIPLACUS AURANTIACUS / STICKY MONKEYFLOWER
ELYMUS CONDENSATUS / GIANT WILD RYE
ERIODICTYON TRICHOCALYX / HAIRY YERBA SANTA
ERIOGONUM CINEREUM / ASHYLEAF BUCKWHEAT
ERIOGONUM FASCICULATUM / CALIFORNIA BUCKWHEAT
ERIOGONUM PARVIFOLIUM / CLIFF BUCKWHEAT
ERIOPHYLLUM CONFERTIFLORUM / GOLDEN YARROW
ISOCOMA MENZIESII / GOLDENBUSH
OPUNTIA LITTORALIS / SHORE CACTUS
SALVIA CLEVELANDII / CLEVELAND SAGE
SALVIA MELLIFERA / BLACK SAGE
SCROPHULARIA CALIFORNICA / CALIFORNIA FIGWORT
ARTEMISIA CALIFORNICA / CALIFORNIA SAGEBRUSH
BOUTELOUA GRACILIS / BLUE GRAMA GRASS
ENCELIA CALIFORNICA / CALIFORNIA ENCELIA
EPILOBIUM CALIFORNICUM / CALIFORNIA FUCHSIA
LINANTHUS CALIFORNICUS / PRICKLY PHLOX
MUHLENBERGIA RIGENS / DEER GRASS
SALVIA APIANA / WHITE SAGE
SALVIA LEUCOPHYLLA / PURPLE SAGE

SLOPE STABILIZATION SEED MIX
BROMUS CARINATUS 'CUCAMONGA' / CUCAMONGA CALIFORNIA BROME
FESTUCA MICROSTACHYS / SMALL FESCUE
TRIFOLIUM CILIOLATUM / FOOTHILL CLOVER

NOTE: SLOPE STABILIZATION SEED MIX SUPPLEMENTED WITH THE FOLLOWING SHRUBS, SPACED ON AVERAGE 10' ON CENTER
CEANOTHUS 'CONCHA' / CONCHA CEANOTHUS
CERCOCARPUS BETULOIDES / MOUNTAIN MAHOGANY
FRANGULA CALIFORNICA / CALIFORNIA COFFEEBERRY
HETEROMELES ARBUTIFOLIA / TOYON
RHUS INTEGRIFOLIA / LEMONADE BERRY
RHUS OVATA / SUGAR BUSH
SAMBUCUS MEXICANA / BLUE ELDERBERRY

TREE SCHEDULE

SYMBOL	BOTANICAL / COMMON NAME
TREES	
	CERCIS OCCIDENTALIS / WESTERN REDBUD
	QUERCUS AGRIFOLIA / COAST LIVE OAK
	QUERCUS ENGELMANNII / ENGELMANN OAK
	Existing Trees to Remain



KEY MAP
SCALE: 1"=250'

0 20 40 Feet
SCALE: 1"=20'

90% DESIGN PLANS NOT FOR CONSTRUCTION

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CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

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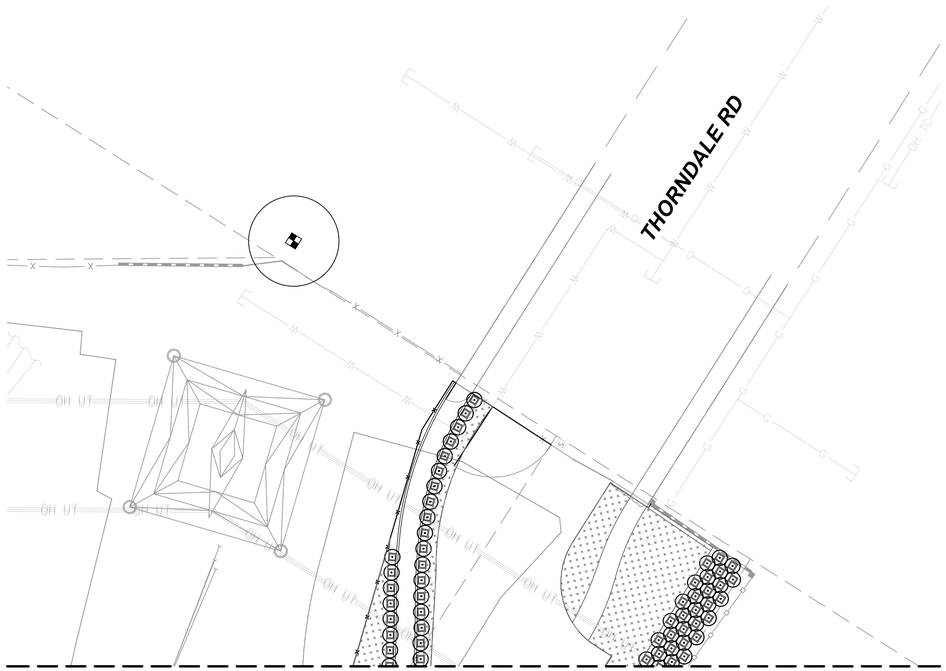
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SHEET: LP-03

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DWG. NO.

Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-PLANTING_PLAN.DWG



MATCHLINE SEE SHEET LP-03

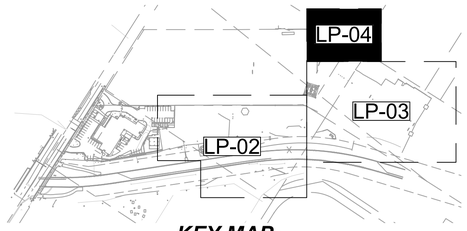
TREE SCHEDULE

SYMBOL	BOTANICAL / COMMON NAME
TREES	
	Existing Trees to Remain

CONCEPT PLANT SCHEDULE

24" BOXED TREE (SPECIES TBD)

SAGE SCRUB
- ACMISPON GLABER / DEERWEED
- BACCHARIS PILULARIS 'PIGEON POINT' / PIGEON POINT COYOTE BRUSH
- DIPLACUS AURANTIACUS / STICKY MONKEYFLOWER
- ELYMUS CONDENSATUS / GIANT WILD RYE
- ERIODICTYON TRICHOCALYX / HAIRY YERBA SANTA
- ERIOGONUM CINEREUM / ASHYLEAF BUCKWHEAT
- ERIOGONUM FASCICULATUM / CALIFORNIA BUCKWHEAT
- ERIOGONUM PARVIFOLIUM / CLIFF BUCKWHEAT
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- ISOCOMA MENZIESII / GOLDENBUSH
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- SALVIA CLEVELANDII / CLEVELAND SAGE
- SALVIA MELLIFERA / BLACK SAGE
- SCROPHULARIA CALIFORNICA / CALIFORNIA FIGWORT
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- BOUTELOUA GRACILIS / BLUE GRAMA GRASS
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- LINANTHUS CALIFORNICUS / PRICKLY PHLOX
- MUHLENBERGIA RIGENS / DEER GRASS
- SALVIA APIANA / WHITE SAGE
- SALVIA LEUCOPHYLLA / PURPLE SAGE



KEY MAP
SCALE: 1"=250'

0 20 40 Feet

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90% DESIGN PLANS NOT FOR CONSTRUCTION

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CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

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SCALE: AS SHOWN

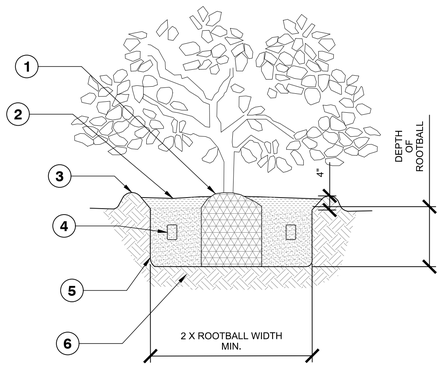
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SHEET: LP-04

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DWG. NO.

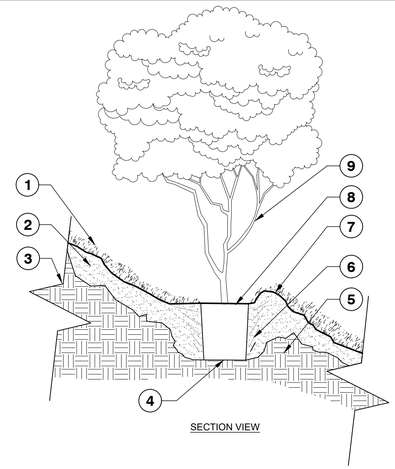
Date: July 8, 2022 P:\CITY OF PASADENA\23-048 EATON WASH SW PROJECT\CAD\FINAL PLOTS\EATON-PLANTING_PLAN.DWG



1. TOP OF ROOTBALL 1" ABOVE FINISHED GRADE
2. 3" SHREDDED WOOD MULCH EXCEPT AT ROOT CROWN
3. 4" HIGH BERM FIRMLY COMPACTED
4. PLANT TABLETS BURIED MAX 3" DEEP
5. BACKFILL PLANTING PIT SCARIFY BOTTOM AND EDGES
6. UNDISTURBED NATIVE SOIL

1 SHRUB PLANTING

1/2" = 1'-0"

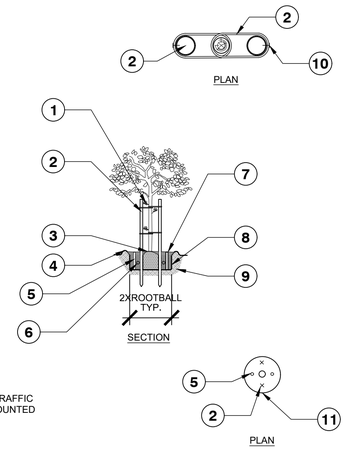


1. 4" LAYER OF MULCH. NO MORE THAN 1" OF MULCH ON TOP OF ROOT BALL.
2. ORIGINAL SLOPE SHOULD PASS THROUGH THE POINT WHERE THE TRUNK MEETS SUBSTRATE/SOIL.
3. MODIFIED SOIL
4. BOTTOM OF ROOT BALL RESTS ON EXISTING OR RECOMPACTED SOIL.
5. EXISTING SOIL
6. PRIOR TO MULCHING, LIGHTLY TAMP SOIL AROUND THE ROOT BALL IN 6" LIFTS TO BRACE TREE. DO NOT OVER COMPACT. WHEN THE PLANTING HOLE HAS BEEN BACKFILLED, POUR WATER AROUND THE ROOT BALL TO SETTLE THE SOIL.
7. 4" H X 8" W ROUND-TOPPED SOIL BERM ABOVE ROOT BALL SURFACE SHALL BE CENTERED ON THE DOWNHILL SIDE OF THE ROOT BALL FOR 240°. BERM SHALL BEGIN AT ROOT BALL PERIPHERY.
8. ROOT BALL
9. TREE

2 TREE ON SLOPE WITH MODIFIED SOIL

N.T.S.

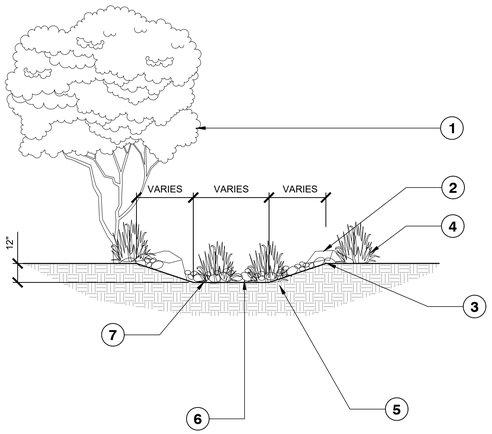
1. DO NOT REMOVE SIDE GROWTH ALONG TRUNK. PRUNE ONLY AS DIRECTED BY LANDSCAPE ARCHITECT.
2. 2-2" DIA 10' MIN LENGTH LODGEPOLE STAKES AND 4 TIES. TOP TIES SHALL BE 3" BELOW TOP OF STAKE. TIES SHALL ALLOW TREE TO MOVE FREELY WITHOUT ALLOWING TRUNK OR BRANCHES TO RUB AGAINST STAKE.
3. TOP OF ROOTBALL 1-2" ABOVE FINISHED GRADE.
4. 4" HIGH BERM FIRMLY COMPACTED
5. ROOT WATERING SYSTEM PER IRRIGATION PLANS
6. PLANT TABLETS PER SPECIFICATIONS
7. 3" SHREEDED WOOD MULCH PER SPECIFICATIONS; KEEP MULCH AWAY FROM ROOT CROWN
8. BACKFILL PLANTING PIT SCARIFY BOTTOM AND SIDES OF PLANTING PIT.
9. UNDISTURBED NATIVE SOIL
10. NAIL EACH TREE TIE TO STAKE USING GALVANIZED NAILS
11. PLANTING HOLE



NOTES
A. DOUBLE STAKE 15 GAL AND LARGER TREES
B. POSITION STAKES OUTSIDE OF ROOTBALL; ALIGN STAKES PARALLEL TO PREVAILING WIND
C. PROVIDE MINIMUM DISTANCE FROM OTHER OBJECTS AS FOLLOWS: 20' TRAFFIC SIGNALS, 12' STREET LIGHTS, 10' FIRE HYDRANTS, SEWER LINES, PAD MOUNTED EQUIPMENT, 5' FOR UNDERGROUND GAS AND ELECTRIC LINES.
D. REFER TO IRRIGATION SHEETS FOR ALL IRRIGATION DETAILS

3 TREE PLANTING AND STAKING

N.T.S.



1. TREE SHALL BE PLANTED ADJACENT TO OR ON SIDE SLOPE OF SWALE PER PLANTING PLAN.
2. BOULDER PER PLAN
3. AT EDGE CONDITION, BURY EDGE OF FABRIC 12" DEEP MIN. SECURE WITH HALF-BURIED 8" - 12" COBBLE. EXTEND COBBLE. EXTEND COBBLES OVER THIS AREA TO SECURE AS INDICATED.
4. SHRUB/GRASS PLANTING PER LANDSCAPE PLAN
5. STAPLE JOINTS AND MIDDLE OF GEOTEXTILE FABRIC WITH 3/16" DIAMETER X 8" STEEL BARS WITH 1-1/2" HEADS OR "U" SHAPED PINS
6. ROUNDED ROCK COBBLE
7. GEOTEXTILE FABRIC PER SPECIFICATIONS. LAP 18" MIN AT JOINTS. BURY EDGES 12" DEEP MIN.

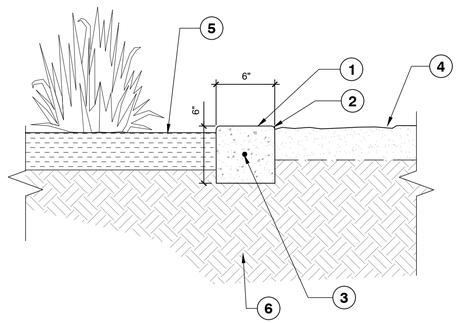
NOTE:
1. SWALE SIDE SLOPES TO BE 3 TO 1 MAX SEE GRADING PLANS.
2. ROCK COBBLE TO BE 4"-8" SIERRA COBBLE BY SOUTHWEST BOULDER OR APPROVED EQUAL. WWW.SOUTHWESTBOULDER.COM

4 NATURALIZED SWALE

1/4" = 1'-0"

1. P.I.P. CONCRETE EDGE
2. 1/4" RADIUS AT ALL EXPOSED EDGES
3. (1) #4 REBAR, CONTINUOUS
4. STABILIZED DECOMPOSED GRANITE PER PLAN @ 4" DEPTH
5. ADJACENT PLANTING AREA PER PLAN, FINISH GRADE ½" BELOW TOP OF CONCRETE MOWCURB
6. COMPACTED SUBGRADE, 95% MINIMUM RELATIVE COMPACTION

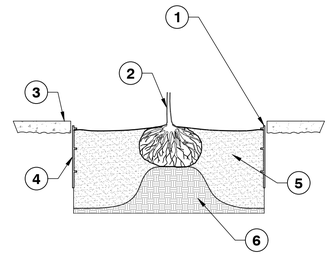
NOTES:
A. REFER TO CONSTRUCTION NOTES & LEGEND FOR COLOR AND FINISH
B. SCORE CONCRETE EDGE WITH 1" DEEP JOINT 10'-0" O.C.



5 PLANTING AREA AT D.G. WITH CONCRETE MOWCURB

N.T.S.

1. TOP OF ROOT BARRIER MUST BE AT LEAST 1/2" ABOVE FINISHED GRADE
2. TREE
3. ADJACENT PAVING
4. ROOT BARRIER
5. BACKFILL SOIL
6. UNDISTURBED SUBGRADE



NOTES:
A. USE DEEP ROOT UB 24-2 OR APPROVED EQUAL. DEEP ROOT 800-458-7668
B. SET ROOT BARRIER FLUSH WITH EDGE OF ADJACENT PAVING WHERE INDICATED ON PLANS.
C. BARRIER INSTALLED IN TRENCH IN SUBGRADE WHICH IS THEN COMPACTED. BARRIER RIBS FACE TOWARD TREE ROOTBALL
D. USE 10 PANELS OR 20 LINEAR FEET MIN PER TREE WITH TREE CENTERED

6 TREE ROOT BARRIER

1/8" = 1'-0"

TO BE INCLUDED IN 100% DRAWINGS

7 SLOPE STABILIZATION PLANTING

90% DESIGN PLANS NOT FOR CONSTRUCTION

DRAWN BY	REVISIONS					
KC	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
DESIGNED BY						
EH						
CHECKED BY						
JP			AS BUILT			

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: PLANTING DETAILS

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: LP-05

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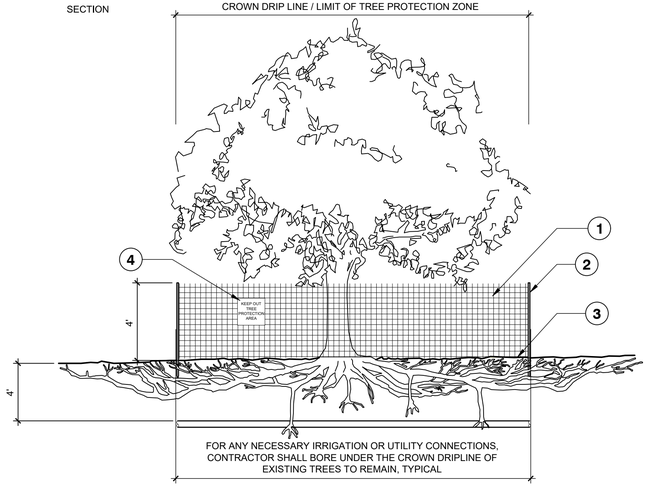
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1. TREE PROTECTION FENCE - HIGH DENSITY POLYETHYLENE FENCING WITH 3 1/2" X 1 1/2" OPENINGS, ORANGE COLOR.
2. 2" X 6' STEEL POSTS INSTALLED AT 8' ON CENTER, TYPICAL
3. MAINTAIN EXISTING GRADE WITHIN THE TREE PROTECTION FENCE. PROVIDE MULCH AND TREE IRRIGATION WITHIN THE TREE PROTECTION ZONE.
4. 8 1/2" X 11" SIGN, LAMINATED IN PLASTIC. SPACED EVERY 50' ALONG FENCE PERIMETER

NOTES:
- A. REFER TO SPECIFICATIONS, TREE PROTECTION GUIDELINES AND ORDINANCE FOR FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
- B. NO PRUNING SHALL BE PERFORMED EXCEPT BY APPROVED ARBORIST. ANY ROOT CUTTING SHALL BE MONITORED BY CITY INSPECTOR AND/OR PROJECT MANAGER.
- C. NO MATERIALS STORAGE, TRASH, OR EQUIPMENT OPERATION SHALL OCCUR INSIDE THE PROTECTIVE FENCING. INFORM CITY INSPECTOR ON ANY CONSTRUCTION OPERATION WITHIN THE TREE PROTECTION ZONE.

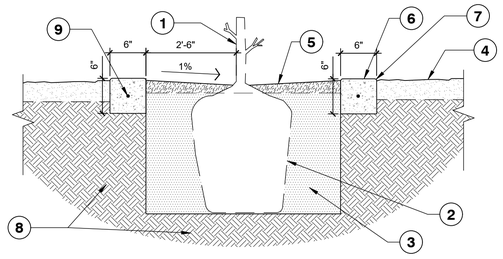
SECTION



1 TREE PROTECTION

N.T.S.

1. TREE TRUNK (TREE PER PLAN)
2. TREE ROOTBALL
3. BACKFILL MIX PER SPECIFICATIONS
4. DECOMPOSED GRANITE (DG) (PER PLAN), SEE 5/LP-05
5. 2" SHREDDED BARK MULCH
6. P.I.P. CONCRETE EDGE
7. 1/4" RADIUS AT ALL EXPOSED EDGES
8. COMPACTED SUBGRADE, 95% MINIMUM RELATIVE COMPACTION
9. (1) #4 REBAR CONTINUOUS

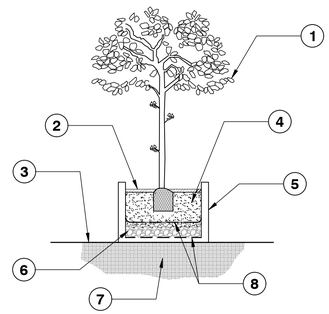


NOTES:
- A. SHREDDED BARK MULCH LAYER SHALL BE 2" MINIMUM THICK AT EDGES AND SLOPED DOWN 1% TOWARDS TREE TRUNK; THICKNESS SHALL BE REDUCED NEAR TREE TRUNK.

2 TREE IN DECOMPOSED GRANITE PAVING

N.T.S.

