

PACOIMA WASH
BIKEWAY

FOURTH STREET (BRADLEY AVE.) TO EIGHTH STREET (EIGHTH ST. NATURAL PARK)
100% CONSTRUCTION DOCUMENTS

FOR THE
MOUNTAINS RECREATION AND CONSERVATION AUTHORITY (MRCA)
570 W. AVE 26 STE. 100, LOS ANGELES, CA 90065

GENERAL NOTES

1. INSTALL ALL IMPROVEMENTS IN ACCORDANCE WITH CITY OF SAN FERNANDO, AND COUNTY OF LOS ANGELES REQUIREMENTS. IN CASE OF DISCREPANCY BETWEEN THESE PLANS AND THE CITY OF SAN FERNANDO, AND COUNTY OF LOS ANGELES REQUIREMENTS, THE MOST STRINGENT REQUIREMENTS WILL APPLY.
2. A VISIT TO THE SITE IS REQUIRED. VERIFY ALL CONDITIONS PRIOR TO SUBMITTING A PROPOSAL OF COST FOR CONSTRUCTION.
3. REVIEW THESE PLANS AND NOTES COMPLETELY. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT IMMEDIATELY UPON DISCOVERY.
4. EXTRA WORK TO BE APPROVED IN WRITING BY THE OWNER PRIOR TO COMMENCEMENT OF WORK.
5. IT IS THE RESPONSIBILITY OF THE SUB-CONTRACTORS TO FAMILIARIZE THEMSELVES WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, UTILITIES, SEWERS, WATER LINES, ETC. COORDINATE WORK WITH OTHER SUB-CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES UNDER PAVING, ELECTRICAL CONNECTIONS, WATER HOOK-UPS, ETC.
6. REFER TO GEOTECH REPORT WHEN ASSESSING PROJECT DRAWINGS FOR THE FOLLOWING DOCUMENTS.
7. ALL REQUIREMENTS OF THE 2016 CALIFORNIA BUILDING CODE SHALL APPLY TO THE WORK SPECIFIED HEREIN UNLESS OTHERWISE MODIFIED BY THESE DOCUMENTS.
8. OBTAIN ALL PERMITS REQUIRED TO COMPLETE THE WORK SPECIFIED PRIOR TO COMMENCEMENT OF WORK.
9. BEFORE COMMENCING ANY WORK, OBTAIN AN UNDERGROUND SERVICE I.D. BY CALLING DIG-ALERT AT 1-800-227-2600 OR 811 TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION.
10. CONTRACTOR TO COORDINATE A PRE-CONSTRUCTION MEETING ON SITE TWO (2) WORKING DAYS PRIOR TO START OF CONSTRUCTION. NOTIFY OWNER, LANDSCAPE ARCHITECT, AND ALL SUB-CONTRACTORS.
11. SUBMIT REQUESTS FOR MEETINGS, OBSERVATIONS, AND APPROVALS BY THE LANDSCAPE ARCHITECT TWO (2) WORKING DAYS PRIOR TO THE DATE AND TIME PROPOSED.
12. THE PREFAB TRUSS BRIDGE TO BE A DEFERRED SUBMITTAL AND THE USE OF IT WILL BE WITHHELD UNTIL PLANS, CALCS, & REVIEW ARE PERMITTED, COMPLETED AND FINALED.
13. OBTAIN CITY OF SAN FERNANDO, CITY OF LOS ANGELES, OR COUNTY OF LOS ANGELES INSPECTOR'S AND LANDSCAPE ARCHITECT'S REVIEW AND APPROVAL OF WORK IN PROGRESS AT VARIOUS TIMES DURING CONSTRUCTION. THE FOLLOWING REVIEWS/MEETINGS ARE MANDATORY. PROVIDE TWO (2) WORKING DAYS NOTICE FOR EACH REQUESTED VISIT.
 - *PRE-JOB CONFERENCE
 - *CONSTRUCTION STAKING
 - *MAIN LINE PRESSURE TEST AND TRENCH DEPTHS PRIOR TO BACKFILL OF TRENCHES
 - *COVERAGE TEST UPON COMPLETION OF SPRINKLER INSTALLATION
 - *FINAL GRADING REVIEW
 - *PLANT MATERIAL LOCATION REVIEW
 - *PLANT MATERIAL APPEARANCE AND QUALITY REVIEW
 - *SOIL PREPARATION AND PLANTING INSTALLATION METHODS
 - *FINAL WALK THROUGH (AT COMPLETION OF PLANTING INSTALLATION)
 - *FINAL WALK THROUGH (AT COMPLETION OF MAINTENANCE PERIOD)

DIRECT ANY QUESTIONS REGARDING THESE PLANS TO:
Mia Lehrer + Associates
185 S. Myers St., Los Angeles, CA 90033
213-384-3844

ATTN: Jeff Hutchins Jeff@mlagreen.com

OWNER/CLIENT

Mountains Recreation and Conservation Authority (MRCA)
570 W. Ave 26 Ste.100,
Los Angeles, CA
Phone: 323-221-9944 x185
Fax: 323-441-8691
Contact: Liz Jennings, Project Manager

LANDSCAPE ARCHITECT

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CIVIL and STRUCTURAL ENGINEER

TETRA TECH
17885 Von Karman, Suite 500
Irvine, CA 92614
949.809.5198
949.809.5010
Contact: Joseph Conroy, Project Manager

L0.00 COVER SHEET
G-001 TITLE SHEET
G-002 GENERAL NOTES

C-001 TYPICAL SECTIONS
C-101-110 PLAN & PROFILE
C-500 DRAINAGE DETAILS

S-001 GENERAL STRUCTURAL PLAN
S-101 PEDESTRIAN BRIDGE
S-501-504 DETAILS

L1.00 CONSTRUCTION LEGEND
L1.01-L1.06 CONSTRUCTION PLAN
L2.01 CONSTRUCTION DETAILS
L2.02 CONSTRUCTION DETAILS

Project Title:
Pacoima Wash
Bikeway

BRADLEY AVE TO PACOIMA
WASH NATURAL PARK

ML | A

landscape architecture | urban design | planning

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REVISIONS:

THIS DRAWING IS AN INSTRUMENT OF SERVICE OF THE PROPERTY OF THE LANDSCAPE ARCHITECT AND NOT TO BE REPRODUCED WITHOUT THE LANDSCAPE ARCHITECT'S PERMISSION AND UNDER THE SUPERVISION OF THE LANDSCAPE ARCHITECT. ALL DESIGN AND OTHER INFORMATION SHOWN ON THIS DRAWING ARE FOR USE ON THE SPECIFIED PROJECT ONLY AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE LANDSCAPE ARCHITECT'S PERMISSION.

WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THE LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWING. EXISTING CONDITIONS AND LOCATIONS OF UTILITIES HAVE NOT BEEN VERIFIED INDEPENDENTLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR BEFORE BEING BOUND TO DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND SUBMITTALS REQUIRED FOR THIS PROJECT. THESE DRAWINGS DO NOT INCLUDE MECHANICAL, ELECTRICAL, ENGINEERING OR OTHER SERVICES AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

SHOP DRAWINGS MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR REVIEW BEFORE PROCEEDING WITH FABRICATION.



Sheet Title
COVER SHEET

Date

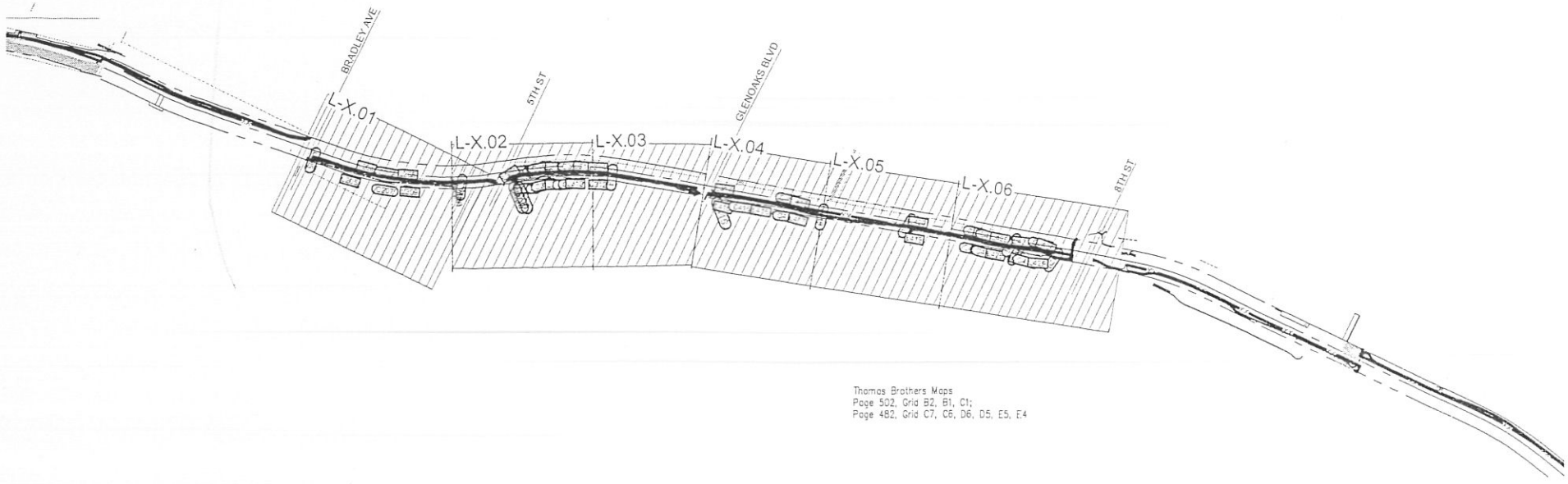
9/6/17

Project No

PAC2014

Sheet Number

L-0.00



Thomas Brothers Maps
Page 502, Grid B2, B1, C1;
Page 482, Grid C7, C6, D6, D5, E5, E4

KEY MAP



Job No. 7615, Plan No. P-737

Federal Project No. ATPL-5202(020)

PACOIMA WASH BIKEWAY

NOTICE TO CONTRACTORS

1. SPECIFICATIONS: ALL WORK SHALL CONFORM TO THE LATEST EDITION AND SUPPLEMENTS OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

2. PLAN REFERENCES: THIS IMPROVEMENT CONSISTS OF WORK CALLED FOR ONLY ON THIS PLAN.

3. STANDARD PLANS FOR THIS PROJECT: SEE SHEET G-002

4. INSPECTION: ALL WORK AND MATERIAL ARE SUBJECT TO INSPECTION BY THE CITY.

5. THE CONTRACTOR SHALL OBTAIN A USA INQUIRY IDENTIFICATION NUMBER PER SECTION 5-1 OF THE STANDARD SPECIFICATIONS 48 HOURS PRIOR TO CONSTRUCTION. PHONE (800) 227-2600 OR 811.

6. REASONABLE NOTICE SHALL BE GIVEN TO ADJACENT OWNERS OR OCCUPANTS OF THE PROPERTIES FRONTING THIS IMPROVEMENT PER PUBLIC INFORMATION PLAN.

7. THE CONTRACTOR SHALL REESTABLISH ALL PERTINENT SURVEY AS PER SSPWC 2-9.1.

8. THE CONTRACTOR SHALL PROVIDE AN ALTERNATIVE ACCESSIBLE ROUTE FOR DISABLED PEDESTRIANS WHENEVER AN EXISTING ROUTE IS BLOCKED DUE TO SIDEWALK OR ROADWAY CONSTRUCTION. THE ALTERNATIVE ROUTE SHALL BE PROVIDED AT ALL TIMES EXCEPT AS APPROVED BY THE INSPECTOR OR ENGINEER. THE FOLLOWING TEMPORARY ALTERNATIVES MAY BE EMPLOYED, SUBJECT TO PRIOR APPROVAL BY THE INSPECTOR OR ENGINEER ON A SPECIFIC LOCATION BASIS.

A. PROVIDE A MINIMUM 5-FOOT WIDE WALK.

B. PROVIDE TEMPORARY SIGNING WITH A DISABLED ACCESS LOGO POINTING TO AN ALTERNATIVE ACCESSIBLE ROUTE WITHIN 300 FEET.

C. A 5-FOOT WIDE CLEAR WALKWAY IN A PARKING OR CLOSED CURB LANE, CORDONED OFF ON THE STREET SIDE WITH BRIGHTLY COLORED PLASTIC TAPE AND 'CANDLESTICK' DELINEATORS.

D. TEMPORARY AC CURB RAMPS IN A PARKING OR CLOSED CURB LANE NEXT TO THE CURB. THEY SHALL BE 4-FEET WIDE, PARALLEL TO THE STREET, WITH A 5-FOOT LEVEL CLEAR LANDING AT THE TOP AND A MAXIMUM RAMP SLOPE OF 1:12. USE PLASTIC TAPE AND 'CANDLESTICK' DELINEATORS TO BLOCK OFF THE STREET SIDES (2) OF THE RAMP.

E. MOVABLE WOODEN CURB RAMPS AS IN "D" ABOVE SHALL HAVE WOODEN OR METAL HAND RAILS ON THE NONRAMP STREET SIDES.

F. OTHER TEMPORARY ARRANGEMENTS AS THE INSPECTOR OR ENGINEER MAY AUTHORIZE.

9. PAVING: PAVING OR ROADWAY AREAS SHALL BE WITHHELD UNTIL CONTEMPLATED UTILITY CHANGES OR INSTALLATIONS HAVE BEEN MADE UNDER CITY PERMIT. FINAL AC PAVING SHALL NOT BE PLACED UNTIL ALL AC BASE IS PLACED.

10. LIMITS OF COLDPLANE AND OVERLAY TO BE DETERMINED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION.

11. TEMPORARY AC PVMT SHALL BE PLACED ADJACENT TO ALL CONCRETE EDGES AND OTHER ROUGH AREAS WITHIN THE AREA OF REMOVAL, SO AS TO PROVIDE A SMOOTH SURFACE FOR VEHICULAR TRAFFIC.

12. CURB AND GUTTERS:

A. REPAIR AND/OR REPLACE ANY EXISTING BROKEN OR OFF GRADE CONCRETE CURB, GUTTER, SIDEWALK, ALLEY OR STREET PAVEMENT IMMEDIATELY ADJACENT TO OR WITHIN THE AREA OF THIS IMPROVEMENT TO THE SATISFACTION OF THE CITY ENGINEER.

B. CONSTRUCTION STAKES FOR CURB AND LONGITUDINAL GUTTER, WITH GRADE LESS THAN 0.5% SHALL BE SET AT 12.5 FEET ON CENTER.

13. IN ADDITION TO SIGNS REQUIRED BY THE PROVISIONS OF THE "WORK AREA TRAFFIC CONTROL HANDBOOK" 2012 EDITION OR LATEST EDITION, AND APPROVED SITE SPECIFIC WORKSITE TRAFFIC CONTROL PLANS, THE CONTRACTOR SHALL FURNISH AND POST "ADVANCED NOTICE" CONSTRUCTION SIGNS AS PART OF THIS PROJECT IN ACCORDANCE WITH STANDARD PLAN S-791-1. TRAFFIC CONTROL SIGNS NEED TO BE COORDINATED THROUGH LADOT BEFORE INSTALLATION.

14. REMOVALS: REMOVE EXISTING IMPROVEMENTS THAT INTERFERE WITH THE CONSTRUCTION OF THIS PROJECT AND COORDINATE WITH ALL OWNERS OF EXISTING FACILITIES.

15. CONTACT "UNDERGROUND SERVICE ALERT" BEFORE COMMENCING ANY EXCAVATION. THE CONTRACTOR SHALL OBTAIN UNDERGROUND SERVICE ALERT I.D. NUMBER BY CALLING 1-800-227-2600. TWO WORKING DAYS SHALL BE ALLOWED AFTER THE I.D. NUMBER IS OBTAINED AND BEFORE THE EXCAVATION WORK IS STARTED SO THAT UTILITY OWNERS CAN BE NOTIFIED. THE I.D. NUMBER MUST BE REPORTED TO THE CITY

16. PRIOR TO WORKING WITHIN THE PUBLIC RIGHT-OF-WAY, NOTIFY THE CITY FOR APPROVAL TO CLOSE TRAFFIC LANES AND/OR SIDEWALKS. THE CONTRACTOR WILL BE REQUIRED TO MEET WITH THE CITY TO DETERMINE THE NEED FOR WORKSITE TRAFFIC CONTROLS PER MUTCD AND/OR SITE SPECIFIC WORKSITE TRAFFIC CONTROL PLANS AND DETOUR PLANS. HOURS AND DURATION OF TRAFFIC LANE CLOSURES SHALL COMPLY WITH TRAFFIC LANE REQUIREMENTS PREVIOUSLY ESTABLISHED AND PROVIDED BY THE CITY

17. THE CONTRACTOR SHALL PROTECT ALL EXISTING DRAINAGE STRUCTURES DURING CONSTRUCTION AND KEEP THEM FREE OF CONCRETE, TRASH, AND OTHER CONSTRUCTION DEBRIS. THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE PREPARED BY THE CONTRACTOR, AND REVIEWED AND APPROVED BY THE CITY.

18. ALL EXISTING MANHOLES WITHIN THE WORK ARE WILL REMAIN IN OPERATION AFTER CONSTRUCTION SHALL BE ADJUSTED TO MATCH FINISHED GRADE.

19. SURVEY BENCH MARKS:

A. B.M NO. 03-06950, ELEV. 1130.43 YEAR 1980
SPK NE CURB GLENOAKS BLVD; 3FT NW OF BCR NW OF MACLAY ST.

B. B.M NO. 03-05030, ELEV. 1062.878 YEAR 1980
WIRE SPK IN SW CURB BRADLEY AVE; 3 FT NW OF BC CURB RET NW OF VAUGHN ST.

20. SPECIAL NOTE: THE CONTRACTOR SHALL HAVE GRADE SHEETS AND DESIGN CHANGES APPROVED BY THE PRIVATE ENGINEER OF RECORD

21. PROPOSED CONCRETE AND ASPHALT PAVEMENT IMPROVEMENTS SHALL JOIN TO EXISTING BY SAWCUTTING.

22. THE FACT THAT ANY PIPE OR UNDERGROUND FACILITY IS NOT SHOWN DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO ASCERTAIN THE EXISTENCE OF ANY STRUCTURE THAT MAY BE SUBJECT TO DAMAGE BY ITS OPERATIONS. IN CASE OF AN EMERGENCY OR DAMAGE TO A UTILITY, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CORRESPONDING UTILITY COMPANY FOR REPAIR. IF IT IS NECESSARY FOR THE CITY TO REPAIR SUCH DAMAGE, THE CONTRACTOR SHALL BE BILLED FOR AND PAY THE ACTUAL COST TO THE CITY FOR LABOR AND MATERIALS PLUS ADMINISTRATIVE COSTS.

23. THE CONTRACTOR SHALL VISIT THE PROJECT SITE WHEN PREPARING A BID FOR THE PROJECT. THE REMOVALS OF ALL ITEMS WHICH OBVIOUSLY MUST BE REMOVED, BUT MAY NOT BE SHOWN ON THE PLANS TO BE REMOVED, SHALL BE INCLUDED IN THE BID ITEM FOR CLEARING AND GRUBBING.

24. SIGNS AND MARKINGS MAINTENANCE: THE CONTRACTOR SHALL RESTORE ALL DAMAGED OR REMOVED PAVEMENT MARKINGS, MISSING OR DAMAGED SIGNS, CURB MARKINGS, STAMPED CROSSWALKS, PARKING METERS, ETC..

25. BUS LINE NOTIFICATIONS: THE CONTRACTOR SHALL CONTACT BUS LINE OPERATIONS AT LEAST TWO WEEKS IN ADVANCE OF ANY WORK THAT AFFECTS BUS ROUTES OR BUS STOPS. FOR BUS RE-ROUTES OR AFFECTED BUS STOPS, PLEASE CONTACT MTA, DON BAUMGARTNER (213) 922-4632.

26. THE CONTRACTOR SHALL EXERCISE CARE THAT NO EXCAVATED MATERIAL OR DEBRIS RESULTING FROM HIS OR HER OPERATIONS ARE DEPOSITED INTO THE PACOIMA WASH CHANNEL WATER. ANY SUCH SLOUGHED MATERIAL OR DEBRIS SHALL BE REMOVED AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE. EXISTING TREES AND SHRUBBERY WHEN NOT IN DIRECT CONFLICT WITH CONSTRUCTION ACTIVITIES SHALL BE PROTECTED, UNLESS OTHERWISE NOTED.

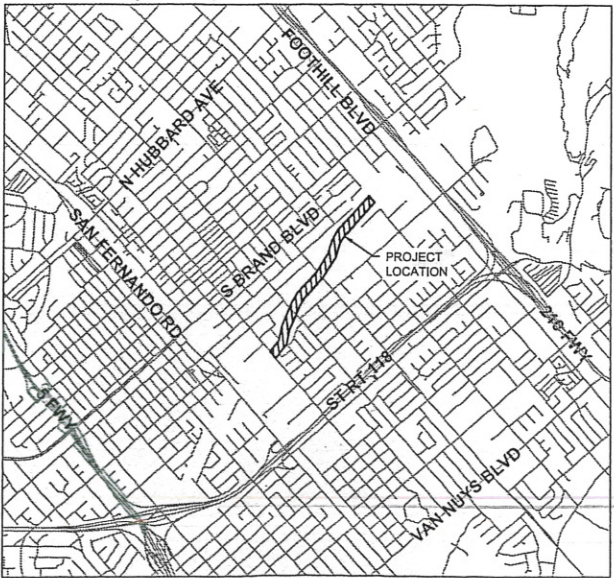
27. CONSTRUCTION IN CLOSE PROXIMITY TO HIGH-VOLTAGE OVERHEAD LINES SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST PROVISIONS OF ARTICLE 86, STAGE OF CALIFORNIA HIGH VOLTAGE ELECTRIC SAFETY ORDER.

28. ALL PROVISIONS OF THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT PERMIT SHALL BE COMPLIED WITH. THE CONTRACTOR SHALL NOT ENTER THE PACOIMA WASH CHANNEL AT ANY TIME DURING THE RAINY SEASON (OCTOBER 15TH THRU APRIL 15TH) WITHOUT PRIOR NOTICE AND AUTHORIZATION BY THE LOS ANGELES COUNTY ENGINEER.

29. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL RIGHTS TO USE PROPERTIES OUTSIDE THE PUBLIC RIGHT OF WAY AND TEMPORARY EASEMENTS SHOWN ON THESE PLANS WHICH HE DEEMS NECESSARY TO PERFORM ANY OF THE WORK UNDER THIS CONTRACT AT NO ADDITIONAL COST TO THE CITY

30. CONTRACTOR IS RESPONSIBLE FOR VERIFYING AMOUNT OF EARTHWORK.

IMPROVEMENTS NOT TO BE MAINTAINED BY LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS OR THE LOS ANGELES FLOOD CONTROL DISTRICT.



VICINITY MAP

THOMAS BROTHERS MAPS - PAGE 502, GRID B2, B1, C1; PAGE 482, GRID C7, C6, D6, D5, E5, E4
NOT TO SCALE

PROJECT TEAM

CITY OF SAN FERNANDO

PROJECT MANAGEMENT: DEPARTMENT OF PUBLIC WORKS
PATSY OROZCO

MOUNTAINS RECREATION & CONSERVATION AUTHORITY

PROJECT MANAGEMENT: SOFIA ALEMAN

CONSULTANTS

LANDSCAPE ARCHITECT: MIA LEHRER & ASSOCIATES
MATT ROMERO, ASLA
PROJECT MANAGER

ROADWAY/BIKEWAY/SURVEY/TRAFFIC: TETRA TECH
NATHAN SCHREINER, P.E.

GEOTECHNICAL: RT FRANKIAN & ASSOCIATES
ALAN RASPLICKA, P.E., G.E.



Know what's below.
Call before you dig.

