CITY OF SOUTH PASADENA
CITY COUNCIL

AGENDA

REGULAR COUNCIL MEETING
WEDNESDAY, OCTOBER 21, 2026, AT 7:00 PM

AMEDEE O. "DICK" RICHARDS JR. COUNCIL CHAMBERS
1424 MISSION STREET, SOUTH PASADENA, CALIFORNIA 91030

NOTICE ON PUBLIC PARTICIPATION & ACCESSIBILITY

The South Pasadena City Council Meeting will be conducted in-person from the Amedee O. "Dick" Richards, Jr. Council Chambers, located at 1424 Mission Street, South Pasadena, CA 91030.

Public participation may be made as follows:

- In-Person – Council Chambers, 1424 Mission Street, South Pasadena, CA 91030
- Live Broadcast via the City website – http://www.spectrumstream.com/streaming/south_pasadena/live.cfm
- Via Zoom – Meeting ID: **825 9999 2830**
- Written Public Comment – written comment must be submitted by 12:00 p.m. the day of the meeting by emailing to ccpubliccomment@southpasadenaca.gov
- Via Phone–+1-669-900-6833 and entering the Zoom Meeting ID listed above.

Meeting may be viewed at:

1. Go to the Zoom website, https://zoom.us/join and enter the Zoom Meeting information; or
2. Click on the following unique Zoom meeting link: https://us06web.zoom.us/j/82599992830 or
3. By calling: +1-669-900-6833 and entering the Zoom Meeting ID listed above; and viewing the meeting via http://www.spectrumstream.com/streaming/south_pasadena/live.cfm

CALL TO ORDER:	Mayor	Sheila Rossi
ROLL CALL:	Mayor	Sheila Rossi
	Mayor Pro Tem	Omari Ferguson
	Councilmember	Michael A. Cacciotti
	Councilmember	Jon Primuth
	Councilmember	Janet Braun
PLEDGE OF ALLEGIANCE:	Mayor Pro Tem	Omari Ferguson

PUBLIC COMMENT GUIDELINES
The City Council welcomes public input. Members of the public may comment on a non-agenda subject under the jurisdiction of the City Council or on an agenda item. Members of the public will have three minutes to address the City Council, however, the Mayor and City Council may adjust the time allotted, as needed.

Public Comments received in writing will not be read aloud at the meeting, but will be part of the meeting record. Written public comments will be uploaded to the City website for public viewing under Additional Documents. When submitting a public comment, please make sure to include the following:
1) Name (optional), and
2) Agenda item you are submitting public comment on.
3) Submit by no later than 12:00 p.m., on the day of the City Council meeting. Correspondence received after this time will be distributed the following business day.

PLEASE NOTE: The Mayor may exercise the Chair's discretion, subject to the approval of the majority of the City Council, to adjust public comment time limit to less than three minutes, as needed.

Pursuant to State law, the City Council may not discuss or take action on issues not on the meeting agenda, except that members of the City Council or staff may briefly respond to statements made or questions posed by persons exercising public testimony rights (Government Code Section 54954.2). Staff may be asked to follow up on such items.

CLOSED SESSION ANNOUNCEMENTS

1. CLOSED SESSION ANNOUNCEMENTS

PUBLIC COMMENT

2. PUBLIC COMMENT - GENERAL (NON-AGENDA ITEMS)

CHANGES TO THE AGENDA

3. REORDERING OF, ADDITIONS, OR DELETIONS TO THE AGENDA

CONSENT CALENDAR
OPPORTUNITY TO COMMENT ON CONSENT CALENDAR
Items listed under the Consent Calendar are considered by the City Manager to be routine in nature and will be enacted by one motion unless a public comment has been received or Councilmember requests otherwise, in which case the item will be removed for separate consideration. Any motion relating to an ordinance or a resolution shall also waive the reading of the ordinance or resolution and include its introduction or adoption as appropriate.

4. CONSIDERATION OF THE APPROVAL OF PREPAID WARRANTS IN THE AMOUNT OF $119,623.85; GENERAL CITY WARRANTS IN THE AMOUNT OF $1,403,315.67; ONLINE PAYMENTS IN THE AMOUNT OF $ 30,211.81; VOIDS IN THE AMOUNT OF ($0); PAYROLL IN THE AMOUNT OF $1,052,403.31

Recommendation
It is recommended that the City Council approve the Warrants as presented.

5. CONSIDERATION OF APPROVAL OF THE SPECIAL STUDY SESSION MEETING MINUTES, SPECIAL JOINT PLANNING COMMISSION MEETING MINUTES, AND REGULAR MEETING MINUTES FOR OCTOBER 7, 2026

Recommendation
It is recommended that the City Council approve the minutes of the October 7, 2026, Special Study Session, Special Joint Planning Commission, and Regular City Council Meetings.

6. CONSIDERATION OF ADOPTION OF RESOLUTION NO. 8034 ACKNOWLEDGING RECEIPT OF THE 2025 ANNUAL FIRE INSPECTION COMPLIANCE REPORT

Recommendation
It is recommended that the City Council adopt Resolution No. 8034 acknowledging receipt of the South Pasadena Fire Department's 2025 Annual Fire Inspection Compliance Report pursuant to California Health and Safety Code Sections 13146.2, 13146.3, and 13146.4.

7. CONSIDERATION TO APPROVE PURCHASE ORDERS WITH SIERRA AUTO GROUP AND HOM COMMUNICATIONS FOR THE PURCHASE AND OUTFITTING OF TWO 2027 CHEVROLET BLAZER ELECTRIC VEHICLES AND ONE 2027 CHEVROLET SILVERADO ELECTRIC VEHICLE USING THE CALIFORNIA HIGHWAY PATROL'S CANNABIS TAX FUND GRANT PROGRAM

Recommendation
It is recommended that the City Council:
1. Approve the purchase from Sierra Auto Group for two 2027 Chevrolet Blazer Electric Vehicles (EV) and one 2027 Chevrolet Silverado PPV EV using the Cannabis Tax Grant funds from the expense account number 244-4010-0004-8520-000 (Machinery and Equipment) with a total not to exceed $187,000.00.
2. Approve a contract/purchase order to Hom Communications for outfitting of two Chevy Blazer EV's and one Chevy Silverado EV with the amount not to exceed $89,000.00.
3. Adopt a Resolution (Attachment 6) appropriating $52,000.00 from Fund 270 (Asset Forfeiture) to the expense account number 270-4010-4018-8540 (Asset Forfeiture – Machinery and Equipment) to fund the outfitting for three vehicles.
4. Approve and authorize the City Manager to execute the appropriate purchase orders and/or contracts to effectuate the purchase of the vehicles and their outfitting.

8. CONSIDERATION OF APPROVAL OF AMENDMENT NO. 1 TO THE MEASURE M MULTI-YEAR SUBREGIONAL PROGRAM (MSP) FUNDING AGREEMENT FOR THE PEDESTRIAN CROSSING DEVICES PROJECT

Recommendation
It is recommended that the City Council:
a. Approve Amendment No. 1 (Attachment No. 1) to the Measure M Multi-Year-Subregional Program (MSP) funding agreement with the Los Angeles County Metropolitan Transportation Authority (LA Metro) for the Pedestrian Crossing Devices Project; and
b. Authorize the City Manager, or designee, to execute the amendment and all related

documents.

9. CONSIDERATION TO APPROVE THE PROPOSED REORGANIZATION OF THE FINANCE DEPARTMENT; ADOPT RESOLUTION NO. 8039 AMENDING THE TABLE OF ORGANIZATION AND RELATED JOB CLASSIFICATIONS TO EFFECTUATE THE REORGANIZATION; AND AUTHORIZE A CLASSIFICATION STUDY RELATED TO THE FINANCE DEPARTMENT MANAGEMENT ANALYST POSITION

Recommendation
It is recommended that the City Council:

a. Approve the proposed reorganization plan for the Finance Department (Attachment 1);
b. Adopt Resolution No. 8039 amending the Table of Organization and updating the related job classification specifications necessary to effectuate the propose reorganization plan (Attachment 2);
c. Authorize the Human Resources Department to conduct a classification study (desk audit) of the Management Analyst position in the Finance Department; and
d. Authorize the City Manager to City Manager to effectuate reclassification of the Management Analyst to a Senior Management Analyst if warranted by the classification study.

10. CONSIDERATION TO APPROVE A PROFESSIONAL SERVICES AGREEMENT WITH STRADLING YOCCA CARLSON & RAUTH LLP., FOR BOND AND DISCLOSURE COUNSEL SERVICES IN CONNECTION WITH THE REFUNDING OF THE CITY'S OUTSTANDING WATER REVENUE BONDS

Recommendation
It is recommended that the City Council:

1. Approve a Professional Services Agreement with Stradling Yocca Carlson & Rauth LLP. ("Stradling") to provide Bond and Disclosure Counsel services in connection with a potential refunding of the City's outstanding Water Revenue Bonds, for a contingent fee not to exceed $65,000, plus out of pocket expenses, capped at $2,500 payable solely from bond proceeds upon the successful closing of a refunding transaction; and
2. Authorize the City Manager to execute a Professional Services Agreement with Stradling Yocca Carlson & Rauth LLP in a form approved by the City Attorney, and to execute any amendments thereto that do not materially increase the City's obligations.

11. UPDATE ON METRO THRONE RESTROOM USAGE AND CONSIDERATION OF APPROVAL OF THE UPDATED EXTERIOR WRAP DESIGN FOR THE RESTROOM

Recommendation
It is recommended that the City Council:

1. Receive and file an informational report regarding usage and operations of the Metro Throne Labs restroom located near the South Pasadena A Line Station; and
2. Consideration to approve the updated exterior wrap design proposed by the Los Angeles County Metropolitan Transportation Authority (Metro), as shown in Attachment No. 1, and authorize staff to coordinate implementation with Metro.

12. CONSIDERATION OF APPROVAL OF PLANS AND SPECIFICATIONS FOR THE NORTH SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEMS DEPLOYMENT ON FAIR OAKS AVENUE PROJECT RABA01-5071 (024)

Recommendation
It is recommended that the City Council approve the plans (Attachment No. 1) and specifications (Attachment No. 2) for the North South Intelligent Transportation Systems Deployment on Fair Oaks Avenue Project.

13. CONSIDERATION OF AUTHORIZATION TO SUBMIT A GRANT APPLICATION FOR THE HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP) CYCLE 13 FOR PEDESTRIAN CROSSING SAFETY IMPROVEMENTS FOR UP TO $360,000

Recommendation
It is recommended that the City Council authorize the City Manager, or his designee, to prepare and submit a grant application to the California Department of Transportation (Caltrans) through the Highway Safety Improvement Program (HSIP) Cycle 13 for an amount up to $360,000 for pedestrian crossing safety improvements at Mission Street and Mound Avenue and Mission Street and Milan Avenue, and to execute and submit all necessary documents related to the grant application.

14. RECEIVE AND FILE THE CAPITAL IMPROVEMENT PROGRAM QUARTERLY UPDATE

Recommendation
It is recommended that the City Council receive and file the Capital Improvement Program Quarterly Update report.

ACTION/DISCUSSION

15. DISCUSS A REQUEST FROM STAFF REGARDING A CITY COUNCIL AD HOC COMMITTEE RELATED TO THE CITY'S PREPARATION FOR THE 2028 OLYMPIC AND PARALYMPIC GAMES AND THE SCOPE OF THE COMMITTEE

Recommendation
It is recommended that the City Council:

a. Discuss Staff's request to have a City Council ad hoc committee to develop recommendations for City Council consideration regarding the City's preparation for Olympic Games; and
b. Discuss the ad hoc committee's scope of work.

16. CONSIDERATION OF A COURT USE FRAMEWORK FOR TENNIS AND PICKLEBALL AT GARFIELD PARK AND ORANGE GROVE PARK AND DIRECTION REGARDING COURT HOURS, RESERVATIONS AND PERMITS, COURT STRIPING, AND A SIX-MONTH COURT USE PILOT PROGRAM

Recommendation
It is recommended that the City Council:

1. Consider approval of public court hours of 7:00 a.m. to 9:00 p.m. at Garfield Park

and Orange Grove Park for all court activities;

2. Consider approval of maintaining first-come, first-served access as the primary model for ordinary public use, while allowing limited optional reservations and requiring permits for organized and structured activities;
3. Consider approval of the Community Services Commission (Commission) recommendation to maintain the existing court striping configuration and resurface the courts on a like-for-like basis, with both Garfield Park courts remaining tennis-only and both Orange Grove Park courts retaining multi-purpose tennis/pickleball striping; and
4. Consider authorizing a six-month Court Use Pilot Program and Enforcement Model substantially in the form included as Attachment No. 1, direct staff to implement the City Council-approved court-use framework and temporary signage, subject to City Attorney review as appropriate, and direct staff to report back to the Commission and City Council following the six-month pilot.
5. Provide direction regarding the potential installation of sound-attenuation improvements at Orange Grove Park subject to final project pricing and availability of sufficient budget appropriations; and authorize the City Manager to execute any necessary agreements in accordance with applicable City purchasing requirements, subject to City Attorney review as appropriate.

17. CONSIDERATION TO ADOPT RESOLUTION NO. 8041 SUPPORTING VOTER APPROVAL OF MEASURE SOS, THE PROPOSED GENERAL OBLIGATION BOND TO FUND THE REHABILITATION AND RECONSTRUCTION OF STREETS, ROADS, ALLEYWAYS, SIDEWALKS, CURBS AND GUTTERS THROUGHOUT THE CITY ON NOVEMBER 3, 2026

Recommendation

It is recommended that the City Council adopt Resolution No. 8041 supporting voter approval of Measure SOS on November 3, 2026, which is the proposed General Obligation Bond to fund the rehabilitation and reconstruction of streets, roads, alleyways, sidewalks, curbs, and gutters throughout the City.

PUBLIC COMMENT - CONTINUED

18. CONTINUED PUBLIC COMMENT - GENERAL

This time is reserved for speakers in the Public Comment queue not heard during the first 30 minutes of Item No. 2. No new speakers will be accepted at this time.

COMMUNICATIONS

19. COUNCILMEMBER COMMUNICATIONS

20. CITY MANAGER COMMUNICATIONS

ADJOURNMENT

FOR YOUR INFORMATION

FUTURE CITY COUNCIL MEETINGS

November 4, 2026	Regular City Council Meeting	7:00 P.M.
November 18, 2026	Regular City Council Meeting	7:00 P.M.
December 2, 2026	Regular City Council Meeting	7:00 P.M.
December 16, 2026	Regular City Council Meeting	7:00 P.M.

PUBLIC ACCESS TO AGENDA DOCUMENTS AND BROADCASTING OF MEETINGS

City Council meeting agenda packets, any agenda related documents, and additional documents are available at City Hall and online for public viewing on the City's website:
https://www.southpasadenaca.gov/Your-Government/Your-City-Council/City-Council-Agendas

Regular meetings are live streamed via the internet at:
http://www.spectrumstream.com/streaming/south_pasadena/live.cfm

AGENDA NOTIFICATION SUBSCRIPTION

If you wish to receive an agenda email notification please contact the City Clerk's Division via email at CityClerk@southpasadenaca.gov or call (626) 403-7230.

ACCOMMODATIONS

The City of South Pasadena wishes to make all of its public meetings accessible to the public. If special assistance is needed to participate in this meeting, please contact the City Clerk's Division at (626) 403-7230 or cityclerk@southpasadenaca.gov. Upon request, this agenda will be made available in appropriate alternative formats to persons with disabilities. Notification at least 48 hours prior to the meeting will assist staff in assuring that reasonable arrangements can be made to provide accessibility to the meeting (28 CFR 35.102-35.104 ADA Title II).

CERTIFICATION OF POSTING

I declare under penalty of perjury that I posted this notice of agenda for the meeting to be held on October 21, 2026, on the bulletin board in the courtyard of City Hall located at 1414 Mission Street, South Pasadena, CA 91030, and on the City, website as required by law, on the date listed below.

10/15/2026	/S/
Date	Nikima S. Newsome, Chief City Clerk

City Council
Agenda Report

ITEM NO. 1

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Nikima S. Newsome, Chief City Clerk

SUBJECT: **CLOSED SESSION ANNOUNCEMENTS**

City Council
Agenda Report

ITEM NO. 2

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Nikima S. Newsome, Chief City Clerk

SUBJECT: **PUBLIC COMMENT - GENERAL (NON-AGENDA ITEMS)**

City Council
Agenda Report

ITEM NO. 3

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Nikima S. Newsome, Chief City Clerk

SUBJECT: **REORDERING OF, ADDITIONS, OR DELETIONS TO THE AGENDA**

City Council
Agenda Report

ITEM NO. 4

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: William Castrillon, Budget & Purchasing Manager

SUBJECT: **CONSIDERATION OF THE APPROVAL OF PREPAID WARRANTS IN THE AMOUNT OF $119,623.85; GENERAL CITY WARRANTS IN THE AMOUNT OF $1,403,315.67; ONLINE PAYMENTS IN THE AMOUNT OF $ 30,211.81; VOIDS IN THE AMOUNT OF ($0); PAYROLL IN THE AMOUNT OF $1,052,403.31**

Recommendation
It is recommended that the City Council approve the Warrants as presented.

Executive Summary
Prepaid Warrants:
Warrant # 324345-324366, **$56,889.02**
ACH: **$62,734.83**

General City Warrants:
Warrant # 324367-324442, **$283,483.24**
ACH: **$1,119,832.43**

Online Payments: **$30,211.81**

Regular Payroll Ending 10/09/2026: $1,050,848.18
Off-Cycle Payroll Ending 10/10/2026: $1,555.13

Voids: **($0)**

Total: $2,605,554.64

Analysis
A warrant register is the list of checks and electronic payments issued by the City. Approval of the warrant register allows the City Council to review and confirm payments made with City funds. This process provides transparency to the public, ensures spending is consistent with the adopted budget and City policies, and serves as an important internal control to safeguard taxpayer dollars. By approving the register, the City Council fulfills its responsibility to oversee the use of public funds and maintain accountability in City operations.

Explanation of Terms
Warrant – Directs the Finance Department to pay a sum of money out of the City's funds to

bearer of claim/invoice (named individual, company) also known as a payable. The warrants (payments) are only released after City Council approval.

Warrant Summary – Summarizes all of the payments prepared during a specific cycle. The beginning of the cycle is the period after the last set of warrants were approved by Council and released as payment. The end of the cycle is the last date of invoice processing. All the warrants for the current cycle are summarized and the detail of warrants provided to Council for review and approval.

Prepaid Warrant List - A Prepaid Warrant directs the Finance Department to pay a sum of money out of the City's funds to bearer of claim/invoice (named individual, company) also known as a payable. The Prepaid Warrants (payments) are released prior to City Council approval, however reported to City Council as a Prepaid. Prepayments are generally time sensitive and would incur additional charges if not paid within a specific time frame.

General City Warrant List – Detailed listing of all payments made for a specific cycle. The beginning of the cycle is the period after the last set of warrants were approved by Council and released as payment. The end of the cycle is the last date of invoice processing.

Online Payments – Payments made online. These are typically for time sensitive utilities, credit card payments, and sometimes require the use of the payee's portal (SCE, So Cal Gas, Amazon, etc.).

Voids – Checks that were issued and voided. Examples of such instances would be lost checks that were mailed out. Checks that were on a warrant that did not get approved by Council.

Payroll – All payments made related to payroll, such as payroll taxes, retirement benefits, CalPERS, Garnishments, payroll etc.

Attachment:
Attachment No. 1 - Warrant Summary
Attachment No. 2 - Prepaid Warrant List
Attachment No. 3 - General Warrant List
Attachment No. 4 - Online Payments
Attachment No. 5 - Payroll Report

City of South Pasadena
Demand/Warrant Register

Date 10/21/2026

Recap by fund	**Fund No.**	**Amounts**	
		Prepaid	**Written**
General Fund	101	34,198.00	312,960.70
Insurance Fund	103	13,749.99	-
Street Improvement Program	104	-	-
Facilities & Maintenance	105	12,485.12	12,908.08
Technology Surcharge Fund	106	-	-
Programs and Projects	107	-	-
Special Projects Fund	116	-	5,320.00
Vehicle Replacement Fund	120	16,915.26	-
Tree Replacement Fund	121	-	-
Local Transit Return "A"	205	-	2,176.00
SLFRF Fund	206	-	-
Local Transit Return "C"	207	-	31,760.20
TEA/Metro	208	-	-
Sewer Fund	210	-	7,611.72
CTC Traffic Improvement	211	-	-
SB2 Planning Grant	213	-	-
Rogan HR5294 Grant	214	-	-
Street Lighting Fund	215	-	36,655.65
Public, Education & Govt Fund	217	-	-
Clean Air Act Fund	218	-	-
Business Improvement Tax	220	-	2,106.00
Gold Line Mitigation Fund	223	-	-
Mission Meridian Public Garage	226	-	-
Successor Agency to the CRA	227	-	-
Housing Authority Fund	228	-	-
State Gas Tax	230	-	342.52
County Park Bond Fund	232	-	-
Measure R	233	-	22,080.50
Garfield Walkways State Grant	234	-	404,336.41
Measure M	236	-	6,046.50
Road Maint & Rehab (SB1)	237	-	19,455.00
MSRC Grant Fund	238	8,713.92	-
Measure W	239	-	1,388.60
Measure M MSP	240	-	9,071.73
Measure H	241	-	-
Prop C Exchange Fund	242	-	-
Measure R MIP	243	-	437,329.72
Reimbursable Grant Fund	244	-	1,000.00
Bike & Pedestrian Paths	245	-	-
BTA Grants	248	-	-
Golden Street Grant	249	-	-
Measure A Grant	251	-	-
Proposition 68 Grant	252	-	-
Affordable Housing Trust Fund	254	-	-
Capital Growth Fund	255	-	-
CDBG	260	-	-
OTS Grant	269	-	-
Asset Forfeiture	270	-	21,025.00
Police Grants - State	272	-	-
Homeland Security Grant	274	-	-
Park Impact Fees	275	-	-
Historic Preservation Grant	276	-	-
HSIP Grant	277	-	-
Arroyo Seco Golf Course	295	-	-
State SR 710 LATIP	297	-	-
Sewer Capital Projects Fund	310	-	-
400 Capital Improvement Program	400	-	-
Water Fund	500	12,760.68	69,741.34
Water Efficiency Fund	503	-	-
2016 Water Revenue Bonds Fund	505	-	-
SRF Loan - Water	506	-	-
Water & Sewer Impact Fee	510	-	-
Public Financing Authority	550	-	-
Payroll Clearing Fund	700	20,800.88	-
			-
	Column Totals:	119,623.85	1,403,315.67

City Report Totals:	1,522,939.52
Online Payments	30,211.81
Regular Payroll 10/09/2026	1,050,848.18
Offcycle Payroll 10/10/2026	1,555.13
Voids	-
Grand Report Total:	**2,605,554.64**

Sheila Rossi, Mayor

William Castrillon, Budget & Purchasing Manager

Nikima Newsome, Chief City Clerk

Attachment No. 2

Accounts Payable

Check Detail

User: tfernandez
Printed: 09/29/2026 - 10:39AM

Check Number	Check Date	Amount
WFBK1020 - Computershare Trust Company, N.A.		
0	09/15/2026	
Inv	SOPASAWTR2013	

Line Item Date	Line Item Description	
09/01/2026	So Pas Wat Rev Ref 3/13 Fast Acct# SOPASAWTR2013	34,093.76
09/01/2026	So Pas Wat Rev Ref 3/13 Fast Acct# SOPASAWTR2013	490,000.00
09/01/2026	So Pas Wat Rev Ref 3/13 Fast Acct# SOPASAWTR2013	-314.00
Inv SOPASAWTR2013 Total		523,779.76
0 Total:		523,779.76
WFBK1020 - Computershare Trust Company, N.A. Total:		523,779.76
Total:		523,779.76

Accounts Payable

Check Detail

User: tfernandez
Printed: 09/29/2026 - 10:42AM

Check Number	Check Date	Amount

CEAP7000 - S.P. Public Service Employees Association-PT 700-0000-0000-2249-000

0 09/15/2026

Inv PR 09.11.2026

Line Item Date	Line Item Description	
09/09/2026	PR Batch 91126.09.2026 PART TIME ASSN. DUES / FEE	136.00
Inv PR 09.11.2026 Total		136.00

0 Total: 136.00

CEAP7000 - S.P. Public Service Employees Association-PT Total: 136.00

PARS3011 - Phase II Systems a California Corporation

0 09/15/2026

Inv PR 09.11.2026

Line Item Date	Line Item Description	
09/09/2026	PR Batch 91126.09.2026 PARS Employee Contribution	534.42
09/09/2026	PR Batch 91126.09.2026 PARS Employer Contribution	534.42
Inv PR 09.11.2026 Total		1,068.84

0 Total: 1,068.84

PARS3011 - Phase II Systems a California Corporation Total: 1,068.84

PASADENA - Los Angeles Sheriff's Department

324239 09/15/2026

Inv PR 09.11.2026

Line Item Date	Line Item Description	
09/09/2026	PR Batch 91126.09.2026 Garnish-Eric Corona Case No. 25NWLC0(	152.70
Inv PR 09.11.2026 Total		152.70

324239 Total: 152.70

PASADENA - Los Angeles Sheriff's Department Total: 152.70

SCFT0000 - Franchise Tax Board

324241 09/15/2026

Inv PR. 09.11.2026.

Line Item Date	Line Item Description	
09/09/2026	PR Batch 91126.09.2026 Garnishment - Cipres Acc. 121-04537-47	70.00

Inv PR. 09.11.2026. Total 70.00

324241 Total: 70.00

SCFT0000 - Franchise Tax Board Total: 70.00

SCFT0001 - Franchise Tax Board

324240 09/15/2026

Inv PR 09.11.2026

Line Item Date	Line Item Description	
09/09/2026	PR Batch 91126.09.2026 Garnishment -Christiana Case #11025452(	90.00

Inv PR 09.11.2026 Total 90.00

324240 Total: 90.00

SCFT0001 - Franchise Tax Board Total: 90.00

SOU5230 - S.P.Firefighters L-3657

0 09/15/2026

Inv PR 09.11.2026

Line Item Date	Line Item Description	
09/09/2026	PR Batch 91126.09.2026 FFA Fire Rec Fees	90.00
09/09/2026	PR Batch 91126.09.2026 Fire Assn. Insurance	147.42
09/09/2026	PR Batch 91126.09.2026 Firefighters 3657 - Union	2,175.00

Inv PR 09.11.2026 Total 2,412.42

0 Total: 2,412.42

SOU5230 - S.P.Firefighters L-3657 Total: 2,412.42

SOU5435 - S.P. Police Officers Association 700-0000-0000-2246-000

0 09/15/2026

Inv PR 09.11.2026

Line Item Date	Line Item Description	
09/09/2026	PR Batch 91126.09.2026 SPPOA - Union Dues	4,544.00
09/09/2026	PR Batch 91126.09.2026 SPPOA Insurance	2,870.03

Inv PR 09.11.2026 Total 7,414.03

0 Total: 7,414.03

Check Number	Check Date	Amount

SOU5435 - S.P. Police Officers Association Total: 7,414.03

SOU5451 - S.P. Public Service Employees Association 700-0000-0000-2248-000

0 09/15/2026

Inv PR 09.11.2026

Line Item Date	Line Item Description	
09/09/2026	PR Batch 91126.09.2026 SPPSEA - Union Dues	1,768.00
Inv PR 09.11.2026 Total		1,768.00

0 Total: 1,768.00

SOU5451 - S.P. Public Service Employees Association Total: 1,768.00

SSDV2018 - Sandoval, Sheila

0 09/15/2026

Inv PR 09.11.2026

Line Item Date	Line Item Description	
09/09/2026	PR Batch 91126.09.2026 Sandoval - Garnishment	99.42
09/09/2026	PR Batch 91126.09.2026 Garnishment - Sandoval	956.03
Inv PR 09.11.2026 Total		1,055.45

0 Total: 1,055.45

SSDV2018 - Sandoval, Sheila Total: 1,055.45

Total: 14,167.44

Accounts Payable

Check Detail

User: tfernandez
Printed: 09/29/2026 - 10:42AM

Check Number	Check Date	Amount
SCFT0000 - Franchise Tax Board		
324242	09/15/2026	
Inv PR 09.11.26		
Line Item Date	Line Item Description	
09/09/2026	PR Batch 91126.09.2026 Garnish-Hernandez Ric Acc. 121-05653-0	150.00
Inv PR 09.11.26 Total		150.00
324242 Total:		150.00
SCFT0000 - Franchise Tax Board Total:		150.00
TIM4011 - Charter Communications Holdings, LLC		
0	09/15/2026	
Inv 188597901090126		
Line Item Date	Line Item Description	
09/01/2026	AN 188597901 416 Garfield 9/2-10/1/26	502.59
Inv 188597901090126 Total		502.59
Inv 188598001090126		
Line Item Date	Line Item Description	
09/01/2026	AN 188598001 660 Stoney Dr 9/1-9/30/26	93.95
Inv 188598001090126 Total		93.95
Inv 188598901090126		
Line Item Date	Line Item Description	
09/01/2026	AN 188598901 1414 Mission St 9/2-10/1/26	71.41
Inv 188598901090126 Total		71.41
0 Total:		667.95
TIM4011 - Charter Communications Holdings, LLC Total:		667.95
Total:		817.95

Accounts Payable

Check Detail

User: tfernandez
Printed: 09/29/2026 - 10:44AM

Check Number	Check Date	Amount
SCFT0000 - Franchise Tax Board		
324243	09/15/2026	
Inv PR 09.11.2026		

Line Item Date	Line Item Description	
09/09/2026	PR Batch 91126.09.2026 Garnishment-Diaz. Acc. No.211-23208-11	200.00
Inv PR 09.11.2026 Total		200.00
324243 Total:		200.00
SCFT0000 - Franchise Tax Board Total:		200.00
Total:		200.00

Accounts Payable

Check Detail

User: tfernandez
Printed: 09/29/2026 - 10:45AM

Check Number	Check Date	Amount
AT&T5011 - AT&T		
324244	09/24/2026	
Inv 331 841-0802 343 6		
Line Item Date	Line Item Description	
09/07/2026	AN 331 841-0802 343 6 Serv 9/7 - 10/6/2026	31.89
Inv 331 841-0802 343 6 Total		31.89
Inv 33184107563432		
Line Item Date	Line Item Description	
09/07/2026	AN 331 841-0756 343 2 Serv 9/7 - 10/6/2026	31.89
Inv 33184107563432 Total		31.89
324244 Total:		63.78
AT&T5011 - AT&T Total:		63.78
ATTE2011 - AT&T DW Holdings, Inc		
324245	09/24/2026	
Inv 8555160212		
Line Item Date	Line Item Description	
09/07/2026	AN 831-001-4896 776 Internet Serv - Sep 2026	4,978.27
Inv 8555160212 Total		4,978.27
324245 Total:		4,978.27
ATTE2011 - AT&T DW Holdings, Inc Total:		4,978.27
CIN4011 - AT&T Mobility		
324246	09/24/2026	
Inv 287312118886X09102026		
Line Item Date	Line Item Description	
09/02/2026	AN 287312118886 Mobile Serv First Responders Serv 8/3-9/2/26	2,373.36
Inv 287312118886X09102026 Total		2,373.36
324246 Total:		2,373.36

CIN4011 - AT&T Mobility Total: 2,373.36

COBR7131 - The Advantage Group

0 09/24/2026

Inv 082026HRA

Line Item Date	Line Item Description	
09/23/2026	HRA Administration Reimbursement for August 2026	23,682.39

Inv 082026HRA Total 23,682.39

Inv 092026HRA

Line Item Date	Line Item Description	
09/17/2026	HRA Administration Reimbursement September 2026	24,046.89

Inv 092026HRA Total 24,046.89

Inv 202199

Line Item Date	Line Item Description	
09/17/2026	HRA Administration Fee August 2026	294.00

Inv 202199 Total 294.00

0 Total: 48,023.28

COBR7131 - The Advantage Group Total: 48,023.28

DEPC6011 - Dewey Services Inc

324247 09/24/2026

Inv 18166261

Line Item Date	Line Item Description	
07/01/2026	City facility pest control services 2026-27 July 625 1/2 Stratfd	120.00

Inv 18166261 Total 120.00

Inv 18166262

Line Item Date	Line Item Description	
07/01/2026	City facility pest control services 2026-27 July 1700 Edgewood	120.00

Inv 18166262 Total 120.00

Inv 18166263

Line Item Date	Line Item Description	
07/01/2026	City facility pest control services 2026-27 July 416 Garfield	120.00

Inv 18166263 Total 120.00

Inv 18166264

Line Item Date	Line Item Description

Check Number	Check Date	Amount
07/01/2026	City facility pest control services 2026-27 July 435 Fair Oaks	120.00
Inv 18166264 Total		120.00
Inv 18166265		
Line Item Date	Line Item Description	
07/01/2026	City facility pest control services 2026-27 JUL 1100 Oxley	120.00
Inv 18166265 Total		120.00
Inv 18166268		
Line Item Date	Line Item Description	
07/01/2026	City facility pest control services 2026-27 July 825 Mission	120.00
Inv 18166268 Total		120.00
Inv 18166269		
Line Item Date	Line Item Description	
07/01/2026	City facility pest control services 2026-27 July 815 Mission	120.00
Inv 18166269 Total		120.00
Inv 18168572		
Line Item Date	Line Item Description	
07/01/2026	City facility pest control services 2026-27 JUL 1102 Oxley	90.00
Inv 18168572 Total		90.00
Inv 18210956		
Line Item Date	Line Item Description	
08/01/2026	625 1/2 Stratford Ave August Service	120.00
Inv 18210956 Total		120.00
Inv 18210957		
Line Item Date	Line Item Description	
08/01/2026	1700 Edgewood Dr - August Service	120.00
Inv 18210957 Total		120.00
Inv 18210958		
Line Item Date	Line Item Description	
08/01/2026	416 Garfield Ave - August Service	120.00
Inv 18210958 Total		120.00
Inv 18210959		
Line Item Date	Line Item Description	
08/01/2026	435 Fair Oaks Ave - August Service	120.00
Inv 18210959 Total		120.00

Inv 18210960

Line Item Date	Line Item Description	
08/01/2026	1100-1102 Oxley St - August Service	120.00

Inv 18210960 Total 120.00

Inv 18210961

Line Item Date	Line Item Description	
08/01/2026	1414 Mission St - August Service	135.50

Inv 18210961 Total 135.50

Inv 18210963

Line Item Date	Line Item Description	
08/01/2026	825 Mission St - August Service	120.00

Inv 18210963 Total 120.00

Inv 18210964

Line Item Date	Line Item Description	
08/01/2026	815 Mission St - August Service	120.00

Inv 18210964 Total 120.00

Inv 18210967

Line Item Date	Line Item Description	
08/01/2026	640 Stoney Dr - August Service	303.00

Inv 18210967 Total 303.00

Inv 18213862

Line Item Date	Line Item Description	
08/01/2026	Senior Center & Library - August Service	90.00

Inv 18213862 Total 90.00

324247 Total: 2,298.50

DEPC6011 - Dewey Services Inc Total: 2,298.50

DTV5012 - DIRECTV

324248 09/24/2026

Inv 68653046X260829

Line Item Date	Line Item Description	
09/15/2026	AN 068653046 8/28-9/27/26 Cable Services EOC	121.10

Inv 68653046X260829 Total 121.10

324248 Total: 121.10

DTV5012 - DIRECTV Total: 121.10

FED1109 - FedEx

324249 09/24/2026

Inv 9-394-42063

Line Item Date	Line Item Description	
07/24/2026	PD Postage	10.38

Inv 9-394-42063 Total 10.38

Inv 9-450-45633

Line Item Date	Line Item Description	
09/04/2026	PD Postage	51.45

Inv 9-450-45633 Total 51.45

Inv 9-459-14368

Line Item Date	Line Item Description	
09/11/2026	PD Postage	19.20

Inv 9-459-14368 Total 19.20

324249 Total: 81.03

FED1109 - FedEx Total: 81.03

PARS2050 - Phase II Systems

0 09/24/2026

Inv 61041

Line Item Date	Line Item Description	
09/15/2026	Annual Asset Fee - September and October 2026	800.00

Inv 61041 Total 800.00

0 Total: 800.00

PARS2050 - Phase II Systems Total: 800.00

PBGF8031 - Pitney Bowes Global Financial Services LLC

324251 09/24/2026

Inv 3108043282

Line Item Date	Line Item Description	
08/30/2026	Postage Meter Usage - CMO 6/30 - 9/29/26	0.78
08/30/2026	Postage Meter Usage - Fire 6/30 - 9/29/26	19.61
08/30/2026	Postage Meter Usage - Finance 6/30 - 9/29/26 AN 0010306986	238.92
08/30/2026	Postage Meter Usage - PD 6/30 - 9/29/26	433.52
08/30/2026	Postage Meter Usage - PW 6/30 - 9/29/26	6.24
08/30/2026	Postage Meter Usage - Planning 6/30 - 9/29/26	450.10

Inv 3108043282 Total 1,149.17

Inv 3108065778

Line Item Date	Line Item Description	
09/10/2026	Lease postage meter 7/30-10/29/26 AN 0010106647	219.93

Inv 3108065778 Total 219.93

324251 Total: 1,369.10

PBGF8031 - Pitney Bowes Global Financial Services LLC Total: 1,369.10

PWP4465 - Pasadena Water & Power

324250 09/24/2026

Inv 7.13.26-8.11.26

Line Item Date	Line Item Description	
08/12/2026	Water Purchased 7/13-8/11/26 AN 1973816780	4,089.37

Inv 7.13.26-8.11.26 Total 4,089.37

324250 Total: 4,089.37

PWP4465 - Pasadena Water & Power Total: 4,089.37

SCF1400 - SC Commercial LLC

324252 09/24/2026

Inv IN-0000401123

Line Item Date	Line Item Description	
07/23/2026	PW Yard Fuel Replenishment	347.98
07/23/2026	PW Yard Fuel Replenishment	695.99
07/23/2026	PW Yard Fuel Replenishment	2,087.96
07/23/2026	PW Yard Fuel Replenishment	695.99
07/23/2026	PW Yard Fuel Replenishment	1,043.98
07/23/2026	PW Yard Fuel Replenishment	2,087.96
07/23/2026	PW Yard Fuel Replenishment	255.75

Inv IN-0000401123 Total 7,215.61

324252 Total: 7,215.61

SCF1400 - SC Commercial LLC Total: 7,215.61

SHUSTERA - Shuster Advisory Group, LLC

324253 09/24/2026

Inv 12642

Line Item Date	Line Item Description	
08/31/2026	HR Pension Plans - 457(b) & 401(a) August 2026	788.34

Inv 12642 Total		788.34
324253 Total:		788.34
SHUSTERA - Shuster Advisory Group, LLC Total:		788.34
WLHD8020 - Westlake Hardware		
0	09/24/2026	
Inv 14307165		
Line Item Date	Line Item Description	
08/29/2026	PD supplies	21.57
Inv 14307165 Total		21.57
Inv 14307188		
Line Item Date	Line Item Description	
09/09/2026	PD supplies	27.57
Inv 14307188 Total		27.57
0 Total:		49.14
WLHD8020 - Westlake Hardware Total:		49.14
XRXF5010 - Xerox Financial Services		
324254	09/24/2026	
Inv 42651401		
Line Item Date	Line Item Description	
09/02/2026	Copiers Lease 8/22-9/21/2026 Cust AN 61587	2,209.46
Inv 42651401 Total		2,209.46
324254 Total:		2,209.46
XRXF5010 - Xerox Financial Services Total:		2,209.46
Total:		74,460.34

Accounts Payable

Check Detail

User: tfernandez
Printed: 09/29/2026 - 10:47AM

Check Number	Check Date	Amount
ACTM3010 - Robert Half Inc		
0	09/24/2026	
Inv 66565261		
Line Item Date	Line Item Description	
08/31/2026	Accounts Payable Specialist HL 8/28/2026	1,928.40
Inv 66565261 Total		1,928.40
Inv 66598809		
Line Item Date	Line Item Description	
09/09/2026	Accounts Payable Specialist HL 9/4/2026	72.80
09/09/2026	Accounts Payable Specialist HL WE 9/4/2026	1,855.60
Inv 66598809 Total		1,928.40
Inv 66619328		
Line Item Date	Line Item Description	
09/15/2026	Accounts Payable Specialist HL WE 9-11-2026	1,446.30
Inv 66619328 Total		1,446.30
Inv 66634457		
Line Item Date	Line Item Description	
09/21/2026	Accounts Payable Specialist HL WE 9-18-2026	1,928.40
Inv 66634457 Total		1,928.40
0 Total:		7,231.50
ACTM3010 - Robert Half Inc Total:		7,231.50
ADHA6116 - Herrera, Adam		
324291	09/24/2026	
Inv 2.17.26		
Line Item Date	Line Item Description	
02/17/2026	Nick Herrera Mileage Reimb 2.17.26 Citywide Buildings	41.18
Inv 2.17.26 Total		41.18
Inv 7.15.26		
Line Item Date	Line Item Description	

Check Number	Check Date		Amount
	07/15/2026	Nick Herrera Mileage Reimb 7.15.26 Sewer Spill	43.17
	Inv 7.15.26 Total		43.17
	Inv 7.17.26		
	Line Item Date	Line Item Description	
	07/17/2026	Nick Herrera Mileage Reimb 7.17.26 Broken Sprinkler	43.17
	Inv 7.17.26 Total		43.17
324291 Total:			127.52
ADHA6116 - Herrera, Adam Total:			127.52
ADTR5011 - Tregenza, Adam			
324337	09/24/2026		
	Inv AT9.10.26		
	Line Item Date	Line Item Description	
	09/10/2026	FD Paramedic License Renewal - Adam T.	250.00
	Inv AT9.10.26 Total		250.00
324337 Total:			250.00
ADTR5011 - Tregenza, Adam Total:			250.00
ALH0179 - Alhambra Car Wash			
324256	09/24/2026		
	Inv August 2026		
	Line Item Date	Line Item Description	
	09/08/2026	PD Vehicle Maintenance	432.00
	Inv August 2026 Total		432.00
324256 Total:			432.00
ALH0179 - Alhambra Car Wash Total:			432.00
ALH0181 - Alhambra Hospital Med Ctr			
324257	09/24/2026		
	Inv SPFD008		
	Line Item Date	Line Item Description	
	08/16/2026	Medical Supplies: Medications, Doses, Supplies FY25-26	3,104.41
	08/16/2026	Fire Dept Medical Supplies	1,650.70
	Inv SPFD008 Total		4,755.11

Check Number	Check Date	Amount
324257 Total:		4,755.11
ALH0181 - Alhambra Hospital Med Ctr Total:		4,755.11

ALL0197 - All Star Fire Equipment, Inc.

324258 09/24/2026

Inv 274988

Line Item Date	Line Item Description	
08/31/2026	Annual PO Safety Firefighting ClothingEquipment FY 26-27	101.83
Inv 274988 Total		101.83
324258 Total:		101.83
ALL0197 - All Star Fire Equipment, Inc. Total:		101.83

AMAZONCP - Amazon Capital Services, Inc.

0 09/24/2026

Inv 11FH-K1FQ-FN36

Line Item Date	Line Item Description	
08/15/2026	clear plastic vanity, letter tray	79.16
Inv 11FH-K1FQ-FN36 Total		79.16

Inv 11T6-JFKR-RRLT

Line Item Date	Line Item Description	
09/14/2026	Office Chair and Radio Charger Shared Division Chief Office	213.49
Inv 11T6-JFKR-RRLT Total		213.49

Inv 17H9-9CHK-WLKH

Line Item Date	Line Item Description	
09/11/2026	Office Supplies	18.77
Inv 17H9-9CHK-WLKH Total		18.77

Inv 1C1V-XFLH-V71D

Line Item Date	Line Item Description	
09/14/2026	PD Office Supplies	299.90
Inv 1C1V-XFLH-V71D Total		299.90

Inv 1DMC-HV3C-6YH9

Line Item Date	Line Item Description	
09/02/2026	phone case Samsung	16.66
Inv 1DMC-HV3C-6YH9 Total		16.66

Inv 1FML-R1TF-MRKH

Line Item Date	Line Item Description	
08/15/2026	Items for LIbrary's Fall Campaign	83.77

Inv 1FML-R1TF-MRKH Total 83.77

Inv 1FXN-KWPY-6KWG

Line Item Date	Line Item Description	
09/01/2026	iPad case, should strap, Apple pencil	287.50

Inv 1FXN-KWPY-6KWG Total 287.50

Inv 1GYR-X19X-DW1C

Line Item Date	Line Item Description	
09/09/2026	Book for Library Collection	10.93

Inv 1GYR-X19X-DW1C Total 10.93

Inv 1JG1-QH3K-HK4V

Line Item Date	Line Item Description	
09/03/2026	Logitech mouse, wireless keyboard	296.19

Inv 1JG1-QH3K-HK4V Total 296.19

Inv 1JL3-PVVP-LJJD

Line Item Date	Line Item Description	
08/28/2026	Power Supply for Fire Station	20.54

Inv 1JL3-PVVP-LJJD Total 20.54

Inv 1JPG-WQGV-4P4Q

Line Item Date	Line Item Description	
09/16/2026	IT Supplies	38.63

Inv 1JPG-WQGV-4P4Q Total 38.63

Inv 1K46-NJ76-VVHN

Line Item Date	Line Item Description	
08/29/2026	Gatorade Powder Mix for Water Staff	80.07

Inv 1K46-NJ76-VVHN Total 80.07

Inv 1K61-T6M3-3MVW

Line Item Date	Line Item Description	
08/31/2026	CREDIT - Returned Book for Library Collection	-32.42

Inv 1K61-T6M3-3MVW Total -32.42

Inv 1KY1-N66X-THKW

Line Item Date	Line Item Description	
08/27/2026	wire hooks, clock, wire shelf label holder	39.64

Inv 1KY1-N66X-THKW Total 39.64

Inv 1LX1-MVN6-KPHM

Line Item Date	Line Item Description	
08/28/2026	Carnegie Grant - Items for Library's Fall Campaign	15.86

Inv 1LX1-MVN6-KPHM Total 15.86

Inv 1NVQ-LDXH-XRT1

Line Item Date	Line Item Description	
08/16/2026	Book for Library Collection	32.42

Inv 1NVQ-LDXH-XRT1 Total 32.42

Inv 1RPP-C7QD-TNDY

Line Item Date	Line Item Description	
08/29/2026	CREDIT for broken acrylic file holder	-19.86

Inv 1RPP-C7QD-TNDY Total -19.86

Inv 1TH9-9VX7-6LFH

Line Item Date	Line Item Description	
09/02/2026	Printer for Anteneh Tesfaye's Office	353.59

Inv 1TH9-9VX7-6LFH Total 353.59

Inv 1VMK-F6RT-NLJM

Line Item Date	Line Item Description	
09/14/2026	Senior Center bin for supplies & event supplies	55.24

Inv 1VMK-F6RT-NLJM Total 55.24

Inv 1VYK-G1VN-4QQD

Line Item Date	Line Item Description	
09/01/2026	Office Supplies	24.67

Inv 1VYK-G1VN-4QQD Total 24.67

Inv 1VYK-G1VN-94FJ

Line Item Date	Line Item Description	
09/01/2026	iPhone Case Diverbox	14.69

Inv 1VYK-G1VN-94FJ Total 14.69

Inv 1VYK-G1VN-9D4R

Line Item Date	Line Item Description	
09/01/2026	phone case Samsung	16.66

Inv 1VYK-G1VN-9D4R Total 16.66

Inv 1Y6F-HFQW-LKDR

Line Item Date	Line Item Description	
09/15/2026	Senior Center bin for supplies & event supplies	11.04

Inv 1Y6F-HFQW-LKDR Total 11.04

Inv 1YGQ-3J17-GY9R

Line Item Date	Line Item Description	
09/01/2026	PD Office Supplies	298.34

Inv 1YGQ-3J17-GY9R Total 298.34

Inv 1YN1-XXXR-LMXR

Line Item Date	Line Item Description	
09/04/2026	Equipment Maintenance - Batteries for Equipment	67.71

Inv 1YN1-XXXR-LMXR Total 67.71

0 Total: 2,323.19

AMAZONCP - Amazon Capital Services, Inc. Total: 2,323.19

AMTIR4 - The Reinalt-Thomas Corporation DBA

324336 09/24/2026

Inv 5084814751

Line Item Date	Line Item Description	
08/10/2026	PD Vehicle Maintenance	354.40

Inv 5084814751 Total 354.40

324336 Total: 354.40

AMTIR4 - The Reinalt-Thomas Corporation DBA Total: 354.40

AVCJ3041 - Arroyo Verdugo Communities Joint Powers Authority

324264 09/24/2026

Inv 8.20.26

Line Item Date	Line Item Description	
08/20/2026	FY26/27 AVCJPA Membership Due	5,937.00

Inv 8.20.26 Total 5,937.00

324264 Total: 5,937.00

AVCJ3041 - Arroyo Verdugo Communities Joint Powers Authority Total: 5,937.00

AXON4010 - Axon Enterprise Inc.