1. TREE PER PLANTING PLAN
2. 2" SHREDDED BARK MULCH
3. FINISHED GRADE
4. LIGHTWEIGHT POTTING SOIL EARTHWORKS (951)782-0260 OR APPROVED EQUAL
5. 24" WOODEN BOX
6. 12" OF 3/4" WASHED PEA GRAVEL
7. NATIVE SOIL
8. GEOTEXTILE FABRIC LAYER BOTH SIDES OF GRAVEL LAYER. WRAP TOP LAYER UP SIDES OF PLANTER 6"



NOTES:
- A. LIGHTWEIGHT POTTING SOIL TO BE FILLED TO 6" BELOW TOP
- B. 2" LAYER OF SHREDDED BARK MULCH TO BE ADDED ON TOP OF SOIL MIX

3 24" BOXED TREE

1/2" = 1'-0"

90% DESIGN PLANS NOT FOR CONSTRUCTION

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DESIGNED BY	EH
CHECKED BY	JP

REVISIONS

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CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

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SHEET TITLE: PLANTING DETAILS

SCALE: AS SHOWN

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SHEET: LP-06

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ELECTRICAL LEGENDS

ONE-LINE DIAGRAM LEGEND

TRANSFORMER WITH PRIMARY AND SECONDARY VOLTAGE, AND KVA RATING AS NOTED

1500KVA
2.4KV Δ - 480Y/277V
3%Z, 60HZ

CS 4#14,3/4"
20 3P-60 22:3#8,#10G, 4#14,2"
CIRCUIT NO.22 WITH #8 INSULATED CONDUCTORS AND 1#10 GROUND WIRE FOR A 20HP MOTOR WITH 3 POLE, 60A, MOTOR DISCONNECT SWITCH AND 4#14 INSULATED CONDUCTORS FOR AUXILIARY ITEM, AS FOR EXAMPLE A CONTROL STATION, ALL IN 2" CONDUIT.

AUXILIARY ITEMS MAY NOT BE COMPLETELY SHOWN
HS
20 3P-60 22:3#8,#10G 4#14,2"
CONDUCTORS FOR AUXILIARY ITEM SHALL NOT PASS THROUGH MOTOR DISCONNECT SWITCH.

AUXILIARY ITEMS MAY NOT BE COMPLETELY SHOWN
15
ONE-LINE SHOWING POWER AND CONTROL TO A PACKAGE UNIT, AS FOR EXAMPLE A STEAM GENERATOR OR AN AIR HANDLING UNIT, SHALL IMPLY THAT ANY AND ALL ASSOCIATED EQUIPMENT SHALL ALSO BE INSTALLED AND WIRED AS REQUIRED BY THE EQUIPMENT FURNISHED.

INDICATES THAT ALL OR PART OF CIRCUIT MAY BE ROUTED IN DUCT BANK OR UNDERGROUND. CONDUIT SIZE SHOWN ON ONE-LINE IS ABOVE GROUND AND/OR INSIDE OF STRUCTURE. SEE DUCT BANK SCHEDULE AND SECTIONS FOR CONDUIT SIZE OF UNDERGROUND PORTION OF CIRCUIT.

HIGH VOLTAGE DRAWOUT AIR OR VACUUM CIRCUIT BREAKER

3P-20
LOW VOLTAGE AIR CIRCUIT BREAKER, 3 POLE, 20 AMPERE

S4
SIZE 4 COMBINATION MAGNETIC MOTOR STARTER

LOW VOLTAGE DRAWOUT AIR CIRCUIT BREAKER

HIGH VOLTAGE DRAWOUT CONTACTOR

FUSE AND DISCONNECT SWITCH

S2
SIZE 2 COMBINATION MAGNETIC MOTOR STARTER, REVERSING OR 2 SPEED

S1
SIZE 1 COMBINATION REDUCED VOLTAGE AUTOTRANSFORMER

POTENTIAL TRANSFORMER

CURRENT TRANSFORMER

CURRENT OR POTENTIAL TEST SWITCH

G GENERATOR

K KIRK KEY INTERLOCK

E ELECTRICAL INTERLOCK

R RESISTOR

59G PROTECTION RELAY WITH IEEE DEVICE FUNCTION AS SHOWN

ONE-LINE DIAGRAM LEGEND CONTINUED

V SINGLE-FUNCTION METER

SURGE OR LIGHTNING ARRESTER

SURGE ARRESTER WITH SURGE CAPACITOR

GROUND CONNECTION

COMMUNICATION SYMBOLS

HORN SPEAKER

DUAL HORN SPEAKER

WALL MOUNTED CONE SPEAKER

SK CEILING MOUNTED CONE SPEAKER

PROTECTION/RELAY DEVICE NUMBERS

25 - SYNCHRONIZING OR SYNCHRONISM-CHECK DEVICE
27 - UNDERVOLTAGE RELAY
32 - DIRECTIONAL POWER RELAY
37 - UNDERCURRENT OR UNDERPOWER RELAY
46 - REV. PHASE OR PHASE-BAL. CURRENT RELAY
47 - PHASE SEQ. OR PHASE BAL. VOLTAGE RELAY
49 - MACHINE OR TRANSFORMER THERMAL RELAY
50 - INSTANTANEOUS OVERCURRENT
51 - AC TIME OVERCURRENT RELAY
52 - AC CIRCUIT BREAKER
59 - OVERVOLTAGE RELAY
63 - PRESSURE SWITCH
64 - GROUND DETECTOR RELAY
67 - AC DIRECTIONAL OVERCURRENT RELAY
71 - LIQUID OR GAS LEVEL RELAY
81 - FREQUENCY RELAY
83 - AUTOMATIC SELECTIVE CONTROL OR TRANSFER RELAY
86 - LOCKOUT RELAY
87 - DIFFERENTIAL PROTECTIVE RELAY

BREAKER DETAILS

DETAIL

A 52 5KV 1200A 49KA
A LOW VOLTAGE FIXED MOUNTED MOLDED CASE CIRCUIT BREAKER WITH A 50 AMPERE TRIP RATING. TRIP UNIT IS NON-ADJUSTABLE THERMAL-MAGNETIC TYPE.

DETAIL

B 3P-50
1000AT 1200AF SST LSIG AFRD
A LOW VOLTAGE FIXED MOUNTED MOLDED CASE CIRCUIT BREAKER WITH A 1200 AMPERE FRAME AND A 1000 AMPERE TRIP RATING. TRIP UNIT IS ADJUSTABLE SOLID-STATE TYPE WITH LONG-TIME, SHORT-TIME, INSTANTANEOUS, GROUND FAULT AND ARC-FLASH REDUCTION PROTECTION FEATURES.

DETAIL

C 800AT 1000AS 1600AF AFRD
A LOW VOLTAGE, DRAWOUT, POWER OR INSULATED CASE CIRCUIT BREAKER WITH A 1600A FRAME AND SOLID-STATE TRIP UNIT. TRIP UNIT HAS A SENSOR MODULE RATED FOR 1000 AMPERES AND WITH A TRIP RATING OF 800 AMPERES AND ARC-FLASH REDUCTION PROTECTION FEATURES.

CONDUIT & WIRING INSTALLATION LEGEND

CONDUIT EXPOSED

CONDUIT CONCEALED

CONDUIT TURNING UP. CONDUIT TURNING DOWN.

CONDUIT PLUGGED FLUSH. CONDUIT CAPPED.

L2 - 5
TYPICAL FOR HOME RUN TO BE ROUTED TO LIGHTING PANEL L2 & CONNECTED TO CIRCUIT #5 (MINIMUM NO. 12 AWG CONDUCTORS AND 3/4" CONDUIT)

A LIGHTING FIXTURE. REFER TO NUMBER OR LETTER IN FIXTURE SCHEDULE

11 LINEAR FIXTURE. REFER TO NUMBER OR LETTER IN FIXTURE SCHEDULE.

LP1-3 RECEPTACLE POWERED FROM LIGHTING PANEL LP1, CIRCUIT 3

A LP2-2 LIGHTING FIXTURE POWERED FROM LIGHTING PANEL LP2, CIRCUIT 2 (NON-SWITCHED)

LPA-4 A 11 LIGHTING FIXTURE POWERED FROM LIGHTING PANEL LPA, CIRCUIT 4, VIA SWITCH A

E UNDERGROUND CONCRETE ENCASED ELECTRICAL DUCT BANK

UNDERGROUND CONCRETE ENCASED ELECTRICAL BANK ROUTED BENEATH SLAB-ON-GRADE

EE DIRECT BURIED CONDUIT

GROUND CONDUCTOR

UE UE UNDERGROUND ELECTRIC

OH OH OVERHEAD CIRCUIT

SCHEMATIC SYMBOLS

WIRE CONNECTION POINT
EXTERNAL CONNECTION POINT
NORMALLY OPEN CONTACT
NORMALLY CLOSED CONTACT
STARTER, CONTACTOR OR RELAY COIL
NORMALLY OPEN PUSH BUTTON
NORMALLY CLOSED PUSH BUTTON
MAINTAINED PUSH BUTTON
NORMALLY CLOSED GEARED LIMIT SWITCH
NORMALLY OPEN GEARED LIMIT SWITCH
INDICATING LIGHT
FUSE
POTENTIOMETER
CAPACITOR
DIODE
RESISTOR
CONTROL POWER TRANSFORMER
SWITCH
MS MANUAL STARTER
OL OVERLOAD
OVERLOAD
ELECTRODE

FLOAT SWITCH (CLOSING ON RISING LEVEL)
FLOAT SWITCH (OPENING ON RISING LEVEL)
PRESSURE SWITCH (CLOSING ON RISING PRESSURE)
PRESSURE SWITCH (OPENING ON RISING PRESSURE)
TEMPERATURE SWITCH (CLOSING ON RISING TEMPERATURE)
TEMPERATURE SWITCH (OPENING ON RISING TEMPERATURE)
FLOW ACTUATED SWITCH (CLOSING ON INCREASE IN FLOW)
FLOW ACTUATED SWITCH (OPENING ON INCREASE IN FLOW)
ON TIME DELAY CONTACT (NORMALLY OPEN, WHEN THE COIL IS ENERGIZED THE CONTACT WILL CLOSE AFTER A TIME DELAY)
ON TIME DELAY CONTACT (NORMALLY CLOSED, WHEN THE COIL IS ENERGIZED THE CONTACT WILL OPEN AFTER A TIME DELAY)
OFF TIME DELAY CONTACT (NORMALLY OPEN, WHEN THE COIL IS DE-ENERGIZED THE CONTACT WILL OPEN AFTER A TIME DELAY)
OFF TIME DELAY CONTACT (NORMALLY CLOSED, WHEN THE COIL IS DE-ENERGIZED THE CONTACT WILL CLOSE AFTER A TIME DELAY)
LIMIT SWITCH (NORMALLY OPEN)
LIMIT SWITCH (NORMALLY CLOSED)

SWITCH & OUTLET SYMBOLS

S SINGLE POLE SWITCH
S_2 TWO POLE SWITCH
S_{3A} THREE-WAY SWITCH CONTROLLING LIGHTS WITH "A" DESIGNATION
S_4 FOUR-WAY SWITCH
S_M^{C1} MOMENTARY SWITCH CONTROLLING CONTACTOR C1
DUPLEX RECEPTACLE 120 VOLT
SIMPLEX RECEPTACLE
RANGE RECEPTACLE
TWISTLOCK RECEPTACLE
30 240V, 1Ø RECEPTACLE, TYPICAL AMPERE RATING NOTED
60 480V, 3Ø WELDING RECEPTACLE, TYPICAL AMPERE RATING NOTED
120 VOLT DUPLEX RECEPTACLE (UPS)
DUPLEX FLOOR OUTLET
TELEPHONE OUTLET
TELEPHONE FLOOR OUTLET
CX COAXIAL CABLE OUTLET
DATA NETWORK OUTLET

MISCELLANEOUS SYMBOLS

STROBE
HORN & STROBE
HORN
T THERMOSTAT
J JUNCTION BOX
GROUND ROD
GROUND ROD WITH TEST WELL
GROUND CONNECTION
DISCONNECT SWITCH
COMBINATION STARTER
POWER PANEL
LIGHTING PANEL
MISCELLANEOUS PANEL
LIGHTING CONTACTOR
CAMERA
PHOTO CELL (PE)

90% - NOT FOR CONSTRUCTION

DRAWN BY AAH	REVISIONS					
DESIGNED BY AA	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
CHECKED BY PV						

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE GENERAL ELECTRICAL NOTES

SCALE AS SHOWN | ACCOUNT NUMBER XXXXXX

SHEET E-01
93 OF 111
DWG. NO.

ELECTRICAL ABBREVIATIONS & NOTES

ELECTRICAL GENERAL NOTES

1. SOLID LINES (_____) INDICATE NEW WORK OR EQUIPMENT.
2. SCREENED LINES (_____) INDICATE EXISTING WORK OR EQUIPMENT.
3. DASHED LINES (_ _ _ _) INDICATE FUTURE WORK OR EQUIPMENT.
4. REFER TO INDIVIDUAL DISCIPLINE CONTRACT DRAWINGS FOR ADDITIONAL ABBREVIATIONS, DETAILS, AND GENERAL DESIGN NOTES.
5. LEGEND SHEETS ARE GENERAL. SOME SYMBOLS AND ABBREVIATIONS MAY NOT BE UTILIZED ON THIS SPECIFIC PROJECT.
6. INFORMATION RELATED TO CIRCUIT IDENTIFICATION, WIRE & CONDUIT SIZES, AND ROUTING, IS ON THE FOLLOWING DRAWING TYPES.

   A. ONE-LINE DIAGRAMS SHOW CIRCUIT IDENTIFICATION, WIRE QUANTITY AND SIZES, AND CONDUIT SIZE WITHIN STRUCTURES. ONE-LINE DIAGRAMS ALSO INDICATE ORIGIN AND DESTINATION OF CIRCUITS, AND IDENTIFY CIRCUITS ROUTED UNDERGROUND.

   B. FOR CIRCUITS WITHOUT UNDERGROUND PORTIONS, BUILDING FLOOR PLANS SHOW LOCATION OF EQUIPMENT FOR DETERMINING CIRCUIT LENGTH WITHIN THE STRUCTURE. FOR CIRCUITS WITH UNDERGROUND PORTIONS, ANTICIPATED PENETRATION OF UNDERGROUND CONDUITS ARE SHOWN ON STRUCTURE PLANS FOR DETERMINING THE LENGTH OF THE IN-STRUCTURE PORTIONS OF CIRCUITS. BUILDING FLOOR PLANS MAY ALSO SHOW HOME RUNS FOR LIGHTING, RECEPTACLE, AND OTHER MISCELLANEOUS EQUIPMENT CIRCUITS.

   C. SITE PLANS INDICATE THE GENERAL ROUTING OF UNDERGROUND CONDUITS AND DUCT BANKS. CIRCUITS ROUTED IN UNDERGROUND CONDUITS OR DUCT BANKS ARE INDICATED IN DUCT BANK SECTIONS REFERENCED ON THE SITE PLAN.

   D. DUCT BANK SECTIONS AND SCHEDULES IDENTIFY CONDUIT SIZE, CONDUIT MATERIAL, ARRANGEMENT OF THE UNDERGROUND CONDUITS, AND CIRCUITS ROUTED IN EACH UNDERGROUND CONDUIT.

AREA DESIGNATIONS

THE SPECIAL AREA DESIGNATION BOXES, AS DEFINED BELOW, ARE LOCATED ON THE PLAN DRAWINGS TO DEFINE ELECTRICAL INSTALLATION REQUIREMENTS. DESIGNATION BOXES ARE LOCATED WITHIN ROOM OR BELOW ROOM NUMBER. ALL INDOOR AREAS NOT INDICATED OTHERWISE ARE AREA TYPE 1 AND MINIMUM NEMA TYPE 1 ENCLOSURES.

AREA TYPE 1A	CORROSIVE CHEMICAL FEED AND STORAGE ROOMS. CONDUIT SYSTEM SHALL BE EXPOSED SCHEDULE 80 PVC RIGID NON-METALLIC CONDUIT WITH PVC FITTINGS, BOXES AND ACCESSORIES.
AREA TYPE 4	INDOOR WET LOCATIONS SUCH AS VAULTS, HOSEDOWN AREAS, BASEMENTS, ETC. MINIMUM NEMA TYPE 4 ENCLOSURE FOR EQUIPMENT AND GASKETED FITTINGS IN A CONDUIT SYSTEM.
AREA TYPE 7A	CLASS I, DIVISION 1 AREA AS DEFINED BY NEC. ALL EQUIPMENT AND CONDUIT SYSTEMS SHALL BE RATED FOR USE IN THIS AREA.
AREA TYPE 7B	CLASS I, DIVISION 2, GROUP C AND D (METHANE, GASOLINE) AS DEFINED BY NEC. EQUIPMENT AND CONDUITS SYSTEMS SHALL BE RATED FOR USE IN THIS AREA.
AREA TYPE 12	INDOOR, DRY, DIRTY AREA. REQUIRES MINIMUM NEMA TYPE 12 GASKETED ENCLOSURES FOR ALL EQUIPMENT AND GASKETED FITTINGS IN CONDUIT SYSTEMS.

GENERAL REQUIREMENTS

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING ALL CONDUITS NOT SHOWN ON THE PLANS. THIS SHALL INCLUDE ALL CONDUITS SHOWN ON THE ONE-LINES AND HOME-RUNS SHOWN ON THE PLAN DRAWINGS. CONDUITS SHALL BE ROUTED AS DEFINED IN THE SPECIFICATION.
2. SPARE WIRES SHALL BE TAPED AND COILED AND LABELED TO INDICATE WHERE OTHER END OF SPARE WIRE IS LOCATED.
3. IF EQUIPMENT SUPPLIED BY MANUFACTURER HAS A LARGER LOAD THAN VALUE SHOWN, THE CABLE CONDUIT AND ELECTRICAL EQUIPMENT SHALL BE ENLARGED, AS REQUIRED, TO ACCOMMODATE THE HIGHER VALUE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING PROPERLY SIZED STARTER OVERLOADS FOR EQUIPMENT FURNISHED.
5. LIGHTING AND RECEPTACLE CIRCUITS DESIGNATED ON THE FLOOR PLANS ARE NOT SHOWN ON THE ONE-LINES. CONDUCTORS FOR LIGHTING, RECEPTACLES, AND MISCELLANEOUS 120VAC CIRCUITS SHALL BE MINIMUM NO. 12AWG. CONDUIT FOR LIGHTING, RECEPTACLES, AND MISCELLANEOUS 120VAC CIRCUITS SHALL BE MINIMUM 3/4".
6. IN AREAS WHERE THERE ARE OVERHEAD BRIDGE CRANES, HOISTS, ETC. NO CONDUITS SHALL BE RUN OVERHEAD THAT WILL INTERFERE WITH THE OPERATION OF THE EQUIPMENT.

ELECTRICAL ABBREVIATIONS

A

A	AMBER, AMPERE, ALARM
AC	ALTERNATING CURRENT
ACB	AIR CIRCUIT BREAKER
ACR	ACCESS CARD READER
AF	AMPERE FRAME
AFD	ADJUSTABLE FREQUENCY DRIVE
AFRD	ARC-FLASH REDUCTION DEVICE
AM	AMMETER
ANN	ANNUNCIATOR
AR	ALARM RELAY
AS	AMMETER SWITCH, AMPERE
AT	SENSOR AMPERE TRIP AUTOMATIC
ATS	TRANSFER SWITCH
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE

B

B	BUS
BC	BATTERY CHARGER
BKR	BREAKER
BR	BRAKE
BT	BEARING TEMPERATURE

C

C	CLOSE, COUNTER, CONTACTOR, CONTROL, CCTV CAMERA
CAP	CAPACITOR
CB	CIRCUIT BREAKER
CB"A"	CIRCUIT BREAKER AUXILIARY CONTACT (OPEN WHEN BREAKER IS OPEN)
CB"B"	CIRCUIT BREAKER AUXILIARY CONTACT (CLOSED WHEN BREAKER IS OPEN)
CD	CONTROL DAMPER
CI	CELL INTERLOCK
CKT	CIRCUIT
CL2	CHLORINE
COS	CABLE OPERATED SWITCH
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CR	CURRENT OF CONTROL RELAY, CARD READER
CS	CONTROL STATION
CT	CYCLE TIMER OR CURRENT TRANSFORMER
CTC	CYCLE TIMER CLUTCH
CTM	CYCLE TIMER MONITOR
2/C	2 CONDUCTOR
4"C	4" CONDUIT

D

DC	DIRECT CURRENT, DOOR CONTACT
DI	DOOR INTERLOCK
DM	DAMPER MOTOR, DEMAND METER,
DPDT	DIMMER SWITCH
DPST	DOUBLE POLE DOUBLE THROW
DPR	DOUBLE POLE SINGLE THROW
DPS	DIFFERENTIAL PRESSURE
DS	REGULATOR DIFFERENTIAL PRESSURE SWITCH DISCONNECT SWITCH, DOOR
DVLS	SWITCH, DESKTOP STATION DISCHARGE VALVE LIMIT SWITCH

E

E	ELECTRIC OPERATOR FOR CONTROL DAMPER OR VALVE
EC	EMPTY CONDUIT
EDS	ELECTRICAL DOOR STRIKE
EL	ELEVATION, EMERGENCY LIGHT ELECTRICAL
EMH	MANHOLE
ER	ELECTRODE RELAY
ES	END SWITCH, REQUEST TO EXIT SENSOR
E-STOP	EMERGENCY STOP
ETM	ELAPSED TIME METER
EX	EXISTING
EXP	EXPLOSION PROOF

F

F	FORWARD, FIELD
FO	FIBER OPTIC
FPR	FEEDER PROTECTION
FS	RELAY FLOW SWITCH

G

G	GREEN, GROUND, GENERATOR, GROUND FAULT
GD	GROUND DETECTOR
GEN	GENERATOR
GFI	GROUND FAULT INTERRUPTOR
GLS	GEARED LIMIT SWITCH
GPR	GENERATOR PROTECTION
GND	GROUND
#8G	#8 GROUND WIRE

H

H	HIGH, HUMIDISTAT
HH	HANDHOLE
HMT	HIGH MOTOR TEMPERATURE
HOA	HAND-OFF-AUTO
HOR	HAND-OFF-REMOTE
HP	HORSEPOWER
HS	HAND STATION
HWCO	HIGH WATER CUTOFF
HZ	HERTZ (CYCLE)

I

I/O	INPUT/OUTPUT
I	INSTANTANEOUS
IJB	INTERCOM JUNCTION BOX

J

J,JB	JUNCTION BOX

K

K	KEY INTERLOCK
KAIC	THOUSAND AMPERES INTERRUPTING
KCMIL	CURRENT THOUSAND CIRCULAR MIL
KO	KEY OPERATED
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KVAR	KILOVAR
KW	KILOWATT
KWH	KILOWATT HOUR