LOS ANGELES COUNTY FLOOD CONTROL PERMIT

LACFCD PERMIT No. 2017-006569

REVIEWED BY:

APPROVED BY:

TETRA TECH



www.tetratech.com
17885 VON KARMAN AVE., SUITE 500
IRVINE, CA 92614
PHONE: 949.809.5000 FAX: 949.809.5006



SUBMITTED BY: MATTHEW BAUMGARTNER, DIRECTOR OF PW

DATE: 1/23/21

MARK	DATE	DESCRIPTION	BY

MOUNTAINS RECREATION AND CONSERVATION AUTHORITY
PACOIMA WASH BIKEWAY
LOS ANGELES COUNTY
TITLE SHEET

CITY OF SAN FERNANDO

Project No.: 135-60589-14001

Designed By:

Drawn By:

Checked By:

G-001

SHEET 1 OF 20

Bar Measures 1 inch

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CONSTRUCTION NOTES

- 4" ASPHALT CONCRETE PAVEMENT
- 8" CMB COMPACTED TO 95%
- 6' HIGH WELDED WIRE FENCE BY OTHERS
- PROTECT IN PLACE
- 6' DOUBLE SWING WELDED WIRE GATE BY OTHERS
- REMOVE EXISTING GATE
- RAMP
- BOLLARD BY OTHERS
- 8" CONC CURB A1-8 PER SPPWC STD PLAN 120-2
- 8" CONC CURB AND GUTTER PER SPPWC STD PLAN 120-2
- RETAINING WALL
- REMOVE EXISTING AC TO A DEPTH 8" BELOW EXISTING SURFACE
- CONCRETE HEADWALL AND WINGWALL. SEE DETAIL C-1 ON SHEET C-500
- BIOSWALE. SEE DETAIL C-6 ON SHEET C-500
- ROCK SLOPE PROTECTION. SEE DETAIL C-7 ON SHEET C-500
- PARKWAY DRAIN PER SPPWC STD PLAN 151-2

LEGEND

	EXISTING	PROPOSED
CENTER LINE	---	---
CUT/FILL LINE	---	---
CONTOUR	-- 1137 --	-- 1137 --
DIRECTION OF FLOW AND SLOPE	(2%)	2%
SIGN	+	+
FENCE	—x—	—xx—

ABBREVIATIONS

Δ	DELTA	GB	GRADE BREAK
AC	ASPHALT CONCRETE	HP	HIGH POINT
AGG	AGGREGATE	IN	INCH (INCHES)
APPROX	APPROXIMATELY	L	LENGTH
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	LOL	LAY OUT LINE
BC	BEGIN CURVE	LP	LOW POINT
BEG	BEGIN	MAX	MAXIMUM
BM	BENCHMARK	MIN	MINIMUM
C	CUT	NG	NATURAL GROUND
CFS	CUBIC FEET PER SECOND	OG	ORIGINAL GROUND
C	CENTERLINE OF ROADWAY	PC	POINT OF CURVATURE
CMB	CRUSHED MISCELLANEOUS BASE	PCC	PORTLAND CEMENT CONCRETE
CONC	CONCRETE	PROP.	PROPOSED
EC	END CURVE	PT	POINT OF TANGENCY
EG	EXISTING GROUND	PVC	POINT OF VERTICAL CURVATURE
ELEV	ELEVATION	PVI	POINT OF VERTICAL INFLECTION
EW	EDGE OF PAVEMENT	PVT	POINT OF VERTICAL TANGENCY
ET	ELECTRICAL TOWER	R	RADIUS
EX	EXISTING	ROW	RIGHT OF WAY
FG	FINISHED GRADE	R/W	RIGHT OF WAY
FL	FLOW LINE	SPPWC	STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION
FS	FINISHED SURFACE	STA	STATION
FT	FOOT (FEET)	STD	STANDARD
		TYP	TYPICAL
		VAR	VARIES
		W	WITH

GENERAL NOTES

- THE ENGINEER SHALL EXERCISE SUFFICIENT SUPERVISORY CONTROL DURING GRADING AND CONSTRUCTION TO ENSURE COMPLIANCE WITH THE APPROVED PLANS.
- THE SOILS ENGINEER MUST APPROVE ALL GRADING INCLUDING THE STABILITY OF ANY SLOPES CREATED, EXISTING, OR REMAINING. THE SOILS ENGINEER SHALL ALSO CERTIFY THAT THE REQUIRED INSPECTIONS AND TEST HAVE BEEN PERFORMED AND THAT SUCH TESTS COMPLY WITH THE CODE.
- NO WORK SHALL BE STARTED WITHOUT FIRST NOTIFYING THE CITY PROJECT MANAGER AT LEAST TWO WORKING DAYS IN ADVANCE.
- DUST SHALL BE CONTROLLED BY WATERING TO THE SATISFACTION OF THE CITY PROJECT MANAGER.
- ALL PUBLIC STREETS SHALL BE MAINTAINED FREE OF DUST AND MUD CAUSED BY GRADING OPERATIONS.
- CONTOURS SHOWN IN PARENTHESIS REPRESENT ORIGINAL GROUND.
- A COPY OF THE GRADING PERMIT AND APPROVED GRADING PLANS MUST BE IN THE POSSESSION OF AN ON-SITE FOREMAN OR SUPERINTENDENT AND AVAILABLE AT THE JOBSITE TRAILER AT ALL TIMES.
- ANY MODIFICATIONS OF, OR CHANGES TO, APPROVED GRADING PLANS MUST BE APPROVED BY THE CITY PROJECT MANAGER PRIOR TO IMPLEMENTATION IN THE FIELD.
- SEPARATE PLANS FOR TEMPORARY DRAINAGE AND EROSION CONTROL MEASURES TO BE USED DURING THE RAINY SEASON MUST BE SUBMITTED PRIOR TO OCTOBER 1. THE EROSION CONTROL DEVICES SHOWN ON SAID PLANS MUST BE INSTALLED BY NO LATER THAN OCTOBER 1 AND MAINTAINED IN OPERABLE CONDITION UNTIL APRIL 15 OF THE FOLLOWING YEAR. (17.25.030 U.D.C.) THIS WORK SHALL BE INCLUDED IN THE COST OF ALL SLOPES.
- THE FACES OF CUT AND FILL SLOPES SHALL BE PREPARED AND MAINTAINED TO CONTROL EROSION. THIS CONTROL MUST CONSIST OF JUTE NETTING AND EFFECTIVE PLANTING, OR OTHER DEVICES SATISFACTORY TO THE CITY PROJECT MANAGER. (17.28.020(A) U.D.C.)
- A PREVENTIVE PROGRAM TO PROTECT THE SLOPES FROM POTENTIAL DAMAGE FROM BURROWING RODENTS IS REQUIRED. OWNER TO INSPECT SLOPES PERIODICALLY FOR EVIDENCE OF BURROWING RODENTS AND AT FIRST EVIDENCE OF THEIR EXISTENCE SHALL EMPLOY AN EXTERMINATOR FOR THEIR REMOVAL. (17.28.020(E) U.D.C.)
- WHERE NECESSARY, CHECK DAMS, RIPRAP, OR OTHER DEVICES OR METHODS SHALL BE EMPLOYED FOR EROSION CONTROL. ALSO, JUTE NETTING SHALL BE IMMEDIATELY INSTALLED ON ANY SLOPES HAVING A VERTICAL HEIGHT OF FIVE FEET OR MORE AND STEEPER THAN 3:1 (H:V) TO MINIMIZE OR CONTROL EROSION PROBLEMS.
- ALL TRASH, RUBBLE, AND DEBRIS, INCLUDING BURIED TRASH, RUBBLE, AND DEBRIS, ENCOUNTERED WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF OFFSITE BY THE CONTRACTOR AT AN APPROVED LOCATION. CONTRACTOR SHALL PAY ALL ASSOCIATED DUMPING FEES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AT THE STAGING AND STORAGE AREA DURING CONSTRUCTION. TEMPORARY FENCING NOTED IN THE CONTRACTOR'S SITE SECURITY PLAN SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR DURING THE ENTIRE CONSTRUCTION OF THE PROJECT.
- THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS RELATED TO THE SAFETY OF PERSONNEL AND THE PUBLIC ON THE JOB SITE, INCLUDING APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS AND, IN PARTICULAR, THOSE DEALING WITH TRENCHING AND SHORING AS WELL AS USAGE EM 385-1-1.
- DURING THE COURSE OF ALL WORK ON THE PROJECT, THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR ALL JOB SITE CONDITIONS INCLUDING SAFETY OF ALL PERSONS AND SECURITY OF ALL PROPERTY. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE SKILLS AND ATTENTION UTILIZED WITHIN THE INDUSTRY. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THIS CONTRACT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE CITY AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE CITY OR ENGINEER.
- THE CONTRACTOR SHALL PROTECT ALL ADJACENT PROPERTY AND EXISTING AND NEW IMPROVEMENTS, AND SHALL PROVIDE POSITIVE CONTROL OF EARTH SPILLAGE, CONSTRUCTION WATER AND RUNOFF WATER FROM THE SITE.
- THE CONTRACTOR SHALL PERFORM EXCAVATION IN A SAFE CONDITION. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR SHORING, SHEETING, OR OTHER PROTECTIVE MEASURES TO PREVENT DAMAGE TO ADJACENT PROPERTIES, STRUCTURES OR UTILITY FACILITIES.
- IF UNANTICIPATED CONDITIONS ARE ENCOUNTERED DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY BRING THE CONDITION TO THE ATTENTION OF THE CITY PROJECT MANAGER.
- THE CONTRACTOR SHALL BE EXTRA CAUTIOUS WORKING IN THE VICINITY OF EXISTING CHANNEL. FOR THE PURPOSE OF SOIL COMPACTION, THE CONTRACTOR SHALL USE HAND HELD EQUIPMENT WHEN WORKING ADJACENT TO OR OVER THE CHANNEL IN ORDER TO NOT CAUSE ANY STRUCTURAL DAMAGE TO THE CHANNEL.
- PRIOR TO ANY CONSTRUCTION WORK, THE CURRENT CONDITION OF THE EXISTING CHANNEL SHALL BE INSPECTED AND DOCUMENTED. AFTER THE COMPLETION OF CONSTRUCTION, THE CHANNEL SHALL BE RE-INSPECTED AND MONITORED FOR THE POSSIBLE DAMAGES. IN THE EVENT THAT ANY DAMAGE IS IDENTIFIED AT ANY TIME, IMMEDIATE REPLACEMENT OR REPAIR TO THE SATISFACTION OF LACFPW WILL BE REQUIRED AT THE PERMITTEE'S EXPENSE.
- CITY OF SAN FERNANDO ACKNOWLEDGES THAT PACOIMA WASH FLOOD CONTROL CHANNEL IS A WORKING FLOOD CONTROL AND WATER CONSERVATION FACILITY, AND THE USE OF THE LACFPD'S RIGHT-OF-WAY FOR THE PROPOSED PROJECT SHALL NOT DECREASE THE CHANNEL'S CAPACITY, IMPOSE ANY ADDITIONAL REGULATORY BURDEN ON THE LACFPD, OR INTERFERE WITH LACFPD OR ITS CONTRACTORS' OPERATION AND MAINTENANCE ACTIVITIES OF THE CHANNEL AND ITS APPURTENANT STRUCTURES. THE CHANNEL ACCESS ROAD MUST REMAIN ACCESSIBLE TO LACFPD PERSONNEL AT ALL TIMES.
- THE PERMITTEE ACKNOWLEDGES THAT LACFPD PERFORMS PERIODIC MAINTENANCE ON AND WITHIN PACOIMA WASH. DURING WHICH SECTIONS OF THE PATH MAY NEED TO BE CLOSED TO FULFILL THESE MAINTENANCE FUNCTIONS. THE LACFPD AND LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS ARE NOT RESPONSIBLE FOR PROVIDING ALTERNATIVE BICYCLE/PEDESTRIAN ACCESS TO OR ALONG PACOIMA WASH.
- CITY OF SAN FERNANDO AND ITS CONTRACTORS ACKNOWLEDGE THAT DURING CONSTRUCTION OF THE PROJECT AND SUBSEQUENT MAINTENANCE OF THE PROPOSED FEATURES, NO EQUIPMENT OR PERSONNEL SHALL BE PRESENT IN THE CHANNEL DURING STORM SEASON. WORK MUST BE PERFORMED WITH A FIVE-DAY CLEAR WEATHER FORECAST AND ENTRY TO THE CHANNEL IS NOT PERMITTED DURING STORM EVENTS.
- CITY OF SAN FERNANDO AND ITS CONTRACTORS SHALL NOTIFY FLOOD MAINTENANCE DIVISION (HANSEN YARD) AT TELEPHONE (818) 896-0594 AND WATER RESOURCES DIVISION (OPERATIONS SECTION) AT TELEPHONE (626) 458-6177 AND PROVIDE THEM WITH A SCHEDULE OF ACTIVITIES AT LEAST 72 HOURS BEFORE STARTING ANY WORK UNDER THE PERMIT(S).
- CITY OF SAN FERNANDO SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL LOCAL, STATE AND FEDERAL LAWS, REGULATORY DOCUMENTATION, ENTITLEMENTS, AND COMPLIANCE IN ITS USE OF LACFPD'S RIGHT OF WAY, INCLUDING BUT NOT LIMITED TO THE OPERATION AND MAINTENANCE OF THE PROPOSED DEVICES INSTALLED WITHIN LACFPD'S RIGHT-OF-WAY. PLEASE NOTE LACFPD'S RIGHTS OF WAY FOR THE PACOIMA WASH WERE ACQUIRED ACROSS CERTAIN STRETCHES OF THE CHANNEL FOR THE PURPOSES OF THE U.S. ARMY CORPS OF ENGINEERS' CONSTRUCTION OF THE CHANNEL. THEREFORE, USE OF THIS LAND BY THE PERMITTEE AND HIS SUCCESSOR OPERATORS WILL NEED TO BE APPROVED BY THE CORPS, AS MAY ANY DESIGN PLANS OF THE PERMITTEE AND HIS SUCCESSOR OPERATORS FOR FEATURES THEY PROPOSE TO INSTALL ON THE PROPERTY.
- CITY OF SAN FERNANDO MUST COMPLY WITH ALL OCCUPATIONAL SAFETY AGENCY DIRECTIVES WHILE PERFORMING WORK WITHIN LACFPD RIGHT-OF-WAY.
- CITY OF SAN FERNANDO SHALL DEFEND AND HOLD THE LACFPD HARMLESS FOR ANY DAMAGES OR VIOLATION OF LOCAL, STATE AND FEDERAL LAWS THAT RESULT FROM ITS OR ITS CONTRACTORS' USE OF LACFPD'S RIGHT-OF-WAY.
- AN INDEMNIFICATION CLAUSE TO HOLD LACFPD HARMLESS IN THE EVENT OF ANY INCIDENTS SHALL BE ADDED TO THE LEASE AND PERMIT DOCUMENTS. IN THE EVENT THE PERMITTEE TRANSFERS OPERATION AND MAINTENANCE OF THE TRAIL TO ANOTHER ENTITY, THE PERMITTEE SHALL OBTAIN SUCCESSOR'S ACKNOWLEDGEMENT OF AND ITS AGREEMENT TO ABIDE BY THE CONDITIONS OF THIS LEASE/PERMIT PRIOR TO THE TRANSFER.
- PROTECT UTILITY WITHIN THE USACE RIGHT-OF-WAY.
- PROVISIONS SHALL BE MADE TO PREVENT DEBRIS FROM FALLING INTO THE CHANNEL DURING CONSTRUCTION.
- COMPACTION EQUIPMENT USED TO PLACE BACKFILL BEHIND CHANNEL WALL MUST NOT EXCEED 35,000 POUNDS INCLUDING DYNAMIC FORCES FROM VIBRATOR COMPACTOR.

- NO EQUIPMENT IN EXCESS OF H-10 HIGHWAY LOADING (AASHTO), AND NO STOCKPILING OF MATERIAL WILL BE PERMITTED ALONG THE CHANNEL WITHIN A DISTANCE OF WALL HEIGHT.
- NO EQUIPMENT IN EXCESS OF H-20 HIGHWAY LOADING WILL BE PERMITTED TO OPERATE ON THE INVERT OF THE CHANNEL. ONLY RUBBER-TIRED, LEGALLY LOADED EQUIPMENT SHALL BE OPERATED ON THE EXPOSED CHANNEL INVERT. IF STEEL CRAWLER TYPE EQUIPMENT IS USED, WOODEN MATTING SHALL BE PROVIDED OVER THE INVERT IN THE OPERATING AREA. LOADS FROM TRUCK VEHICLES SHALL NOT EXCEED 300PSF ON A SURFACE AT THE BOTTOM OF THE INVERT SLAB.

FILL NOTES

- ALL FILL SHALL BE COMPACTED TO THE FOLLOWING MINIMUM RELATIVE COMPACTION CRITERIA:
 - 90 PERCENT OF MAXIMUM DRY DENSITY WITHIN 40 FEET BELOW FINISH GRADE
 - 93 PERCENT OF MAXIMUM DRY DENSITY DEEPER THAN 40 FEET BELOW FINISH GRADE, UNLESS A LOWER RELATIVE COMPACTION (NOT LESS THAN 90 PERCENT OF MAXIMUM DRY DENSITY IS JUSTIFIED BY THE GEOTECHNICAL ENGINEER.
 - 95 PERCENT OF MAXIMUM DRY DENSITY IS REQUIRED ON ALL SLOPES GREATER THAN 2:1.THE RELATIVE COMPACTION SHALL BE DETERMINED BY ASTM SOIL COMPACTION TEST D1557-91, WHERE APPLICABLE; WHERE NOT APPLICABLE A TEST ACCEPTABLE TO THE CITY PROJECT MANAGER SHALL BE USED. (17.27.020(A) U.D.C.)
- FIELD DENSITY SHALL BE DETERMINED BY A METHOD ACCEPTABLE TO THE CITY PROJECT MANAGER. HOWEVER, A MINIMUM OF 10 PERCENT OF THE REQUIRED DENSITY TESTS SHALL BE OBTAINED BY THE SAND CONE METHOD (ASTM D1566). THE REQUIRED 10 PERCENT BY SAND CONE METHOD SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE DEPTHS AND LIMITS OF THE FILL.
- SUFFICIENT TESTS OF THE FILL SOILS SHALL BE MADE TO DETERMINE THE RELATIVE COMPACTION OF THE FILL IN ACCORDANCE WITH THE FOLLOWING MINIMUM GUIDELINES:
 - ONE TEST FOR EACH TWO-FOOT VERTICAL LIFT.
 - ONE TEST FOR EACH 1,000 CUBIC YARDS OF MATERIAL PLACED.
 - ONE TEST AT THE LOCATION OF THE FINAL FILL SLOPE FOR EACH BUILDING SITE(LOT) IN EACH FOUR-FOOT VERTICAL LIFT OR PORTION THEREOF.
 - ONE TEST IN THE VICINITY OF EACH BUILDING PAD FOR EACH FOUR-FOOT VERTICAL LIFT OR PORTION THEREOF.
 - ONE TEST AT THE LOCATION OF THE FINAL FILL SLOPE FOR EACH BUILDING SITE(LOT) PER SAND CONE TEST.SUFFICIENT TESTS OF FILL SOILS SHALL BE MADE TO VERIFY COMPLIANCE OF THE SOIL PROPERTIES WITH THE DESIGN REQUIREMENTS INCLUDING SOIL TYPES AND SHEAR STRENGTHS. THE RESULTS OF SUCH TESTING SHALL BE INCLUDED IN THE REPORTS REQUIRED BY SECTION 17.29.020(C) U.D.C.
- NO FILL SHALL BE PLACED UNTIL STRIPPING OF VEGETATION, REMOVAL OF UNSUITABLE SOILS, AND INSTALLATION OF SUBDRAINS (IF ANY) HAVE BEEN INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER. (17.27.020(B) U.D.C.)
- NO ROCK OR SIMILAR MATERIAL GREATER THAN 4 INCHES IN DIAMETER WILL BE PLACED IN THE FILL UNLESS RECOMMENDATIONS FOR SUCH PLACEMENT HAVE BEEN SUBMITTED BY THE GEOTECHNICAL ENGINEER AND APPROVED IN ADVANCE BY THE CITY PROJECT MANAGER. (17.27.020(D) U.D.C.)
- CONTINUOUS INSPECTION BY THE GEOTECHNICAL ENGINEER OR HIS RESPONSIBLE REPRESENTATIVE SHALL BE PROVIDED DURING ALL FILL PLACEMENT AND COMPACTION OPERATIONS WHERE FILLS HAVE A VERTICAL HEIGHT OR DEPTH GREATER THAN 30 FEET OR SLOPE SURFACE STEEPER THAN 2:1. (17.27.020(G) U.D.C.)
- CONTINUOUS INSPECTION BY THE GEOTECHNICAL ENGINEER OR HIS RESPONSIBLE REPRESENTATIVE SHALL BE PROVIDED DURING ALL SUBDRAIN INSTALLATIONS. (17.27.020(B) U.D.C.)
- FILL SLOPES IN EXCESS OF 2:1 STEEPNESS RATIO ARE TO BE CONSTRUCTED BY THE PLACEMENT OF SOIL AT SUFFICIENT DISTANCE BEYOND THE PROPOSED FINISH SLOPE TO ALLOW COMPACTION EQUIPMENT TO BE OPERATED AT THE OUTER LIMITS OF THE FINAL SLOPE SURFACE. THE EXCESS FILL IS TO BE REMOVED PRIOR TO COMPLETION OF ROUGH GRADING. (OTHER CONSTRUCTION PROCEDURES MAY BE USED WHEN IT IS DEMONSTRATED TO THE SATISFACTION OF THE CITY PROJECT MANAGER THAT THE ANGLE OF SLOPE, CONSTRUCTION METHOD AND OTHER FACTORS WILL HAVE EQUIVALENT EFFECT).
- THE GEOTECHNICAL ENGINEER SHALL PROVIDE SUFFICIENT INSPECTIONS DURING THE PREPARATION OF THE NATURAL GROUND AND THE PLACEMENT AND COMPACTION OF THE FILL TO BE SATISFIED THAT THE WORK IS BEING PERFORMED IN ACCORDANCE WITH THE PLAN AND APPLICABLE CODE REQUIREMENTS. (17.29.010(D) U.D.C.)
- THE GRADING CONTRACTOR SHALL SUBMIT THE STATEMENT REQUIRED BY SECTION 17.29.020 U.D.C. AT THE COMPLETION OF ROUGH GRADING.

INSPECTION NOTES

- THE CONTRACTOR SHALL NOTIFY THE CITY PROJECT MANAGER AT LEAST ONE WORKING DAY IN ADVANCE OF REQUIRED INSPECTIONS AT FOLLOWING STAGES OF THE WORK:
 - INITIAL, WHEN THE SITE HAS BEEN CLEARED OF VEGETATION AND UNAPPROVED FILL AND IT HAS BEEN SCARIFIED, BENCHED OR OTHERWISE PREPARED FOR FILL. NO FILL SHALL HAVE BEEN PLACED PRIOR TO THIS INSPECTION.
 - ROUGH, WHEN APPROXIMATE FINAL ELEVATIONS HAVE BEEN ESTABLISHED; DRAINAGE TERRACES, SWALES AND BERMS INSTALLED AT THE TOP OF THE SLOPES, AND THE STATEMENTS REQUIRED IN SECTION 17.29.020 U.D.C. HAVE BEEN RECEIVED.
 - FINAL, WHEN GRADING HAS BEEN COMPLETED; ALL DRAINAGE DEVICES INSTALLED; SLOPE PLANTING ESTABLISHED. IRRIGATION SYSTEMS INSTALLED AND THE AS-BUILT PLANS, REQUIRED STATEMENTS, AND REPORTS HAVE BEEN SUBMITTED. (17.29.010(C) U.D.C.)

ENGINEERED GRADING REQUIREMENTS

- IN ADDITION TO THE INSPECTION REQUIRED BY THE DEVELOPMENT SERVICES DIVISION FOR REGULAR GRADING, REPORTS AND STATEMENTS SHALL BE SUBMITTED TO THE CITY PROJECT MANAGER IN ACCORDANCE WITH SECTION 17.29.020 U.D.C.

AGENCY NOTES

- SECURE PERMISSION FROM THE DEVELOPMENT SERVICES DIVISION THROUGH THE CITY PROJECT MANAGER FOR CONSTRUCTION OR GRADING WITHIN STREET RIGHT-OF-WAY.
- GRADING IN FUTURE STREET RIGHT-OF-WAY MUST BE INSPECTED BY THE CITY.
- A STORMWATER POLLUTION PREVENTION PLAN MUST BE PREPARED AND A COPY AVAILABLE FOR REVIEW AT THE PROJECT SITE AT ALL TIMES. ALL MEASURES OUTLINED IN THE PROJECT STORMWATER POLLUTION PREVENTION PLAN MUST BE IMPLEMENTED THROUGHOUT THE DURATION OF THE PROJECT.

PAVEMENT MARKINGS/STRIPING

- ALL PAVEMENT MARKINGS/STRIPING SHALL BE PER CALTRANS STANDARD PLANS (2015 EDITION). ALL PAVEMENT MARKINGS/STRIPING ON AC PAVEMENT AND PARKING STALLS SHALL BE TWO COATS OF YELLOW TRAFFIC PAINT, GLASS BEAD IN THE SECOND COAT. NO THERMOPLASTIC PAINT SHALL BE USED ON THE PERVIOUS CONCRETE PAVEMENT UNLESS OTHERWISE INDICATED. CONTACT DTC (DISPENSING TECHNOLOGY CORPORATION) FOR EQUIPMENT USE. (BEN, 805 529-7733).

TOPOGRAPHIC DATA

- TOPOGRAPHIC FEATURES SHOWN HEREON ARE BASED ON AN AERIAL SURVEY PERFORMED IN JUNE 2014 BY ARROWHEAD MAPPING.

PROJECT BENCHMARK

BENCHMARK: CITY OF LA BENCHMARK 03-06950
SPK NE CURB GLENDALE BLVD; 3 FT
NW OF BCR NW OF MACLAY ST
ELEVATION: 1130.43
DATUM: NGVD 1929

OWNER

CITY OF SAN FERNANDO
117 MACNEIL ST.
SAN FERNANDO, CA 91340

DEPARTMENT: PUBLIC WORKS
TELEPHONE: (818) 898-1222
REPRESENTATIVE: PATSY OROZCO

EARTHWORK

UNCLASSIFIED EXCAVATION. 5923 CY

BORROW: 481 CY

WORK TO BE DONE

THE IMPROVEMENTS CONSIST OF THE FOLLOWING WORK TO BE DONE ACCORDING TO THESE PLANS, SPECIAL PROVISIONS, PROJECT SPECIFICATIONS, AND THE SPECIFICATIONS AND STANDARD DRAWINGS OF THE CITY OF SAN FERNANDO.

STANDARD SPECIFICATIONS

- STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION "GREEN BOOK" (2015 EDITION).
- STORMWATER BEST MANAGEMENT PRACTICES HANDBOOK, CASQA.
- CALTRANS STANDARD SPECS 2010 EDITION OR LATEST EDITION

STANDARD DRAWINGS

- STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION "SPPWC" (2015 EDITION).
- STANDARD PLANS, LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS (2000 EDITION).
- STANDARD PLANS, CALTRANS, LATEST EDITION.

TETRA TECH



THE CITY OF SAN FERNANDO

PUBLIC WORKS DEPARTMENT

SUBMITTED BY:

CITY ENGINEER, RCE XXXXX DATE

(NAME)

MOUNTAINS RECREATION AND CONSERVATION AUTHORITY

PACOIMA WASH BIKEWAY
LOS ANGELES COUNTY
GENERAL NOTES

CITY OF SAN FERNANDO

Project No.: 135-60589-14001

Designed By:

Drawn By:

Checked By:

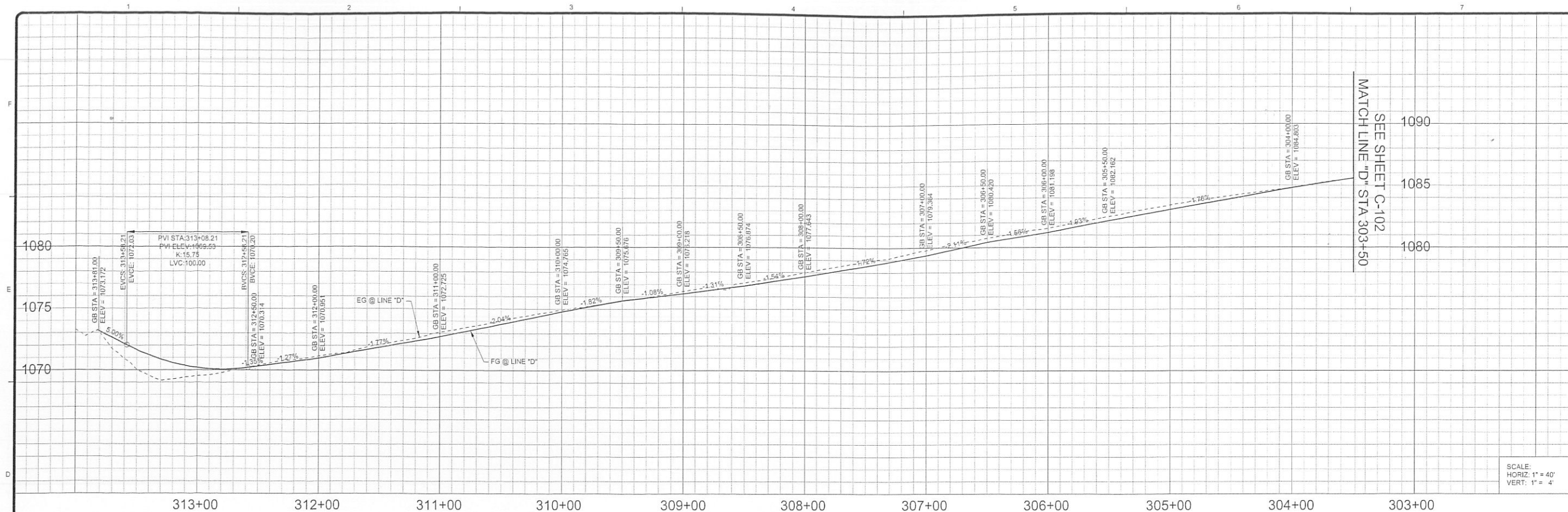
G-002

SHEET 2 OF 20

Bar Measures 1 inch

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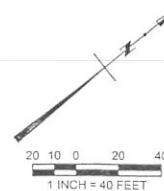
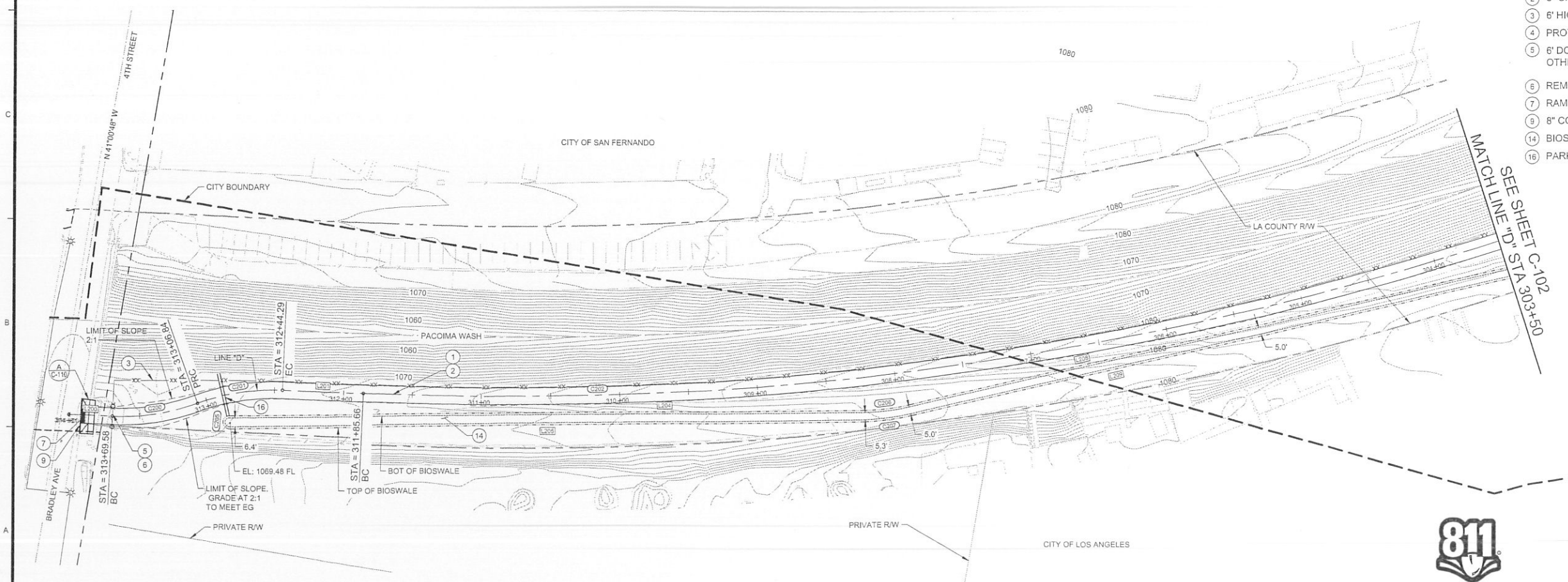
PROFILE