Check Number	Check Date	Amount
0	09/24/2026	
Inv INUS478771		
Line Item Date	Line Item Description	
09/04/2026	AXON VOUCHER FOR OFFICER TO ATTEND UPCOMING 2 D	895.00
Inv INUS478771 Total		895.00
0 Total:		895.00
AXON4010 - Axon Enterprise Inc. Total:		895.00
BLBA8010 - Bibliotheca, LLC		
0	09/24/2026	
Inv INV-US87846		
Line Item Date	Line Item Description	
09/02/2026	Radio Frequency Identification Technology RFID C0001497-US	24,589.92
Inv INV-US87846 Total		24,589.92
0 Total:		24,589.92
BLBA8010 - Bibliotheca, LLC Total:		24,589.92
BSHL6710 - Base Hill, Inc., dba Jan Point		
0	09/24/2026	
Inv 27237		
Line Item Date	Line Item Description	
08/03/2026	Citywide Janitorial Services July 2026	17,950.00
Inv 27237 Total		17,950.00
Inv 27381		
Line Item Date	Line Item Description	
08/31/2026	Citywide Janitorial Services August 2026	17,950.00
Inv 27381 Total		17,950.00
0 Total:		35,900.00
BSHL6710 - Base Hill, Inc., dba Jan Point Total:		35,900.00
CAL5236 - Dy-Dee Services of Pasadena, Inc.		
324277	09/24/2026	
Inv 2653593		
Line Item Date	Line Item Description	
08/27/2026	Fire Department Linen Services for FY 26-27	99.71
Inv 2653593 Total		99.71

Inv 2656677

Line Item Date	Line Item Description	
09/03/2026	Fire Department Linen Services for FY 26-27	95.48

Inv 2656677 Total 95.48

324277 Total: 195.19

CAL5236 - Dy-Dee Services of Pasadena, Inc. Total: 195.19

CAL8012 - Califa Group

324266 09/24/2026

Inv 9501

Line Item Date	Line Item Description	
08/11/2026	EBSCO-Novelist Plus Subscription Renewal 9/1/26-8/31/27	3,040.00

Inv 9501 Total 3,040.00

324266 Total: 3,040.00

CAL8012 - Califa Group Total: 3,040.00

CALP2013 - CalPERS

0 09/24/2026

Inv GASB 68 FY27

Line Item Date	Line Item Description	
09/10/2026	GASB 68 Reporting Services Fee FY27	700.00

Inv GASB 68 FY27 Total 700.00

0 Total: 700.00

CALP2013 - CalPERS Total: 700.00

CAN0607 - Cantu Graphics Inc.

0 09/24/2026

Inv 66051-2

Line Item Date	Line Item Description	
08/17/2026	PD Printing	55.07

Inv 66051-2 Total 55.07

Inv 66083-2

Line Item Date	Line Item Description	
09/03/2026	Printing-Bus.Card-D. Flores	44.04

Inv 66083-2 Total 44.04

Inv 66083-3

Line Item Date	Line Item Description	
09/03/2026	PD Printing	55.19

Inv 66083-3 Total 55.19

Inv 66088-2

Line Item Date	Line Item Description	
08/27/2026	Door Hangers for FHSV Tree Trimming	751.34

Inv 66088-2 Total 751.34

0 Total: 905.64

CAN0607 - Cantu Graphics Inc. Total: 905.64

CAPRAENV - Capra Environmental Services Corporation

324267 09/24/2026

Inv 2249

Line Item Date	Line Item Description	
09/22/2026	Grazing Management Services SEP2026 Monterey HIlls	29,750.00

Inv 2249 Total 29,750.00

324267 Total: 29,750.00

CAPRAENV - Capra Environmental Services Corporation Total: 29,750.00

CASTEELE - Steele, Caden

324333 09/24/2026

Inv CS8.21.26

Line Item Date	Line Item Description	
08/21/2026	CPR Renewal Reimbursement - C. Steele FD	70.45

Inv CS8.21.26 Total 70.45

324333 Total: 70.45

CASTEELE - Steele, Caden Total: 70.45

CATYSTGP - Catalyst Consulting Group

0 09/24/2026

Inv #SPas-CRM-S-003

Line Item Date	Line Item Description	
09/15/2026	CRM Build Milestones- CSC Platform Development	70,391.53

Check Number	Check Date		Amount
	09/15/2026	CRM Build Milestone - CSC Platform Development	747.27
	Inv #SPas-CRM-S-003 Total		71,138.80
0 Total:			71,138.80
CATYSTGP - Catalyst Consulting Group Total:			71,138.80
CDOHCS50 - California Department of Health Care Services			
0	09/24/2026		
	Inv GEMT Invoice #4		
	Line Item Date	Line Item Description	
	09/03/2026	Fire - GEMT 2026 Q4 - NPI 1073512570	42,947.10
	Inv GEMT Invoice #4 Total		42,947.10
0 Total:			42,947.10
CDOHCS50 - California Department of Health Care Services Total:			42,947.10
CFNSPR - California Newspapers Partnership			
0	09/24/2026		
	Inv 0011806083		
	Line Item Date	Line Item Description	
	08/07/2026	Public Notices - August 2026	621.46
	Inv 0011806083 Total		621.46
	Inv 0011806225		
	Line Item Date	Line Item Description	
	08/12/2026	Election Public Notices - August 2026	644.48
	Inv 0011806225 Total		644.48
	Inv 0011807139		
	Line Item Date	Line Item Description	
	08/14/2026	Public Notices - August 2026	612.26
	Inv 0011807139 Total		612.26
0 Total:			1,878.20
CFNSPR - California Newspapers Partnership Total:			1,878.20
CGPH4011 - Phillips, Craig			
324320	09/24/2026		

Inv 09/11/2026

Line Item Date	Line Item Description	
09/15/2026	SGT. PHILLIPS REIMBURSEMENT FOR DRIVER TRAINING (	13.42

Inv 09/11/2026 Total 13.42

324320 Total: 13.42

CGPH4011 - Phillips, Craig Total: 13.42

CHMILLER - Miller, Christiana

0 09/24/2026

Inv September2026

Line Item Date	Line Item Description	
09/02/2026	CS SEP 2026 YMCA Wellness Reimbursement	55.00

Inv September2026 Total 55.00

0 Total: 55.00

CHMILLER - Miller, Christiana Total: 55.00

CINTA3 - Cintas Corporation

324269 09/24/2026

Inv 4281645845

Line Item Date	Line Item Description	
09/08/2026	Parks & Uniforms Uniforms Week 9.8.26	50.16

Inv 4281645845 Total 50.16

324269 Total: 50.16

CINTA3 - Cintas Corporation Total: 50.16

CINTAS - Cintas Corporation

324270 09/24/2026

Inv 5342745305

Line Item Date	Line Item Description	
06/18/2026	First Aid Kit Replenishment and AED Maintenance June 2026	76.41

Inv 5342745305 Total 76.41

Inv 5342745311

Line Item Date	Line Item Description	
06/18/2026	First Aid Kit Replenishment and AED Maintenance June 2026	17.75

Inv 5342745311 Total 17.75

Inv 5342745313

Line Item Date	Line Item Description	
06/18/2026	First Aid Kit Replenishment and AED Maintenance June 2026	34.32

Inv 5342745313 Total 34.32

Inv 5343216709

Line Item Date	Line Item Description	
06/22/2026	First Aid Kit Replenishment and AED Maintenance June 2026	8.81

Inv 5343216709 Total 8.81

Inv 5348215304

Line Item Date	Line Item Description	
07/16/2026	First Aid Kit Replenishment and AED Maintenance July 2026	8.81

Inv 5348215304 Total 8.81

Inv 5348215309

Line Item Date	Line Item Description	
07/16/2026	First Aid Kit Replenishment and AED Maintenance July 2026	50.69

Inv 5348215309 Total 50.69

Inv 5348215311

Line Item Date	Line Item Description	
07/16/2026	First Aid Kit Replenishment and AED Maintenance July 2026	25.64

Inv 5348215311 Total 25.64

Inv 5348215312

Line Item Date	Line Item Description	
07/16/2026	First Aid Kit Replenishment and AED Maintenance July 2026	36.31

Inv 5348215312 Total 36.31

Inv 5348215313

Line Item Date	Line Item Description	
07/16/2026	First Aid Kit Replenishment and AED Maintenance July 2026	65.56

Inv 5348215313 Total 65.56

Inv 5348215314

Line Item Date	Line Item Description	
07/16/2026	First Aid Kit Replenishment and AED Maintenance July 2026	8.87

Inv 5348215314 Total 8.87

Inv 8408516499

Line Item Date	Line Item Description

Check Number	Check Date		Amount
	07/31/2026	First Aid Kit Replenishment and AED Maintenance July 2026	289.52
	Inv 8408516499 Total		289.52
	Inv 8408580033		
	Line Item Date	Line Item Description	
	08/31/2026	First Aid Kit Replenishment and AED Maintenance August 2026	382.69
	Inv 8408580033 Total		382.69
324270 Total:			1,005.38
CINTAS - Cintas Corporation Total:			1,005.38
CITIGUAR - Citiguard Inc			
324271	09/24/2026		
	Inv 85503		
	Line Item Date	Line Item Description	
	09/08/2026	Library Security Guard Concierge Srv AUG26 Acct# SPPL051826	5,840.75
	Inv 85503 Total		5,840.75
324271 Total:			5,840.75
CITIGUAR - Citiguard Inc Total:			5,840.75
CNPO4011 - Pacheco, Cynthia			
0	09/24/2026		
	Inv 09/11/2026		
	Line Item Date	Line Item Description	
	09/15/2026	P.A. PACHECO REIMBURSEMENT FOR ATTENDING REPORT	75.09
	Inv 09/11/2026 Total		75.09
0 Total:			75.09
CNPO4011 - Pacheco, Cynthia Total:			75.09
COBR7131 - The Advantage Group			
0	09/24/2026		
	Inv 102026HRA		
	Line Item Date	Line Item Description	
	09/23/2026	HRA Administration Reimbursement for October 2026	23,722.89
	Inv 102026HRA Total		23,722.89
0 Total:			23,722.89

COBR7131 - The Advantage Group Total: 23,722.89

CON9152 - Control Automation Design Inc

324274 09/24/2026

Inv 26-026

Line Item Date	Line Item Description	
07/31/2026	SCADA Routine Maintenance	2,931.50

Inv 26-026 Total 2,931.50

324274 Total: 2,931.50

CON9152 - Control Automation Design Inc Total: 2,931.50

COSEATGV - Concept Seating Government LLC

0 09/24/2026

Inv 13873

Line Item Date	Line Item Description	
09/08/2026	Chairs for PD Dispatchers	6,439.17

Inv 13873 Total 6,439.17

0 Total: 6,439.17

COSEATGV - Concept Seating Government LLC Total: 6,439.17

CRPC7000 - Pech, Carlos

324318 09/24/2026

Inv 09/04/2026

Line Item Date	Line Item Description	
09/15/2026	DET. PECH REIMBURSEMENT FOR DRIVER TRAINING (PSP	17.19

Inv 09/04/2026 Total 17.19

324318 Total: 17.19

CRPC7000 - Pech, Carlos Total: 17.19

CRSR2010 - Corodata Shredding Inc.

0 09/24/2026

Inv DN 1589154

Line Item Date	Line Item Description	
07/31/2026	Shredding for City Facilities AN SD041103	378.57

Inv DN 1589154 Total 378.57

Inv DN 1590080

Line Item Date	Line Item Description	
07/31/2026	Shredding for City Facilities AN SD041103	30.00

Inv DN 1590080 Total 30.00

Inv DN 1594801

Line Item Date	Line Item Description	
08/31/2026	Shredding for City Facilities	34.95

Inv DN 1594801 Total 34.95

0 Total: 443.52

CRSR2010 - Corodata Shredding Inc. Total: 443.52

CUR7778 - L.N. Curtis & Sons

324297 09/24/2026

Inv INV1104605

Line Item Date	Line Item Description	
08/27/2026	PD Safety Clothing/Equipment	1,260.00

Inv INV1104605 Total 1,260.00

324297 Total: 1,260.00

CUR7778 - L.N. Curtis & Sons Total: 1,260.00

DACA4011 - Calderon, David

0 09/24/2026

Inv 08/24-25/26

Line Item Date	Line Item Description	
09/15/2026	CPL. CALDERON INTRO TO SUPERVISION TRAINING REIMI	53.10

Inv 08/24-25/26 Total 53.10

Inv 09/04/2026

Line Item Date	Line Item Description	
09/15/2026	CPL. CALDERON REIMBURSEMENT FOR DRIVER TRAININ(	23.00

Inv 09/04/2026 Total 23.00

0 Total: 76.10

DACA4011 - Calderon, David Total: 76.10

DARL7000 - Russell, Diana

Check Number	Check Date	Amount
324328	09/24/2026	
Inv 09/11/2026		
Line Item Date	Line Item Description	
09/15/2026	P.A. RUSSELL REIMBURSEMENT FOR ATTENDING REPORT	78.90
Inv 09/11/2026 Total		78.90
324328 Total:		78.90
DARL7000 - Russell, Diana Total:		78.90
DDLP8010 - Dr. Detail Ph.D LLC		
0	09/24/2026	
Inv 3727		
Line Item Date	Line Item Description	
08/31/2026	Biweekly fleet washing of DAR vehicles (81, 82, and 83)	600.00
Inv 3727 Total		600.00
0 Total:		600.00
DDLP8010 - Dr. Detail Ph.D LLC Total:		600.00
DPWL8210 - Dispatch Wellness LLC		
324276	09/24/2026	
Inv 21691A7E-0009		
Line Item Date	Line Item Description	
09/08/2026	DISPATCH WELLNESS COURSE FOR P.A. CORONA 10/16/202	125.00
Inv 21691A7E-0009 Total		125.00
324276 Total:		125.00
DPWL8210 - Dispatch Wellness LLC Total:		125.00
DTATK701 - Data Ticket, Inc.		
324275	09/24/2026	
Inv 199009		
Line Item Date	Line Item Description	
09/10/2026	Citation Processing/Collections AUG 2026 EN# 1291	200.00
Inv 199009 Total		200.00
324275 Total:		200.00
DTATK701 - Data Ticket, Inc. Total:		200.00

DVANDENS - Vandensteen, Desiree

0 09/24/2026

Inv DV AUG2026

Line Item Date	Line Item Description	
08/31/2026	PD YMCA wellness reimb AUG 2026	51.00

Inv DV AUG2026 Total 51.00

Inv DV JUL2026

Line Item Date	Line Item Description	
07/31/2026	PD YMCA wellness reimb JUL 2026	51.00

Inv DV JUL2026 Total 51.00

Inv DV SEP2026

Line Item Date	Line Item Description	
09/02/2026	PD YMCA wellness reimb SEP 2026	51.00

Inv DV SEP2026 Total 51.00

0 Total: 153.00

DVANDENS - Vandensteen, Desiree Total: 153.00

EDGHITI - Engineering Consulting Services, Inc.

324279 09/24/2026

Inv 37

Line Item Date	Line Item Description	
08/31/2026	Public Works Management Assistance AUG 2026	5,362.50

Inv 37 Total 5,362.50

324279 Total: 5,362.50

EDGHITI - Engineering Consulting Services, Inc. Total: 5,362.50

EDVL6010 - Villalobos, Edgar

324339 09/24/2026

Inv 8.2.26-1

Line Item Date	Line Item Description	
08/02/2026	Travel Reimb - Meals & Incidentals Per Diem (First Day) 8/2/26	64.50

Inv 8.2.26-1 Total 64.50

Inv 8.2.26-2

Line Item Date	Line Item Description	
08/02/2026	Travel Reimb - Airport Transportation / Ride-share 8/2/26	25.03

Inv 8.2.26-2 Total 25.03

Inv 8.2.26-3

Line Item Date	Line Item Description	
08/02/2026	Travel Reimb Mileage To & From Airport 8/2 & 8/26/26	28.73

Inv 8.2.26-3 Total 28.73

Inv 8.3.26

Line Item Date	Line Item Description	
08/03/2026	Travel Reimb - Meals & Incidentals Per Diem (Second Day) 8/3/26	86.00

Inv 8.3.26 Total 86.00

Inv 8.4.26

Line Item Date	Line Item Description	
08/04/2026	Travel Reimb - Meals & Incidentals Per Diem (Third Day) 8/4/26	86.00

Inv 8.4.26 Total 86.00

Inv 8.5.26

Line Item Date	Line Item Description	
08/05/2026	Travel Reimb - Meals & Incidentals Per Diem (Fourth Day) 8/5/26	67.85

Inv 8.5.26 Total 67.85

Inv 8.6.26-1

Line Item Date	Line Item Description	
08/06/2026	Travel Reimb - Meals & Incidentals Per Diem (Last Day) 8/6/26	64.50

Inv 8.6.26-1 Total 64.50

Inv 8.6.26-2

Line Item Date	Line Item Description	
08/06/2026	Travel Reimb - Garage and Parking Expense 8/2-8/6/26	175.00

Inv 8.6.26-2 Total 175.00

Inv H0119253800

Line Item Date	Line Item Description	
07/30/2026	Edgar Villalobos Boot Reimbursement	356.65

Inv H0119253800 Total 356.65

324339 Total: 954.26

EDVL6010 - Villalobos, Edgar Total: 954.26

EMARCIAL - Marcial, Esmeralda

324302 09/24/2026

Inv 114066351

Line Item Date	Line Item Description	
09/01/2026	Refund deposit GY 8/29/26 + one hour rental & staff	125.00
09/01/2026	Refund deposit GY 8/29/26 + one hour rental & staff	300.00

Inv 114066351 Total 425.00

324302 Total: 425.00

EMARCIAL - Marcial, Esmeralda Total: 425.00

EMPI5011 - ARAMSCO INC

324261 09/24/2026

Inv S7868510.003

Line Item Date	Line Item Description	
08/26/2026	Fire Station Cleaning Apparatus	35.65

Inv S7868510.003 Total 35.65

Inv S7868510.004

Line Item Date	Line Item Description	
09/01/2026	Fire Station Cleaning Apparatus	49.47

Inv S7868510.004 Total 49.47

324261 Total: 85.12

EMPI5011 - ARAMSCO INC Total: 85.12

ERCARRYO - Arroyo, Eric

324263 09/24/2026

Inv 4063

Line Item Date	Line Item Description	
09/04/2026	BACKGROUND INVESTIGATION FOR DISPATCH APPLICANT	1,700.00

Inv 4063 Total 1,700.00

324263 Total: 1,700.00

ERCARRYO - Arroyo, Eric Total: 1,700.00

ESCLCEPW - Escalera, Lance

324280 09/24/2026

Inv 5.20.26

Line Item Date	Line Item Description	
09/15/2026	Lance Escalera Mileage Reimbursement War Memorial Building Le	100.05

Inv 5.20.26 Total 100.05

324280 Total: 100.05

ESCLCEPW - Escalera, Lance Total: 100.05

FCCC2984 - Farwest Corrosion Control Company

324281 09/24/2026

Inv 261

Line Item Date	Line Item Description	
09/23/2026	Temp Water Meter Refund Deposit $2,947.00 Less water usage 60.8	2,886.17

Inv 261 Total 2,886.17

324281 Total: 2,886.17

FCCC2984 - Farwest Corrosion Control Company Total: 2,886.17

FFCA8060 - Foothill Fire Chiefs' Association

324283 09/24/2026

Inv 9/1/26

Line Item Date	Line Item Description	
09/01/2026	Foothill Fire Chief Association Dues 2026 - Lloyd	200.00

Inv 9/1/26 Total 200.00

324283 Total: 200.00

FFCA8060 - Foothill Fire Chiefs' Association Total: 200.00

FHCM5011 - Foothill Communications, Inc.

324282 09/24/2026

Inv #INV8214

Line Item Date	Line Item Description	
08/26/2026	Service and Repair of Comm. Equip. FY26/27	3,630.00

Inv #INV8214 Total 3,630.00

Inv #INV8220

Line Item Date	Line Item Description	
08/31/2026	Service and Repair of Comm. Equip. FY26/27	3,630.00

Inv #INV8220 Total 3,630.00

324282 Total: 7,260.00

FHCM5011 - Foothill Communications, Inc. Total: 7,260.00

GALL5011 - Galls, LLC

324284 09/24/2026

Inv 036099747

Line Item Date	Line Item Description	
08/26/2026	PD Safety Clothing/Equipment Acct# 1000288030	166.77

Inv 036099747 Total 166.77

Inv 036148310

Line Item Date	Line Item Description	
08/31/2026	PD Safety Clothing/Equipment	50.00

Inv 036148310 Total 50.00

Inv 036175103

Line Item Date	Line Item Description	
09/02/2026	PD Safety Clothing/Equipment	6.83

Inv 036175103 Total 6.83

Inv 036195695

Line Item Date	Line Item Description	
09/04/2026	PD Safety Clothing/Equipment	141.55

Inv 036195695 Total 141.55

Inv 036195723

Line Item Date	Line Item Description	
09/04/2026	PD Safety Clothing/Equipment	13.12

Inv 036195723 Total 13.12

Inv 036208475

Line Item Date	Line Item Description	
09/08/2026	PD Safety Clothing/Equipment	147.58

Inv 036208475 Total 147.58

Inv 036230221

Line Item Date	Line Item Description	
09/09/2026	PD Safety Clothing/Equipment	158.74

Inv 036230221 Total 158.74

324284 Total: 684.59

GALL5011 - Galls, LLC Total: 684.59

GALV4011 - Alvarez, Griselda

Check Number	Check Date	Amount
324259	09/24/2026	
Inv 09/02/2026		
Line Item Date	Line Item Description	
09/15/2026	CLERK ALVAREZ PUBLIC RECRODS ACT TRAINING REIMB	60.80
Inv 09/02/2026 Total		60.80
324259 Total:		60.80
GALV4011 - Alvarez, Griselda Total:		60.80
GEOGEARY - Geary, George		
324285	09/24/2026	
Inv 10-10-2026		
Line Item Date	Line Item Description	
09/18/2026	Carnegie Grant - 10/10/26 Author Talk	200.00
Inv 10-10-2026 Total		200.00
324285 Total:		200.00
GEOGEARY - Geary, George Total:		200.00
GLBMSRHT - Global Music Rights, LLC		
324286	09/24/2026	
Inv INV-GMR-139653		
Line Item Date	Line Item Description	
09/09/2026	Global Music Rights licensing So Pas events 6/1/26-5/31/27	850.00
Inv INV-GMR-139653 Total		850.00
324286 Total:		850.00
GLBMSRHT - Global Music Rights, LLC Total:		850.00
GOVE2013 - GovernmentJobs.com, Inc.		
0	09/24/2026	
Inv INV-158658		
Line Item Date	Line Item Description	
05/08/2026	NEOGOV Fiscal Year 2026-2027 Service	68,137.24
Inv INV-158658 Total		68,137.24
0 Total:		68,137.24
GOVE2013 - GovernmentJobs.com, Inc. Total:		68,137.24

Check Number	Check Date	Amount

GRA6601 - Grainger

324287 09/24/2026

Inv 9057147663

Line Item Date	Line Item Description	
08/25/2026	Handles for Library sink in staff area	161.96
Inv 9057147663 Total		161.96

Inv 9057291495

Line Item Date	Line Item Description	
08/25/2026	Material for sink repair at WAR in kitchen	38.98
Inv 9057291495 Total		38.98

324287 Total: 200.94

GRA6601 - Grainger Total: 200.94

GRED4011 - Gramajo, Ederson

324288 09/24/2026

Inv 08/31/2026

Line Item Date	Line Item Description	
09/15/2026	MENTORSHIP/RIDE ALONG LUNCH REIMBURSEMENT FOR	35.78
Inv 08/31/2026 Total		35.78

Inv 09/11/2026

Line Item Date	Line Item Description	
09/15/2026	OFCR. GRAMAJO REIMBURSEMENT FOR DRIVER TRAININ	20.35
Inv 09/11/2026 Total		20.35

324288 Total: 56.13

GRED4011 - Gramajo, Ederson Total: 56.13

HDLC3011 - HdL Coren & Cone

324290 09/24/2026

Inv SIN068355

Line Item Date	Line Item Description	
09/22/2026	2025-26 ACFR Statistical Package	795.00
Inv SIN068355 Total		795.00

324290 Total: 795.00

HDLC3011 - HdL Coren & Cone Total: 795.00

HDRE6011 - HDR Engineering, Inc

0 09/24/2026

Inv 1200862159

Line Item Date	Line Item Description	
09/04/2026	Pedestrian Enhancement Design	9,874.40

Inv 1200862159 Total 9,874.40

0 Total: 9,874.40

HDRE6011 - HDR Engineering, Inc Total: 9,874.40

INCG6011 - Interwest Consulting Group, Inc

0 09/24/2026

Inv 4643766

Line Item Date	Line Item Description	
08/31/2026	Fire Plan Review Services FY 26-27	1,540.00

Inv 4643766 Total 1,540.00

0 Total: 1,540.00

INCG6011 - Interwest Consulting Group, Inc Total: 1,540.00

INGRMLIB - INGRAM LIBRARY SERVICE LLC

324292 09/24/2026

Inv 98782593

Line Item Date	Line Item Description	
08/24/2026	Open Purchase Order for Books for FY26-27	241.96

Inv 98782593 Total 241.96

Inv 98817572

Line Item Date	Line Item Description	
08/25/2026	Open Purchase Order for Books for FY26-27	21.59

Inv 98817572 Total 21.59

Inv 98891590

Line Item Date	Line Item Description	
08/27/2026	Open Purchase Order for Books for FY26-27	408.74

Inv 98891590 Total 408.74

Inv 98891591

Line Item Date	Line Item Description

08/27/2026	Open Purchase Order for Books for FY26-27	804.61
Inv 98891591 Total		804.61
Inv 98965156		
Line Item Date	Line Item Description	
08/31/2026	Open Purchase Order for Books Acct# 20AZ233	302.73
Inv 98965156 Total		302.73
324292 Total:		1,779.63
INGRMLIB - INGRAM LIBRARY SERVICE LLC Total:		1,779.63
INT6115 - R & M Hansen Enter Inc		
324322	09/24/2026	
Inv 18141498		
Line Item Date	Line Item Description	
08/12/2026	31P-MHD Vehicle Maintenance for E781	357.49
Inv 18141498 Total		357.49
Inv 18141673		
Line Item Date	Line Item Description	
08/31/2026	31P-MHD Vehicle Maintenance for E781	714.98
Inv 18141673 Total		714.98
324322 Total:		1,072.47
INT6115 - R & M Hansen Enter Inc Total:		1,072.47
ISGU4011 - Gutierrez, Issac		
0	09/24/2026	
Inv 09/03/2026		
Line Item Date	Line Item Description	
09/15/2026	ISSAC GUTIERREZ CAPE TRAINING REIMURSEMENT 09/03/	10.00
Inv 09/03/2026 Total		10.00
0 Total:		10.00
ISGU4011 - Gutierrez, Issac Total:		10.00
JANSLNAS - Salinas, Juan		
324329	09/24/2026	

Inv 3.18.26

Line Item Date	Line Item Description	
03/18/2026	Juan Salinas Mileage Reimb 3.18.26 816pm Open Manhole Cover	9.14

Inv 3.18.26 Total 9.14

Inv 3.20.26

Line Item Date	Line Item Description	
03/20/2026	Juan Salinas Mileage Reimb 3.20.26 434pm Palm Frons Pickup	9.14

Inv 3.20.26 Total 9.14

Inv 5.1.26

Line Item Date	Line Item Description	
05/01/2026	Juan Salinas Mileage Reimb 5.1.26 415pm Water Leak & Down Sig	9.14

Inv 5.1.26 Total 9.14

Inv 8.5.26

Line Item Date	Line Item Description	
08/05/2026	Juan Salinas Mileage Reimb Down Tree 8.5.26 730p 5034 Collis Av	9.58

Inv 8.5.26 Total 9.58

324329 Total: 37.00

JANSLNAS - Salinas, Juan Total: 37.00

JCTCRP - JCtees.com Corporation

324294 09/24/2026

Inv 11378

Line Item Date	Line Item Description	
08/31/2026	City Polos	323.88

Inv 11378 Total 323.88

324294 Total: 323.88

JCTCRP - JCtees.com Corporation Total: 323.88

JHMS8020 - JHM Supply Inc

0 09/24/2026

Inv 119468/1

Line Item Date	Line Item Description	
09/01/2026	Coupling for Pipe Repair at Wilson Reservoir	32.10

Inv 119468/1 Total 32.10

Inv 411506/1

Line Item Date	Line Item Description	
08/13/2026	PVC Pipe to Replace Broken Pipe at Graves Reservoir	124.94

Inv 411506/1 Total 124.94

0 Total: 157.04

JHMS8020 - JHM Supply Inc Total: 157.04

JORM4011 - Ramirez, Jose

324323 09/24/2026

Inv 09/02/2026

Line Item Date	Line Item Description	
09/15/2026	CLERK RAMIREZ PUBLIC RECORDS ACT TRAINING REIMB	60.80

Inv 09/02/2026 Total 60.80

324323 Total: 60.80

JORM4011 - Ramirez, Jose Total: 60.80

JSAR4011 - Jack's Auto Repair

324293 09/24/2026

Inv 21246

Line Item Date	Line Item Description	
09/10/2026	PD Vehicle Maintenance	110.00

Inv 21246 Total 110.00

Inv 21263

Line Item Date	Line Item Description	
09/15/2026	PD Vehicle Maintenance	334.91

Inv 21263 Total 334.91

324293 Total: 444.91

JSAR4011 - Jack's Auto Repair Total: 444.91

JTCHOPUR - Tchopourian, Jose

324334 09/24/2026

Inv 8.24.26

Line Item Date	Line Item Description	
08/24/2026	Certified Construction Management (CCM) Cert. Reimbursement	225.00

Inv 8.24.26 Total 225.00

324334 Total: 225.00

JTCHOPUR - Tchopourian, Jose Total: 225.00

KBBE9203 - Kabbara Engineering

324295 09/24/2026

Inv 1905

Line Item Date	Line Item Description	
09/01/2026	Mound Carport Project (PV Improvements).	11,520.00

Inv 1905 Total 11,520.00

Inv 1906

Line Item Date	Line Item Description	
09/08/2026	Orange Zone Reconstruction Project (Street, Water & Utility Impr	9,694.82
09/08/2026	Orange Zone Reconstruction Project (Street, Water & Utility Impr	4,154.93
09/08/2026	Orange Zone Reconstruction Project (Street, Water & Utility Impr	1,025.32
09/08/2026	Orange Zone Reconstruction Project (Street, Water & Utility Impr	4,154.93

Inv 1906 Total 19,030.00

324295 Total: 30,550.00

KBBE9203 - Kabbara Engineering Total: 30,550.00

KMTM4011 - Kim, Timothy

324296 09/24/2026

Inv 08/24-25/26

Line Item Date	Line Item Description	
09/15/2026	CPL. KIM INTRO TO SUPERVISION TRAINING REIMBURSEI	55.12

Inv 08/24-25/26 Total 55.12

Inv 09/04/2026

Line Item Date	Line Item Description	
09/15/2026	CPL. KIM REIMBURSEMENT FOR DRIVER TRAINING (PSP) (	15.45

Inv 09/04/2026 Total 15.45

324296 Total: 70.57

KMTM4011 - Kim, Timothy Total: 70.57

KTFL2031 - Faulmino, Katrina

0 09/24/2026

Inv Sept2026

Line Item Date	Line Item Description	
09/03/2026	YMCA REIMBURSEMENT FOR Sept 2026	55.00

Inv Sept2026 Total 55.00

0 Total: 55.00

KTFL2031 - Faulmino, Katrina Total: 55.00

LBBM4010 - RCA Investments Inc

324324 09/24/2026

Inv 57774

Line Item Date	Line Item Description	
09/08/2026	PD Vehicle Maintenance	2,134.52

Inv 57774 Total 2,134.52

324324 Total: 2,134.52

LBBM4010 - RCA Investments Inc Total: 2,134.52

LCHD8011 - Lucas Holdings LLC

324300 09/24/2026

Inv 73736

Line Item Date	Line Item Description	
08/26/2026	Carnegie Grant - Foil Art Library Cards	1,128.63

Inv 73736 Total 1,128.63

324300 Total: 1,128.63

LCHD8011 - Lucas Holdings LLC Total: 1,128.63

LCW7456 - Liebert Cassidy Whitmore

0 09/24/2026

Inv 326795

Line Item Date	Line Item Description	
06/22/2026	Employment Relations Consort. & Liebert Library Subscr. FY26- 27	4,605.00

Inv 326795 Total 4,605.00

0 Total: 4,605.00

LCW7456 - Liebert Cassidy Whitmore Total: 4,605.00

LEAB6011 - Bunch, Leah

324265 09/24/2026

Inv Permit# 25944

Line Item Date	Line Item Description	
08/12/2025	Tree Removal Deposit Refund 2063 La France Ave	1,696.00

Inv Permit# 25944 Total 1,696.00

324265 Total: 1,696.00

LEAB6011 - Bunch, Leah Total: 1,696.00

LEXI4011 - Lexipol LLC

0 09/24/2026

Inv INVLEX11275542

Line Item Date	Line Item Description	
09/01/2026	FD Annual Fire Policy Manuals 10/1/26-9/30/27	9,377.96

Inv INVLEX11275542 Total 9,377.96

0 Total: 9,377.96

LEXI4011 - Lexipol LLC Total: 9,377.96

LIFE822 - Life-Assist Inc.

324298 09/24/2026

Inv 2191526

Line Item Date	Line Item Description	
08/26/2026	Fire Dept Medical Supplies	762.76

Inv 2191526 Total 762.76

Inv 2198043

Line Item Date	Line Item Description	
09/14/2026	Annual PO for Medical Supplies FY 26-27	702.78

Inv 2198043 Total 702.78

Inv 2199200

Line Item Date	Line Item Description	
09/08/2026	Annual PO for Medical Supplies FY 26-27	610.38

Inv 2199200 Total 610.38

324298 Total: 2,075.92

LIFE822 - Life-Assist Inc. Total: 2,075.92

LOU1111 - Louie, Spencer

324299 09/24/2026

Inv 09/04/2026

Line Item Date	Line Item Description	
09/15/2026	SGT. LOUIE REIMBURSEMENT FOR DRIVER TRAINING (PSI	18.53

Inv 09/04/2026 Total 18.53

324299 Total: 18.53

LOU1111 - Louie, Spencer Total: 18.53

LRMZ4011 - Mendez, Laura

324305 09/24/2026

Inv 09/02/2026

Line Item Date	Line Item Description	
09/15/2026	CLERK MENDEZ PUBLIC RECRODS ACT TRAINING REIMBU	60.80

Inv 09/02/2026 Total 60.80

324305 Total: 60.80

LRMZ4011 - Mendez, Laura Total: 60.80

MAN5011 - Manhattan Stitching Co

324301 09/24/2026

Inv 117482

Line Item Date	Line Item Description	
08/16/2026	Uniform Polos and Jackets for DAR staff and drivers.	1,309.32
08/16/2026	Uniform Polos and Jackets for CSD staff.	529.00
08/16/2026	Uniform Polos and Jackets for CSD staff.	60.00
08/16/2026	Uniform Polos and Jackets for CSD staff.	94.00

Inv 117482 Total 1,992.32

324301 Total: 1,992.32

MAN5011 - Manhattan Stitching Co Total: 1,992.32

MBFEC106 - Marx Bros. Fire Extinguisher Co.

324303 09/24/2026

Inv S26286

Line Item Date	Line Item Description	
07/17/2026	Semi-annual inspection of fire suppression systems for kitchen	200.00

Inv S26286 Total 200.00

324303 Total: 200.00

MBFEC106 - Marx Bros. Fire Extinguisher Co. Total: 200.00

MCM2352 - McMaster-Carr Supply Company

0 09/24/2026

Inv 67718937

Line Item Date	Line Item Description	
07/02/2026	Shut Off/On Valves for Sampling at Wilson Reservoir	384.18

Inv 67718937 Total 384.18

0 Total: 384.18

MCM2352 - McMaster-Carr Supply Company Total: 384.18

MDONOVAN - Donovan, Michael

0 09/24/2026

Inv MD JUL2026

Line Item Date	Line Item Description	
07/02/2026	CD Wellness Reimb JUL 2026	55.00

Inv MD JUL2026 Total 55.00

Inv MD SEP2026

Line Item Date	Line Item Description	
09/02/2026	CD Wellness Reimb SEP 2026	55.00

Inv MD SEP2026 Total 55.00

0 Total: 110.00

MDONOVAN - Donovan, Michael Total: 110.00

MDWSTPE - Midwest Tape LLC

324307 09/24/2026

Inv 509302194

Line Item Date	Line Item Description	
08/20/2026	Open Purchase Order - DVDs for Library Collection	22.98

Inv 509302194 Total 22.98

Inv 509335654

Line Item Date	Line Item Description	
08/26/2026	Open Purchase Order - DVDs for Library Collection	28.99

Inv 509335654 Total 28.99

Inv 509335676

Line Item Date	Line Item Description	
08/26/2026	Open Purchase Order - DVDs for Library Collection	89.60

Inv 509335676 Total 89.60

324307 Total: 141.57

MDWSTPE - Midwest Tape LLC Total: 141.57

MEDTECHR - Med-Tech Resource LLC

324304 09/24/2026

Inv 161015

Line Item Date	Line Item Description	
09/03/2026	PD Equipment	102.26

Inv 161015 Total 102.26

324304 Total: 102.26

MEDTECHR - Med-Tech Resource LLC Total: 102.26

MERPLMBN - Merry Plumbing Co., Inc.

324306 09/24/2026

Inv 221056699

Line Item Date	Line Item Description	
07/31/2026	Emergency Plumbing Services for PD Basement	1,387.49

Inv 221056699 Total 1,387.49

324306 Total: 1,387.49

MERPLMBN - Merry Plumbing Co., Inc. Total: 1,387.49

MHSM4011 - Smith, Michael

324331 09/24/2026

Inv 08/19/2026

Line Item Date	Line Item Description	
09/15/2026	CPL. SMITH ACTIVE SHOOTER TRAINING REIMBURSEMEN	23.00

Inv 08/19/2026 Total 23.00

Inv 08/24-25/2026

Line Item Date	Line Item Description	
09/15/2026	CPL. SMITH INTRO TO SUPERVISION TRAINING REIMBURS	55.12

Inv 08/24-25/2026 Total		55.12
324331 Total:		78.12
MHSM4011 - Smith, Michael Total:		78.12
MNBL8170 - Crestline Software, LLC		
0	09/24/2026	
Inv #INV21285		
Line Item Date	Line Item Description	
09/10/2026	AUG 2026 Lockbox Transaction & Return Fees	658.05
Inv #INV21285 Total		658.05
Inv #INV21360		
Line Item Date	Line Item Description	
09/10/2026	AUG 2026 Postage & Printing	2,521.16
Inv #INV21360 Total		2,521.16
0 Total:		3,179.21
MNBL8170 - Crestline Software, LLC Total:		3,179.21
MOORPRKM - Vandermeulen, Kristofer		
324338	09/24/2026	
Inv XKNTY0R1-0002		
Line Item Date	Line Item Description	
08/19/2026	Fire Department Clothing Uniforms: Belt Buckle	2,683.60
Inv XKNTY0R1-0002 Total		2,683.60
324338 Total:		2,683.60
MOORPRKM - Vandermeulen, Kristofer Total:		2,683.60
MPLC8021 - Motion Picture Licensing Corporation		
324308	09/24/2026	
Inv 504476068		
Line Item Date	Line Item Description	
05/01/2026	MPLC Blanket License covering the term:	565.30
Inv 504476068 Total		565.30
324308 Total:		565.30

MPLC8021 - Motion Picture Licensing Corporation Total: 565.30

MRKPRERZ - Perez, Mark

324319 09/24/2026

Inv MP-08/31/2026

Line Item Date	Line Item Description	
08/31/2026	Ride Share Reimbursement August 2026	80.00

Inv MP-08/31/2026 Total 80.00

324319 Total: 80.00

MRKPRERZ - Perez, Mark Total: 80.00

NIMO9203 - Ninyo & Moore

324310 09/24/2026

Inv 324662

Line Item Date	Line Item Description	
08/05/2026	Geotechnical Services for the FY25-26 Street Improvement Project	2,910.63
08/05/2026	Geotechnical Services for the FY25-26 Street Improvement Project	2,910.62

Inv 324662 Total 5,821.25

324310 Total: 5,821.25

NIMO9203 - Ninyo & Moore Total: 5,821.25

NORELLAN - Orellana, Nairobi

324313 09/24/2026

Inv Sept2026

Line Item Date	Line Item Description	
09/02/2026	YMCA Reimbursement for Sept 2026	55.00

Inv Sept2026 Total 55.00

324313 Total: 55.00

NORELLAN - Orellana, Nairobi Total: 55.00

NOSSALLP - Nossaman LLP

0 09/24/2026

Inv 598827

Line Item Date	Line Item Description	
09/09/2026	2026 G.O. Bond Measure Client: 505436 Matter: 0002	212.00

Inv 598827 Total 212.00

0 Total: 212.00

NOSSALLP - Nossaman LLP Total: 212.00

NV5R9266 - NV5, Inc.

0 09/24/2026

Inv 534941

Line Item Date	Line Item Description	
08/11/2026	NS Fair Oaks ITS Fremont Ave & Huntington Dr Corridor	2,477.15
08/11/2026	NS Fair Oaks ITS Fremont Ave & Huntington Dr Corridor	3,339.80
08/11/2026	NS Fair Oaks ITS Fremont Ave & Huntington Dr Corridor	3,339.81

Inv 534941 Total 9,156.76

Inv 539358

Line Item Date	Line Item Description	
08/31/2026	FY 26/27 Grant Management Services for July 2026	3,792.50

Inv 539358 Total 3,792.50

0 Total: 12,949.26

NV5R9266 - NV5, Inc. Total: 12,949.26

OMEGAIND - Omega Industrial Supply Inc

324312 09/24/2026

Inv 171875

Line Item Date	Line Item Description	
08/31/2026	Cleaning Supplies for Facilty Staff for Stock	2,002.82

Inv 171875 Total 2,002.82

324312 Total: 2,002.82

OMEGAIND - Omega Industrial Supply Inc Total: 2,002.82

OREI6711 - O' Reilly Automotive Inc.

324311 09/24/2026

Inv 8.28.26

Line Item Date	Line Item Description	
08/28/2026	Fan Belts for Motors Sr Ctr & Council Chamber Cust# 319275	14.76

Inv 8.28.26 Total 14.76

324311 Total: 14.76

OREI6711 - O' Reilly Automotive Inc. Total: 14.76

OVDR8011 - OverDrive Inc.

0 09/24/2026

Inv 01148CO26303000

Line Item Date	Line Item Description	
09/02/2026	Open Purchase Order for eBooks/eAudiobooks	3,707.89

Inv 01148CO26303000 Total 3,707.89

0 Total: 3,707.89

OVDR8011 - OverDrive Inc. Total: 3,707.89

PAS4012 - City of Pasadena

324272 09/24/2026

Inv 30029923

Line Item Date	Line Item Description	
08/25/2026	Inmate housing July 2026 Cust# 117963	1,114.00

Inv 30029923 Total 1,114.00

324272 Total: 1,114.00

PAS4012 - City of Pasadena Total: 1,114.00

PHOE4610 - Phoenix Group Information Systems

324321 09/24/2026

Inv 072026184

Line Item Date	Line Item Description	
08/19/2026	Citations Processed July 2026 Agency# 184	5,435.56

Inv 072026184 Total 5,435.56

324321 Total: 5,435.56

PHOE4610 - Phoenix Group Information Systems Total: 5,435.56

PHS4011 - Pasadena Humane Society

324315 09/24/2026

Inv SEP2026SoPas

Line Item Date	Line Item Description	
09/01/2026	PD Animal Control Srv SEP 2026	17,377.00

Inv SEP2026SoPas Total 17,377.00

324315 Total: 17,377.00

PHS4011 - Pasadena Humane Society Total: 17,377.00

PRKWOD - Parkwood Landscape Maintenance, Inc.