L

L	LOW, LEVEL, LONG-TIME
LA	LIGHTNING ARRESTER
LAN	LOCAL AREA NETWORK
LC	LIGHTING CONTRACTOR
LCP	LOCAL CONTROL PANEL
LCS	LOCAL CONTROL STATION
LOA	LOCAL-OFF-AUTO
LOR	LOCAL-OFF-REMOTE
LOS	LOCK OUT STOP LIGHTING
LP	PANEL
LS	LIMIT OR LEVEL SWITCH
LTG	LIGHTING
LWCO	LOW WATER CUTOFF

M

M	MAGNETIC MOTOR STARTER
MA	MILLIAMPERE
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCLU	MOTOR CONTROL LINEUP
MD	MOISTURE DETECTOR, MOTION
MDL	DETECTOR MAGNETIC DOOR LOCK
MFR	MANUFACTURER
MH	MANHOLE, MOUNTING HEIGHT
MOV	MOTOR OPERATED VALVE
MPC	MINI POWER CENTER
MPR	MOTOR PROTECTION RELAY
MS	MANUAL MOTOR STARTER
MSH	MOTOR SPACE HEATER
MTS	MANUAL TRANSFER SWITCH
MV	MILLIVOLT, MEDIUM VOLTAGE MEGAVOLT
MVA	AMPERE

N

N	NEUTRAL
NGR	NEUTRAL GROUNDING RESISTOR
NGT	NEUTRAL GROUNDING
NC	TRANSFORMER NORMALLY CLOSED
NO	NORMALLY OPEN, NUMBER
NEU	NEUTRAL

0

O	OPEN
OL	OVERLOAD
OOA	ON-OFF-AUTO
OOR	ON-OFF-REMOTE
O/U	OVER/UNDER

P

P	PRIMARY, POWER, POLE
PCS	PLANT CONTROL SYSTEM
PCP	PUMP CONTROL PANEL
PB	PUSH BUTTON, PULL BOX
PF	POWER FACTOR
PFCC	POWER FACTOR CORRECTION CAPACITOR
PH	PHASE
PL	PILOT LIGHT
PLC	PROGRAMMABLE LOGIC CONTROLLER
PP	POWER PANEL
PR	PAIR
PRS	PROXIMITY SWITCH
PS	PRESSURE SWITCH
PT	POTENTIAL TRANSFORMER, PROGRAM TIMER

Q

NOT USED

R

R	RED, RAISE, RELAY, REVERSE RECEPTACLE
RCS	REMOTE CONTROL STATION
RECP	RECEPTACLE
RES	RESISTOR
RH	REMOTE HANDSET
RT	REPEATING TIMER
RTD	RESISTANCE TEMPERATURE DETECTOR
RTU	REMOTE TERMINAL UNIT
RVSS	REDUCED VOLTAGE SOLID STATE STARTER

S

S	SHORT-TIME, SHIELDED, STARTER
SA	SURGE ARRESTER, SPEAKER AMPLIFIER
SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
SES	SERVICE ENTRANCE SECTION
SF6	SULFUR HEXAFLOURIDE
SH	SPACE HEATER
SN	SOLID NEUTRAL
SO	SOLENOID OILER
SP	SINGLE POLE
SPD	SURGE PROTECTION DEVICE
SPDT	SINGLE POLE DOUBLE THROW
SPST	SINGLE POLE SINGLE THROW
SS	SELECTOR SWITCH, START/STOP
SSM	SOLID-STATE METERING
SSS	SOLID STATE STARTER
SST	SOLID-STATE TRIP
SUPV	SUPERVISORY CONTROL
SV	SOLENOID VALVE
SWB,SWBD	SWITCHBOARD
SWG,SWGR	SWITCHGEAR

T

T	THERMOSTAT, TIMER, TOTALIZER, TRANSFORMER
TACH	TACHOMETER
TB	TERMINAL BLOCK
TC	TIMER CLUTCH
TD	TIME DELAY RELAY
TEMP	TEMPERATURE
TM	TIMER MOTOR
TQ	TORQUE
TR	TIMER RELAY, TRIAD
TS	TEMPERATURE SWITCH
TTB	TELEPHONE TERMINAL BOARD

U

UG	UNDERGROUND
UPS	UNINTERRUPTIBLE POWER SUPPLY

V

V	VOLTS, VOLTAGE RESTRAINED
VA	VOLT AMPERE
VAR	VARMETER
VFD	VARIABLE FREQUENCY DRIVE
VI	VACUUM INTERRUPTER
VLS	VALVE LIMIT SWITCH
VM	VOLTMETER
VPI	VALVE POSITION INDICATOR
VS	VOLTMETER SWITCH

W

W	WHITE, WATTS
WH	WATTHOUR METER
WM	WATT METER
WP	WEATHERPROOF
WPI	WEATHERPROOF
WS	IN-USE WALL STATION

X

X	AUXILIARY RELAY
XFMR	TRANSFORMER
XP	EXPLOSION PROOF

Y

Y	YELLOW

Z

Z	AUXILIARY RELAY, IMPEDANCE
ZS	POSITION SWITCH
ZSS	ZERO SPEED SWITCH

1-1PR#16S	ONE, SINGLE PAIR, TWISTED SHIELDED #16 CABLE
3-7/C#14	THREE, SINGLE, SEVEN CONDUCTOR #14 MULTICONDUCTOR CONTROL CABLES

90% - NOT FOR CONSTRUCTION

DRAWN BY: AAH	REVISIONS					
DESIGNED BY: AA	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
CHECKED BY: PV						

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: ELECTRICAL LEGEND & ABBREVIATIONS

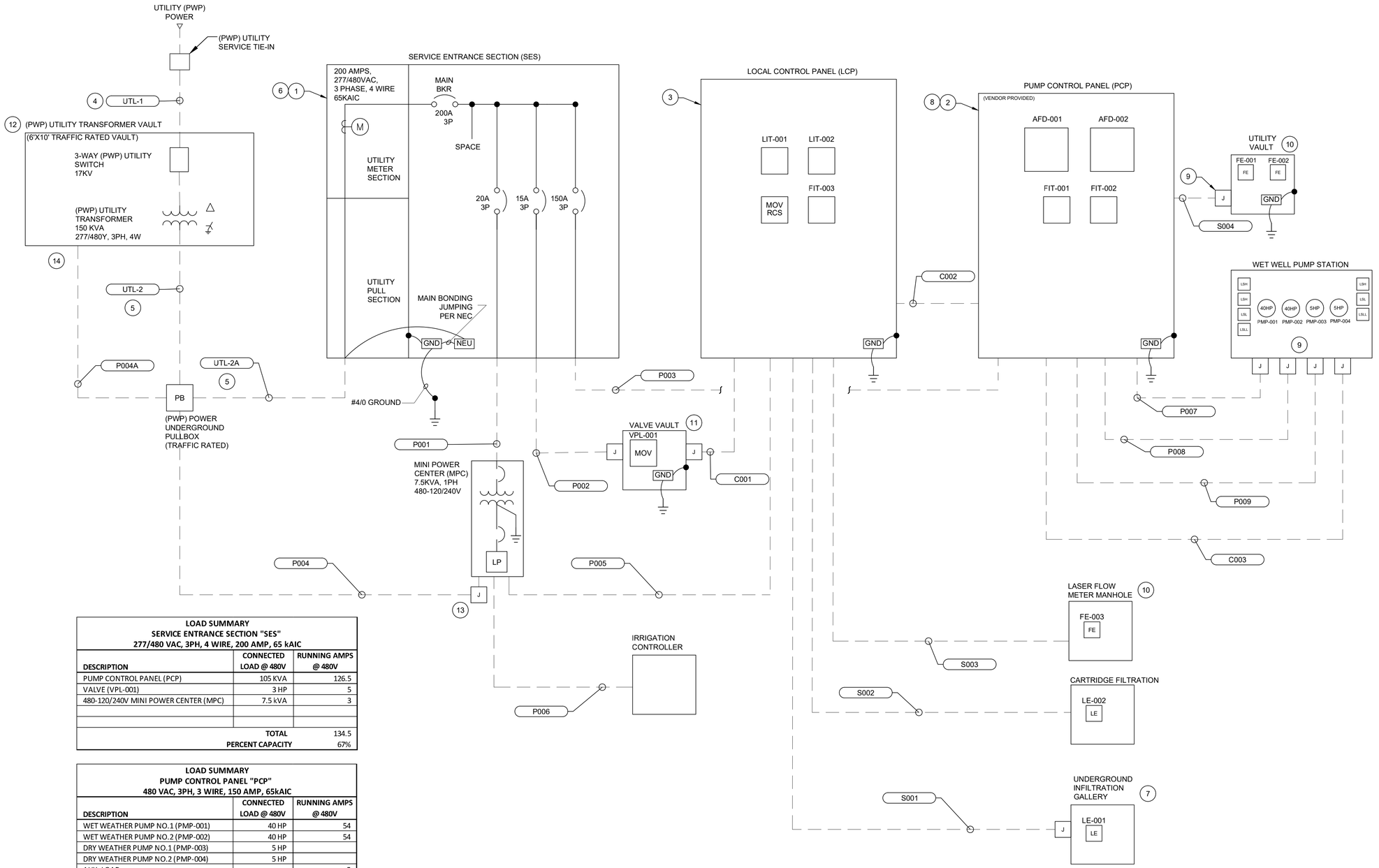
SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: E-02

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DWG. NO.



NOTES:

1. SEE DRAWINGS E-01 AND E-02 FOR ELECTRICAL LEGEND & ABBREVIATION AND GENERAL REQUIREMENTS.
2. CONTRACTOR SHALL COORDINATE PERMIT APPLICATION WITH UTILITY, PASADENA WATER & POWER (PWP).
3. CONTROL PANEL WIRING AND DESIGN SHALL BE PROVIDED BY OTHERS.
4. JUNCTION BOX SHALL BE NEMA 4X, 316 STAINLESS STEEL SIZED AS REQUIR

CONSTRUCTION NOTES

1	SERVICE ENTRANCE SECTION (SES), 277/480VAC, 3 PHASE, 4 WIRE, 200 AMPS, NEMA 3R, UL LISTED, EUSERC, BOLT-ON, 20"W x 54"H x 18"D, BRAND EATON CMP4421MCH-1 OR ENGINEER APPROVED EQUAL. REFER E-08 FOR SES ELEVATION DETAIL.
2	PUMP CONTROL PANEL (PCP), 480VAC, 3 PHASE, 3 WIRE, 150 AMPS, DUPLEX ALTERNATING PUMP CONTROLLER. BUILT TO UL STANDARDS IN A UL 508A CERTIFIED SHOP, FREESTANDING ENCLOSURE, NEMA 4X, SECURE DOOR HANDLE, APPX. 48"W x 36"H x 24"D.
3	120VAC, NEMA 4X RATED LOCAL CONTROL PANEL (LCP). THE LCP HOUSES THE LIT AND FIT TRANSMITTERS ASSOCIATED WITH THE SENSORS INSTALLED AT THE CARTRIDGE FILTRATION, UNDERGROUND INFILTRATION GALLERY, AND LASER FLOW METER MANHOLE.
4	TWO 4" PRIMARY CONDUITS PER PWP REQUIREMENTS. CONTRACTOR TO COORDINATE WITH PWP FINAL DESIGN.
5	TWO 5" SECONDARY CONDUITS PER PWP REQUIREMENTS. CONTRACTOR TO COORDINATE WITH PWP FINAL DESIGN.
6	CONTRACTOR SHALL INSTALL A NEW PAD MOUNTED 277/480V, 200A SERVICE ENTRANCE SECTION (SES). CONTRACTOR IS REQUIRED TO COORDINATE WITH PWP TO SECURE 277/480V SERVICE. CONTRACTOR SHALL WORK WITH PWP FOR THE INSTALLATION OF NEW CONDUITS, PWP PROVIDED CONDUCTORS AND THE METER. ALL INSTALLATION SHALL COMPLY WITH PWP STANDARDS AND REQUIREMENTS.
7	CONTRACTOR SHALL INSTALL CONDUIT SEAL ON CONDUIT RUNS COMING FROM LOCAL CONTROL PANEL (LCP). CONDUIT SEAL SHALL BE LOCATED AT THE JUNCTION BOX LOCATED NEAR THE UNDERGROUND INFILTRATION GALLERY. CONDUIT SEAL SHALL CONFORM TO THE NEC REQUIREMENTS FOR CLASS 1 DIVISION 1 HAZARDOUS AREA.
8	THE PCP HOUSES THE AFDS ASSOCIATED WITH THE WET WELL WET WEATHER PUMPS AND FIT TRANSMITTERS ASSOCIATED WITH THE UTILITY VAULT FLOWMETERS.
9	CONTRACTOR SHALL INSTALL CONDUIT SEAL ON CONDUIT RUNS COMING FROM PUMP CONTROL PANEL (PCP). CONDUIT SEAL SHALL BE LOCATED AT THE JUNCTION BOXES LOCATED ON THE WET WELL PUMP STATION AND UTILITY VAULT. CONDUIT SEAL SHALL CONFORM TO THE NEC REQUIREMENTS FOR CLASS 1 DIVISION 2 HAZARDOUS AREA. ADDITIONALLY, CONTRACTOR SHALL INSTALL HERMETIC SEALS AT THE END OF THE CONDUIT RUNS INTO WET WELL PUMP STATION AND UTILITY VAULT TO PREVENT MOISTURE FROM ENTERING CONDUIT.
10	GROUND FLOW METER ELEMENTS, LOCATED IN THE UTILITY VAULT AND LASER FLOW METER MANHOLE, TO THE GROUNDING SYSTEM.
11	CONTRACTOR SHALL INSTALL CONDUIT SEALS ON CONDUIT RUNS ORIGINATING FROM LOCAL CONTROL PANEL (LCP) AND SERVICE ENTRANCE SECTION (SES). CONDUIT SEAL SHALL BE LOCATED AT THE JUNCTION BOXES LOCATED ON THE VALVE VAULT AND SHALL COMPLY WITH NEC REQUIRMENTS FOR CLASS 1, DIVISION 2 HAZARDOUS AREA. ADDITIONALLY, CONTRACTOR SHALL INSTALL HERMETIC SEALS AT THE END OF THE CONDUIT RUNS INTO VALVE VAULT TO PREVENT MOISTURE FROM ENTERING CONDUIT.
12	CONTRACTOR SHALL COORDINATE WITH PASADENA WATER AND POWER (PWP) FOR THE INSTALLATION OF A 6' X 10' TRAFFIC-RATED UTILITY VAULT. PWP WILL FURNISH AND INSTALL A NEW 17KV SWITCH AND A STEP-DOWN TRANSFORMER WITHIN THE VAULT TO PROVIDE 480V SERVICE. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL CONDUITS TO THE UTILITY VAULT IN COLLABORATION WITH PWP. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH PWP STANDARDS AND REQUIREMENTS.
13	CONTRACTOR SHALL INSTALL A PROPERLY SIZED JUNCTION BOX NEAR MINI POWER CENTER (MPC), EQUIPPED WITH A POWER DISTRIBUTION BLOCK, TO TRANSITION FROM (2) #12 CONDUCTORS WITH A #12 GROUND TO (2) #4 CONDUCTORS WITH A #6 GROUND TO CATER FOR VOLTAGE DROP DUE TO EXTENDED CONDUCTOR LENGTH.
14	CONTRACTOR SHALL COORDINATE WITH (PWP) UTILITY FOR TERMINATING LARGE-SIZE 120VAC INCOMING CONDUCTORS AT THE UTILITY TRANSFORMER VAULT. THESE CONDUCTORS WILL SUPPLY POWER TO THE LIGHTING, RECEPTACLE, AND BLOWER FAN LOCATED WITHIN THE VAULT.

LOAD SUMMARY
SERVICE ENTRANCE SECTION "SES"
277/480 VAC, 3PH, 4 WIRE, 200 AMP, 65 kAIC

DESCRIPTION	CONNECTED LOAD @ 480V	RUNNING AMPS @ 480V
PUMP CONTROL PANEL (PCP)	105 KVA	126.5
VALVE (VPL-001)	3 HP	5
480-120/240V MINI POWER CENTER (MPC)	7.5 kVA	3
TOTAL		134.5
PERCENT CAPACITY		67%

LOAD SUMMARY
PUMP CONTROL PANEL "PCP"
480 VAC, 3PH, 3 WIRE, 150 AMP, 65kAIC

DESCRIPTION	CONNECTED LOAD @ 480V	RUNNING AMPS @ 480V
WET WEATHER PUMP NO.1 (PMP-001)	40 HP	54
WET WEATHER PUMP NO.2 (PMP-002)	40 HP	54
DRY WEATHER PUMP NO.1 (PMP-003)	5 HP	
DRY WEATHER PUMP NO.2 (PMP-004)	5 HP	
AUX. LOAD		5
25% LARGEST MOTOR		13.5
TOTAL		126.5
PERCENT CAPACITY		84%

SINGLE LINE DIAGRAM
NO SCALE

90% - NOT FOR CONSTRUCTION

DRAWN BY	JHC	REVISIONS					
DESIGNED BY	AA	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
CHECKED BY	PV						

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: SINGLE LINE DIAGRAM

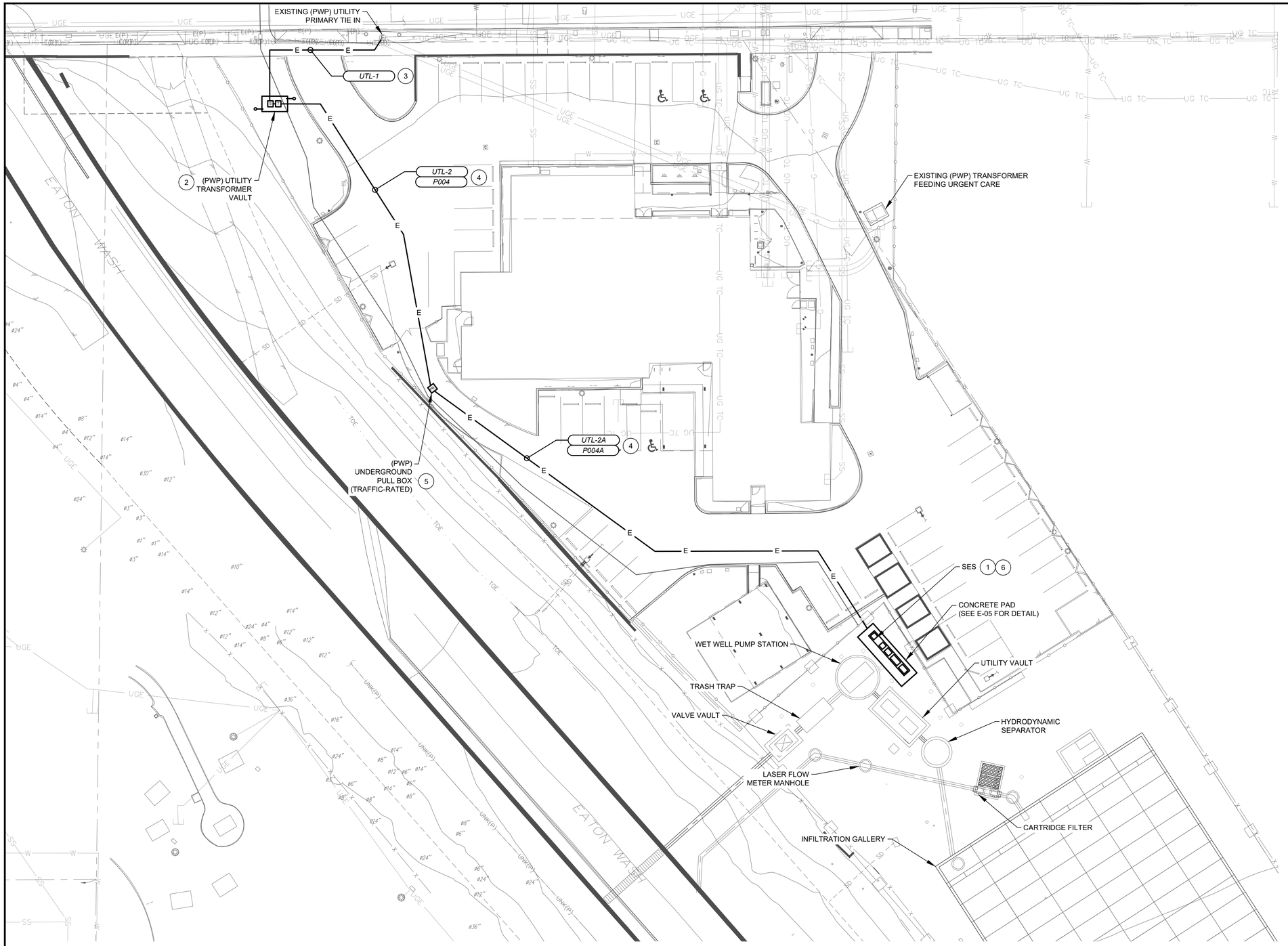
SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET E-03

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DWG. NO.



NOTES:

1. SEE DRAWINGS E-01 AND E-02 FOR ELECTRICAL LEGEND & ABBREVIATION AND GENERAL REQUIREMENTS.
2. CONTRACTOR SHALL COORDINATE PERMIT APPLICATION WITH UTILITY, PASADENA WATER & POWER (PWP).
3. LOCATION OF EQUIPMENT SHOWN IS APPROXIMATE. CONTRACTOR TO FIELD DETERMINE FINAL ROUTING OF ALL CONDUIT RUNS.
4. ADJUST CONDUIT ROUTING AS NECESSARY BASED ON CONDITIONS AND OBSTRUCTIONS.
5. THE COMPLETE ROUTE OF THE UTILITY CONDUIT INSTALLATION MUST BE REVIEWED AND APPROVED BY PWP PRIOR TO THE START OF CONSTRUCTION.