CONSTRUCTION NOTES

- 1 4" ASPHALT CONCRETE PAVEMENT
- 2 8" CMB
- 3 6" HIGH WELDED WIRE FENCE BY OTHERS
- 4 PROTECT IN PLACE
- 5 6" DOUBLE SWING WELDED WIRE GATE BY OTHERS
- 6 REMOVE EXISTING GATE
- 7 RAMP
- 8 8" CONC CURB A1-8 PER SPPWC STD PLAN 120-2
- 14 BIOSWALE. SEE DETAIL C-6 ON SHEET C-500
- 16 PARKWAY DRAIN PER SPPWC STD PLN 151-2

LINE TABLE		
LINE #	LENGTH	DIRECTION
L200	31.32'	S41° 50' 23" W
L201	58.63'	S41° 46' 30" W
L204	460.86'	S 38° 48' 02" W
L205	461.14'	N 38° 39' 42" E
L208	449.70'	S 26° 32' 27" W
L209	449.71'	N 26° 32' 27" E

CURVE TABLE			
CURVE #	RADIUS	LENGTH	DELTA
C200	160.00'	62.73'	022° 27' 54"
C201	160.00'	62.55'	022° 24' 01"
C202	2384.00'	858.29'	020° 37' 39"
C205	4.72'	14.24'	172° 56' 33"
C206	148.50'	31.77'	12° 15' 35"
C207	188.07'	33.37'	10° 09' 54"



SAN FERNANDO
PUBLIC WORKS DEPARTMENT

MARK	DATE	DESCRIPTION

MOUNTAINS RECREATION AND CONSERVATION AUTHORITY
PACOIMA WASH BIKEWAY
LOS ANGELES COUNTY
PLAN & PROFILE
STA 303+50 TO STA 314+00
CITY OF SAN FERNANDO

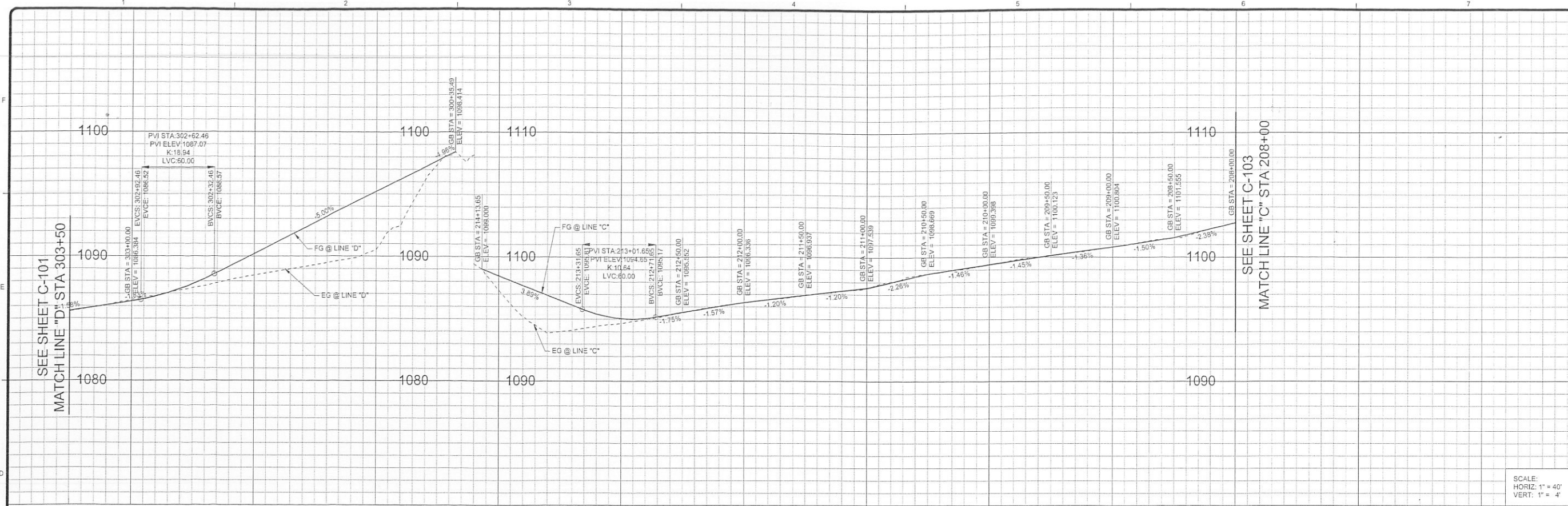
Project No.: 135-60589-14001
Designed By:
Drawn By:
Checked By:

C-101
SHEET 4 OF 20

Bar Measures 1 inch

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

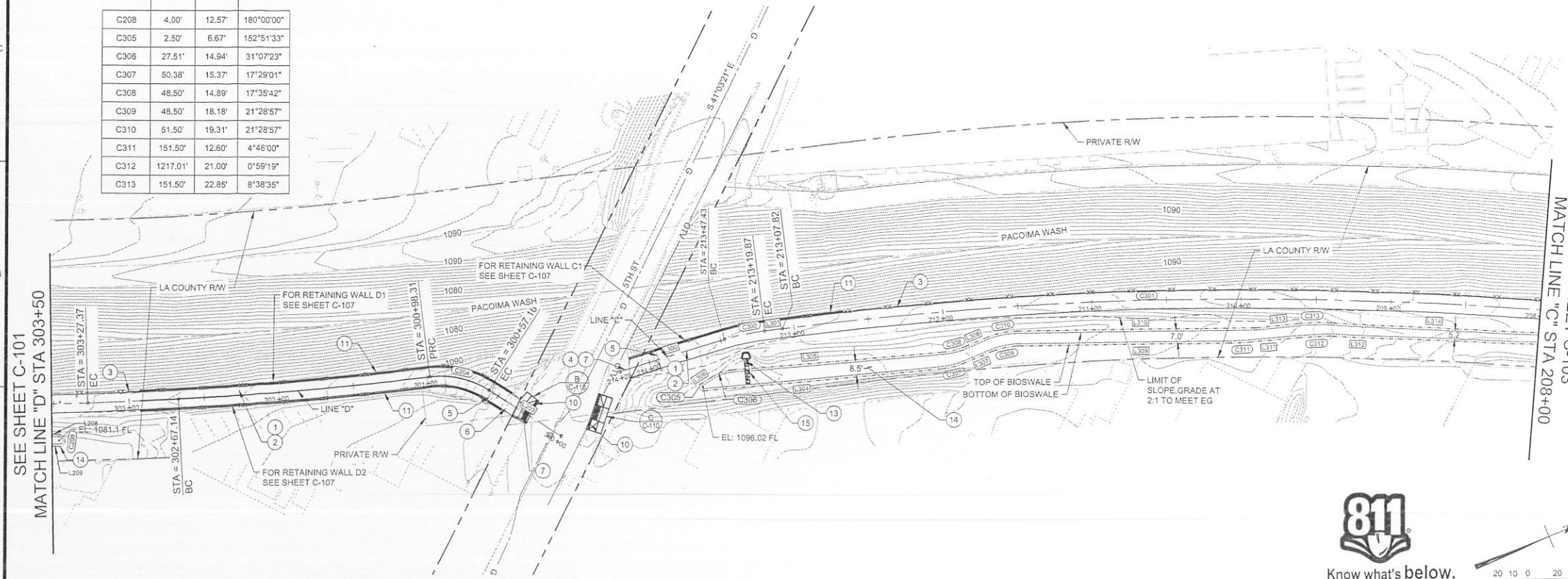
CURVE TABLE			
CURVE #	RADIUS	LENGTH	DELTA
C204	60.00'	41.15'	039°17'28"
C300	160.00'	27.55'	009°52'02"
C301	2500.00'	766.80'	017°34'28"

C208	4.00'	12.57'	180°00'00"
C305	2.50'	6.67'	152°51'33"
C306	27.51'	14.94'	31°07'23"
C307	50.38'	15.37'	17°29'01"
C308	48.50'	14.89'	17°35'42"
C309	48.50'	18.18'	21°28'57"
C310	51.50'	19.31'	21°28'57"
C311	151.50'	12.60'	4°46'00"
C312	1217.01'	21.00'	0°59'19"
C313	151.50'	22.85'	8°38'35"

PROFILE

CONSTRUCTION NOTES

- 4" ASPHALT CONCRETE PAVEMENT
- 8" CMB
- 6" HIGH WELDED WIRE FENCE BY OTHERS
- PROTECT IN PLACE
- 6" DOUBLE SWING WELDED WIRE GATE BY OTHERS
- REMOVE EXISTING GATE
- RAMP
- 8" CONC CURB AND GUTTER PER SPPWC PLAN 120-2
- RETAINING WALL
- CONCRETE HEADWALL AND WINGWALL, SEE DETAIL C-1 ON SHEET C-500
- BIOSWALE, SEE DETAIL C-6 ON SHEET C-500
- ROCK SLOPE PROTECTION, SEE DETAIL C-7 ON SHEET C-500



LINE TABLE		
LINE #	LENGTH	DIRECTION
L203	57.16'	S54° 53' 34" W
L300	72.99'	S5° 35' 49" W
L301	12.05'	S15° 27' 52" W

L208	449.70'	S 26° 32' 27" W
L209	449.71'	N 26° 32' 27" E
L304	160.37'	S 17° 20' 17" W
L305	141.97'	N 17° 49' 54" E
L306	7.78'	N 9° 48' 10" W
L307	19.52'	S 0° 14' 12" W
L308	16.56'	N 0° 14' 12" E
L309	142.51'	S 21° 43' 09" W
L310	161.75'	N 21° 43' 09" E
L311	33.15'	S 17° 39' 27" W
L312	212.31'	S 25° 05' 02" W
L313	26.76'	N 16° 56' 57" E
L314	212.07'	N 25° 35' 32" E

811
Know what's below.
Call before you dig.

20 10 0 20 40
1 INCH = 40 FEET

TETRA TECH

www.tetratech.com
17885 VON KARMAN AVE., SUITE 500
IRVINE, CA 92614
PHONE: 949.809.5000 FAX: 949.809.5006

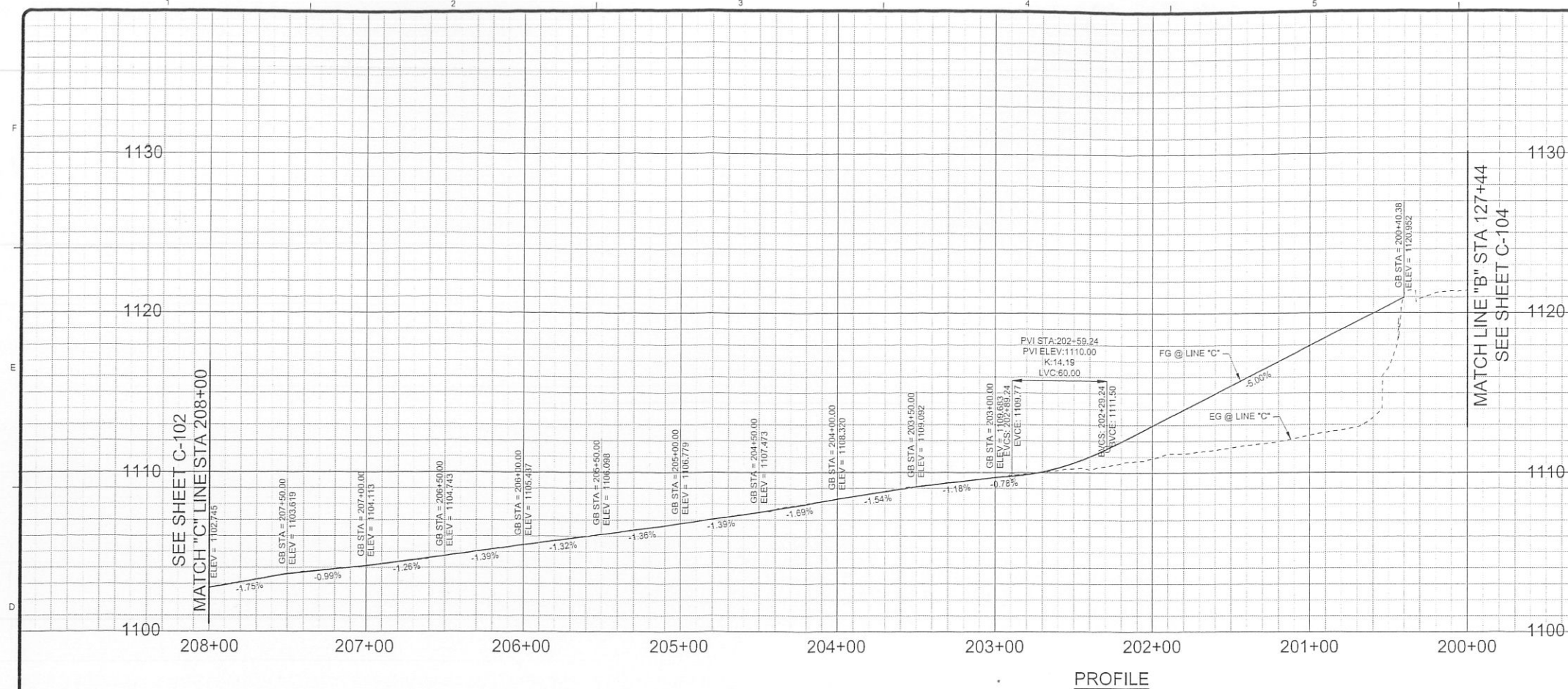
San Fernando
PUBLIC WORKS DEPARTMENT

SUBMITTED BY: _____ DATE: _____
(NAME) CITY ENGINEER, RCE XXXXX

MOUNTAINS RECREATION AND CONSERVATION AUTHORITY
PACOIMA WASH BIKEWAY
LOS ANGELES COUNTY
PLAN & PROFILE
STA 208+00 TO STA 303+50
CITY OF SAN FERNANDO

Project No.: 135-60589-14001
Designed By: _____
Drawn By: _____
Checked By: _____

C-102
SHEET 5 OF 20

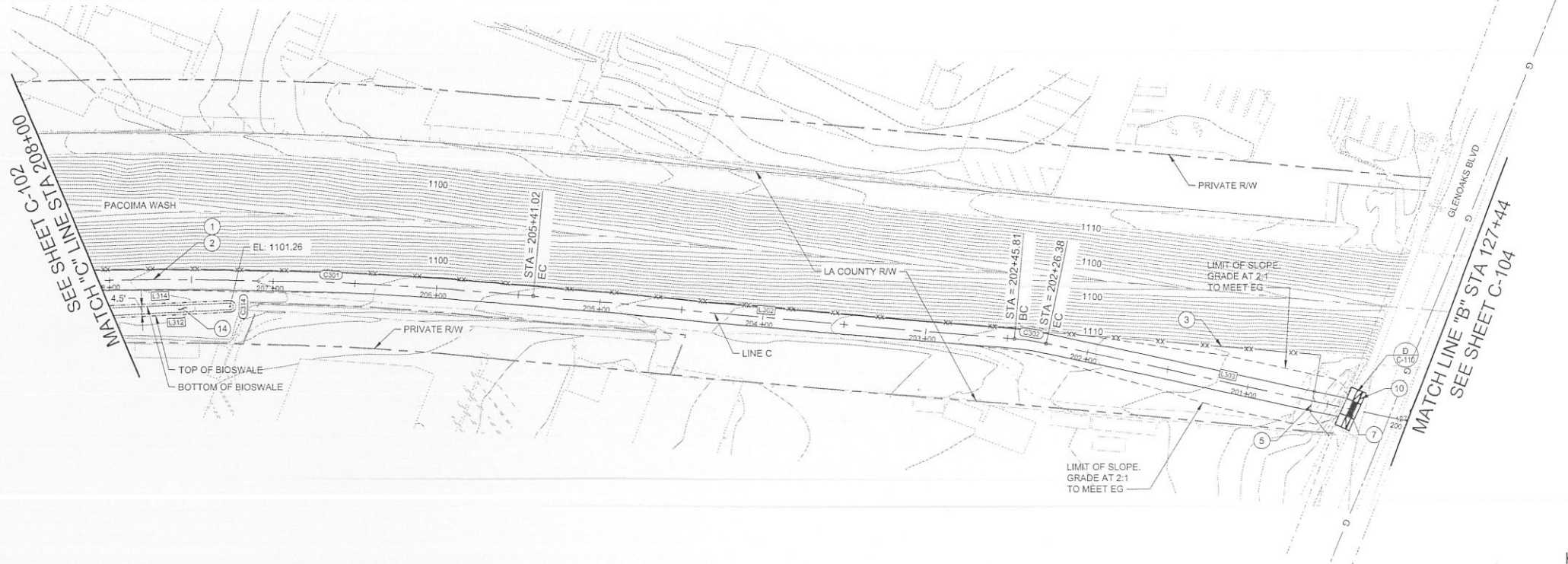


CONSTRUCTION NOTES

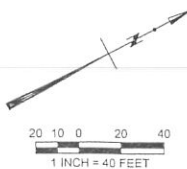
- 1 4" ASPHALT CONCRETE PAVEMENT
- 2 8" CMB
- 3 6" HIGH WELDED WIRE FENCE BY OTHERS
- 5 6" DOUBLE SWING WELDED WIRE GATE BY OTHERS
- 7 RAMP
- 10 8" CONC CURB AND GUTTER PER SPPWC PLAN 120-2
- 14 BIOSWALE. SEE DETAIL C-6 ON SHEET C-500

LINE TABLE		
LINE #	LENGTH	DIRECTION
L302	295.21'	S33° 02' 17"W
L303	226.38'	S39° 59' 47"W
L312	212.31'	S 25° 05' 02" W
L314	212.07'	N 25° 35' 32" E

CURVE TABLE			
CURVE #	RADIUS	LENGTH	DELTA
C301	2500.00'	766.80'	017° 34' 28"
C302	160.00'	19.43'	006° 57' 29"
C314	3.51'	10.99'	179° 29' 35"



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17885 VON KARMAN AVE., SUITE 500
IRVINE, CA 92614
PHONE: 949.809.5000 FAX: 949.809.5006



SAN FERNANDO
PUBLIC WORKS DEPARTMENT

SUBMITTED BY: _____ DATE: _____
(NAME) CITY ENGINEER, RCE XXXXX

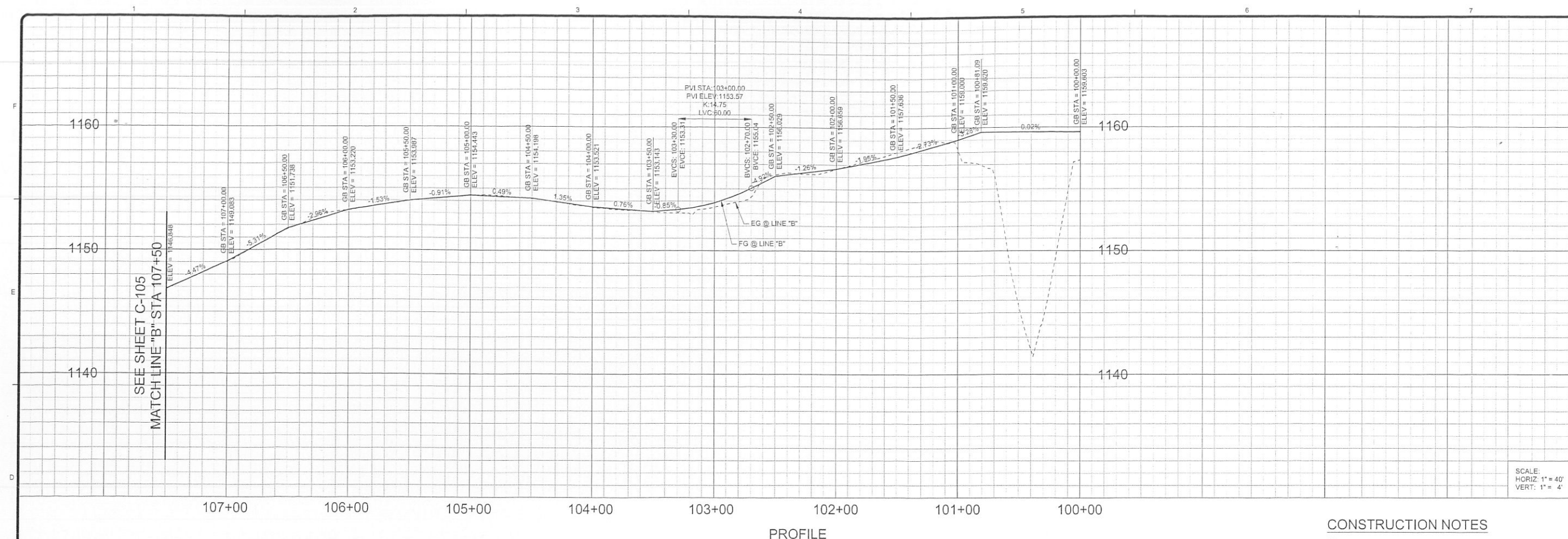
MOUNTAINS RECREATION AND CONSERVATION AUTHORITY

PACOIMA WASH BIKEWAY
LOS ANGELES COUNTY
PLAN & PROFILE
STA 127+44 TO STA 213+50

CITY OF SAN FERNANDO

Project No.: 135-60589-14001
Designed By: _____
Drawn By: _____
Checked By: _____

C-103
SHEET 6 OF 20



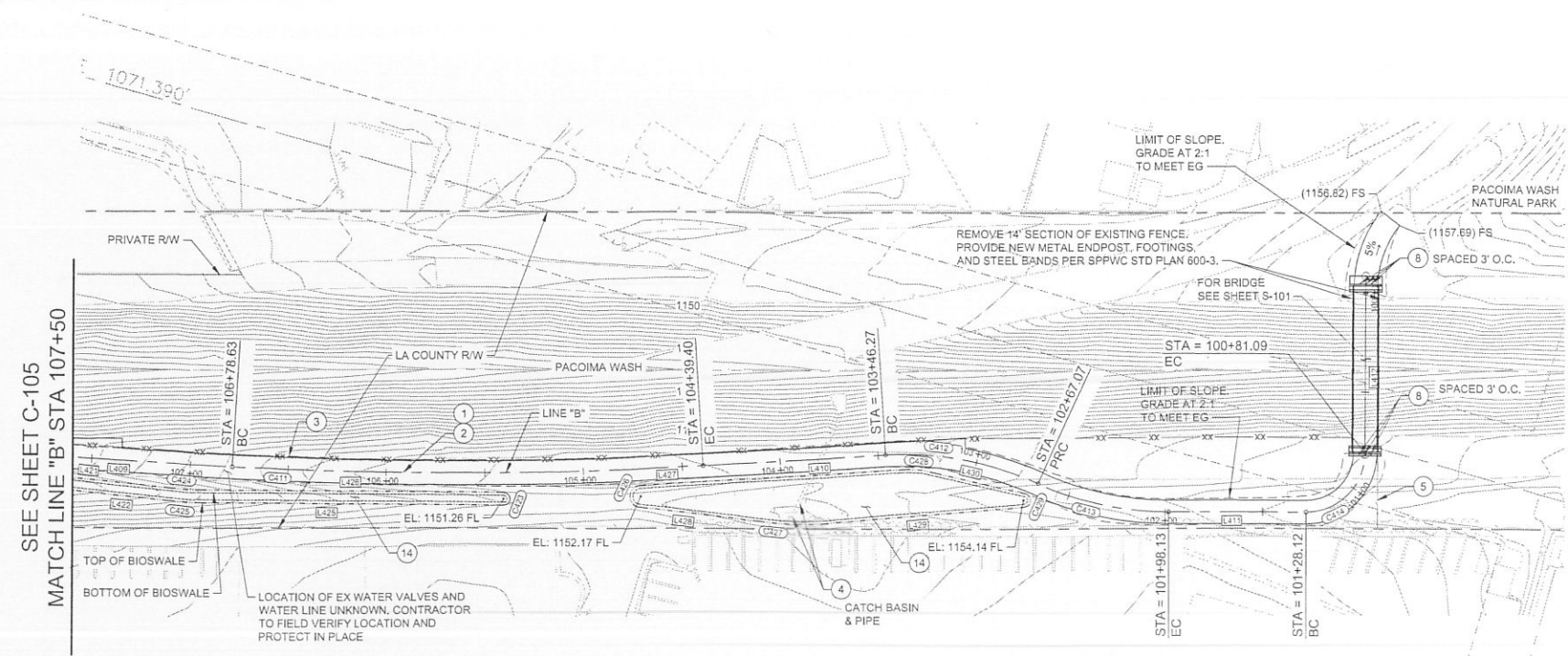
PROFILE

CONSTRUCTION NOTES

- 1 4" ASPHALT CONCRETE PAVEMENT
- 2 8" CMB
- 3 6' HIGH WELDED WIRE FENCE BY OTHERS
- 4 PROTECT IN PLACE
- 5 6' DOUBLE SWING WELDED WIRE GATE BY OTHERS
- 6 BOLLARDS BY OTHERS
- 14 BIOSWALE. SEE DETAIL C-6 ON SHEET C-500

LINE TABLE			
LINE #	LENGTH	DIRECTION	
L409	115.71'	S36° 17' 45" W	
L410	93.12'	S29° 27' 46" W	
L411	70.00'	S33° 08' 23" W	
L412	81.09'	S56° 40' 52" E	
L425	155.10'	S 33° 34' 38" W	
L426	155.10'	N 33° 34' 38" E	
L427	132.41'	N 29° 24' 36" E	
L428	62.10'	S 39° 33' 55" W	
L429	101.15'	S 28° 17' 08" W	
L430	45.77'	N 45° 49' 48" E	

CURVE TABLE			
CURVE #	RADIUS	LENGTH	DELTA
C411	2006.00'	239.24'	006° 49' 59"
C412	160.00'	79.21'	028° 21' 51"
C413	160.00'	68.94'	024° 41' 14"
C414	30.00'	47.03'	089° 49' 15"
C423	3.25'	5.11'	90° 00' 00"
C424	147.25'	13.91'	5° 24' 39"
C425	153.75'	14.52'	5° 24' 39"
C426	5.57'	17.63'	181° 24' 44"
C427	151.50'	32.84'	12° 25' 08"
C428	51.50'	17.63'	19° 36' 50"
C429	3.50'	9.92'	162° 27' 10"