0 09/24/2026

Inv 111392

Line Item Date	Line Item Description	
06/22/2026	PW Parkwood Landscape Weed Abatement FY26-27	10,752.00

Inv 111392 Total 10,752.00

Inv 111706

Line Item Date	Line Item Description	
08/31/2026	Citywide Landscaping Maintenance AUG 2026	39,507.56
08/31/2026	Citywide Landscaping Maintenance AUG 2026	12,083.33
08/31/2026	Citywide Landscaping Maintenance AUG 2026	2,083.33

Inv 111706 Total 53,674.22

Inv 111737

Line Item Date	Line Item Description	
08/28/2026	45 cu yds Seed Top Dressing Orange Gr & Arroyo N/S	2,340.00

Inv 111737 Total 2,340.00

0 Total: 66,766.22

PRKWOD - Parkwood Landscape Maintenance, Inc. Total: 66,766.22

PSCY8520 - Pasadena Cyclery

324314 09/24/2026

Inv 090426110122319

Line Item Date	Line Item Description	
09/16/2026	PD Vehicle Maintenance AN PAS00003082	788.32

Inv 090426110122319 Total 788.32

324314 Total: 788.32

PSCY8520 - Pasadena Cyclery Total: 788.32

PSLSV802 - Pasadena Live Scan Service LLC

324316 09/24/2026

Inv 572

Line Item Date	Line Item Description	
07/31/2026	Live Scan Service - July 2026	426.00

Check Number	Check Date	Amount
Inv 572 Total		426.00
Inv 586		
Line Item Date	Line Item Description	
08/31/2026	Live Scan Service - August 2026	269.00
Inv 586 Total		269.00
324316 Total:		695.00
PSLSV802 - Pasadena Live Scan Service LLC Total:		695.00
PTZM4011 - Zamora, Patrick		
324343	09/24/2026	
Inv 09/04/2026		
Line Item Date	Line Item Description	
09/15/2026	OFFICER ZAMORA REIMBURSEMENT FOR DRIVER TRAINI	17.74
Inv 09/04/2026 Total		17.74
324343 Total:		17.74
PTZM4011 - Zamora, Patrick Total:		17.74
PUWA8020 - Pure Water		
0	09/24/2026	
Inv 221404		
Line Item Date	Line Item Description	
09/01/2026	Fire Dept Drinking Water SEP 2026	66.24
Inv 221404 Total		66.24
0 Total:		66.24
PUWA8020 - Pure Water Total:		66.24
PWP4465 - Pasadena Water & Power		
324317	09/24/2026	
Inv 8.11.26-9.11.26		
Line Item Date	Line Item Description	
09/14/2026	Water Purchased SEP2026 AN 1973816780	3,843.75
Inv 8.11.26-9.11.26 Total		3,843.75
324317 Total:		3,843.75

PWP4465 - Pasadena Water & Power Total: 3,843.75

RAPDASST - Granite Mountain Industries

324289 09/24/2026

Inv 7365.1

Line Item Date	Line Item Description	
09/09/2026	PD Equipment	2,368.11

Inv 7365.1 Total 2,368.11

324289 Total: 2,368.11

RAPDASST - Granite Mountain Industries Total: 2,368.11

RENEWELL - ReNewell Fleet Service, LLC

324325 09/24/2026

Inv 12817

Line Item Date	Line Item Description	
09/03/2026	Vehicle Maintenance for E81 Annual Maintenance, Air Compressor,	5,050.69

Inv 12817 Total 5,050.69

Inv 12818

Line Item Date	Line Item Description	
09/03/2026	Vehicle Maintenance for E81 Annual Maintenance, Air Compressor,	25,507.17

Inv 12818 Total 25,507.17

Inv 12943

Line Item Date	Line Item Description	
09/11/2026	Vehicle Maintenance for E81 Annual Maintenance, Air Compressor,	6,069.40

Inv 12943 Total 6,069.40

324325 Total: 36,627.26

RENEWELL - ReNewell Fleet Service, LLC Total: 36,627.26

RIAL6501 - Arriola, Richard

324262 09/24/2026

Inv 2.15.25

Line Item Date	Line Item Description	
02/15/2025	Mileage Reimb 1300 Block Rollin St 2/15/25 8:40am @$0.725	19.29

Inv 2.15.25 Total 19.29

Inv 4.10.26

Line Item Date	Line Item Description

04/10/2026	Mileage Reimb Richard Arriola 1703 Lyndon St Sewer Overflow 23	19.29
Inv 4.10.26 Total		19.29

Inv 4.10.26 10am

Line Item Date	Line Item Description	
04/10/2026	Mileage Reimb Richard Arriola 300 Pasadena Ave 10am Sewer Lid	19.29
Inv 4.10.26 10am Total		19.29

Inv 4.11.26

Line Item Date	Line Item Description	
04/11/2026	Mileage Reimb Richard Arriola 715 Prospect Ave Sewer Backup 25	19.29
Inv 4.11.26 Total		19.29

Inv 6.1.26

Line Item Date	Line Item Description	
06/01/2026	Richard Arriola Mileage Reimbursement 715 Prospect Ave FuelSpill	19.29
Inv 6.1.26 Total		19.29

Inv 6.6.26

Line Item Date	Line Item Description	
06/06/2026	Mileage Reimb Library No Parking Signs 6/6/26 1015a	19.29
Inv 6.6.26 Total		19.29

Inv 7.31.26

Line Item Date	Line Item Description	
07/31/2026	Mileage Reimb 7.31.26 10a Collission Clean Up 1501 Fremont	20.22
Inv 7.31.26 Total		20.22

324262 Total: 135.96

RIAL6501 - Arriola, Richard Total: 135.96

RWGN8160 - Richards, Watson & Gershon

0 09/24/2026

Inv 260097

Line Item Date	Line Item Description	
08/31/2026	July 2026 Legal	43,051.78
08/31/2026	July 2026 Legal	18,372.38
08/31/2026	July 2026 Legal	4,929.89
Inv 260097 Total		66,354.05

Inv 260098

Line Item Date	Line Item Description

Check Number	Check Date		Amount
	08/31/2026	July 2026 Legal	1,711.10
	Inv 260098 Total		1,711.10
	Inv 260099		
	Line Item Date	Line Item Description	
	08/31/2026	July 2026 Legal	1,320.00
	Inv 260099 Total		1,320.00
0 Total:			69,385.15
RWGN8160 - Richards, Watson & Gershon Total:			69,385.15
SAN8569 - DK Sandler Brothers			
0	09/24/2026		
	Inv 0260928-IN		
	Line Item Date	Line Item Description	
	09/03/2026	bags to make sandbags in preparation for rain	585.48
	Inv 0260928-IN Total		585.48
0 Total:			585.48
SAN8569 - DK Sandler Brothers Total:			585.48
SCOT8300 - MRC Smart Technology Solutions			
324309	09/24/2026		
	Inv IN5442064		
	Line Item Date	Line Item Description	
	06/30/2026	Xerox Machines Lease - City Facilities Serv 3/22 - 6/21/26	9,715.43
	Inv IN5442064 Total		9,715.43
324309 Total:			9,715.43
SCOT8300 - MRC Smart Technology Solutions Total:			9,715.43
SCRBHLDG - Permitium LLC			
0	09/24/2026		
	Inv PER00042827		
	Line Item Date	Line Item Description	
	07/31/2026	Permit Director Subscription	83.27
	Inv PER00042827 Total		83.27
0 Total:			83.27

SCRBHLDG - Permitium LLC Total: 83.27

SDIPRESE - SDI Presence LLC

0 09/24/2026

Inv 23591

Line Item Date	Line Item Description	
08/31/2026	Subpoena Integration System 9/1-8/31/27	3,177.00

Inv 23591 Total 3,177.00

0 Total: 3,177.00

SDIPRESE - SDI Presence LLC Total: 3,177.00

SDSI0107 - SDS Security Design Systems

324330 09/24/2026

Inv 253827

Line Item Date	Line Item Description	
09/01/2026	SPPD Interrogation Lease OCT 2026	65.18

Inv 253827 Total 65.18

Inv 253828

Line Item Date	Line Item Description	
09/01/2026	SPPD Access & Software OCT 2026	217.46

Inv 253828 Total 217.46

Inv 253829

Line Item Date	Line Item Description	
09/01/2026	SPPD Surveillance OCT 2026	113.00

Inv 253829 Total 113.00

Inv 253830

Line Item Date	Line Item Description	
09/01/2026	SPPD Lease & Cellular OCT 2026	55.00

Inv 253830 Total 55.00

324330 Total: 450.64

SDSI0107 - SDS Security Design Systems Total: 450.64

SGMC2013 - Apramian, Glen John

324260 09/24/2026

Inv 158376.0

Line Item Date	Line Item Description	
08/04/2026	Payment for Pre-Employment/Physical Exams 8/4/2026	295.00

Inv 158376.0 Total 295.00

Inv 158878

Line Item Date	Line Item Description	
08/03/2026	Payment for Pre-Employment/Physical Exams 8/3/2026	275.00

Inv 158878 Total 275.00

Inv 158887

Line Item Date	Line Item Description	
08/03/2026	Payment for Pre-Employment/Physical Exams 8/3/2026	175.00

Inv 158887 Total 175.00

Inv 158934

Line Item Date	Line Item Description	
08/06/2026	Payment for Pre-Employment/Physical Exams 8/6/2026	275.00

Inv 158934 Total 275.00

Inv 159039

Line Item Date	Line Item Description	
08/17/2026	Payment for Pre-Employment/Physical Exams 8/17/2026	175.00

Inv 159039 Total 175.00

Inv 159115

Line Item Date	Line Item Description	
08/20/2026	Payment for Pre-Employment/Physical Exams 8/20/2026	175.00

Inv 159115 Total 175.00

324260 Total: 1,370.00

SGMC2013 - Apramian, Glen John Total: 1,370.00

SGVMC111 - AHMC San Gabriel Valley Medical Center LP

324255 09/24/2026

Inv 944034

Line Item Date	Line Item Description	
08/26/2026	PD blood alcohol withdrawals	48.00

Inv 944034 Total 48.00

Inv 955073

Line Item Date	Line Item Description

Check Number	Check Date		Amount
	08/26/2026	PD blood alcohol withdrawals	48.00
	Inv 955073 Total		48.00
324255 Total:			96.00
SGVMC111 - AHMC San Gabriel Valley Medical Center LP Total:			96.00
SIR8011 - Sirsi Corporation			
0	09/24/2026		
	Inv INV21804		
	Line Item Date	Line Item Description	
	04/28/2026	Library Information Systems Annual Renewal 7/1/26-6/30/27	54,444.68
	Inv INV21804 Total		54,444.68
0 Total:			54,444.68
SIR8011 - Sirsi Corporation Total:			54,444.68
SOU3232 - South PasadenaTournament of Roses Association			
0	09/24/2026		
	Inv CityBudget-SPTOR		
	Line Item Date	Line Item Description	
	09/09/2026	Funds to support SPTOR-City's Float *ACH*	12,000.00
	Inv CityBudget-SPTOR Total		12,000.00
0 Total:			12,000.00
SOU3232 - South PasadenaTournament of Roses Association Total:			12,000.00
SPBK - Springbrook Holding Company, LLC			
0	09/24/2026		
	Inv TM INV-011290		
	Line Item Date	Line Item Description	
	07/15/2026	MAY26 Advanced Budgeting Diana Clark	1,125.00
	Inv TM INV-011290 Total		1,125.00
0 Total:			1,125.00
SPBK - Springbrook Holding Company, LLC Total:			1,125.00
SPEC5011 - Spectrum Gas Products			
324332	09/24/2026		

Inv 0000898734

Line Item Date	Line Item Description	
08/31/2026	Medical Oxygen Supplies Customer 1204	54.00

Inv 0000898734 Total 54.00

324332 Total: 54.00

SPEC5011 - Spectrum Gas Products Total: 54.00

SPET7101 - Peterson, Stephen

0 09/24/2026

Inv SP072026

Line Item Date	Line Item Description	
07/31/2026	Transit Program/Reimbursement July 2026	80.00

Inv SP072026 Total 80.00

Inv SP082026

Line Item Date	Line Item Description	
08/31/2026	Transit Program/Reimbursement August 2026	80.00

Inv SP082026 Total 80.00

0 Total: 160.00

SPET7101 - Peterson, Stephen Total: 160.00

SRDRIGUZ - Rodriguez, Sylvia

324326 09/24/2026

Inv 11102026

Line Item Date	Line Item Description	
09/10/2026	Veterans Day Luncheon entertainment 11/10/26	400.00

Inv 11102026 Total 400.00

324326 Total: 400.00

SRDRIGUZ - Rodriguez, Sylvia Total: 400.00

STA5219 - Staples Business Advantage

0 09/24/2026

Inv 6072699939

Line Item Date	Line Item Description	
09/05/2026	coffee, coffee filters, goo gone pens	118.82

Inv 6072699939 Total 118.82

Inv 6072711393

Line Item Date	Line Item Description	
08/28/2026	card stock, copy paper	61.46

Inv 6072711393 Total 61.46

Inv 6073453450

Line Item Date	Line Item Description	
09/02/2026	Garfield Office Supplies	50.47

Inv 6073453450 Total 50.47

Inv 6073532006

Line Item Date	Line Item Description	
09/03/2026	PD Office Supplies	128.42

Inv 6073532006 Total 128.42

Inv 6073532007

Line Item Date	Line Item Description	
09/03/2026	PD Office Supplies	263.66

Inv 6073532007 Total 263.66

Inv 6073615641

Line Item Date	Line Item Description	
09/04/2026	Parks Office Supplies	134.28

Inv 6073615641 Total 134.28

Inv 6073615642

Line Item Date	Line Item Description	
09/04/2026	PD Office Supplies	578.88

Inv 6073615642 Total 578.88

Inv 6073615643

Line Item Date	Line Item Description	
09/04/2026	PD Office Supplies	44.12

Inv 6073615643 Total 44.12

Inv 6073872640

Line Item Date	Line Item Description	
09/09/2026	PD Office Supplies	724.80

Inv 6073872640 Total 724.80

Inv 6073872641

Line Item Date	Line Item Description

09/09/2026	PD Office Supplies	351.37
Inv 6073872641 Total		351.37

Inv 6073872642

Line Item Date	Line Item Description	
09/09/2026	back cushion	19.44
Inv 6073872642 Total		19.44

Inv 6073872643

Line Item Date	Line Item Description	
09/09/2026	fastener folders	36.90
Inv 6073872643 Total		36.90

Inv 6074029544

Line Item Date	Line Item Description	
09/11/2026	PD Office Supplies	456.39
Inv 6074029544 Total		456.39

Inv 6074110601

Line Item Date	Line Item Description	
09/12/2026	PD Office Supplies	73.79
Inv 6074110601 Total		73.79

Inv 6074110602

Line Item Date	Line Item Description	
09/12/2026	Office Supplies	98.06
Inv 6074110602 Total		98.06

Inv 6074110603

Line Item Date	Line Item Description	
09/12/2026	PD Office Supplies	29.11
Inv 6074110603 Total		29.11

Inv 6074295276

Line Item Date	Line Item Description	
09/15/2026	Office Supplies	302.08
Inv 6074295276 Total		302.08

Inv 6074295277

Line Item Date	Line Item Description	
09/15/2026	Office Supplies	37.99
Inv 6074295277 Total		37.99

Inv 6074295278

Line Item Date	Line Item Description	
09/15/2026	Office Supplies	18.77

Inv 6074295278 Total 18.77

Inv 6074295279

Line Item Date	Line Item Description	
09/15/2026	Office Supplies	24.99

Inv 6074295279 Total 24.99

Inv 6074295280

Line Item Date	Line Item Description	
09/15/2026	Office Supplies	34.50

Inv 6074295280 Total 34.50

Inv 6074368154

Line Item Date	Line Item Description	
09/16/2026	Garfield Office Supplies	42.16

Inv 6074368154 Total 42.16

Inv 6074368155

Line Item Date	Line Item Description	
09/16/2026	Webcam for Anteneh Tesfaye's Office	77.34

Inv 6074368155 Total 77.34

Inv 6074774471

Line Item Date	Line Item Description	
09/22/2026	Finance Dept Supplies SEP 2026	244.06

Inv 6074774471 Total 244.06

0 Total: 3,951.86

STA5219 - Staples Business Advantage Total: 3,951.86

STKLINFO - Sterling Infosystems, Inc.

0 09/24/2026

Inv 40001092608

Line Item Date	Line Item Description	
08/31/2026	Pre-Employment Background Check Services AUG 2026 AN 48850	432.39

Inv 40001092608 Total 432.39

Inv 10755387

Line Item Date Line Item Description

Check Number	Check Date		Amount
	07/31/2026	Pre-Employment Background Check Services JUL 2026	119.56
	Inv 10755387 Total		119.56
0 Total:			551.95
STKLINFO - Sterling Infosystems, Inc. Total:			551.95
STSM1020 - Studio Spectrum, Inc.			
0	09/24/2026		
	Inv 193632		
	Line Item Date	Line Item Description	
	08/31/2026	Video Production, Web Streaming and Archiving JUL 2026	7,475.00
	Inv 193632 Total		7,475.00
	Inv 193664		
	Line Item Date	Line Item Description	
	09/01/2026	Video Production, Web Streaming and Archiving - August 2026	4,735.00
	Inv 193664 Total		4,735.00
0 Total:			12,210.00
STSM1020 - Studio Spectrum, Inc. Total:			12,210.00
SUSACOLE - Cole, Susan Elaine			
324273	09/24/2026		
	Inv 10-12-2026		
	Line Item Date	Line Item Description	
	07/28/2026	10/12/26 Spanish Classical/Flamenco performance - Carnegie Grant	650.00
	Inv 10-12-2026 Total		650.00
324273 Total:			650.00
SUSACOLE - Cole, Susan Elaine Total:			650.00
TCGS3012 - The Corporate Gift Service, Inc.			
324335	09/24/2026		
	Inv 36440		
	Line Item Date	Line Item Description	
	09/15/2026	South Pasadena Core Values Pins	1,998.34
	Inv 36440 Total		1,998.34
324335 Total:			1,998.34

TCGS3012 - The Corporate Gift Service, Inc. Total: 1,998.34

TIMR6116 - Rodriguez, Tim

324327 09/24/2026

Inv 3.6.26

Line Item Date	Line Item Description	
03/06/2026	Mileage Reimb 825 Mission St Tractor Pick Up 3/6/26 830am	31.03

Inv 3.6.26 Total 31.03

Inv 4.31.26

Line Item Date	Line Item Description	
04/03/2026	Mileage Reimb Pine Huntington Collision Clean Up 4/31/26 730p	31.03

Inv 4.31.26 Total 31.03

324327 Total: 62.06

TIMR6116 - Rodriguez, Tim Total: 62.06

TRIOCOMM - Elior Inc.

324278 09/24/2026

Inv 223ABS100004706

Line Item Date	Line Item Description	
09/09/2026	Senior Center Nutrition Program for AUG 2026	4,127.75

Inv 223ABS100004706 Total 4,127.75

324278 Total: 4,127.75

TRIOCOMM - Elior Inc. Total: 4,127.75

TSCHOLEF - Scholefield, Tim

0 09/24/2026

Inv TS072026

Line Item Date	Line Item Description	
07/31/2026	RIDE SHARE REIMBURSEMENT JULY 2026	80.00

Inv TS072026 Total 80.00

Inv TS082026

Line Item Date	Line Item Description	
08/31/2026	RIDE SHARE REIMBURSEMENT AUGUST 2026	80.00

Inv TS082026 Total 80.00

0 Total: 160.00

TSCHOLEF - Scholefield, Tim Total: 160.00

UGERARDO - Gerardo, Ulysses

0 09/24/2026

Inv UG072026

Line Item Date	Line Item Description	
07/31/2026	Ride Share Reimbursement July 2026	80.00

Inv UG072026 Total 80.00

Inv UG082026

Line Item Date	Line Item Description	
08/31/2026	Ride Share Reimbursement August 2026	80.00

Inv UG082026 Total 80.00

0 Total: 160.00

UGERARDO - Gerardo, Ulysses Total: 160.00

ULIN8021 - Uline, Inc.

0 09/24/2026

Inv 212487336

Line Item Date	Line Item Description	
08/26/2026	economy av cart, wall-mount cabinet CUST# 26543903	828.78

Inv 212487336 Total 828.78

Inv 212839229

Line Item Date	Line Item Description	
09/02/2026	PD single measuring wheel Cust# 22091109	205.04

Inv 212839229 Total 205.04

0 Total: 1,033.82

ULIN8021 - Uline, Inc. Total: 1,033.82

UQMS8010 - Unique Management Services, Inc.

0 09/24/2026

Inv 6163851

Line Item Date	Line Item Description	
09/01/2026	Open Purchase Order for Agency Recovery Services	279.60

Inv 6163851 Total 279.60

0 Total: 279.60

UQMS8010 - Unique Management Services, Inc. Total: 279.60

WES4152 - West Coast Arborists, Inc.

0 09/24/2026

Inv 246279

Line Item Date	Line Item Description	
06/30/2026	Urban Forestry Services Arborist Services 6/16-6/30/26	1,225.70

Inv 246279 Total 1,225.70

Inv 248158

Line Item Date	Line Item Description	
08/15/2026	Urban Forestry Services Arborist Services 8/1-8/15/26	1,081.20

Inv 248158 Total 1,081.20

0 Total: 2,306.90

WES4152 - West Coast Arborists, Inc. Total: 2,306.90

WGJENTER - WGJ Enterprises, Inc.

0 09/24/2026

Inv 12888C-03

Line Item Date	Line Item Description	
09/09/2026	crosswalk painting and striping 9/9/26	15,738.40

Inv 12888C-03 Total 15,738.40

0 Total: 15,738.40

WGJENTER - WGJ Enterprises, Inc. Total: 15,738.40

WHAINC - William Hezmalhalch Architects, Inc.

324340 09/24/2026

Inv 117594

Line Item Date	Line Item Description	
09/09/2026	Project# 2024214.00 City Architect AUG 2026	3,875.00

Inv 117594 Total 3,875.00

324340 Total: 3,875.00

WHAINC - William Hezmalhalch Architects, Inc. Total: 3,875.00

WIL2010 - Willdan Financial Services

0 09/24/2026

Inv 010-66685

Line Item Date	Line Item Description	
07/20/2026	Development Impact Fee Nexus professional services June 2026	246.25
07/20/2026	Development Impact Fee Nexus professional services June 2026	246.25
07/20/2026	Development Impact Fee Nexus professional services June 2026	246.25
07/20/2026	Development Impact Fee Nexus professional services June 2026	246.25
Inv 010-66685 Total		985.00

Inv 010-67022

Line Item Date	Line Item Description	
08/17/2026	Development Impact Fee Nexus professional services July 2026	717.50
08/17/2026	Development Impact Fee Nexus professional services July 2026	717.50
08/17/2026	Development Impact Fee Nexus professional services June 2026	717.50
08/17/2026	Development Impact Fee Nexus professional services July 2026	717.50
Inv 010-67022 Total		2,870.00

0 Total: 3,855.00

WIL2010 - Willdan Financial Services Total: 3,855.00

WIT6353 - Wittman Enterprises LLC

324341 09/24/2026

Inv WITT-000974

Line Item Date	Line Item Description	
08/31/2026	Paramedic Billing Services JUL 2026 Cust ID C-1854	5,277.81
Inv WITT-000974 Total		5,277.81

324341 Total: 5,277.81

WIT6353 - Wittman Enterprises LLC Total: 5,277.81

WON1111 - Wong, Daren

324342 09/24/2026

Inv 09/04/2026

Line Item Date	Line Item Description	
09/15/2026	DET. WONG REIMBURSEMENT FOR DRIVER TRAINING (PS	23.00
Inv 09/04/2026 Total		23.00

324342 Total: 23.00

WON1111 - Wong, Daren Total: 23.00

YACETINO - Cetino, Yadira

324268 09/24/2026

Inv 114066712

Line Item Date	Line Item Description	
09/01/2026	Refund for deposit for WMB on 08/29/2026	590.00
Inv 114066712 Total		590.00

324268 Total: 590.00

YACETINO - Cetino, Yadira Total: 590.00

ZOLL8021 - Zoll Medical Corporation

324344 09/24/2026

Inv 91008302

Line Item Date	Line Item Description	
09/08/2026	Preventive Maint Medical Zoll Equip 6/1/26-5/31/27 Cust# 130860	710.00
Inv 91008302 Total		710.00

324344 Total: 710.00

ZOLL8021 - Zoll Medical Corporation Total: 710.00

Total: 815,376.11

City of
SOUTH PASADENA

Online Payment Log			
Date	**Vendor**	**Amount**	**Description**
10/9/2026	So Cal Edison	$29,471.50	Online Payment for Various City Owned Electric Accounts.
10/12/2026	So Cal Gas	$740.31	Online Payment for City Owned Natural Gas Accounts.
Total:		***$30,211.81***	

Payroll

Payroll Summary Report

Payroll Date:	**10.09.2026**	**Regular Payroll**		
Checks			$	-
Direct Deposits			$	651,698.47
IRS Payments			$	135,715.48
EDD - State of CA			$	46,996.33
PERS Pension			$	175,056.04
Deferred Comp			$	40,286.74
PARS			$	1,095.12
PERS Health			$	-
		Subtotal:	**$**	**1,050,848.18**

Payroll Date:	**10.10.2026 - OC**			
Checks			$	-
Direct Deposits			$	1,412.93
IRS Payments			$	127.55
EDD - State of CA			$	14.65
PERS Pension			$	-
Deferred Comp			$	-
PARS			$	-
PERS Health			$	-
		Subtotal:	**$**	**1,555.13**
		Grand Total:	**$**	**1,052,403.31**

City Council
Agenda Report

ITEM NO. 5

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Nikima S. Newsome, Chief City Clerk

SUBJECT: **CONSIDERATION OF APPROVAL OF THE SPECIAL STUDY SESSION MEETING MINUTES, SPECIAL JOINT PLANNING COMMISSION MEETING MINUTES, AND REGULAR MEETING MINUTES FOR OCTOBER 7, 2026**

Recommendation
It is recommended that the City Council approve the minutes of the October 7, 2026, Special Study Session, Special Joint Planning Commission, and Regular City Council Meetings.

Executive Summary
The meeting minutes are attached to this staff report for the City Council's consideration and approval.

Background
The City Clerk's Department is responsible for preparing the official action minutes for City Council meetings.

Analysis
The City Clerk prepares action minutes, which serve as the official written record of actions taken by the City Council during a meeting, including motions, votes, and direction provided to staff, without documenting the full discussion. Action minutes provide a clear and permanent record of Council proceedings for the public, City staff, and legal purposes. The City Council approves the minutes of prior meetings to confirm that they accurately and completely reflect the actions taken. Councilmembers may vote to approve meeting minutes even if they were not in attendance, as the minutes constitute the official record of the legislative body's actions rather than those of any individual Councilmember.

Fiscal Impact
There is no fiscal impact. Preparation of meeting minutes is included in the City Clerk's work plan as part of the FY 2026-2027 Adopted Budget.

Attachment:
Attachment No. 1 - 20261007 Special Meeting Minutes
Attachment No. 2 - October 7, 2026 Special Joint Meeting Minutes
Attachment No. 3 - October 7, 2026 Regular Meeting Minutes

CITY OF SOUTH PASADENA
CITY COUNCIL MINUTES
OCTOBER 7, 2026

CALL TO ORDER:

A special study session meeting of the South Pasadena City Council was called to order by Mayor Rossi at 5:45 p.m., on Wednesday, October 7, at City Council Chambers, 1424 Mission Street, South Pasadena, California 91030.

ROLL CALL:

PRESENT	Mayor	Sheila Rossi
	Mayor Pro Tem	Omari Ferguson *(Arrived at 5:46 P.M.)*
	Councilmember	Janet Braun
	Councilmember	Jon Primuth
	Councilmember	Michael Cacciotti
ABSENT	None	
ALSO PRESENT	City Manager Todd Hileman	
	City Attorney Roxanne	
	Chief City Clerk Nikima Newsome	

All Councilmembers except Mayor Pro Tem Ferguson were present and a quorum was determined. Mayor Pro Tem Ferguson arrived at 5:46 P.M.

PRESENTATION

1. RECOGNITION OF LAURA FARBER

This item was continued to be heard at the October 7, 2026, regular Council meeting.

ACTION/DISCUSSION

2. DISCUSSION AND DIRECTION ON PROPOSED AMENDMENTS TO CHAPTER 19A (NOISE REGULATION) OF THE SOUTH PASADENA MUNICIPAL CODE

Recommendation

It is recommended that the City Council receive the supplemental report and staff presentation, provide feedback on the responses to questions raised at the September 22, 2026, study session, and direct staff to prepare a draft ordinance amending Chapter 19A of the South Pasadena Municipal Code for consideration at a future meeting.

Member of the public Angelo Gladding spoke to the item remotely.

Council directed staff to prepare a draft noise ordinance for first-reading consideration using Noise Map Option 2, the proposed noise limits and daytime hours of 7 a.m.–10 p.m. and nighttime hours of 10 p.m.–7 a.m. For properties abutting different noise zones, staff will retain the original approach requiring noise to meet the lower applicable limit at the receiving property, rather than averaging the limits. Staff will return approximately six months after adoption with complaint and violation information, resolution outcomes, and noise measurement data.

ADJOURNMENT

On order of the Mayor, the City Council meeting adjourned at 6:17 p.m., without objection.

ATTEST:	APPROVED:
Nikima S. Newsome Chief City Clerk	Sheila Rossi Mayor

CITY OF SOUTH PASADENA
CITY COUNCIL MINUTES
OCTOBER 7, 2026

CALL TO ORDER:

A joint special meeting of the South Pasadena City Council and the Planning Commission was called to order by Mayor Rossi at 6:20 p.m., on Wednesday, October 7, at City Council Chambers, 1424 Mission Street, South Pasadena, California 91030.

ROLL CALL:

PLANNING COMMISSION

PRESENT	Chair	Amitabh Barthakur
	Vice Chair	Jason Claypool
	Commissioner	Mark Gallatin
	Commissioner	Arnold Swanborn
	Commissioner	James Martin
	Commissioner	Matt Horton
ABSENT	Commissioner	Joseph Williams
	Youth Commissioner	Batia Lou

All Commissioners except Commissioner Williams and Youth Commissioner Lou were present and a quorum was determined.

PRESENT	Mayor	Sheila Rossi
	Mayor Pro Tem	Omari Ferguson
	Councilmember	Janet Braun
	Councilmember	Jon Primuth
	Councilmember	Michael Cacciotti
ABSENT	None	
ALSO PRESENT	City Manager Todd Hileman	
	City Attorney Roxanne	
	Chief City Clerk Nikima Newsome	

All Councilmembers were present and a quorum was determined.

ACTION/DISCUSSION

1. **DISCUSSION AND DIRECTION ON DRAFT DOWNTOWN SPECIFIC PLAN OBJECTIVE DESIGN STANDARDS**

   Recommendation
   It is recommended that the City Council:
   Receive and discuss the presentation related to Objective Design Standards for the Downtown Specific Plan (DTSP) area; and
   Provide feedback as appropriate.

Member of the public Dwight Bond spoke to the item in person.

A brief recess was taken at 7:07 P.M. after which the joint meeting resumed at 7:20 P.M.

The City Council and Planning Commission received and discussed the draft downtown objective design standards and provided direction to staff to clarify applicability and improvement triggers, review historic-adjacency requirements for resources on Mission Street and El Centro, and refine provisions related to shop-front-style façades, shading, and building proportions. Staff will revise the draft and present it to the Planning Commission at the October 20, 2026, Planning Commission meeting.

ADJOURNMENT
On order of the Mayor, the joint meeting of the City Council and the Planning Commission adjourned at 8:06 p.m., without objection.

ATTEST:	APPROVED:
Nikima S. Newsome Chief City Clerk	Sheila Rossi Mayor

CITY OF SOUTH PASADENA
CITY COUNCIL MINUTES
OCTOBER 7, 2026

CALL TO ORDER:

A regular meeting of the South Pasadena City Council was called to order by Mayor Rossi at 7:07 p.m., on Wednesday, October 7, at City Council Chambers, 1424 Mission Street, South Pasadena, California 91030.

ROLL CALL:

PRESENT	Mayor	Sheila Rossi
	Mayor Pro Tem	Omari Ferguson *(Arrived at 7:09 P.M.)*
	Councilmember	Janet Braun
	Councilmember	Jon Primuth
	Councilmember	Michael Cacciotti
ABSENT	None	
ALSO PRESENT	City Manager Todd Hileman	
	City Attorney Roxanne	
	Chief City Clerk Nikima Newsome	

All Councilmembers except Mayor Pro Tem Ferguson were present and a quorum was determined. Mayor Pro Tem Ferguson arrived at 7:09 P.M.

PRESENTATIONS

1. **RECOGNITION OF SOUTH PASADENA COMMUNITY GARDEN**, was presented.

2. **PROCLAIMING SEPTEMBER 15 - OCTOBER 15, 2026, AS HISPANIC AMERICAN HERITAGE MONTH IN THE CITY OF SOUTH PASADENA**, was presented.

3. **RECOGNITION OF LAURA FARBER – Continued from Study Session Agenda**, was presented.

A brief recess was taken at 7:20 P.M. after which the joint meeting resumed at 8:07 P.M.

CLOSED SESSION ANNOUNCEMENTS

4. CLOSED SESSION ANNOUNCEMENTS

The City Attorney reported that all items on the closed session agenda were heard with no reportable action.

PUBLIC COMMENT

5. PUBLIC COMMENT – GENERAL (NON-AGENDA ITEMS)

Members of the public Colin Campbell, Hans Baumann, Christian Mazza, Casey Law, and Benjamin Giacometti, addressed the Council in person.

CHANGES TO THE AGENDA

6. REORDERING OF, ADDITIONS, OR DELETIONS TO THE AGENDA

There was no agenda management.

CONSENT CALENDAR

Items listed under the Consent Calendar are considered by the City Manager to be routine in nature and will be enacted by one motion unless a Public Comment has been received or Councilmember requests otherwise, in which case the item will be removed for separate consideration. Any motion relating to an Ordinance, or a Resolution shall also waive the reading of the Ordinance or Resolution and include its introduction or adoption as appropriate.

Item No. 8 (listed in the minutes as Item No. 9) and Item No. 10 (listed in the minutes as Item No. 11) were pulled from consent via public comment.

Motion by Councilmember Braun, seconded by Councilmember Cacciotti to approve the consent calendar, except Item No. 8 (Item No. 9 in the minutes) and Item No. 10 (Item No. 11 in the minutes). The motion was approved by the following roll call vote:

AYES:	Councilmembers Braun, Primuth, Cacciotti, Mayor Pro Tem Ferguson, Mayor Rossi
NOES:	None
ABSENT:	None

7. CONSIDERATION OF THE APPROVAL OF PREPAID WARRANTS IN THE AMOUNT OF $613,425.49; GENERAL CITY WARRANTS IN THE AMOUNT OF $815,376.11; ONLINE PAYMENTS IN THE AMOUNT OF $180,753.29; VOIDS IN

THE AMOUNT OF ($0); PAYROLL IN THE AMOUNT OF $2,322,783.94, was approved.

Recommendation
It is recommended that the City Council approve the Warrants as presented.

8. **CONSIDERATION OF APPROVAL OF THE SPECIAL MEETING MINUTES AND ADJOURNED REGULAR MEETING MINUTES FOR SEPTEMBER 22, 2026**, were approved.

Recommendation

It is recommended that the City Council approve the minutes of the September 22, 2026, Special and Adjourned Regular City Council Meetings.

9. **CONSIDERATION OF AN APPROVAL OF AMENDMENT NO. 2 TO MEASURE R FUNDING AGREEMENT WITH LA METRO FOR THE HUNTINGTON DRIVE AND FREMONT AVENUE CORRIDOR IMPROVEMENTS PROJECT AND ADOPTION OF RESOLUTION NO. 8033 AMENDING THE FISCAL YEAR 2026-2027 CAPITAL IMPROVEMENT PROGRAM BUDGET APPROPRIATING $30,000,000 TO THE PROJECT BUDGET**, was approved.

Recommendation
It is recommended that the City Council:

a. Approve Amendment No. 2 to the Measure R Funding Agreement with LA Metro for the Huntington Drive and Fremont Avenue Corridor Improvements Project (Attachment No. 1); and
b. Authorize the City Manager to execute Amendment No. 2 to the Measure R Funding Agreement with LA Metro for the Huntington Drive and Fremont Avenue Corridor Improvements Project; and
c. Adopt Resolution No. 8033 (Attachment No. 2) amending the Fiscal Year 2026-2027 Capital Improvement Program budget to appropriate an additional $30,000,000 to the Project budget.

Member of the public Oliver McIrwin addressed the Council remotely regarding this item.

Motion by Mayor Pro Tem Ferguson, seconded by Councilmember Cacciotti to approve the staff recommendation. The motion was approved by the following roll call vote:

AYES:	Councilmembers Braun, Primuth, Cacciotti, Mayor Pro Tem Ferguson, Mayor Rossi
NOES:	None
ABSENT:	None

10. **CONSIDERATION OF APPROVAL OF AN AMENDMENT TO AN AGREEMENT WITH AVANT-GARDE, INC. TO EXTEND ON-CALL PROGRAM MANAGEMENT SUPPORT SERVICES, FOR A NEW TOTAL CONTRACT AMOUNT OF $94,000**, was approved.

Recommendation

a. Approve First Amendment to the Professional Services Agreement with Avant-Garde, Inc. for on-call administrative support and sustainability assistance, increasing the contract by $65,000 from $29,000 to a new not-to-exceed amount of $94,000 through June 30, 2027; and
b. Authorize the City Manager to execute the amendment and all related documents.

11. **CONSIDERATION OF APPROVAL OF THE FIRST AMENDMENT TO THE PROFESSIONAL SERVICES AGREEMENT WITH KIMLEY-HORN AND ASSOCIATES FOR ADDITIONAL ENGINEERING DESIGN SERVICES RELATED TO THE HUNTINGTON DRIVE AND FREMONT AVENUE CORRIDOR IMPROVEMENTS PROJECT, INCREASING THE AMOUNT BY $3,341,953, FOR A NEW TOTAL CONTRACT NOT-TO-EXCEED AMOUNT OF $5,782,114**, was approved.

Recommendation

It is recommended that the City Council approve an amendment to the Professional Services Agreement (PSA) (Attachment No. 1) with Kimley -Horn and Associates (KHA), in final form approved by the City Attorney, for additional engineering design services related to the Huntington Drive and Fremont Avenue Corridor Improvements Project for a new not to exceed total of $5,782,114 ($4,802,535 base fee, plus $480,254 contingency and $499,325 optional tasks).

Member of the public Oliver McIrwin addressed the Council remotely regarding this item.

Motion by Mayor Pro Tem Ferguson, seconded by Councilmember Cacciotti to approve the staff recommendation. The motion was approved by the following roll call vote:

AYES:	Councilmembers Braun, Primuth, Cacciotti, Mayor Pro Tem Ferguson, Mayor Rossi
NOES:	None
ABSENT:	None

12. **CONSIDERATION OF APPROVAL OF THE MEASURE R FUNDING AGREEMENT WITH LA METRO FOR THE NORTH SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEMS DEPLOYMENT FOR THE FAIR OAKS AVENUE PROJECT RABA01-5071 (024) AND ADOPTION OF RESOLUTION NO. 8032 AMENDING THE FISCAL YEAR 2026-2027 CAPITAL IMPROVEMENT PROGRAM BUDGET APPROPRIATING $10,000,000 TO THE PROJECT BUDGET**, was approved.

Recommendation

It is recommended that the City Council:

a. Approve a Measure R Funding Agreement with LA Metro for the North South Intelligent Transportation Systems Deployment on Fair Oaks Avenue Project (Attachment No. 1); and
b. Authorize the City Manager to sign the Measure R Funding Agreement with LA Metro for the North South Intelligent Transportation Systems Deployment on Fair Oaks Avenue Project; and
c. Adopt Resolution No. 8032 (Attachment No. 2) amending the Fiscal Year 2026-2027 Capital Improvement Program budget to appropriate $10,000,000 to the Project budget.

13. **CONSIDERATION TO ACCEPT PROJECT COMPLETION AND AUTHORIZE FILING OF THE NOTICE OF COMPLETION FOR THE LIBRARY NORTHEAST RAMP PROJECT NO. 5149, AND AUTHORIZE RELEASE OF RETENTION PAYMENT TO RAMCO GENERAL ENGINEERING CONTRACTORS INC. IN THE AMOUNT OF $4,167.35**, was approved.

Recommendation

It is recommended that the City Council:

a. Accept the Library Northeast Ramp Lighting Project (Project No. 5149) as complete; and
b. Authorize the recordation of the Notice of Completion (NOC) (Attachment No. 1) with the Los Angeles County Registrar-Recorder/County Clerk; and
c. Authorize release of retention payment to Ramco General Engineering Contractors, Inc. (Contractor) in the amount of $4,167.35.

14. **CONSIDERATION OF ADOPTION OF RESOLUTION NO. 8035 APPROVING THE ANNUAL LIBRARY SPECIAL TAX REPORT AND AUTHORIZING THE COLLECTION OF THE TAX AT THE FISCAL YEAR 2026-2027 RATES**, was adopted.

Recommendation

1. It is recommended that the City Council: Adopt Resolution No. 8035 (Attachment No.1) approving the Library Special Tax Annual Report; and
2. Authorize the collection of the Tax by the County of Los Angeles at the rates established for Fiscal Year 2026-2027.

15. **APPROVAL OF A FIRST AMENDMENT TO EXTEND THE MAINTENANCE AGREEMENT WITH ACCO ENGINEERED SYSTEMS, INC. FOR HVAC MAINTENANCE AND REPAIR SERVICES AND INCREASE THE COMPENSATION FOR THE EXTENDED TERM; RATIFY THE EMERGENCY HVAC SERVICES AND FIND THAT EXTENSION OF THE AGREEMENT IS IN THE BEST INTEREST OF THE CITY**, was approved.

Recommendation

It is recommended that the City Council:

a. Approve the First Amendment (Attachment 1) to the Maintenance Agreement with ACCO Engineered Systems, Inc. (Attachment 2), extending the term through June 30, 2027, incorporating the Fiscal Year (FY) 2026–27 rates, and increasing the agreement maximum by $209,715.94, from $150,000 to a cumulative amount not to exceed $359,715.94, including $58,647.94 for urgent HVAC services performed in July 2026 and $151,068.00 in contract authority for routine maintenance and future on-call repairs for the remainder of FY 2026–27; authorize the City Manager to execute the amendment, subject to approval as to form by the City Attorney;
b. Ratify emergency HVAC services performed in July 2026 in an amount not to exceed $58,647.94; and
c. Find that extension of the Agreement with ACCO Engineered Systems, Inc., for an additional year without competitive bidding is in the best interest of the City to ensure continued HVAC maintenance and repair services based on operational continuity and ACCO's familiarity with the City's Pelican control system.

16. CONSIDERATION OF APPROVAL OF AMENDMENT NO. 1 TO THE PROFESSIONAL SERVICES AGREEMENT WITH W.G. ZIMMERMAN ENGINEERING, INC. FOR FY 2026-2027 ENGINEERING SERVICES, FOR A NEW TOTAL NOT-TO-EXCEED AMOUNT OF $150,000, was approved.

Recommendation

It is recommended that the City Council:

1. Approve Amendment No. 1 (Attachment 1) to the Professional Services Agreement with W.G. Zimmerman Engineering, Inc. for Fiscal Year (FY) 2026-2027 engineering services, increasing the contract from $29,000 to a new total not-to-exceed amount of $150,000.
2. Authorize the City Manager to execute the amendment and all related documents.

17. CONSIDERATION OF AWARD OF ON-CALL CITYWIDE SEWER AND STORM DRAIN REPAIR AND MAINTENANCE SERVICES CONTRACT TO W.A. RASIC CONSTRUCTION COMPANY, INC., GRBCON, INC., AND FERREIRA CONSTRUCTION CO. INC. FOR FISCAL YEARS 2026–27 THROUGH 2028–29, was approved.

Recommendation

It is recommended that the City Council:

a. Award an on-call citywide sewer and storm drain repair services maintenance services contracts to W.A. Rasic Construction Company, Inc.; GRBCON, Inc.; and Ferreira Construction Co. Inc. dba Ferreira Coastal Construction Co. (Contractors) for Fiscal Year (FY) 2026-2027 and 2028-2029;

b. Authorize the City Manager to finalize and execute the maintenance contracts and related documents in forms approved by the City Attorney (Attachment No. 1 through 3);
c. Reject all other proposals received; and
d. Approve the Purchase Orders and authorize the City Manager to execute Purchase Orders to the listed Contractors on an as-needed basis in a cumulative not-to-exceed amount of $200,000 for all contracts combined for FY 2026-2027.

18. APPROVAL OF A FIRST AMENDMENT TO THE PROFESSIONAL SERVICES AGREEMENT WITH TRE ELEVATOR CORPORATION FOR CITYWIDE ELEVATOR MAINTENANCE AND ON-CALL REPAIR SERVICES, was approved.

Recommendation
It is recommended that City Council:

a. Approve the First Amendment to the Professional Services Agreement with TRE Elevator Corporation for citywide elevator maintenance and on-call repair services, extending the agreement through June 30, 2027, and increasing the contract amount by $24,900, from $26,400 to a total not-to-exceed amount of $51,300; and
b. Authorize the City Manager, or designee, to execute the First Amendment and any other documents necessary to implement the agreement.

19. CONSIDERATION OF THE AWARD OF A CONSTRUCTION CONTRACT TO ROY ALLAN SLURRY SEAL, INC. IN AN AMOUNT NOT TO EXCEED $413,810 FOR THE FY26-27 RESIDENTIAL SLURRY SEAL PROJECT (PROJECT NO. 5242) , was approved.

Recommendation
It is recommended that the City Council:

a. Approve the plans and specifications (Attachment No. 1) for the FY26-27 Residential Slurry Seal Project (Project);
b. Award a construction contract (Attachment No. 2) to Roy Allan Slurry Seal, Inc. for construction services for the Project not to exceed $413,810.00, including the proposed bid amount of $344,843.00 and a 20% contingency of $68,967.00; and
c. Reject all other bids received;
d. Find that the Project is categorical exempt from CEQA pursuant to Section 15301, Class 1 "existing facilities." and;
e. Authorize the City Manager to execute the Contract and all related documents.

20. CONSIDERATION OF APPROVAL OF THE SECOND AMENDMENT TO A TASK ORDER WITH NINYO & MOORE FOR GEOTECHNICAL AND MATERIALS TESTING SERVICES RELATED TO THE FISCAL YEAR 2019-20 STREET IMPROVEMENT PROJECT, INCREASING THE TOTAL CONTRACT AMOUNT TO $100,900.50, was approved.