CONSTRUCTION NOTES

1	CONTRACTOR SHALL COORDINATE WITH UTILITY, PASADENA WATER & POWER (PWP) AS REQUIRED TO SECURE A 480V SERVICE CONNECTION. THIS INCLUDES WORKING WITH PWP FOR THE INSTALLATION OF THE SERVICE ENTRANCE METER PEDESTAL (SES), ASSOCIATED CONDUITS, AND PWP-PROVIDED METER. CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL CONDUITS REQUIRED TO ACCOMMODATE PWP-SUPPLIED CONDUCTORS, IN COMPLIANCE WITH THE PWP STANDARD AND REQUIREMENTS.
2	THE CONTRACTOR SHALL COORDINATE WITH PASADENA WATER AND POWER (PWP) FOR THE INSTALLATION OF A 6'x10' TRAFFIC-RATED UTILITY VAULT. PWP WILL FURNISH AND INSTALL A NEW 17kV SWITCH AND A STEP-DOWN TRANSFORMER WITHIN THE VAULT TO PROVIDE 480V SERVICE. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL CONDUITS TO THE UTILITY VAULT IN COLLABORATION WITH PWP. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH PWP STANDARDS AND REQUIREMENTS.
3	TWO 4" PRIMARY UNDERGROUND CONCRETE ENCASED CONDUITS PER PWP REQUIREMENTS. CONTRACTOR TO COORDINATE WITH PWP FINAL DESIGN.
4	TWO 5" SECONDARY UNDERGROUND CONCRETE ENCASED CONDUITS AND ONE 1" UNDERGROUND CONCRETE ENCASED CONDUIT PER PWP REQUIREMENTS. CONTRACTOR TO COORDINATE WITH PWP FINAL DESIGN.
5	PULL BOXES REQUIRED BY PWP IN ANY CONDUIT RUN WHERE THE NUMBER OF BENDS EXCEEDS ALLOWABLE LIMITS PER PWP STANDARDS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH PWP TO DETERMINE THE EXACT LOCATIONS OF ALL REQUIRED PULL BOXES.
6	CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH PWP TO ENSURE THAT THE SERVICE ENTRANCE METER PEDESTAL (SES) MEETS ALL FRONT AND REAR CLEARANCE REQUIREMENTS PER PWP STANDARDS.

90% - NOT FOR CONSTRUCTION

DRAWN BY JHC	REVISIONS					
DESIGNED BY AA	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
CHECKED BY PV						

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: ELECTRICAL SITE PLAN

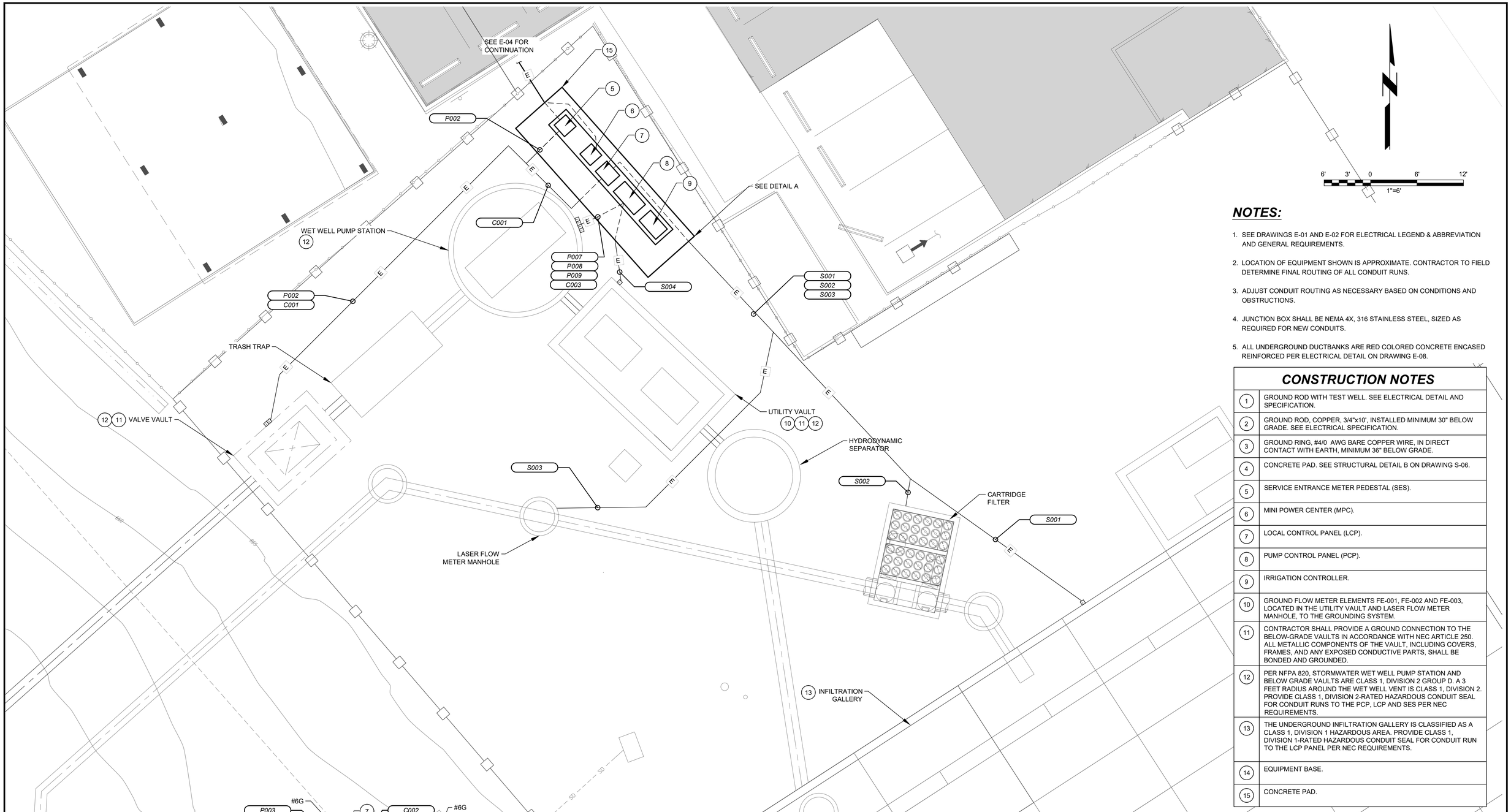
SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: E-04

96 OF 111

DWG. NO.

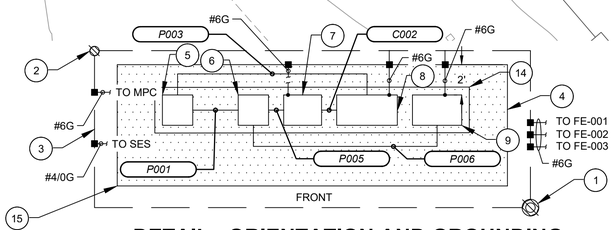


NOTES:

1. SEE DRAWINGS E-01 AND E-02 FOR ELECTRICAL LEGEND & ABBREVIATION AND GENERAL REQUIREMENTS.
2. LOCATION OF EQUIPMENT SHOWN IS APPROXIMATE. CONTRACTOR TO FIELD DETERMINE FINAL ROUTING OF ALL CONDUIT RUNS.
3. ADJUST CONDUIT ROUTING AS NECESSARY BASED ON CONDITIONS AND OBSTRUCTIONS.
4. JUNCTION BOX SHALL BE NEMA 4X, 316 STAINLESS STEEL, SIZED AS REQUIRED FOR NEW CONDUITS.
5. ALL UNDERGROUND DUCTBANKS ARE RED COLORED CONCRETE ENCASED REINFORCED PER ELECTRICAL DETAIL ON DRAWING E-08.

CONSTRUCTION NOTES

1	GROUND ROD WITH TEST WELL. SEE ELECTRICAL DETAIL AND SPECIFICATION.
2	GROUND ROD, COPPER, 3/4"x10', INSTALLED MINIMUM 30" BELOW GRADE. SEE ELECTRICAL SPECIFICATION.
3	GROUND RING, #4/0 AWG BARE COPPER WIRE, IN DIRECT CONTACT WITH EARTH, MINIMUM 36" BELOW GRADE.
4	CONCRETE PAD. SEE STRUCTURAL DETAIL B ON DRAWING S-06.
5	SERVICE ENTRANCE METER PEDESTAL (SES).
6	MINI POWER CENTER (MPC).
7	LOCAL CONTROL PANEL (LCP).
8	PUMP CONTROL PANEL (PCP).
9	IRRIGATION CONTROLLER.
10	GROUND FLOW METER ELEMENTS FE-001, FE-002 AND FE-003, LOCATED IN THE UTILITY VAULT AND LASER FLOW METER MANHOLE, TO THE GROUNDING SYSTEM.
11	CONTRACTOR SHALL PROVIDE A GROUND CONNECTION TO THE BELOW-GRADE VAULTS IN ACCORDANCE WITH NEC ARTICLE 250. ALL METALLIC COMPONENTS OF THE VAULT, INCLUDING COVERS, FRAMES, AND ANY EXPOSED CONDUCTIVE PARTS, SHALL BE BONDED AND GROUNDED.
12	PER NFPA 820, STORMWATER WET WELL PUMP STATION AND BELOW GRADE VAULTS ARE CLASS 1, DIVISION 2 GROUP D. A 3 FEET RADIUS AROUND THE WET WELL VENT IS CLASS 1, DIVISION 2. PROVIDE CLASS 1, DIVISION 2-RATED HAZARDOUS CONDUIT SEAL FOR CONDUIT RUNS TO THE PCP, LCP AND SES PER NEC REQUIREMENTS.
13	THE UNDERGROUND INFILTRATION GALLERY IS CLASSIFIED AS A CLASS 1, DIVISION 1 HAZARDOUS AREA. PROVIDE CLASS 1, DIVISION 1-RATED HAZARDOUS CONDUIT SEAL FOR CONDUIT RUN TO THE LCP PANEL PER NEC REQUIREMENTS.
14	EQUIPMENT BASE.
15	CONCRETE PAD.



A **DETAIL - ORIENTATION AND GROUNDING**

SCALE: 1" = 5'

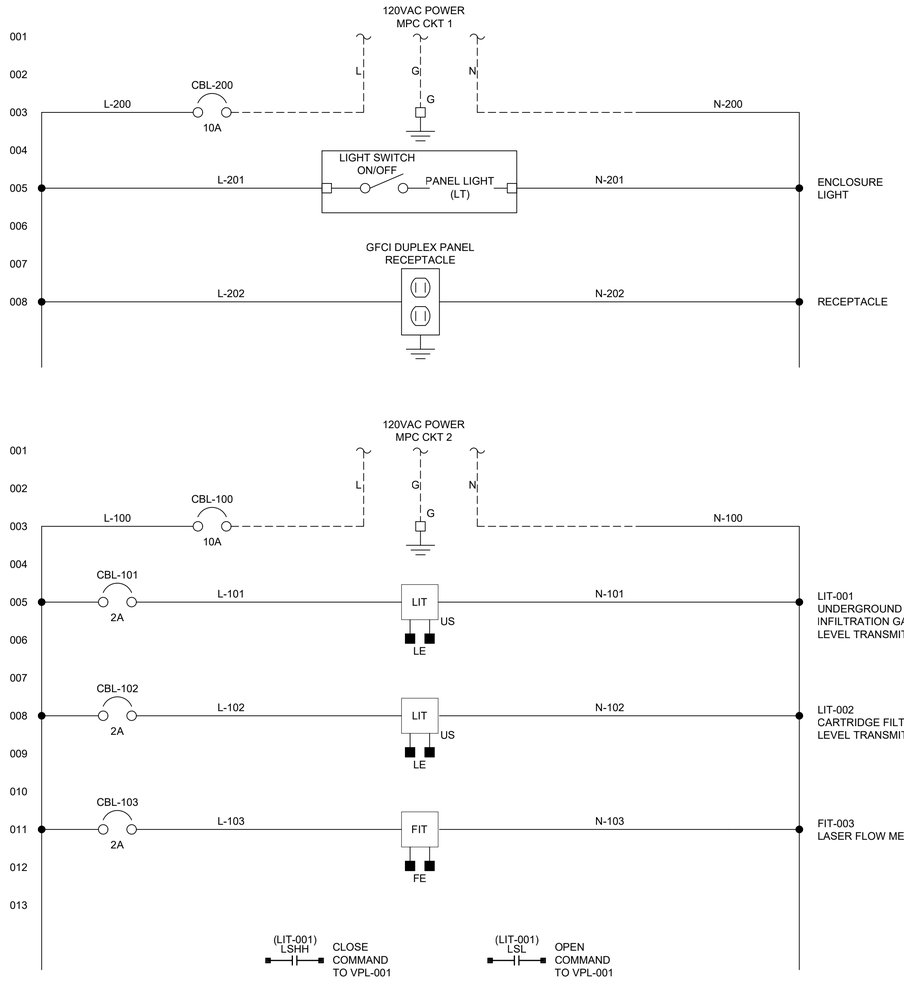
90% - NOT FOR CONSTRUCTION

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DESIGNED BY AA	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	EATON WASH STORMWATER CAPTURE PROJECT
CHECKED BY PV							SHEET TITLE ELECTRICAL ENLARGED PLAN
							SCALE AS SHOWN ACCOUNT NUMBER XXXXXX

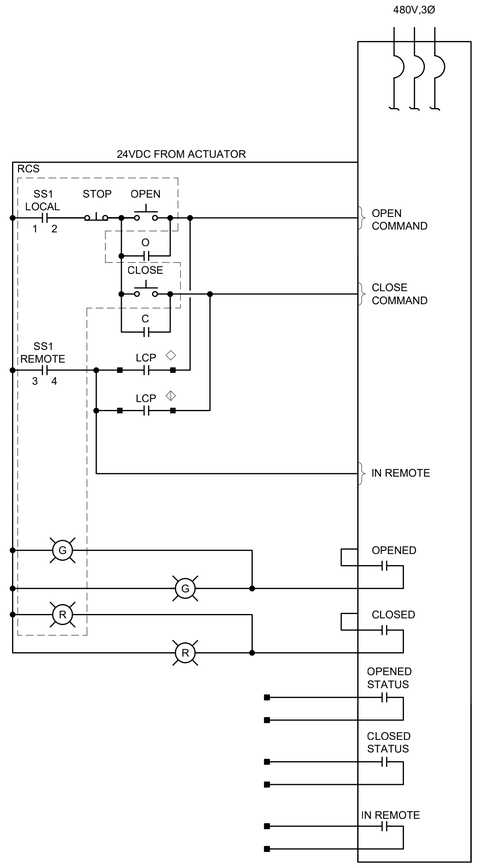
SHEET E-05

97 OF 111

DWG. NO.



LOCAL CONTROL PANEL (LCP) SCHEMATIC



OPEN/CLOSE VALVE ACTUATOR (VPL-001) SCHEMATIC

LEGENDS:

◇ LSHH FROM LIT-001 AT LOCAL CONTROL PANEL (LCP)

◇ LSL FROM LIT-001 AT LOCAL CONTROL PANEL (LCP)

SWITCH DEVELOPMENT

SS1

CONTACTS	POSITION		
	LOCAL	OFF	REMOTE
1-2	X		
3-4			X
5-6			

NOTES:

1. SEE DRAWINGS E-01 AND E-02 FOR ELECTRICAL LEGEND & ABBREVIATION AND GENERAL REQUIREMENTS.

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DESIGNED BY						
AA						
CHECKED BY						
PV						

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: ELECTRICAL SCHEMATICS

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET E-06

98 OF 111

DWG. NO.

CABLE AND CONDUIT SCHEDULE

CONDUIT		CONDUCTOR		FROM	TO	REMARKS	PURPOSE	DRAWING NUMBER
NUMBER	SIZE	QTY	SIZE					
POWER CONDUITS AND CABLES								
UTL-1	(2) 4"	-	-	UTILITY TIE IN POINT	(PWP) UTILITY TRANSFORMER VAULT	DETERMINED BY UTILITY	17kV POWER	E-04
UTL-2	(2) 5"	-	-	(PWP) UTILITY TRANSFORMER VAULT	(PWP) UTILITY UNDERGROUND PULLBOX	DETERMINED BY UTILITY	480V POWER	E-04
UTL-2A	(2) 5"	-	-	(PWP) UTILITY UNDERGROUND PULLBOX	SERVICE ENTRANCE SECTION (SES)	DETERMINED BY UTILITY	480V POWER	E-04
P001	1"	2 1	#12 #12G	SERVICE ENTRANCE SECTION (SES)	MINI POWER CENTER (MPC)		480V POWER	E-05
P002	2"	3 1	#12 #12G	SERVICE ENTRANCE SECTION (SES)	VALVE VAULT	UNDERGROUND CONDUIT FOR VALVE (VPL-001) POWER	480V POWER	E-05
P003	2"	3 1	#1/0 #6G	SERVICE ENTRANCE SECTION (SES)	PUMP CONTROL PANEL (PCP)		480V POWER	E-05
P004	1"	2 1	#4 #6G	MINI POWER CENTER (MPC)	(PWP) UTILITY UNDERGROUND PULLBOX	UNDERGROUND CONDUIT FOR UTILITY VAULT BLOWER, LIGHT &	120V POWER	E-04
(2) P004A	1"	2 1	#4 #6G	(PWP) UTILITY UNDERGROUND PULLBOX	(PWP) UTILITY TRANSFORMER VAULT	UNDERGROUND CONDUIT FOR UTILITY VAULT BLOWER, LIGHT &	120V POWER	E-04
ADD P004A FROM PULL BOX TO UTILITY VAULT — P005	1"	4 1	#12 #12G	MINI POWER CENTER (MPC)	LOCAL CONTROL PANEL (LCP)	TWO 120VAC CIRCUITS TO LCP	120V POWER	E-05
P006	1"	2 1	#12 #12G	MINI POWER CENTER (MPC)	IRRIGATION CONTROLLER		120V POWER	E-05
(1) P007	2"	3 1	#4 #8G	PUMP CONTROL PANEL (PCP)	WET WELL PUMP STATION	UNDERGROUND CONDUIT FOR WET WEATHER PUMP PMP-001 IN WET	480V POWER	E-05
P008	2"	3 1	#4 #8G	PUMP CONTROL PANEL (PCP)	WET WELL PUMP STATION	UNDERGROUND CONDUIT FOR WET WEATHER PUMP PMP-002 IN WET	480V POWER	E-05
(1) P009	2"	3 3 1	#12 #12 #12G	PUMP CONTROL PANEL (PCP)	WET WELL PUMP STATION	UNDERGROUND CONDUIT FOR DRY WEATHER PUMPS PMP-003 & PMP-004 IN WET WELL	480V POWER	E-05
CONTROL CONDUITS AND CABLES								
C001	2"	4 1	#14 MFR. CABLE	LOCAL CONTROL PANEL (LCP)	VALVE VAULT	UNDERGROUND CONDUIT FOR VALVE (VPL-001) CONTROL AND RCS	CONTROL	E-05
C002	2"	4	#14	LOCAL CONTROL PANEL (LCP)	PUMP CONTROL PANEL (PCP)		CONTROL	E-05
C003	2"	22	#14	PUMP CONTROL PANEL (PCP)	WET WELL PUMP STATION	UNDERGROUND CONDUIT FOR LEVEL SWITCHES AND MOTOR TEMP & LEAK PROTECTIONS	CONTROL	E-05
SIGNAL CONDUITS AND CABLES								
S001	2"	-	MFR CABLE	LIT-001 (WITHIN LCP PANEL)	LE-001 (LOCATED IN UNDERGROUND INFILTRATION GALLERY)	MANUFACTURER FURNISHED CABLE	SIGNAL	E-05
S002	2"	-	MFR CABLE	LIT-002 (WITHIN LCP PANEL)	LE-002 (LOCATED IN CARTRIDGE FILTRATION)	MANUFACTURER FURNISHED CABLE	SIGNAL	E-05
S003	2"	-	MFR CABLE	FIT-003 (WITHIN LCP PANEL)	FE-003 (LOCATED IN LASER FLOW METER MANHOLE)	MANUFACTURER FURNISHED CABLE	SIGNAL	E-05
S004	2"	-	MFR CABLE	FIT-001 & FIT-002 (WITHIN PCP PANEL)	FE-001 & FE-002 (LOCATED IN UTILITY VAULT)	MANUFACTURER FURNISHED CABLE	SIGNAL	E-05

PHASE		PANELBOARD: MINI POWER CENTER (MPC)	BUS: COPPER					MAINS: 2P-40A MAIN BREAKER	PHASE	
"L1"	"L2"	SERVICE: 120/240V, 1PH, 3W, S/N	RATING: 100A					LOCATION: OUTDOOR EATON WASH	"L1"	"L2"
V.A.	V.A.	MOUNTING: SURFACE							V.A.	V.A.
		LOAD	P	BKR	CKT #		BKR	P	LOAD		
200		LCP (LIGHT & RECEPT.)	1	20	1	2	20	1	LOCAL CONTROL PANEL (LCP)	300	
(2)	1320	PWP UTILITY VAULT (LIGHT & RECEPT.)	1	20	3	4	20	1	IRRIGATION CONTROLLER		200
		SPARE	1	20	5	6	20	1	SPARE		
		SPARE	1	20	7	8	20	1	SPARE		
		SPACE			9	10			SPACE		
		SPACE			11	12			SPACE		
200		TOTAL "L1"			500				TOTAL "L1"	300	
	1320	TOTAL "L2"			1520				TOTAL "L2"		200
		TOTAL LOAD =			2020						

NOTES:

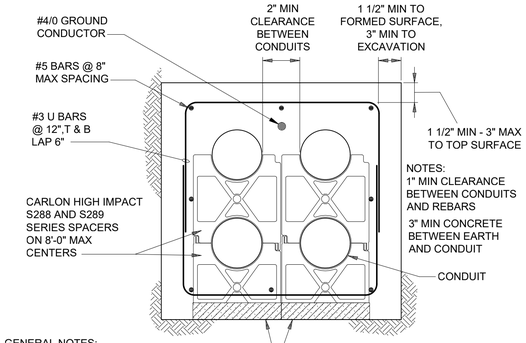
1. SEE DRAWINGS E-01 AND E-02 FOR ELECTRICAL LEGEND & ABBREVIATION AND GENERAL REQUIREMENTS.

CONSTRUCTION NOTES

(1)	PROVIDE AFD RATED CABLES FROM AFDS HOUSED IN THE PUMP CONTROL PANEL (PCP) TO THE WET WEATHER PUMPS LOCATED IN THE WET WELL PUMP STATION.
(2)	CONTRACTOR TO PROVIDE A 120VAC, 20A CIRCUIT FROM THE CUSTOMER'S PANEL TO POWER LIGHTING, RECEPTACLE, AND BLOWER FAN IN THE UNDERGROUND UTILITY TRANSFORMER VAULT. CIRCUIT LENGTH EXCEEDS 300 FEET; CONDUCTOR SIZING MUST ACCOUNT FOR VOLTAGE DROP.