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Exp. 12-31-23
S. S. OCHOA
CIVIL
STATE OF CALIFORNIA

SAN FERNANDO
PUBLIC WORKS DEPARTMENT

SUBMITTED BY: _____ CITY ENGINEER, RCE XXXXX DATE _____ (NAME)

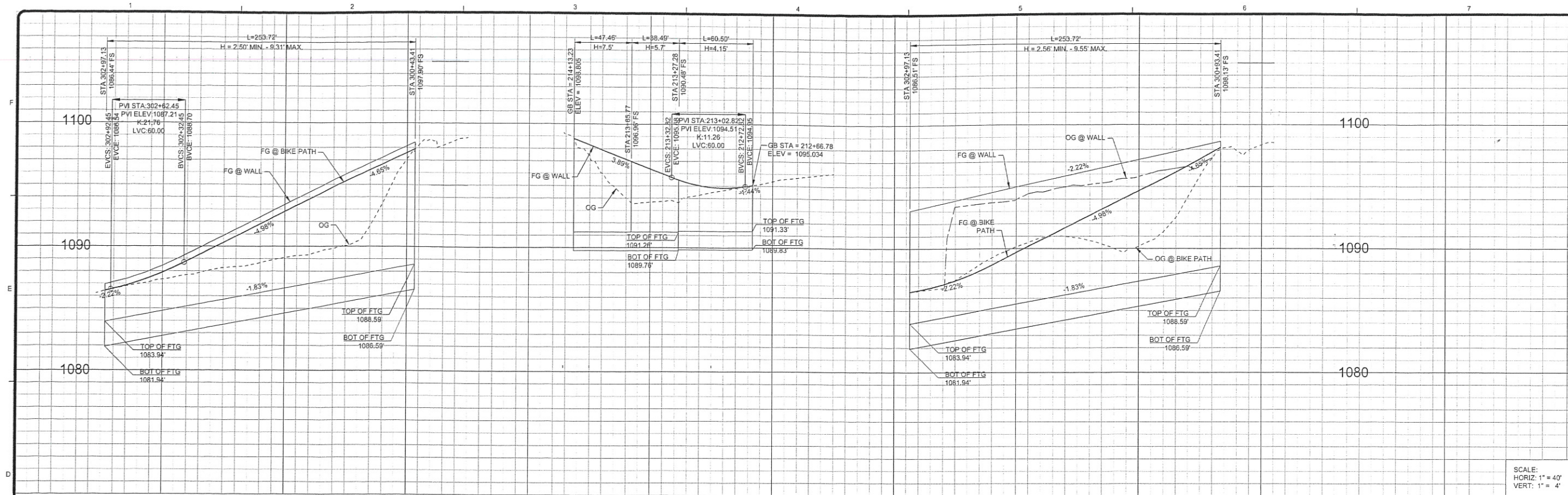
MOUNTAINS RECREATION AND CONSERVATION AUTHORITY
PACOIMA WASH BIKEWAY
LOS ANGELES COUNTY
PLAN & PROFILE
STA 100+00 TO STA 107+50
CITY OF SAN FERNANDO

Project No.: 135-60589-14001
Designed By: _____
Drawn By: _____
Checked By: _____

C-106
SHEET 9 OF 20

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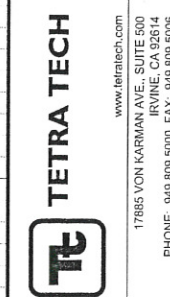
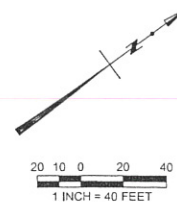
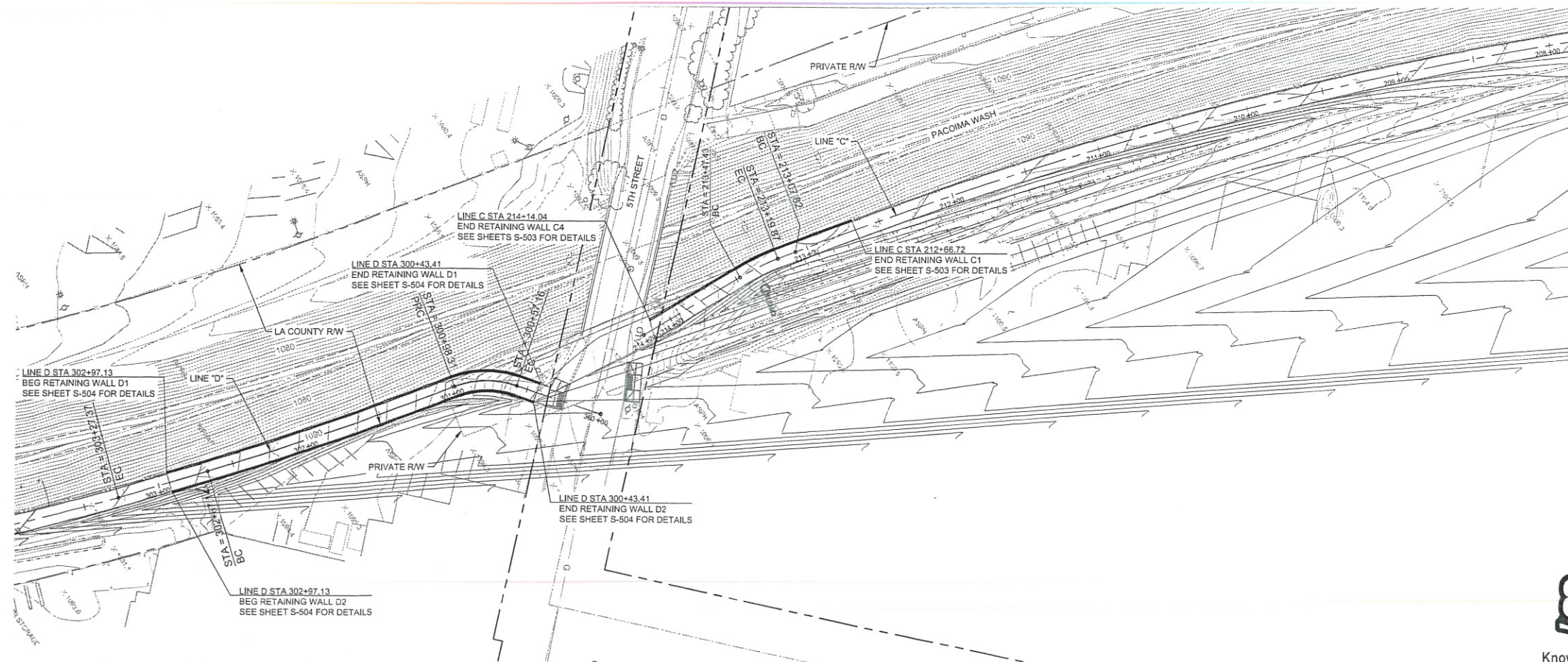


RETAINING WALL D1
PROFILE

RETAINING WALL C1
PROFILE

RETAINING WALL D2
PROFILE

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



SAN FERNANDO
PUBLIC WORKS DEPARTMENT
SUBMITTED BY: _____
(NAME) CITY ENGINEER, RCE XXXXX DATE _____

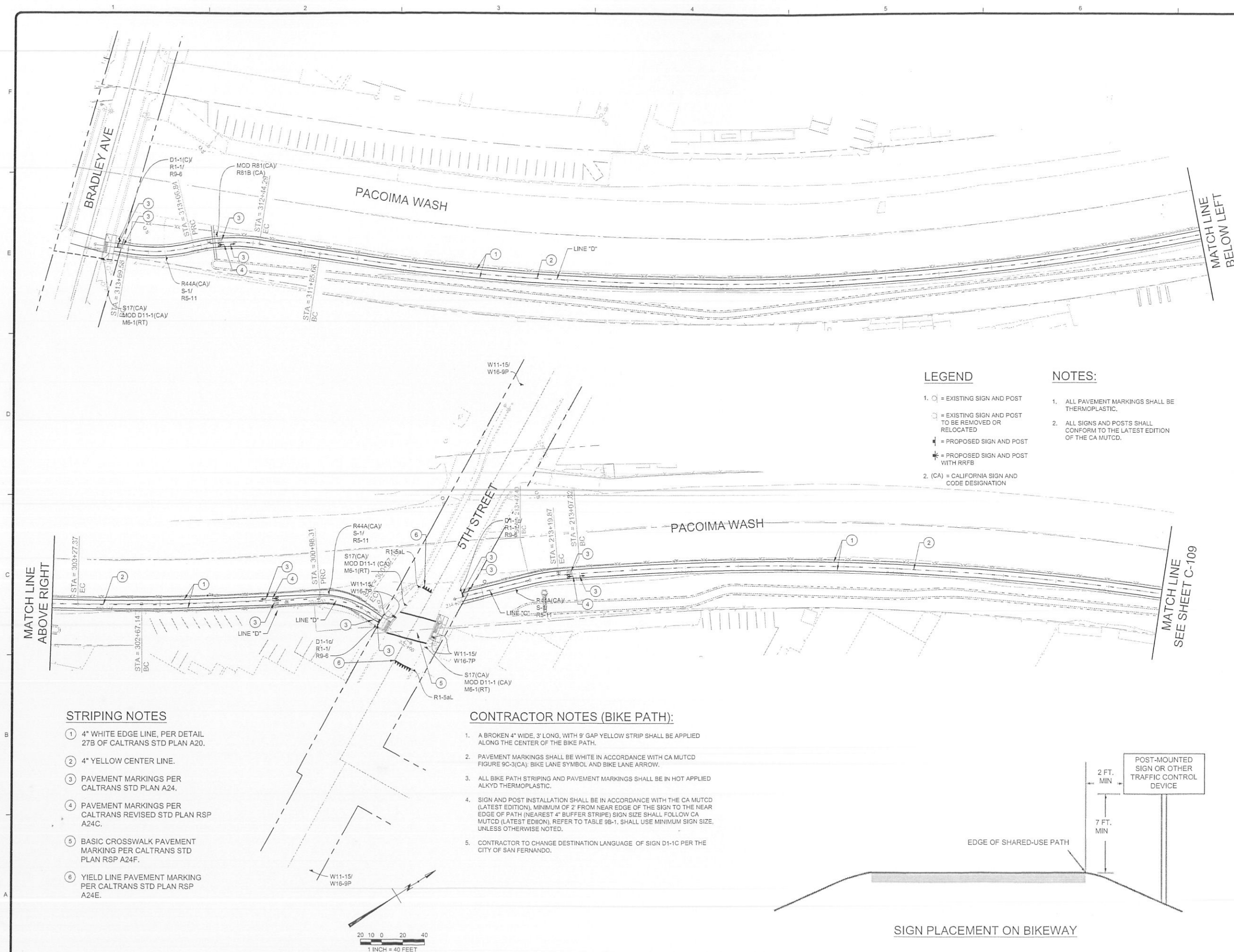
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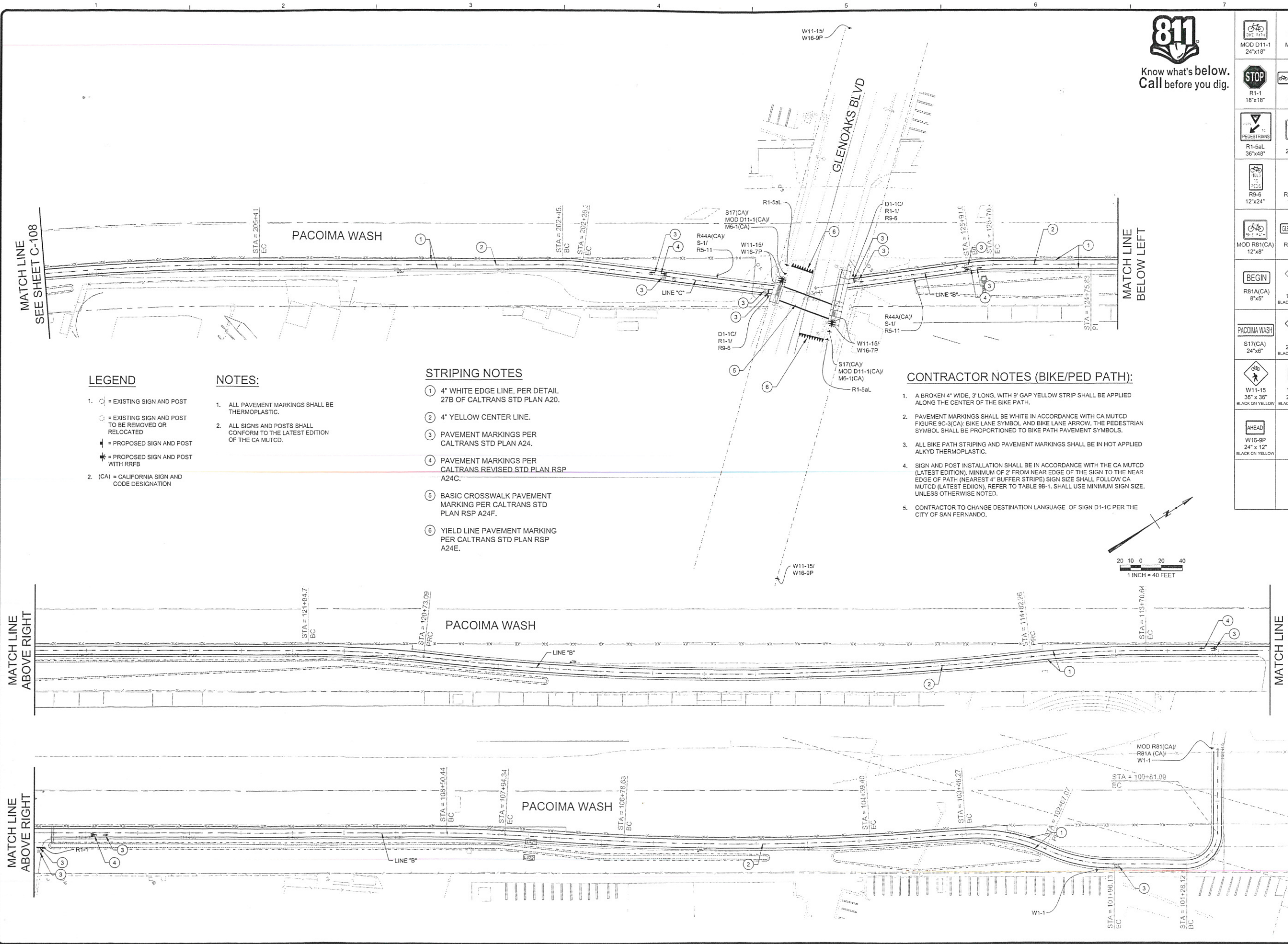
MOUNTAINS RECREATION AND CONSERVATION AUTHORITY
PACOIMA WASH BIKEWAY
LOS ANGELES COUNTY
PLAN & PROFILE
RETAINING WALLS C4 & D1
CITY OF SAN FERNANDO

Project No.: 135-60589-14001
Designed By: _____
Drawn By: _____
Checked By: _____

C-107
SHEET 10 OF 20

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LEGEND

- 1. = EXISTING SIGN AND POST
- = EXISTING SIGN AND POST TO BE REMOVED OR RELOCATED
- = PROPOSED SIGN AND POST
- = PROPOSED SIGN AND POST WITH RRFBS
- 2. (CA) = CALIFORNIA SIGN AND CODE DESIGNATION

NOTES:

- 1. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
- 2. ALL SIGNS AND POSTS SHALL CONFORM TO THE LATEST EDITION OF THE CA MUTCD.

STRIPING NOTES

- 1. 4" WHITE EDGE LINE, PER DETAIL 27B OF CALTRANS STD PLAN A20.
- 2. 4" YELLOW CENTER LINE.
- 3. PAVEMENT MARKINGS PER CALTRANS STD PLAN A24.
- 4. PAVEMENT MARKINGS PER CALTRANS REVISED STD PLAN RSP A24C.
- 5. BASIC CROSSWALK PAVEMENT MARKING PER CALTRANS STD PLAN RSP A24F.
- 6. YIELD LINE PAVEMENT MARKING PER CALTRANS STD PLAN RSP A24E.

CONTRACTOR NOTES (BIKE/PED PATH):

- 1. A BROKEN 4" WIDE, 3' LONG, WITH 9" GAP YELLOW STRIP SHALL BE APPLIED ALONG THE CENTER OF THE BIKE PATH.
- 2. PAVEMENT MARKINGS SHALL BE WHITE IN ACCORDANCE WITH CA MUTCD FIGURE 9C-3(CA); BIKE LANE SYMBOL AND BIKE LANE ARROW, THE PEDESTRIAN SYMBOL SHALL BE PROPORTIONED TO BIKE PATH PAVEMENT SYMBOLS.
- 3. ALL BIKE PATH STRIPING AND PAVEMENT MARKINGS SHALL BE IN HOT APPLIED ALKYD THERMOPLASTIC.
- 4. SIGN AND POST INSTALLATION SHALL BE IN ACCORDANCE WITH THE CA MUTCD (LATEST EDITION). MINIMUM OF 2' FROM NEAR EDGE OF THE SIGN TO THE NEAR EDGE OF PATH (NEAREST 4" BUFFER STRIPE) SIGN SIZE SHALL FOLLOW CA MUTCD (LATEST EDITION). REFER TO TABLE 9B-1. SHALL USE MINIMUM SIGN SIZE, UNLESS OTHERWISE NOTED.
- 5. CONTRACTOR TO CHANGE DESTINATION LANGUAGE OF SIGN D1-1C PER THE CITY OF SAN FERNANDO.



	MOD D11-1 24"x18"		M6-1(RT) 12"x36"
	R1-1 18"x18"		D1-1C 18"x36"
	R1-5aL 36"x48"		R5-11 24"x18"
	R9-6 12"x24"		R44A(CA) 12"x24"
	MOD R81(CA) 12"x8"		R81A(CA) 24"x6"
	R81A(CA) 8"x5"		S1 18" x 18" BLACK ON YELLOW
	S17(CA) 24"x6"		W1-1 24" x 24" BLACK ON YELLOW
	W11-15 36" x 36" BLACK ON YELLOW		W16-7P 24" x 12" BLACK ON YELLOW
	W16-9P 24" x 12" BLACK ON YELLOW		

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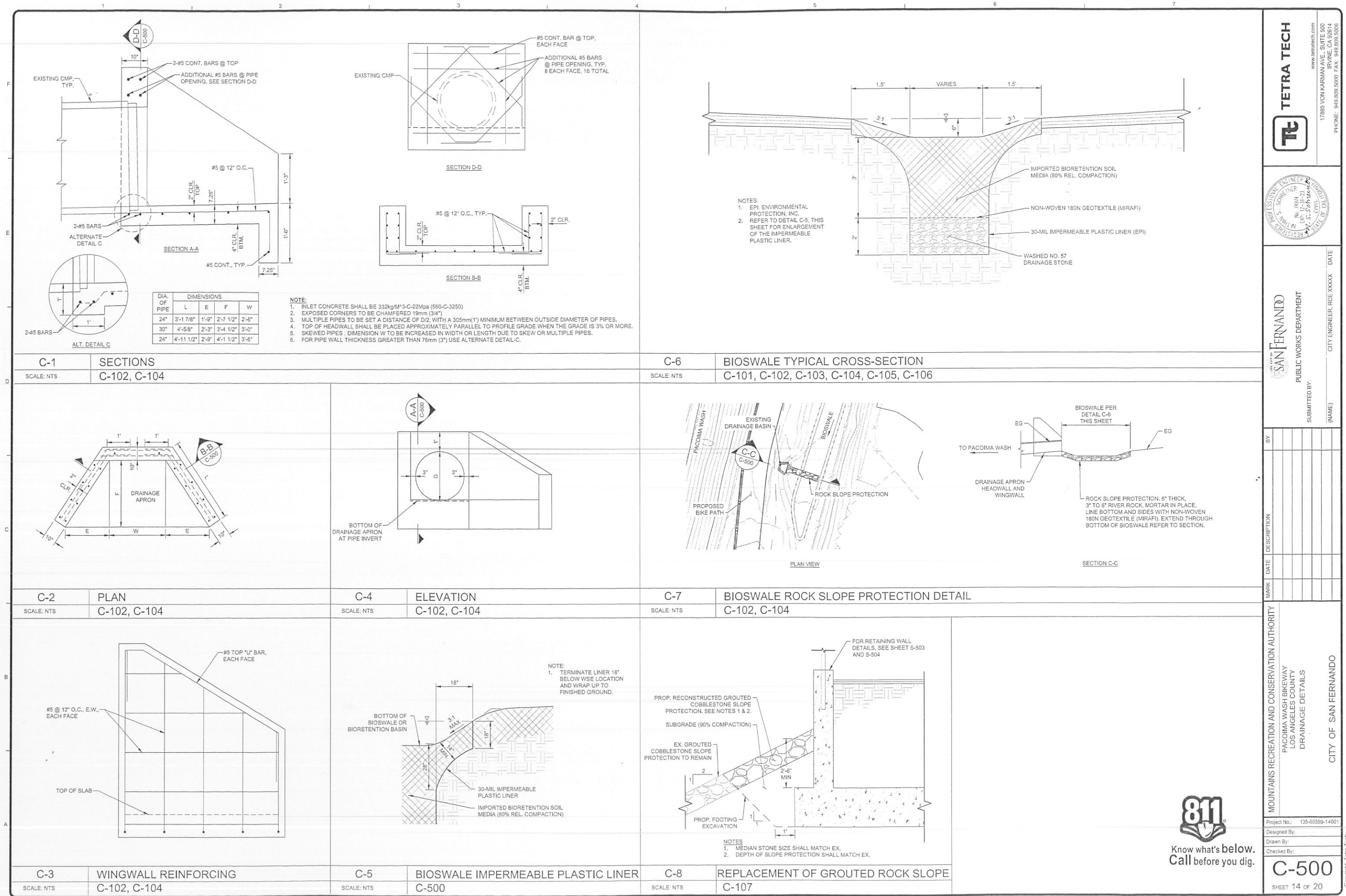
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PUBLIC WORKS DEPARTMENT
SUBMITTED BY: _____
(NAME) _____
CITY ENGINEER, RCE XXXXX DATE _____

Project No.: 135-60589-14001
Designed By: _____
Drawn By: _____
Checked By: _____

C-109
SHEET 12 OF 20

MOUNTAINS RECREATION AND CONSERVATION AUTHORITY
PACOIMA WASH BIKEWAY
LOS ANGELES COUNTY
BIKEWAY SIGNING & STRIPING
CITY OF SAN FERNANDO

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SAN FERNANDO
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PROJECT NO.: 135-60589-14001
DESIGNED BY:
DRAWN BY:
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GENERAL STRUCTURAL NOTES

THESE NOTES SHALL APPLY UNLESS SHOWN/INDICATED OTHERWISE ELSEWHERE IN THE STRUCTURAL DRAWINGS.

GENERAL

- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE 2014 COUNTY OF LOS ANGELES BUILDING CODE (L.A.C.B.C.), BASED UPON THE 2012 EDITION OF THE INTERNATIONAL BUILDING CODE (I.B.C.).
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE STARTING WORK. SHOULD CONDITIONS EXIST WHICH ARE CONTRARY TO THOSE SHOWN ON PLANS, THE ENGINEER SHALL BE NOTIFIED IN WRITING BEFORE PROCEEDING WITH WORK.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL WORK IS ADEQUATELY BRACED AND SHORED DURING CONSTRUCTION. ALL BRACING/SHORING SHALL BE DESIGNED BY A REGISTERED ENGINEER HIRED BY THE CONTRACTOR.
- UNLESS DETAILED, SPECIFIED, OR INDICATED OTHERWISE, CONSTRUCTION SHALL BE AS INDICATED IN THE APPLICABLE TYPICAL DETAILS AND THESE GENERAL NOTES. TYPICAL DETAILS ARE MEANT TO APPLY EVEN THOUGH NOT REFERENCED AT SPECIFIC LOCATIONS ON DRAWINGS WHERE THEY OCCUR.
- THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKERS AND PEDESTRIANS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, TEMPORARY STRUCTURES, AND PARTIALLY COMPLETED WORK, ETC. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT BE CONSIDERED AS INSPECTION OF SUCH ITEMS.
- THE CONTRACTOR ACKNOWLEDGES RESPONSIBILITY FOR JOBSITE SAFETY AND AGREES THAT THE ENGINEER WILL NOT HAVE SUCH RESPONSIBILITY. IF A LAWSUIT IS FILED BY ONE OF THE CONTRACTOR'S OR SUBCONTRACTOR'S EMPLOYEES, OR ANY ONE ELSE, THE CONTRACTOR WILL INDEMNIFY, DEFEND AND HOLD THE OWNER AND TETRA TECH, INC., THEIR PARENT AND SUBSIDIARY COMPANIES HARMLESS OF ANY AND ALL SUCH CLAIMS.
- DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALES SHOWN ON DRAWINGS.
- ALL WORK SHALL CONFORM TO THE PLANS AND SPECIFICATIONS IN ALL RESPECTS AND SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL SITE UTILITIES PRIOR TO STARTING WORK, BOTH ABOVE GROUND AND BELOW GROUND, WHICH MAY BE IMPACTED BY THE WORK SHOWN ON THESE DRAWINGS. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- ALL ITEMS SHOWN ON THESE PLANS ARE NEW UNLESS NOTED (E), EXIST, OR EXISTING.
- SOIL PROPERTIES, ALLOWABLE DESIGN VALUES, GRADING AND COMPACTION REQUIREMENTS AS PER GEOTECHNICAL REPORT BY RT&A, PROJECT 2015-009-001, DATED OCTOBER 23, 2015. THIS REPORT SHALL BE CONSIDERED A PART OF THESE PLANS AND SHALL BE KEPT AT ALL TIMES. A COPY OF THIS REPORT IS AVAILABLE FOR REVIEW IN THE ENGINEER'S OFFICE.
- SEE CIVIL DRAWINGS FOR SIZE AND LOCATION OF ALL OPENINGS, PIPING, ETC.
- BY ACCEPTING THIS CONTRACT, CONTRACTOR HEREBY RELEASES AND AGREES TO INDEMNIFY, DEFEND, HOLD HARMLESS THE OWNER, ENGINEER, (HEREINAFTER TETRA TECH, INC.), THEIR PARENT AND SUBSIDIARY COMPANIES, AGENTS, EMPLOYEES, CONSULTANTS AND REPRESENTATIVES FOR ANY AND ALL DAMAGE TO PERSONS OR PROPERTY OR WRONGFUL DEATH REGARDLESS OF WHETHER OR NOT SUCH CLAIM, DAMAGE, LOSS OR EXPENSE IS CAUSED IN WHOLE OR IN PART BY THE NEGLIGENCE, ACTIVE OR PASSIVE, OF OWNER, ENGINEER, THEIR PARENT AND SUBSIDIARY COMPANIES AS WELL AS THEIR AGENTS AND EMPLOYEES, TO THE FULLEST EXTENT PERMITTED BY LAW. SUCH INDEMNIFICATION SHALL EXTEND TO ALL CLAIMS, DEMANDS, ACTIONS, OR LIABILITY FOR INJURIES, DEATH OR DAMAGES OCCURRING AFTER COMPLETION OF THE PROJECT, AS WELL AS DURING THE WORK'S PROGRESS. CONTRACTOR FURTHER AGREES THAT IT SHALL ACCOMPLISH THE ABOVE AT ITS OWN COST, EXPENSE AND RISK EXCLUSIVE OF AND REGARDLESS OF ANY APPLICABLE INSURANCE POLICY OR POSITION TAKEN BY ANY INSURANCE COMPANY REGARDING COVERAGE.
- CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE CLIENT AND TETRA TECH, INC. THEIR PARENT AND SUBSIDIARY COMPANIES, ITS EMPLOYEES, OFFICERS, OR AGENTS, HARMLESS AGAINST ANY AND ALL CLAIMS BY ANY PARTIES ARISING FROM, OR RELATED TO, ANY AND ALL DAMAGES, INCLUDING LEGAL COSTS AND ATTORNEY'S FEES, RESULTING FROM INTERFERENCE WITH, INTERRUPTION OF, DAMAGE TO, OR ANY AND ALL INJURIES WHICH RESULT FROM DAMAGE CAUSED TO SUBSURFACE INSTALLATION, WHICH IS UNFORESEEN AND DESPITE ENGINEER'S EFFORT DURING THE DESIGN PROCESS WAS NOT LOCATED, EXCEPTING ONLY THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF ENGINEER IN PROVIDING ITS SERVICES.