Recommendation

It is recommended that the City Council:

1. Approve the Second Amendment (Attachment No. 1) to the task order with Ninyo & Moore for geotechnical and materials testing services related to the Fiscal Year (FY) 19-20 Street Improvement Project, increasing the total not-to-exceed amount by $47,865.50, for a new total contract amount of $100,900.50.
2. Authorize the City Manager to execute the amendment and all related documents.

21. CONSIDERATION OF APPROVAL OF THE SECOND AMENDMENT TO TASK ORDER NO. 2 WITH NV5, INC. FOR CONSTRUCTION MANAGEMENT AND INSPECTION SERVICES FOR THE FY 2019-20 STREET IMPROVEMENT PROJECT, INCREASING THE TOTAL CONTRACT AMOUNT TO $413,786, was approved.

Recommendation

It is recommended that the City Council:

a. Approve the Second Amendment (Attachment 1) to Task Order No. 2 with NV5, Inc. for Construction Management and Inspection Services for the Fiscal Year (FY) 2019-2020 Street Improvement Project, increasing the total not-to-exceed amount by $61,465, for a new total contract amount of $413,786.
b. Authorize the City Manager to execute the amendment and all related documents.

22. RECEIVE THE ANNUAL STATUS REPORT ON FIVE (5) ACTIVE MILLS ACT CONTRACTS, ACCEPT THE UPDATED 10-YEAR WORK PLANS, AND CONTINUE RENEWAL OF THE CONTRACTS, was approved.

Recommendation

It is recommended that the City Council:

a. Receive and file the report;
b. Accept the updated 10-year work plans for the four contracts in Group 3 and continue renewal of those contracts;
c. Accept the new 10-year work plan and approve and renew the contract for 851 Lyndon Street in the form approved by the City Attorney.

PUBLIC HEARING

23. CONSIDERATION OF ADOPTION RESOLUTION NO. 8037 TO AMEND THE MASTER FEE SCHEDULE TO UPDATE FILM OFFICE, FIRE DEPARTMENT, AND COMMUNITY SERVICES DEPARTMENT FEES

Recommendation

It is recommended that the City Council adopt Resolution No. 8037 amending Resolution No. 8000, updating the Master Fee Schedule including Film Permit fees, Fire Department fees, and Community Services Department facility rental and program fees, as set forth in Exhibit A.

No members of the public spoke to the item.

Motion by Councilmember Braun, seconded by Councilmember Cacciotti to approve the staff recommendation. The motion was approved by the following roll call vote:

AYES: Councilmembers Braun, Primuth, Cacciotti,
Mayor Pro Tem Ferguson, Mayor Rossi
NOES: None
ABSENT: None

ACTION/DISCUSSION

24. DISCUSS A REQUEST FROM STAFF REGARDING A CITY COUNCIL AD HOC COMMITTEE RELATED TO THE CITY'S PREPARATION FOR THE 2028 OLYMPIC AND PARALYMPIC GAMES AND THE SCOPE OF THE COMMITTEE

Recommendation

It is recommended that the City Council:

a. Discuss Staff's request to have a City Council ad hoc committee to develop recommendations for City Council consideration regarding the City's preparation for Olympic Games; and
b. Discuss the ad hoc committee's scope of work.

This item was removed from the agenda at the request of staff.

25. CONSIDERATION TO RECEIVE AND FILE OF THE CITY COUNCIL 2026 SCORECARD UPDATE REPORT

Recommendation

It is recommended that the City Council receive and file the City Council 2026 Scorecard Update Report.

Member of the public Josh Betta addressed the Council remotely regarding this item.

Motion by Councilmember Braun, seconded by Councilmember Primuth to approve the staff recommendation. The motion was approved by the following roll call vote:

AYES: Councilmembers Braun, Primuth, Cacciotti,
Mayor Pro Tem Ferguson, Mayor Rossi
NOES: None
ABSENT: None

PUBLIC COMMENT CONTINUED

26. <u>CONTINUED PUBLIC COMMENT - GENERAL</u>
(only if we did not complete the initial round of speakers at beginning of the meeting)

There was no continued public comment.

COMMUNICATIONS

27. Mayor Rossi thanked staff and Councilmember Primuth for their work on Caltrans-related tenant protections and legislation. Councilmember Cacciotti shared updates and photos from community events, a police ride-along, and a school bike-bus event, and reported on a regional proposal to redevelop the former L.A. General Hospital site with housing and supportive services.

28. There were no City Manager Communications.

<u>ADJOURNMENT</u>
On order of the Mayor, the City Council meeting adjourned at 9:19 p.m., without objection.

ATTEST:

Nikima S. Newsome
Chief City Clerk

APPROVED:

Sheila Rossi
Mayor

City Council
Agenda Report

ITEM NO. 6

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Greg Lloyd, Fire Chief

SUBJECT: **CONSIDERATION OF ADOPTION OF RESOLUTION NO. 8034 ACKNOWLEDGING RECEIPT OF THE 2025 ANNUAL FIRE INSPECTION COMPLIANCE REPORT**

Recommendation
It is recommended that the City Council adopt Resolution No. 8034 acknowledging receipt of the South Pasadena Fire Department's 2025 Annual Fire Inspection Compliance Report pursuant to California Health and Safety Code Sections 13146.2, 13146.3, and 13146.4.

Executive Summary
California Health and Safety Code requires local fire departments to inspect specified residential occupancies and public and private schools annually. The Fire Department must report its compliance to the City Council each year, and the City Council must formally acknowledge receipt of the report by resolution or a similar formal document. The City Council is not being asked to approve individual inspection findings or take enforcement action; the requested action is limited to formally acknowledging receipt of the Fire Department's annual compliance report as required by State law.

Background
Senate Bill 1205, effective January 1, 2019, added Health and Safety Code Section 13146.4. That section requires the Fire Department to report annually to its administering authority regarding compliance with the annual inspection requirements. For the City of South Pasadena, the administering authority is the City Council. The City Council must acknowledge receipt of the report by resolution or a similar formal document.

Analysis
California Health and Safety Code Section 13146.2 requires fire departments that enforce State Fire Marshal building standards to inspect, at least annually, specified residential structures subject to Health and Safety Code Section 17921, subdivision (b), excluding dwellings. These properties generally include apartment houses, hotels, motels, and lodging houses. Section 13146.3 separately requires annual fire inspections of every building used as a public or private school.

The Fire Department reviewed its calendar year 2025 inspection records for all applicable educational and specified residential occupancies located within the City of South Pasadena. The results are summarized below.

Occupancy Category	Required	Completed	Completion Rate
Educational occupancies (E)	[6]	[6]	100%
Specified residential occupancies (R)	[483]	[483]	100%
Total	**[489]**	**[489]**	**100%**

The inspection results demonstrate that full compliance was achieved with regard to the mandated inspections. The requested Council action acknowledges receipt of the report; it does not alter the Fire Department's ongoing inspection or enforcement responsibilities. For these reasons, staff recommends adoption of the Resolution.

Fiscal Impact

There is no additional fiscal impact associated with adoption of the Resolution. Required inspections and preparation of the annual compliance report are performed within the Fire Department's existing operating budget.

Attachment:
Attachment_No_1_2025_SB_1205_Resolution_Draft

Attachment No. 1

CITY OF SOUTH PASADENA

RESOLUTION NO. 8034

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOUTH PASADENA, CALIFORNIA, ACKNOWLEDGING RECEIPT OF THE SOUTH PASADENA FIRE DEPARTMENT'S 2025 ANNUAL FIRE INSPECTION COMPLIANCE REPORT

WHEREAS, California Health and Safety Code Section 13146.2 requires the annual inspection of specified residential structures subject to Section 17921, subdivision (b), excluding dwellings, for compliance with building standards and other regulations of the State Fire Marshal; and

WHEREAS, California Health and Safety Code Section 13146.3 requires the annual inspection of every building used as a public or private school within the jurisdiction; and

WHEREAS, California Health and Safety Code Section 13146.4 requires the Fire Department to report annually to the City Council regarding its compliance with Sections 13146.2 and 13146.3 and requires the City Council to acknowledge receipt of the report by resolution or a similar formal document; and

WHEREAS, during calendar year 2025, the South Pasadena Fire Department identified 6 educational occupancies and 483 specified residential occupancies subject to the annual inspection requirements; and

WHEREAS, the South Pasadena Fire Department completed 6 of the 6 required educational occupancy inspections and 483 of 483 required specified residential occupancy inspections during calendar year 2025; and

WHEREAS, on October 21, 2026, the South Pasadena Fire Department presented its 2025 Annual Fire Inspection Compliance Report to the City Council.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SOUTH PASADENA, CALIFORNIA DOES HEREBY RESOLVE, DECLARE, DETERMINE, AND ORDER AS FOLLOWS:

SECTION 1. Recitals. The recitals set forth above are true and correct and are incorporated into this Resolution by this reference.

SECTION 2. Acknowledgment. The City Council acknowledges receipt of the South Pasadena Fire Department's 2025 Annual Fire Inspection Compliance Report concerning the Department's compliance with California Health and Safety Code Sections 13146.2 and 13146.3.

SECTION 3. Scope of Action. This Resolution acknowledges receipt of the annual compliance report as required by California Health and Safety Code Section 13146.4. It does not approve or adjudicate individual inspection findings or enforcement actions.

SECTION 4. Effective Date. This Resolution shall take effect immediately upon its adoption, and the Chief City Clerk shall certify to its adoption and enter it into the official records of the City.

PASSED, APPROVED, AND ADOPTED on this 21st day of October, 2026.

_____
Sheila Rossi, Mayor

APPROVED AS TO FORM:

_____
Roxanne Diaz, City Attorney

ATTEST:

_____
Nikima S. Newsome, Chief City Clerk

I HEREBY CERTIFY that the foregoing Resolution was duly adopted by the City Council of the City of South Pasadena, California, at a regular meeting held on the [DAY] day of [MONTH], 2026, by the following vote:

AYES: [INSERT]

NOES: [INSERT]

ABSENT: [INSERT]

ABSTAINED: [INSERT]

_____

Nikima S. Newsome, Chief City Clerk

City Council
Agenda Report

ITEM NO. 7

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Derek Elmore, Chief of Police
Shannon Robledo, Police Lieutenant
Davit Ghazaryan, Management Analyst

SUBJECT: **CONSIDERATION TO APPROVE PURCHASE ORDERS WITH SIERRA AUTO GROUP AND HOM COMMUNICATIONS FOR THE PURCHASE AND OUTFITTING OF TWO 2027 CHEVROLET BLAZER ELECTRIC VEHICLES AND ONE 2027 CHEVROLET SILVERADO ELECTRIC VEHICLE USING THE CALIFORNIA HIGHWAY PATROL'S CANNABIS TAX FUND GRANT PROGRAM**

Recommendation

It is recommended that the City Council:

1. Approve the purchase from Sierra Auto Group for two 2027 Chevrolet Blazer Electric Vehicles (EV) and one 2027 Chevrolet Silverado PPV EV using the Cannabis Tax Grant funds from the expense account number 244-4010-0004-8520-000 (Machinery and Equipment) with a total not to exceed $187,000.00.
2. Approve a contract/purchase order to Hom Communications for outfitting of two Chevy Blazer EV's and one Chevy Silverado EV with the amount not to exceed $89,000.00.
3. Adopt a Resolution (Attachment 6) appropriating $52,000.00 from Fund 270 (Asset Forfeiture) to the expense account number 270-4010-4018-8540 (Asset Forfeiture – Machinery and Equipment) to fund the outfitting for three vehicles.
4. Approve and authorize the City Manager to execute the appropriate purchase orders and/or contracts to effectuate the purchase of the vehicles and their outfitting.

Executive Summary

On April 16, 2025, the South Pasadena Police Department (SPPD) submitted a competitive application to the California Highway Patrol (CHP) Cannabis Tax Fund Grant Program (CTFGP), which provides supplemental funding to reduce impaired driving-related fatalities, injuries, and property damage. The Department received notification of award for $309,500 from CTFGP on June 13, 2025, and the City Council formally accepted the grant and appropriated funds on September 17, 2025, adopting Resolution No. 7935 (Attachment 1) approving the acceptance of CTFGP grant funds in the amount of $309,500.00 and authorized the appropriation of Revenues and Expenditures into the Grant Fund. Of the total award, $244,500 is eligible for the acquisition and outfitting of Driving Under the Influence (DUI) enforcement vehicles, with the remaining funds allocated to DUI checkpoint materials, personnel overtime, and advanced training (Attachment 2).

Background
The CTFGP is intended to serve as a supplementary funding source, enhancing existing programs without replacing them, in accordance with Title 13 of the California Code of Regulations (Sections 1890.05 to 1890.07). These grants, provided through the California State Controller's Office, are awarded based on a competitive application process. The purpose of this grant funding is to purchase vehicles to assist SPPD with reducing and mitigating the impacts of impaired driving in our community and finance DUI checkpoint related expenses. Each grant cycle is shaped by a variety of factors, with a focus on initiatives that help reduce fatalities, injuries, and property damage resulting from driving under the influence of drugs or alcohol.

Consistent with the City's Fleet Replacement Policy and California Air Resources Board Advanced Clean Fleet requirements, the Department selected two 2024 Chevrolet Blazer EV pursuit vehicles and one Chevrolet Silverado EV pursuit-rated enforcement truck. Sierra Auto Group was the sole responsive bidder able to meet the grant's delivery timeline. The initial staff report to request purchase orders was scheduled to be presented for the City Council's approval during the regular meeting of March 04, 2026. However, on March 02, 2026, the dealership notified that the Chevrolet Blazer EV's were no longer available, and the item was taken off the City Council's agenda.

On March 10, 2026, SPPD, considering increasing vehicle production timelines, requested an extension for the grant performance period of its CTFGP application for the fiscal year of 2025/2026. On September 18, 2026, CHP's Impaired Driving Section notified the SPPD that the extension was granted and the new Project Performance Period is 07/01/2025 – 06/30/2027 (Attachment 3).

Analysis
CTFGP consists of multiple cost categories as shown on Schedule B of the attached Grant Agreement (Attachment 2), which breaks down the eligible costs. Out of $309,500.00, $244,500.00 is eligible to be spent on acquiring and outfitting DUI enforcement vehicles. The remaining funds are related to DUI Checkpoint Materials and Supplies, DUI Checkpoint Personnel costs, advanced training and training related travel expenses. Those funds will also be allocated for personnel overtime to conduct DUI and drug enforcement operations aimed at reducing impaired driving in the City of South Pasadena. These enforcement efforts will include DUI roving patrols and DUI checkpoint operations intended to discourage and prevent impaired driving behavior.

When exploring vehicle options, the Department considered and analyzed multiple criteria such as vehicle price, availability, operational capacities and efficiency. Although this analysis (Attachment 4) was conducted prior to the adoption of the Fleet Replacement Policy, the evaluation criteria provided through the new policy were considered prior to making the recommendation. Even though CTFGP does not include any limitations on whether vehicles purchased should be electric or gas -powered, the Department requested electric vehicles in its application to ensure compliance and consistency with current regulations, policies and practices. Specifically, SPPD took into consideration that the City of South Pasadena is subject to the California Air Resources Board (CARB) Advanced Clean Fleet (ACF) regulation, which establishes mandatory zero-emission vehicle (ZEV) purchase requirements for State and local government fleets.

The Chevrolet Blazer EV was selected as the primary platform as it is purpose-built to meet

the rigorous performance and durability standards required for law enforcement pursuit duties. Specifically, the Blazer EV's PPV designation ensures it meets stringent testing for high-speed handling and braking. In evaluating vehicle options, the Department prioritized the features that ensure reliability, extended range, and rapid deployment capability during major incidents. The Blazer EV's have been vetted and adopted by peer law enforcement agencies, demonstrating operational suitability for patrol duties as well as an interior designed for duty gear. It is also officially designated to be pursuit capable, meaning it meets defined testing for pursuit performance and durability.

As part of the CTFGP grant the Department has also been approved to purchase one DUI/DUID Enforcement truck and as such, Chevrolet Silverado EV was chosen, considering the above-mentioned factors of the vehicle being police pursuit rated and it being engineered specifically for law enforcement needs. The Silverado EV PPV blends Chevrolet's police-specific engineering with the benefits of an electric truck platform, offering performance, utility, lower emissions, and cost advantages that make it an attractive police fleet choice. It is also the most cost-effective pursuit rated truck considering the fact that it's more than $10,000.00 cheaper than the Rivian R1T, its closest competitor.

Based on current production times provided by the factory, the standard wait time for the two 2027 Chevrolet Blazer EV's and Chevrolet Silverado EV is 11 to 14 weeks. Thus, the current availability of these vehicles and models was a key factor in determining the Department's choice and therefore we are recommending purchase of the 2027 models.

Staff conducted a competitive solicitation; however, Sierra Auto Group was the sole responsive bidder capable of meeting the grant's strict delivery timeline and provide staff with the most realistic quotes based on vehicle availability. Other dealerships either refused to provide quotes (Chevrolet of Glendale) or failed to respond to multiple requests for quotes (Chevrolet of Burbank). While waiting for CHP to grant an extension for the grant performance period, staff reached out to additional dealerships (Chevrolet of Van Nuys and Chevrolet of Puente Hills) to request additional quotes, however, no response was received from the vendors contacted as of the date of this report.

SPPD received updated quotes from Sierra Auto Group on September 03, 2026, and was quoted $58,677.52 for each of the 2027 Chevy Blazer EV's and $69,487.48 for the 2027 Chevrolet Silverado EV. Both quotes (Attachment 5) are for police pursuit packages. Thus, the total price for three vehicles will be $186,842.52. Even though this total is within the budgeted total of $187,000 to purchase vehicles, on September 28, 2026, CHP denied SPPD's request to move the funds to cover any overages associated with the purchase of the vehicles. In response to SPPD's request to change the line-item budgeted funds in order to cover for overages, as per the grant agreement, the truck is over-budgeted and two regular vehicles are under-budgeted for. Thus, the SPPD will be responsible for any line-item overages. The full financial breakdown of grant funded, reimbursable, and out-of-pocket costs can be seen on the table of Attachment 6.

SPPD has three spare radios for the vehicles, and purchasing new radios won't be needed. Vehicle upfitting will be completed by Hom Communications, an existing SPPD vendor, selected through a prior three-bid process (Attachment 7). Staff contacted previously solicited vendors, providing vehicle outfitting services, to request updated quotations; however, the vendors did not respond to staff's requests. As a result, staff proceeded with the available quotations received from responsive vendors. The combination of costs for vehicle purchases

and full outfitting, including decals and graphics, equals $282,755.71, which is $38,255.71 more than the approved grant amount eligible for vehicle and outfitting expenses. However, because, as indicated above, CHP denied SPPD's request to modify line-item budgets per vehicle, SPPD will have to be cover the under budgeted difference of $10,355.04 for 2 Chevy Blazers and won't be able to utilize the $12,512.52, over budgeted for the Chevy Silverado, as well as the additional costs for vehicle graphics, increasing the total out-of-pocket expenses to $51,067.48. SPPD is requesting adoption of Resolution No. 8036 (Attachment 8) in order to complete the appropriation of funds.

Fiscal Impact

CTFGP is a reimbursement-based grant, and the City of South Pasadena will receive a grant in the amount of $ 309,500.00 from the FY 25/26 CTFGP Law Enforcement Grant Program, of which $244,500 is eligible to be spent on purchase and outfitting of law enforcement vehicles. No local matching funds are required for grant funds to be received. CTFGP funds will be made available as soon as reimbursement requests are submitted on a quarterly basis.

The difference between the quoted price for the vehicle purchases and outfitting versus awarded grant amount is $51,067.48. SPPD is requesting an appropriation of $52,0000 from the Department's Asset Forfeiture Fund 270 to the expense account number 270-4010-4018-8540 (Asset Forfeiture – Machinery and Equipment) to fully fund the outfitting for three vehicles cover the difference.

Commission Review and Recommendation

This item was presented to the Public Safety Commission during the Special Meeting of September 23, 2026.

Attachment:

Attachment No. 1 - Resolution No. 7935
Attachment No. 2 - FY25-26 CTFGP Exc Grant Agreement - South Pasadena PD - Fully Executed
Attachment No. 3 - FY25-26 CTFGP Extension of Grant Agreement - South Pasadena PD
Attachment No. 4 - CTFGP Vehicle Analysis
Attachment No. 5 - Vehicle Quotes
Attachment No. 6 - CTFGP - Financial Analysis
Attachment No. 7 - Outfitting quotes
Attachment No. 8 - Resolution No. 8036

CITY OF SOUTH PASADENA
RESOLUTION NO. 7935

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOUTH PASADENA, CALIFORNIA ACCEPTING GRANT FUNDS IN THE AMOUNT OF $309,500 AND THE EXECUTION OF A GRANT AGREEMENT, AND ANY AMENDMENTS THERETO FROM THE CALIFORNIA HIGHWAY PATROL THROUGH THE CANNABIS TAX FUND GRANT PROGRAM

WHEREAS, the State of California, Department of California Highway Patrol (CHP), has awarded grant funding from its Cannabis Tax Grant Program ("Grant"); and

WHEREAS, the City Council of the City of South Pasadena desires to accept the grant funds for the education, prevention, and enforcement of laws related to driving under the influence of alcohol and other drugs, including cannabis; and

WHEREAS, the CHP Cannabis Tax Grant Program has awarded grant funding in the amount of $309,500 to cover costs for enforcement vehicles, checkpoint supplies, personnel costs associated with enforcement, and training expenses associated with driving under the influence enforcement; and

WHEREAS, the City Council finds and determines that acceptance of the grant funds from the State of California, CHP Cannabis Tax Grant Program could provide a benefit to the safety of the residents of South Pasadena.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SOUTH PASADENA, CALIFORNIA, DOES RESOLVE, DECLARE, DETERMINE AND ORDER AS FOLLOWS:

SECTION 1. . The City Council of the City of South Pasadena hereby approves the acceptance of the grant funds from the State of California, CHP Cannabis Tax Grant Program in the amount of $309,500 for the reimbursement to the City's General Fund for vehicles to be used in the enforcement of laws related to driving under the influence of alcohol and other drugs, including cannabis, checkpoint costs, related materials, and personnel costs related to training for enforcement of driving under the influence.

SECTION 2. The City Council of the City of South Pasadena authorizes the City Manager, or designee, to enter into, execute, and deliver the grant agreement, and any
and all subsequent amendments thereto, with the State of California for the purposes of the Grant.

SECTION 3. The City Clerk shall certify to the adoption of this resolution and shall cause a certified resolution to be filed in the Office of the City Clerk.

PASSED, APPROVED AND ADOPTED on this 17th day of September, 2025.

Janet Braun, Mayor

ATTEST:

Mark Perez, Acting Chief City Clerk

APPROVED AS TO FORM:

Roxanne Diaz, City Attorney

I HEREBY CERTIFY the foregoing resolution was duly adopted by the City Council of the City of South Pasadena, California, at a regular meeting held on the 17th day of September, by the following vote:

AYES: Cacciotti, Ferguson, Primuth, Rossi, Mayor Braun

NOES: None.

ABSENT: None.

ABSTAINED: None.

Mark Perez, Acting Chief City Clerk

State of California
DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
GRANT AGREEMENT - Page 1

Award Number
23391

1. GRANT TITLE
FY25/26 CTFGP Law Enforcement - South Pasadena Police Department

2. NAME OF ORGANIZATION/AGENCY
South Pasadena Police Department

3. ORGANIZATION/AGENCY SECTION TO ADMINISTER GRANT
South Pasadena Police Department Traffic Bureau

4. PROJECT PERFORMANCE PERIOD
From: 07/01/2025 To: 06/30/2026

5. PURCHASE ORDER NUMBER

6. GRANT OPPORTUNITY INFORMATION DESCRIPTION
Law Enforcement grants provide financial assistance to allied agencies for the education, prevention, and the enforcement of laws related to driving under the influence of alcohol and other drugs, including cannabis and cannabis products.
The intent of the program is to educate the public regarding the dangers of impaired driving, enforce impaired driving laws on the roadway, and improve the Organization/Agency's effectiveness through training and development of new strategies.

7. FUNDS ALLOCATED UNDER THIS GRANT AGREEMENT SHALL NOT EXCEED $309,500.00

8. TERMS AND CONDITIONS
The Grantee agrees to complete the Project, as described in the Project Description. The Grantee's Grant Application, and the California Code of Regulations, Title 13, Division 2, Chapter 13, Sections 1890.00-1890.27, are hereby incorporated into this Grant Agreement by reference.

The parties hereto agree to comply with the Terms and Conditions of the following attachments:

- Schedule A – Project Description, Problem Statement, Goals and Objectives, and Method of Procedure
- Schedule B – Detailed Budget Estimate
- Schedule B-1 – Budget Narrative

We, the officials named below, hereby swear, under penalty of perjury under the laws of the State of California, that we are duly authorized to legally bind the Grant recipient to the above-described Grant Terms and Conditions.

IN WITNESS WHEREOF, this Grant Agreement is executed by the parties hereto.

9. APPROVAL SIGNATURES

A. AUTHORIZED OFFICIAL OF ORGANIZATION/AGENCY
Name: Brian Solinsky
Title: Chief of Police
Phone: (626) 403-7270

Address: 1422 Mission Street
South Pasadena, CA 91030

E-Mail: bsolinsky@southpasadenaca.gov

Brian Solinsky Digitally signed by Brian Solinsky Date: 2025.06.25 08:27:40 -07'00' — 06/25/2025
(Signature) *(Date)*

B. AUTHORIZED OFFICIAL OF CHP
Name: Andrew Beasley Phone: (916) 843-4360
Title: Captain Fax: (916) 322-3169

Address: 601 North 7th Street
Sacramento, CA 95811

E-Mail: ABeasley@chp.ca.gov

Andrew Beasley Digitally signed by Andrew Beasley Date: 2025.09.09 15:54:46 -07'00' — 09/09/2025
(Signature) *(Date)*

C. ACCOUNTING OFFICER OF CHP
Name: M. V. Fojas Phone: (916) 843-3531
Title: Commander Fax: (916) 322-3159

Address: 601 North 7th Street
Sacramento, CA 95811

E-Mail: Michelle.Fojas@chp.ca.gov

Michelle V. Fojas Digitally signed by Michelle V. Fojas Date: 2025.09.10 12:53:22 -07'00' — 09/10/2025
(Signature) *(Date)*

10. AUTHORIZED FINANCIAL CONTACT TO RECEIVE REIMBURSEMENT PAYMENTS

Name: William Castrillon
Title: Budget and Purchasing Manager
Phone: (626) 403-7270

Address: 1422 Mission Street
South Pasadena, CA 91030

TERMS AND CONDITIONS

Grantee shall comply with the California Code of Regulations, Title 13, Division 2, Chapter 13 Section 1890, et seq. and all other Terms and Conditions noted in this Grant Agreement. Failure by the Grantee to comply may result in the termination of this Grant Agreement by the California Highway Patrol (hereafter referred to as State). The State will have no obligation to reimburse the Grantee for any additional costs once the Grant Agreement has been terminated.

A. EXECUTION

1. The State (the California Highway Patrol) hereby awards, to the Grantee, the sum of money stated on page one of this Grant Agreement. This funding is awarded to the Grantee to carry out the Project set forth in the Project Description and the terms and conditions set forth in this Grant Agreement.

2. The funding for this Grant Agreement is allocated pursuant to California Revenue and Taxation Code Section 34019(f)(3)(B). The Grantee agrees that the State's obligation to pay any sum under this Grant Agreement is contingent upon availability of funds disbursed from the California Cannabis Tax Fund to the State. If there is insufficient funding, the State shall have the option to either: 1) terminate this Grant Agreement; whereby, no party shall have any further obligations or liabilities under this Grant Agreement, or 2) negotiate a Grant Agreement Amendment to reduce the grant award and scope of work to be provided under this Grant Agreement.

3. The Grantee is not to commence or proceed with any work in advance of receiving notice that the Grant Agreement is approved. Any work performed by the Grantee in advance of the date of approval by the State shall be deemed volunteer work and will not be reimbursed by the State.

4. The Grantee agrees to provide any additional funding, beyond what the State has agreed to provide, pursuant to this Grant Agreement, and necessary to complete or carry out the Project, as described in this Grant Agreement. Any modification or alteration of this Grant Agreement, as set forth in the Grant Application submitted by the Grantee and on file with the State, must be submitted in writing thirty (30) calendar days in advance to the State for approval.

5. The Grantee agrees to complete the Project within the timeframe indicated in the Project Performance Period, which is on page one of this Grant Agreement.

B. PROJECT ADMINISTRATION

1. The Grantee shall submit all reimbursements, progress, performance, and/or other required reports concerning the status of work performed in furtherance of this Grant Agreement on a quarterly basis, or as requested by the State.

2. The Grantee shall provide the State with a final report showing all Project expenditures, which includes all State and any other Project funding expended, within sixty (60) calendar days after completion of this Grant Agreement.

3. The Grantee shall ensure all equipment which is purchased, maintained, operated, and/or developed is available for inspection by the State.

4. Equipment purchased through this Grant Agreement shall be used for the education, prevention, and enforcement of impaired driving laws, unless the Grantee is funding a portion of the purchased price not dedicated to impaired driving and that portion is not part of the Project costs. Equipment purchased under this Grant Agreement must only be used for approved Project-related purposes, unless otherwise approved by the State in writing.

5. Prior to disposition of equipment acquired under this Grant Agreement, the Grantee shall notify the State via e-mail, and by telephone, by calling the California Highway Patrol, Impaired Driving Section, Cannabis Grants Unit at (916) 843-4360.

TERMS AND CONDITIONS

C. PROJECT TERMINATION

1. Grantee or the State may terminate this Grant Agreement at any time prior to the commencement of the Project. Once the Project has commenced, this Grant Agreement may only be terminated if the party withdrawing provides thirty (30) calendar days written notice of their intent to withdraw.

    a. If by reason of force majeure the performance hereunder is delayed or prevented, then the term end date may be extended by mutual consent for the same amount of time of such delay or prevention. The term “force majeure” shall mean any fire, flood, earthquake, or public disaster, strike, labor dispute or unrest, embargo, riot, war, insurrection or civil unrest, any act of God, any act of legally constituted authority, or any other cause beyond the Grantee’s control which would excuse the Grantee’s performance as a matter of law.

    b. Grantee agrees to provide written notice of an event of force majeure under this Grant Agreement within ten (10) calendar days of the commencement of such event, and within ten (10) calendar days after the termination of such event, unless the force majeure prohibits Grantee from reasonably giving notice within this period. Grantee will give such notice at the earliest possible time following the event of force majeure.

2. Any violations of law committed by the Grantee, misrepresentations of Project information by the Grantee to the State, submission of falsified documents by the Grantee to the State, or failure to provide records by the Grantee to the State when requested for audit or site visit purposes may be cause for termination. If the Project is terminated for the reasons described in this paragraph, the State will have no obligation to reimburse the Grantee for any additional costs once the Grant Agreement has been terminated.

3. The State may terminate this Grant Agreement and be relieved of any payments should the Grantee fail to perform the requirements of this Grant Agreement at the time and in the manner herein provided. Furthermore, the Grantee, upon termination, shall return grant funds not expended by the Grantee as of the date of termination.

4. If this Grant Agreement is terminated, the State may choose to exclude the Grantee from future Grant Opportunities.

D. FINANCIAL RECORDS

1. The Grantee agrees the State, or their designated representative, shall have the right to review and to copy all records and supporting documentation pertaining to the performance of this Grant Agreement. Grantee agrees to maintain such records for possible audit for a minimum of five (5) years after final payment, unless a longer period of records retention is stipulated or required by law. Grantee agrees to allow the auditor(s) access to such records during normal business hours and to allow interviews of any employees who might reasonably have information related to such records. Furthermore, the Grantee agrees to include a similar right for the State to audit all records and interview staff in any subcontract related to performance of this Grant Agreement.

E. HOLD HARMLESS

1. The Grantee agrees to indemnify, defend, and save harmless the State, its officials, agents and employees from any and all claims and losses accruing or resulting to any and all Grantee’s staff, contractors, subcontractors, suppliers, and other person, firm or corporation furnishing or supplying work services, materials, or supplies in connection with the performance of this Grant Agreement, and from any and all claims and losses accruing or resulting to any person, agency, firm, corporation who may be injured or damaged by the Grantee in performance of this Grant Agreement.

TERMS AND CONDITIONS

F. NONDISCRIMINATION

1. The Grantee agrees to comply with State and federal laws outlawing discrimination, including, but not limited to, those prohibiting discrimination because of sex, race, color, ancestry, religion, creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (including cancer or genetic characteristics), sexual orientation, political affiliation, position in a labor dispute, age, marital status, and denial of statutorily-required employment-related leave. (GC 12990 [a-f] and CCR, Title 2, Section 8103.)

G. AMERICANS WITH DISABILITIES ACT

1. The Grantee assures the State it complies with the Americans with Disabilities Act (ADA) of 1990, which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA. (42 U.S.C. 12101 et seq.)

H. DRUG-FREE WORKPLACE

1. The Grantee shall comply with the requirements of the Drug-Free Workplace Act of 1990 and will provide a drug-free workplace by taking the following actions:

   a. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.

   b. Establish a Drug-Free Awareness Program to inform employees about:

      i. The dangers of drug abuse in the workplace.

      ii. The person's or Organization/Agency's policy of maintaining a drug-free workplace.

      iii. Any available counseling, rehabilitation, and employee assistance programs.

      iv. Penalties that may be imposed upon employees for drug abuse violations.

   c. Every employee who works on the Project will:

      i. Receive a copy of the company's drug-free workplace policy statement.

      ii. Agree to abide by the terms of the company's statement as a condition of employment on the Grant Agreement.

2. Failure to comply with these requirements may result in suspension of payments under this Grant Agreement, or termination of this Grant Agreement, or both, and Grantee may be ineligible for award of any future Grant Agreements if the department determines that any of the following has occurred:

   a. The Grantee has made false certification or violated the certification by failing to carry out the requirements, as noted above. (GC 8350 et seq.)

I. LAW ENFORCEMENT AGENCIES

1. All law enforcement Organization/Agency/Agency Grantees shall comply with California law regarding racial profiling. Specifically, law enforcement Organization/Agency/Agency Grantees shall not engage in the act of racial profiling, as defined in California Penal Code Section 13519.4.

TERMS AND CONDITIONS

J. LABOR CODE/WORKERS' COMPENSATION

1. The Grantee is advised and made aware of the provisions which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions, and Grantee affirms to comply with such provisions before commencing the performance of the work of this Grant Agreement, (refer to Labor Code Section 3700).

K. GRANT APPLICATION INCORPORATION

1. The Grantee agrees the Grant Application and any subsequent changes or additions approved or required by the State is hereby incorporated into this Grant Agreement.

L. STATE LOBBYING

1. The Grantee is advised that none of the funds provided under this Grant Agreement may be used for any activity specifically designed to urge or influence a state or local legislator to favor or oppose the adoption of any specific legislative proposal pending before any state or local legislative body. Such activities include both direct and indirect (e.g., “grassroots”) lobbying activities, with one exception. This does not preclude a state official, whose salary is supported by this Grant Agreement, from engaging in direct communications with the state or local legislative officials, in accordance with customary state and/or local practice.

M. REPRESENTATION AND WARRANTIES

1. The Grantee represents and warrants that:

    a. It is validly existing and in good standing under the laws of the State of California, has, or will have the requisite power, authority, licenses, permits, and the like necessary to carry on its business as it is now being conducted and as contemplated in this Grant Agreement, and will, at all times, lawfully conduct its business in compliance with all applicable federal, state, and local laws, regulations, and rules.

    b. It is not a party to any Grant Agreement, written or oral, creating obligations that would prevent it from entering into this Grant Agreement or satisfying the terms herein.

    c. If the Grantee is a Nonprofit Organization/Agency, it will maintain its “Active” status with the California Secretary of State, maintain its “Current” status with the California Attorney General’s Registry of Charitable Trusts, and maintain its federal and State of California tax-exempt status. If the Grantee subcontracts with a Nonprofit as part of this Grant Agreement, the Grantee shall ensure the Nonprofit will maintain its “Active” status with the California Secretary of State, maintain its “Current” status with the California Attorney General’s Registry of Charitable Trusts, and maintain its federal and State of California tax-exempt status.

    d. All of the information in its Grant Application and all materials submitted are true and accurate.

N. AIR OR WATER POLLUTION VIOLATION

1. Under the state laws, the Grantee shall not be: (1) in violation of any order or resolution not subject to review promulgated by the State Air Resources Board or an air pollution control district; (2) subject to cease and desist order not subject to review issued pursuant to Section 13301 of the Water Code for violation of waste discharge requirements or discharge prohibitions; or (3) finally determined to be in violation of provisions of federal law relating to air or water pollution.

TERMS AND CONDITIONS

O. GRANTEE NAME CHANGE

1. Grantee agrees to immediately inform the State, in writing, of any changes to the name of the person within the Organization/Agency/Agency with delegated signing authority.

2. An Amendment is required to change the Grantee's name, as listed on this Grant Agreement. Upon receipt of legal documentation of the name change, the State will process the Amendment. Payment of invoices presented with a new name cannot be paid prior to approval of said Amendment.

P. RESOLUTION

1. A county, city, district, or other local public body shall provide the State with a copy of a resolution, order, motion, or ordinance of the local governing body, which by law, has authority to enter into a Grant Agreement, authorizing execution of the Grant Agreement.

Q. PAYEE DATA RECORD FORM STD. 204

1. This form shall be completed by all non-governmental Grantees.

R. FINANCIAL INFORMATION SYSTEM FOR CALIFORNIA GOVERNMENT AGENCY TAXPAYER ID FORM

1. This form shall be completed by all Grantees.

S. CONFLICT OF INTEREST

1. This section serves to make the Grantee aware of specific provisions related to current or former state employees. If Grantee has any questions regarding the status of any person rendering services or involved with the Grant Agreement, the Grantee shall contact the State (California Highway Patrol, Impaired Driving Section, Cannabis Grants Unit) immediately for clarification.

2. Current State Employees:

   a. No officer or employee shall engage in any employment, activity, or enterprise, from which the officer or employee receives compensation or has a financial interest, and which is sponsored or funded by any state agency, unless the employment, activity, or enterprise is required, as a condition of regular state employment.

   b. No officer or employee shall contract on their own behalf, as an independent Grantee, with any state agency to provide goods or services.

3. Former State Employees:

   a. For the two-year period from the date they left state employment, no former state officer or employee may enter into a contract in which they engaged in any of the negotiations, transactions, planning, arrangements, or any part of the decision-making process relevant to this Grant Agreement while employed in any capacity by any state agency.

   b. For the 12-month period from the date they left state employment, no former state officer or employee may enter into a contract with any state agency if they were employed by that state agency in a policy-making position in the same general subject area as the proposed Grant Agreement within the 12-month period prior to their leaving state service.

4. The authorized representative of the Grantee Organization/Agency, named within this Grant Agreement, warrants their Organization/Agency and its employees have no personal or financial interest and no present or past employment or activity, which would be incompatible with

participating in any activity related to this Grant Agreement. For the duration of this Grant Agreement, the Organization/Agency and its employees will not accept any gift, benefit, gratuity or consideration, or begin a personal or financial interest in a party who is associated with this Grant Agreement.

5. The Grantee Organization/Agency and its employees shall not disclose any financial, statistical, personal, technical, media-related, and/or other information or data derived from this Grant Agreement, made available for use by the State, for the purposes of providing services to the State, in conjunction with this Grant Agreement, except as otherwise required by law or explicitly permitted by the State in writing. The Grantee shall immediately advise the State of any person(s) who has access to confidential Project information and intends to disclose that information in violation of this Grant Agreement.

6. The Grantee will not enter into any Grant Agreement or discussions with third parties concerning materials described in paragraph five (5) prior to receiving written confirmation from the State that such third party has a Grant Agreement with the State, similar in nature to this one.

7. The Grantee warrants that only those employees who are authorized and required to use the materials described in paragraph 5 will have access to them.

8. If the Grantee violates any provisions in the above paragraphs, such action by the Grantee shall render this Grant Agreement void.

T. EQUIPMENT-USE TERMS

1. The Grantee agrees any equipment purchased under this Grant Agreement shall be used for impaired driving efforts.

2. Law Enforcement Projects:

   a. Oral Fluid Drug Screening Devices and Cannabis/Marijuana Breath Testing Equipment - The Grantee agrees to ensure all personnel using road-side drug testing equipment, including oral fluid drug testing devices and/or cannabis/marijuana breath testing devices, purchased with grant funds from this Grant Agreement, are trained to recognize alcohol and drug impairment. At a minimum, personnel using these devices should receive Standardized Field Sobriety Testing training. These personnel are also encouraged to attend Advanced Roadside Impaired Driving Enforcement and Drug Recognition Evaluator training. Prior to using these devices, the Grantee agrees to obtain permission from their local prosecutor's office, establish a policy ensuring appropriate use, and require the staff using these devices to receive appropriate training, which may include training from the manufacturer. This will help ensure the equipment is used appropriately. The Grantee shall advise the State (California Highway Patrol, Impaired Driving Section, Cannabis Grants Unit) of any legal challenges or other items of significance that may affect the use or legal acceptance of these devices. Additionally, the State may request additional information about the performance of these devices, including information about their use, accuracy, and feedback from personnel using the devices.

   b. Law Enforcement Vehicles – The Grantee agrees any law enforcement vehicles purchased with Grant funds, from this Grant Agreement, will be primarily used for the enforcement of driving under the influence laws and/or providing public education, related to the dangers of driving under the influence. Additionally, any vehicle purchased using funds from this Grant Agreement shall comply with all California Vehicle Code and California Code of Regulation requirements. The State may require the Grantee to mark these vehicles with a decal and/or emblem, indicating the vehicle is used for driving under the influence enforcement.

Schedule A

South Pasadena Police Department

All grant awards, including any adjustments to requested funding, were made by the Cannabis Grants Unit based on the merits of the Grant Application, scale of operation, and in accordance with the Request for Application (RFA) requirements and associated regulations. As a result, not all Project activities and items detailed in Schedule A are applicable. Refer to Schedule B - Detailed Budget Estimate for approved Budget line items and Project activities. Project activities and items that are not clearly identified/specified in the Grant Agreement must be submitted to and approved by CGU prior to purchase.

Project Description

The Project will provide training to officers to help them recognize and identify DUI/DUID drivers, public education to increase awareness on the dangers of driving under the influence, and increased enforcement activities to help combat the increase of DUI/DUID cases in our local community. Enforcement activities will increase visible police presence in an effort to reduce impaired driving injuries and deaths.

Problem Statement & Proposed Solution

Problem Statement:

The City of South Pasadena is located in the west San Gabriel Valley in Los Angeles County. The City encompasses 3.4 square miles and is home to approximately 25,600 residents. Though predominately a residential city, South Pasadena lies in between several major freeway systems, including Highway 134, Highway 60, 110 Parkway, and the 210, 710, and 10 freeways. There are multiple major surface arterial streets that bisect the city and connect these freeway systems together, increasing the volume of commuter traffic. A 2014 traffic flow study conducted by Minagar and Associates showed that the daytime population increased to approximately 138,000, a population increase of over 112,000 members.

Between 2022 and 2024, there was an average of one fatal traffic crash a year and one pedestrian killed. In 2022, there was one fatal crash between a vehicle and a pedestrian, and one person was killed in a traffic crash. In 2023, there were two fatal crashes, both of which involved impaired driving. In 2024, there were no crashes that resulted in fatalities. As of 2024, 115 persons were injured in 83 crashes, with speed being the most frequent primary collision factor. Checkpoints have historically been conducted when staffing permits and staffing shortages have become all too common in law enforcement. Additionally, as officers have been trained in ARIDE and SFST, DUI arrests have increased substantially. Officers made 58 DUI arrests in 2022, 101 DUI arrests in 2023, and 88 DUI arrests in 2024.

The South Pasadena Police Department intends to educate commuters through enforcement within the geographic areas and time frames with the highest reported incidents. The City hopes to reduce alcohol related injury crashes and increase driver safety awareness by focusing on these areas. In 2024, the South Pasadena Police Department handled 28,669 calls for service. Our average staffing levels at the time consisted of three patrol officers and one supervisor.

The South Pasadena Police Department is a small law enforcement agency with limited budget and limited patrol vehicles that can be dedicated to DUI/DUID saturation patrols. The truck we use to transport our DUI checkpoint supplies is past its service life and may be put out of service if there is a mechanical issue that requires major repair, as the City no longer supports gas-powered vehicles (as major funds were spent by the City to provide infrastructure to charge electric vehicles).

The South Pasadena Police Department embraces its role in traffic safety to advance equity and prioritize its traffic safety efforts toward all city areas, all community members, and all community guests who visit the city. Traffic enforcement and traffic education are data-driven and geared to provide all vehicle traffic, bicycle traffic, and pedestrian traffic safety. The South Pasadena Police Department is sensitive to community desires and needs and strives to include the voice of every community member and community visitor. The South Pasadena Police Department is committed to taking a comprehensive, inclusive, and equitable approach to delivering education, enforcement, and outreach programs to educate the public and save lives on all of its roadways for all types of roadway users (transit, bicycle, vehicle, shared mobility, pedestrian, etc.).

Schedule A

Proposed Solution:
The City's proposed solution to the problem is to send officers to specialized law enforcement training in DUI/DUID (to include SFST/ARIDE), educate the public on the danger ofDUI/DUID, and support DUI enforcement with equipment. Providing officers specialized training in DUI/DUID investigations will provide the officers that patrol the City with the critical ability to identify, locate and apprehend DUI/DUID drivers (during day and night shifts) thus reducing DUI/DUID related incidents. Out of the 24 sworn officers assigned to patrol, only 17 have been to certified SFST/ARIDE training. The department sends all officers to the Cavanaugh and Associates DUI Seminar in Laguna Woods, CA in order to provide them with certified SFST/ARIDE training that also includes training on symptomology. toxicology, driving cues, report preparation, and courtroom testimony.

The proposed solution includes conducting 10 (8-hour) directed DUI/DUID saturation details during the fiscal grant year. Four (4) SFST/ARIDE trained officers will work together in pairs of two to locate and carry out DUI/DUID enforcement within the city limits of South Pasadena to reduce the amount of DUI/DUID incidents.

Officers will utilize two (2) dedicated DUI enforcement vehicles obtained through grant project funding to facilitate the DUI/DUID saturation details. The dedicated DUI traffic enforcement vehicles will be fully equipped with emergency lighting, a siren, a public address system, a police radio, prisoner transport equipment, and police graphics to convey to the public the purpose of the vehicles.