90% - NOT FOR CONSTRUCTION

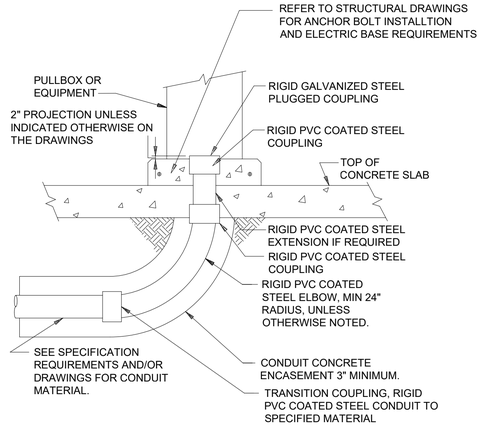
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DESIGNED BY: AA	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
CHECKED BY: PV						EATON WASH STORMWATER CAPTURE PROJECT — SHEET E-07
						SHEET TITLE: ELECTRICAL SCHEDULES — 99 OF 111
						SCALE: AS SHOWN — ACCOUNT NUMBER: XXXXXX — DWG. NO.



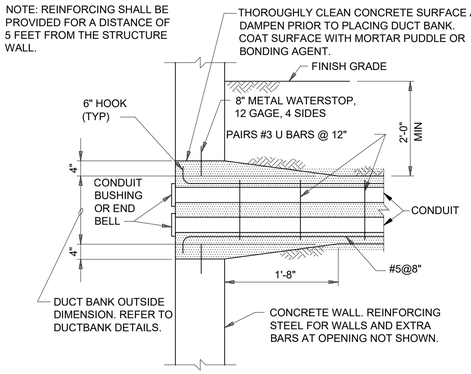
GENERAL NOTES:

1. ALL UNDERGROUND DUCT BANKS ARE ENCASED IN RED-COLORED CONCRETE.
2. INSTALL REINFORCING ONLY WHERE SPECIFIED OR INDICATED ON THE DRAWING.

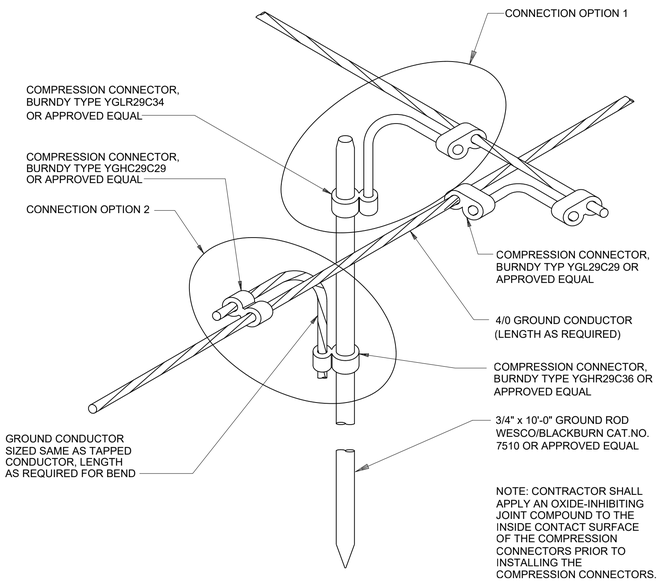
A TYPICAL DUCT BANK SECTION
NOT TO SCALE



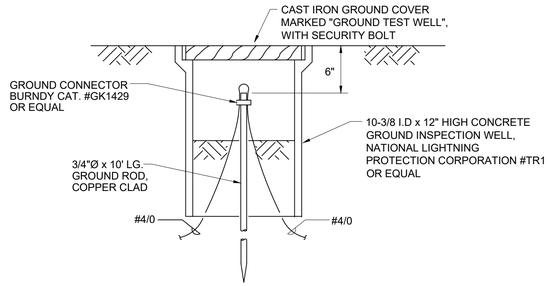
B TYPICAL CONDUIT RISER TERMINATING IN CONCRETE SLAB WITH EQUIPMENT BASE
NOT TO SCALE



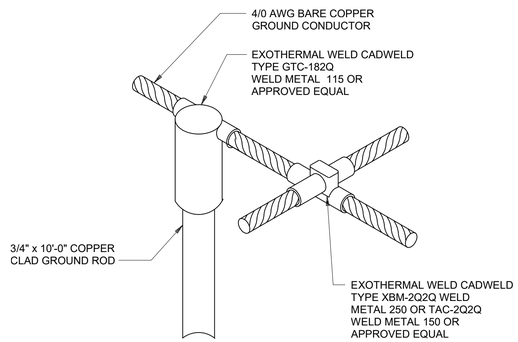
C TYPICAL UNDERGROUND DUCT BANK ENTRANCE DETAIL
NOT TO SCALE



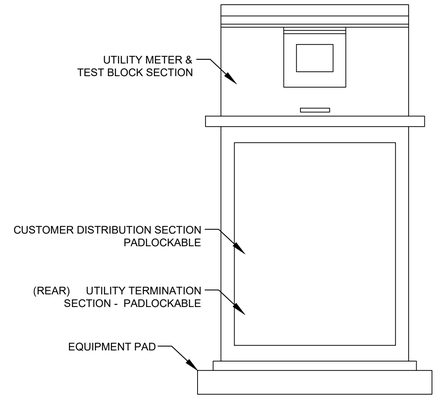
D TYPICAL COMPRESSION FITTING GROUND ROD TO CONNECTION AT CROSS OR TEE
NOT TO SCALE



E GROUND TEST WELL DETAIL
NOT TO SCALE



F TYPICAL EXOTHERMAL WELD GROUND ROD AT CROSS OR TEE CONNECTION
NOT TO SCALE



G SES ELEVATION VIEW
NOT TO SCALE

NOTES:

1. SEE DRAWINGS E-01 AND E-02 FOR ELECTRICAL LEGEND & ABBREVIATION AND GENERAL REQUIREMENTS.

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JHC	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
DESIGNED BY						
AA						
CHECKED BY						
PV						

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: ELECTRICAL DETAILS

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

SHEET: E-08

100 OF 111

DWG. NO.

LEGEND AND ABBREVIATIONS:

LE (US) — LEVEL SENSOR, ULTRASONIC TYPE

SINGLE INSTRUMENT HOUSING CONTAINING TWO (OR MORE) INSTRUMENTATION FUNCTIONS

M — PRIMARY FLOW ELEMENT, MAGNETIC

VALVE, NON-ECCENTRIC PLUG

SUBMERSIBLE PUMP

M — INTELLIGENT ELECTRIC ACTUATOR

MAJOR PROCESS PIPING OR FLOW CHANNEL

ELECTRICAL SIGNAL

AE	ANALYZER SENSOR
AIT	ANALYZER INDICATING TRANSMITTER
FE	PRIMARY FLOW ELEMENT/SENSOR
FIT	FLOW INDICATING TRANSMITTER
HC	HYDROCARBON SENSOR
HS	HAND SWITCH
LE	LEVEL SENSOR
LIT	LEVEL INDICATING TRANSMITTER
LSL	LEVEL SWITCH LOW
LSLL	LEVEL SWITCH LOW LOW
LSH	LEVEL SWITCH HIGH
LSHH	LEVEL SWITCH HIGH HIGH
LOR	LOCAL-OFF-REMOTE
OSC	OPEN-STOP-CLOSE
PMP	PUMP
VPL	NON-ECCENTRIC PLUG VALVE
ZLO	OPEN INDICATING LIGHT
ZLC	CLOSED INDICATING LIGHT
ZSC	CLOSED POSITION SWITCH
ZSO	OPEN POSITION SWITCH

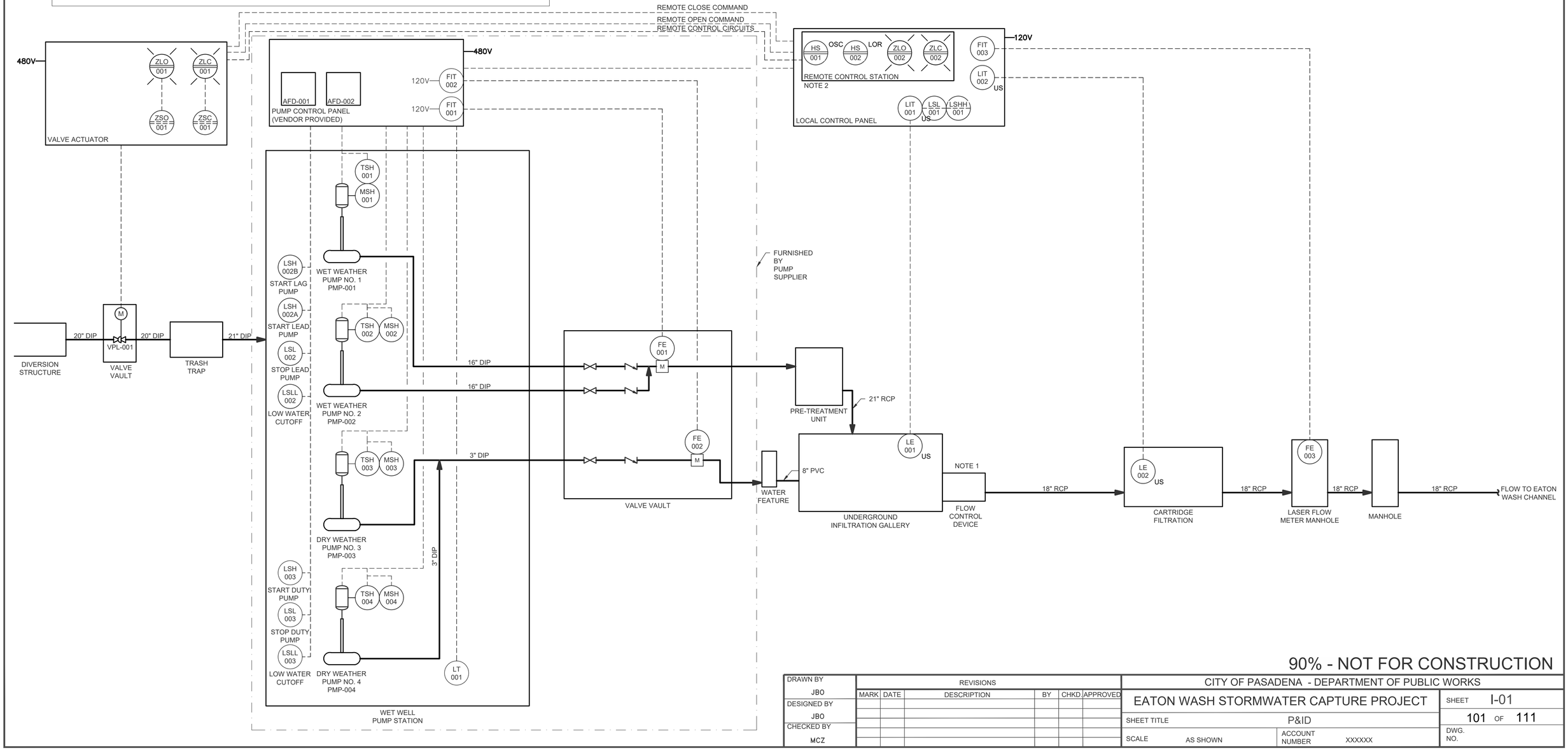
CONTROL DESCRIPTIONS

1. PLUG VALVE
   1.1. REMOTE (REMOTE CONTROL STATION LOR IN R, REMOTE POSITION)
      1.1.1. WHEN ULTRASONIC LEVEL TRANSMITTER DETECTS HIGH HIGH LEVEL (LSHH) IN THE UNDERGROUND INFILTRATION GALLERY, THE VALVE WILL CLOSE.
      1.1.2. WHEN THE LEVEL DROPS TO A LOW LEVEL (LSL), THE VALVE WILL OPEN.

2. PUMP STATION CONTROLS
   2.1. THE PUMPS SHALL BE PROVIDED WITH A VENDOR SUPPLIED CONTROLS. REFER TO 33 32 13 PACKAGED STORM WATER PUMP STATION SPECIFICATION FOR DETAILED CONTROL DESCRIPTION.

NOTES

1. FLOW CONTROL DEVICE IS A PURELY MECHANICAL DEVICE AND SHALL BE MOUNTED TO THE SIDE OF THE UNDERGROUND INFILTRATION GALLERY.
2. REMOTE STATION PROVIDED BY VALVE ACTUATOR MANUFACTURER (VPL-001). CONTRACTOR TO INSTALL REMOTE STATION ON THE LOCAL CONTROL PANEL AS SHOWN.



90% - NOT FOR CONSTRUCTION

DRAWN BY: JBO	REVISIONS					
DESIGNED BY: JBO	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
CHECKED BY: MCZ						

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: P&ID

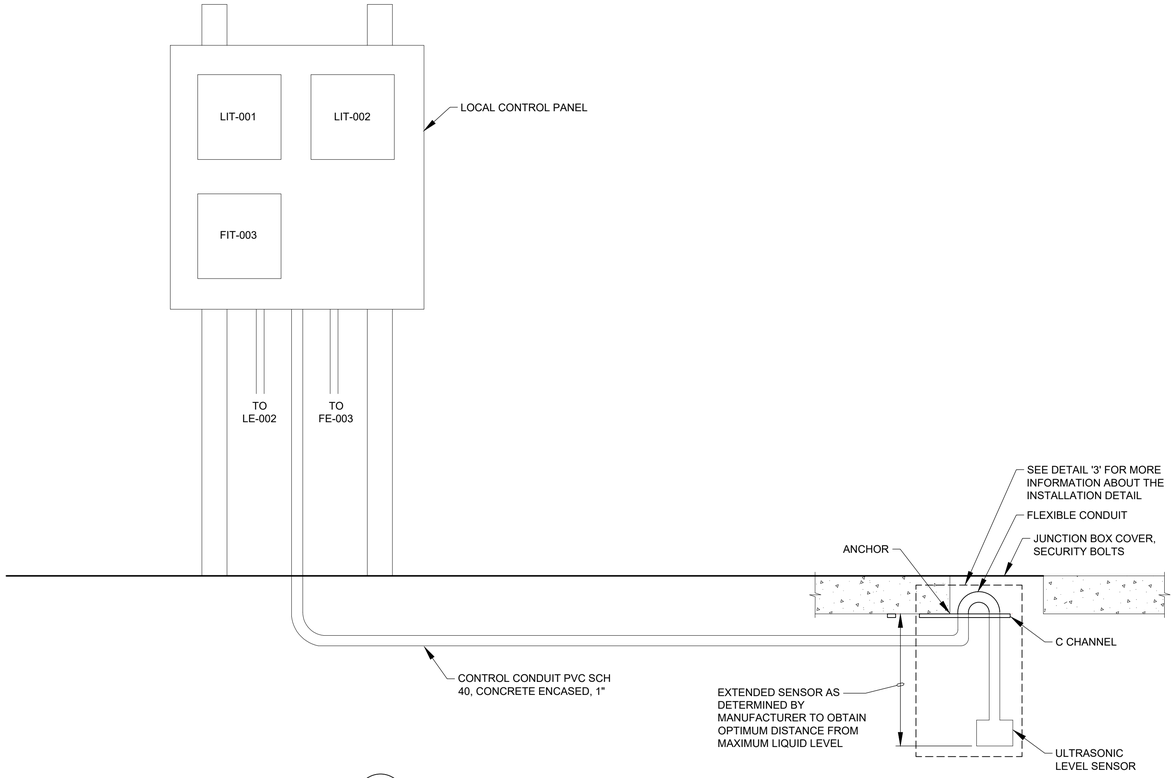
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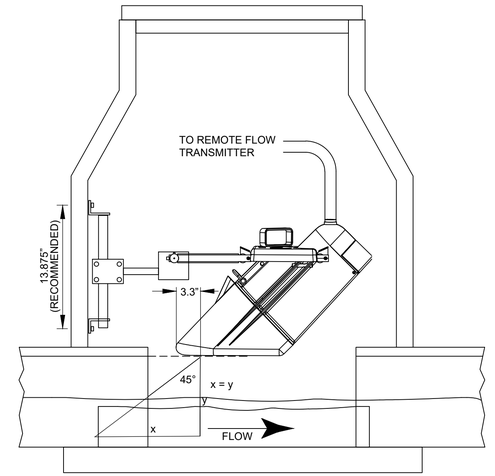
SHEET I-01

101 OF 111

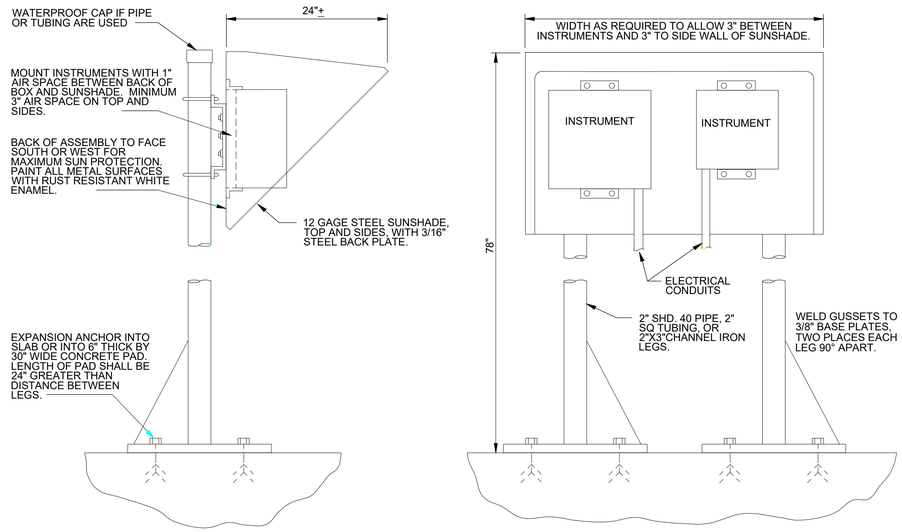
DWG. NO.



1 / I-02 ULTRASONIC LEVEL SENSOR WITH REMOTE LEVEL TRANSMITTER INSTALLATION DETAIL
NO SCALE

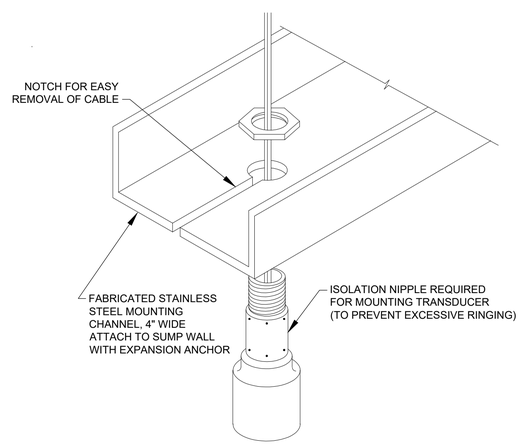


2 / I-02 LASERFLOW MANHOLE INSTALLATION DETAIL
NO SCALE



4 / I-02 OUTDOOR INSTRUMENT MOUNTING DETAIL
NO SCALE

(FOR INSTRUMENTS GREATER THAN 10" WIDE OR MULTIPLE INSTRUMENTS)



3 / I-02 LEVEL SENSOR MOUNTING DETAIL
NO SCALE

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DESIGNED BY: JBO	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	EATON WASH STORMWATER CAPTURE PROJECT
CHECKED BY: MCZ							SHEET TITLE: INSTALLATION DETAIL
							SCALE: AS SHOWN; ACCOUNT NUMBER: XXXXXX
							SHEET: I-02; 102 OF 111; DWG. NO.

STRUCTURAL NOTES

GENERAL

1. THE APPLICABLE BUILDING CODE IS INDICATED ON THE BASIC LOADING CRITERIA SECTION.
2. THE REQUIREMENTS INDICATED ON THIS SHEET ARE INTENDED AS A BASIC SUMMARY OF THE MATERIAL AND CONSTRUCTION REQUIREMENTS FOR THE PROJECT. ADDITIONAL, MORE STRINGENT REQUIREMENTS ARE GIVEN IN THE PROJECT DETAIL DRAWINGS AND SPECIFICATIONS.
3. ALL STRUCTURAL RELATED SHOP DRAWINGS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO CONSTRUCTION.
4. STRUCTURES MAY BE BUOYANT WHEN EMPTY DURING CONSTRUCTION. CONTRACTOR SHALL PROTECT STRUCTURES AGAINST FLOTATION UNTIL CONSTRUCTION IS COMPLETE.
5. STRUCTURES MAY BE UNSTABLE UNTIL THEY ARE CONSTRUCTED IN THIER ENTIRETY. CONTRACTOR IS RESPONSIBLE FOR DESIGNING TEMPORARY STRUCTURAL SUPPORTS TO RESIST WIND LOADS, CONSTRUCTION LOADS, AND ANY OTHER TEMPORARY CONDITIONS THAT MAY OCCUR DURING CONSTRUCTION, IN ORDER TO MAINTAIN STABILITY OF THE CONSTRUCTION WORK. ANCHORS FOR CONTRACTOR'S TEMPORARY SUPPORT SYSTEMS THAT ATTACH TO CONCRETE OR MASONRY SHALL BE LOCATED TO AVOID DAMAGING EMBEDDED REINFORCEMENT OR UTILITIES.

CAST-IN-PLACE CONCRETE

1. A MINIMUM 28 DAY COMPRESSIVE STRENGTH ($f'c$) OF 4,500 PSI WAS UTILIZED IN THE DESIGN OF STRUCTURAL REINFORCED CONCRETE. SEE SPECIFICATIONS FOR CONSTRUCTION STRENGTH REQUIREMENTS.
2. THE LOCATION OF ALL CONSTRUCTION JOINTS AND OTHER TYPES OF JOINTS, OTHER THAN THOSE SPECIFIED OR SHOWN ON THE PLANS, SHALL BE ACCEPTABLE TO THE ENGINEER PRIOR TO PLACING CONCRETE.