REINFORCING NOTES

- REINFORCEMENT FOR CONCRETE SHALL BE DEFORMED BARS CONFORMING TO A.S.T.M. SPECIFICATION A615, GRADE 60 STEEL SHALL BE USED EXCEPT THAT #3 BARS AND SMALLER MAY BE GRADE 40 STEEL.
- WIRE MESH SHALL CONFORM TO A.S.T.M. A185. LAP 12" WHERE SPLICED.
- ALL REINFORCEMENT, ANCHOR BOLTS, AND OTHER ANCHORAGES PLACED IN CONCRETE SHALL BE ACCURATELY PLACED AND POSITIVELY SECURED AND SUPPORTED BY CONCRETE BLOCKS, METAL CHAIRS, SPACERS, OR METAL HANGERS, AND SHALL BE IN POSITION BEFORE CONCRETE PLACING. DETAILING AND PLACING OF BARS SHALL CONFORM TO THE A.C.I. MANUAL OF STANDARD PRACTICES.
- BARS SPECIFIED AS "CONTINUOUS" SHALL EXTEND THE FULL LENGTH OF THE MEMBER CONTAINING THEM AND MAY BE SPLICED (UNLESS NOTED OR SHOWN WITHOUT SPLICES ON THE PLANS). IN CONCRETE, PROVIDE LAPS PER DETAIL 2 ON DRAWING S-4. STAGGER ALL SPLICES.
- DOWELS SHALL BE PROVIDED AT ALL POUR JOINTS AND SHALL BE THE SAME SIZE AND SPACING AS REINFORCING DIRECTLY BEYOND POUR JOINTS.
- WELDING OF REINFORCING STEEL IN REINFORCED CONCRETE CONSTRUCTION IS NOT PERMITTED.
- THE SPECIFIED DIMENSIONS OF THE VERTICAL LEGS OF "L" DOWELS, WHOSE HORIZONTAL LEGS ARE CAST INTO A FOOTING OR SLAB CAST ON TOP OF EARTH, ARE BASED UPON THE SLAB THICKNESS AS SHOWN ON THE DRAWINGS. IF A SLAB IS POURED THICKER THAN SHOWN ON THE DRAWINGS, SUCH AS FOR THE SUBGRADE OCCURRING AT A LOWER ELEVATION THAN SHOWN, THE VERTICAL LEGS MUST BE FABRICATED TO A LONGER LENGTH OR THE HORIZONTAL TAILS MUST BE SUPPORTED ABOVE SUBGRADE HIGH ENOUGH TO PROVIDE THE SAME AMOUNT OF LAP LENGTH BETWEEN THE DOWEL AND THE WALL VERTICAL REINFORCING.
- ANCHOR BOLTS SHALL BE PLACED IN A STEEL GROUT CONTAINER AS SHOWN.

CONCRETE NOTES

- BRIDGE CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH (f_c) OF 4000 PSI AT 28 DAYS. RETAINING WALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH (f_c) OF 5500 PSI AT 28 DAYS. REQUIRED AVERAGE COMPRESSIVE STRENGTH (f_{cr}) FOR MIX PROPORTIONING SHALL BE IN ACCORDANCE WITH ACI 318-11, CHAPTER 5. AGGREGATES SHALL CONFORM TO A.S.T.M. C33.
- CEMENT FOR CONCRETE SHALL BE TYPE II PORTLAND CEMENT CONFORMING TO A.S.T.M. C150, WITH A.S.T.M. C19 TABLE 2 OPTIONAL REQUIREMENTS.
- MAXIMUM WATER/CEMENT RATIO SHALL BE 0.45.
- CONCRETE COVER FOR REINFORCING BARS SHALL BE: CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH = 3" EXPOSED TO EARTH OR WEATHER = 2"
- DRYPACK SHALL BE 1 PART CEMENT AND 3 PARTS SAND (BY VOLUME).
- NO PIPES OR DUCTS SHALL BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED.
- THE LOCATION OF ALL CONSTRUCTION JOINTS NOT SPECIFICALLY NOTED OR SHOWN SHALL BE APPROVED BY THE ENGINEER.
- "ROUGHENED SURFACES", WHERE SPECIFIED ON THE DRAWINGS, SHALL BE MECHANICALLY ROUGHENED SUCH THAT A 1" AMPLITUDE (H) IS ACHIEVED BEHIND ALL REINFORCING. THE ROUGHENED SURFACE, THE SURFACE SHALL BE CLEAN AND FREE OF LAITANCE.
- BOTH FACES OF CONCRETE WALLS, EDGES OF CONCRETE FOUNDATIONS, AND OTHER FORMED CONCRETE SURFACES WHERE THE SPECIFIED CONCRETE COVER IS 2 INCHES, SHALL BE PLACED AGAINST FORMWORK WHICH COMPLIES WITH ACI 347. CONCRETE FOR THESE ELEMENTS SHALL NOT BE CAST AGAINST EARTH.
- CONCRETE SUMP SHALL NOT EXCEED 3" WHEN TESTED IN ACCORDANCE WITH ASTM STANDARD NO. C143 FOR FOOTINGS, SLABS, BEAMS, AND GIRDERS. 3" FOR CAST-IN-PLACE WALLS AND COLUMNS.
- ALL CONCRETE EDGES, CORNERS AND INTERSECTIONS SHALL BE TOOLED OR CHAMFERED NO LESS THAN $\frac{3}{4}$ " WHETHER SHOWN OR NOT ON THE DRAWINGS.
- NON-SHRINK GROUT OR DRY PACK, A PREMIXED NON-METALLIC FORMULA HAVING THE FOLLOWING CHARACTERISTICS: NO SHRINKAGE AFTER PLACEMENT OR EXPANSION AFTER SET (ASTM C-827), ONE DAY COMPRESSIVE STRENGTH OF AT LEAST 3000 PSI (ASTM C-109) AND INITIAL SET TIME OF NOT LESS THAN 45 MINUTES (ASTM C-191T). MINIMUM f_c AT 7 DAYS = 5000 PSI.

STEEL NOTES

- UNLESS OTHERWISE NOTED, ALL STRUCTURAL AND MISCELLANEOUS STEEL FOR BRIDGE AND ACCESS STAIRS SHALL BE UNPAINTED WEATHERING STEEL FABRICATED FROM A.S.T.M. A242 OR A.S.T.M. A588 STEEL FOR PLATES AND STRUCTURAL SHAPES, AND A.S.T.M. A606 OR A.S.T.M. A847 FOR TUBULAR SECTIONS. MINIMUM YIELD (F_y) SHALL BE GREATER THAN 50 KSI. STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS. STRUCTURAL STEEL FABRICATION AND ERECTION SHALL BE SPECIALLY INSPECTED OR FABRICATOR SHALL BE AN A.I.S.C. CERTIFIED SHOP. AT THE COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE CITY BUILDING OFFICIAL (OR OWNER IF THE PROJECT IS NOT UNDER THE JURISDICTION OF A BUILDING DEPARTMENT) AND TO THE ENGINEER STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- ALL HANDRAIL SHALL BE STEEL PIPE CONFORMING TO A.S.T.M. A53, GRADE B. HANDRAIL SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123 OR A153, AS APPLICABLE. REPAIR OF DAMAGED GALVANIZED COATING SHALL BE IN ACCORDANCE WITH ASTM A780.
- ALL STEEL BAR GRATING USED FOR BRIDGE DECKING, STAIR LANDING AND STAIR TREADS SHALL CONFORM TO ASTM A36. BAR GRATING SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123. REPAIR OF DAMAGED GALVANIZED COATING SHALL BE IN ACCORDANCE WITH ASTM A780.
- UNLESS NOTED OTHERWISE, BOLTS FOR WEATHERING STEEL CONNECTIONS SHALL CONFORM TO A.S.T.M. A325, TYPE 3. HEX NUTS FOR WEATHERING STEEL SHALL CONFORM TO ASTM A563 GRADE C3 OR D43.
- UNLESS NOTED OTHERWISE, STEEL ANCHOR BOLTS CAST IN NEW CONCRETE SHALL CONFORM TO ASTM F1554, GRADE 55, AND SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153. CARBON STEEL NUTS SHALL CONFORM TO ASTM A563, GRADE D4.
- HOLES FOR BOLTS IN STEEL SHALL BE OF SAME DIAMETER AS BOLT +1/16" MAXIMUM.
- ALL WELDING SHALL BE SHIELDED ARC TYPE AND SHALL BE PERFORMED BY A CERTIFIED WELDER. WELDING SHALL BE PERFORMED IN A FABRICATION SHOP REGISTERED AND APPROVED IN ACCORDANCE WITH NOTE 1 ABOVE, OR WELDING SHALL BE INSPECTED IN ACCORDANCE WITH AWS D1.1. CONTINUOUS INSPECTION IS REQUIRED OF ALL FIELD WELDING IN ACCORDANCE WITH AWS D1.1.
- NO STRUCTURAL STEEL MEMBER SHALL BE CUT FOR PIPES, DUCTS, ETC., UNLESS SPECIFICALLY DETAILED AND APPROVED BY STRUCTURAL ENGINEER.
- WHERE SPECIFIED, USE OF HIGH-STRENGTH BOLTS SHALL CONFORM TO THE PROVISIONS OF THE "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS" APPROVED BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS OF THE ENGINEERING FOUNDATION (RCSC). SPECIAL INSPECTION OF HIGH-STRENGTH BOLT CONNECTIONS IS REQUIRED.

FOUNDATION NOTES:

- LOCATION OF TEST HOLES AND LOGS THEREOF ARE SHOWN IN THE GEOTECHNICAL REPORT BY RT&A, PROJECT 2015-009-001, DATED OCTOBER 23, 2015. THE SOILS REPORT AND ITS REQUIREMENTS SHALL BE CONSIDERED A PART OF THESE PLANS.
- FOOTINGS ARE DESIGNED FOR A MAXIMUM ALLOWABLE SOIL BEARING PRESSURE OF 3000 PSF FOR TOTAL OF ALL DEAD PLUS DESIGN LIVE LOADS. REFER TO THE PROJECT GEOTECHNICAL REPORT FOR OTHER ALLOWABLE SOIL BEARING VALUES.
- THE SOILS ENGINEER SHALL REVIEW ALL SITE WORK AND FOOTING EXCAVATIONS BEFORE ANY CONCRETE IS CAST.
- THE SOILS ENGINEER SHALL REVIEW ALL BACKFILL MATERIALS PRIOR TO PLACEMENT AND OBSERVE BACKFILL OPERATIONS.
- FOOTINGS SHALL BE NOT LESS THAN 24" BELOW FINISH GRADE.
- FOOTINGS MAY BE PLACED IN NEAT EXCAVATION WHERE POSSIBLE, PROVIDED AN EXTRA 1" WIDTH OF FOOTING IS PROVIDED ON EACH SIDE AND WRITTEN APPROVAL IS GIVEN BY THE ENGINEER.
- ALL FOOTING EXCAVATIONS SHALL BE HAND CLEANED PRIOR TO PLACING CONCRETE.

DESIGN CRITERIA:

DESIGN CODES AND REFERENCES:
COUNTY OF LOS ANGELES BUILDING CODE, 2014 EDITION
ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
AISC MANUAL OF STEEL CONSTRUCTION, 14TH EDITION
ACI 318-11 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7TH EDITION
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR CONNECTION DETAILS
2016 CALIFORNIA BUILDING CODE

LIVE LOADING:
90 PSF PEDESTRIAN LOAD AND H10 MAINTENANCE VEHICLE LOADING
H10 MAINTENANCE LOADING

WIND LOADING:
WIND SPEED, V = 100 MPH

SEISMIC ANALYSIS:
RISK CATEGORY = II
IMPORTANCE FACTOR, I = 1.00
SITE CLASS = D
SEISMIC DESIGN CATEGORY = D
SEISMIC GROUND MOTION VALUES PER GEOTECH:
 $S_s = 2.889g$ $S_{ds} = 1.825g$
 $S_1 = 1.065g$ $S_{d1} = 1.065g$
PGA = 0.991

SOIL DESIGN PROPERTIES:
ALLOWABLE BEARING PRESSURE = 3000 PSF (DEAD + LIVE LOAD)
MAY BE INCREASED BY 1/3 FOR SHORT DURATION LOADING (SEISMIC AND WIND LOAD)
FRICTION COEFFICIENT = 0.4
LATERAL EARTH PRESSURE:
ACTIVE (LEVEL BACKFILL) = 39 PSF/FT (DRAINED)
ACTIVE (LEVEL BACKFILL) = 81 PSF/FT (UNDRAINED)
SEISMIC SOIL LOAD = 39 PSF/FT (INVERTED TRIANGLE @ 0.6H)
PEDESTRIAN LIVE LOAD = 29 PSF/FT (UNIFORM)
PASSIVE (LEVEL BACKFILL) = 325 PSF/FT (3250 PCF MAX. @ 10'-0")

MATERIAL PROPERTIES:
REINFORCED CONCRETE: $f_c = 4000$ PSI MIN AT 28 DAYS
REINFORCING STEEL: ASTM A-615, GRADE 60, $F_y = 60$ KSI
STRUCTURAL STEEL: $F_y = 36$ KSI
 $F_y = 46$ KSI (HSS TUBES)
 $F_y = 50$ KSI (W SHAPES)
ANCHOR BOLTS: ASTM F1554, GRADE 36, $F_y = 36$ KSI

BRIDGE DESIGN VALUES:
ASSUMED BRIDGE DESIGN WEIGHT = 30,240 LBS (TOTAL SUPERSTRUCTURE WEIGHT w/ DECKING IN PLACE)

SPECIAL INSPECTION REQUIRED:

SPECIAL INSPECTIONS REQUIRED FOR THIS PROJEC SHALL BE PERFORMED IN ACCORDANCE WITH C.B.C. CHAPTER 17.

- FOUNDATIONS:
A. VISUAL EXAMINATION & APPROVAL OF ALL FOUNDATION EXCAVATIONS
- CONCRETE:
A. CAST-IN-PLACE CONCRETE
- REINFORCING STEEL:
A. PLACING OF REINFORCING FOR ALL CONCRETE REQUIRING SPECIAL INSPECTION

STRUCTURAL OBSERVATION:

STRUCTURAL OBSERVATION AS REQUIRED BY C.B.C. CHAPTER 17, AND AS DEFINED BY C.B.C SECTION 1702. STRUCTURAL OBSERVATIONS SHALL BE PROVIDED DURING THE STAGES OF CONSTRUCTION LISTED BELOW.

- CONCRETE REINFORCING STEEL AND EMBEDDED STRUCTURAL ANCHORAGES PRIOR TO PLACEMENT OF CONCRETE FOR THE FOLLOWING:
A. FOUNDATIONS
B. RETAINING WALLS
C. BRIDGE ABUTMENT FOUNDATIONS
- DEFERRED SUBMITTALS/CERTIFICATIONS:
1. OFF-SITE FABRICATION:
FABRICATORS SHALL BE CITY, COUNTY AND/OR C.B.C APPROVED FABRICATORS. FABRICATORS FOR ALL OFFSITE FABRICATION OF THE ITEMS LISTING BELOW
A. STRUCTURAL STEEL (MILL REPORTS AND IDENTIFICATION OF STEEL, AFFIDAVIT OF COMPLIANCE)
2. DEFERRED SUBMITTALS:
SUBMITTAL DOCUMENTS FOR THE DEFERRED SUBMITTAL ITEMS LISTED BELOW SHALL BE DESIGNED BY A LICENSED PE OR SE AND SUBMITTED BY THE CONTRACTOR TO THE BUILDING DEPARTMENT/APPROVED AGENCY AND STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
A. CONCRETE MIX DESIGN
B. REINFORCING STEEL
C. DOWELS
D. GROUT MIX
E. ADDITIVE MIXTURES
F. SHORING METHODS
G. JOINT SEALS
F. PRE-ENGINEERING ALUMINUM PEDESTRIAN BRIDGE

MISCELLANEOUS NOTES:

- PROVISIONS SHALL BE MADE TO PREVENT DEBRIS FROM FALLING INTO THE CHANNEL DURING CONSTRUCTION.
- COMPACTION EQUIPMENT USED TO PLACE BACKFILL BEHIND CHANNEL WALL MUST NOT EXCEED 35,000 POUNDS INCLUDING DYNAMIC FORCED FROM VIBRATOR COMPACTOR.
- NO EQUIPMENT IN EXCESS OF H-10 HIGHWAY LOADING (AASHTO), AND NO STOCKPILING OF MATERIAL WILL BE PERMITTED ALONG THE CHANNEL WITHIN A DISTANCE OF WALL HEIGHT.
- NO EQUIPMENT IN EXCESS OF H-20 HIGHWAY LOADING WILL BE PERMITTED TO OPERATE ON THE INVERT OF THE CHANNEL. ONLY RUBBER-TIRED, LEGALLY LOADED EQUIPMENT SHALL BE OPERATED ON THE EXPOSED CHANNEL INVERT. IF STEEL CRAWLER TYPE EQUIPMENT IS USED, WOODEN MATTING SHALL BE PROVIDED OVER THE INVERT IN THE OPERATING AREA.

STRUCTURAL ABBREVIATIONS

AB	ANCHOR BOLT	HORIZ(H)	HORIZONTAL
AFF	ABOVE FINISH FLOOR	HSB	HIGH STRENGTH BOLT
ARCH	ARCHITECTURAL	INT	INTERIOR
L	ANGLE	JST	JOIST
BLDG	BUILDING	JT	JOINT
BLKG	BLOCKING	MAX	MAXIMUM
BM	BEAM	MB	MACHINE BOLTS
BOT(B)	BOTTOM	MIN	MINIMUM
BOP	BOTTOM OF FOOTING	MAS	MASONRY
BOW	BOTTOM OF WALL	MFR	MANUFACTURER
CTR	CENTER	MO	MASONRY OPENING
CJ	CONTROL JOINT	MECH	MECHANICAL
CMU	CONCRETE MASONRY UNIT	(N)	NEW
CTSK	COUNTERSINK	NTS	NOT TO SCALE
CLR	CLEAR	NS	NEAR SIDE
CONT	CONTINUOUS	OC	ON CENTER
COL	COLUMN	OPNG	OPENING
CONC	CONCRETE	OSB	ORIENTED STRAND BOARD
CONN	CONNECTION	PL	PLATE
CONSTR	CONSTRUCTION	PLYWD	PLYWOOD
DIA.	DIAMETER	PT	PRESSURE TREATED
DO	DITTO	REINF	REINFORCEMENT
DWL	DOWEL	REQD	REQUIRED
EXIST(E)	EXISTING	SHTG	SHEATHING
EXP BT	EXPANSION BOLT	STD	STANDARD
EL	ELEVATION (DATUM)	STIFF	STIFFENER
ELEV	ELEVATION (VIEW)	STL	STEEL
EN	EDGE NAILING	SYM	SYMMETRICAL
ES	EACH SIDE	T&B	TOP & BOTTOM
EA	EACH	TOC	TOP OF CONCRETE
EW	EACH WAY	TOP	TOP OF PLYWOOD
EXT	EXTERIOR	TOS	TOP OF STEEL
FIN	FINISH	TOW	TOP OF WALL
FLR	FLOOR	TOP	TOP OF FOOTING
FOUND	FOUNDATION	TYP	TYPICAL
FOS	FACE OF STUD	VERT(V)	VERTICAL
FS	FINISHED SURFACE	V.I.F.	VERIFY IN FIELD
FTG	FOOTING	UNO	UNLESS NOTED OTHERWISE
GALV	GALVANIZED	WWF	WELDED WIRE FABRIC
GLB	GLUE-LAM BEAM	W	WITH
HDR	HEADER		

IMPROVEMENTS NOT TO BE
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SAN FERNANDO
PUBLIC WORKS DEPARTMENT

SUBMITTED BY:

CITY ENGINEER, RCE XXXXX

(NAME)

CITY OF SAN FERNANDO

MOUNTAINS RECREATION AND CONSERVATION AUTHORITY
PACOMA WASH BIKEWAY
LOS ANGELES COUNTY
GENERAL STRUCTURAL NOTES

Project No.: 135-60589-14001
Designed By:
Drawn By:
Checked By:

S-001
SHEET 15 OF 20

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1. VERTICAL DIMENSION FROM DECK SURFACE TO BOTTOM OF LOWEST TRUSS MEMBER SHALL BE 1' - 8 1/2", AS SHOWN ON PLANS.
2. STATION LINES ARE FOR CONSTRUCTION PURPOSES ONLY.
3. CONTROLLING DIMENSIONS FOR TRUSS ARE SHOWN. THE CONTRACTOR SHALL PROVIDE TRUSS DESIGN DETAILS TO BE CONSTRUCTED IN ACCORDANCE WITH ALL SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
4. TOP AND BOTTOM TRUSS CHORDS ASSUMED TO BE 6" WIDE, CONTRACTOR TO VERIFY.
5. TOP OF HANDRAIL GRIPPING SURFACE SHALL BE MOUNTED BETWEEN 34" AND 38" ABOVE BRIDGE DECK PER ADAAG 4.8.5(6) AND TITLE 24 11338.5.1

THE PRE-ENGINEERED PEDESTRIAN ALUMINUM TRUSS BRIDGE SHALL BE DESIGNED IN ACCORDANCE WITH THE FOLLOWING CODES, REFERENCES, AND PARAMETERS. FOR ALL OTHER INFORMATION NOT LISTED HERE, REFER TO THE SPECIFICATIONS FOR ADDITIONAL DESIGN AND CONSTRUCTION REQUIREMENTS.

DESIGN CODES AND REFERENCES:
 -AASHTO LRFD BRIDGE DESIGN SPECIFICATION, 7TH EDITION (2014)
 -ALUMINUM DESIGN MANUAL(LATEST EDITION)
 -AISC MANUAL OF STEEL CONSTRUCTION, 14TH EDITION
 -2016 CALIFORNIA BUILDING CODE (2016)

LIVE LOADING:
PEDESTRIAN LOAD = 90 PSF AND H10 VEHICLE LOADING

SEISMIC DESIGN PARAMETERS:
LOCATION: LAT. 22.21087, LONG. -159.59758

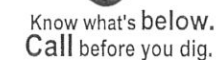
PGA = 0.991g As = 0.088g
Ss = 0.118g S1 = 0.034g
Sds = 0.189g Sd1 = 0.082g

WING LOAD DESIGN PARAMETERS
DESIGN WIND SPEED, $V = 100$ MPH

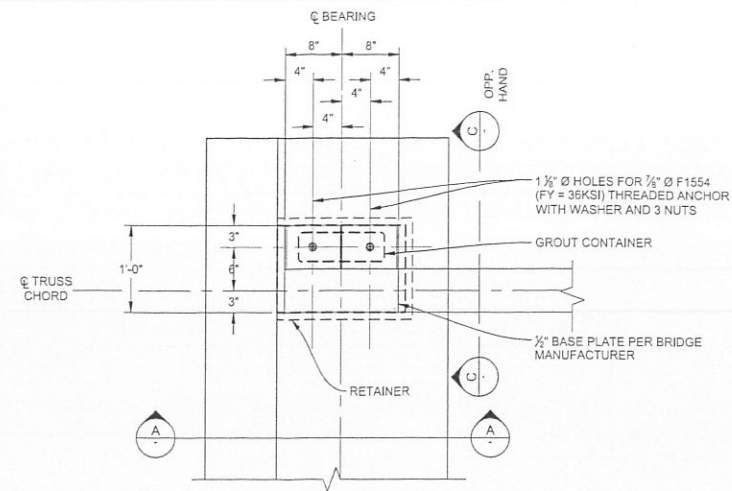
MATERIAL PROPERTIES:
ALL PRIMARY STRUCTURAL MEMBERS SHALL BE 6061-T6 (HIGH STRENGTH AND CORROSION RESISTANCE) MINIMUM. SECONDARY MEMBERS SHALL BE 6000 SERIES MINIMUM. FOR ADDITIONAL REQUIREMENTS AND INFORMATION, REFER TO PROJECT SPECIFICATIONS.



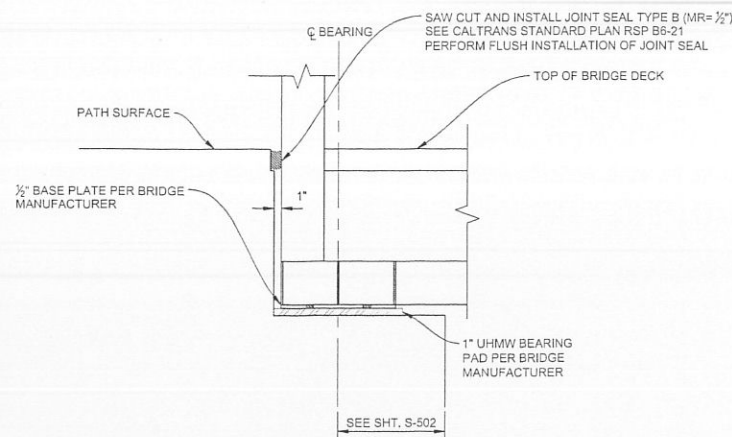
PLAN



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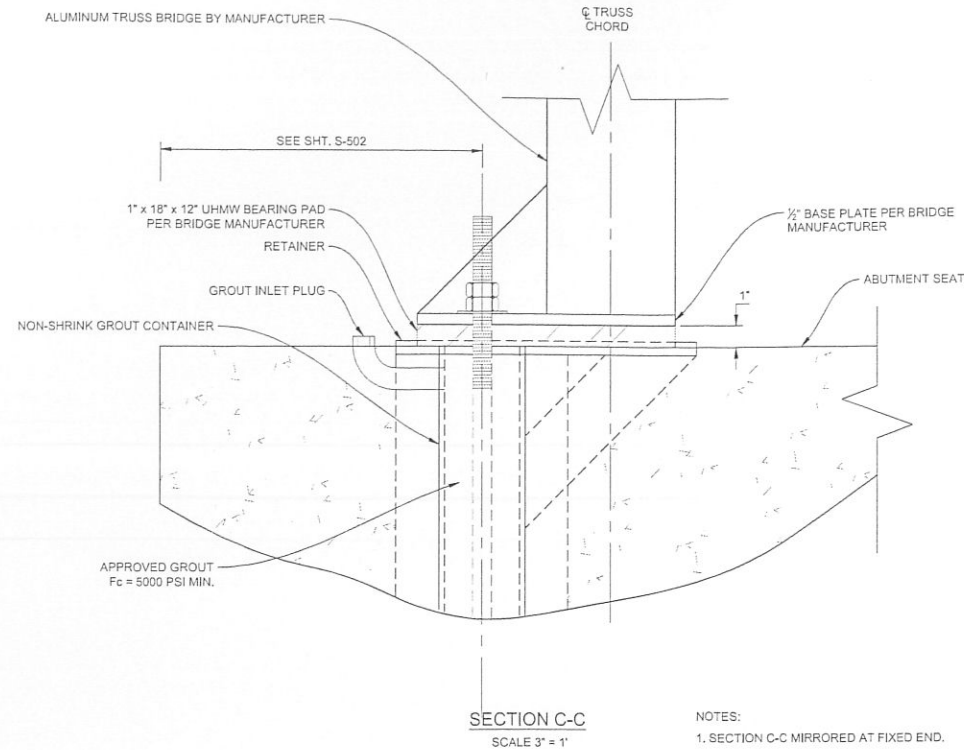
PLAN AT FIXED END (ABUTMENT 1)
SCALE 1" = 1'



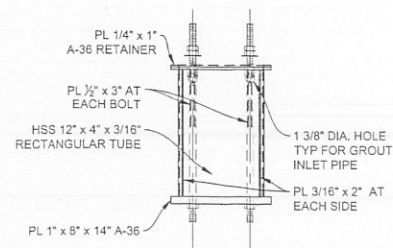
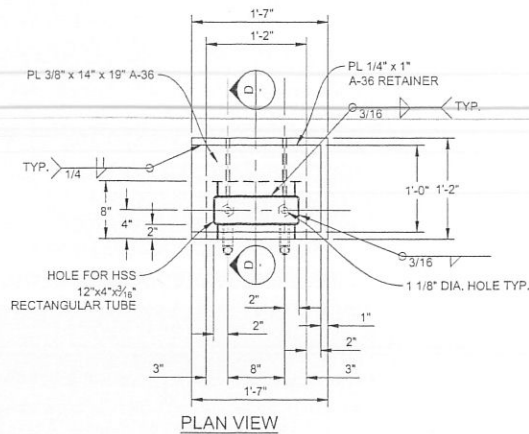
SECTION A-A
SCALE 1" = 1'

NOTES TO CONTRACTOR:

1. CONTRACTOR TO VERIFY FIXED END OF TRUSS LOCATION.
2. TRUSS SHOP DRAWING SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT OF ANCHOR BOLTS OR GROUT CONTAINERS.
3. AT EXPANSION END, NUTS AT TOP OF ANCHOR BOLTS SHALL BE FINGER TIGHTENED AFTER CONCRETE BRIDGE DECK IS POURED.