The South Pasadena Police Department conducts most of our DUI/DUID public education during DUI/DUID checkpoints. Every driver that passes through the checkpoint is given resources that highlight the dangers and consequences of DUI/DUID. The proposed solution includes conducting two (2) DUI Checkpoints during the fiscal grant year to educate the public on the dangers and consequences of DUI/DUID and to reduce the amount of DUI/DUID related incidents. A truck to transport checkpoint supplies from the station to the checkpoint location is desperately needed to continue conducting DUI/DUID checkpoints. In addition, the department is in need of lights that do not require to be plugged into a generator, as the current generator is past its serviceable life.

To accomplish the proposed solution, the following budget items are requested:

- Training:
  a. Four(4) Police officers will be trained in SFST/ARIDE at the Cavanaugh and Associates DUI Seminar in Laguna Woods, CA.
- Enforcement Overtime Salary:
  a. Ten (10) DUI Saturation Patrols - 8-hour details (Comprised of four officers paired into two-person enforcement teams).
- Equipment:
  a. Two (2) DUI Enforcement Vehicles
  b. One (1) DUI Checkpoint pickup truck
  c. Four (4) chargeable/wireless lights for DUI checkpoints

<u>Performance Measures/Scope of Work</u>
10 DUI Saturation Patrols (Q1 = 2, Q2 = 2, Q3 = 3, Q4 = 3): Aim to reduce DUI/DUID injury and fatal collisions between 2100-0400 hours by 10%, which will improve roadway safety in the community. The patrols will be funded on an overtime basis.

4 officers trained in SFST/ARIDE (Q1 = 2, Q2 = 2): Send officers to Cavanaugh and Associates DUI Seminar to increase the amount of officers that can work DUI saturation patrols. This DUI seminar combines SFST and ARIDE curriculum into a one-week course and also includes an alcohol workshop, DUI report writing, effects of drugs and alcohol combinations, and court testimony training. This seminar is only held three times a year in Laguna Woods, CA.

2 DUI Checkpoints (Q3 = 1, Q4 = 1): Aim to educate 1000 drivers contacted of the dangers/consequences of DUI/DUID, which will reduce the number of impaired drivers in the community.

4 portable/chargeable/wireless lights (Q1 = purchase, Q2 = receive, Q3-Q4 = Use to complete DUI checkpoints and education): the lights will be utilized during DUI checkpoints to maximize driver/officer safety and comply with Title XVII regulations.

Schedule A

2 DUI/DUID Enforcement vehicles (Q1 = purchase, Q2 = receive and outfit, Q3-Q4 = Use to complete DUI/DUID saturation patrols): The vehicles will supplement the limited number of patrol vehicles and will be dedicated to DUI/DUID saturation patrols.

1 DUI checkpoint pickup truck (Q1 = purchase, Q2 = receive and outfit, Q3-Q4 = Use to complete DUI checkpoints): The truck will be used to carry equipment to and from DUI checkpoint locations and will be a high visibility notification to the public of DUI checkpoint education/enforcement.

Project Performance Evaluation

The South Pasadena Police Department will utilize data compiled during the grant term to complete a final evaluation in the fourth/final quarter of the project. The final evaluation will provide a summary of the grant's accomplishments, challenges, and significant activities. The final evaluation will also include whether the goals and objectives were met, or exceeded, or an explanation of why objectives were not complete.

The South Pasadena Police Department already tracks traffic collision and DUI/DUID data for internal and external stakeholders. Gathered data will be utilized to compare data obtained during the grant year and years prior to track increases or decreases. This data will provide information on the success of the grant performance measures. The South Pasadena Police Department will compile statistics on DUI, DUI traffic collisions, DUI injury traffic collisions, and DUI traffic fatalities for quarterly evaluations.

Program Sustainability

Obtaining specialized equipment through this grant project, including dedicated DUI/DUID Enforcement Vehicles, a dedicated DUI Checkpoint truck, checkpoint lighting equipment, and advance DUI/DUID training is crucial to the success of the project. The dedicated DUI/DUID vehicles, DUI Checkpoint truck, and checkpoint lighting equipment will be utilized to assist the City's efforts to deter, identify, and prosecute DUI/DUID cases for many years after the grant has ended. Once the backlog of officers that are lacking advanced DUI/DUID investigation trainings is cleared, the City will be able to send officers to advanced training as they are hired and complete field training (the backlog caused by training cancelation for years due to the enduring COVID-19 pandemic). The City would not need to replace this equipment for many years, and has a track record of using equipment past the estimated serviceable life.

Administrative Support

The South Pasadena Police Department Traffic Bureau Supervisor, Cpl. Sanchez, has successfully managed four OTS STEP grants. Records are maintained and statistics are regularly updated by Corporal Sanchez, who will also be the grant coordinator and administrative contact for this grant. Statistical records are compiled by Corporal Sanchez for accurate reporting. The City of South Pasadena Finance Department handles the processing/bookkeeping of grant funds for OTS grant billing/reimbursement. The South Pasadena Police Department is adequately staffed and motivated to meet the grant performance measures and scope of work.

Schedule B

Detailed Budget Estimate

Award Number	Organization/Agency	Total Amount
23391	South Pasadena Police Department	$309,500.00

Cost Category	Line Item Name	Total Cost to Grant
Other Direct Costs		
	DUI Checkpoint Material and Supplies	$12,800.00
	DUI/DUID Vehicle (Mustang) - Outfitting	$33,700.00
	DUI/DUID Vehicle (Truck) - Outfitting	$16,850.00
	DUI/DUID Vehicle (Mustang) - Decals/Graphics	$3,300.00
	DUI/DUID Vehicle (Truck) - Decals/Graphics	$1,650.00
	Cavanaugh & Associates - Registration Fees	$2,480.00
Category Sub-Total		**$70,780.00**
Personnel		
	DUI Checkpoint	$15,000.00
	DUI Saturation Patrol	$30,000.00
Category Sub-Total		**$45,000.00**
Travel		
	DUI/DUID Advanced Training	$4,720.00
Category Sub-Total		**$4,720.00**
Equipment		
	DUI/DUID Vehicle (Mustang)	$107,000.00
	DUI/DUID Enforcement Vehicles (Truck)	$82,000.00
Category Sub-Total		**$189,000.00**

Grant Total	**$309,500.00**

Schedule B-1
Budget Narrative

South Pasadena Police Department

Prior to engaging in grant-funded Saturation Patrols, DUI Checkpoints, or other enforcement activities in areas where the grantee does not have primary traffic jurisdiction, the grantee should consult with the agency having primary traffic jurisdiction.

Other Direct Costs

DUI/DUID Vehicle (Mustang) - Outfitting
$33,700.00
2 in-vehicle police radios at $10,000 each
2 DUI/DUID vehicle outfitting at $6,850 each (this is the total price of outfitting the vehicle with a prisoner compartment, overhead light bar, spotlights, emergency lighting, PA system, and siren; the installer only provided the total cost of outfitting including parts and labor)

DUI/DUID Vehicle (Truck) - Outfitting
$16,850.00
1 in-vehicle police radio at $10,000
1 vehicle outfitting at $6,850 (this is the total price of outfitting the vehicle with a push bar, overhead light bar, spotlights, emergency lighting, PA system, and siren; the installer only provided the total cost of outfitting including parts and labor)

DUI/DUID Vehicle (Mustang) - Decals/Graphics
$3,300.00
2 DUI/DUID enforcement vehicle wraps and reflective decals at $1,650 each

DUI/DUID Vehicle (Truck) - Decals/Graphics
$1,650.00
DUI/DUID enforcement vehicle wrap and reflective decals at $1,650

Cavanaugh & Associates - Registration Fees
$2,480.00
Registration fees for Cavanaugh & Associates DUI Seminar (DUI/DUID Advanced Training) for 4 officers at $620 each

DUI Checkpoint Material and Supplies
$12,800.00
4 Fox Fury portable/chargeable/wireless scene lights @ $2,400 each.
4 Fox Fury scene lights protective carrying cases @ $800 each.

Personnel

DUI Saturation Patrol
$30,000.00
10 DUI Saturation Patrols = $3,000 4 officers per patrol / Officer = OT $83.33 average per hour / 9 hours per patrol

DUI Checkpoint
$15,000.00
2 DUI Checkpoints = $7,500 10 officers per checkpoint / Officer = OT $83.33 average per hour / 9 hours per checkpoint

Schedule B-1
Budget Narrative

South Pasadena Police Department

Prior to engaging in grant-funded Saturation Patrols, DUI Checkpoints, or other enforcement activities in areas where the grantee does not have primary traffic jurisdiction, the grantee should consult with the agency having primary traffic jurisdiction.

Travel

DUI/DUID Advanced Training
$4,720.00
4 Officers to attend Cavanaugh and Associates DUI Seminar in Laguna Woods, CA at an average cost of $1,180 each to include lodging, mileage, and per diem (meals) at allowable state rates.
This DUI seminar combines SFST and ARIDE curriculum into a one-week course and also includes an alcohol workshop, DUI report writing, effects of drugs and alcohol combinations, and court testimony training. This seminar is only held three times a year in Laguna Woods, CA.

Equipment

DUI/DUID Enforcement Vehicles (Truck)
$82,000.00
1 DUI Checkpoint truck (Ford F-150 Lighting XLT, base cost of $82,000 including tax, title, and processing fees)

DUI/DUID Vehicle (Mustang)
$107,000.00
2 DUI/DUID Enforcement vehicles (Ford Mustang Mach-E Select, base cost of $53,500 each including tax, title and processing fees)

State of California -- Transportation Agency **GAVIN NEWSOM, Governor**

DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
601 North 7th Street
Sacramento, CA 95811
(916) 843-4360
(800) 735-2929 (TT/TDD)
(800) 735-2922 (Voice)

July 1, 2026

Corporal Mike Sanchez
South Pasadena Police Department
1422 Mission Street
South Pasadena, CA 91030

Dear Corporal Sanchez:

On behalf of the Cannabis Grants Unit (CGU), we are happy to inform you, the South Pasadena Police Department, is granted an extension for the FY25-26 Cannabis Tax Fund Grant Program (CTFGP) Grant Agreement. The new Project Performance Period is 07/01/2025 – 06/30/2027, which is reflected in the attached Grant Agreement Amendment 1 document.

We are excited to continue the relationship with your agency in combating DUI/DUID cases in the community and look forward to the completion of the vehicle purchases including outfitting and advanced officer training. Should you have any questions regarding the project, please feel free to contact me at (916)843-4369.

Sincerely,

Christopher Hu
Grant Administrator
Cannabis Grants Unit (CGU)

Award Number
23391

1. GRANT TITLE
FY25/26 CTFGP Law Enforcement - South Pasadena Police Department

2. NAME OF ORGANIZATION/AGENCY
South Pasadena Police Department

3. ORGANIZATION/AGENCY SECTION TO ADMINISTER GRANT
South Pasadena Police Department Traffic Bureau

4. PROJECT PERFORMANCE PERIOD
From: 07/01/2025 To: 06/30/2027

5. PURCHASE ORDER NUMBER
0000044410

6. GRANT OPPORTUNITY INFORMATION DESCRIPTION
Law Enforcement grants provide financial assistance to allied agencies for the education, prevention, and the enforcement of laws related to driving under the influence of alcohol and other drugs, including cannabis and cannabis products.

The intent of the program is to educate the public regarding the dangers of impaired driving, enforce impaired driving laws on the roadway, and improve the Organization/Agency's effectiveness through training and development of new strategies.

7. FUNDS ALLOCATED UNDER THIS GRANT AGREEMENT SHALL NOT EXCEED $309,500.00

8. TERMS AND CONDITIONS
The Grantee agrees to complete the Project, as described in the Project Description. The Grantee's Grant Application, and the California Code of Regulations, Title 13, Division 2, Chapter 13, Sections 1890.00-1890.27, are hereby incorporated into this Grant Agreement by reference.

The parties hereto agree to comply with the Terms and Conditions of the following attachments:

- Schedule A – Project Description, Problem Statement, Goals and Objectives, and Method of Procedure
- Schedule B – Detailed Budget Estimate
- Schedule B-1 – Budget Narrative

We, the officials named below, hereby swear, under penalty of perjury under the laws of the State of California, that we are duly authorized to legally bind the Grant recipient to the above-described Grant Terms and Conditions.

IN WITNESS WHEREOF, this Grant Agreement is executed by the parties hereto.

9. APPROVAL SIGNATURES

A. AUTHORIZED OFFICIAL OF ORGANIZATION/AGENCY
Name: Brian Solinsky
Title: Chief of Police
Phone: (626) 403-7270

Address: 1422 Mission Street
South Pasadena, CA 91030

E-Mail: bsolinsky@southpasadenaca.gov

Brian Solinsky Digitally signed by Brian Solinsky Date: 2025.06.25 08:27:40 -07'00' — 06/25/2025
(Signature) *(Date)*

B. AUTHORIZED OFFICIAL OF CHP
Name: Andrew Beasley Phone: (916) 843-4360
Title: Captain Fax: (916) 322-3169

Address: 601 North 7th Street
Sacramento, CA 95811

E-Mail: ABeasley@chp.ca.gov

Andrew Beasley Digitally signed by Andrew Beasley Date: 2025.09.09 15:54:46 -07'00' — 09/09/2025
(Signature) *(Date)*

C. ACCOUNTING OFFICER OF CHP
Name: M. V. Fojas Phone: (916) 843-3531
Title: Commander Fax: (916) 322-3159

Address: 601 North 7th Street
Sacramento, CA 95811

E-Mail: Michelle.Fojas@chp.ca.gov

Michelle V. Fojas Digitally signed by Michelle V. Fojas Date: 2025.09.10 12:53:22 -07'00' — 09/10/2025
(Signature) *(Date)*

10. AUTHORIZED FINANCIAL CONTACT TO RECEIVE REIMBURSEMENT PAYMENTS

Name: William Castrillon
Title: Budget and Purchasing Manager
Phone: (626) 403-7270

Address: 1422 Mission Street
South Pasadena, CA 91030

City of South Pasadena Police Department

Memo

Date: 10/21/2026

To: Todd Hileman, City Manager

From: Derek Elmore, Chief of Police
Shannon Robledo, Police Lieutenant
Davit Ghazaryan, Management Analyst

Re: Cannabis Tax Fund Grant Program: Vehicle Analysis

On June 13, 2025, the South Pasadena Police Department (Department) was notified of the conditional approval for the Cannabis Tax Fund Grant Program (CTFGP) funding in the amount of $309,500.00. The purpose of this grant funding is to help the Department reduce and mitigate the impacts of impaired driving in our community.

A large portion of the grant, $244,500.00, is eligible to be spent on acquiring and outfitting Driving Under the Influence (DUI)/Driving Under the Influence of Drugs (DUID) enforcement vehicles. Taking into consideration the fact that he City of South Pasadena is subject to the California Air Resources Board (CARB) Advanced Clean Fleet (ACF) regulation, which establishes mandatory zero-emission vehicle (ZEV) purchase requirements for State and local government fleets, as well as the built-in infrastructure of electric vehicle chargers, the Department requested electric vehicles in its application, which was approved by California Highway Patrol, the grantor agency. After a thorough analysis of available police pursuit rated electric vehicles on the market, the Department chose the Chevy Blazer EV, which is widely recognized as the first purpose-built pursuit rated electric vehicle and Chevy Silverado EV as the option for a police DUI/DUID patrol truck, as required by the grant.

The Department's vehicle choices also took into consideration operational feasibilities of the above-mentioned vehicles, as well as their safety features, reviews and feedback from other law-enforcement agencies, the total cost of ownership (TCO) of vehicles and potential maintenance costs.

EVs benefit from significantly lower "fuel" cost per mile compared with gasoline, even in heavy-duty police use, especially if charging infrastructure is managed internally and they generally require fewer scheduled services (no oil changes, fewer cooling system components), lowering operational costs.

Below is a brief TCO comparative analysis between the suggested electric vehicle options and their gas-powered alternatives

Vehicle	Estimated 5-yr TCO	Key Cost Drivers
2027 Blazer EV PPV (electric SUV)	**~$50k–$65k (fleet adjusted est.)**	Lower fuel & maintenance; higher upfront & insurance; incentives impact
Gas Midsize SUV PPV (e.g., Tahoe/Interceptor)	**~$60k–$75k+**	Higher fuel & maintenance; lower EV incentives
Rivian R1T (electric pickup)	**~$80k–$90k (civilian baseline)** + pursuit adjustments	High initial cost; savings on fuel & maintenance
Gas Silverado 1500 PPV (pickup)	**~$75k–$90k+**	Higher fuel cost; more frequent service

Due to factors including CTFGP's budget limitations, the availability of pursuit-rated police vehicles, operational and safety requirements, existing infrastructure, and TCO, the Department's concluded the 2027 Chevrolet Blazer EV PPV and the 2027 Chevrolet Silverado EV PPV best meet the Department's needs.

BUYER	CO-BUYER		
CITY OF SOUTH PASADENA 1422 MISSION ST SOUTH PASADENA, CA 91030-3214 **Cell #:** (626) 403-7273 **Email:** dghazaryan@southpasadenaca.gov		**Deal #:** 17981 **Deal Type:** Retail **Deal Date:** 09/03/2026 **Print Time:** 02:49pm	
		Salesperson: DOUGLAS SIEVERTSON	

VEHICLE

New ☑	**Stock #:**	**Description:**	**VIN:**	**Mileage:**
Used ☐	D525919	2027 CHEVROLET TRUCK BLAZER EV		4
Demo ☐				

TRADE

MSRP:	$	60,260.00
Discount:	$	7,283.00
Net Cost:	**$**	**52,977.00**
Service Agreement:	$	0.00
Total Trade Allowance:	$	0.00
Trade Difference:	**$**	**52,977.00**
Doc Fee:	$	85.00
State & Local Taxes:	$	5,571.52
Total License and Fees:	$	44.00
Total Cash Price:	**$**	**58,677.52**
Total Trade Payoff:	$	0.00
Delivered Price:	**$**	**58,677.52**
Cash Down Payment + Deposit:	$	0.00
Sub Total:	**$**	**58,677.52**
Maintenance Agreement:	$	0.00
GAP Insurance:	$	0.00
Credit Life, Accident & Health:	$	0.00
Amount Financed:	**$**	**58,677.52**

Rate:
Amount Financed: $ 58,677.52

Order Workbench

Order Details
Order Number: GHZXCH

Displayed: 9/3/26, 5:20:38 PM EDT
Printed By: Johansing, Christopher

BAC Information

Contact Name		**Stock Number**	
Contact Phone		**DAN**	STPAS

Model/Order Information

Model Year	2027	**VIN**	
Division	CHEVROLET	**Request ID**	GHZXCH
Distribution Entity	FLT Fleet	**MSRP W/DFC**	$60,260.00
Order Type	FBC - Fleet Political Subdivision		
Allocation Group	BLAZEV		
Model	1MF26 - Blazer EV: Police Pursuit Vehicle		
TPW			
Requested TPW	9/28/26		

Vehicle Specifications

PEG	2FL - PACKAGE FL OPTION 2	**Engine**	EN0 - Engine None
Color	GBA - Black	**Transmission**	MF1 - Transmission None (Electric Drive Unit)
Trim	EPT - Black Cloth / Vinyl	**EMISSIONS**	YF5 - California Emissions

Ordered Options

2FL - PACKAGE FL OPTION 2	FLT - Fleet Processing Code
5J3 - Calibration, Surveillance Mode Interior & Ext Lighting	GBA - Black
5J9 - Calibration, Taillamp Flasher, Red/White	JBL - Performance Brakes
5LO - Calibration, Taillamp Flasher, Red/Red	JCN - Non-FNC Brake Rotors
65C - Label Warning, California Prop 65	KTI - Tire Inflator Kit

 © General Motors 2026. All Rights Reserved

6C7 - Lighting, Red and White LED Dome Lamp
6J3 - Wiring, Grille Lamps and Siren Speaker Circuit
6J4 - Wiring, Horn and Siren Circuit
6J7 - Flasher System, Headlamp and Taillamp
6N5 - Switches, Rear Window Inoperative
6N6 - Door Locks and Handles
7X3 - LED Spotlamp
9C1 - Identifier for Marked Police Package
A2X - Driver 8-way Power Seat Adjuster
A7J - Front Passenger 6-Way Seat Adjuster
AL9 - Driver 2-way Power Lumbar Seat Adjuster
AMF - Remote Keyless Entry Package
ARU - Glass, rear, deep tint
AT9 - Front Passenger 2-Way Power Lumbar Seat Adjuster
BG9 - Floor Covering, Black Rubberized Vinyl
C6W - GVWR, 9200 lbs
CJ2 - Climate Control, Dual-Zone
DLE - Front Console Delete
DNS - Equipment Supplier Installed
DRZ - Rear Camera Mirror
DYX - Mirrors, Outside Heated Power-Adjustable/Folding
EN0 - Engine None
EPT - Black Cloth / Vinyl
MF1 - Transmission None (Electric Drive Unit)
N5V - Steering Wheel, Urethane
PSC - Dual Level Charge Cord
PXT - Wheel, 20" Steel Wheel
QH9 - Tires, 265/50R20 All-Season
R6D - CONTROL SALES ITEM NO. 04
R7T - Price Assurance for Fleet vehicles
RYW - LPO, GM CCS1 DC Adapter
T53 - Lamps, Alternate Flashing Red & Blue
T61 - Daytime Running Lamps
TB4 - Manual Liftgate
TBP - Ship Thru To Kerr Industries
U2K - SiriusXM with 360L Trial Subscription
UD7 - Rear Park Assist
UE1 - OnStar Communication System
UGN - Enhanced Automatic Emergency Braking
UKM - Enhanced Lane Keep Assist
UQF - Audio System Feature, 6-Speaker System
VK3 - License Plate Bracket, Front
VQ2 - Fleet Program
XFD - Performance All-Wheel-Drive
YF5 - California Emissions

Customer Information

Fleet Information

Primary FAN	995727	**Bid Item Number**	2
End-User FAN		**PO #**	
Bid Number	747411		

 © General Motors 2026. All Rights Reserved

BUYER	CO-BUYER		
CITY OF SOUTH PASADENA 1422 MISSION ST SOUTH PASADENA, CA 91030-3214 **Cell #:** (626) 403-7273 **Email:** dghazaryan@southpasadenaca.gov		**Deal #:** 17980 **Deal Type:** Retail **Deal Date:** 09/03/2026 **Print Time:** 02:42pm	
		Salesperson: DOUGLAS SIEVERTSON	

VEHICLE

	Stock #:	Description:	VIN:	Mileage:
New ☑ Used ☐ Demo ☐	D611793	2027 CHEVROLET TRUCK SILVERADO EV	1GC10UEH0TU411793	

TRADE

MSRP:	$	69,494.00
Discount:	$	6,734.00
Net Cost:	**$**	**62,760.00**
Service Agreement:	$	0.00
Total Trade Allowance:	$	0.00
Trade Difference:	**$**	**62,760.00**
Doc Fee:	$	85.00
State & Local Taxes:	$	6,598.73
Total License and Fees:	$	43.75
Total Cash Price:	**$**	**69,487.48**
Total Trade Payoff:	$	0.00
Delivered Price:	**$**	**69,487.48**
Cash Down Payment + Deposit:	$	0.00
Sub Total:	**$**	**69,487.48**
Maintenance Agreement:	$	0.00
GAP Insurance:	$	0.00
Credit Life, Accident & Health:	$	0.00
Amount Financed:	**$**	**69,487.48**

Rate:
Amount Financed: $ 69,487.48

Order Workbench

Order Details

Displayed: 9/3/26, 5:36:39 PM EDT
Printed By: Johansing, Christopher

Order Number: GHZXDJ

BAC Information

Contact Name		**Stock Number**	
Contact Phone		**DAN**	STPAS

Model/Order Information

Model Year	2027	**VIN**	
Division	CHEVROLET	**Request ID**	GHZXDJ
Distribution Entity	FLT Fleet	**MSRP W/DFC**	$69,494.00
Order Type	FBC - Fleet Political Subdivision		
Allocation Group	CLDEVC		
Model	CT35843 - SILVERADO EV: CREW CAB		
TPW			
Requested TPW	11/23/26		

Vehicle Specifications

PEG	5WT - PACKAGE WT OPTION 5	**Engine**	
Color	GAZ - Summit White	**Transmission**	
Trim	H9F - INTERIOR TRIM CONFIG VINYL, LEVEL 1, BACKEN BLACK	**EMISSIONS**	YF5 - CERTIFICATION EMISSION, CALIFORNIA

Ordered Options

5GD - CALIBRATION TURN ON TOW/HAUL MODE	NF6 - EMISSION SYSTEM ZERO EMISSION VEHICLE (ZEV)
5WT - PACKAGE WT OPTION 5	P8N - PRIMARY DRIVE UNIT GEN 1, 77R, 1 MOTOR, INTERGRATED INV

 © General Motors 2026. All Rights Reserve

A2V - ADJUSTER DRIVER SEAT 6WAY, DISCONT MAN RECLINE, MAN FOR
A7E - ADJUSTER PASS ST 4WAY, DISCONT MAN RECLINE, MAN FORE/AF
AR9 - SEAT FRT BKT, DELUXE
AS2 - SALES PACKAGE ACTIVE SAFETY 2
ASV - EQUIPMENT SENSOR AIR MOISTURE & W/S TEMP
AVJ - LOCK CONTROL, ENTRY REMOTE ENTRY, EXTENDED RANGE, PASSI
AYH - RESTRAINT SYSTEM DRVR (SINGLE, ADAPTIVE) & PASS (DUAL)
BG9 - COVERING FLOOR RUBBER
BTT - ALARM REMOTE PANIC
BTV - REMOTE START VEHICLE
C49 - DEFOGGER RR WINDOW, ELECTRIC
C59 - VENT AIR, CONSOLE, RR

CJ2 - HVAC SYSTEM AIR CONDITIONER FRT, AUTO TEMP CONT, AUX TE
CTB - CROSS TRAFFIC ASSIST INTERSECTION ALERT, BRAKING
D31 - MIRROR I/S R/V TILT
D55 - CONSOLE FRT COMPT, FLOOR
D75 - HANDLE O/S DOOR BODY COLOR
DLF - MIRROR O/S LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR
DP6 - MIRROR PROVISIONS HOUSING, PAINTED
EN0 - ENGINE NONE

EPH - TRANS RANGE SEL SYS ELECTRONIC
ETI - PROP ENGY STOR PACK PROPULSION BATTERY, LI, ULTIUM 1.0,
F46 - CHASSIS DRIVE LINE ALL WHEEL DRIVE (AWD)/FOUR WHEEL DRI
FE2 - SUSPENSION SYSTEM RIDE, HANDLING

PSC - PORTABLE CORDSET SWAPPABLE GRID CABLE, HIGH POWER
Q8E - JACK MECHANICAL, W/TOOLS

QK2 - GATE TYPE PUBX END ENHANCED
QWJ - TIRE ALL LT265/70R18 E 124/121 S BW ALS VAR 1
R9W - Deleted Mobile Service Plus
RIP - WHEEL 18 X 8.5, J, ALUMINUM, DESIGN 8

RSR - OCCUPANT DETECT SYS REAR SEAT, DOOR ACTIVATED
RYW - LPO: GM CC S1 DC Adapter
TAB - LAMP REAR COMBO BASE
TGC - HEADLAMP LEVEL BASE
U2K - DIGITAL AUDIO SYSTEM S-BAND
U5G - COMMUNICATION EQUIP INTERNET CONNECTIVITY, 5G
UBJ - RECPT USB IP LWR DUAL, CHARGE, DATA

UCV - CONNECTED CAMERA EXTERIOR, INTERIOR

UD5 - PARK ASSIST FRONT AND REAR
UE1 - COMMUNICATION SYSTEM VEHICLE, ONSTAR
UE4 - SENSOR INDICATOR FOLLOWING DISTANCE
UEU - SENSOR INDICATOR FORWARD COLLISION ALERT

UFB - REAR CROSS TRAFFIC ALERT, BRAKING
UGN - COLL IMMINENT BRK ALL SPEED, VEH FWD MOVEMENT, BRAKE PR
UH5 - INDICATOR SEAT BELT WARNING, REAR SEAT
UKI - SIDE ACTIVE SAFETY OBSTACLE DETECTION ENHANCED, STEERIN
UKK - SENSOR INDICATOR PEDESTRIAN DETECTION - REAR
UKM - LANE ACTIVE SAFETY KEEP ASSIST (OPTIMAL RETURN)

© General Motors 2026. All Rights Reserve

FLT - SALES PROCESSING OPTION

GAZ - Summit White

H9F - INTERIOR TRIM CONFIG VINYL, LEVEL 1, BACKEN BLACK
JL1 - BRK APL CTRL FEATURE INTEGRATED TRAILER BRAKE
JSV - BRAKE SYSTEM 17" FRT SLIDING CALIPER DISC, 17" RR SLIDI
K2O - HIGH VOLTAGE CHARGER 19 KW 1-PHASE
KAM - HEATER SEAT FRT CUSHION & BACK, DUAL MODE

KD4 - RECEPTACLE ELECTRICAL, FRT CONSOLE I/S, 12 VOLT
KI6 - RECEPTCL FRT CNSL RR ELECTRICAL, 120 VOLT, TYPE B
KPB - RECEPTACLE LOAD CMPT ELECTRICAL, 120 VOLT, TYPE B
KSG - CRUISE CONTROL AUTOMATIC, ADAPTIVE, WITH STOP/GO
KV7 - INVERTER 7.2 KW, SPLIT-PHASE AC POWER

MF1 - TRANSMISSION NONE
N37 - STEERING COLUMN TILT, TELESCOPING
N5V - STEERING WHEEL URETHANE, 3 SPOKE, THIN, ROUND
NCH - LOCK MANUAL CHILD LOCK SYSTEM (REAR DOOR LATCH)

UKT - PED DETECTION FRT ENHANCED, PEDESTRIANS AND BICYLISTS
UOW - DETECTION SIDE DOOR OPENING WARNING, PEDESTRIANS/BICYLI
UQF - SPEAKER SYSTEM STANDARD AUDIO

URF - DISPLAY INSTRUMENT DRIVER INFO, DISPLAY ONLY, FAMILY C,
URW - INFOTAINMENT DISPLAY FAMILY C, 17.7", 4784X2300
UV2 - VISION 360 VIEW, MONO, HD DIGITAL
UVX - SENSOR INDICATOR TRAFFIC SIGN RECOGNITION ENHANCED
UVZ - SENSOR COLLISION AVOIDANCE & MITIGATION, VEHICLE REVERS
VK3 - LICENSE PLATE FRONT FRT MOUNTING PKG

VQ2 - FLEET PROGRAM DEALER ASSISTANCE, HOLDBACK NOT APPLICABL
VV4 - COMMUNICATION EQUIP MOBILE INTERNET CONNECTIVITY
XRJ - ELECTRIFIED PROPULS ELECTRIC, BET, EAWD, 2-MOTOR SYSTEM
XTK - WT Plus Package
YF5 - CERTIFICATION EMISSION, CALIFORNIA
YM8 - IDENTIFICATION LIMITED PERSONALIZATION OPTION (LPO)

Customer Information

Fleet Information

 © General Motors 2026. All Rights Reserved

Equipment	Budgeted Costs	Actual Costs	Remaining Balance	Overages
Chevy Blazers (2) - Vehicle	$107,000.00	$117,355.04		($10,355.04)
Chevy Silverado (1) - Vehicle	$82,000.00	$69,487.48	**$12,512.52**	
Chevy Blazers (2) - Outfitting	$33,700.00	$61,543.02		($27,843.02)
Chevy Silverado (1) - Outfitting	$16,850.00	$27,020.17		($10,170.17)
All Vehicles (3) - Vehicle wrap	$3,300.00	$4,500.00		($1,200.00)
All Vehicles (3) - Graphics	$1,650	$3,149.25		($1,499.25)
				Total Overages
				($51,067.48)

Hom Communications 2044 N. Chandler Drive, Cedar City UT 84721 (323) 228-1911

DATE:	9/21/2026 Estimate	**SALES REP:**	Regan Hom

BILL TO:		*SHIP TO:*	
COMPANY:	South Pasadena Police Dept	**COMPANY:**	Hom Communications
ATTENTION:	Shannon Robeledo	**ATTENTION:**	Regan Hom
ADDRESS	1422 Mission St	**ADDRESS:**	2044 N. Chandler Dr
CITY/ST/ZIP:	South Pasadena CA 91030	**CITY/ST/ZIP:**	Cedar City, UT 84721
PHONE:	(626) 403-7270	**PHONE:**	(323) 228-1911
EMAIL:		**EMAIL:**	homcomm@gmail.com

2027 Chevy Blazer EV Police Package

QTY	*MODEL/PART #*	*DESCRIPTION*	*UNIT COST*	*EXT COST*
		(2) 2027 Chevy Blazer EV Police Package		$ -
				$ -
				$ -
2	C399HWLR/HWLRB37	Whelen Low Frequency Howler w/spk Blazer EV Bracket	$ 920.00	$ 1,840.00
2	BK2019BLE24	Setina Front Pushbumper w/ION Leds	$ 1,545.00	$ 3,090.00
2	DESIGN BLE	Setina Pushbumper wraparound fender	$ 680.00	$ 1,360.00
2	PKG-VSX-1800-BLZR-PM-EV-1	Havis Front Console W/Laptop Swivel Adjustable mnt, cup, armrest	$ 2,275.00	$ 4,550.00
2	7160-1082-03	Gamber Johnson Getac Laptop pass-through antenna pwr supply	$ 1,475.00	$ 2,950.00
2	PK1126BLE24	Setina Front Partition 10XL Coated Poly	$ 1,145.00	$ 2,290.00
2	QK1684BLE24	Setina Full Transport Replacement Seat with Seatbelts System	$ 1,690.00	$ 3,380.00
2	PK0316BLE242ND	Setina 2nd Wall Partition w/ Polycarbonate window	$ 609.00	$ 1,218.00
2	TPA9289	Setina Cargo Radio Tray slide-out	$ 480.00	$ 960.00
2	TK0126BLE24	Setina Single Cargo Box Single Draw	$ 1,475.00	$ 2,950.00
2	C399/CCTL7	Whelen WecanX Siren Amplifier 21 Keypad Controller	$ 1,675.00	$ 3,350.00
2	EB2DEDE	Whelen 50" Legacy Lightbar Duo color w/strap kit Traffic Advisor	$ 3,010.00	$ 6,020.00
4	SA315P	Dual Whelen Siren Speaker	$ 310.00	$ 1,240.00
2	GK1121B1U	Setina Dual Rack AR/Rifle Gun Release	$ 845.00	$ 1,690.00
2	TLI2K	Whelen Rear Trunk Gate Duo Color R/A Leds	$ 170.00	$ 340.00
2	TLI2M	Whelen Rear Trunk Gate Duo Color B/A Leds	$ 170.00	$ 340.00
2	TLI2K	Whelen Under Trunk Lid Duo Color R/A Leds	$ 155.00	$ 310.00
2	TLI2M	Whelen Under Trunk Lid Duo Color B/A Leds	$ 155.00	$ 310.00
2	I2D	Whelen Rear Side Lighting Duo Color R/W Leds	$ 190.00	$ 380.00
2	I2E	Whelen Rear Side Lighting Duo Color B/W Leds	$ 190.00	$ 380.00
4	IONK1B	Whelen mounting side bracket	$ 50.00	$ 200.00
2	CG-X	Havis Timer Equipment (1hr)	$ 138.00	$ 276.00
2	OEWS59	Whelen Rear Visor Red/Blue/Amber Leds w/Traffic Advisor	$ 1,750.00	$ 3,500.00
4	MMSU1	Magnectic Mount for Radio/PA Mic	$ 65.00	$ 260.00
2	5032	Bluesea Dual Circuit Fuse Panel	$ 110.00	$ 220.00
2	Misc	Parts & material: loom, connectors, circuit breaker, brackets, zip ties	$ 275.00	$ 550.00
2	60CREGCS	Whelen 6" Dome Lighting Rear Trunk lid R/W Leds	$ 190.00	$ 380.00
2	PWAT-119-GPSB-US	Panorama Roof Shark Fin Antenna WIFI/GPS/Cell Motorola Radio Antenna	$ 455.00	$ 910.00
2	Visaton	Visaton roof speaker & grill 2-way radio external	$ 110.00	$ 220.00
2	PK0100BLE24	Setina Door Panel TPO	$ 460.00	$ 920.00
2	WK0514BLE24H	Setina Metal Window Guard Horizontal	$ 470.00	$ 940.00
	Labor	(2) Installation charge 2027 Chevy Blazer EV	$ 3,975.00	$ -
				$ -
			Sub-Total	$ 47,324.00
		This quote is valid for 30 days	Tax (10.50%)	$ 4,969.02
			Freight	$ 1,300.00
			Labor	$ 7,950.00
			GRAND TOTAL	**$ 61,543.02**

SPECIAL NOTES:	Customer Approval Signature	PO #	Date

Hom Communications 2044 N. Chandler Dr , Cedar City UT 84721 (323) 228-1911

DATE:	9/6/2026 Estimate	**SALES REP:**	Regan Hom

BILL TO:		*SHIP TO:*	
COMPANY:	South Pasadena Police Dept	**COMPANY:**	Hom Communications
ATTENTION:	Shannon Robeledo	**ATTENTION:**	Regan Hom
ADDRESS	1422 Mission St	**ADDRESS:**	2044 N. Chandler Dr
CITY/ST/ZIP:	South Pasadena CA 91030	**CITY/ST/ZIP:**	Cedar City, UT 84721
PHONE:	(626) 403-7270	**PHONE:**	(323) 228-1911
EMAIL:		**EMAIL:**	homcomm@gmail.com

2027 Chevy Silverado Truck EV

QTY	*MODEL/PART #*	*DESCRIPTION*	*UNIT COST*	*EXT COST*
		2027 Chevy Silverado EV Truck		$ -
				$ -
				$ -
1	C399HWLR/HWLRB28	Whelen Low Frequency Howler w/spk Silverado EV Bracket	$ 920.00	$ 920.00
1	BK2019CHT242500	Setina Front Pushbumper w/ION Leds	$ 1,545.00	$ 1,545.00
1	FK0402CHT221500	Setina Pushbumper wraparound fender	$ 720.00	$ 720.00
1	C-VSW-0824-SIW	Havis Front Console Slope Chevy Silverado Wide Body	$ 1,175.00	$ 1,175.00
1	PKG-PSM-3025	Havis Premium Package Laptop Passenger floor mount w/keyboard swivel	$ 1,050.00	$ 1,050.00
1	7160-1082-03	Gamber Johnson Docking Station Pass-Through w/Lind Power supply	$ 1,475.00	$ 1,475.00
1	ETSA	Soundoff signal Rear Tail Flasher	$ 130.00	$ 130.00
1	C399/CCTL7	Whelen WecanX Siren Amplifier 21 Keypad Controller	$ 1,675.00	$ 1,675.00
1	EB2DEDE	Whelen 54" Legacy Lightbar Duo color w/strap kit Traffic Advisor	$ 3,010.00	$ 3,010.00
2	SA315P	Dual Whelen Siren Speaker	$ 310.00	$ 620.00
1	GK10342U	Setina Gun Release Dual Rack Standalone Universal Bracket	$ 1,025.00	$ 1,025.00
1	TLI2K	Whelen Tail Gate Duo Color R/A Leds	$ 170.00	$ 170.00
1	TLI2M	Whelen Tail Gate Duo Color B/A Leds	$ 170.00	$ 170.00
1	I2D	Whelen Rear Side Door Lighting Duo Color R/W Leds	$ 190.00	$ 190.00
1	I2E	Whelen Rear Side Door Lighting Duo Color B/W Leds	$ 190.00	$ 190.00
2	IONK1B	Whelen mounting side bracket	$ 60.00	$ 120.00
1	CG-X	Havis Timer Equipment (1hr)	$ 138.00	$ 138.00
1	E66MAXDUAL-RBA	Red/Blue/Amber Rear Glass Led Module Dual Color Flasher w/Traffic Adv	$ 625.00	$ 625.00
1	ROCKER	Rocker Panel Drv/Pass Red/White Blue/White 61" Undercarriage Leds	$ 1,200.00	$ 1,200.00
2	MMSU1	Magnectic Mount for Radio/PA Mic	$ 65.00	$ 130.00
1	5032	Bluesea Dual Circuit Fuse Panel	$ 110.00	$ 110.00
1	Storeq	Custom Rear Under seat Storage Equipment Tray	$ 575.00	$ 575.00
1	Misc	Parts & material: loom, connectors, circuit breaker, brackets, zip ties	$ 275.00	$ 275.00
1	60CREGCS	Whelen 6" Dome Lighting Rear Trunk lid R/W Leds	$ 190.00	$ 190.00
1	PWAT-119-GPSB-US	Panorama Roof Shark Fin Antenna WIFI/GPS/Cell Motorola Radio Antenna	$ 455.00	$ 455.00
1	Visaton	Visaton roof speaker & grill 2-way radio external	$ 110.00	$ 110.00
1	DK0598CHT202500	Setina Door Panel TPO	$ 460.00	$ 460.00
1	WK0514CHT202500	Setina Metal Window Guard Horizontal	$ 470.00	$ 470.00
	Labor	Installation charge 2026 Chevy Silverado EV Truck	$ 3,975.00	$ -
1	LINE-X	Truck Bed LINE-X Protective Coating	$ 1,050.00	$ 1,050.00
			Sub-Total	$ 19,973.00
		This quote is valid for 30 days	Tax (10.50%)	$ 2,097.17
			Freight	$ 975.00
			Labor	$ 3,975.00
			GRAND TOTAL	**$ 27,020.17**

SPECIAL NOTES:	Customer Approval Signature	PO #	Date

RESOLUTION NO. 8036

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOUTH PASADENA AMENDING THE FISCAL YEAR 2026-2027 ADOPTED BUDGET

WHEREAS, the City Council of the City of South Pasadena adopted the Fiscal Year 2026-2027 Budget on June 17, 2026, establishing the City's financial plan for the fiscal year beginning July 1, 2026, and ending June 30, 2027; and

WHEREAS, subsequent to adoption, the City has identified a need to amend the budget to allocate asset forfeiture funds of the South Pasadena Police Department to be spent on partial purchase and outfitting of three police pursuit vehicles.; and

WHEREAS, the proposed amendments are necessary to ensure the continued delivery of essential services, maintain fiscal responsibility, and align City resources with City Council priorities; and

WHEREAS, the City Council has reviewed the proposed amendments and finds them to be in the best interest of the City and its residents.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SOUTH PASADENA, CALIFORNIA, DOES RESOLVE, DECLARE, DETERMINE AND ORDER AS FOLLOWS:

Section 1. The above recitals are hereby declared to be true and correct and are incorporated herein as if set forth in full.

Section 2. The Fiscal Year 2026-2027 Adopted Budget is hereby amended as set forth in the table below:

Revenue Account No.	Description	Amount
270	Asset Forfeiture	$52,000
TOTAL:		**$52,000**

Expenditure Account No.	Description	Amount
270-4010-4018-8540-000 (Asset Forfeiture – Machinery and Equipment)	Partial Purchase and Outfitting of three Police Patrol Vehicles	$52,000
TOTAL:		**$52,000**

Section 3. The City Manager, or their designee, is authorized and directed to implement the budget amendments, including transfers, appropriations, and related accounting entries, in accordance with this resolution.

Section 4. The City Manager is further authorized to make minor adjustments and technical corrections consistent with the intent of this resolution.

Section 5. The City Clerk shall certify to the adoption of this resolution.

PASSED, APPROVED AND ADOPTED this 21st day of October, 2026.

_____
Sheila Rossi, Mayor

ATTEST:

APPROVED AS TO FORM:

_____
Nikima S. Newsome, Chief City Clerk

_____
Roxanne Diaz, City Attorney

I, Nikima S. Newsome, Chief City Clerk of the City of South Pasadena, do hereby certify the foregoing Resolution No.8036 was duly passed and adopted by the City Council of the City of South Pasadena, at a regular adjourned meeting held on the 21st day of October, 2026, by the following roll call vote:

AYES:
NAYES:
ABSENT:
ABSTAIN:

_____
Nikima S. Newsome, Chief City Clerk

City Council
Agenda Report

ITEM NO. 8

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Julian Lee, Director of Public Works
Michael Vartanians, City Engineer
Bassam AL-Beitawi, Transportation Program Manager

SUBJECT: **CONSIDERATION OF APPROVAL OF AMENDMENT NO. 1 TO THE MEASURE M MULTI-YEAR SUBREGIONAL PROGRAM (MSP) FUNDING AGREEMENT FOR THE PEDESTRIAN CROSSING DEVICES PROJECT**

Recommendation
It is recommended that the City Council:

a. Approve Amendment No. 1 (Attachment No. 1) to the Measure M Multi-Year-Subregional Program (MSP) funding agreement with the Los Angeles County Metropolitan Transportation Authority (LA Metro) for the Pedestrian Crossing Devices Project; and
b. Authorize the City Manager, or designee, to execute the amendment and all related documents.

Executive Summary
The City has a funding agreement with Los Angeles County Metropolitan Transportation Authority (LA Metro) that provides $322,624 in Measure M MSP funds for the Pedestrian Crossing Devices Project. The Project will install Rectangular Rapid Flashing Beacons (RRFBs) and related pedestrian improvements at three intersections.

Amendment No. 1 extends the deadline to use the Measure M funds through June 30, 2027, and updates the project scope, schedule, and funding allocation. The total Measure M funding remains unchanged at $322,624.

Background
LA Metro awarded the City $322,624 in Measure M Multi-Year Subregional Program (MSP) funds for the Pedestrian Crossing Devices Project. The City and LA Metro subsequently entered into a funding agreement (Attachment No. 2) for the Project. The original funding consisted of $200,000 programmed for Fiscal Year (FY) 2022-23 and $122,624 programmed for FY 2023-24.

On March 4, 2026, the City Council approved a task order with HDR Engineering Inc. for $112,342 to design pedestrian crossing improvements at Meridian Avenue/Bank Street, Grevelia Street/Park Avenue, and El Centro Street/Cawston Avenue. The Project will install RRFBs at the three intersections and upgrade curb ramps as needed to meet ADA standards.

Analysis
Staff has worked with LA Metro to prepare Amendment No. 1 to update the Funding Agreement and provide additional time to complete the Project.

The amendment extends the lapse date for the FY 2022-23 and FY 2023-24 Measure M MSP funds to June 30, 2027.

The amendment also updates the Project scope to identify the following three locations:

- Meridian Avenue and Bank Street
- Grevelia Street and Park Avenue
- El Centro Street and Cawston Avenue

The original Funding Agreement identified Fair Oaks Avenue and Spruce Street as the third location. The amendment replaces that location with El Centro Street/Cawston Avenue. The RRFB at the intersection of Fair Oaks Avenue and Spruce Street will be constructed as a part of the N-S Fair Oaks Intelligent Transportation (ITS) Deployment Project.