REINFORCING STEEL

1. ALL REINFORCING BAR SHALL BE GRADE 60, DEFORMED, ASTM A615, UNLESS NOTED OTHERWISE.
2. DIMENSIONS TO REINFORCING BARS ARE TO BAR CENTERLINES, UNLESS NOTED OTHERWISE. BAR COVER IS THE CLEAR DISTANCE BETWEEN THE BAR AND THE CONCRETE SURFACE.
3. NO WELDING OF REINFORCING BARS SHALL BE PERMITTED UNLESS APPROVAL IS OBTAINED FROM THE ENGINEER PRIOR TO CONSTRUCTION.
4. FOR CONCRETE SLABS THAT HAVE A SLOPING TOP FACE, THE TOP LAYERS OF REINFORCEMENT SHALL BE PLACED ON A SIMILAR SLOPE SO THAT SPECIFIED COVER IS MAINTAINED.

POST-INSTALLED ANCHORS

1. POST-INSTALLED ANCHORS SHALL INCLUDE ADHESIVE ANCHORS (THREADED RODS, BOLTS OR REINFORCING BARS), EXPANSION ANCHORS, AND UNDERCUT ANCHORS INSTALLED INTO HARDENED CONCRETE OR MASONRY. SEE THE ANCHORAGE IN CONCRETE AND MASONRY SPECIFICATION SECTION FOR ADDITIONAL REQUIREMENTS.
2. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE INDICATED ON THE DRAWINGS. CONTRACTOR SHALL OBTAIN APPROVAL FROM ENGINEER PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN-PLACE ANCHORS.
3. CARE SHALL BE TAKEN TO AVOID CONFLICTS WITH EXISTING REINFORCING STEEL AND OTHER EMBEDDED ITEMS WHEN DRILLING HOLES. REINFORCING BARS SHALL NOT BE DAMAGED DURING DRILLING OR ANCHOR INSTALLATION. HOLES SHALL BE DRILLED AND CLEANED PER THE PRODUCT MANUFACTURER'S INSTRUCTIONS. ANCHORS SHALL BE INSTALLED PER THE PRODUCT MANUFACTURER'S INSTRUCTIONS AT NOT LESS THAN MINIMUM EDGE DISTANCES AND/OR SPACING INDICATED IN THE MANUFACTURER'S LITERATURE.
4. SUBSTITUTION REQUESTS FOR PRODUCTS OTHER THAN THOSE LISTED IN THE SPECIFICATION OR INDICATED ON THE DRAWINGS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW AND APPROVAL. PRODUCT ICC-ESR EVALUATION REPORTS SHALL BE INCLUDED WITH THE SUBMITTAL PACKAGE. IF REQUESTED, CALCULATIONS PREPARED BY A REGISTERED PROFESSIONAL ENGINEER USING METHODS AND PROCEDURES REQUIRED BY THE BUILDING CODE MAY BE REQUIRED AS PART OF THE SUBMITTAL PACKAGE.
5. UNLESS NOTED OTHERWISE, THE MINIMUM EMBEDMENT PROVIDED FOR ADHESIVE ANCHORED REINFORCING BARS SHALL DEVELOP THE FULL TENSILE STRENGTH OF THE BAR.
6. SPECIAL INSPECTION WILL BE PROVIDED FOR ALL POST-INSTALLED ANCHORS.

STAINLESS STEEL

1. STAINLESS STEEL BOLTS SHALL CONFORM TO ASTM F593, ALLOY GROUP 1 OR 2, UNLESS NOTED OTHERWISE. MINIMUM YIELD STRENGTH SHALL BE 45 KSI.
2. STAINLESS STEEL PLATES SHALL CONFORM TO ASTM A240, TYPE 316L.
3. STAINLESS STEEL STRUCTURAL SHAPES SHALL CONFORM TO ASTM A1069 OR ASTM A276, TYPE 316L.

ALUMINUM

1. UNLESS NOTED OTHERWISE, ALUMINUM ALLOY IN ALL ALUMINUM STRUCTURAL MATERIALS SHALL BE 6061-T6. PIPE AND TUBING FOR GUARDRAIL AND HANDRAIL SHALL BE ALLOY 6061-T6 OR 6005A-T61.
2. ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE OR DISSIMILAR METALS SHALL BE COATED OR COVERED WITH A HEAVY COAT OF BITUMINOUS PAINT TO PREVENT ALUMINUM-CONCRETE REACTION OR ELECTROLYTIC ACTION.

STRUCTURAL STEEL

1. ROLLED WIDE FLANGE SHAPES SHALL HAVE A MINIMUM YIELD STRENGTH OF 50 KSI;
   CHANNELS, PLATES, AND ANGLES A MINIMUM OF 36 KSI;
   STRUCTURAL PIPES A MINIMUM OF 35 KSI;
   ROUND STRUCTURAL TUBES A MINIMUM OF 46 KSI;
   RECTANGULAR STRUCTURAL TUBES A MINIMUM OF 50 KSI.
2. WELDING SHALL BE DONE WITH A FILLER MATERIAL HAVING A MINIMUM TENSILE STRENGTH OF 70 KSI.
3. BOLTED CONNECTIONS SHALL USE 3/4" DIA ASTM F3125, GRADE A325 BOLTS OR GRADE F1852 TWIST-OFF BOLTS, WITH THE THREADS EXCLUDED FROM THE SHEAR PLANE, UNLESS NOTED OTHERWISE.
4. CARBON STEEL OR GALVANIZED STEEL ANCHOR RODS AND ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 GRADE 36.
5. HOLES FOR ANCHOR RODS AND ANCHOR BOLTS IN COLUMN BASE PLATES USING ASTM F844 OR F436 FLAT CIRCULAR WASHERS SHALL BE AS FOLLOWS:

   BOLTS/RODS 3/4" TO 1" - 5/16" OVERSIZE
   BOLTS/RODS 1" TO 2" - 1/2" OVERSIZE
   BOLTS/RODS OVER 2" - 1" OVERSIZE

   AT THE CONTRACTORS OPTION, OVERSIZE HOLES LARGER THAN THOSE LISTED ABOVE MAY BE USED, PROVIDED THAT 3/8" PLATE WASHERS ARE USED WITH STANDARD HOLES AND FIELD WELDED WITH A 5/16" FILLET WELD TO THE BASE PLATE ALONG A MIN OF 3 SIDES.

EXCAVATION, BACKFILL, AND FOUNDATIONS

1. FOUNDATION CONSTRUCTION SHALL NOT BEGIN UNTIL ANY REQUIRED SPECIAL INSPECTION HAS BEEN COMPLETED AND THE CONTRACTOR NOTIFIED TO PROCEED.
2. TO FACILITATE SCHEDULING, AT LEAST 48 HOURS ADVANCE NOTICE SHALL BE GIVEN TO THE ENGINEER PRIOR TO THE REQUIRED INSPECTIONS.
3. UNLESS NOTED OTHERWISE, BACKFILL SHALL NOT BE PLACED AGAINST WALLS WHICH SUPPORT A CONCRETE SLAB OR WALKWAY UNTIL THE TOP SLAB OR WALKWAY HAS BEEN PLACED IN ITS ENTIRETY AND ALL CONCRETE HAS REACHED THE SPECIFIED DESIGN STRENGTH.
4. OVER-EXCAVATION OF SOIL, OR OVER-BREAKING OF ROCK, THAT WOULD RESULT IN A STRUCTURAL CONCRETE THICKNESS GREATER THAN INDICATED ON THE DRAWINGS SHALL BE CLASSIFIED AS UNAUTHORIZED EXCAVATION. CONTRACTOR SHALL SELECT ONE OF TWO METHODS TO ADDRESS UNAUTHORIZED EXCAVATION.
   - REPLACE UNAUTHORIZED EXCAVATION MATERIAL WITH LEAN CONCRETE THAT IS PLACED SEPARATELY FROM THE STRUCTURAL CONCRETE INDICATED ON THE DRAWINGS. CONTRACTOR WILL RECEIVE NO ADDITIONAL PAYMENT FOR THE LEAN CONCRETE.
   - REPLACE UNAUTHORIZED EXCAVATION MATERIAL WITH STRUCTURAL CONCRETE THAT IS PLACED MONOLITHICALLY WITH THE STRUCTURAL CONCRETE INDICATED ON THE DRAWINGS, CREATING AN ENLARGED SECTION. CONTRACTOR SHALL NOTIFY ENGINEER FOR DIRECTION PRIOR TO PERFORMING THIS WORK. THE INCREASED CONCRETE THICKNESS MAY REQUIRE ADDITIONAL REINFORCEMENT AND/OR OTHER DESIGN MODIFICATIONS. IF THE INCREASED CONCRETE THICKNESS EXCEEDS 36 INCHES, ENGINEER MAY REQUIRE CONTRACTOR TO IMPLEMENT MASS CONCRETE HEAT MITIGATION PROCEDURES. CONTRACTOR WILL RECEIVE NO ADDITIONAL PAYMENT FOR EXTRA STRUCTURAL CONCRETE, ADDITIONAL REINFORCEMENT, OTHER DESIGN MODIFICATIONS, OR MASS CONCRETING PROCEDURES.
5. THE FOLLOWING NET ALLOWABLE BEARING PRESSURES WERE UTILIZED IN THE DESIGN OF THE FOUNDATIONS.

SPREAD FOOTINGS	2500 PSF + 500 PSF FOR EACH ADDITIONAL FOOT OF DEPTH OR WIDTH (3500 PSF MAX) + 1/3 INCREASE FOR WIND/SEISMIC LOADS
MAT FOUNDATIONS	2000 PSF + 1/3 INCREASE FOR WIND/SEISMIC LOADS
FROST DEPTH	1'-0"
COEFICIENT AGAINST SLIDING (ULTIMATE)	0.35

DEFERRED SUBMITTALS

1. THE FOLLOWING ITEMS ARE IDENTIFIED IN THE DRAWINGS AND SPECIFICATIONS AS BEING DESIGNED AND SEALED BY THE CONTRACTOR OR THE CONTRACTOR'S SUPPLIER IN ACCORDANCE WITH THE SPECIFICATIONS INDICATED BELOW. SUBMITTALS FOR THESE ITEMS SHALL BE PREPARED BY THE SUPPLIERS AND SUBMITTED TO ENGINEER AND CODE OFFICIAL FOR REVIEW.

   SECTION 016700 – EQUIPMENT AND NON-STRUCTURAL COMPONENTS.
   SECTION 058100 – EQUIPMENT ANCHORAGE.

EXISTING STRUCTURES

1. THE DRAWINGS DEPICT WORK AT EXISTING STRUCTURES. ALL DIMENSIONS AND ALL DEPICTIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS, STARTING FABRICATION, OR STARTING CONSTRUCTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE, REPAIRS OR STRUCTURAL MODIFICATIONS THAT ARE REQUIRED DUE TO DEMOLITION BEYOND THE LIMITS IDENTIFIED IN THE DRAWINGS.
3. REINFORCEMENT FOR ANY EXISTING CONCRETE OR MASONRY ELEMENT SHALL NOT BE DAMAGED UNLESS THE ELEMENT IS TO BE DEMOLISHED. WHEN LOCATING EXISTING REINFORCEMENT IS REQUIRED, IT SHALL BE LOCATED USING NON-DESTRUCTIVE METHODS. REINFORCING STRANDS IN EXISTING PRESTRESSED CONCRETE SHALL NOT BE CUT UNLESS INDICATED ON THE DRAWINGS OR OTHERWISE AUTHORIZED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE, REPAIRS OR STRUCTURAL MODIFICATIONS THAT ARE REQUIRED DUE TO DAMAGE OF CONCRETE, MASONRY OR REINFORCEMENT THAT HAS BEEN IDENTIFIED ON THE DRAWINGS TO REQUIRE FIELD VERIFICATION.
4. EXPOSED CONCRETE SURFACES THAT REMAIN AFTER DEMOLITION SHALL BE REPAIRED TO MATCH ADJACENT CONCRETE SURFACES.
5. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, EXPOSED CONCRETE SURFACES WITH REINFORCEMENT, ANCHOR BOLTS, HANGER RODS, OR OTHER EXPOSED METAL EMBEDMENTS SHALL BE REPAIRED BY CUTTING OFF THE METAL AT THE FACE OF THE CONCRETE, GRINDING SMOOTH, AND COATING. COATING SHALL EXTEND A MINIMUM OF 1" BEYOND THE EDGE OF ANY EXPOSED METAL.

SPECIAL INSPECTIONS

1. CODE REQUIRED SPECIAL INSPECTIONS AND TESTS WILL BE CONDUCTED BY APPROVED AGENCIES EMPLOYED BY THE OWNER IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE.
2. THE STATEMENT OF SPECIAL INSPECTIONS WILL BE PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE DURING CONSTRUCTION.
3. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND OR SEISMIC FORCE RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM OR A WIND OR SEISMIC RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNER PRIOR TO COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT.
4. SEE THE QUALITY CONTROL SECTION AND THE CODE REQUIRED SPECIAL INSPECTIONS AND PROCEDURES SECTION OF THE SPECIFICATIONS FOR FURTHER CLARIFICATION OF RESPONSIBILITIES.

STRUCTURAL OBSERVATIONS

1. IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE, THE OWNER WILL RETAIN A LICENSED ENGINEER TO MAKE STRUCTURAL OBSERVATIONS TO OBSERVE REPRESENTATIVE LOCATIONS OF STRUCTURAL SYSTEMS, DETAILS AND LOAD PATHS FOR GENERAL CONFORMANCE TO THE DESIGN INTENT AS DEFINED IN THE APPROVED CONSTRUCTION DOCUMENTS.
2. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE ANY SPECIAL INSPECTION AND TESTING REQUIREMENTS INDICATED IN THE APPLICABLE BUILDING CODE.
3. SEE THE CODE REQUIRED STRUCTURAL OBSERVATIONS SECTION OF THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

BASIC LOADING CRITERIA

THE APPLICABLE BUILDING CODE IS THE 2021 INTERNATIONAL BUILDING CODE (IBC) AND THE 2022 CALIFORNIA BUILDING CODE (CBC).

1. DEAD LOAD ..... CALCULATED
2. LIVE LOADS:
   ALL FLOORTS NOT INDICATED..... 100 PSF
3. LATERAL EARTH PRESSURE (EQUIVALENT FLUID PRESSURE)
   NON-SATURATED..... XX PSF/FT
   SATURATED..... XX PSF/FT
4. LATERAL SURCHARGE..... EQUIVALENT TO 2 FEET OF SOIL WHERE ADJACENT TO A ROADWAY
5. COMPACTIVE SURCHARGE LOAD..... 400 PSF AT FINISH GRADE ELEVATION DECREASING LINEARLY AT SAME RATE AS BACKFILL LOAD INCREASES. FOR WALLS 8 FEET OR LESS IN HEIGHT, USE CRITERIA 4 ABOVE AS COMPACTIVE SURCHARGE.



6. HYDROSTATIC FLUID PRESSURE..... 62.4 PSF/FT
7. SEISMIC LOAD:
   MAPPED MCE SHORT PERIOD SPECTRAL RESPONSE ACCELERATION (S_S)..... 2.075g
   MAPPED MCE ONE SECOND PERIOD SPECTRAL RESPONSE ACCELERATION (S_1)..... 0.754g
   DESIGN SPECTRAL RESPONSE ACCELERATION AT SHORT PERIODS (S_{DS})..... 1.384g
   DESIGN SPECTRAL RESPONSE ACCELERATION AT ONE SECOND PERIOD (S_{D1})..... 0.855g
   SITE CLASS..... D
8. WIND LOAD:
   BASIC (ULTIMATE) DESIGN WIND SPEED..... 115 MPH
   ALLOWABLE STRESS (NOMINAL) DESIGN WIND SPEED..... 90 MPH
   GROUND ELEVATION FACTOR (K_d)..... 1.0
   EXPOSURE..... C
9. RAIN INTENSITY..... 4.74 INCHES/HR (15-MINUTE DURATION)
   2.36 INCHES/HR (60-MINUTE DURATION)
10. FLOOD DESIGN DATA:
    DESIGN 100 YEAR FLOOD ELEVATION..... OUTSIDE THE 100-YEAR FLOODPLAIN

SEISMIC LOADING CRITERIA	
RISK CATEGORY	III
SEISMIC IMPORTANCE FACTOR	1.25
SEISMIC DESIGN CATEGORY	E
FLOOD DESIGN CLASS PER ASCE 24	3

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CHECKED BY: ML							SHEET TITLE: GENERAL STRUCTURAL NOTES — 103 OF 111
							SCALE: AS SHOWN — ACCOUNT NUMBER: XXXXXX — DWG. NO.

PLOTTED: 10/28/2025 4:49:08 PM
FILE: Autodesk Docs://422029 - Eaton Wash SWC Project/422029-XX-Standard Details.rvt
REVIT VERSION: 2024
D11000

STRUCTURAL ABBREVIATIONS

A

ADDL	ADDITIONAL
AFF	ABOVE FINISH FLOOR
AHR	ANCHOR
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
AROD	ANCHOR ROD
ASSY	ASSEMBLY
AWG	AMERICAN WIRE GAUGE

B

BLDG	BUILDING
BM	BENCHMARK, BEAM
BO	BOTTOM OF
BOT	BOTTOM
BRDG	BRIDGING
BRG	BEARING
BTWN	BETWEEN

C

C	CAMBER
CANTIL	CANTILEVER
CHKD	CHECKERED
CHKDPL	CHECKERED PLATE
CIP	CAST-IN-PLACE
CJ	CONTRACTION JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUOUS,CONTINUATION, CONTROL
COORD	COORDINATE
COV	COVER
CRNR	CORNER
CSJ	CONSTRUCTION JOINT
CTRD	CENTERED
CTRS	CENTERS

D

db	BAR DIAMETER
DBA	DEFORMED BAR ANCHOR
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DN	DOWN
DWA	DEFORMED WIRE ANCHOR
DWG(S)	DRAWING, DRAWINGS
DWL(S)	DOWEL, DOWELS

E

E	EAST
EA	EACH
EE	EACH END
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
EMBED	EMBEDMENT
EMER	EMERGENCY
ENGR	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR

F

FAB	FABRICATE
f'c	28 DAY CONCRETE STRENGTH =
FD	FLOOR DRAIN
FDN	FOUNDATION
FIN	FINISH(ED)
FLR	FLOOR
FS	FAR SIDE
FT	FOOT
FTG	FOOTING
FUT	FUTURE
FV	FIELD VERIFY
Fy	STRUCTURAL STEEL YIELD STRENGTH =
fy	REINFORCING STEEL YIELD STRENGTH =

G

GA	GAUGE
GALV	GALVANIZED
GEN	GENERAL
GR	GRADE

H

H	HORIZONTAL REACTION
HC	HOLLOW CORE
HCA	HEADED CONCRETE ANCHOR
HEX	HEXAGONAL
HGR	HANGER
HORIZ	HORIZONTAL
HP	HIGH POINT
HSS	HOLLOW STRUCTURAL SECTION

I

ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCHES
INT	INTERIOR, INTERNAL
INV	INVERT

J

JT	JOINT

K

K	KIPS (1000 LBS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH

L

L	LENGTH, ANGLE
LAB	LABORATORY
LB(S)	POUND, POUNDS
ld	DEVELOPMENT LENGTH
LE	LEFT END
LIN	LINES
LLBB	LONG LEG BACK TO BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LP	LOW POINT
LSH	LONG SIDE HORIZONTAL
LSHP	LONG SLOTTED HOLE PARALLEL
LSLT	LONG SLOTTED HOLE TRANSVERSE
LSV	LONG SIDE VERTICAL
LWC	LIGHTWEIGHT CONCRETE

M

M	MOMENT
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MC	MOMENT CONNECTION, MECHANICAL COUPLING
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURE(R)
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL

N

N	NORTH
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO.	NUMBER
NOM	NOMINAL
NS	NEAR SIDE
NTS	NOT TO SCALE
NWC	NORMAL WEIGHT CONCRETE

O

OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OPER	OPERATING
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OVS	OVERSIZED HOLE
OZ	OUNCE

P

P	AXIAL LOAD
PAF	POWDER ACTUATED FASTENER
PAR	PARALLEL
PCC	PRECAST CONCRETE
PCF	POUNDS PER CUBIC FOOT
PEMB	PRE-ENGINEERED METAL BUILDING
PERP	PERPENDICULAR
PJP	PARTIAL JOINT PENETRATION
PL	PLATE
PLCS	PLACES
PLF	POUNDS PER LINEAR FOOT
PR	PAIR
PRELIM	PRELIMINARY
PROJ	PROJECTION
PROP	PROPERTY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POST TENSIONED

Q

QTY	QUANTITY

R

R	RADIUS, RISER, REMAINDER
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
RECT	RECTANGULAR
REF	REFERENCE
REINF	REINFORCEMENT
REQD	REQUIRED
REV	REVISION
RO	ROUGH OPENING

S

S	SOUTH
SC	SLIP CRITICAL, SHEAR CONNECTOR
SCHED	SCHEDULE
SECT	SECTION
SH	SHEET
SIM	SIMILAR
SJ	SAW JOINT
SLBB	SHORT LEG BACK TO BACK
SPA	SPACING
SPEC	SPECIFICATION
SPRT	SUPPORT
SQ	SQUARE
SS	STAINLESS STEEL
SSHP	SHORT SLOTTED HOLE PARALLEL
SSHT	SHORT SLOTTED HOLE TRANSVERSE
STD	STANDARD
STIF	STIFFENER
STIR	STIRRUP
STL	STEEL
STR	STRUCTURE, STRUCTURAL
SYM	SYMMETRICAL

T

T	TREAD, SCHEDULED PLATE THICKNESS, TOP
T&B	TOP & BOTTOM
TAN	TANGENT
TEMP	TEMPERATURE
THD	THREADED
THK	THICK, THICKNESS
TO	TOP OF
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL

U

UNO	UNLESS NOTED OTHERWISE
USGS	UNITED STATES GEOLOGICAL SURVEY

V

VERT	VERTICAL
VNR	VENEER

W

W	WEST
W/	WITH
W/O	WITHOUT
WF	WIDE FLANGE
WP	WORK POINT
WT	WEIGHT
WWR	WELDED WIRE REINFORCEMENT

X

x	BY, TIMES
XS	EXTRA STRONG
XXS	DOUBLE EXTRA STRONG

Y

NOT USED

Z

NOT USED

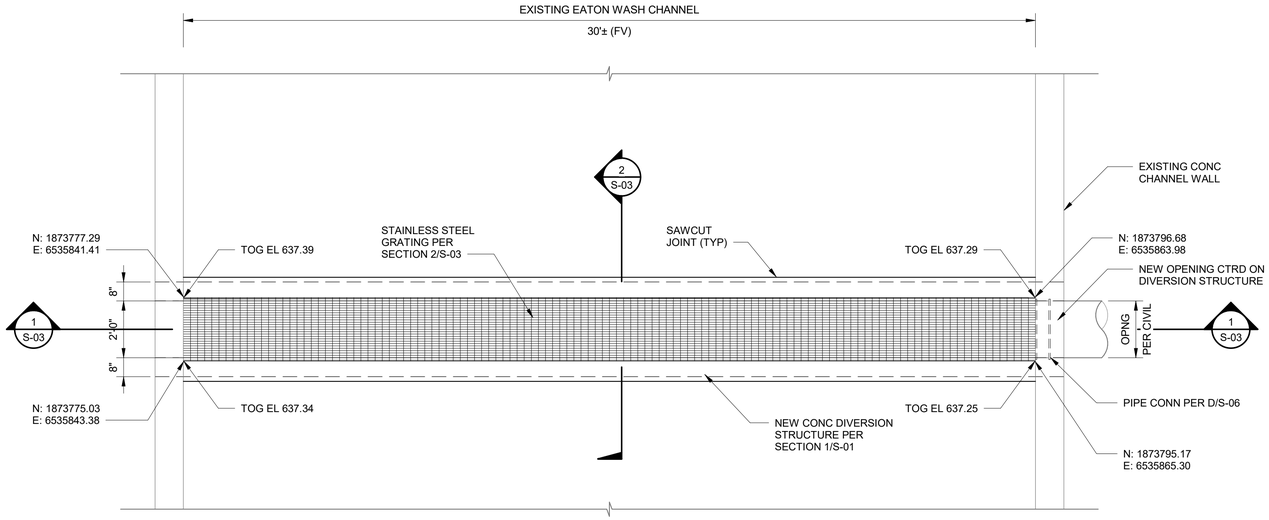
SPECIAL CHARACTERS

@	AT
&	AND
ø	DIAMETER
#	NUMBER
%	PERCENT

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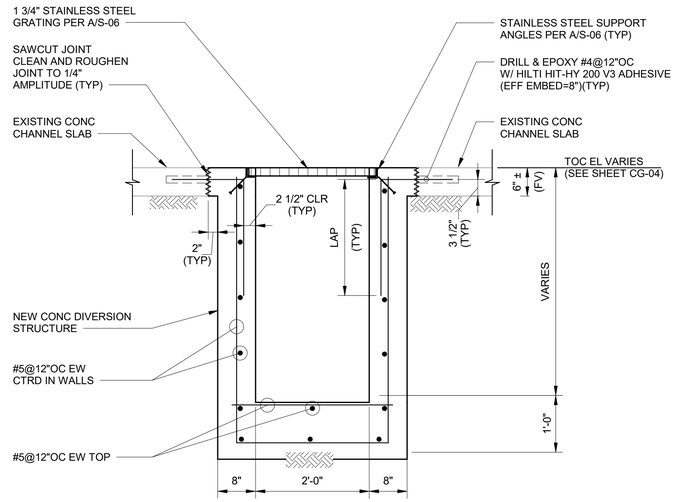
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DESIGNED BY: SD	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	EATON WASH STORMWATER CAPTURE PROJECT — SHEET S-02
CHECKED BY: ML							SHEET TITLE: STRUCTURAL ABBREVIATIONS — 104 OF 111
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PLOTTED: 10/28/2025 4:49:09 PM
FILE: Autodesk Docs://422026 - Eaton Wash SWC Project/422026-XX-Standard Details.rvt
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CONC DIVERSION STRUCTURE PLAN

3/8" = 1'-0"

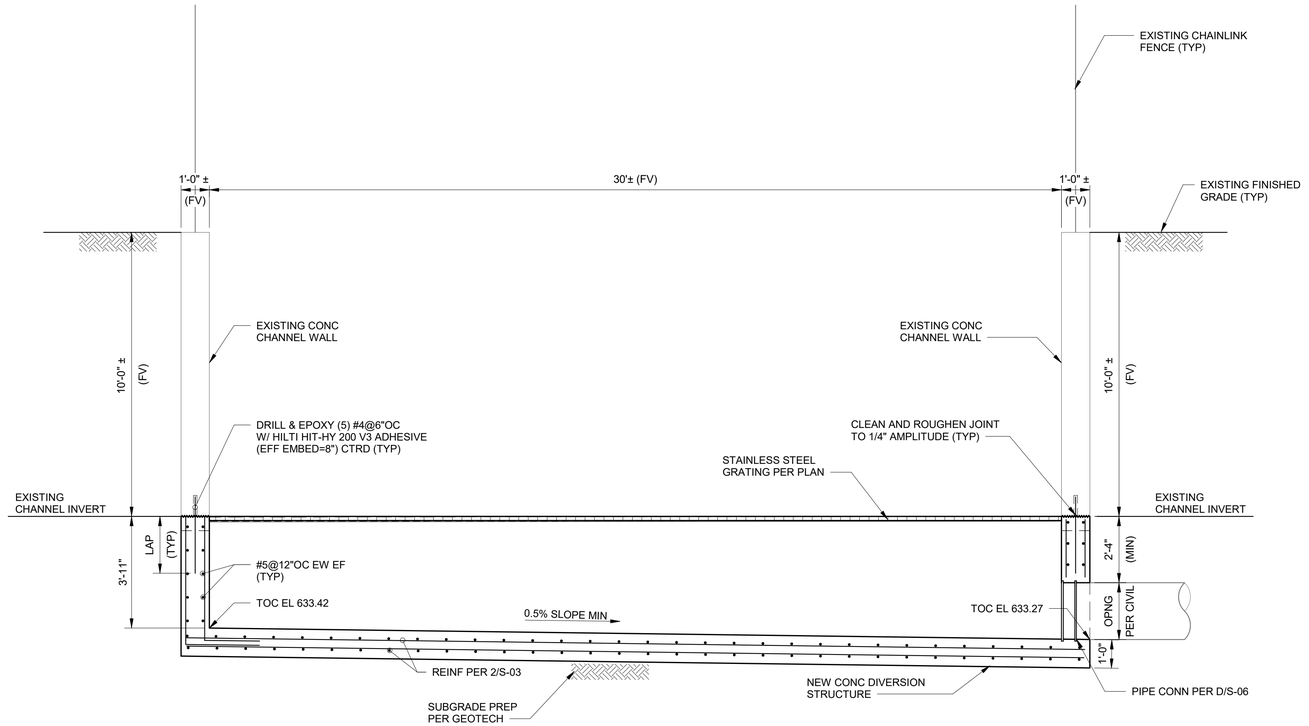


2 SECTION

Scale: 3/4" = 1'-0"

NOTES:

1. CONTRACTOR TO PROVIDE TEMPORARY SHORING TO SUPPORT EXCAVATION.
2. SEE STANDARD CONCRETE DETAILS ON S-05.



1 DIVERSION STRUCTURE CENTERLINE SECTION

Scale: 3/8" = 1'-0"

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EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: DIVERSION STRUCTURE

SCALE: AS SHOWN

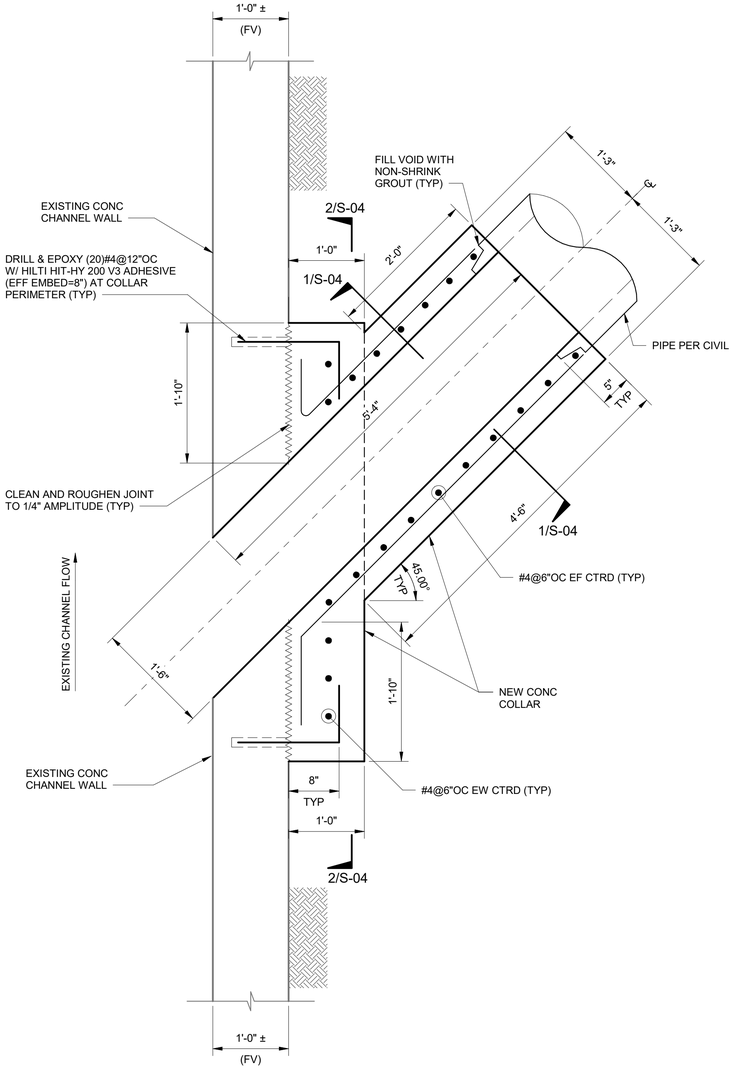
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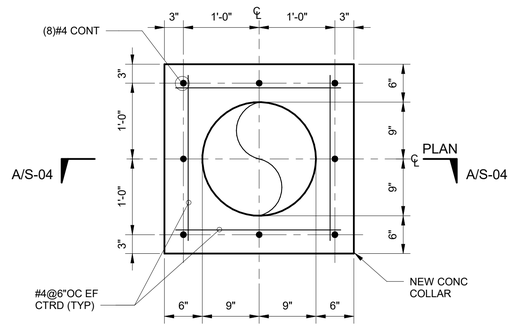
105 OF 111

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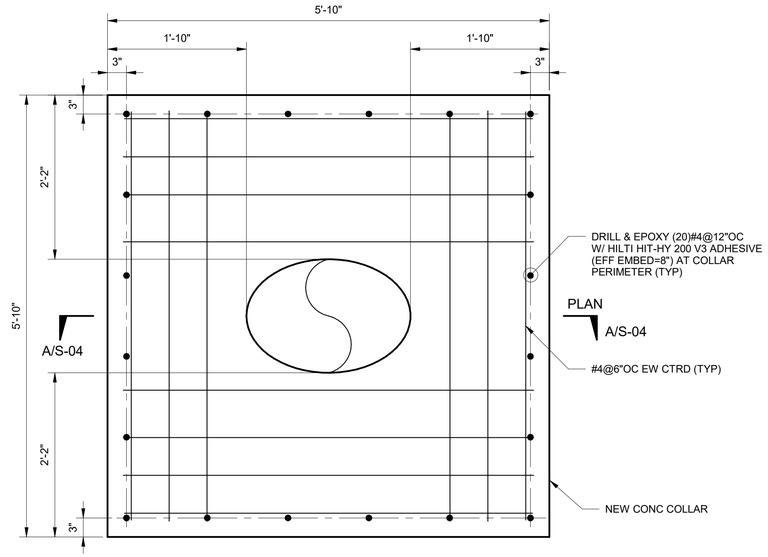
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A OUTLET PENETRATION PLAN
Scale: 1" = 1'-0"



1 SECTION
Scale: 1" = 1'-0"

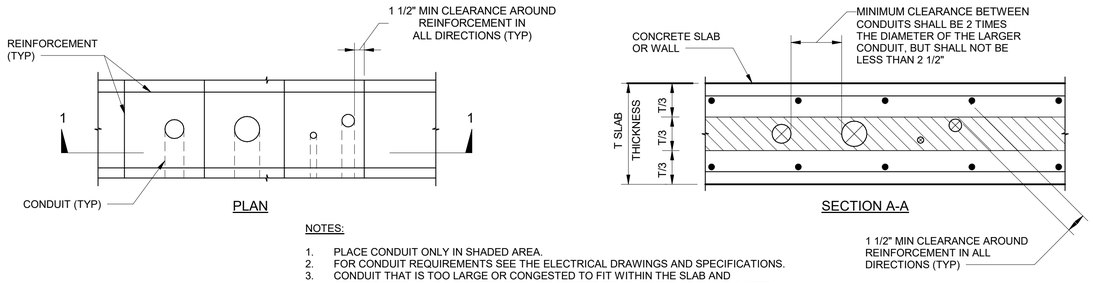


2 SECTION
Scale: 1" = 1'-0"

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CHECKED BY: ML						EATON WASH STORMWATER CAPTURE PROJECT — SHEET S-04
						SHEET TITLE: OUTLET PENETRATION — 106 OF 111
						SCALE: AS SHOWN — ACCOUNT NUMBER: XXXXXX — DWG. NO.

PLOTTED: 10/28/2025 4:49:09 PM
FILE: Autodesk Docs://422023 - Eaton Wash SWC Project/422023-XX-Standard Details.rvt
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D11000

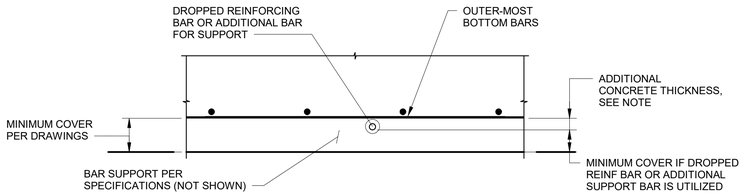


NOTES:

1. PLACE CONDUIT ONLY IN SHADED AREA.
2. FOR CONDUIT REQUIREMENTS SEE THE ELECTRICAL DRAWINGS AND SPECIFICATIONS.
3. CONDUIT THAT IS TOO LARGE OR CONGESTED TO FIT WITHIN THE SLAB AND REINFORCEMENT AS INDICATED SHALL BE ROUTED BELOW THE SLAB AS INDICATED IN THE ELECTRICAL SPECIFICATIONS OR ON THE DRAWINGS.

A CONDUIT PLACING DETAIL

Scale: 1" = 1'-0"



NOTE:

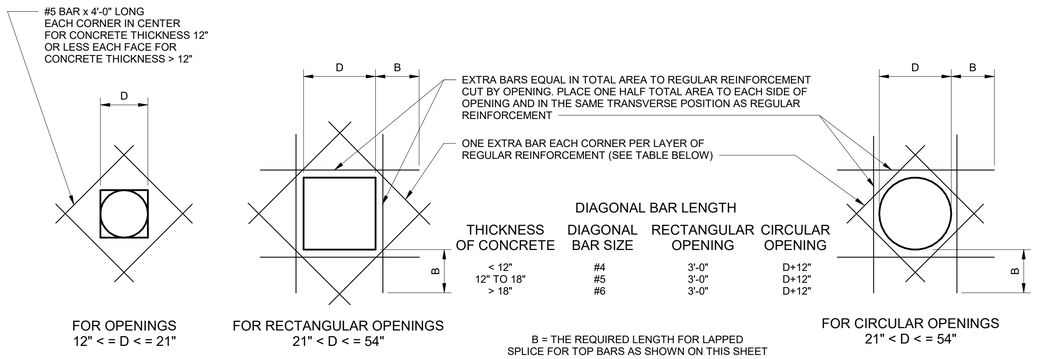
WHERE DROPPED REINFORCING BARS OR ADDITIONAL BARS ARE UTILIZED AS SUPPORT BARS IN THE PLACEMENT OF THE BOTTOM MAT REINFORCING, CONCRETE COVER TO THE SUPPORT BARS SHALL NOT BE LESS THAN REQUIRED PER THE DRAWINGS AND THE CONCRETE THICKNESS OF THE SLAB OR FOOTING SHALL BE INCREASED, EQUAL TO THE DIAMETER OF THE SUPPORT BAR, AT NO ADDITIONAL COST. ALTERNATIVELY, UPON THE APPROVAL OF THE ENGINEER, A SHALLOWER BOLSTER MADE BE USED TO MAINTAIN THE MINIMUM CLEAR COVER FOR THE BOTTOM MAT REINFORCING.

B REINFORCING SUPPORT DETAIL

Scale: 1" = 1'-0"

NOTES:

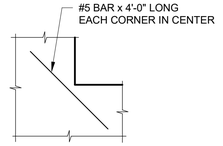
1. DETAILS ON THIS DRAWING APPLY TO ALL DRAWINGS UNLESS OTHERWISE NOTED.
2. WORK THIS DRAWING WITH THE STANDARD CONCRETE JOINT DETAILS.



TYPICAL REQUIRED UNLESS ADDITIONAL REINFORCEMENT SPECIFICALLY INDICATED AT OPENINGS ON DRAWINGS

C TYPICAL EXTRA REINFORCEMENT AT OPENINGS 12" TO < = 54"

Scale: 12" = 1'-0"

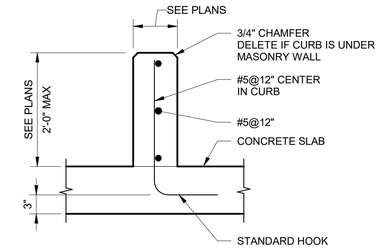


NOTE:

TYPICAL REQUIRED UNLESS ADDITIONAL REINFORCEMENT SPECIFICALLY INDICATED AT OPENINGS ON DRAWINGS

D TYPICAL EXTRA REINFORCEMENT AT ISOLATED RE-ENTRANT CORNERS

Scale: 12" = 1'-0"



NOTE:

WHEN CURB WIDTH EXCEEDS 8", PROVIDE ABOVE REINFORCEMENT IN EACH FACE OF CURB

E TYPICAL CONCRETE CURB DETAIL

Scale: 1" = 1'-0"

LENGTH OF LAPPED SPLICES FOR REINFORCEMENT (INCHES)

UNLESS NOTED OTHERWISE ON THE DRAWINGS

BAR SIZE *	BEAMS & COLUMNS		WALLS & SLABS		BAR SIZE *
	**TOP BARS	OTHERS	**TOP BARS	OTHERS	
#3	16	16	16	16	#3
#4	19	16	19	16	#4
#5	24	18	24	18	#5
#6	33	26	29	22	#6
#7	55	42	48	37	#7
#8	69	53	60	46	#8
#9	84	65	74	57	#9
#10	103	79	91	70	#10
#11	122	94	108	83	#11

* LAP SPLICE LENGTH FOR BARS OF DIFFERENT SIZES SHALL BE THE GREATER OF THE SMALL BAR LAP LENGTH OR 0.75x THE LARGER BAR LAP LENGTH.

** TOP BARS ARE HORIZONTAL BARS SO PLACED THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR. HORIZONTAL BARS IN WALLS ARE TO BE PROVIDED WITH LAP LENGTHS AS REQUIRED FOR TOP BARS. VERTICAL BARS MAY BE CONSIDERED AS OTHER BARS.

CONCRETE COVER FOR REINFORCEMENT

UNLESS NOTED OTHERWISE ON THE DRAWINGS

LOCATION — SPECIFIED COVER

UNFORMED SURFACES ADJACENT TO EXCAVATION..... 3"

SURFACES INSIDE OF OZONE CONTACTORS EXPOSED TO OZONE IN WATER OR AIR..... 3"

TOP SURFACES OF SLABS THAT ARE SUBMERGED..... 3"

FORMED SURFACES THAT ARE SUBMERGED, AND FORMED OR TOP SURFACES EXPOSED TO WEATHER, SATURATED AIR, OR EARTH..... 2"

OTHER LOCATIONS:

BEAMS AND GIRDERS..... 1 1/2"

SLABS, WALLS AND JOISTS:
#6 AND LARGER..... 1 1/2"
#5 AND SMALLER..... 1"

NOTES:

1. COVER IS MEASURED TO NEAREST BAR, STIRRUP, TIE, OR SPIRAL, AS APPLICABLE.
2. TOLERANCES FOR CONCRETE COVER AND THE FABRICATION AND PLACING OF REINFORCEMENT SHALL CONFORM TO ACI 117.

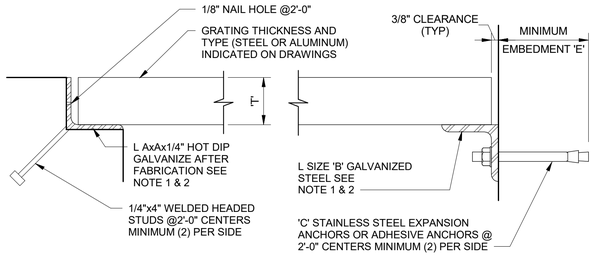
12" 9" 6" 3" 0' 1' 2'

1" = 1'-0"

90%- NOT FOR CONSTRUCTION

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BR	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	EATON WASH STORMWATER CAPTURE PROJECT	SHEET	S-05
DESIGNED BY SD							SHEET TITLE STANDARD STRUCTURAL DETAILS 1		107 OF 111
CHECKED BY ML							SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX	DWG. NO.

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D11000



GRATING THICKNESS 'T'	L SIZE AxAx1/4 INCHES	L SIZE 'B' INCHES	'C' ANCHOR	
			DIA	MIN 'E'
1"	1 3/4 x 1 3/4*	2 1/2x2 1/2x1/4	1/2"	3 1/4"
1 1/4"	1 3/4 x 1 3/4*	2 1/2x2 1/2x1/4	1/2"	3 1/4"
1 1/2"	1 3/4 x 1 3/4	2 1/2x2 1/2x1/4	1/2"	3 1/4"
1 3/4"	2x2	3x3x3/8	3/4"	4 3/4"
2"	2 1/2x2 1/2*	3x3x3/8	3/4"	4 3/4"
2 1/4"	2 1/2x2 1/2	3x3x3/8	3/4"	4 3/4"
2 1/2"	3x3*	3x3x3/8	3/4"	4 3/4"

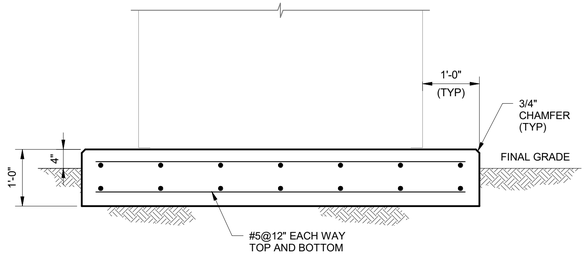
* TRIM AND BEVEL UPSTANDING LEG TO FIT

NOTES:

1. ALL GRATING SUPPORTED ON CONCRETE SHALL HAVE AN EMBEDDED ANGLE RECESSED AS SHOWN UNLESS NOTED OTHERWISE. GRATING SUPPORTED BY THE FACE MOUNTED ANGLE SHALL BE USED WHERE THE CONCRETE EXTENDS ABOVE THE TOP OF THE GRATING OR AT EXISTING STRUCTURES.
2. WHERE GRATING IS REQUIRED TO BE STAINLESS STEEL, SUPPORT ANGLES SHALL ALSO BE STAINLESS STEEL.
3. PROVIDE GRATING FASTENERS TO SUPPORT ANGLES MINIMUM (4) PER PANEL. SEE DETAIL C/S-06.