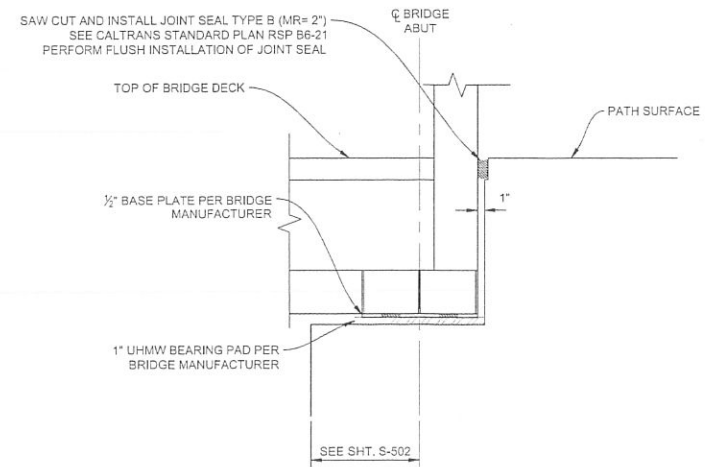
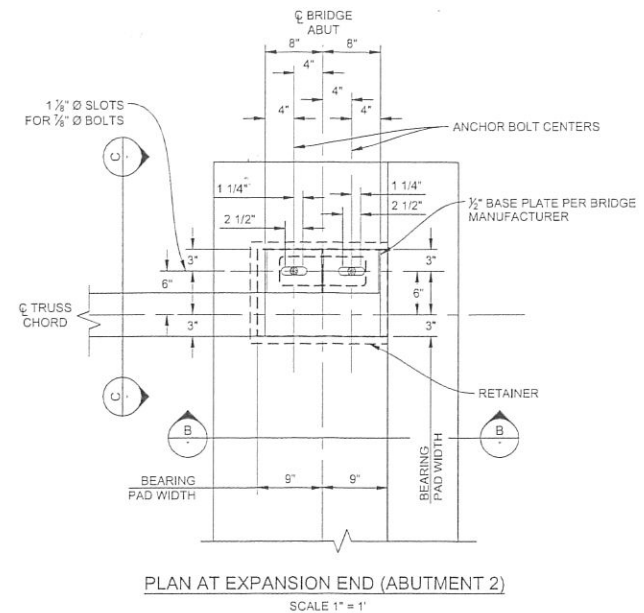


- NOTES:
1. SECTION C-C MIRRORED AT FIXED END.



GROUT CONTAINER DETAILS
SCALE 1" = 1'

- NOTES:
1. GROUT CONTAINER FOR FIXED END SHOWN. EXPANSION END SIMILAR.
 2. GROUT CONTAINERS SHALL BE SANDBLASTED, THEN HOT DIP GALVANIZED, AFTER FABRICATION. SEE SPECIAL PROVISIONS.
 3. ANCHORS, NUTS, AND WASHERS SHALL BE HOT DIP GALVANIZED.



SECTION B-B
SCALE 1" = 1'



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SUBMITTED BY: DATE
(NAME) CITY ENGINEER: RCE XXXXX

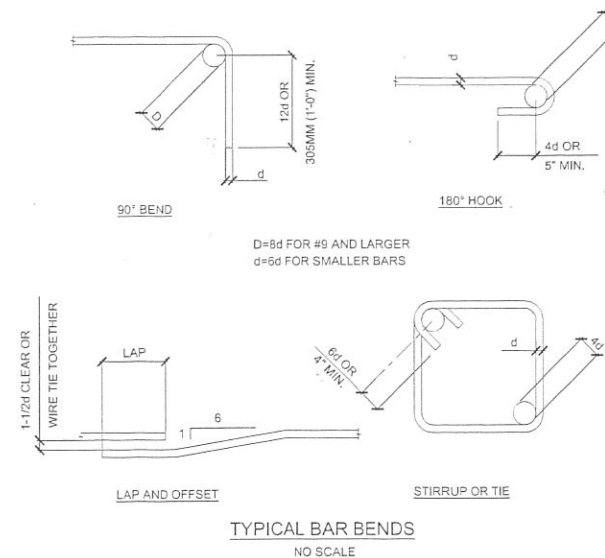
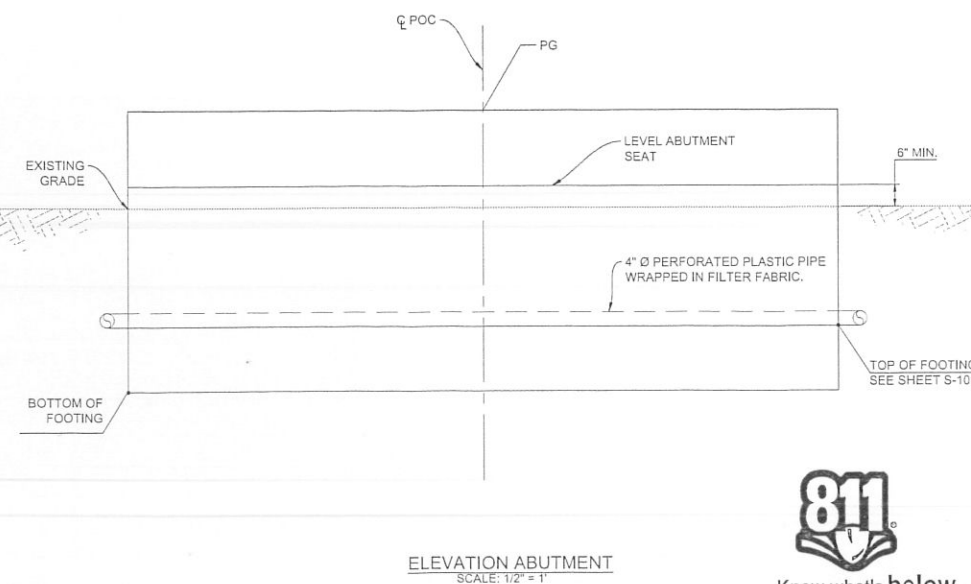
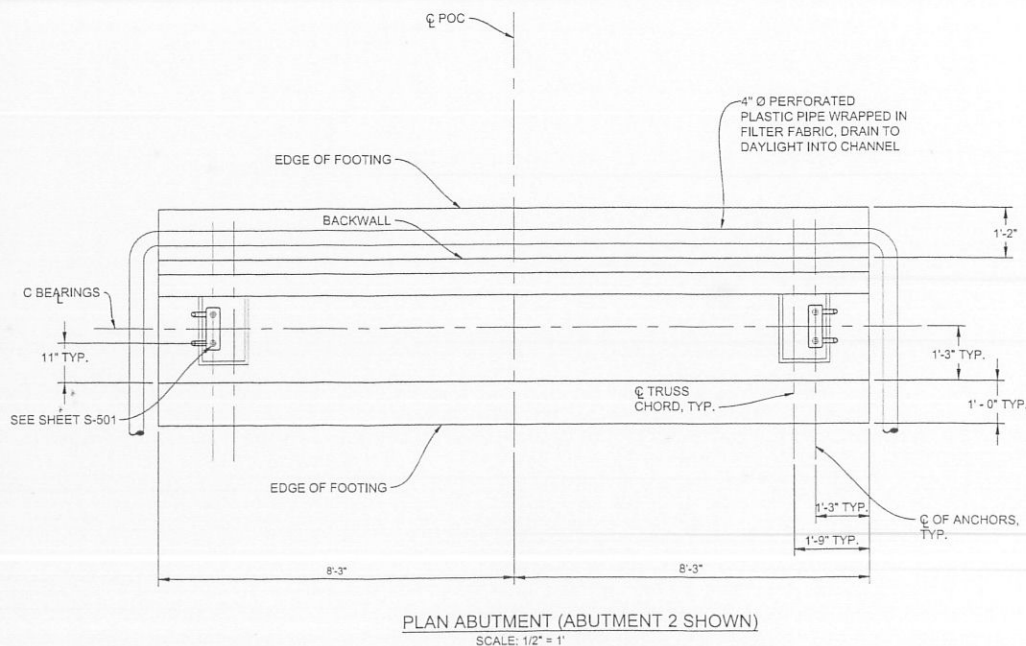
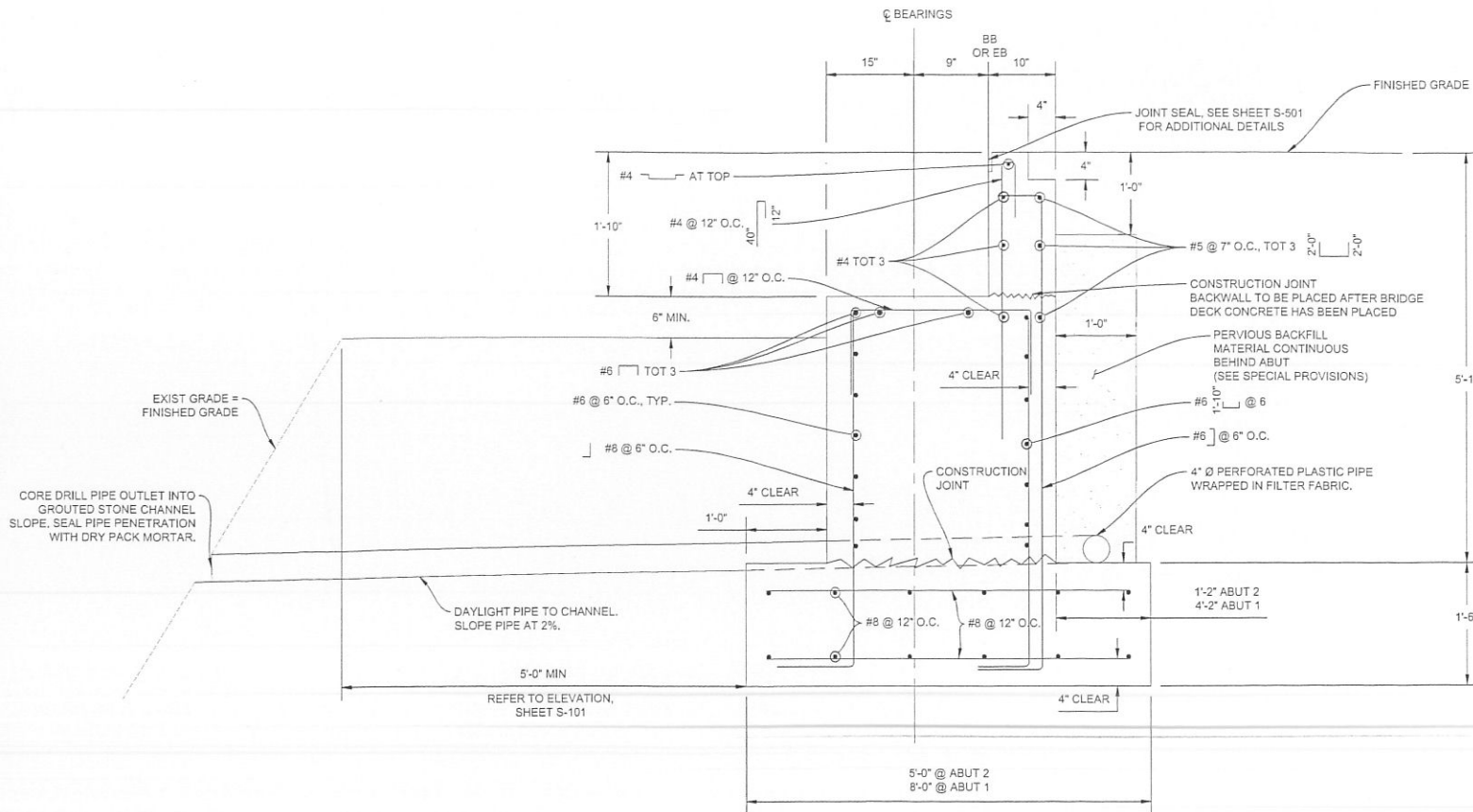
BY
DATE
DESCRIPTION
MARK
MOUNTAINS RECREATION AND CONSERVATION AUTHORITY
PACOMA WASH BIKEWAY
LOS ANGELES COUNTY
8TH ST. PEDESTRIAN BRIDGE
ANCHOR BOLT DETAIL AND LOCATION PLAN
CITY OF SAN FERNANDO

Project No.: 135-60589-14001
Designed By:
Drawn By:
Checked By:

S-501
SHEET 17 OF 20
Bar Measures 1 inch

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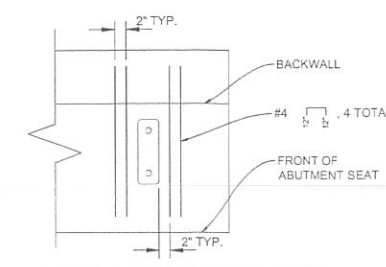
REINFORCING LAP SPLICE SCHEDULE				
BAR	f _c =2500	f _c =3250	f _c =4000	f _c =5000
3	24"	21"	19"	17"
4	32"	28"	25"	23"
5	39"	35"	31"	28"
6	47"	42"	37"	34"
7	69"	60"	54"	49"
8	78"	69"	62"	56"

- NOTES:
- LAPS SHOWN IN THIS TABLE ARE CLASS B, CATEGORY 3 TYPE SPLICES. LAP LENGTH IS BASED UPON SMALLER OF TWO BARS BEING SPLICED WHEN NOT THE SAME SIZE.
 - INCREASE LAP LENGTHS BY A FACTOR OF 1.3 FOR HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 305MM (12") OF CONCRETE IS CAST IN THE MEMBER BELOW THIS REINFORCEMENT.

REINFORCING LAP SPLICE SCHEDULE
NO SCALE

GENERAL NOTES:

- Design: AASHTO LRFD Bridge Design Specifications, 7th Edition (2014)
2016 California Building Code
- Live Loading: 90 psf Pedestrian Load & H10 Maintenance Vehicles
- Wind Loading: AASHTO LRFD Bridge Design Specifications, 7th Edition (2014)
Wind Speed, V=100mph
- Seismic Analysis: AASHTO LRFD Bridge Design Specifications For Connection Detail
PGA=0.991
- Footing Design: Refer to the project geotechnical report prepared by RTF&A, October 23, 2015.
Job No. 2015-008-001:
Allowable Bearing Pressure=3000 psf (Dead + Live Load, 1/2 Increase for Seismic)
Coefficient of Friction = 0.4
- Material Properties: Reinforced Concrete: f_c = 4000 psi Min at 7 days
Reinforcing Steel: ASTM A-615, Grade 60, F_y=60ksi
Misc Structural Steel: ASTM A36, F_y=36ksi
Anchor Bolts: ASTM F1554, Grade 36, F_y=36ksi



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MOUNTAINS RECREATION AND CONSERVATION AUTHORITY
PACOMA WASH BIKEWAY
LOS ANGELES COUNTY

PUBLIC WORKS DEPARTMENT

SUBMITTED BY:

(NAME)

CITY ENGINEER, RCE XXXXX

DATE

MOUNTAINS RECREATION AND CONSERVATION AUTHORITY
PACOMA WASH BIKEWAY
LOS ANGELES COUNTY

8TH ST. PEDESTRIAN BRIDGE
ABUTMENT LAYOUT, SECTION, AND DETAILS

CITY OF SAN FERNANDO

Project No.: 135-60589-14001

Designed By:

Drawn By:

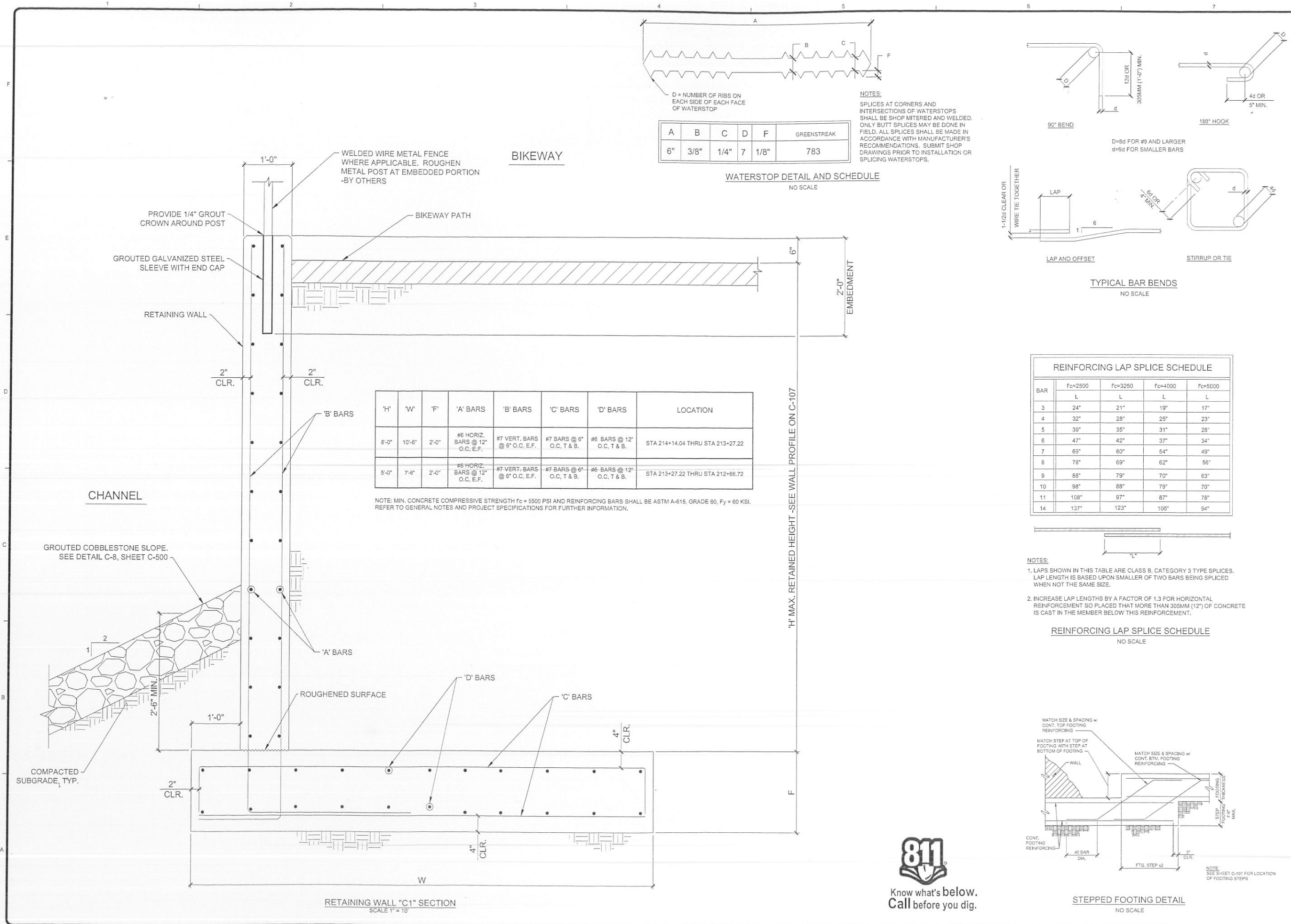
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S-502

SHEET 18 OF 20

Bar Measures 1 inch

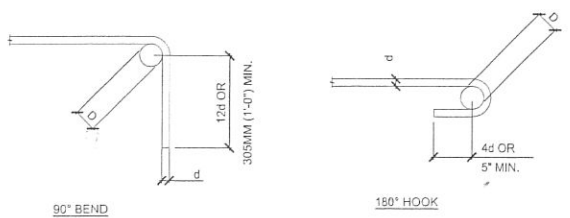
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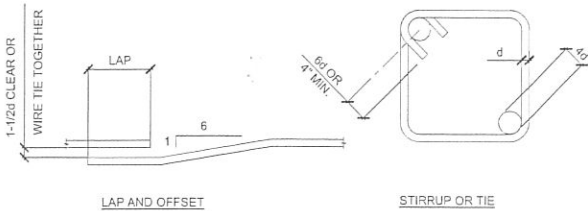
A	B	C	D	F	GREENSTREAK
6"	3/8"	1/4"	7	1/8"	783

WATERSTOP DETAIL AND SCHEDULE
NO SCALE

NOTES:
SPICES AT CORNERS AND INTERSECTIONS OF WATERSTOPS SHALL BE SHOP MITERED AND WELDED. ONLY BUTT SPICES MAY BE DONE IN FIELD. ALL SPICES SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. SUBMIT SHOP DRAWINGS PRIOR TO INSTALLATION OR SPlicing WATERSTOPS.



D=8d FOR #9 AND LARGER
d=6d FOR SMALLER BARS



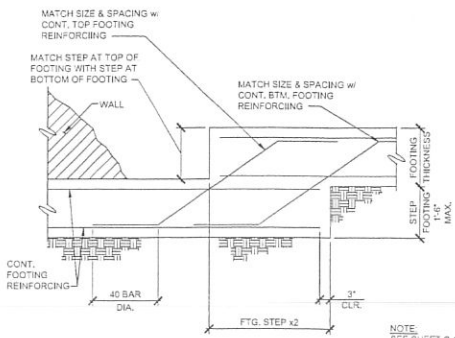
TYPICAL BAR BENDS
NO SCALE

BAR	$f_c=2500$	$f_c=3250$	$f_c=4000$	$f_c=5000$
	L	L	L	L
3	24"	21"	19"	17"
4	32"	28"	25"	23"
5	39"	35"	31"	28"
6	47"	42"	37"	34"
7	69"	60"	54"	49"
8	78"	69"	62"	56"
9	88"	79"	70"	63"
10	98"	88"	79"	70"
11	108"	97"	87"	78"
14	137"	123"	105"	94"

NOTES:

1. LAPS SHOWN IN THIS TABLE ARE CLASS B, CATEGORY 3 TYPE SPLICES. LAP LENGTH IS BASED UPON SMALLER OF TWO BARS BEING SPICED WHEN NOT THE SAME SIZE.
2. INCREASE LAP LENGTHS BY A FACTOR OF 1.3 FOR HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 305MM (12") OF CONCRETE IS CAST IN THE MEMBER BELOW THIS REINFORCEMENT.

REINFORCING LAP SPLICE SCHEDULE

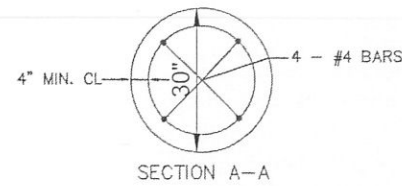
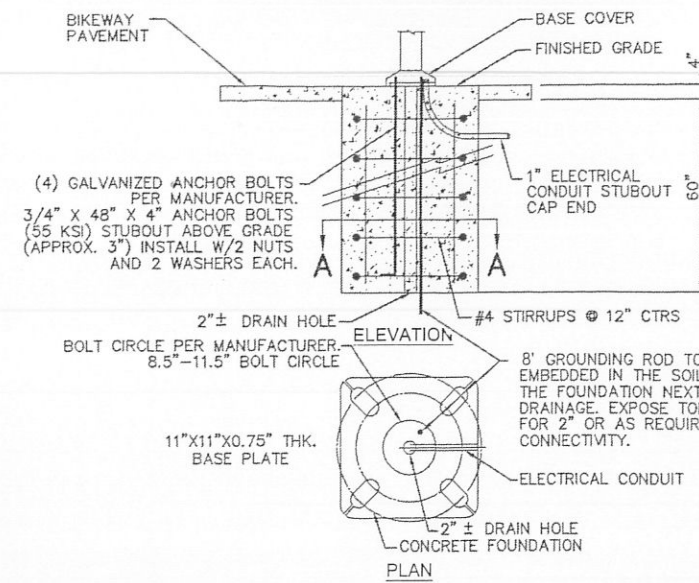


STEPPED FOOTING DETAIL
NO SCALE



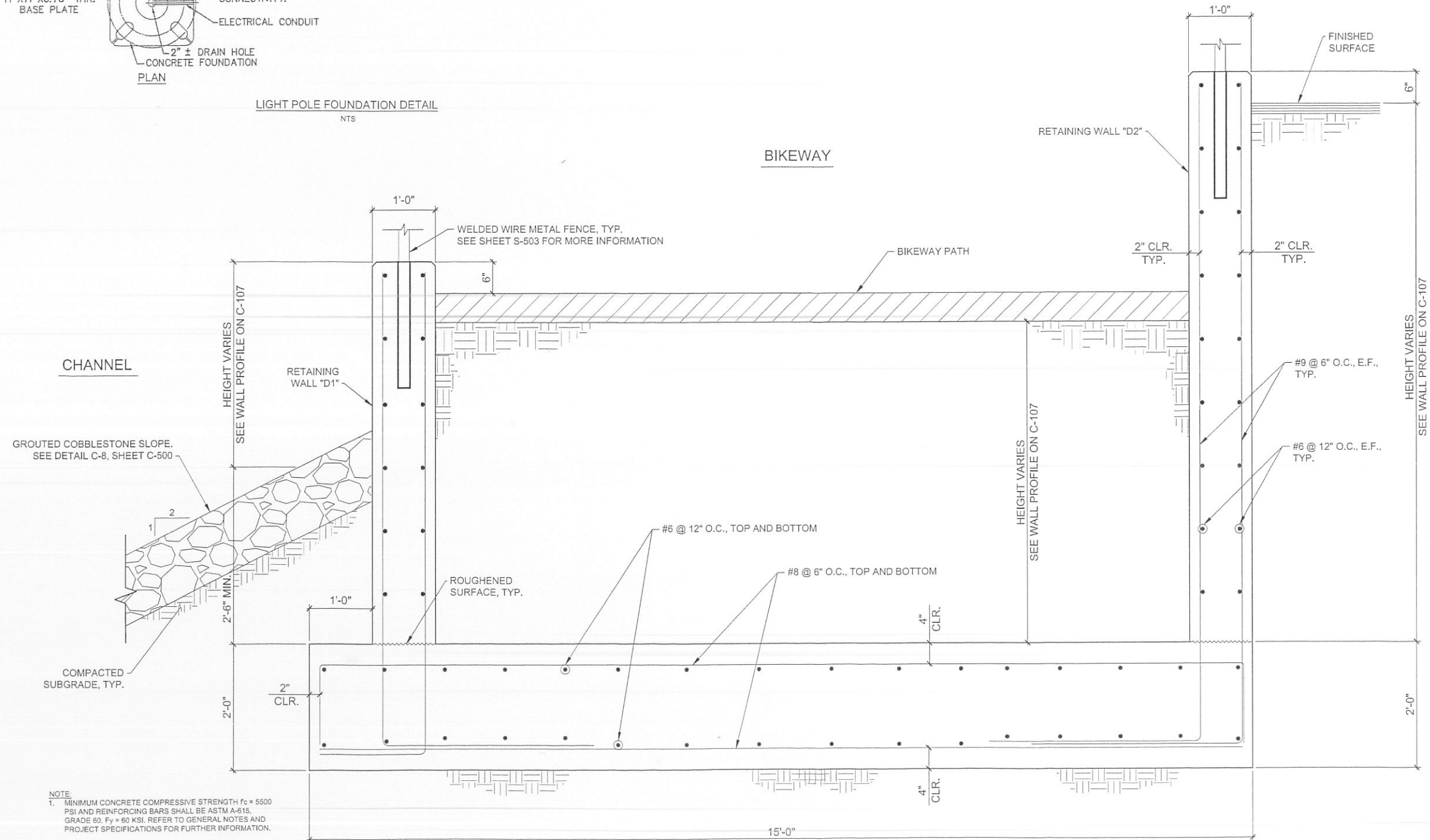
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NOTE:
1. REFER TO L-SHEETS FOR LIGHT/LIGHT POLE LOCATIONS.