The amendment also updates the funding allocation. Of the total $322,624 in Measure M MSP funds, $113,000 is allocated to design and $209,624 is allocated to construction. The amendment does not increase the total amount of Measure M MSP funding for the Project.

The updated schedule anticipates completion of design in November 2026 and construction by June 2027.

Fiscal Impact
There is no additional fiscal impact associated with approval of the amendment. The total Measure M MSP - Fund 240 funding for the Pedestrian Crossing Devices Project (240-9010-9350-8170-000) remains $322,624, consisting of $113,000 for design and $209,624 for construction. Funding for the Project is included in the FY 2026-27 Capital Improvement Program budget.

Key Performance Indicators and Strategic Plan
This item is related to infrastructure improvement and traffic mitigation and safety goals in the City Council's 2026 compilation of priorities.

Commission Review and Recommendation
The Project has been discussed with the Public Works Infrastructure Commission as part of the Fiscal Year 2026-2027 Work Plan update.

Public Notification
The public was made aware that this item was to be considered this evening by virtue of its inclusion on the legally publicly noticed agenda, posting of the same agenda and reports on the City’s website.

Environmental Analysis
The proposed action is categorically exempt from CEQA pursuant to Section 15301 of the State CEQA Guidelines- Class 1, Existing Facilities, specifically, the Project is consistent with Section 15301 (c) for improvements occurring withing existing street right-of-way.

Attachment:
Attachment No. 1 - Amendment No. 1 to Measure M MSP Funding Agreement
Attachment No. 2 - Existing Measure M MSP Funding Agreement

Subregion ID: AV

Project ID#: MM4101.11
Amendment No. 1
FA#: 9200000000M410111

AMENDMENT No. 1 TO MEASURE M FUNDING AGREEMENT BETWEEN CITY OF SOUTH PASADENA AND THE LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

This Amendment No. 1 to the Funding Agreement (this "Amendment"), is dated as of June 30, 2026, for reference purposes only, by and between the City of South Pasadena ("GRANTEE") and the Los Angeles County Metropolitan Transportation Authority ("LACMTA").

RECITALS:

A. GRANTEE and LACMTA entered into that certain Funding Agreement No. 9200000000M410111, dated November 1, 2023, (the "Existing FA"), which Existing FA provides for the Pedestrian Crossing Devices, (the "Project"); and

B. WHEREAS, the LACMTA Board on September 23, 2021, delegated administrative authority to staff to extend the funding lapsing date of the Measure M Funds previously approved to meet environmental, design, right-of-way, and construction time frames; and

C. WHEREAS, the GRANTEE and LACMTA desire to extend the lapse dates of FY 2022-23 and FY 2023-24 funds to June 30, 2027; and

D. WHEREAS, the LACMTA Board on September 23, 2021, delegated administrative authority to modify the scope of work of projects and project development phases consistent with eligibility requirements; and

E. WHEREAS, LACMTA administratively approved minor changes to the Scope of Work; and

F. GRANTEE and LACMTA desire to amend the Existing FA as provided herein.

AGREEMENT:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereby agree as follows:

1. Part I, Paragraph 13 of the Existing FA is hereby amended to change GRANTEE's project manager to Michael Vartanians, phone (626) 403-7245, email mvartanians@southpasadenaca.gov.

2. Part II, Section 9.1 (vi) of the Existing FA is hereby amended by deleting it in its entirety and replacing it with the following: "(vi) Expending the Funds granted under this FA for allowable costs by the lapsing date. All Funds programmed for FY 2022-23 are subject to lapse by June 30, 2027. All Funds programmed for FY 2023-24 are subject to lapse by June 30, 2027."

3. Attachment B of the Existing FA is hereby replaced by Attachment B-1, attached.

4. Attachment C of the Existing FA is hereby replaced by Attachment C-1, attached.

5. Except as expressly amended hereby, the Existing FA remains in full force and effect as originally executed. All rights and obligations of the parties under the Existing FA that are not expressly amended by this Amendment shall remain unchanged.

IN WITNESS WHEREOF, the parties have caused this Amendment No. 1 to the FA to be executed by their duly authorized representatives as of the dates indicated below:

LACMTA:

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

By: _____ Date: _____
Stephanie Wiggins
Chief Executive Officer

APPROVED AS TO FORM:

DAWYN R. HARRISON
County Counsel

By: _____ Date: 7/30/2026
Deputy

GRANTEE:

CITY OF SOUTH PASADENA

By: _____ Date: _____
Todd Hileman
City Manager

APPROVED AS TO FORM:

By: _____ Date: _____
Roxanne Diaz
City Attorney

ATTACHMENT B-1 - EXPENDITURE PLAN COST & CASH FLOW BUDGET

Measure M MSP - Modal Connectivity and Complete Streets Program - Funding Agreement Project - FA#: 9200000000M410111
Project Title: Pedestrian Crossing Devices Project ID#: MM4101.11

PROGRAMMED SOURCES OF FUNDS

SOURCES OF FUNDS	FY 2025-26 Qtr 1	FY 2025-26 Qtr 2	FY 2025-26 Qtr 3	FY 2025-26 Qtr 4	FY 2026-27 Qtr 1	FY 2026-27 Qtr 2	FY 2026-27 Qtr 3	FY 2026-27 Qtr 4	TOTAL BUDGET
LACMTA PROGRAMMED FUNDS:									
MEASURE M MSP FUNDS:									
Planning Activities/Prog Dev									$0
Environmental									$0
Design and PS&E				$10,000	$63,000	$40,000			$113,000
Right-of-Way Acquisition									$0
Construction						$35,000	$74,624	$100,000	$209,624
Vehicle Purchase									$0
Others									$0
Total Measure M	$0	$0	$0	$10,000	$63,000	$75,000	$74,624	$100,000	$322,624
SUM PROG LACMTA FUNDS:	$0	$0	$0	$10,000	$63,000	$75,000	$74,624	$100,000	$322,624
OTHER NON LACMTA FUNDING:									
LOCAL: [INSERT SOURCE]									
Planning Activities/Prog Dev									$0
Environmental									$0
Design and PS&E									$0
Right-of-Way Acquisition									$0
Construction									$0
Vehicle Purchase									$0
Others									$0
Total LOCAL	$0	$0	$0	$0	$0	$0	$0	$0	$0
STATE: [INSERT SOURCE]									
Planning Activities/Prog Dev									$0
Environmental									$0
Design and PS&E									$0
Right-of-Way Acquisition									$0
Construction									$0
Vehicle Purchase									$0
Others									$0
Total STATE	$0	$0	$0	$0	$0	$0	$0	$0	$0
FEDERAL: [INSERT SOURCE]									
Planning Activities/Prog Dev									$0
Environmental									$0
Design and PS&E									$0
Right-of-Way Acquisition									$0
Construction									$0
Vehicle Purchase									$0
Others									$0
Total FEDERAL	$0	$0	$0	$0	$0	$0	$0	$0	$0
PRIVATE: [INSERT SOURCE]									
Planning Activities/Prog Dev									$0
Environmental									$0
Design and PS&E									$0
Right-of-Way Acquisition									$0
Construction									$0
Vehicle Purchase									$0
Others									$0
Total PRIVATE	$0	$0	$0	$0	$0	$0	$0	$0	$0
SUM NON-LACMTA FUNDS :	$0	$0	$0	$0	$0	$0	$0	$0	$0
PROJECT FUNDING FY2025-26 and FY2026-27	$0	$0	$0	$10,000	$63,000	$75,000	$74,624	$100,000	$322,624
TOTAL LACMTA FUNDS	$0	$0	$0	$10,000	$63,000	$75,000	$74,624	$100,000	$322,624
TOTAL NON-LACMTA FUNDS	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL PROJECT FUNDING	$0	$0	$0	$10,000	$63,000	$75,000	$74,624	$100,000	$322,624

ATTACHMENT C-1
SCOPE OF WORK
CAPITAL PROJECT

PROJECT NAME: Pedestrian Crossing Devices

PROJECT LOCATION/LIMITS/AREA:

The project is located at three (3) different intersections in the City of South Pasadena.

1. Meridian Avenue and Bank Street
2. Grevelia Street and Park Avenue
3. El Centro Street and Cawston Avenue

PROJECT DESCRIPTION INCLUDING MULTI-YEAR SUBREGIONAL PROGRAM AND PROJECT NEXUS:

The project consists of the installation of Rectangular Rapid-Flashing Beacon (RRFB) for enhanced pedestrian crossing and will update curb ramps to meet ADA standards.

The locations considered for RRFB include 1) Meridian Avenue and Bank Street, which would support pedestrian and student access to South Pasadena High School; 2) Grevelia Street and Park Avenue, which has notable pedestrian traffic given the adjacent housing that is zoned for Residential High Density (RH), this location has the most intense land use in the City, is surrounded by multi-family housing, and is situated a block away from Garfield Park, a popular location for residents to walk, exercise, and engage in leisure activities; and, 3) El Centro Street and Cawston Avenue, which is adjacent to the Arroyo Vista Elementary school and would heighten driver awareness of the presence of school children in the crosswalk.

PROJECT FUNDING:

PHASE	LACMTA – MEASURE M FUNDS	LOCAL AGENCY (IF ANY)	TOTAL
Design and Plans, Specifications, & Estimates (PS&E)	$113,000		$113,000
Construction	$209,624		$209,624
TOTAL BUDGET COST	**$322,624**		**$322,624**

ESTIMATED PROJECT COSTS:

ITEM DESCRIPTION	QUANTITY	UNIT	TOTAL COST
Design and Plans, Specifications & Estimates (PS&E)	1	LS	$113,000
Construction Costs—Pedestrian Crossing Control Equipment and Installation Rectangular Rapid Flashing Beacons (RRFB)	1	LS	$209,624
GRAND TOTAL			**$322,624**

PROJECT DETAILED SCHEDULE:

MILESTONES	BEGIN	END	DURATION (MONTHS)
SOLICITATION (BID/PROPOSAL) PHASE/DESIGN BID & AWARD	**January 2026**	**March 2026**	**3**
Develop Task Order	January 2026	February 2026	2
Select On-Call Professional Service Consultant	January 2026	March 2026	3
City Council Approval	February 2026	March 2026	2
ENVIRONMENTAL PHASE	**April 2026**	**November 2026**	**8**
Environmental Studies (Categorical Exemption)	April 2026	November 2026	8
DESIGN AND PLANS, SPECIFICATION & ESTIMATE (PS&E) PHASE	**April 2026**	**November 2026**	**8**
Design Feasibility	April 2026	May 2026	2
Design and Plans, Specification & Estimates (PS&E)	April 2026	November 2026	8
CONSTRUCTION PHASE	**October 2026**	**June 2027**	**9**
Develop Solicitation Construction Package	October 2026	November 2026	2
Solicitation Response	November 2026	November 2026	1
Evaluations	December 2026	December 2026	1
City Council Approval	January 2027	January 2027	1
Contract Award	January 2027	January 2027	1
Fully Executed Contract	January 2027	February 2027	2
Construction	February 2027	June 2027	5
PROJECT CLOSE-OUT	**June 2027**	**November 2027**	**6**

PROJECT MAP:

City of South Pasadena
RRFB/HAWK Pedestrian Crosswalk Project

LEGEND

1. MERIDIAN AVENUE AND BANK STREET
2. GREVELIA STREET AND PARK AVENUE
3. EL CENTRO STREET AND CAWSTON AVENUE

Attachment No. 2

Project ID#: MM4101.11
Subregion ID: AV FA#: 9200000000M410111

MEASURE M FUNDING AGREEMENT
MULTI-YEAR SUBREGIONAL PROGRAMS

This Funding Agreement ("FA") is made and entered into effective as of November 1, 2023 ("Effective Date"), and is by and between the Los Angeles County Metropolitan Transportation Authority ("LACMTA") and City of South Pasadena ("GRANTEE") for Pedestrian Crossing Devices, LACMTA Project ID# MM4101.11, (the "Project"). This Project is eligible for funding under Line 62 of the Measure M Expenditure Plan.

WHEREAS, LACMTA adopted Ordinance #16-01, the Los Angeles County Traffic Improvement Plan, on June 23, 2016 (the "Ordinance"), which Ordinance was approved by the voters of Los Angeles County on November 8, 2016 as "Measure M" and became effective on July 1, 2017.

WHEREAS, the funding set forth herein is intended to fund Plans, Specifications, and Estimates (PS&E) and Construction of the Project.

WHEREAS, the LACMTA Board, at its January 26, 2023 meeting, programmed $322,624, in Measure M Funds to GRANTEE for PS&E and Construction, subject to the terms and conditions contained in this FA; and

WHEREAS, the Funds are currently programmed as follows: $200,000 in Measure M Funds in Fiscal Years (FY) 2022-23 and $122,624 in Measure M Funds in FY 2023-24. The total designated for PS&E and Construction of the Pedestrian Crossing Devices is $322,624.

NOW, THEREFORE, the parties hereby agree as follows:

The terms and conditions of this FA consist of the following and each is incorporated by reference herein as if fully set forth herein:

1. Part I – Specific Terms of the FA
2. Part II – General Terms of the FA
3. Attachment A – Project Funding
4. Attachment B – Expenditure Plan- Cost & Cash Flow Budget
5. Attachment C – Scope of Work
6. Attachment D – Project Reporting and Expenditure Guidelines
7. Attachment D-1 – Intentionally omitted
8. Attachment D-2 – Quarterly Progress/Expenditure Report
9. Attachment E – Bond Requirements
10. Any other attachments or documents referenced in the above documents

In the event of a conflict, the Special Grant Conditions, if any, shall prevail over the Specific Terms of the FA and any attachments and the Specific Terms of the FA shall prevail over the General Terms of the FA.

Docusign Envelope ID: 3B666571-7591-426C-A853-F160AEEFACDF

IN WITNESS WHEREOF, the parties have caused this FA to be executed by their duly authorized representatives as of the dates indicated below:

LACMTA:

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

By: Fanny Pan Digitally signed by Fanny Pan Date: 2024.10.10 11:36:26 -07'00' Date: 10-10-2024

for Stephanie N. Wiggins
Chief Executive Officer

APPROVED AS TO FORM:

DAWYN R. HARRISON
County Counsel

By: _____ Date: 1/11/2024

Deputy

GRANTEE:

CITY OF SOUTH PASADENA

By: Signed by: Donald Penman C9C235A36ABD40C... Date: 9/24/2024

Donald Penman
Interim City Manager

APPROVED AS TO FORM:

By: DocuSigned by: Roxanne Diaz A7999E5CA8A244F... Date: 10/10/2024

Roxanne Diaz
City Attorney

PART I
SPECIFIC TERMS OF THE FA

1. Title of the Project (the "Project"): Pedestrian Crossing Devices – Plans, Specifications, and Estimates (PS&E) and Construction of the Project. LACMTA Project ID# MM4101.11.

2. Grant Funds:

2.1 Programmed Funds for this Project consist of Measure M Funds.

2.2 To the extent the Measure M Funds are available; LACMTA shall make to GRANTEE a grant of the Measure M funds in the amount of $322,624 (the "Funds") for the Project. LACMTA Board of Directors' action of January 26, 2023 granted the Measure M Funds for the Project. The Funds are programmed over two (2) years for Fiscal Years (FY) 2022-23 and FY 2023-24.

3. This grant shall be paid on a reimbursement basis. GRANTEE must provide the appropriate supporting documentation with the Quarterly Progress/Expenditure Report. GRANTEE Funding Commitment, if applicable, must be spent in the appropriate proportion to the Funds with each quarter's expenditures. LACMTA will withhold ten percent (10%) of eligible expenditures per invoice as retention pending an audit of expenditures and completion of Scope of Work.

4. **Attachment A** the "Project Funding" documents all sources of funds programmed for the Project as approved by LACMTA. The Project Funding includes the total programmed funds for the Project, including the Funds programmed by LACMTA and, if any, the GRANTEE Funding Commitment of other sources of funding. The Project Funding also includes the fiscal years in which all the funds for the Project are programmed. The Funds are subject to adjustment by subsequent LACMTA Board Action.

5. **Attachment B** is the Expenditure Plan- Cost & Cash Flow Budget (the "Expenditure Plan"). It is the entire proposed cash flow, the Budget and financial plan for the Project, which includes the total sources of all funds programmed to the Project, including GRANTEE and other entity funding commitments, if any, for this Project as well as the fiscal year and quarters the Project funds are anticipated to be expended. GRANTEE shall update the Expenditure Plan annually, no later than December 31, and such update shall be submitted to LACMTA's Senior Executive Officer managing the Measure M Multi-Year Subregional Program in writing. If the LACMTA's Senior Executive Officer managing the Measure M Multi-Year Subregional Program concurs with such updated Expenditure Plan in writing, Attachment B shall be replaced with the new Attachment B setting forth the latest approved Expenditure Plan. Payments under this FA shall be consistent with Attachment B as revised from time to time. Any change to the final milestone date must be made by a fully executed amendment to this FA.

6. **Attachment C** is the "Scope of Work". The GRANTEE shall complete the Project as described in the Scope of Work. This Scope of Work shall include a detailed description of the Project and the work to be completed, including anticipated Project milestones and a schedule

consistent with the lapsing policy in Part II, Section 9, and a description of the Project limits, if the Project is a capital project. No later than December 31 of each year, GRANTEE shall notify LACMTA if there are any changes to the final milestone date set forth in the schedule or any changes to the Scope of Work. If LACMTA agrees to such changes, the parties shall memorialize such changes in an amendment to this FA. Work shall be delivered in accordance with the schedule and scope identified in this FA unless otherwise agreed to by the parties in writing in an amendment to this FA. If GRANTEE fails to meet milestones or fails to deliver the Project, LACMTA will have the option to suspend or terminate the FA for default as described in Part II, Sections 2, 9, 10, and 11 herein below. To the extent interim milestone dates are not met but GRANTEE believes and can show documentation acceptable to LACMTA supporting GRANTEE's ability to make up the time so as to not impact the final milestone date, GRANTEE shall notify LACMTA of such changes in its Quarterly Progress/Expenditure Reports and such interim milestone dates will automatically be amended to the latest interim milestone dates provided in the Quarterly Progress/Expenditure Reports Attachment D-2. In no event can the final milestone date be amended by a Quarterly Progress/Expenditure Report.

7. No changes to this FA, including but not limited to the Funds, and any other source of funds from LACMTA in the Project Funding, Expenditure Plan, or the Scope of Work shall be allowed without an amendment to the original FA, approved and signed by both parties.

8. **Attachment D** is the "Project Reporting & Expenditure Guidelines". GRANTEE shall complete the "Quarterly Progress/Expenditure Report". The Quarterly Progress/Expenditure Report is attached to this FA as Attachment D-2 in accordance with Attachment D – Project Reporting and Expenditure Guidelines.

9. LACMTA anticipates it may need to avail itself of lower cost bonds or other debt, the interest on which is tax exempt for federal tax purposes (collectively, the "Bonds") to provide at least a portion of its funding commitments under this Agreement to GRANTEE. GRANTEE shall ensure that the expenditure of the Funds disbursed to GRANTEE does not jeopardize the tax-exemption of the interest, as specified in the Bond Requirements attached as **Attachment E** to this Agreement. GRANTEE agrees to provide LACMTA with progress reports, expenditure documentation, and any other documentation as reasonably requested by LACMTA and necessary for LACMTA to fulfill its responsibilities as the grantee or administrator or bond issuer of the Funds. With regard to LACMTA debt financing to provide any portion of the Funds, GRANTEE shall take all reasonable actions as may be requested of it by LACMTA's Project Manager for the Project, to assist LACMTA in demonstrating and maintaining over time, compliance with the relevant sections of the Federal Tax Code to maintain such Bonds' tax status.

10. GRANTEE shall comply with the "Special Grant Conditions" attached as **Attachment F**, if any.

11. No changes to the (i) Grant amount, (ii) Project Funding, (iii) the Scope of Work (except as provided herein), (iv) Final milestone date or (v) Special Grant Conditions, shall be allowed without a written amendment to this FA, approved and signed by the LACMTA Chief Executive Officer or his designee and GRANTEE. Modifications that do not materially affect the terms of this FA, such as redistributing Funds among existing budget line items or non-material

Docusign Envelope ID: 3B666571-7591-426C-A853-F160AEEFACDF

schedule changes must be formally requested by GRANTEE and approved by LACMTA in writing. Non-material changes are those changes which do not affect the grant amount or its schedule, Project Funding, or the Scope of Work, including the Work schedule.

12. LACMTA's Address:

Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
Los Angeles, CA 90012
Attention: Kathy Park
LACMTA Project Manager
Mail Stop: 99-23-3
Phone: (213) 922-6167
Email: ParkK@metro.net

13. GRANTEE's Address:

City of South Pasadena
1414 Mission Street
South Pasadena, CA 91030
Attention: Reyna Salazar-Martin
Management Analyst
Phone: (626) 403-7373
Email: RSmartin@southpasadenaca.gov

Docusign Envelope ID: 3B666571-7591-426C-A853-F160AEEFACDF

PART II
GENERAL TERMS OF THE FA

1. TERM

The term of this FA shall commence on the Effective Date of this FA, and shall terminate upon the occurrence of all of the following, unless terminated earlier as provided herein: (i) the agreed upon Scope of Work has been completed; (ii) all LACMTA audit and reporting requirements have been satisfied; and (iii) the final disbursement of the Funds has been made to GRANTEE. All eligible Project expenses as defined in the Reporting and Expenditure Guidelines (Attachment D), incurred after the FA Effective Date shall be reimbursed in accordance with the terms and conditions of this FA unless otherwise agreed to by the parties in writing.

2. SUSPENSION OR TERMINATION

Should LACMTA determine there are insufficient Measure M Funds available for the Project, LACMTA may suspend or terminate this FA by giving written notice to GRANTEE at least thirty (30) days in advance of the effective date of such suspension or termination. If a Project is suspended or terminated pursuant to this section, LACMTA will not reimburse GRANTEE any costs incurred after that suspension or termination date, except those costs necessary to: (i) return any facilities modified by the Project construction to a safe and operable state; and (ii) suspend or terminate the construction contractor's control over the Project. LACMTA's share of these costs will be consistent with the established funding percentages outlined in this FA.

3. INVOICE BY GRANTEE

Unless otherwise stated in this FA, the Quarterly Progress/Expenditure Report, with supporting documentation of expenses, Project progress and other documents as required, which has been pre-approved by LACMTA, all as described in Part II, Section 6.1 of this FA, shall satisfy LACMTA invoicing requirements. GRANTEE shall only submit for payment the LACMTA pre-approved Quarterly Progress/Expenditure Report Packets to the LACMTA Project Manager at the email address shown in Part I and to LACMTA Accounts Payable Department as shown below.

Submit invoice with supporting documentation to:
ACCOUNTSPAYABLE@METRO.NET (preferable)
or
mail to:
Los Angeles County Metropolitan Transportation Authority
Accounts Payable
P. O. Box 512296
Los Angeles, CA 90051-0296
All invoice material must contain the following information:
Re: LACMTA Project ID# MM4101.11 and FA# 9200000000M410111
Kathy Park; Mail Stop 99-23-3

4. USE OF FUNDS

4.1 GRANTEE shall utilize the Funds to complete the Project as described in the Scope of Work and in accordance with the Reporting and Expenditure Guidelines, the specifications for use for the transportation purposes described in the Ordinance, the Guidelines, and the Multi-Year Subregional Programs Administrative Procedures.

4.2 Attachment C shall constitute the agreed upon Scope of Work between LACMTA and GRANTEE for the Project. The Funds, as granted under this FA, can only be used towards the completion of the Scope of Work detailed in Attachment C.

4.3 GRANTEE shall not use the Funds to substitute for any other funds or projects not specified in this FA. Further, GRANTEE shall not use the Funds for any expenses or activities above and beyond the approved Scope of Work (Attachment C) without an amendment to the FA approved and signed by the LACMTA Chief Executive Officer or his designee. To the extent LACMTA provides GRANTEE with bond or commercial paper proceeds, such Funds may not be used to reimburse for any costs that jeopardize the tax exempt nature of such financings as reasonably determined by LACMTA and its bond counsel.

4.4 GRANTEE must use the Funds in the most cost-effective manner. If GRANTEE intends to use a consultant or contractor to implement all or part of the Project, LACMTA requires that such activities be procured in accordance with GRANTEE's contracting procedures and consistent with State law as appropriate. GRANTEE will also use the Funds in the most cost-effective manner when the Funds are used to pay "in-house" staff time. This effective use of funds provision will be verified by LACMTA through on-going Project monitoring and through any LACMTA interim and final audits.

4.5 GRANTEE'S employee, officers, councilmembers, board member, agents, or consultants (a "GRANTEE Party") are prohibited from participating in the selection, award, or administration of a third-party contract or sub-agreement supported by the Funds if a real or apparent conflict of interest would be involved. A conflict of interest would include, without limitation, an organizational conflict of interest or when any of the following parties has a financial or other interest in any entity selected for award: (a) a GRANTEE Party (b) any member of a GRANTEE Party's immediate family, (c) a partner of a GRANTEE Party; (d) any organization that employs or intends to employ any of the above. This conflict of interest provision will be verified by LACMTA through on-going Project monitoring and through any LACMTA interim and final audits.

4.6 If a facility, equipment (such as computer hardware or software), vehicle or property, purchased or leased using the Funds, ceases to be used for the proper use as originally stated in the Scope of Work, or the Project is discontinued, any Funds expended for that purpose must be returned to LACMTA as follows: GRANTEE shall be required to repay the Funds in proportion to the useful life remaining and in an equal proportion of the grant to GRANTEE Funding Commitment ratio.

4.7 If the Project requires the implementation of an Intelligent Transportation Systems ("ITS") project, GRANTEE shall ensure the Project is consistent with the Regional ITS Architecture. Attachment F, the Los Angeles County Regional ITS Architecture (CONNECT-IT) Consistency Self-Certification Form, must be completed and signed for planned ITS projects and/or ITS projects that use local, state, or federal funds programmed or administered through LACMTA. Refer to www.laconnect-it.com to find information about the CONNECT-IT Service Packages.

4.8 If any parking facilities are designed and/or constructed using the Funds, GRANTEE shall coordinate with LACMTA parking program staff (see www.metro.net for staff listing) in the planning, design, and management of the facility and shall ensure that its implementation is consistent with the LACMTA adopted parking policy. For the parking policy, see http://media.metro.net/projects_studies/call_projects/images/09%20Appendix%20D%20Parking%20Policy.pdf

5. REIMBURSEMENT OF FUNDS

Funds will be released on a reimbursement basis in accordance with invoices submitted in support of the Quarterly Progress/Expenditure Reports. LACMTA will make all disbursements electronically unless an exception is requested in writing. Reimbursements via Automated Clearing House (ACH) will be made at no cost to GRANTEE. GRANTEE must register in LACMTA's iSupplier portal and submit an application before grant payments can be made. The link to the portal can be found at http://media.metro.net/uploads/EBB/Vendor Portal Registration.pdf. GRANTEE must provide detailed supporting documentation with its Quarterly Progress/Expenditure Reports. GRANTEE Funding Commitment, if any, must be spent in direct proportion to the Funds with each quarter's payment.

6. REPORTING AND AUDIT REQUIREMENTS/PAYMENT ADJUSTMENTS

6.1 GRANTEE shall submit the draft of Quarterly Progress/Expenditure Report (Attachment D-2) within sixty (60) days after the close of each quarter on the last day of the months November, February, May, and August to the LACMTA Project Manager for review and pre-approval of the applicable report. LACMTA Project Manager shall review and respond in writing to the draft Quarterly Progress/Expenditure Report within thirty (30) calendar days from receipt. GRANTEE shall submit the LACMTA pre-approved Quarterly Progress/Expenditure Report no later than five (5) days after receipt of LACMTA's written approval. Should GRANTEE fail to submit either the draft or pre-approved reports within five (5) days of the due date and/or submit incomplete reports, LACMTA will not reimburse GRANTEE until the completed required reports are received, reviewed, and approved. The Quarterly Progress/Expenditure Reports shall include all appropriate documentation (such as contractor invoices, timesheets, receipts, etc.), and any changes to interim milestone dates that do not impact the final milestone date. All supporting documents must include a clear justification and explanation of their relevance to the Project. If no activity has occurred during a particular quarter, GRANTEE will still be required to submit the Quarterly

Progress/Expenditure Reports indicating no dollars were expended that quarter. If a request for reimbursement exceeds $500,000 in a single month, then GRANTEE can submit such an invoice once per month with supporting documentation. Expenses that are not invoiced to LACMTA Accounts Payable within ninety (90) days after the lapsing date specified in Part II, Section 9.1 below are not eligible for reimbursement.

6.2 GRANTEE shall submit the Project expenditure estimates for the subsequent fiscal year by February of each year. LACMTA will use the estimates to determine the Project budget for the upcoming fiscal year.

6.3 LACMTA, and/or its designee, shall have the right to conduct audits of the Project as deemed appropriate, such as financial and compliance audits, interim audits, pre-award audits, performance audits, and final audits. LACMTA will commence a final audit within six (6) months of receipt of acceptable final invoice, provided the Project is ready for final audit (meaning all costs and charges have been paid by GRANTEE and invoiced to LACMTA, and such costs, charges, and invoices are properly documented and summarized in the accounting records to enable an audit without further explanation or summarization including actual indirect rates for the period covered by the FA period under review). GRANTEE agrees to establish and maintain proper accounting procedures and cash management records and documents in accordance with Generally Accepted Accounting Principles (GAAP). GRANTEE shall reimburse LACMTA for any expenditure not in compliance with the Scope of Work and/or not in compliance with other terms and conditions of this FA. The allowability of costs for GRANTEE's own expenditures submitted to LACMTA for this Project shall be in compliance with Office of Management and Budget (OMB) Circular A-87. The allowability of costs for GRANTEE's contractors, consultants, and suppliers' expenditures submitted to LACMTA through GRANTEE's Quarterly Progress/Expenditures shall be in compliance with OMB Circular A-87 or Federal Acquisition Regulation (FAR) Subpart 31 and 2 CFR Subtitle A, Chapter II, Part 225 (whichever is applicable). Findings of the LACMTA audit are final. When LACMTA audit findings require GRANTEE to return monies to LACMTA, GRANTEE agrees to return the monies within thirty (30) days after the final audit is sent to GRANTEE.

6.4 GRANTEE's records shall include, without limitation, accounting records, written policies and procedures, contract files, original estimates, correspondence, change order files (including documentation covering negotiated settlements), invoices, and any other supporting evidence deemed necessary by LACMTA to substantiate charges related to the Project (all collectively referred to as "records"). Such records shall be open to inspection and subject to audit and reproduction by LACMTA auditors or authorized representatives to the extent deemed necessary by LACMTA to adequately permit evaluation of expended costs. Such records subject to audit shall also include, without limitation, those records deemed necessary by LACMTA to evaluate and verify, direct and indirect costs, (including overhead allocations) as they may apply to costs associated with the Project. These records must be retained by GRANTEE for three (3) years following final payment under this Agreement. Payment of retention amounts shall not occur until after the LACMTA's final audit is completed.

Docusign Envelope ID: 3B666571-7591-426C-A853-F160AEEFACDF

6.5 GRANTEE shall cause all contractors to comply with the requirements of Part II, Section 6, paragraphs 6.3 and 6.4 above. GRANTEE shall cause all contractors to cooperate fully in furnishing or in making available to LACMTA all records deemed necessary by LACMTA auditors or authorized representatives related to the Project.

6.6 LACMTA or any of its duly authorized representatives, upon reasonable written notice, shall be afforded access to all GRANTEE's records and its contractors related to the Project, and shall be allowed to interview any employee of GRANTEE and its contractors through final payment to the extent reasonably practicable.

6.7 LACMTA or any of its duly authorized representatives, upon reasonable written notice, shall have access to the offices of GRANTEE and its contractors, shall have access to all necessary records, including reproduction, at no charge to LACMTA, and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the terms and conditions of this FA.

6.8 When business travel associated with the Project requires use of a vehicle, the mileage incurred shall be reimbursed at the mileage rates set by the Internal Revenue Service (IRS), as indicated in the United States General Services Administration Federal Travel Regulation, Privately Owned Vehicle Reimbursement Rates.

6.9 GRANTEE shall be responsible for ensuring all contractors/ subcontractors for the Project comply with the terms of the Ordinance, the Guidelines, and the Multi-Year Subregional Programs Administrative Procedures. GRANTEE shall cooperate with LACMTA Management Audit Services Department such that LACMTA can meet its obligations under the Ordinance, the Guidelines, and the Multi-Year Subregional Programs Administrative Procedures.

6.10 GRANTEE shall certify each invoice by reviewing all subcontractor costs and maintaining internal control to ensure that all expenditures are allocable, allowable, and reasonable and in accordance with OMB A-87 or FAR subpart 31 and 2 CFR Subtitle A, Chapter II, part 225, (whichever is applicable) and the terms and conditions of this FA.

6.11 GRANTEE shall also certify final costs of the Project to ensure all costs are in compliance with OMB A-87 or FAR subpart 31 and 2 CFR Subtitle A, Chapter II, part 225, (whichever is applicable) and the terms and conditions of this FA.

6.12 In addition to LACMTA's other remedies as provided in this FA, LACMTA may withhold the Funds if the LACMTA audit has determined that GRANTEE failed to comply with the Scope of Work (such as misusing Funds or failure to return Funds owed to LACMTA in accordance with LACMTA audit findings) and /or is severely out of compliance with other terms and conditions as defined by this FA, including the access to records provisions of Part II, Section 6.

7. GRANT

This is a one-time only grant of the Measure M Funds subject to the terms and conditions agreed to herein. This grant does not imply nor obligate any future funding commitment on the part of LACMTA.

8. SOURCES AND DISPOSITION OF FUNDS

8.1 The obligation for LACMTA to grant the Funds for the Project is subject to sufficient Funds being made available for the Project by the LACMTA Board of Directors. If such Funds are not made available as anticipated from Measure M Program revenues, LACMTA will have the right to adjust the cash flow accordingly until such funds become available. LACMTA shall have no obligation to provide any other funds for the Project, unless otherwise agreed to in writing by LACMTA.

8.2 GRANTEE shall fully fund and contribute the GRANTEE Funding Commitment, if any is identified in the Project Funding (Attachment A), towards the cost of the Project. If the Funds identified in Attachment A are insufficient to complete the Project, GRANTEE agrees to secure and provide such additional non-LACMTA programmed funds necessary to complete the Project.

8.3 GRANTEE shall be responsible for any and all cost overruns for the Project pursuant to Section 8.2.

8.4 GRANTEE shall be eligible for the Funds up to the grant amount specified in Part I, Section 2 of this FA subject to the terms and conditions contained herein. Any Funds expended by GRANTEE prior to the Effective Date of this FA shall not be reimbursed nor shall they be credited toward the GRANTEE Funding Commitment requirement, without the prior written consent of LACMTA. GRANTEE Funding Commitment dollars expended prior to the year the Funds are awarded shall be spent at GRANTEE's own risk, or as delineated in a Letter of No Prejudice executed by the prospective GRANTEE and LACMTA.

8.5 If GRANTEE receives outside funding for the Project in addition to the Funds identified in the Project Funding and the Expenditure Plan at the time this grant was awarded, this FA shall be amended to reflect such additional funding. If, at the time of final invoice or voucher, funding for the Project (including the Funds, GRANTEE Funding Commitment, and any additional funding) exceeds the actual Project costs, then the cost savings shall be applied in the same proportion as the sources of funds from each party to this FA as specified in the Project Funding and both the Funds and GRANTEE Funding Commitment required for the Project shall be reduced accordingly. LACMTA shall have the right to use any cost savings associated with the Funds at its sole discretion, including, without limitation, programming the unused Funds to another project or to another grantee within the subregion in accordance with the Ordinance, the Guidelines, and the Multi-Year Subregional Programs Administrative Procedures. If, at the time of final voucher, it is determined that GRANTEE has received Funds in excess of what GRANTEE should have received for the

Project, GRANTEE shall return such overage to LACMTA within thirty (30) days from final voucher.

9. TIMELY USE OF FUNDS / REPROGRAMMING OF FUNDS

9.1 GRANTEE must demonstrate timely use of the Funds by:

(i) Executing this FA within **ninety (90) days** of receiving formal transmittal of the FA from LACMTA, or by December 31 of the first Fiscal Year in which the Funds are programmed, whichever date is later; and
(ii) Beginning Project Design, Preliminary Engineering-(PE) within **six (6) months** from completion of environmental clearance, if appropriate; and
(iii) Executing Contracts for Construction or Capital purchase within **twelve (12) months** from the date of completion of design; and
(iv) Delivering Work in accordance with schedule; changes to the schedule will require an Amendment to Attachment C to reflect updated milestone dates. Meeting the Project milestone due dates as agreed upon by the LACMTA and GRANTEE in Attachment C of this FA; and
(v) Submitting the Quarterly Progress/Expenditure Reports as described in Part II, Section 6.1 of this FA; and
(vi) Expending the Funds granted under this FA for allowable costs within **three years or 36 months** from July 1 of the Fiscal Year in which the Funds are programmed, unless otherwise stated in this FA. All Funds programmed for FY 2022-23 are subject to lapse by June 30, 2025. All Funds programmed for FY 2023-24 are subject to lapse by June 30, 2026.

9.2 In the event that the timely use of the Funds is not demonstrated as described in Part II, Section 9.1 of this FA, the Project will be reevaluated by LACMTA as part of its Annual Update process and the Funds may be reprogrammed to another project by the LACMTA Board of Directors in accordance with the Ordinance, the Guidelines, and the Multi-Year Subregional Programs Administrative Procedures. In the event that all the Funds are reprogrammed, this FA shall automatically terminate.

10. DEFAULT

A Default under this FA is defined as any one or more of the following: (i) GRANTEE fails to comply with the terms and conditions contained herein; and/or (ii) GRANTEE fails to perform satisfactorily or make material changes, as determined by LACMTA at its sole discretion, to the Expenditure Plan, the Scope of Work, or the Project Funding without LACMTA's prior written consent or approval as provided herein.

11. REMEDIES

11.1 In the event of a Default by GRANTEE, LACMTA shall provide written notice of such Default to GRANTEE with a 30-day period to cure the Default. In the event GRANTEE fails to cure the Default, or commit to cure the Default and commence the same within such 30-day period to the satisfaction of LACMTA, LACMTA shall have the following remedies: (i) LACMTA may terminate this FA; (ii) LACMTA may make no further disbursements of Funds to GRANTEE; and/or (iii) LACMTA may recover from GRANTEE any Funds disbursed to GRANTEE as allowed by law or in equity.

11.2 Effective upon receipt of written notice of termination from LACMTA, GRANTEE shall not undertake any new work or obligation with respect to this FA unless so directed by LACMTA in writing. Any Funds expended after termination shall be the sole responsibility of GRANTEE.

11.3 The remedies described herein are non-exclusive. LACMTA shall have the right to enforce any and all rights and remedies herein or which may be now or hereafter available at law or in equity.

12. COMMUNICATIONS

12.1 GRANTEE shall ensure that all Communication Materials contain recognition of LACMTA's contribution to the Project as more particularly set forth in "Funding Recipient Communications Guidelines" available online at http://metro.net/partners-civic. The Funding Recipient Communications Guidelines may be changed from time to time during the course of this Agreement. GRANTEE shall be responsible for complying with the latest Funding Recipient Communications Guidelines during the term of this Agreement, unless otherwise specifically authorized in writing by the LACMTA Chief Communications Officer.

12.2 For purposes of this Agreement, "Communications Materials" include, but are not limited to, press events, public and external newsletters, printed materials, advertising, websites radio and public service announcements, electronic media, and construction site signage. A more detailed definition of "Communications Materials" is found in the Funding Recipient Communications Guidelines.

12.3 The Metro logo is a trademarked item that shall be reproduced and displayed in accordance with specific graphic guidelines. The preferred logo lock-up for Funding Recipients to use is included in the Funding Recipient Communications Guidelines.

12.4 GRANTEE shall ensure that any subcontractor, including, but not limited to, public relations, public affairs, and/or marketing firms hired to produce Project Communications Materials for public and external purposes will comply with the requirements contained in this Section.

12.5 The LACMTA Project Manager shall be responsible for monitoring GRANTEE's compliance with the terms and conditions of this Section. GRANTEE's failure to comply with the terms of this Section shall be deemed a default hereunder and LACMTA shall have all rights and remedies set forth herein.

13. OTHER TERMS AND CONDITIONS

13.1 This FA, along with its Attachments, constitutes the entire understanding between the parties, with respect to the subject matter herein. The FA shall not be amended, nor any provisions or breach hereof waived, except in writing signed by the parties who agreed to the original FA or the same level of authority. Adoption of revisions or supplements to the Guidelines shall cause such revisions or supplements to become incorporated automatically into this Agreement as though fully set forth herein.

13.2 GRANTEE is obligated to continue using the Project dedicated to the public transportation purposes for which the Project was initially approved. The Project right-of-way, the Project facilities constructed or reconstructed on the Project site, and/or Project property purchased, excluding construction easements and excess property (whose proportionate proceeds shall be distributed in an equal proportion of the grant to GRANTEE Funding Commitment ratio), shall remain dedicated to public transportation use in the same proportion and scope and to the same extent as described in this FA. Equipment acquired as part of the Project, including office equipment, and vehicles, shall be dedicated to that use for their full economic life cycle, including any extensions of that life cycle achieved by reconstruction, rehabilitation, or enhancements.

13.3 In the event that there is any legal court (e.g., Superior Court of the State of California, County of Los Angeles, or the U.S. District Court for the Central District of California) proceeding between the parties to enforce or interpret this FA, to protect or establish any rights or remedies hereunder, the prevailing party shall be entitled to its costs and expenses, including reasonable attorney's fees.

13.4 Neither LACMTA nor any officer or employee thereof shall be responsible for any damage or liability occurring by reason of anything done or committed to be done by GRANTEE under or in connection with any work performed by and or service provided by GRANTEE, its officers, agents, employees, contractors, and subcontractors under this FA. GRANTEE shall fully indemnify, defend and hold LACMTA and its subsidiaries, and its officers, agents and employees harmless from and against any liability and expenses, including without limitation, defense costs, any costs or liability on account of bodily injury, death or personal injury of any person or for damage to or loss of risk of property, any environmental obligation, any legal fees and any claims for damages of any nature whatsoever arising out of the Project, including without limitation: (i) use of the Funds by GRANTEE, or its officers, agents, employees, contractors or subcontractors; (ii) breach of GRANTEE's obligations under this FA; or (iii) any act or omission of GRANTEE, or its officers, agents, employees, contractors or subcontractors in the performance of the work or the provision of the services, in connection with the Project including, without limitation, the Scope of Work, described in this FA.

Docusign Envelope ID: 3B666571-7591-426C-A853-F160AEEFACDF

13.5 Neither party hereto shall be considered in default in the performance of its obligation hereunder to the extent that the performance of any such obligation is prevented or delayed by unforeseen causes including acts of God, acts of a public enemy, and government acts beyond the control and without fault or negligence of the affected party. Each party hereto shall give notice promptly to the other of the nature and extent of any such circumstances claimed to delay, hinder, or prevent performance of any obligations under this FA.

13.6 GRANTEE shall comply with and ensure that work performed under this FA is done in compliance with Generally Accepted Accounting Principles (GAAP), all applicable provisions of federal, state, and local laws, statutes, ordinances, rules, regulations, and procedural requirements including Federal Acquisition Regulations (FAR), and the applicable requirements and regulations of LACMTA. GRANTEE acknowledges responsibility for obtaining copies of and complying with the terms of the most recent federal, state, or local laws and regulations, and LACMTA requirements including any amendments thereto.

13.7 GRANTEE agrees that the applicable requirements of this FA shall be included in every contract entered into by GRANTEE or its contractors relating to work performed under this FA and LACMTA shall have the right to review and audit such contracts.

13.8 GRANTEE shall not assign this FA, or any part thereof, without prior approval of the LACMTA Chief Executive Officer or his designee. Any assignment by GRANTEE without said prior consent by LACMTA shall be void and unenforceable.

13.9 This FA shall be governed by California law. If any provision of this FA is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall nevertheless continue in full force without being impaired or invalidated in any way.

13.10 The covenants and agreements of this FA shall inure to the benefit of, and shall be binding upon, each of the parties and their respective successors and assigns.

13.11 GRANTEE will advise LACMTA prior to any key Project staffing changes. Notice will be given to the parties at the address specified in Part I, unless otherwise notified in writing of change of address or contact person.

13.12 GRANTEE, in the performance of the work described in this FA, is not a contractor nor an agent or employee of LACMTA. GRANTEE attests to no organizational or personal conflicts of interest and agrees to notify LACMTA immediately in the event that a conflict, or the appearance thereof, arises. GRANTEE shall not represent itself as an agent or employee of LACMTA and shall have no powers to bind LACMTA in contract or otherwise.