A METAL GRATING SUPPORT

No Scale

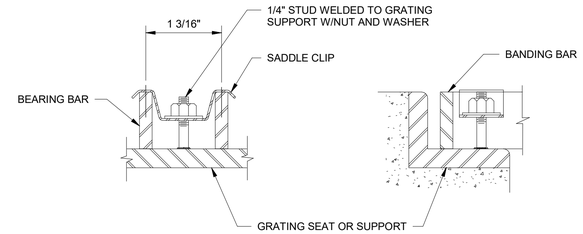


NOTE:

1. FOUNDATION DIMENSIONS DETERMINED BY EQUIPMENT FURNISHED AND EQUIPMENT ANCHORAGE EDGE DISTANCE REQUIREMENTS.

B EXTERIOR EQUIPMENT FOUNDATION

Scale: 3/4" = 1'-0"

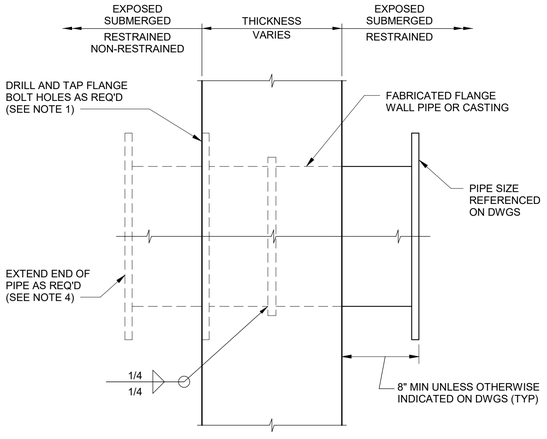


NOTES:

1. PROVIDE 4 CLIPS PER GRATING PANEL, APPROX 4" FROM PANEL\ CORNERS. MAXIMUM CLIP SPACING AT 36" OC.
2. STUD, NUT, WASHER AND CLIP TO BE THE SAME MATERIAL AS THE GRATING EXCEPT FOR ALUMINUM USE SS.
3. AT FRP GRATING USE 1/4" FRP ALL TREAD BOLTS AND ADHESIVE ANCHORS AS APPROPRIATE.

C GRATING FASTENER

No Scale



NOTES:

1. WALL PIPE MATERIAL SHALL BE DUCTILE IRON, STEEL OR AS INDICATED ON THE DRAWINGS. STEEL PIPE SHALL BE SCHEDULE 40 FOR PIPE 20 INCHES AND SMALLER, 3/8" FOR PIPE LARGER THAN 20", AND COATINGS SAME AS CONNECTING PIPE.
2. IF CONNECTING STEEL PIPE THICKNESS IS GREATER THAN 3/8", STEEL WALL PIPE THICKNESS SHALL BE INCREASED TO MATCH CONNECTING PIPE.
3. ANNULAR COLLAR SHALL BE SAME MATERIAL AS PIPE, 1/4" X 2" FOR PIPE 20" AND SMALLER, AND 3/8" X 3" FOR PIPE LARGER THAN 20".
4. WALL PIPE MAY BE FLUSH WITH FACE OF WALL OR EXTENDED WITH END AS REQUIRED OR INDICATED ON DRAWINGS.
5. WALL PIPE SHALL BE ORIENTED SO THAT THE BOLT HOLES STRADDLE THE TOP CENTERLINE.
6. VERIFY REBAR AVOIDS CONFLICT WITH PIPE WALL AND FLANGE.

D FLANGED WALL PIPE

Scale: 12" = 1'-0"

12" 6" 0' 1' 2' 3'

3/4" = 1'-0"

90%- NOT FOR CONSTRUCTION

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DESIGNED BY SD	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
CHECKED BY ML						

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: STANDARD STRUCTURAL DETAILS 2

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

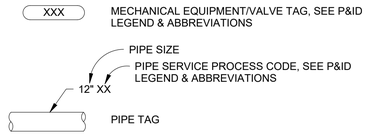
SHEET: S-06

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DWG. NO.

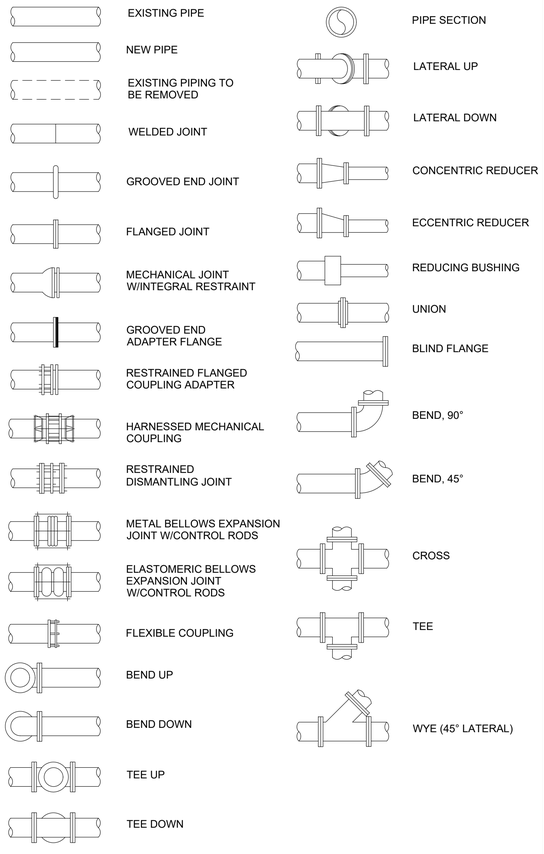
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REVIT VERSION: 2024
D11000

PIPE, EQUIPMENT & VALVE TAG LEGEND

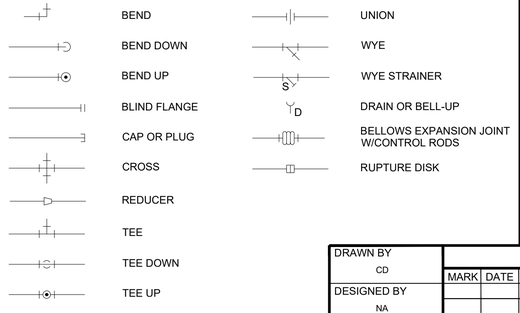


PIPE & FITTINGS SYMBOL LEGEND

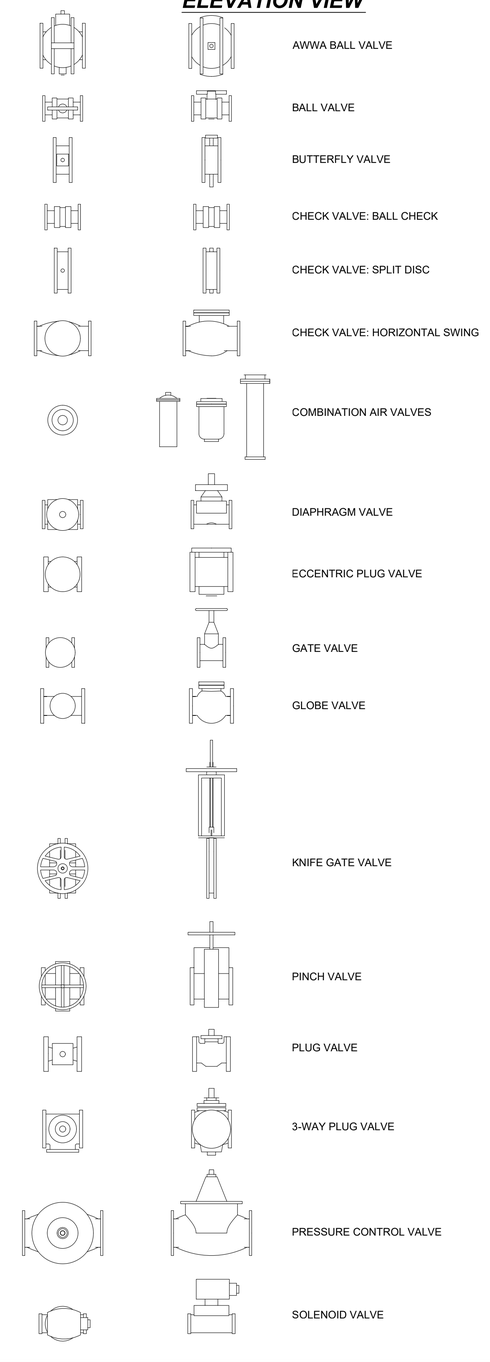
DOUBLE LINE



SINGLE LINE



VALVE SYMBOL LEGEND



GENERAL PROCESS MECHANICAL NOTES

1. LEGENDS SHOWN IN THIS DRAWING ARE BASED ON A TEMPLATE THAT IS NOT PROJECT SPECIFIC. SOME LEGEND SYMBOLS ARE NOT USED ON THIS PROJECT, BUT ARE SHOWN TO PROVIDE A DICTIONARY FOR SYMBOLS THAT MAY ALSO BE USED DURING THE PROJECT CONSTRUCTION PHASE.
2. FOR PROCESS MECHANICAL ABBREVIATIONS, REFER TO GENERAL ABBREVIATIONS.
3. REFER TO THE P&ID LEGEND AND ABBREVIATIONS FOR SINGLE-LINE VALVE, GATE, ACTUATOR, FITTING, EQUIPMENT, AND OTHER SYMBOLS.
4. FITTING TYPES IN THE LEGEND ON THIS SHEET SHOW FLANGED END CONNECTIONS. FITTINGS FOR OTHER END CONNECTION TYPES ARE SIMILAR.
5. VALVE TYPES IN THE LEGENDON THIS SHEET REPRESENT THE TYPICAL APPEARANCE FOR EACH TYPE OF VALVE. THE ACTUAL VALVES USED FOR THIS PROJECT MAY VARY IN APPEARANCE.
6. LAY PIPE TO UNIFORM GRADE BETWEEN INDICATED ELEVATION POINTS.
7. SIZE OF FITTINGS SHOWN ON DRAWINGS SHALL MATCH CONNECTING PIPING, UNLESS OTHERWISE INDICATED. TYPE OF JOINT AND FITTING MATERIAL SHALL BE THE SAME AS CONNECTING PIPING.
8. ALL REQUIRED HANGERS, SUPPORTS, BRACES, INSERTS, AND ACCESSORIES ARE NOT SHOWN ON THE DRAWINGS. PIPE SUPPORTS FOR 12-INCH DIAMETER AND SMALLER PIPES SHALL BE DESIGNED AND FURNISHED BY THE CONTRACTOR AS SPECIFIED.
9. ALL PRESSURIZED OR SURCHARGED PIPELINES, PIPE FITTINGS, COUPLINGS, JOINTS, EXPANSION JOINTS, TANK CONNECTIONS, AND CHANNEL CONNECTIONS SHALL BE PROVIDED WITH THRUST RESTRAINT BASED ON SPECIFIED PRESSURES AND TEMPERATURES.
10. NUMBER AND LOCATION OF UNIONS AND COUPLINGS SHOWN ON DRAWINGS IS ONLY APPROXIMATE. CONTRACTOR SHALL PROVIDE ALL UNIONS AND COUPLINGS REQUIRED BY THE SPECIFICATIONS AND AS NECESSARY TO FACILITATE CONVENIENT REMOVAL OF VALVES AND MECHANICAL EQUIPMENT.
11. WHERE A GROOVED END JOINT IS SHOWN,IT SHALL BE THE RIGID JOINT TYPE,UNLESS OTHERWISE SPECIFIED. WHERE A FLANGED COUPLING ADAPTER IS SHOWN, A STANDARD FLANGE SHALL BE JOINED TO THE COUPLING ADAPTER.
12. CONTRACTOR SHALL ORIENT VALVES AS SPECIFIED.

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DESIGNED BY: NA	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED
CHECKED BY: RK						

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

EATON WASH STORMWATER CAPTURE PROJECT

SHEET TITLE: MECHANICAL LEGENDS AND ABBREVIATIONS

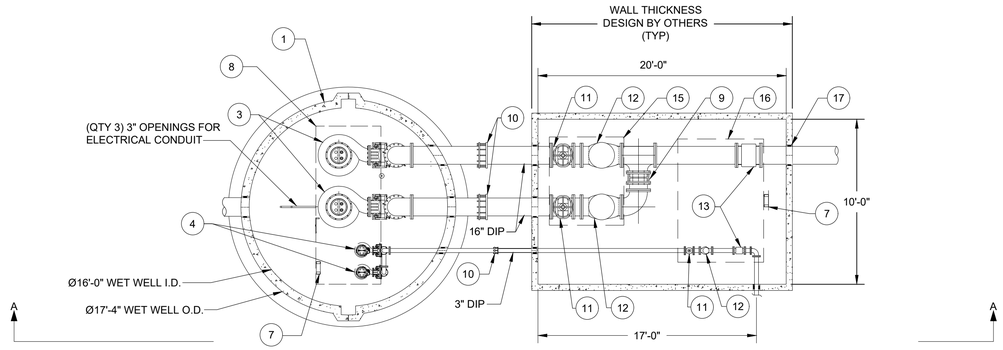
SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXXX

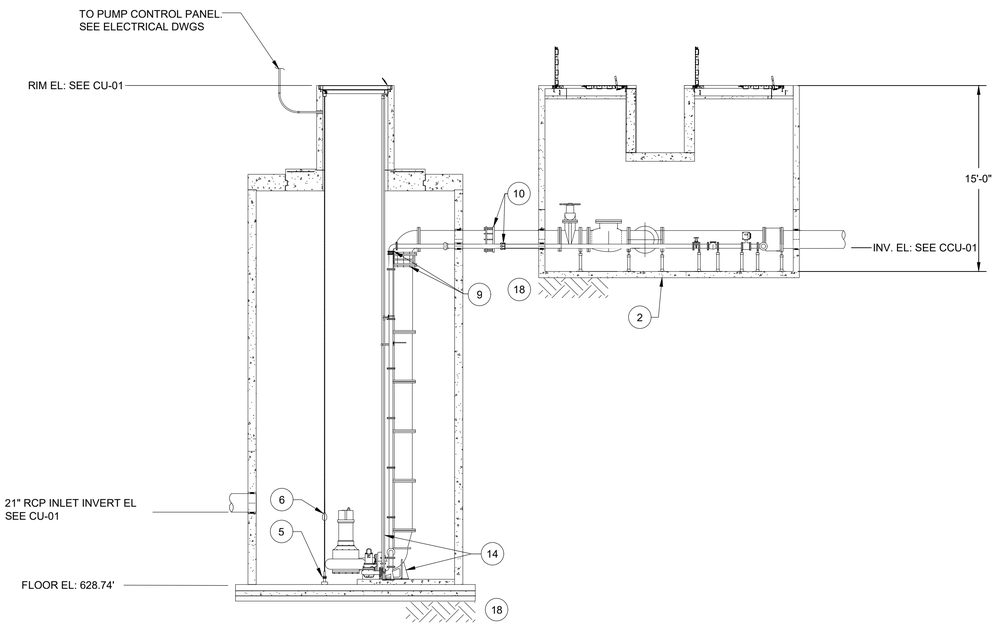
SHEET M-01

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DWG. NO.



PLAN VIEW
NTS



SECTION A-A
NTS

NOTES

1. PACKAGED PUMP STATION AND UTILITY VAULT SHALL BE PROVIDED IN ACCORDANCE WITH SPECIFICATION SECTION 33 32 13.
2. PIPE SUPPORTS SHOWN ARE ILLUSTRATIVE. ALL PIPE SUPPORTS NOT SHOWN. PIPE SUPPORTS FOR EQUIPMENT AND PIPING LOCATED WITHIN WET WELL AND UTILITY VAULT SHALL BE DESIGNED BY VENDOR. VENDOR SHALL PROVIDE CALCULATIONS STAMPED BY CA LICENSED STRUCTURAL ENGINEER.

CONSTRUCTION NOTES

1	PRECAST CONCRETE WET WELL STRUCTURE.
2	PRECAST CONCRETE UTILITY VAULT STRUCTURE.
3	2,250 SUBMERSIBLE GPM PUMP (TYP OF 2)
4	75 SUBMERSIBLE GPM PUMP
5	PRESSURE LEVEL TRANSMITTER
6	FLOAT SWITCH (TYP OF 4)
7	ACCESS LADDER
8	TRIPLE DOOR ACCESS HATCH WITH 63" X 153" ECCENTRIC CLEAR OPENING.
9	RESTRAINED DISMANTLING JOINT
10	FLEXIBLE COUPLING
11	GATE VALVE
12	CHECK VALVE
13	MAGNETIC FLOW METER
14	PUMP LIFT PACKAGE AND GUIDE RAILS
15	DOUBLE DOOR ACCESS HATCH WITH 72" X 84" ECCENTRIC CLEAR OPENING
16	DOUBLE DOOR ACCESS HATCH WITH 72" X 84" ECCENTRIC CLEAR OPENING
17	RUBBER ANNULAR SEALING DEVICE (TYP ALL WALL PENETRATIONS). SHALL BE "GPT LINK - SEAL", INSULATING TYPE WITH MODULAR RUBBER SEALING ELEMENTS, NONMETALLIC PRESSURE PLATES, AND STAINLESS STEEL NUTS AND BOLTS, OR EQUAL.
18	SUBGRADE AND COMPACTION PER GEOTECHNICAL RECOMMENDATIONS

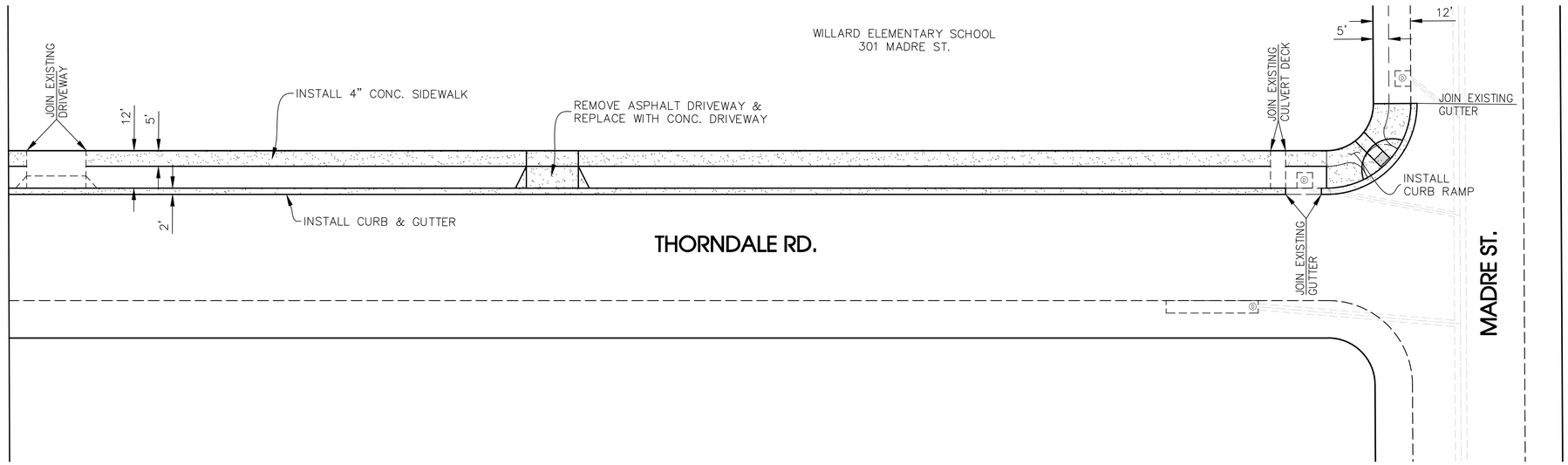
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DESIGNED BY NA	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	EATON WASH STORMWATER CAPTURE PROJECT
CHECKED BY RK							SHEET TITLE PUMP STATION PLAN AND SECTION
							SCALE AS SHOWN / ACCOUNT NUMBER XXXXXX

SHEET M-02
110 OF 111
DWG. NO.

SUBMITTED

TIFFINY CHEN



REMOVAL NOTES:

1. REMOVE EXISTING LANDSCAPING
2. REMOVE EXISTING ASPHALT DRIVEWAY
3. REMOVE EXISTING CURB RAMP

CONSTRUCTION NOTES:

1. INSTALL 4" THICK CONCRETE SIDEWALK PER CITY OF PASADENA STANDARD S-421
2. INSTALL CURB & GUTTER PER CITY OF PASADENA STANDARD S-406
3. INSTALL CONCRETE DRIVEWAY PER CITY OF PASADENA STANDARD S-403
4. INSTALL CURB RAMP PER CITY OF PASADENA STANDARD S-414

PROJECT ENGINEER

DATE

FIELD BOOK NO. NONE

DRAWN BY: MARCOS TIEMANN

DESIGNED BY: BERNIE NAVARRETE

CHECKED BY: TIFFINY CHEN

REVISIONS

MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED
		AS BUILT			

CITY OF PASADENA—DEPARTMENT OF PUBLIC WORKS

PROJECT: THORNDALE ROAD SIDEWALK IMPROVEMENTS

LIMITS: WEST END TO MADRE STREET

SCALE: AS SHOWN

ACCOUNT NUMBER: XXXXX

SHEET 2 OF 2

DWG. NO. 6891

Date: Jul. 2, 25 / \\PW-ENG-CS\ENG\PLAN_PROFILE_DWGS\6000-6999\6891\6891-02.DWG