LIGHT POLE FOUNDATION DETAIL
NTS



NOTE:
1. MINIMUM CONCRETE COMPRESSIVE STRENGTH $f_c = 5500$ PSI AND REINFORCING BARS SHALL BE ASTM A-615, GRADE 60, $F_y = 60$ KSI. REFER TO GENERAL NOTES AND PROJECT SPECIFICATIONS FOR FURTHER INFORMATION.

RETAINING WALL "D1" AND "D2" SECTION
1" = 10'

PRIVATE PROPERTY



SAN FERNANDO
PUBLIC WORKS DEPARTMENT
SUBMITTED BY: (NAME)
CITY ENGINEER, RCE XXXXX
DATE

MARK	DATE	DESCRIPTION	BY

MOUNTAINS RECREATION AND CONSERVATION AUTHORITY
PACOMA WASH BIKEWAY
LOS ANGELES COUNTY
STRUCTURAL DETAILS
CITY OF SAN FERNANDO

Project No.: 135-60589-14001
Designed By:
Drawn By:
Checked By:
S-504
SHEET 20 OF 20
Bar Measures 1 inch



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CONSTRUCTION NOTES

1. DRAWING IS DIAGRAMMATIC. VERIFY ALL CONDITIONS AND LOCATIONS ON SITE PRIOR TO THE START OF CONSTRUCTION. NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY IF ANY ERRORS OR DISCREPANCIES ARE FOUND, BEFORE PROCEEDING WITH ANY WORK.
2. DO NOT SCALE DRAWINGS. USE DIMENSIONS AS INDICATED ON PLAN.
3. DO NOT WILLFULLY PROCEED WITH CONSTRUCTION WHEN IT IS OBVIOUS THAT OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN APPARENT DURING DESIGN. OBTAIN DIRECTION BEFORE PROCEEDING WITH CONSTRUCTION IN SUCH CASES.
4. THE LOCATION OF ALL SERVICE RUNS, SUCH AS WATER SUPPLY, ELECTRICAL (OVERHEAD AND UNDERGROUND), TELEPHONE, SANITARY SEWER, ETC. SHOULD BE ASCERTAINED BEFORE WORK IS STARTED. WHERE THEY WILL BE AFFECTED BY EXCAVATION OR WHERE MACHINES MAY BE WORKING NEARBY, THEY SHOULD BE CAREFULLY SEALED, PROTECTED, OR DIVERTED. NOTIFY LANDSCAPE ARCHITECT OF ANY CONFLICT WITH PROPOSED IMPROVEMENTS.
5. COORDINATE ALL UTILITY RUNS AND INSTALLATIONS (EXISTING AND NEW) PRIOR TO PAVING INSTALLATION. VERIFY ALL SLEEVES AND ELECTRIC SOURCES FOR IRRIGATION CLOCK AND LIGHTING WITH PROPER SUB-CONTRACTORS.
6. CLEAN OUT AND ADJUST EXISTING DRAINS TO ACCOMMODATE PROPOSED DRAINAGE. ADJUST LATERAL DRAIN LINES AS NECESSARY TO BEST LINK EXISTING MAIN LINES.
7. OBTAIN INSPECTION AND APPROVAL OF ALL FORMS PRIOR TO PLACING ASPHALT.
8. TRANSITIONS FROM EXISTING PAVING TO NEW PAVING SHALL BE FLUSH.
9. REFER TO PLANS AND GENERAL NOTES FOR ADDITIONAL NOTES AND INFORMATION REGARDING THE CONSTRUCTION OF THIS PROJECT.
10. CONSTRUCT ALL WALLS, PAVING, DRAIN LINES, SLEEVING, ETC. PER PLAN AND DETAILS.
11. BACKFILL AND COMPACT BEHIND ALL WALLS AND MASONRY STRUCTURES, AS REQUIRED ON DRAWINGS AND DETAILS. BACKFILL PLANTERS WITH TOP GRADE SANDY-LOAM TOPSOIL PER PLANTING NOTES.
12. CLEAN UP AND REMOVE ALL DEBRIS FROM SITE PRIOR TO REQUESTING FINAL APPROVAL. GRADE ALL AREAS WITHIN 5 INCH OF FINISH GRADES. NOTE AREAS OF ADDITIONAL GRADING SHOWN. COORDINATE WITH LANDSCAPE ARCHITECT THE FINAL FORM OF LANDSCAPE MOUNDS.

REFERENCE NOTES SCHEDULE

SYMBOL	AMENITIES DESCRIPTION	QTY	DETAIL	MANUFACTURER	MATERIALS	FINISH	COLOR	REMARKS	CONTACT
A-101	12X90 BRIDGE	1	3/L2.01	EXCEL	FAUX BOW	GALVANIZED STEEL			JODI SEIDL (320) 762-1368
A-103	REMOVABLE BOLLARD	18	1/L2.02	BLOCKAIDES, INC.	STEEL	POWDER COATED	BLACK	KITCHENER HEAD	909-217-3412 X102
SYMBOL	FENCE DESCRIPTION	QTY	DETAIL	MANUFACTURER	MATERIAL	FINISH	COLOR	CONTACT	
F-101	METAL FENCE	14,049 LF	1/L2.01	DESIGNMASTER	FORTE	POWDER COAT	BLACK	GILBERT CECCHETTINI (858) 335-7180	
SYMBOL	GATE DESCRIPTION	QTY	DETAIL	MANUFACTURER	MATERIALS	FINISH	COLOR	CONTACT	
G-101	VEHICULAR GATE	14	2/L2.02	DESIGNMASTER	FORTE	POWDER COAT	BLACK	GILBERT CECCHETTINI (858) 335-7180	
SYMBOL	LIGHTING DESCRIPTION	QTY	DETAIL	MANUFACTURER	MODEL	FINISH	COLOR	CONTACT	
L-101	LIGHT POLE	126	3/L2.02	SOL	TPM SERIES	POWDERCOAT	BRONZE	SCOTT DOUGLAS (772) 286-9481	
SYMBOL	PAVING DESCRIPTION	QTY	DETAIL	MATERIALS	REMARKS				
P-101	ASPHALT PAVING	65,308 SF	2/L2.01	ASPHALT	SEE CIVIL DWG				
SYMBOL	WALL DESCRIPTION	QTY	DETAIL	MATERIALS	FINISH	COLOR	REMARKS		
W-101	RETAINING WALL	400 LF		CONCRETE	SACRIFICIAL COATING	WHITE	SEE CIVIL DWG		

Project Title:
Pacoima Wash
Bikeway

BRADLEY AVE TO PACOIMA
WASH NATURAL PARK



MIA LEHRER + ASSOCIATES
155 S. Myers St., Los Angeles, CA 90033
www.mlsgraben.com

Project Team:
TETRA TECH
17885 Von Karman, Ste. 500
Irvine, CA 92614
Tel: 949 809-5205
fax: 949 809 5010
email: Joe.corroy@tetratech.com

REVISIONS:

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WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THE LANDSCAPE ARCHITECT IS TO BE INFORMED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS. EXISTING CONDITIONS AND LOCATIONS OF UTILITIES, HAVE NOT BEEN REVERSED INDEPENDENTLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR BEFORE BEGINNING WORK, TO DETERMINE THE EXISTING LOCATION OF ALL EXISTING AND EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND CONDITIONS REQUIRED NOT INCLUDED IN THESE DRAWINGS. CIVIL, STRUCTURAL, AND MECHANICAL ENGINEERING BY OTHERS, GRADING AND DRAINAGE BY OTHERS.

SHOP DRAWINGS MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR REVIEW BEFORE PROCEEDING WITH FABRICATION.



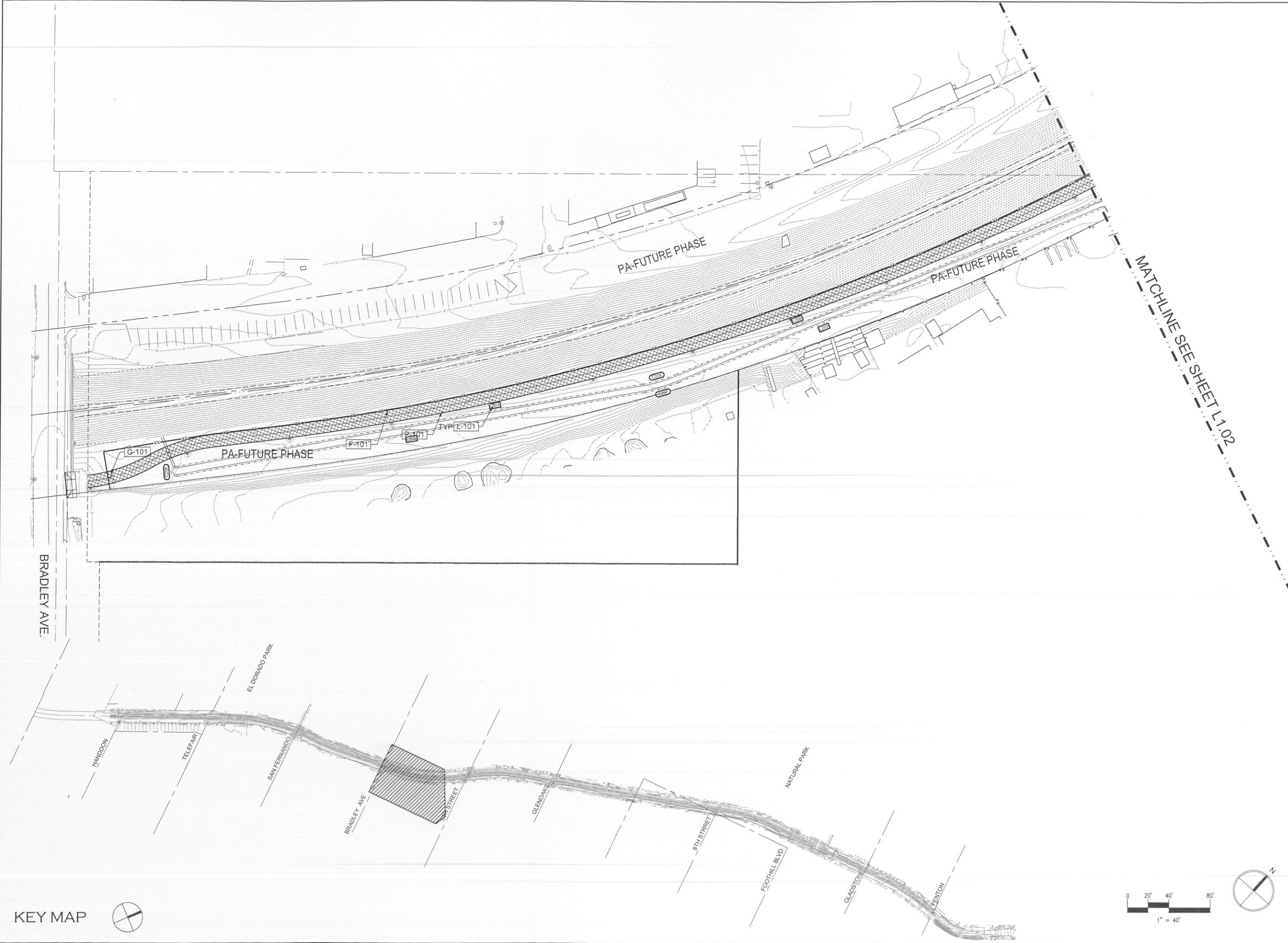
Sheet Title:
CONSTRUCTON
NOTES & SCHEDULE

Date:
9/6/17

Project No: PAC2014	File Name:
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Sheet Number:

L-1.00



Project Title:
**Pacoima Wash
Bikeway**

BRADLEY AVE TO PACOIMA
WASH NATURAL PARK



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DRAFT DRAWINGS MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR REVIEW BEFORE PROCEEDING WITH CONSTRUCTION.



Sheet Title:
**CONSTRUCTION
PLAN**

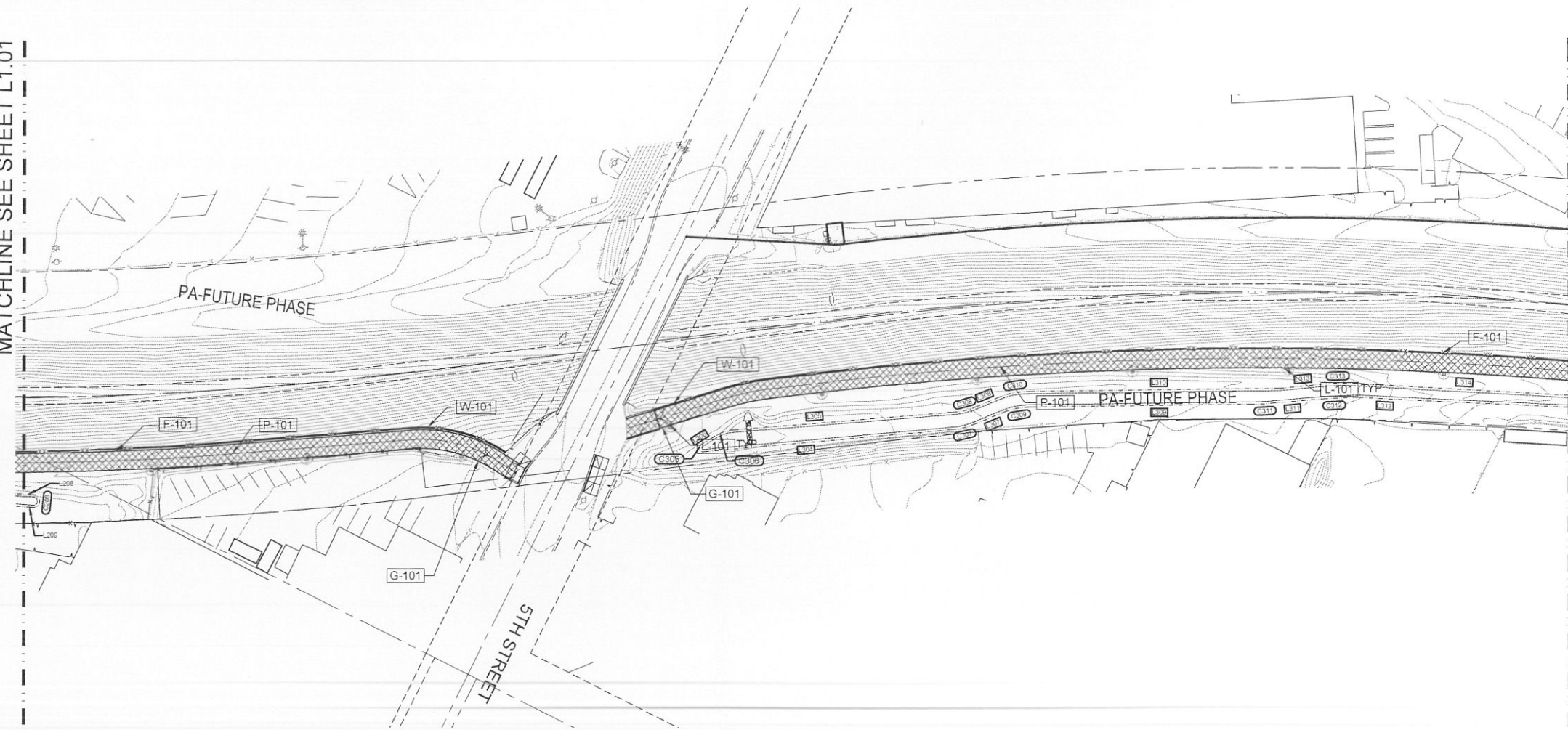
Date:
9/6/17

Project No:
PAC2014

File Name:

Sheet Number:
L-1.01

MATCHLINE SEE SHEET L1.01



--- MATCHLINE SEE SHEET L1.03

Project Title:
Pacoima Wash
Bikeway

BRADLEY AVE TO PACOIMA
WASH NATURAL PARK

MLA
landscape architecture | urban design | planning

MIA LEHRER + ASSOCIATES
185 S. Myers St., Los Angeles, CA 90033
www.mialee.com

Project Team:
TETRA TECH
17885 Von Karman, Ste. 500
Irvine, CA 92614
tel: 949.809.5209
fax: 949.809.5010
email: Joe.conroy@tetrattech.com

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RIGHT-OF-WAY DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THE LANDSCAPE ARCHITECT IS TO BE INFORMED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS. EXISTING CONDITIONS AND LOCATIONS OF UTILITIES HAVE NOT BEEN VERIFIED INDEPENDENTLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR BEFORE BEGINNING WORK TO DETERMINE THE EXACT LOCATION OF ALL EASEMENTS AND EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND ENGINEERING REQUIRED NOT INCLUDED IN THESE DRAWINGS. CIVIL, STRUCTURAL AND MECHANICAL ENGINEERING BY OTHERS, GRADING AND DRAINAGE BY OTHERS.

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Sheet Title:

CONSTRUCTION
PLAN

Date: 9/6/17

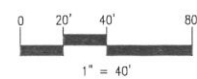
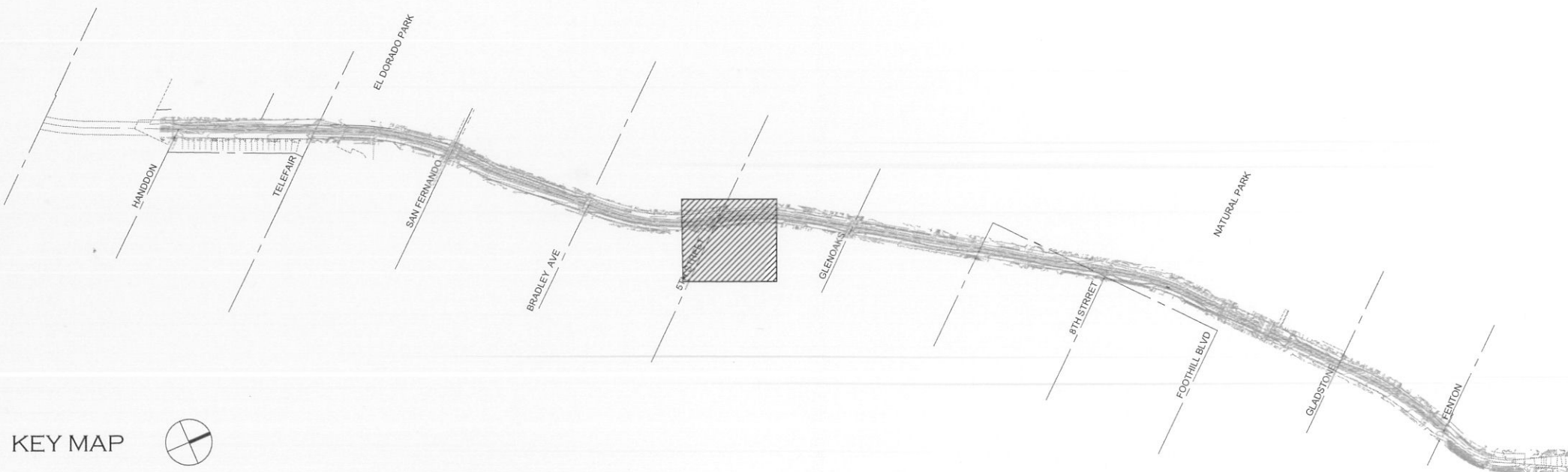
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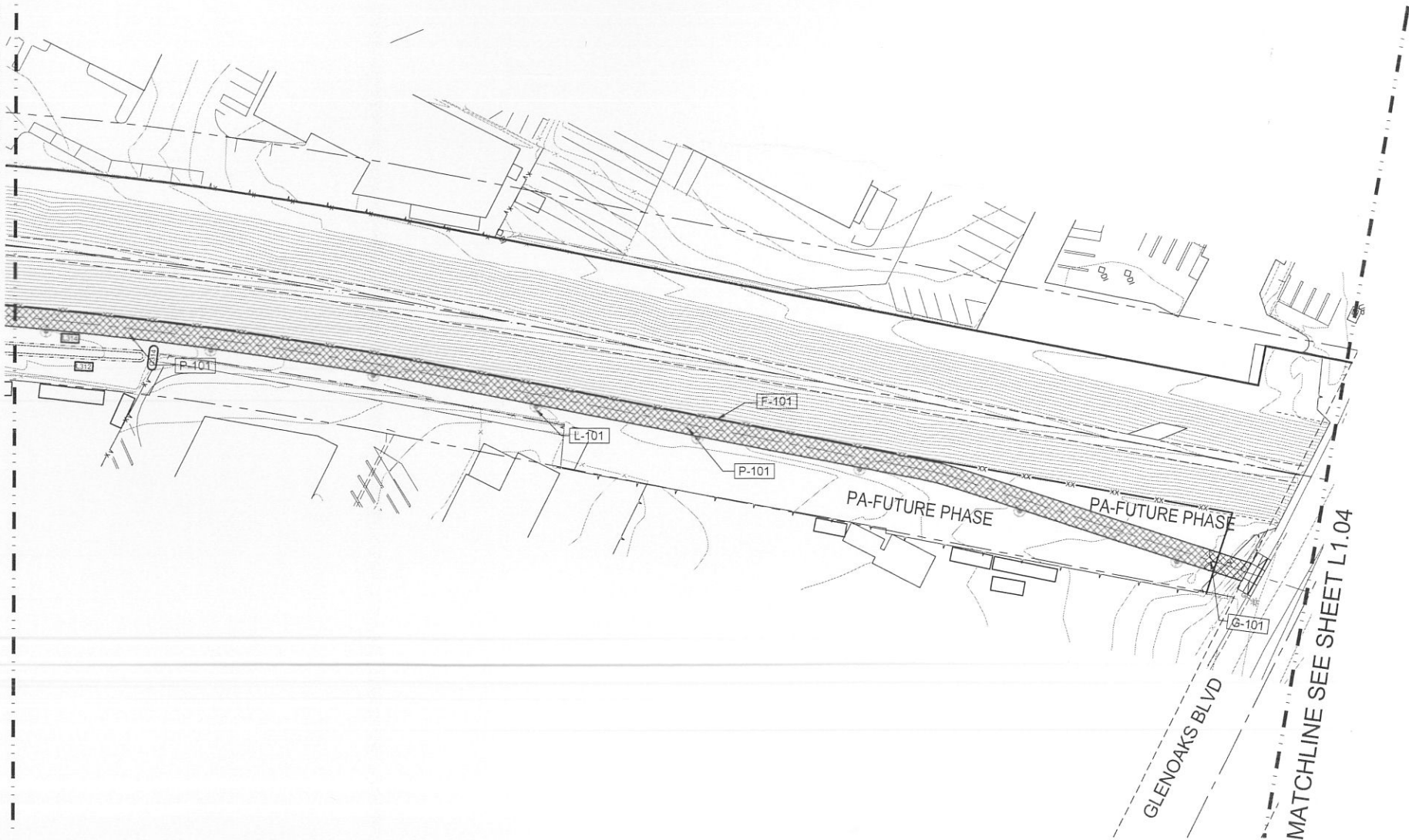
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L-1.02

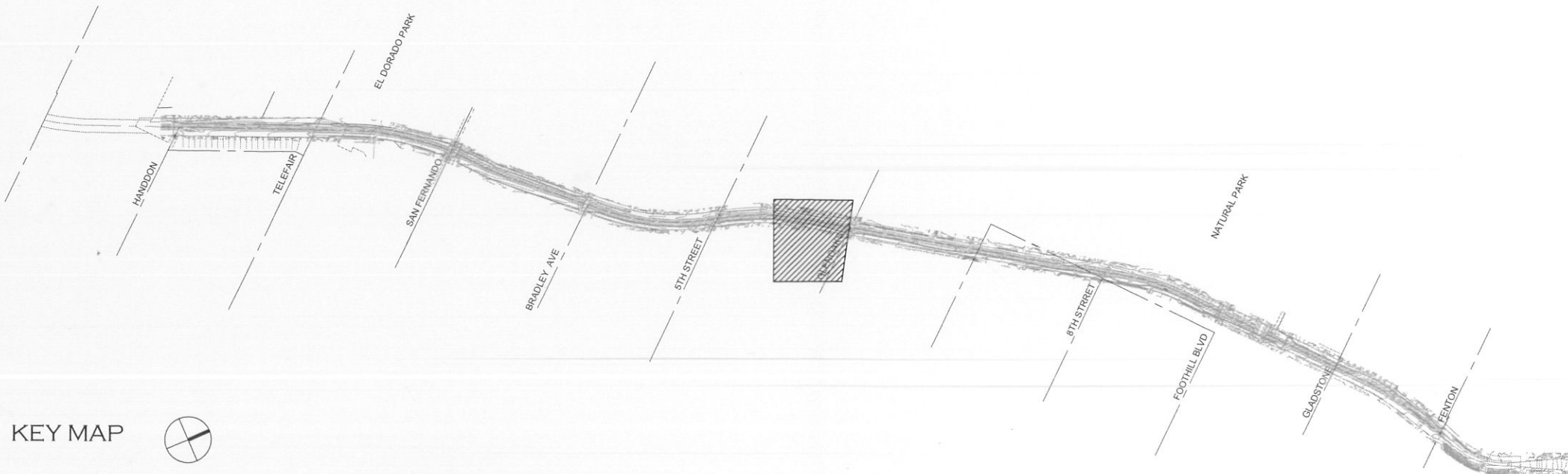
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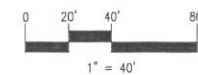
MATCHLINE SEE SHEET L1.02



MATCHLINE SEE SHEET L1.04



KEY MAP



Project Title:
Pacoima Wash
Bikeway

BRADLEY AVE TO PACOIMA
WASH NATURAL PARK

MLA
landscape architecture | urban design | planning

MIA LEHRER + ASSOCIATES
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Sheet Number:

L-1.03

MATCHLINE SEE SHEET L1.03

GLENOAKS BLVD

PA-FUTURE PHASE

G-101

L-101 TYP

PA-FUTURE PHASE

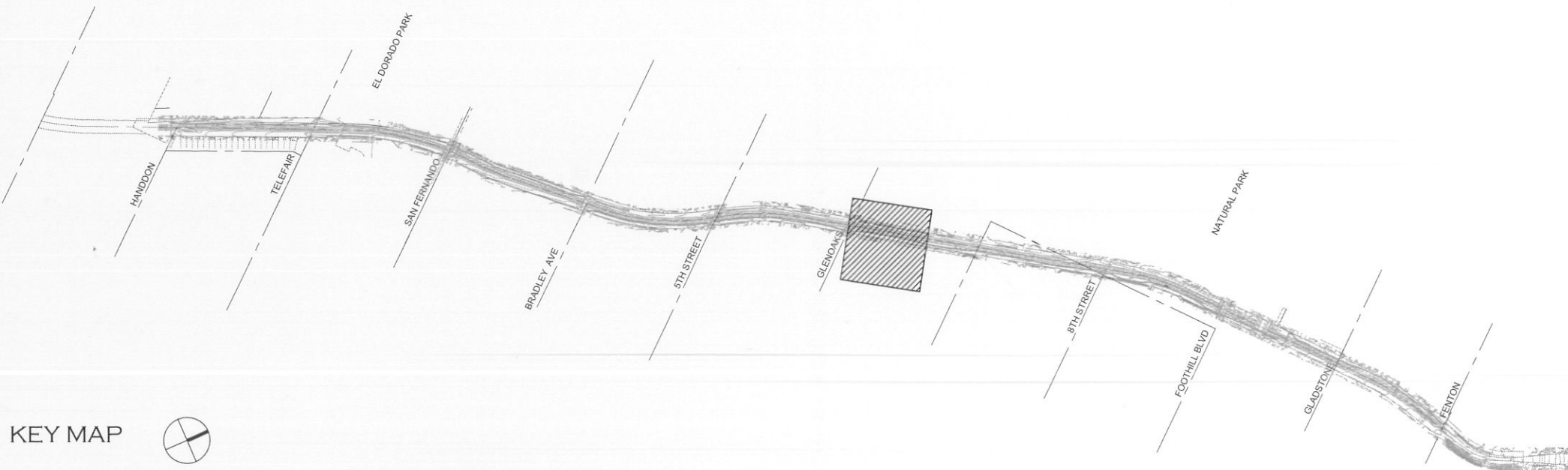
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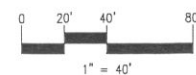
G-101

L-101

MATCHLINE SEE SHEET L1.05



KEY MAP



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Pacoima Wash
Bikeway

BRADLEY AVE TO PACOIMA
WASH NATURAL PARK

MLA
landscape architecture | urban design | planning

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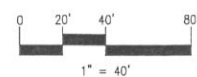
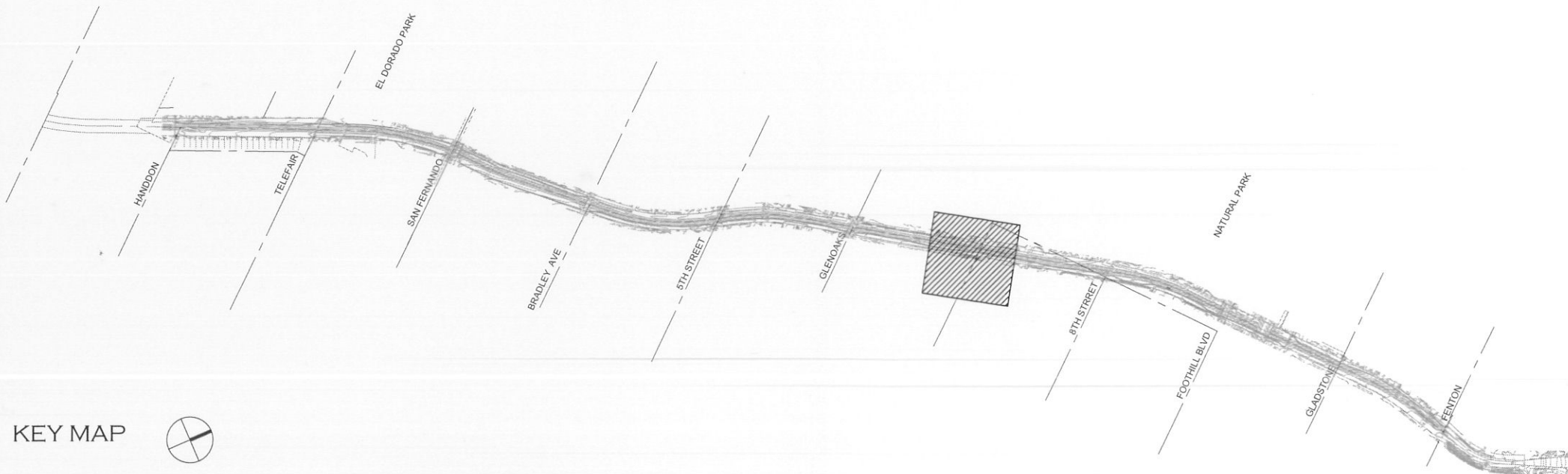
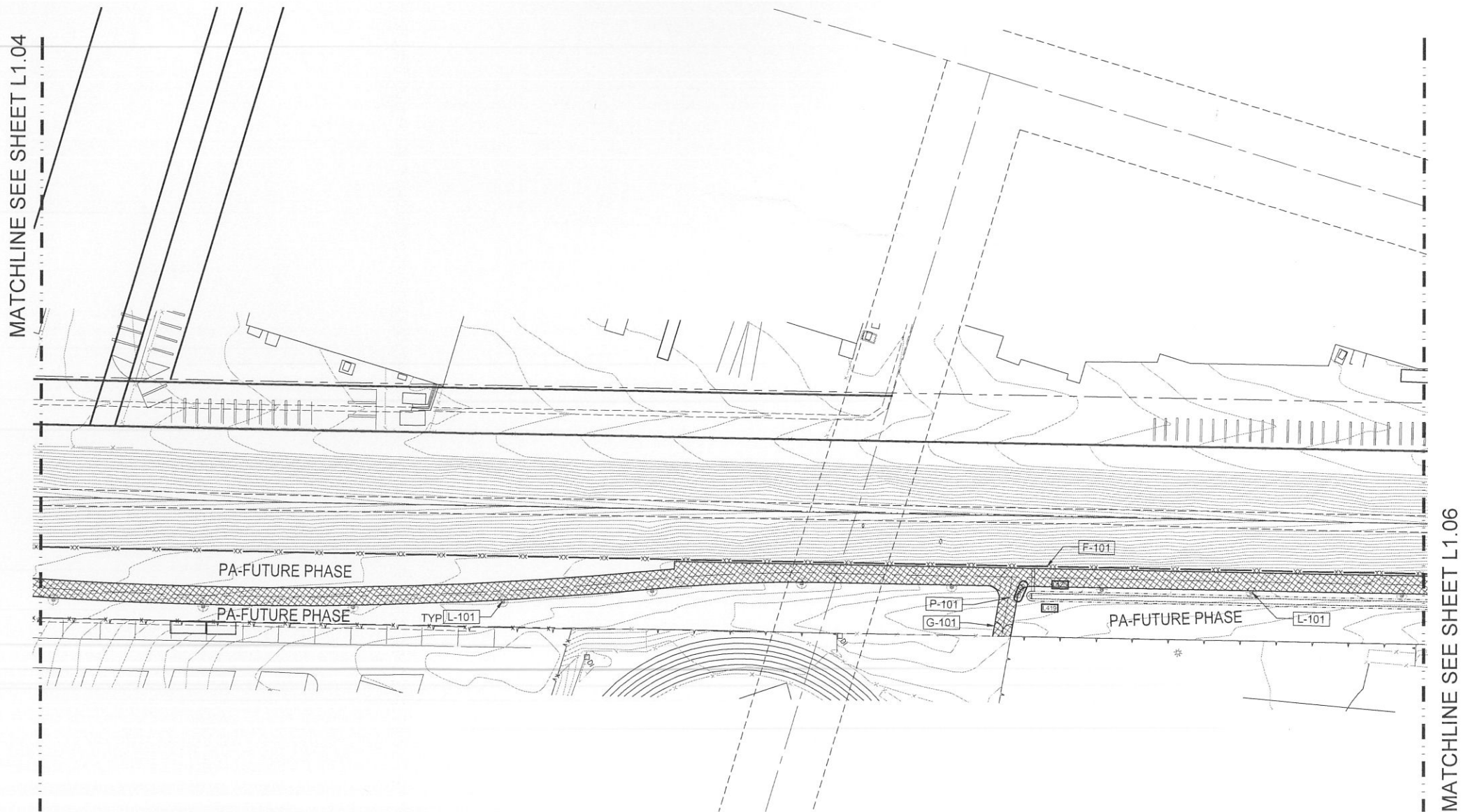
Date:
9/6/17

Project No:
PAC2014

File Name:

Sheet Number:

L-1.04



Project Title:
Pacoima Wash Bikeway
 BRADLEY AVE TO PACOIMA WASH NATURAL PARK

landscape architecture | urban design | planning

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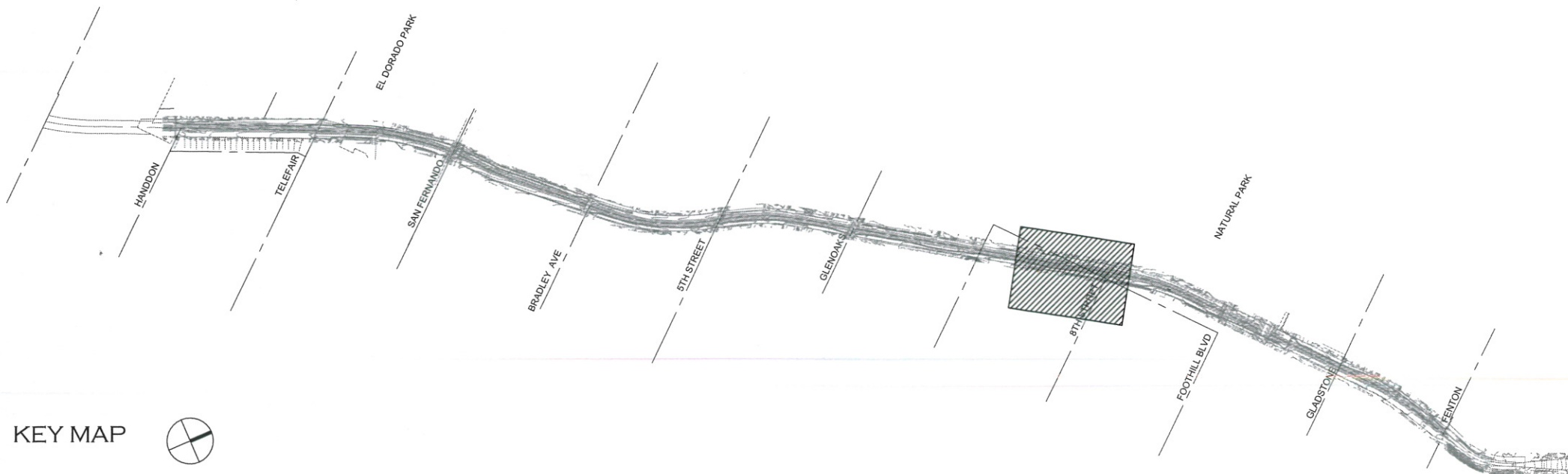
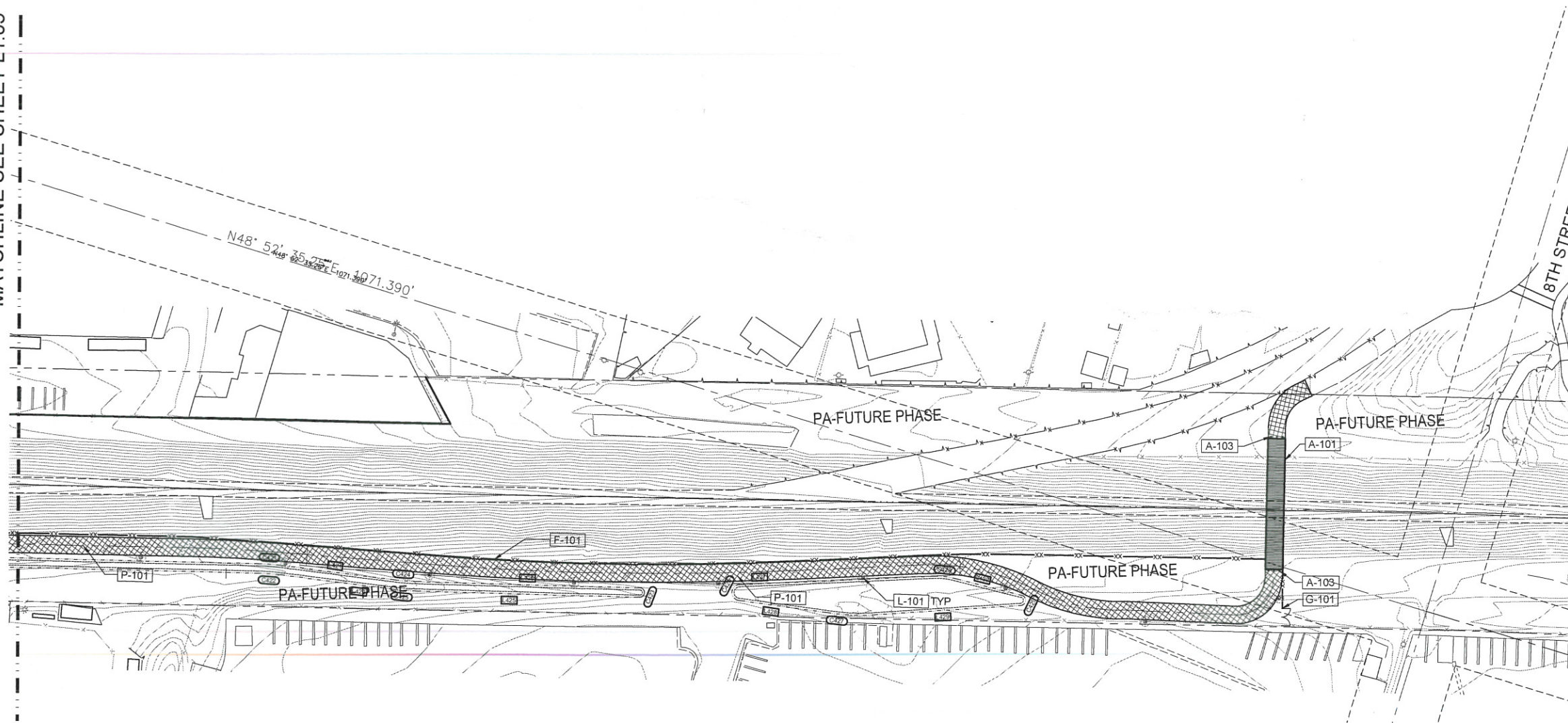
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Sheet Number:
L-1.05

MATCHLINE SEE SHEET L1.05



KEY MAP



Project Title:
Pacoima Wash
Bikeway

BRADLEY AVE TO PACOIMA
WASH NATURAL PARK

MLA
landscape architecture | urban design | planning

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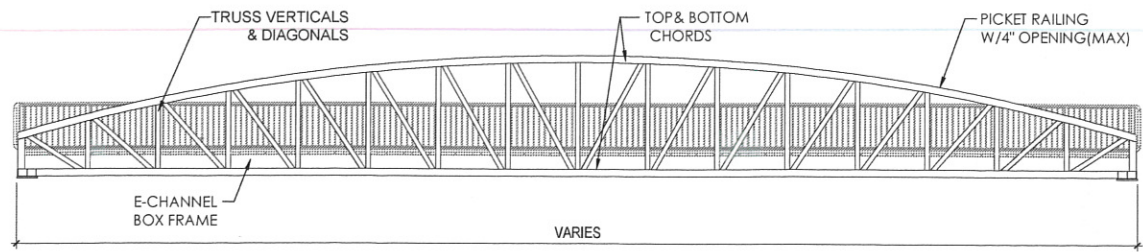
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Project No:
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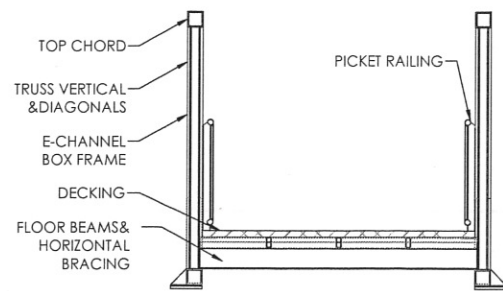
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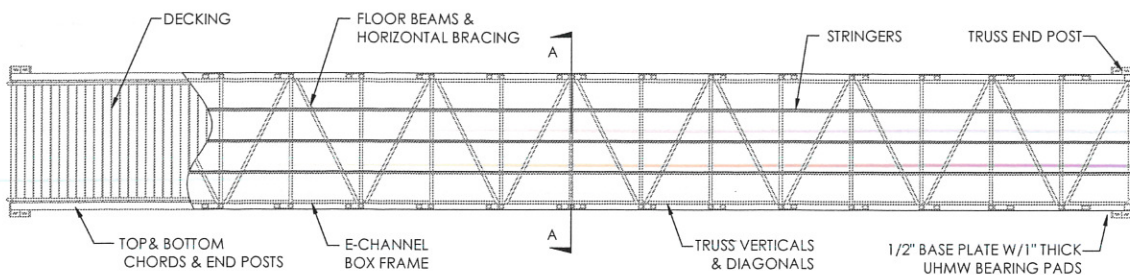


ELEVATION VIEW



SECTION A-A

NOTES:
MANUFACTURER: EXCEL
FAUX BOW PRODUCT
VENDOR CONTACT: JODI SEIDL (320) 762-1368

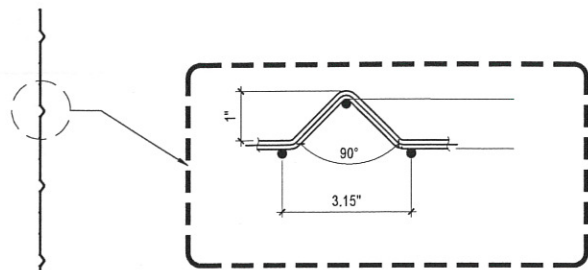


PLAN VIEW

3 FAUX BOW BRIDGE

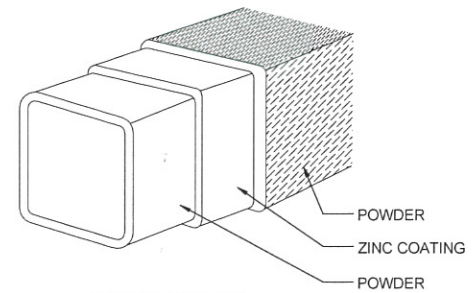
1/8" = 1'-0"

P-PA1-323400-47

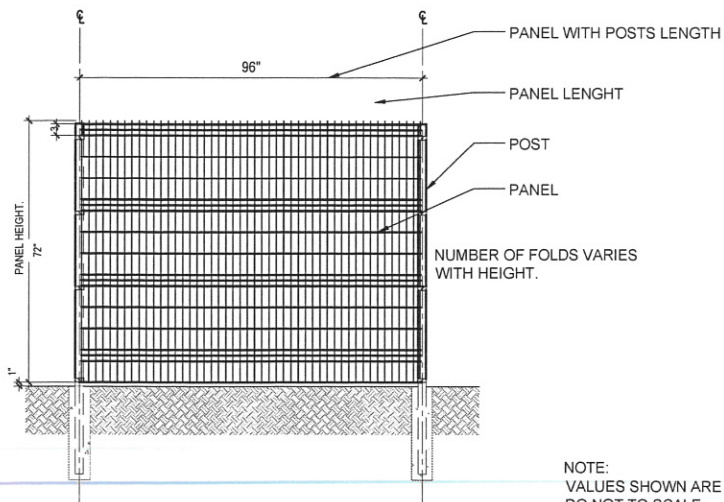


PANEL SIDE VIEW

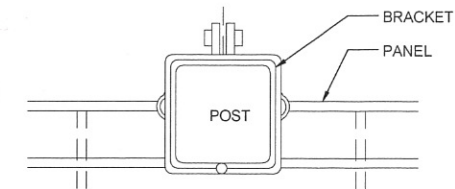
FOLD DETAIL



FENCE POST



FRONT VIEW



BRACKET IS LOCKED WITH 1 1/4"X1 1/4" STAINLESS STEEL NUT AND BOLT.
USING A REGULAR 7/8" WRENCH.
BRACKET DESIGN ALLOWS ATTACHING THE PANEL TO DIERENT POSTS AREAS AND POSITIONS.

BRACKET

NOTE:
VALUES SHOWN ARE NOMINAL AND NOT TO BE USED FOR INSTALLATION PURPOSES.
DO NOT TO SCALE.
CHECK, KNOW AND RESPECT LOCAL BUILDING CODES WHERE APPLICABLE
OBTAIN ALL NECESSARY BUILDING PERMITS.
THERE ARE BASIC AND GENERAL SPECIFICATION AND THEY DO NOT COVER ALL POSSIBLE INSTALLATION SCENARIOS.

MANUFACTURER: DESIGNMASTER.
FORTE PRODUCT, POWDER COAT FINISH, BLACK COLOR
VENDOR CONTACT: GILBERT CECCHETTINI (858) 335-7180

1 WELDED WIRE METAL FENCE

1/2" = 1'-0"

P-PA1-323119-04

Project Title:
Pacoima Wash
Bikeway
BRADLEY AVE TO PACOIMA
WASH NATURAL PARK

MLA
landscape architecture | urban design | planning

MIA LEHRER + ASSOCIATES
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www.mia Lehrer.com

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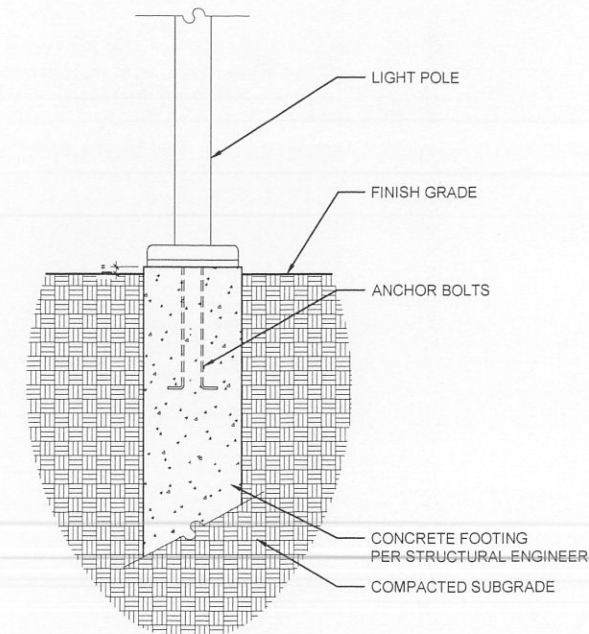
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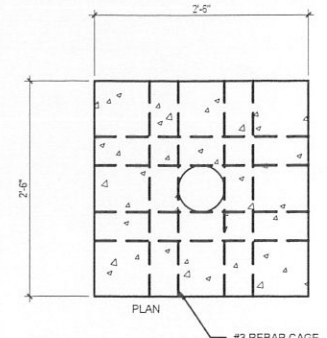
L-2.01



NOTE:
INSTALL ALL COMPONENTS PER MANUFACTURER'S RECOMMENDATIONS.

MANUFACTURER: SOL
TPM SERIES PRODUCT,
POWDER COAT FINISH,
BRONZE COLOR
778xx-1 18" MOUNTING ARM
VENDOR CONTACT: SCOTT DOUGLAS (772) 286-9461

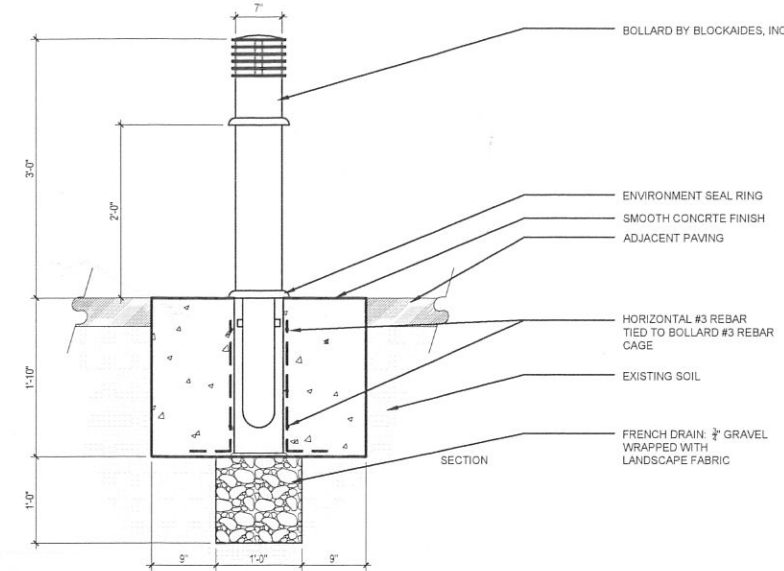
3 PATH LIGHT POLE
1" = 1'-0" P-PA1-265613-04



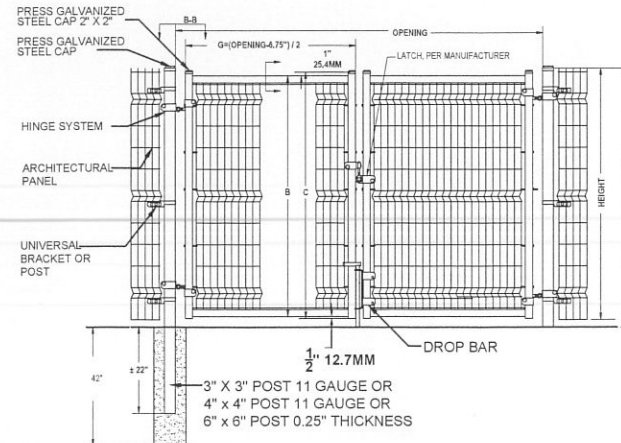
NOTE:
INSTALL ALL COMPONENTS PER MANUFACTURER'S RECOMMENDATIONS.

MANUFACTURER: BLOCKAIDES, INC.
STEEL WITH POWDER COAT FINISH,
BLACK COLOR, KITCHENER HEAD
VENDOR CONTACT: (909) 217-3412 X102

1 REMOVABLE BOLLARD
1" = 1'-0"



P-PA1-129363-04



Double swing gate: Custom openings available

Horizontal dimensions				Vertical dimensions			
Opening	G	Omega	Elite or Secur	Height	A	B	C
6'-0"	32 5/8"	3" x 3"	3" x 3"	4'-1"	4'-3 1/2"	45'-4"	47"
7'-0"	38 5/8"	3" x 3"	3" x 3"	5'-1"	5'-3 1/2"	57'-4"	59"
8'-0"	44 5/8"	3" x 3"	3" x 3"	5'-10"	6'-4"	66'-4"	68"
10'-0"	59 5/8"	3" x 3"	3" x 3"	8'-1"	8'-3 1/2"	93'-4"	95"
12'-0"	68 5/8"	3" x 3"	3" x 3"	Custom	H + 2 1/2"	C-1 1/2"	A - 4 1/2"
14'-0"	80 5/8"	3" x 3"	3" x 3"	All double gates have identical frames Model 20 complete with Omega panels			
16'-0"	92 5/8"	3" x 3"	4" x 4"				
18'-0"	104 5/8"	4" x 4"	4" x 4"				
Custom	Custom	Custom	Custom				

NOTE:
MANUFACTURER: DESIGNMASTER.
FORTE PRODUCT, POWDER COAT FINISH, BLACK COLOR
VENDOR CONTACT: GILBERT CECCHETTINI (858) 335-7180

2 SWING GATE
1/2" = 1'-0" P-PA1-323126-04

Project Title:
Pacoima Wash Bikeway

BRADLEY AVE TO PACOIMA
WASH NATURAL PARK

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email: Joe.conroy@tetratech.com

REVISIONS:

NO.	DESCRIPTION	DATE

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