Docusign Envelope ID: 3B666571-7591-426C-A853-F160AEEFACDF

ATTACHMENT A -PROJECT FUNDING

Measure M MSP - Modal Connectivity and Complete Streets Projects - Funding Agreement Projects - FA#: 9200000000M410111

Project Title: Pedestrian Crossing Devices Project ID#: MM4101.11

PROGRAMMED BUDGET - SOURCES OF FUNDS

SOURCES OF FUNDS	Prior Years	FY2021-22	FY2022-23	FY2023-24	FY2024-25	FY2025-26	Total Budget	% of Budget
LACMTA PROGRAMMED FUNDING								
MEASURE M MSP FUNDS			$ 200,000	$ 122,624			$ 322,624	
SUM PROG LACMTA FUNDS	$ -	$ -	$ 200,000	$ 122,624	$ -	$ -	$ 322,624	**100%**
OTHER NON LACMTA FUNDING:								
LOCAL:							$ -	0%
STATE:							$ -	0%
FEDERAL:							$ -	0%
PRIVATE OR OTHER:							$ -	0%
SUM NON-LACMTA FUNDS	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**0**
TOTAL PROJECT FUNDS	**$ -**	**$ -**	**$ 200,000**	**$ 122,624**	**$ -**	**$ -**	**$ 322,624**	**100%**

Docusign Envelope ID: 3B666571-7591-426C-A853-F160AEEFACDF

ATTACHMENT B - EXPENDITURE PLAN COST & CASH FLOW BUDGET

Measure M MSP - Modal Connectivity and Complete Streets Projects - Funding Agreement Projects - FA#: 9200000000M410111
Project Title: Pedestrian Crossing Devices Project ID#: MM4101.11

PROGRAMMED SOURCES OF FUNDS

SOURCES OF FUNDS	FY 2023-24 Qtr 1	FY 2023-24 Qtr 2	FY 2023-24 Qtr 3	FY 2023-24 Qtr 4	FY 2024-25 Qtr 1	FY 2024-25 Qtr 2	FY 2024-25 Qtr 3	FY 2024-25 Qtr 4	TOTAL BUDGET
LACMTA PROGRAMMED FUNDS:									
MEASURE M MSP FUNDS:									
Planning Activities/Prog Dev									$0
Environmental									$0
Design and PS&E				$55,000					$55,000
Right-of-Way Acquisition									$0
Construction					$145,000	$122,624			$267,624
Vehicle Purchase									$0
Others									$0
Total Measure M	$0	$0	$0	$55,000	$145,000	$122,624	$0	$0	$322,624
SUM PROG LACMTA FUNDS:	$0	$0	$0	$55,000	$145,000	$122,624	$0	$0	$322,624
OTHER NON LACMTA FUNDING:									
LOCAL: [INSERT SOURCE]									
Planning Activities/Prog Dev									$0
Environmental									$0
Design and PS&E									$0
Right-of-Way Acquisition									$0
Construction									$0
Vehicle Purchase									$0
Others									$0
Total LOCAL	$0	$0	$0	$0	$0	$0	$0	$0	$0
STATE: [INSERT SOURCE]									
Planning Activities/Prog Dev									$0
Environmental									$0
Design and PS&E									$0
Right-of-Way Acquisition									$0
Construction									$0
Vehicle Purchase									$0
Others									$0
Total STATE	$0	$0	$0	$0	$0	$0	$0	$0	$0
FEDERAL: [INSERT SOURCE]									
Planning Activities/Prog Dev									$0
Environmental									$0
Design and PS&E									$0
Right-of-Way Acquisition									$0
Construction									$0
Vehicle Purchase									$0
Others									$0
Total FEDERAL	$0	$0	$0	$0	$0	$0	$0	$0	$0
PRIVATE: [INSERT SOURCE]									
Planning Activities/Prog Dev									$0
Environmental									$0
Design and PS&E									$0
Right-of-Way Acquisition									$0
Construction									$0
Vehicle Purchase									$0
Others	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total PRIVATE	$0	$0	$0	$0	$0	$0	$0	$0	$0
SUM NON-LACMTA FUNDS :	$0	$0	$0	$0	$0	$0	$0	$0	$0
PROJECT FUNDING FY2023-24 and FY2024-25	$0	$0	$0	$55,000	$145,000	$122,624	$0	$0	$322,624
TOTAL LACMTA FUNDS	$0	$0	$0	$55,000	$145,000	$122,624	$0	$0	$322,624
TOTAL NON-LACMTA FUNDS	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL PROJECT FUNDING	$0	$0	$0	$55,000	$145,000	$122,624	$0	$0	$322,624

Docusign Envelope ID: 3B666571-7591-426C-A853-F160AEEFACDF

ATTACHMENT C
SCOPE OF WORK
CAPITAL PROJECT

PROJECT NAME: Pedestrian Crossing Devices

PROJECT LOCATION/LIMITS/AREA:

The project is located at three (3) different intersections in the City of South Pasadena.

1. **Meridian Avenue and Bank Street**
2. **Grevelia Street and Park Avenue**
3. **Fair Oaks Avenue and Spruce Street**

PROJECT DESCRIPTION INCLUDING MULTI-YEAR SUBREGIONAL PROGRAM AND PROJECT NEXUS:

The project consists of the installation of enhanced pedestrian crossing devices, including accommodating and meeting ADA curb standards for substandard ramps. Potential pedestrian devices include High Intensity Activated Crosswalk (HAWK) Beacons, Pedestrian Hybrid Beacons (PHBs), Rectangular Rapid-Flashing Beacons (RRFBs), and other devices deemed appropriate for the selected location(s). The location and number of devices will depend on the feasibility analysis of each intersection. Additionally, curb ramps that do not meet ADA standards will be modified to comply with ADA accessibility requirements.

The locations considered for RRFBs include 1) Meridian Avenue and Bank Street, which would support pedestrian and student access to South Pasadena High School, and 2) Grevelia Street and Park Avenue, which has notable pedestrian traffic given the adjacent housing that is zoned for Residential High Density (RH). It has the most intense land use in the City, is surrounded by multi-family housing, and is situated a block away from Garfield Park, a popular location for residents to walk, exercise, and engage in leisure activities.

The location considered for HAWK/PHBs is Fair Oaks Avenue and Spruce Street, which would support pedestrian and student access and connectivity to South Pasadena Middle School, which is two blocks north, and Marengo Elementary School, which is four blocks away. The existing street is approximately 116 feet wide with six travel lanes in total and one parking curb in each direction. The existing standard crosswalk is unsignalized.

Due to the limited budget, different types of options are being considered. RRFBs may be installed at up to three locations, High-Intensity Activated Crosswalk (HAWK) Beacons/Pedestrian Hybrid Beacons (PHBs) may be installed at up to two locations or a combination of devices may be installed at multiple sites.

Docusign Envelope ID: 3B666571-7591-426C-A853-F160AEEFACDF

PROJECT FUNDING:

PHASE	LACMTA – MEASURE M FUNDS	LOCAL AGENCY (IF ANY)	TOTAL
Design and Plans, Specification & Estimate (PS&E)	$55,000.00		$55,000.00
Construction	$267,624.00		$267,624.00
TOTAL BUDGET COST	**$322,624.00**		**$322,624.00**

ESTIMATED PROJECT COSTS:

ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
Design and Plans, Specification & Estimate (PS&E)	1	LS	$55,000.00	$55,000.00
Construction Costs—Pedestrian Crossing Control Equipment Rectangular Rapid Flashing Beacons (RRFB)	2	EA	$76,312.00	$152,624.00
Construction Costs—Pedestrian High Intensity Activated Crosswalk (HAWK)	1	EA	$115,000.00	$115,000.00
Construction Subtotal				$267,624.00
***GRAND TOTAL**				**$322,624.00**

**Construction for Fair Oaks Avenue/Spruce Street is subject to change depending on feasibility for this location. Cost may be lower if an RRFB is more appropriate instead of a HAWK at Fair Oaks Avenue/Spruce Street.*
EA denotes: Each.

Docusign Envelope ID: 3B666571-7591-426C-A853-F160AEEFACDF

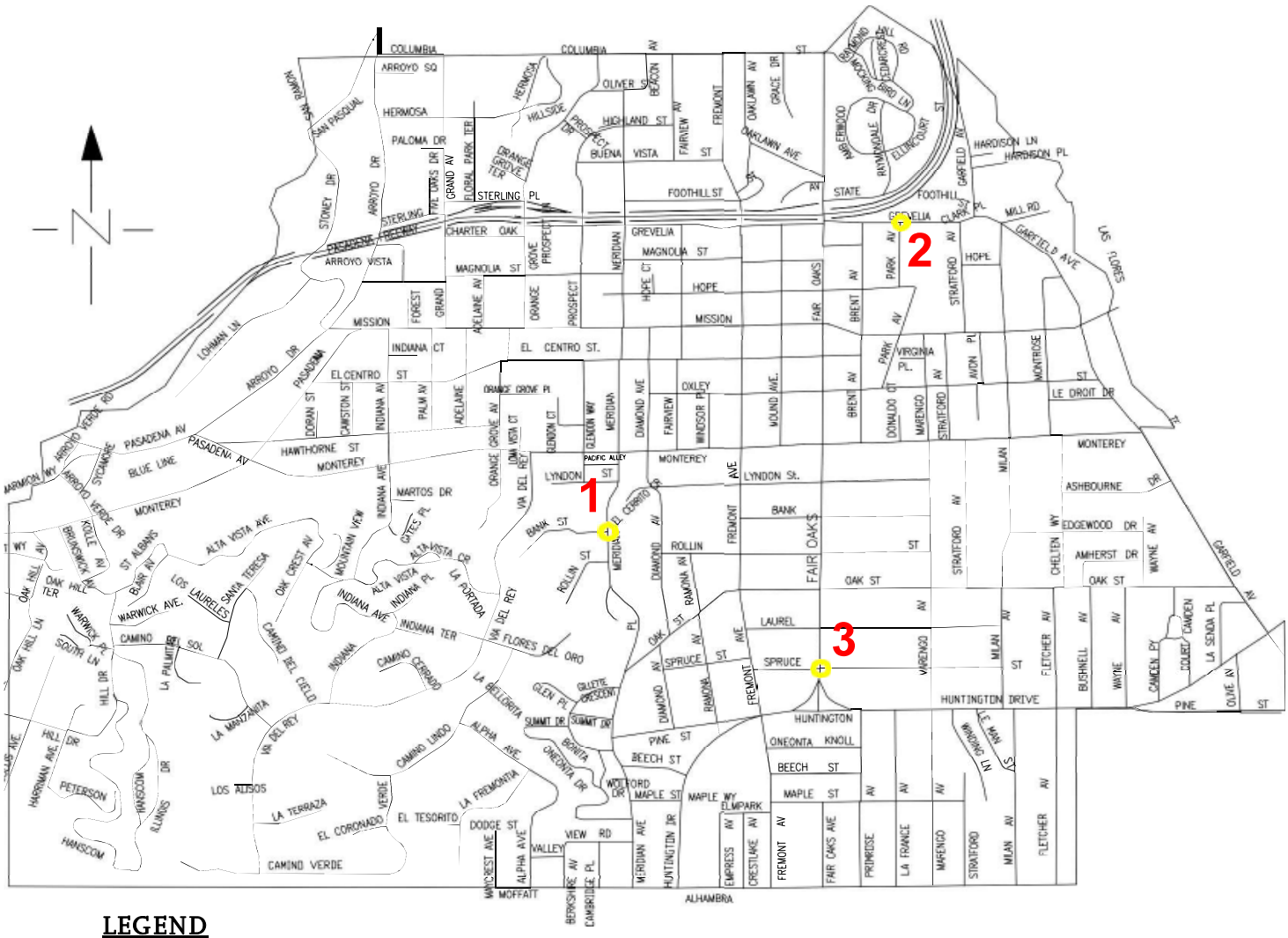
PROJECT DETAILED SCHEDULE:

MILESTONES	BEGIN	END	DURATION (MONTHS)
SOLICITATION (BID/PROPOSAL) PHASE	January 2024	May 2024	5
Develop Scope of Work for RFP/On-Call Professional Services	January 2024	February 2024	2
Select On-Call Professional Service Consultant	February 2024	February 2024	1
Develop Task Order	February 2024	March 2024	2
Mobility and Transportation Infrastructure Commission (MTIC) Review	March 2024	April 2024	2
City Council Approval	April 2024	May 2024	2
PLANNING PHASE	May 2024	May 2024	1
Public Notification	May 2024	May 2024	1
ENVIRONMENTAL PHASE	May 2024	June 2024	2
Environmental Studies (Categorical Exemption)	May 2024	June 2024	1
DESIGN AND PLANS, SPECIFICATION & ESTIMATE (PS&E) PHASE	June 2024	August 2024	3
Design Feasibility	June 2024	June 2024	1
Design and Plans, Specification & Estimates (PS&E)	June 2024	August 2024	3
CONSTRUCTION PHASE	September 2024	August 2025	12
Develop Solicitation Construction Package	September 2024	October 2024	2
Solicitation Response	October 2024	October 2024	1
Evaluations	October 2024	November 2024	2
Selection	October 2024	November 2024	2
City Council Approval	December 2024	January 2025	2
Contract Award	December 2024	January 2025	2
Fully Executed Contract	February 2025	February 2025	1
Construction	March 2025	August 2025	6

Docusign Envelope ID: 3B666571-7591-426C-A853-F160AEEFACDF

PROJECT MAP:

City of South Pasadena
RRFB/HAWK Pedestrian Crosswalk Project



LEGEND

1. MERIDIAN AVENUE AND BANK STREET
2. GREVELIA STREET AND PARK AVENUE
3. FAIR OAKS AVENUE AND SPRUCE STREET

Docusign Envelope ID: 3B666571-7591-426C-A853-F160AEEFACDF

FA ATTACHMENT D
PROJECT REPORTING & EXPENDITURE GUIDELINES

REPORTING PROCEDURES

- Quarterly Progress/Expenditure Report (**Attachment D-2**) are required for all projects. The GRANTEE shall be subject to and comply with all applicable requirements of the funding agency regarding project-reporting requirements. In addition, GRANTEE will submit the Quarterly Expenditure Report to the LACMTA, after receiving LACMTA Project Manager's acceptance of the draft report, at ACCOUNTSPAYABLE@METRO.NET or by mail to **Los Angeles Metropolitan Transportation Authority, Accounts Payable, P. O. Box 512296, Los Angeles, California 90051-0296.** Please note that letters or other forms of documentation may **not** be substituted for this form.

- The Quarterly Progress/Expenditure Report covers all activities related to the project and lists all costs incurred. It is essential that GRANTEE provides complete and adequate response to all the questions. The expenses listed must be supported by appropriate documentation with a clear explanation of the purpose and relevance of each expense to the project.

- In cases where there are no activities to report, or problems causing delays, clear explanation, including actions to remedy the situation, must be provided.

- GRANTEE is required to track and report on the project schedule. LACMTA will monitor the timely use of funds and delivery of projects. Project delay, if any, must be reported each quarter.

- The draft Quarterly Expenditure Report is due to the LACMTA as soon as possible after the close of each quarter, but no later than the following dates for each fiscal year:

Quarter	*Report Due Date*
July –September	November 30
October - December	February 28
January - March	May 31
April - June	August 31

LACMTA Project Manager shall review and respond in writing to the draft Quarterly Expenditure Report within thirty (30) calendar days from receipt.

Upon completion of the Project a final report that includes project's final evaluation must be submitted.

Docusign Envelope ID: 3B666571-7591-426C-A853-F160AEEFACDF

EXPENDITURE GUIDELINES

- Any activity or expense charged above and beyond the approved Scope of Work (FA Attachment C) **is considered ineligible** and will not be reimbursed by the LACMTA unless **prior written authorization** has been granted by the LACMTA Chief Executive Officer or his designee.

- Any expense charged to the grant must be clearly and directly related to the project.

- Administrative cost is the ongoing expense incurred by the GRANTEE for the duration of the project and for the direct benefit of the project as specified in the Scope of Work (Attachment C). Examples of administrative costs are personnel, office supplies, and equipment. As a condition for eligibility, all costs must be necessary for maintaining, monitoring, coordinating, reporting and budgeting of the project. Additionally, expenses must be reasonable and appropriate to the activities related to the project.

- LACMTA is not responsible for, and will not reimburse any costs incurred by the GRANTEE prior to the Effective Date of the FA, unless **written authorization** has been granted by the LACMTA Chief Executive Officer or his designee.

DEFINITIONS

- Allowable Cost: To be allowable, costs must be reasonable, recognized as ordinary and necessary, consistent with established practices of the organization, and consistent with industry standard of pay for work classification.

- Excessive Cost: Any expense deemed "excessive" by LACMTA staff would be adjusted to reflect a "reasonable and customary" level. For detail definition of "reasonable cost", please refer to the Federal Register *OMB Circulars A-87 Cost Principals for State and Local Governments; and A-122 Cost Principals for Nonprofit Organizations*.

- Ineligible Expenditures: Any activity or expense charged above and beyond the approved Scope of Work is considered ineligible.

LACMTA FA MEASURE M ATTACHMENT D-2

QUARTERLY PROGRESS/EXPENDITURE REPORT

Grantee To Complete	
Invoice #	
Invoice Date	
FA#	9200000000M410111
Quarterly Report #	1

GRANTEES ARE REQUESTED TO EMAIL THIS REPORT TO
ACCOUNTSPAYABLE@METRO.NET
or submit by mail to:
Los Angeles County Metropolitan Transportation Authority
Accounts Payable
P. O. Box 512296
Los Angeles, California 90051-0296

Please note that letters or other forms of documentation may **not** be substituted for this form. Refer to the Reporting and Expenditure Guidelines (Attachment D) for further information.

SECTION 1: QUARTERLY EXPENSE REPORT

Please itemize grant-related charges for this Quarter on Page 5 of this report and **include totals in this Section.**

	LACMTA Measure M MSP Grant $
Project Quarter Expenditure	
This Quarter Expenditure	$ -
Retention Amount	$ -
Net Invoice Amount (Less Retention)	$ -
Project-to-Date Expenditure	
Funds Expended to Date (Include this Quarter)	$ -
Total Project Budget	$ 322,624
% of Project Budget Expended to Date	
Balance Remaining	**$ 322,624**

SECTION 2: GENERAL INFORMATION

PROJECT TITLE: **Pedestrian Crossing Devices**

FA #: 9200000000M410111

QUARTERLY REPORT SUBMITTED FOR:

Fiscal Year :

☐ 2021-22 ☐ 2022-23 ☐ 2023-24
☐ 2024-25 ☐ 2025-26 ☐ 2026-27

Quarter :

☐ Q1: Jul - Sep ☐ Q2: Oct - Dec
☐ Q3: Jan - Mar ☐ Q4: Apr - Jun

DATE SUBMITTED: _____

Measure M Multi-Year Subregional Program Type: Modal Connectivity and Complete Streets Projects

LACMTA Project Manager	Name:	Kathy Park
	Phone Number:	213-922-6162
	E-mail:	ParkK@metro.net

Grantee Contact / Project Manager	Contact Name:	Reyna Salazar-Martin
	Job Title:	Management Analyst
	Department:	Department of Public Works
	City / Agency:	City of South Pasadena
	Mailing Address:	1414 Mission Street, South Pasadena, CA 91030
	Phone Number:	626-403-7373
	E-mail:	RSmartin@southpasadenaca.gov

SECTION 3 : QUARTERLY PROGRESS REPORT

1. DELIVERABLES & MILESTONES

List all deliverables and milestones as stated in the FA, with start and end dates. Calculate the total project duration. ***DO NOT CHANGE THE ORIGINAL FA MILESTONE START AND END DATES SHOWN IN THE 2ND AND 3RD COLUMNS BELOW.***

Grantees must make every effort to accurately portray milestone dates in the original FA Scope of Work, since this will provide the basis for calculating any project delay. If milestone start and/or end dates change from those stated in the Original FA Scope of Work, indicate the new dates under Actual Schedule below and re-calculate the project duration. However, this does not change the original milestones in your FA. PER YOUR FA AGREEMENT, ANY CHANGES TO THE PROJECT SCHEDULE MUST BE FORMALLY SUBMITTED UNDER SEPARATE COVER TO LACMTA FOR WRITTEN CONCURRENCE.

FA Milestones	Original FA Schedule in Scope of Work		Actual Schedule	
	Start Date	End Date	Start Date	End Date
Environmental				
Design				
Right-of-Way Acquisition				
Construction				
Vehicle Purchase				
Others				
Ground Breaking Event				
Ribbon Cutting Event				
Total Project Duration (Months)				

2. PROJECT COMPLETION

A. Based on the comparison of the original and actual project milestone schedules above, project is (select only one) :

☐ On schedule per original FA schedule
☐ Less than 12 months behind original schedule
☐ Between 12-24 months behind original schedule
☐ More than 24 months behind original schedule

B. Was the project design started within 6 months of the date originally stated in the FA?

☐ Yes ☐ No ☐ Not Applicable

C. Was a construction contract or capital purchase executed within 9 months after completion of design / specifications?

☐ Yes ☐ No ☐ Not Applicable

3. TASKS / MILESTONES ACCOMPLISHED

List tasks or milestones accomplished and progress made this quarter.

4. PROJECT DELAY

If project is delayed, describe reasons for delay (this quarter). Pay particular attention to schedule delays.

5. ACTION ITEMS TO RESOLVE DELAY

If the project is delayed (as described in #4), include action items that have been, or will be, undertaken to resolve the delay.

6. UPCOMING QUARTERLY TASKS / MILESTONES

List tasks or milestones expected to be accomplished next quarter.

7. PLAN EXPENDITURES

Provide expected expenditures (estimated) for next quarter.

SECTION 4. ITEMIZED LISTING OF EXPENSES AND CHARGES THIS QUARTER

All expenses and charges must be itemized and listed below. Each item listed must be verifiable by an invoice and/or other proper documentation. The total amounts shown here must be equal to this quarter's expenditures listed on page 1 of this report. All expenses and charges must be reflective of the approved budget and rates as shown in the FA Attachment C, Scope of Work. Use additional pages if needed.

	ITEM	INVOICE #	Invoice Reference Pg(s)	TOTAL EXPENSES CHARGED TO LACMTA MEASURE M GRANT
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
	TOTAL			$ -

Note:
All receipts, invoices, and time sheets, attached and included with this Expense Report must be listed and shown under the Invoice Number column of the Itemized Listing (above).

Invoice Payment Information:

LACMTA will make all disbursements electronically unless an exception is requested in writing. Reimbursements via Automated Clearing House (ACH) will be made at no cost to GRANTEE. GRANTEE must register in LACMTA's iSupplier portal and submit an application before grant payments can be made. The link to the portal can be found at http://media.metro.net/uploads/EBB/Vendor Portal Registration.pdf.
Written exception requests for Check Payments should be completed and emailed to Accounts Payable at ACCOUNTSPAYABLE@METRO.NET.

I certify that I am the responsible Project Manager or fiscal officer and representative of **City of South Pasadena** and that to the best of my knowledge and belief the information stated in this report is true and correct.

Signature _____ *Date* _____

Name _____ *Title* _____

Docusign Envelope ID: 3B666571-7591-426C-A853-F160AEEFACDF

ATTACHMENT E
BOND REQUIREMENTS

The provisions of this Attachment E apply only if and to the extent some or all of the Funds are derived from LACMTA issued Bonds or other debt, the interest on which is tax exempt for federal tax purposes (collectively, the "Bonds").

GRANTEE acknowledges that some or all of the Funds may be derived from Bonds, the interest on which is tax-exempt for federal tax purposes. GRANTEE further acknowledges its understanding that the proceeds of the Bonds are subject to certain ongoing limitations relating to the use of the assets financed or provided with such proceeds ("Project Costs" or "Project Components") in the trade or business of any person or entity other than a governmental organization (any such use by a person or entity other than a governmental organization is referred to as "Private Use"). Private Use will include any sale, lease or other arrangement pursuant to which a nongovernmental person or entity receives a legal entitlement of a Project Component and also includes certain agreements pursuant to which a nongovernmental person will operate or manage a Project Component. Each quarterly invoice submitted by GRANTEE to reimburse prior expenditures (or to be received as an advance) shall provide information regarding the specific Project Costs or Project Components to which the Funds which pay that invoice will be allocated and whether there is or might be any Private Use associated with such Project Costs or Project Components. GRANTEE will, for the entire time over which LACMTA's Bonds or other debt remains outstanding, (1) notify and receive LACMTA' s approval prior to entering into any arrangement which will or might result in Private Use and (2) maintain records, including obtaining records from contractors and subcontractors as necessary, of all allocations of Funds to Project Costs or Project Components and any Private Use of such Project Costs or Project Components in sufficient detail to comply and establish compliance with Section 141 of the Internal Revenue Code of 1986, as amended (the "Code"), or similar code provision then in effect and applicable, as determined by LACMTA in consultation with its bond counsel.

GRANTEE will designate one or more persons that will be responsible for compliance with the obligations described in this Attachment E and notify LACMTA of such designations.

City Council
Agenda Report

ITEM NO. 9

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Nick Kimball, Assistant City Manager/CFO

SUBJECT: **CONSIDERATION TO APPROVE THE PROPOSED REORGANIZATION OF THE FINANCE DEPARTMENT; ADOPT RESOLUTION NO. 8039 AMENDING THE TABLE OF ORGANIZATION AND RELATED JOB CLASSIFICATIONS TO EFFECTUATE THE REORGANIZATION; AND AUTHORIZE A CLASSIFICATION STUDY RELATED TO THE FINANCE DEPARTMENT MANAGEMENT ANALYST POSITION**

Recommendation
It is recommended that the City Council:

a. Approve the proposed reorganization plan for the Finance Department (Attachment 1);
b. Adopt Resolution No. 8039 amending the Table of Organization and updating the related job classification specifications necessary to effectuate the propose reorganization plan (Attachment 2);
c. Authorize the Human Resources Department to conduct a classification study (desk audit) of the Management Analyst position in the Finance Department; and
d. Authorize the City Manager to City Manager to effectuate reclassification of the Management Analyst to a Senior Management Analyst if warranted by the classification study.

Executive Summary
The Finance Department has been fully staffed for approximately one year, with eleven (11) full-time positions, one (1) temporary contract position, and no vacancies. Over that period, the responsibilities of each position and the working relationships among the Department's functions have become more defined. This report proposes a revised organizational structure intended to align reporting relationships with the Department's day-to-day operational needs.

The proposal contains five actions: (1) reclassify the Accounting Manager/Controller to Deputy Finance Director/Controller; (2) assign the Accounts Payable function, currently performed by a contract temporary employee, to the existing Management Assistant; (3) change the Management Assistant's reporting line to the Deputy Finance Director/Controller; (4) retitle the Budget and Purchasing Manager to Budget and Finance Manager; and (5) initiate a desk audit to determine whether the Management Analyst position warrants reclassification to Senior Management Analyst.

The proposal adds no positions; Department staffing remains at 11 full-time positions. The net

fiscal impact is described in the Fiscal Impact section.

Background
In December 2025, the City filled the final vacancy by onboarding the Senior Accountant.

On June 17, 2026, City Council adopted the FY 2026-27 Budget, which included the work plan and organization chart for each City department, including the Finance Department.

On July 1, 2026, the City executed a final amendment to a temporary staffing contract with MV Cheng Associates through June 30, 2027 as the City finalizes the transition of all finance operations activities to full-time staff.

On September 16, 2026, City Council approved an amendment to a temporary staffing contract with Robert Half International, Inc. through December 31, 2026 as the City finalizes the transition of all finance operations activities to full-time staff.

Analysis
Over the past few years, there have been significant changes in the City's Finance Department. Due to staffing challenges caused by turnover and persistent vacancies, the City contracted most of its financial operations to a professional accounting firm to ensure business continuity. In mid-2025, the City began rebuilding the Finance Department with the goal of transitioning financial operations from a contract service to in-house professional staff. There were also a number of new positions created, including a Procurement & Contracts Administrator and CIP Analyst, to address certain knowledge and skill gaps.

The Department was able to complete the hiring processes and has been fully staffed since December 2025. Over the prior twelve months, staff reviewed position responsibilities, workload distribution, and reporting relationships and identified a number of changes to better align staff resources to operational needs.

The Finance Department is currently divided into three functional areas:

1. Accounting: Accounts receivable and payable, cashiering, payroll, auditing, general ledger journal entry, and investment management.
2. Budget and Purchasing: Budget preparation, purchasing and budget analysis, Finance Commission staffing, financial analysis, acquisitions and contracting, special district administration, and debt management.
3. Information Technology Services: Technology applications and systems, IT security, and technology management services contractor.

These functional areas, organized into Divisions, currently provide a framework for adequate division of labor and internal control processes. However, there are some gaps in day-to-day management and ambiguity in reporting structure that need to be addressed to complete the final transition of duties from temporary staffing to full-time staff. The findings and recommendations are summarized below and in Table 1.

Findings

Reclassify Accounting Manager/Controller to Deputy Finance Director/Controller. The position currently reports to the CFO and manages the Accounting function. The CFO also serves as

Assistant City Manager, which limits availability to manage the Department's day-to-day operations. The Deputy Finance Director/Controller classification combines the Controller function with additional Department management responsibilities, including supervision of Management Assistant and Accounts Payable function, continued coordination with Budget and Purchasing, and authority to act in the CFO's absence.

Reassign Accounts Payable responsibilities from contractor to the Management Assistant. Accounts Payable is currently performed by a temporary contractor whose assignment is ending in December 2026. The proposed re-assignment moves the function to an existing City classification within the Accounting area.

Management Assistant to report to the Deputy Finance Director/Controller. The position, which was previously shared between the Accounting Division and the Budget & Purchasing Division, will be moved to the Accounting Division and report to the Deputy Finance Director/Controller. The revised reporting line places the Accounts Payable function under the Controller's direct supervision, consistent with the Controller's responsibility for financial reporting and the general ledger.

Reclassify Budget and Purchasing Manager to Budget and Finance Manager. The position's current responsibilities include budget development and analysis, financial analysis, Commission staffing, and oversight of purchasing and contracting. The revised title reflects the range of financial responsibilities of the position to include debt management and special financing district oversight. No change in salary range is proposed.

Initiate desk audit of the Management Analyst position. The Management Analyst performs financial analysis, budget support, Commission staffing, special project management, and administrative support. The proposed desk audit will compare the position's current duties against the Management Analyst and Senior Management Analyst job specifications and will be conducted by Human Resources to determine if a class adjustment is appropriate based on current level of responsibility.

Table 1: Summary of Proposed Reorganization Changes

Classification	Division	Proposed Action
Assistant City Manager/CFO	Administration	None
Accounting Manager/Controller	Accounting	Reclassify to Deputy Finance Director/Controller
Senior Accountant	Accounting	None
Accountant (Payroll)	Accounting	None
Accounting Technician	Accounting	None
Management Assistant	Accounting and Budget & Purchasing	Move to Accounting Division and assign A/P duties
Budget & Purchasing Manager	Budget & Purchasing	Reclassify to Budget & Finance Manager
Management Analyst	Budget & Purchasing	Conduct Classification Study (Desk Audit)
CIP Analyst	Budget & Purchasing	None
Procurement and Contracts Administrator	Budget & Purchasing	None

Information Technology and Systems Manager	Information Technology	None

The proposed reorganization aligns the Department's reporting structure and classification titles with the responsibilities positions have performed since the Department reached full staffing, and assigns the Accounts Payable function to a City position.

Fiscal Impact
The proposed reorganization does not increase the number of authorized full-time staff in the Finance Department.

- The annual cost to reclassify the Accounting Manager/Controller to Deputy Finance Director/Controller is minimal (less than $1,000 per year), however this action provides an additional step in the salary range, increasing the maximum compensation by approximately $10,000 per year.

- There is no cost associated with reclassifying the Budget & Purchasing Manager to Budget & Finance Manager.

- There is no cost associated with conducting a desk audit class study of the Management Analyst position as it is included in the Human Resource Department work plan. If it is ultimately determined to be working out of class and therefore reclassified to a Senior Management Analyst, the annual cost would be approximately $8,968 per year.

The estimated costs are offset by the termination of the temporary staffing contracts, which cost approximately $65,000 per year.

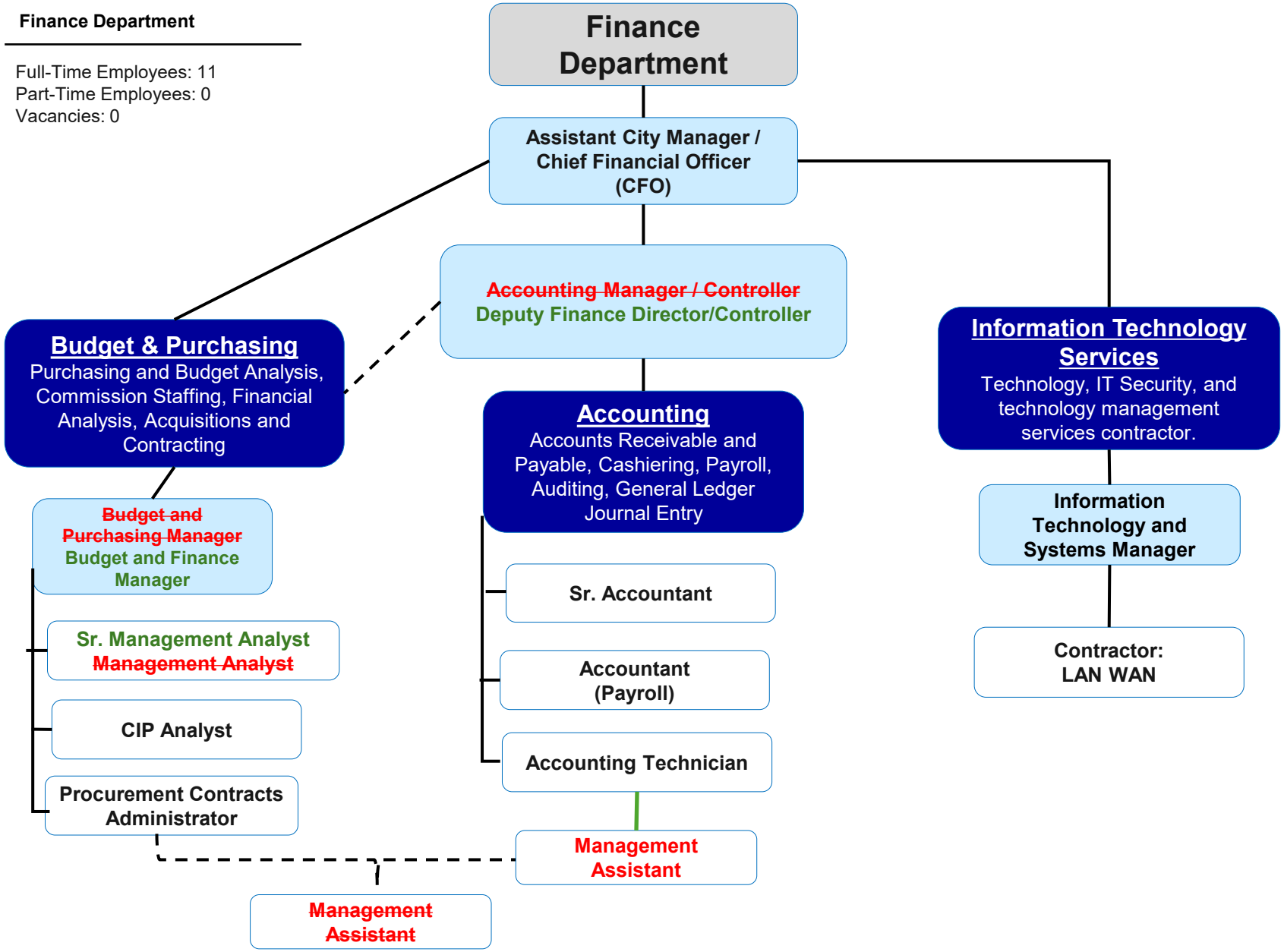
Attachment:
Attachment 1 - Finance Department Reorg - Revised Org Chart.
Attachment No. 2 - Resolution No. 8039 - Finance Department Reorg (10-21-2026)

Proposed Revised Org. Chart

ATTACHMENT 1

Finance Department

Full-Time Employees: 11
Part-Time Employees: 0
Vacancies: 0



ATTACHMENT 2

RESOLUTION NO. 8039

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOUTH PASADENA, CALIFORNIA, TO AMEND THE FISCAL YEAR 2026-2027 TABLE OF ORGANIZATION TO REFLECT THE FINANCE DEPARTMENT REORGANATION AND ADOPT THE REVISED JOB SPECIFICATIONS FOR THE DEPUTY FINANCE DIRECTOR/CONTROLLER AND BUDGET & FINANCE MANAGER.

WHEREAS, the City of South Pasadena adopted the Fiscal Year (FY) 2026-2027 Budget on June 17, 2026, which included authorized and funded positions for the fiscal year; and

WHEREAS, the City Council adopted Resolution No. 8017 on July 15, 2026 establishing the FY 2026-2027 Table of Organization reflecting the authorized and funded positions in the Adopted Budget; and

WHEREAS, the City Council adopted Resolution No. 8018 on July 15, 2026 amending the FY 2026-2027 Table of Organization to effectuate the following changes: (1) add two full-time Customer Success Representatives, (2) add one limited-term Management Intern, (3) reclassify one Management Analyst to one Senior Management Analyst, (4) reclassify one Deputy Police Chief to one Police Captain, (5) delete one Police Clerk II, and (6) delete on Environmental and Sustainability Manager; and

WHEREAS, the City Council adopted Resolution No. 8027 on September 16, 2026 amending the FY 2026-2027 Table of Organization to effectuate the following changes: (1) delete three part-time Police Cadets, and (2) add one full-time Police Cadet II; and

WHEREAS, the City periodically reviews its staffing allocations to ensure that authorized positions remain aligned with current operational priorities, service delivery needs, organizational structure, and available resources; and

WHEREAS, the City has determined that a reorganization in the Finance Department will align the Department's reporting structure and classification titles with the responsibilities positions have performed since the Department reached full staffing while providing sufficient oversight of day-to-day operations; and

WHEREAS, the City recommends the update of Table of Organization to reflect the proposed changes.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SOUTH PASADENA, CALIFORNIA, DOES RESOLVE, DECLARE, DETERMINE AND ORDER AS FOLLOWS:

SECTION 1. Delete one (1) Accounting Manager/Controller position from the Table of Organization.

SECTION 2. Delete one (1) Budget & Purchasing Manager position from the Table of Organization.

SECTION 3. The addition of one (1) Deputy Finance Director/Controller position from the Table of Organization.

SECTION 4. The addition of one (1) Budget & Finance Manager position from the Table of Organization.

SECTION 5. The City's authorized positions are hereby amended and maintained on the Table of Organization, included as Exhibit A, to reflect the position additions and deletions approved by this Resolution.

SECTION 6. The establishment of revised job specifications for the Deputy Finance Director/Controller and Budget & Finance Manager positions, included as Exhibit B.

SECTION 7. The City Manager is authorize to amend the Table of Organization to reflect the reclassification of the Management Analyst in the Finance Department to a Senior Management Analyst, if warranted by the classification study, as determined by the Human Resources Director.

SECTION 8. The City Manager, or designee, is authorized to implement the position changes and take all administrative actions necessary to carry out this Resolution.

PASSED, APPROVED AND ADOPTED on the 21st day of October 2026.

_____
Sheila Rossi, Mayor

ATTEST:

_____
Nikima S. Newsome, Chief City Clerk

APPROVED AS TO FORM:

_____
Roxanne Diaz, City Attorney

I HEREBY CERTIFY the foregoing Resolution No. 8039 was duly adopted by the City Council of the City of South Pasadena, California, at a regular meeting held on the 21st of October 2026 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAINED:

_____

Nikima S. Newsome, Chief City Clerk

CITY OF SOUTH PASADENA
FY 2026-2027 - TABLE OF ORGANIZATION

DEPARTMENT/TITLE	BUDGETED HOURS (PER WEEK)	FULL TIME EQUIVALENT	AUTHORIZED # OF PERSONNEL IN POSITION	Reso No.
CITY CLERK'S OFFICE				
Chief City Clerk	40	1	1	
Deputy City Clerk	40	1	1	
Total	**80**	**2.00**	**2**	
CITY MANAGER'S OFFICE				
City Manager	40	1	1	
Assistant City Manager/CFO	40	1	1	
Executive Assistant	40	1	1	
Management Assistant	40	1	1	
Management Intern (LT)	40	1	1	*Reso 8018 (1 Added)
Assistant to City Manager	40	1	1	
Public Affairs Manager/PIO	40	1	1	
Film Liaison	40	1	1	
Customer Success Representative	80	2	2	*Reso 8018 (2 Added)
Customer Success Manager	40	1	1	
Total	**440**	**11.00**	**11**	
COMMUNITY DEVELOPMENT				
Community Development Director	40	1	1	
Administrative Assistant	40	1	1	
Management Assistant (Part-Time)	28	0.7	1	
Senior Building Inspector	40	1	1	
Permit Technician	40	1	1	
Lead Code Enforcement Officer	40	1	1	
Code Enforcement Officer	40	1	1	
Planning Manager	40	1	1	
Senior Planner	80	2	2	
Associate Planner	40	1	1	
Assistant Planner	40	1	1	
Senior Management Analyst	40	1	1	
Total	**508**	**12.70**	**13**	
COMMUNITY SERVICES				
Community Services Director	40	1	1	
Senior Management Analyst	40	1	1	
Community Services Supervisor	80	2	2	
Management Analyst	40	1	1	
Management Assistant	40	1	1	
Management Aide	40	1	1	
Community Services Coordinator	40	1	1	
Transportation Driver	108	2.7	3	
Recreation Camp Director	28	0.7	1	
Recreation Leader	580	14.5	30	
Food Services Leader	28	0.7	1	
Public Works Manager	40	1	1	
Public Works Supervisor	40	1	1	
Lead Maintenance Worker	40	1	1	
Maintenance Worker	40	1	1	
Total	**1224**	**30.60**	**47**	
Finance				

DEPARTMENT/TITLE	BUDGETED HOURS (PER WEEK)	FULL TIME EQUIVALENT	AUTHORIZED # OF PERSONNEL IN POSITION	Reso No.
Accounting Manager/Controller	0	0	0	*Reso 8039 (1 Deleted)
Deputy Finance Director/Controller	40	1	1	*Reso 8039 (1 Added)
Senior Accountant	40	1	1	
Accountant	40	1	1	
Accounting Technician	40	1	1	
Management Assistant	40	1	1	
Budget & Purchasing Manager	0	0	0	*Reso 8039 (Deleted)
Budget & Finance Manager	40	1	1	*Reso 8039 (Added)
Procurement Contracts Administrator	40	1	1	
Total	**280**	**7.00**	**7**	
Fire				
Fire Chief	40	1	1	
Division Chief	60	1.5	2	
Fire Prevention Specialist/Inspector	40	1	1	
Fire Captain	120	3	3	
Fire Engineer	120	3	3	
Firefighter Paramedic	480	12	12	
Management Assistant	40	1	1	
Total	**900**	**22.50**	**23**	
Human Resources				
Human Resources Director	**40**	1	1	
Risk Manager	**40**	1	1	
Human Resources Analyst	**40**	1	1	
Management Aide	**40**	1	1	
Total	**160**	**4.00**	**4**	
Library				
Library Director	40	1	1	
Assistant Library Director	40	1	1	
Library Manager	40	1	1	
Administrative Assistant	58	1.45	2	
Library Technicial Assistant	40	1	1	
Senior Librarian	160	4	4	
Librarian	76	1.9	3	
Library Clerk II	40	1	1	
Library Clerk	180	4.5	10	
Library Assistant	72	1.8	4	
Total	**746**	**18.65**	**28**	
Police				
Police Chief	40	1	1	
Deputy Police Chief	0	0	0	*Reso 8018 (1 Deletion)
Police Captain	40	1	1	*Reso 8018 (1 Added)
Police Lieutenant	40	1	1	
Police Sergeant	240	6	6	
Police Corporal	240	6	6	
Police Officer	840	21	21	
Management Analyst	40	1	1	
Police Clerk II	160	4	4	*Reso 8018 (1 Deletion) *Reso 8027 (1 Added)
Police Services Representative	40	1	1	
Police Dispatcher	320	8	8	
Parking Control Officer	120	3	3	

DEPARTMENT/TITLE	BUDGETED HOURS (PER WEEK)	FULL TIME EQUIVALENT	AUTHORIZED # OF PERSONNEL IN POSITION	Reso No.
Crime Analyst	40	1	1	
Police Cadet	54	1.35	3	*Reso 8027 (3 Deletions)
Total	**2214**	**55.35**	**57**	
Public Works				
Public Works Director	40	1	1	
Deputy Public Works Director	40	1	1	
City Engineer	40	1	1	
Senior Civil Engineer	40	1	1	
Associate Civil Engineer	40	1	1	
Civil Engineering Assistant	40	1	1	
Public Works Assistant	40	1	1	
Public Works Inspector	40	1	1	
Sr. Management Analyst	80	2	2	*Reso 8018 (1 Addition)
Management Analyst	40	1	1	
Management Assistant	80	2	2	
Transportation Program Manager	40	1	1	
CIP Program Manager	40	1	1	
CIP Project Manager	40	1	1	
Public Works Superintendent	40	1	1	
Public Works Supervisor	40	1	1	
Street & Sewer Supervisor	40	1	1	
Electrician	40	1	1	
Lead Maintenance Worker	120	3	3	
Building Maintenance Worker	80	2	2	
Maintenance Worker II	80	2	2	
Maintenance Assistant	112	2.8	4	
Environmental & Sustainability Manager	0	0	0	*Reso 8018 (1 Deletion)
Management Analyst	0	0	0	*Reso 8018 (1 Deletion)
Water Operations Manager	40	1	1	
Water Operations Supervisor	40	1	1	
Senior Water Utility Worker	40	1	1	
Sr. Water Production/Treatment Operator	40	1	1	
Water Production/Treatment Operator	80	2	2	
Water Utility Worker I/II	200	5	5	
Total	**1632**	**40.80**	**42**	
Grand Total	**8,184**	**204.60**	**234**	

TITLE: **Deputy Finance Director-Controller**

DEFINITION: Under general direction, assists the ~~Finance Director~~Chief Financial Officer in performing activities related to the City's financial operations including general accounting, grant accounting~~, accounts payable~~, audit functions, payroll, accounts payable and receivable, ~~and~~ utility billing and internal controls; ~~procurement and contract financial reporting; oversees, manages, and serves as a business partner with the City's payroll processing vendor;~~ performs financial analyses and a variety of professional level accounting functions in the preparation and maintenance of financial records, reports and statements, year-end procedures; evaluates and implements short and long-term financial service strategies for maintaining accounting activities; ~~recommends and directs~~participates in the issuance of bonds and other debt instruments for sound fiscal management and fiduciary compliance; functions as one of the principal contacts for all City banking relationships; maintains and reconciles all City bank and investment accounts; prepares the Treasurer's Report for review; exercises supervision over accounting staff as assigned; and performs related work as required.

DISTINGUISHING CHARACTERISTICS:

The Deputy Finance Director~~-~~/Controller is designated as "at-will". At-will employees serve at the pleasure of the appointing authority, which for this position is the ~~Finance Director~~Chief Financial Officer and incumbents are subject to discharge without cause and without right of appeal. ~~In addition to the responsibilities of a Deputy Finance Director/Controller, t~~The incumbent in this class has primary responsibility for general accounting, ~~procurement operations~~financial reporting, and ~~contracts administration~~financial compliance; and may serve in the absence of the Chief Financial Officer or City Treasurer~~Finance Director~~. An employee in this class exercises considerable discretion and independent judgment in the performance of assigned duties, based on extensive experience, training in public sector finance and accounting.

EXAMPLES OF DUTIES:

The duties listed below are examples of the work typically performed by employees in this class. An employee may not be assigned all duties listed and may be assigned duties that are not listed below:

- Assists the ~~Finance Director~~Chief Financial Officer in managing the accounting operations of the Finance Department; assists in the development and implementation of Finance Department goals, objectives, policies, and procedures and measures accomplishments against stated objectives.
- Assists in the preparation of monthly and quarterly budget reports to City Council.
- Manages all aspects of the City and Successor Agency (post-Redevelopment) accounting operations, until such time the Successor Agency is officially dissolved.
- Oversees and performs bank and investment reconciliations; interacts with financial institutions and agencies.
- ~~Reviews purchase requisitions and confers with departments by phone or in person to clarify requests, explain purchasing procedures, and provide additional information.~~

- ~~Analyzes bids received, compares specifications and prices, reviews market trends, makes value analysis and makes recommendation of award of order.~~
- ~~Prepares written bid specifications based on equipment, services, or supplies as requested in accordance with policies and procedures.~~
- May coordinate, implement, monitor and evaluate the administration of procurements for financial review, in partnership with other departments.
- ~~Assists in the department's formulation of pricing and procurement objectives and strategies; conducts and/or participates in negotiations to leverage the City's purchases.~~
- ~~Plans and implements research and data gathering activities needed for preparation of cost estimates, financing plans and forecasts related to the purchase agreements and contracts; processes or supervises the processing of pertinent documents such as contracts, bids, request for proposals, Council agenda reports and other related reports.~~
- ~~Receives, opens, and examines informal bids and represents the City Manager at public formal bid openings.~~
- Develops new or modified systems and policies to improve essential functions and services to internal and external customers. Identifies, articulates, manages, supervises, and coordinates policy, procedures, goals and objectives necessary to improve Department services.
- Oversees and manages the City's ~~contract with the vendor providing~~ Payroll ~~services~~system; ~~coordinates the transmittal of employee timekeeping to vendor;~~ ensures the appropriate application and interpretation of City policies and procedures, and the provisions of various memoranda of understanding related to Payroll; ~~serves as a business partner with the vendor in the administration of the contract and services;~~ resolves complex issues involving employee compensation.
- Analyzes, reviews, and prepares a variety of complex financial statements and reports; draws conclusions and makes recommendations; submits mandated reports to regulatory and grant agencies. Ensures compliance with laws, codes and regulations governing regulatory and municipal accounting; maintains high standards of professional accounting and auditing. Develops, revises, and implements specialized accounting procedures and systems to increase efficiency and effectiveness.
- Oversees, conducts research and prepares financial reports for special projects. Compiles and analyzes financial data to assist City administration in financial planning and economic development. Provides staff training and development; assigns and reviews the work of subordinate employees; reviews and evaluates employees' job performance.
- Ensures compliance with provisions of Federal, State, County and City statutes relating to financial matters. Interacts with the public or internal customers to obtain cash payments, information or documents, or resolve discrepancies.
- Ensures Department services are provided with the highest customer service and ethical standards. Recommends changes to system setup to enhance accounting controls and assists in testing such controls to confirm the correct result. Provides financial data, financial information and guidance to other City departments; provides timely and accurate monthly reports to the Departments.
- Responsible for the completion of the State Controller's Report, and the Cities Financial Transactions Report, as well as the preparation of other annual financial reports.

- Coordinate the preparation of the Annual Comprehensive Financial Report (ACFR), financial statements, and required state and federal financial reports~~Coordinates the annual financial audit with external auditors~~.
- Ensure compliance with applicable Governmental Accounting Standards Board (GASB) standards, generally accepted accounting principles (GAAP), and relevant state and federal requirement.
- Develops and maintains the Finance Department's Policies and Procedures Manual.
- Recommends automation of accounting systems and reports by use of the City's Financials system. Researches, develops, and prepares studies, reports, correspondence, and technical materials in accordance with City policies and related legal requirements, including those required for state and federal grants. Analyzes existing and proposed ordinances, statutes, resolutions, legislation, and other documents for impact on City operations, including revenue and taxation, as it relates to the City's fiscal policy and its effect on City financial operations. Stays abreast of current and emerging trends and practices in the field of municipal finance.
- Assigns, participates, or assists with the review and audit of the City's financial transactions; acts on recommendations made in audit reports. Manages and maintains the City's general ledger, including ensuring record-keeping accuracy and adequate internal controls. Prepares written reports to other City Departments, City Council and outside agencies; makes oral presentations at City Council and other public meetings.
- Conducts a variety of financial planning, analysis, and negotiations associated with revenue generation, capital project financing, debt issuance, and the financial performance of enterprise funds, prepares a variety of reports. Identifies the City's portfolio objectives, priorities and actions to be accomplished; manages the implementation and achievement of investment and revenue maintenance activities and objectives, including short and long-term planning and budgetary activities.
- May meet~~s~~ with department directors, management and city labor negotiator to provide input on bargaining strategies; makes recommendations on salaries, working conditions and other terms and conditions of employment; may participate in contract negotiations.
- Serves as Department Head in ~~Finance Director~~Chief Financial Officer's absence, as assigned.
- Performs other related duties, as assigned.

MINIMUM QUALIFICATIONS:

- A minimum of five years of professional level finance and accounting experience in a municipal agency or equivalent, of which at least three years involved supervision and/or lead direction of subordinate staff; and the completion of a Bachelor's degree from an accredited college or university in Finance, Accounting, or a related field.
- Knowledge of governmental accounting, GASB standards, and municipal budgeting.
- Experience coordinating annual financial audits and preparing ACFRs
- A Master's degree and/or designation as a Certified Public Accountant (CPA) is highly desirable.

- Any combination of training and/or experience that could likely provide the desired knowledge and abilities is qualifying. Proficiency in word processing and spreadsheets at an advanced level is required.
- Possession of a valid Class "C" California Driver License and a satisfactory driving record.

KNOWLEDGE, SKILLS, AND ABILITIES:

Knowledge of:

- Highly complex principles, practices, techniques, systems, and procedures of government finance and grant accounting; municipal budgeting processes;
- Sources of revenue to fund municipal services; research methods and techniques of report presentation; management and organization theories, principles, practices and methods; laws and regulations which govern municipal finance administration; legislation related to public finance and accounting; principles and practices of governmental procurement; advanced principles and practices of computer and accounting systems services; principles of contract administration and liaison; banking operations and accounting procedures related to management of cash and investments; modern office equipment and procedures; general office practices and procedures; basic English usage, spelling, grammar and punctuation; word processing, spreadsheet, and/or data base software at an advanced proficiency level; basic customer service principles; and principles of supervision.

Ability to:

- Plan, direct, manage and perform advanced professional level accounting and financial activities related to the operations of the Finance Department;
- Communicate clearly and concisely, both verbally and in writing; research and prepare complex reports on a variety of subjects;
- Establish and maintain effective relationships with the community at large, the City Council and other public officials;
- Select, train, supervise and evaluate employees; represent the City in a variety of meetings; make decisions regarding assigned operational functions; operate programs within allocated amounts;
- Respond to emergency and problem situations in an effective manner; understand, explain and apply policies and procedures; analyze unusual situations and resolve them through application of management principles and practices;
- Deal constructively with conflict and develop effective resolutions; plan, develop, manage, administer and enforce a balanced budget;
- Develop new policies impacting department operations/procedures; interpret financial statements and cost accounting reports; analyze financial issues as they relate to City services; and maintain accurate and complete reports and records.

WORKING CONDITIONS AND PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Ability to exert light to moderate physical effort, and exert sufficient force to lift, carry, push, pull, or otherwise move objects up to 25 pounds. Ability to remain in a sitting/standing position for extended periods of time. Ability to hear and speak to the general public, and City staff on the telephone and in person. Hand and eye coordination are needed to operate office equipment. Strength, dexterity, coordination and vision to use keyboard and video/computer display terminal.

Environment is generally clean with limited exposure to conditions such as dust, fumes, odors, or noise. Environment is generally clean with some limited exposure to such conditions as dust, fumes, odors, or noise.

Computer terminal, copier/scanner, and other office machines are used on a daily basis. Requires traveling throughout the City and adjacent areas, and the attendance of occasional night meetings.

FLSA Status: Exempt

HISTORY:
Established: August 17, 2022
Revised: August 23, 2022
Revised: October 21, 2026

City of
SOUTH PASADENA

BUDGET AND ~~PURCHASING~~ FINANCE MANAGER

TITLE: **BUDGET AND ~~PURCHASING~~ FINANCE MANAGER**

DEFINITION: Under general direction of the Department Director, manages, directs, supervises, and oversees all budgeting and procurement related activities and financial operations for the City. Performs high level research, budget development and analysis, forecasting and interprets policies and procedures related to budgeting, ~~and~~ procurement, debt management and special financing district administration. Coordinates and supervises the preparation and administration of personnel, operating, capital, and debt service budgets, and the analysis of service delivery for all City departments. Establishes policies, sets goals and objectives, creates and monitors all City budgets. Provides advice and guidance regarding budget and purchasing matters to the Council, the City Manager, Department Directors, and other City personnel.

DISTINGUISHING CHARACTERISTICS:

This is a single-incumbent managerial-level professional class in the Budget and Purchasing series. This class is designated as "at-will" and is exempt from the classified service. In addition to the responsibilities of a manager, the incumbent in this class has primary responsibility for preparation, research, oversight, and management of the City's budgeting and procurement activities. An employee in this class supervises assigned staff and exercises considerable discretion and independent judgment in performing assigned duties and may serve in the absence of the director

EXAMPLES OF DUTIES:

- Assists in managing, coordinating, planning, and facilitating the budget and purchasing operations of the Finance Department; assists in developing and implementing Finance Department goals, objectives, policies, and procedures and measures accomplishments against stated objectives.
- Administer and oversee the development, consolidation, and distribution of the City's budgets, including personnel, operating, capital, and debt service funds.
- Supervise staff responsible for budget preparation and coordinate with department heads, City Council, the City Manager, and other City management to address and resolve budget issues.
- Review revenue forecasts, analyze cost projections, and monitor budget variances; advise on budget adjustments to align with financial goals.
- Prepare and publish budget documents according to Government Finance Officers Association (GFOA) award criteria, ensuring distribution to relevant stakeholders.

- Establish and implement policies, procedures, and performance standards for budget development, purchasing, ~~and~~ procurement and debt management; streamline processes to enhance efficiency.
- Formulate strategic financial plans and set goals and objectives for budget operations, ensuring alignment with City objectives and regulatory standards.
- Oversee and evaluate processes related to budgetary and financial operations to ensure conformity with City ordinances, best practices, and public policy standards.
- Manage and coordinate City purchasing operations, in collaboration with City departments, including developing specifications, preparing bid documents, evaluating bids or proposals to recommend optimal solutions
- Oversee procurement policies to ensure alignment with cost-effectiveness, quality, and budgetary goals; negotiate and establish contracts and purchasing agreements and conduct periodic reviews and updates to align with new standards and practices.
- Administers the City's debt program, including, but not limited to, general obligation bonds, revenue bonds, certificates of participation, and private placement loans; coordinates with financial advisors, bond counsel, underwriters, and rating agencies on new issuances and refundings; and ensures compliance with continuing disclosure, arbitrage rebate, covenants, and post-issuance tax requirements.
- Provides oversight and administrative support for special financing districts, including community facilities districts, assessment districts, and other land-secured financing mechanisms; coordinates formation proceedings, annual levy and apportionment calculations, enrollment with the County, and required reporting under Proposition 218 and the Mello-Roos Community Facilities Act.
- Research new products and suppliers to enhance procurement quality and reduce costs, aligning with City and community needs.
- Engage and communicate with various City departments and external stakeholders on budgetary and procurement-related projects and policies.
- Present financial updates and recommendations to City Council, budget review committees, department heads, and other government boards as directed.
- Facilitate meetings, represent the City at council sessions, and effectively communicate the impact of departmental activities on the budget.
- Assign and prioritize tasks within the department, ensuring efficient and timely completion of work.
- Evaluate the performance of assigned staff, manage personnel actions, and address training, development, and disciplinary needs.
- Serve as a management representative during union negotiations, providing research, data analysis, and strategic input as part of the labor relations team.
- Conduct financial and cost analyses, recommending resource allocation, budgeting needs, and purchasing decisions; assist in labor negotiation costings.
- Initiate and lead special projects, reports, and programs to support City financial operations, including operating results and economic indicators analysis.

- Stay current on best practices in government financial management, debt service, accounting, and operations by attending professional training and conferences.
- Ensure compliance with all applicable governmental regulations and internal policies, maintaining high standards of professionalism and integrity in all financial operations.
- Performs other related duties as assigned.

MINIMUM QUALIFICATIONS:

- Bachelor's degree from an accredited college or university in Finance, Purchasing, Public or Business Administration, or a related field.
- Five (5) years of professional level purchasing, procurement, and budgeting experience in a municipal agency or equivalent, of which at least three years involved supervision and/or lead direction of subordinate staff.

Note: An equivalent combination of experience, education, and/or training may substitute for the listed minimum requirements.

KNOWLEDGE, SKILLS, AND ABILITIES:

Knowledge of:

- Advanced accounting, finance, and budgeting principles specific to the public sector, including fund accounting, internal control systems, debt management, special financing districts, and investment practices.
- City Charter, administrative regulations, applicable departmental policies, personnel ordinances, collective bargaining agreements, and other regulatory documents.
- Effective methods for managing complex, multi-departmental projects and programs in a municipal government environment.

Skills and Abilities to:

- Handle public funds responsibly and accurately, following fiscal guidelines, regulations, and standards.
- Apply mathematical and statistical techniques to analyze financial data, support budgeting, and solve practical problems.
- Use advanced mathematical and financial concepts, including formulas, graphs, and charts, to support decision-making.
- Exercise sound judgment based on management direction and established guidelines.
- Differentiate between emergency and non-emergency situations and respond appropriately.
- Assess, analyze, and interpret complex problems, drawing logical conclusions and making informed decisions under pressure.
- Convey authority and influence when interacting with the public, colleagues, and other agencies.

- Assemble, organize, and present financial, statistical, and factual information clearly and accurately, both in writing and verbally, for diverse audiences.
- Maintain courteous and tactful communication, especially in confrontational or public-facing situations.
- Effectively lead, assign, and review the work of subordinate employees, fostering a productive and collaborative team environment.
- Balance multiple assignments, re-prioritize tasks as needed, and perform well under tight deadlines.
- Use discretion with sensitive and confidential information, ensuring integrity and security.
- Independently manage tasks with minimal supervision, focusing on achieving City goals and objectives.
- Adapt to changing priorities, respond to emergencies, and perform effectively in high-stress situations.
- Display analytical thinking that combines experience, insight, and perspective to find practical solutions.
- Proficiently create and maintain spreadsheets, presentations, and databases with complex formulas and visual data representations.
- Demonstrate advanced proficiency in accounting, finance, and budgeting software relevant to governmental operations.

WORKING CONDITIONS AND PHYSICAL DEMANDS:
The work environment characteristics described here are representative of those employee encounters while performing the essential functions of the job. Reasonable accommodation may be made to enable individuals with disabilities to perform essential functions.

Tasks are generally performed in a typical office environment. The position is generally sedentary. Employees usually sit but may walk or stand for brief periods. Tasks may require unassisted lifting, carrying, pushing, and/or pulling of lightweight objects up to 20 pounds. Tasks may require prolonged periods of visual concentration or keyboard/mouse use.

Requires the ability to speak, hear (perceive sound), and/or signal people to convey and exchange information; differentiate between colors or shades of color; read a variety of materials, at times complex; apply principles of rational problem-solving; record and deliver information, explain procedures, issue and follow oral and written instructions; and communicate effectively and efficiently in Standard English as the primary language while performing job duties.

FLSA Status: Exempt

Approved: 11/18/2024
Revised: 10/21/2026

City Council
Agenda Report

ITEM NO. 10

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Nick Kimball, Assistant City Manager/CFO
William Castrillon, Budget and Purchasing Manager

SUBJECT: **CONSIDERATION TO APPROVE A PROFESSIONAL SERVICES AGREEMENT WITH STRADLING YOCCA CARLSON & RAUTH LLP., FOR BOND AND DISCLOSURE COUNSEL SERVICES IN CONNECTION WITH THE REFUNDING OF THE CITY'S OUTSTANDING WATER REVENUE BONDS**

Recommendation
It is recommended that the City Council:

1. Approve a Professional Services Agreement with Stradling Yocca Carlson & Rauth LLP. ("Stradling") to provide Bond and Disclosure Counsel services in connection with a potential refunding of the City's outstanding Water Revenue Bonds, for a contingent fee not to exceed $65,000, plus out of pocket expenses, capped at $2,500 payable solely from bond proceeds upon the successful closing of a refunding transaction; and
2. Authorize the City Manager to execute a Professional Services Agreement with Stradling Yocca Carlson & Rauth LLP in a form approved by the City Attorney, and to execute any amendments thereto that do not materially increase the City's obligations.

Executive Summary
Following a competitive procurement process, staff recommends that the City Council approve a Professional Services Agreement with Stradling to serve as the City's Bond and Disclosure Counsel in connection with a potential refunding of the City's outstanding Water Revenue Bonds.

Bond Counsel advises the City on the legal requirements for issuing bonds, prepares or reviews City Council resolutions and financing documents, confirms compliance with applicable laws, and provides a legal opinion on the validity and tax status of the bonds, while Disclosure Counsel advises the City on securities law compliance, prepares or reviews the Official Statement to ensure investors receive accurate and complete information, identifies material risks, and advises on ongoing disclosure obligations after issuance.

Background
In May 2009, the City issued $43,405,000 Water and Wastewater Revenue Bonds to finance certain capital improvements to the City's water system and construct two water storage reservoirs.

In November 2016, the City issued $37,845,000 Water Revenue Refunding Bonds to refund all of the outstanding 2009 Water Revenue Bonds. The 2016 series carries an average coupon of approximately 4.23%. These bonds become callable after 10 years, with the first call opportunity in October 2026.

On March 26, 2026, the Finance Commission received an informational presentation on the City's fund structure, including an overview of Enterprise Fund operations and significant ongoing efforts. As part of that presentation, the Commission received a preliminary analysis of a potential refunding of the 2016 bonds. Following discussion, the Finance Commission reached consensus directing staff to present the opportunity to City Council and seek direction on whether to proceed with a formal procurement process.

On May 6, 2026, the City Council directed staff to proceed with a competitive procurement for municipal advisory services to evaluate and execute a refunding of the outstanding Water Revenue Bonds, if market conditions support it.

On September 2, 2026, City Council awarded the professional service agreement for Municipal Advisors Services to Urban Futures, Inc. ("UFI") after a formal RFP process.

On September 16, 2026, the City's Municipal Adviser, UFI, in coordination with City staff, distributed the Bond and Disclosure Counsel Services RFP to various firms.

On September 28, 2026, the City received proposals for Bond and Disclosure Counsel Services from three firms.

Analysis

The City currently carries two series of outstanding water revenue bond debt: the 2013 Water Revenue Bonds (average coupon of approximately 3.13%, currently callable) and the 2016 Water Revenue Refunding Bonds (average coupon of approximately 4.23%, with an outstanding balance of approximately $30.4 million as of June 30, 2025), which became callable for the first time in October 2026 (collectively "Water Bonds").

Procurement Process

Given the potential for the Water Bonds to generate meaningful debt service savings for the Water Fund upon refunding, UFI, in coordination with City staff, distributed an RFP for Bond and Disclosure Counsel Services. The solicitation required, among other things, that the selected firm be compensated on a contingency-fee basis payable solely from bond proceeds at closing, with no fee owed if a transaction does not close.

The City received proposals by the September 28, 2026 deadline from the following three (3) firms (in alphabetical order):

FIRM	COST PROPOSAL
BEST BEST & KRIEGER LLP.	$65,000
NORTON ROSE FULLBRIGHT LLP.	$100,000
STRADLING YOCCA CARLSON & RAUTH LLP.	$65,000

A rating panel consisting of the Assistant City Manager/CFO, Budget & Purchasing Manager, and UFI ("Rating Panel") evaluated each proposal and considered the qualifications and experience of the firm, qualifications and experience of key personnel, proposed approach and understanding of scope, fee proposal, and references, among other considerations.

After considering cost, experience, and breadth of service offering, the Rating Panel recommends award of a Professional Service Agreement for Bond and Disclosure Counsel Services to Stradling. The firm's proposal is set forth in Attachment No. 1.

Stradling Yocca Carlson & Rauth LLP.("Stradling")
Established in 1978, Stradling's public finance practice serves public agencies throughout California. The firm has more than 110 attorneys across multiple offices specializing in public finance, public law, and other legal areas.

Over the past five years, Stradling's California-based attorneys have completed more than 1,000 municipal securities transactions as Bond Counsel, totaling over $68.7 billion. The firm has extensive water and wastewater utility experience. Since January 1, 2020, Stradling has served as Bond Counsel on approximately 187 transactions totaling over $12.6 billion and as Disclosure Counsel on approximately 160 transactions totaling nearly $17.2 billion.

Fiscal Impact
Stradling's compensation for Bond and Disclosure Counsel Services is $65,000, plus any out-of-pocket costs capped at $2,500, and is structured on a contingency-fee basis and is payable solely from bond proceeds upon the successful closing of a refunding transaction. No fee is owed to Stradling, and there is no impact to the Water Fund's operating budget, if a refunding transaction does not close for any reason, including a City election not to proceed, failure to achieve the minimum net present value savings threshold, or adverse market conditions.

Commission Review and Recommendation
The Finance Commission has not reviewed this matter.

Attachment:
Attachment No. 1 - Stradling - Response to RFP - City of South Pasadena - Bond and Disclosure Counsel Services

Stradling Yocca Carlson & Rauth LLP
660 Newport Center Drive, Suite 1600
Newport Beach, CA 92660
949 725 4000
stradlinglaw.com

Brian P. Forbath
949 725 4193
bforbath@stradlinglaw.com

September 28, 2026

VIA EMAIL
Urban Futures, Inc.
Attention: Michael Busch (mbusch@ufi.us) and Branden Kfuory (bkfoury@ufi.us)

Re: Request for Proposal for Bond and Disclosure Counsel Services for the City of South Pasadena

Dear Mr. Busch and Mr. Kfuory:

Stradling Yocca Carlson & Rauth LLP (the "Firm") is pleased to present this Response (the "Proposal") to Request for Proposals to provide Bond and Disclosure Counsel Services (the "RFP") to the City of South Pasadena (the "City") regarding the City's proposed issuance of 2026 Water Revenue Refunding Bonds (the "2026 Bonds") to refund all or a portion of the City's outstanding 2016 Water Revenue Refunding Bonds (the "2016 Bonds," together with the "2026 Bonds," the "Financing"). The Firm is well qualified, and is committed to devoting the resources necessary, to serve the City as Bond and Disclosure Counsel. Information regarding the Firm, including our qualifications to serve as Bond and Disclosure Counsel to the City, is set forth below in this Cover Letter and the Proposal that follows.

We believe that we are the most qualified firm to serve as Bond and Disclosure Counsel to the City for the following reasons:

- **The Firm has direct experience working with other agencies in the San Gabriel Basin and understands the complexities associated with the City's largest source of water.**

- **The Firm consistently ranks as one of the leading Bond Counsel and Disclosure Counsel firms in the State of California.** In 2025, the Firm ranked 2nd in California as Bond Counsel based upon par amount of bonds issued and 1st in California as Disclosure Counsel based upon par amount of bonds issued. Over the past five years, the Firm's California-based attorneys have completed more than 1,000 transactions as Bond Counsel to special districts, cities, counties, school districts, joint powers authorities and other public agencies, representing over $68.7 billion in principal amount of municipal securities. **The Firm is also one of the most experienced Bond and Disclosure Counsel firms in the Nation**. In 2025, the Firm was ranked as the 8th Bond Counsel firm in the Nation, with 180 transactions totaling over $16.2 billion and the 2nd Disclosure Counsel firm in the Nation with 194 transactions totaling over $26 billion. The Firm's national rankings are extremely impressive considering that the Firm acts

as Bond Counsel and Disclosure Counsel in just a handful of western states, whereas most of the Firm's competitors operate nationally.

- **The Firm is involved in more bond transactions than any other law firm in California**. In each of the last ten years, the Firm has served as Bond Counsel, Disclosure Counsel or Underwriter's Counsel on more transactions in California than any other law firm.

- **The Firm is the number one bond counsel and disclosure counsel firm in California for water and wastewater financings**. Over the past five years, the Firm has served as Bond Counsel and/or Disclosure Counsel on more water and wastewater transactions in California than any other firm.

- **We propose to assign senior, experienced attorneys to the engagement**. Brian Forbath and Patricia Eichar, both partners of the Firm, would be primarily responsible for the engagement. Carol Lew, head of the Firm's Public Finance Tax Department, would be the lead attorney handling any tax-related matters for the City. Mr. Forbath and Ms. Eichar would be assisted other partners and associates as appropriate to provide the highest level of service to the City.

Information regarding the attorneys proposed to serve the City as Bond and Disclosure Counsel is set forth in the Proposal and their resumes are attached as Exhibit A.

Thank you for considering our Proposal to provide Bond and Disclosure Counsel services to the City. Please do not hesitate to contact me if you have any additional questions concerning this Proposal.

Sincerely,

Brian P. Forbath
President/Partner
Stradling Yocca Carlson & Rauth LLP

Stradling

Response to Proposal for Bond and Disclosure Counsel Services for the

City of South Pasadena

September 28, 2026

Contact

Brian P. Forbath
bforbath@stradlinglaw.com
T: +1 949 725 4193

Stradling Yocca Carlson & Rauth, LLP
660 Newport Center Drive, Suite 1600
Newport Beach, CA 92660

I. FIRM AND TEAM INFORMATION

INTRODUCTION

The Firm was formed in 1975 and began its public finance practice in 1978. With offices in Newport Beach, San Diego, San Francisco, Sacramento, Westlake Village, Santa Barbara, Las Vegas, Reno, Denver, and Austin, the Firm includes more than 110 attorneys who practice in the areas of public finance, public law, corporate law, real property law, employment law, securities litigation, business litigation, intellectual property litigation, bankruptcy, corporate taxation and white-collar criminal defense. Twenty-nine members of the Firm practice in the areas of public finance and related areas of public law, making the Firm the second largest group of municipal finance attorneys in California. Seventeen partners, four of counsel, seven associates and six paralegals devote substantially all of their efforts to the Firm's municipal finance practice. One partner and one associate of the Firm restrict their practice exclusively to the tax aspects of public finance, advising clients on the structuring of transactions and representing clients in the event that a transaction is audited by the Internal Revenue Service.

The Firm's public law attorneys devote their time primarily to the representation of the interests of public agencies, including cities, counties, water districts, redevelopment successor agencies, school/community college districts, the State of California, the State of Washington, transportation agencies and special districts of various kinds, and to the supplying of legal services in connection with the financings of such agencies. The Firm's public finance practice serves hundreds of clients, many of whom have been with the Firm for decades.

The Firm is a perennial leader in public finance in California, and has consistently been ranked among the top bond counsel firm in the State in terms of dollar volume and number of transactions. In 2025, according to Thomson Reuters, we ranked **2nd in California** as Bond Counsel based upon par amount of bonds issued. Over the past five years, the Firm's California-based attorneys have completed more than 1,000 transactions as Bond Counsel to special districts, cities, counties, school districts, joint powers authorities and other public agencies, representing over $68.7 billion in principal amount of municipal securities. The Firm is also highly ranked nationally. In 2025, the Firm was ranked as the **8th Bond Counsel firm in the Nation**, with 180 transactions totaling over $16.2 billion and was ranked as the 2nd Disclosure Counsel firm in the Nation with 194 transactions totaling over $26 billion. The Firm's national rankings are extremely impressive considering that the Firm acts as Bond Counsel in just a handful of western states, whereas most of the Firm's competitors operate nationally. The depth and breadth of our experience as Bond Counsel is underscored by our recent history, as set forth below.

Stradling Yocca Carlson & Rauth
California Bond Counsel Rankings
(By Dollar Volume)

Year	*Dollar Volume (in Millions)*	*CA Rankings as Bond Counsel*
2025	$14,385	2
2024	11,059	2
2023	8,472	2
2022	6,621	2
2021	14,414	2

Source: Thomson Reuters.

Our disclosure counsel rankings for California, set forth below, highlight that we are also the leading firm for the delivery of disclosure counsel services to California issuers. The following table sets forth our California disclosure counsel rankings for calendar years 2021 through 2025.

Stradling Yocca Carlson & Rauth
California Disclosure Counsel Rankings
(By Dollar Volume)

Year	*Dollar Volume (in Millions)*	*CA Rankings as Disclosure Counsel*
2025	$20,396	1
2024	12,534	2[1]
2023	10,291	2[1]
2022	8,880	1
2021	16,088	1

[1] Ranked No. 1 by number of deals.
Source: LSEG Workspace | SDC

Importantly, for each of the past ten years, the Firm has participated as Bond Counsel, Disclosure Counsel and Underwriter's Counsel on more transactions than any other law firm in California. The fact that we are involved in so many transactions annually gives us a significant advantage to our peers in that we see more structures, security features and disclosure issues than other bond counsel firms that we can apply to benefit our clients.

The Firm's size offers an advantage to clients for many reasons. First, the Firm has expertise in areas such as real estate, corporate securities/litigation (including former Securities and Exchange Commission ("SEC") staff attorneys with extensive experience representing municipalities in SEC investigations), bankruptcy and general public law that can be useful in analyzing relevant issues for a bond financing. Second, the Firm's size provides stability and assurance to clients that the Firm will be in practice to follow up on matters related to its services even years after the bonds have been issued. This is critical to public agencies in an environment where bond issues require ongoing monitoring for federal securities and tax law compliance. Conversely, the Firm is not an international firm, so its cost structure allows it to provide services more cost-effectively than other firms. The full resources of the Firm are always available to the City.

As discussed in greater detail below, the Firm's experience in the water/wastewater area is very extensive. We represent a variety of water and wastewater agencies throughout the State and participate in a large number of water and wastewater utility issues. In fact, since January 1, 2020, the Firm has acted as Bond Counsel on approximately 187 water and/or wastewater utility transactions totaling over $12.6 billion and as Disclosure Counsel on approximately 160 water and/or wastewater utility transactions totaling nearly $17.2 billion. Lists of the water and/or wastewater utility transactions for which the Firm served as Bond Counsel and Disclosure Counsel since January 1, 2020 are attached to this Proposal as Exhibits B and C, respectively.

PROPOSED TEAM

We propose to assign senior, experienced attorneys to the engagement. We propose that Brian Forbath and Patricia Eichar, both partners in the Firm, are widely recognized as leading experts in water and/or wastewater financings and related areas of municipal law. Mr. Forbath, Ms. Eichar, would expect to be involved in all of the key negotiations, conference calls and meetings for the City's Financing, and to support staff at City Council meetings. Carol Lew, head of the Firm's Public Finance Tax Department, would be responsible for the tax analysis and opinion associated with the proposed Financing. Mr. Forbath and Ms. Eichar would be assisted by one or more associates, if appropriate, to ensure the highest quality of service to the City. Information regarding the qualifications and experience of these attorneys is set forth below and their resumes are attached as Exhibit A. References are available upon request.

Brian Forbath. Brian Forbath works exclusively in the public finance area and has extensive experience in utility revenue, lease revenue, general obligation, general fund, land-secured, and tax increment financings and derivative transactions. Mr. Forbath is a 1998 graduate of Loyola Law School and attended the University of California, Santa Barbara as an undergraduate. Mr. Forbath has been a lecturer on federal securities laws at the National Association of Bond Lawyers Workshop in Chicago and was a member of the National Association of Bond Lawyers' task force on drafting Disclosure Roles of Counsel in State and Local Government Securities Offerings (3rd Edition, 2008). Mr. Forbath is a frequent lecturer for the California Debt and Investment Advisory Commission. Mr. Forbath has over twenty years' experience acting as Bond Counsel, Disclosure Counsel and underwriter's counsel in all types of municipal finance transactions. Mr. Forbath is a recognized leader in California public finance and is often the "go to" selection by issuers and underwriters to work on their high profile and challenging projects. Of particular relevance, Mr. Forbath has served as bond counsel for such clients as Metropolitan, Eastern Municipal Water District ("EMWD"), Castaic Lake Water Agency, Cucamonga Valley Water District, Las Virgenes Municipal Water District ("LVMWD"), Mission Springs Water District, Napa Sanitation District, Orange County Water District ("OCWD"), Otay Water District, Pixley Community Services District, Rancho California Water District, Santa Margarita Water District, South Coast Water District ("SCWD"), Temescal Valley Water District, Triunfo Water and Sanitary District ("TWSD"), Valley County Water District, West Basin and for the cities of Beaumont, Bellflower, Culver City, El Monte, Escondido, Indio, Lomita, Malibu, Norwalk, Oceanside, Pomona, Poway, Riverside, Santa Monica and Vista with respect to the issuance of debt secured by water and wastewater revenues, among others. Mr. Forbath can be reached at (949) 725-4193 or *bforbath@stradlinglaw.com*.

Patricia Eichar. Patricia Eichar is a Partner in the Firm's Public Finance Department. Ms. Eichar focuses her practice on public finance, representing municipal bond issuers, borrowers, and underwriters in a wide range of financing transactions. She also has significant experience advising on taxable and tax-exempt financings for public infrastructure projects, healthcare facilities, senior living communities, and other 501(c)(3) entities, as well as enterprise and general obligation financings. Ms. Eichar has represented issuers, including the State of California and numerous cities, counties, and special districts, in complex general obligation bond, enterprise revenue bond, pension obligation bond, and land-secure bond financings. Experience with respect to enterprise revenue bonds, and water and wastewater bonds in particular, include multiple financing structures, pledge formulations and credit provisions for water agencies such as the Contra Costa Water District and cities and counties such as the City of Eureka. Ms. Eichar received her bachelor's degree from San Diego State University and her law degree from the University of the Pacific McGeorge School of Law. Ms. Eichar can be reached at (916) 449-2335 or *peichar@stradlinglaw.com.*

Carol Lew. Carol Lew is the head of the Firm's Public Finance Tax Department and a partner in the Firm. She is nationally recognized with respect to tax issues relating to municipal finance for virtually every type of credit and issuer, including water utilities. She has been practicing as a public finance tax attorney for over 30 years. Ms. Lew has experience advising clients with respect to the new tax credit programs. She represents numerous issuers and nonprofit corporations with respect to the financing of a broad range of facilities, including those involving public/private partnerships, and is skilled in seeking rulings from the IRS. She has extensive experience representing issuers audited by the IRS related to tax-exempt financings, and post-issuance compliance. Ms. Lew has served as President of the NABL, and Chair of the American Bar Association Tax Section's Tax-exempt Financing Committee. Ms. Lew also frequently works with the IRS in Washington D.C., recently serving as Chair of the Internal Revenue Service's Advisory Council, which provides advice to the IRS Commissioner. She presently serves on the IRS Electronic Tax Administration Advisory Committee which provides advice to Congress with respect to tax matters and the transformation of the IRS in the digital age. Ms. Lew served as Editor-in-Chief of the NABL's Federal Taxation of Municipal Bonds. Ms. Lew has also has been a member of the Executive Committee of the State Bar of California, Taxation Section, and the Technical Advisory Committee of the California Debt and Investment Advisory Commission. Ms. Lew regularly attends meetings at the national level to review newly proposed legislation and regulations in the municipal bond area. Ms. Lew received her J.D. from Hastings College of the Law. Ms. Lew's direct dial line is (949) 725-4237 and her email address is *clew@stradlinglaw.com*.

RELATIVE EXPERIENCE

The Firm's experience in the water/wastewater area is very extensive. We represent a variety of water and wastewater agencies throughout the State and participate in a large number of water and wastewater utility issues. In fact, since 2020, the Firm has been involved as Bond Counsel and/or Disclosure Counsel on more water and/or wastewater utility issues in California than any other firm. As a result of our activity in this area, we are often interacting with underwriters and ratings agencies, giving us an understanding of legal provisions accepted by the public markets and ratings agencies and allowing our Firm to anticipate issues affecting California water and wastewater credits generally that rating agencies will be interested in.

The Firm has served as Bond and/or Disclosure Counsel to numerous utilities providing water or wastewater services, including East Bay Municipal Utilities District, EMWD, Castaic Lake Water Agency, Cucamonga Valley Water District, LVMWD, Mission Springs Water District, Montecito Sanitary District, Napa Sanitation District, OCWD, Otay Water District, Pixley Community Services District, Rancho California Water District, San Francisco Public Utilities Commission, Santa Margarita Water District, Santa Rosa Regional Resources Authority, SCWD, Silicon Valley Clean Water, Temescal Valley Water District, TWSD, Union Sanitary District, Valley County Water District, West Basin and for the cities of Beaumont, Bellflower, Culver City, El Monte, Escondido, Indio, Lomita, Malibu, Norwalk, Oceanside, Pomona, Poway, Riverside, Santa Monica and Vista.

The Firm has extensive experience working on similar transactions both in terms of size and structure as the proposed 2026 Bonds. The Firm recently completed serving as bond and disclosure counsel to EMWD on refundings of 2015 and 2016 Water and Sewer Revenue Bonds. The financing consisted of two separate series of bonds issued by EMWD to do partial refundings of both the 2015 and 2016 Bonds. The Firm recently also served as Disclosure Counsel to IRWD in connection with the refunding of its 2016 Water Revenue Bond and 2016 Revenue Certificates

of Participation and as Bond and Disclosure counsel on a recently completed $25 million new money financing for Mission Springs Water District.

Importantly to the City, the Firm has a firm understanding of the complexities faced by water agencies whose main source of water supply is ground water from an adjudicated basin. The Firm represents the vast majority of water agencies in Los Angeles, Orange, Riverside and San Bernardino counties who pump water from ground water basins. Accordingly, the Firm understands and has extensive experience describing how such basins work including describing in concise terms to investors: basin pumping percentages; operating safe yields, basin replenishment charges, water master duties and responsibilities, PFAs, volatile organic compound and nitrate contamination, associated settlements and well-head treatment facilities, among other important disclosure items. Given the heightened scrutiny by the SEC on municipal disclosure since the last time the City issued water revenue bonds in 2016, we note that there will need to be significantly enhanced disclosure on these topics from what was previously included in the City's 2016 Official Statement. Given, the Firm's recent engagement serving as Bond Disclosure Counsel to the City of Monterrey Park in 2024 on its water revenue bonds financing, the Firm is well in tune and up to speed on many of the issues facing water agencies in the San Gabriel Basin. We believe this will be a significant value add to the City if chooses to hire us.

Mr. Forbath and Ms. Eichar are experts on the challenges that arise in water utility financings, including structuring rate covenants and additional debt tests in a manner that provides sufficient security to investors and satisfies rating agencies while giving issuers flexibility to meet their capital needs. We also have extensive experience with State Revolving Fund loans. We have helped clients such as the Inland Empire Utilities Agency negotiate omnibus amendments to its many State Revolving Fund Loan agreements to bring the covenants in all outstanding SRF agreements into alignment and to revise such covenants to facilitate the Agency's overall financing goals.

APPROACH TO THE TRANSACTION

We have reviewed and understand the scope of services requirements for Bond Counsel and Disclosure Counsel services set forth in the RFP. Our approach to providing Bond Counsel and Disclosure Counsel services is set forth below. Based on the information in the RFP, we do not anticipate any special issues or potential problems in connection with our performance of the scope of services detailed in the RFP. Mr. Forbath and Ms. Eichar are experts in the field of public finance and are well equipped to guide the City through the resolution of any unusual or complex legal issues that may arise in connection with any of the City's financings.

The Firm's Approach to Bond Counsel Services. The Firm believes that the role of Bond Counsel is always evolving. However, despite the evolution of Bond Counsel's role as regulatory agencies adopt varying legal interpretations and change their enforcement priorities, the core responsibility of Bond Counsel – protecting the interests of the public agency and providing assurance to the market of a legal, valid and binding investment – remains the same. The changing regulatory framework pursuant to the Inflation Reduction Act of 2022, the Tax Cuts and Jobs Act of 2017, the Dodd-Frank Wall Street Reform and Consumer Protection Act and regulatory initiatives like the SEC's Municipalities Continuing Disclosure Cooperation initiative have increased the burden on City staff. The Firm stands ready to advise the City on such regulatory issues and believes that its solutions-oriented approach to problem-solving can help alleviate some of the new burdens on staff during the bond issuance process that can be brought about by the current regulatory environment.

The Firm expects to be intimately involved with the City's key staff, its municipal advisors, its underwriters and the underwriters' counsel. The Firm believes that Bond Counsel is the primary protector of the interests of a public agency in a financing, and is committed to carefully reviewing bond purchase agreements, credit enhancement agreements and similar contracts that the City may be requested to execute in connection with a financing in order to ensure that there is nothing unlawful or atypical being requested of the City. The Firm's overall goal is always to help to structure each financing in a way that the City is not going to regret in the years ahead. The Firm is also cognizant of the importance of preserving the attorney-client privilege when providing legal advice to the City and will tailor its communications with the full working group accordingly.

The Firm stresses a team approach when it serves as Bond Counsel on public finance matters in order to most effectively serve our clients. We strive to provide our clients with senior level "hands-on" coverage at all times. We know that ***service to our clients***, as they work to provide solutions to issues facing California and the regions that they serve, ***is paramount***. We believe the Firm is known as a firm that works hard as finance counsel, keeps ahead of critical timelines for financings, is proactive in identifying and resolving issues that arise with respect to financings, and pays attention to the details that are essential to smooth transactions and producing quality financing documents.

But the Firm is more than simply a Bond Counsel firm. The Firm has a broad-based general public law practice and actively represents public agencies with respect to debt issuance and post-issuance matters on a daily basis. Consequently, the Firm recognizes that the City will have to live with its financings for years to come. This distinguishes the Firm from smaller Bond Counsel firms that do not represent public agency clients in general public law or other capacities. In contrast to the approach of such firms, the Firm does not expect its active engagement with the City to end upon the closing of each financing. Unlike most of our competitors, to the extent the City requires advice as to the propriety of expending proceeds of the proposed bonds or as to the City's ongoing obligations with respect to the bonds (IRS regulatory and record-keeping compliance, federal securities law compliance, etc.), we provide such ongoing advice for no additional cost.

The Firm's Approach to Disclosure Counsel Services. The Firm's first task as Disclosure Counsel would be to deliver to the City the most complete first draft of an offering document possible in order to minimize the significant burden on staff that an offering document presents. The Firm would review City Council meeting minutes, audited financial statements, previous official statements and continuing disclosure annual reports, and utilize our prior experience with the City, in order to provide a first draft of an offering document to staff with as few blank items as possible. The Firm would not simply input updates and edits when received from the City, but would ask follow-up and clarifying questions in order to gain a deeper understanding of the City's "story" in order to convey it effectively to potential investors. The Firm would expect an offering document to be developed over several drafts before it is ready for review by outside parties such as underwriters.

The Firm regularly provides securities disclosure training presentations to its clients and the Firm proposes to provide such training to the City at least every other year. The Firm believes that such presentations are very helpful in providing an overall context to public agency staff who are responsible for providing information to be included in offering documents. Topics covered in the Firm's disclosure training sessions include an overview of relevant federal securities law, the "materiality" standard, differences between corporate and municipal securities disclosure requirements, appropriate internal procedures governing disclosure, the applicability of disclosure requirements in different contexts (new offerings, annual reports and other circumstances where a public agency is "speaking to the market") and amendments to Rule 15c2-12. In such

presentations, the Firm also describes situations in which disclosure by public agencies was determined to be inadequate and the SEC settlements or pronouncements that followed.

If requested, we would work with the City to prepare or update the City's disclosure policies and procedures in order to ensure the City's compliance with federal securities laws as well as recent recommendations made by SEC staff.

The Firm does not view its Disclosure Counsel engagement as concluded upon the closing of any single bond financing. The Firm would advise the City on an ongoing basis as to continuing disclosure requirements and compliance (including considering whether "material" event notices are necessary or appropriate), and advising the City on proposed changes in federal securities law and recent SEC enforcement actions.

In acting as Disclosure Counsel, we strive to be user-friendly and perform our duties in a responsive and professional manner, without creating work or undue administrative burden for our clients. Above all else, we understand that our top priority must be ***service to our clients*** who are dependent on our support in accessing the capital markets.

Expertise with Regulatory Matters. It is essential that Disclosure Counsel for any publicly-sold municipal securities be highly experienced with federal securities laws and regulatory matters, including SEC enforcement actions, rules, and policy statements. The Firm has attorneys (including former SEC counsel) who specialize in regulatory compliance and have extensive experience helping our public agency clients navigate SEC investigations and enforcement actions. While historically there was not significant SEC enforcement activity in the public finance area, the SEC has become more active in recent years. The Firm understands that SEC inquiries are rarely limited to the matters that are the initial subject of an investigation. Accordingly, the Firm can consult with its securities attorneys to ensure that our disclosure continues to be consistent with the best practices in the industry, and, if needed, we can also advise the City as to the full implications of receiving a request for information from the SEC.

The Firm's Experience in Tax Matters. We believe that the quality of our tax advice separates us from many of the other firms providing Bond Counsel services in California. The Firm's Public Finance Tax Department is respected on a national level. This respect is due in large part to Carol Lew, Chair of our Public Finance Tax Department, and her work over the years with the National Association of Bond Lawyers, the ABA Committee for Taxation, and the IRSAC. Ms. Lew regularly attends meetings at the national level to review newly proposed legislation and has an excellent relationship with individual IRS agents, enabling her to obtain informal guidance on an expedited basis.

The Firm's Public Finance Tax Department has regular experience representing public agencies with respect to IRS audits of municipal bonds, and the Firm is well aware of the potential for liability to bondholders and other adverse market consequences if the tax-exempt status of a bond issuance is lost. The Firm works hard to negotiate and clarify liabilities and responsibilities among transaction participants (including underwriters and financial advisors) during the course of a financing.

If needed, the Firm is able to directly handle IRS information requests, which can be voluminous, and regularly represents public agencies before the IRS and with respect to appeals and negotiating the terms of settlement or voluntary closing agreements with the IRS. The Firm understands that IRS audits are rarely limited to the matters that are the initial subject of an investigation. The Firm is always prepared to serve its clients no matter how broad an inquiry becomes.

Considerations Regarding the Anticipated Bond Structure

We see no issues or concerns related to the proposed bond structure. As noted above, we do believe the City's disclosure related to the San Gabriel Basin needs to updated and expanded. We would also note that the 2016 Official Statement did not include a projected operating results table. We believe this is fairly standard and expected by the market and rating agencies to be provided. If such projected operating results are provided to the rating agencies, we would strongly advise that such information is material to investors and must be included in the Official Statement.

One important item for the City and its advisors to consider is that the City's existing SRF Loan requires as part of the parity bonds test for the City to obtain two credit ratings. Given the size of this transaction it is likely that only a single rating would otherwise be contemplated. We have direct contacts with the State Water Resources Control Board and if addressed early on there may be an opportunity to get this provision waived. However, staff at the State Board is often very slow to respond.

II. REGULATORY COMPLIANCE

No Conflict of Interest. The Firm does not believe that there are any arrangements or representations, formal or informal, that the Firm or any of the attorneys listed in this response have with any party that might create a conflict of interest or interfere with the Firm's ability to provide independent and unbiased advice and recommendations to the City in performing the Firm's role of Bond Counsel and Disclosure Counsel.

Investigations. Neither the Firm nor any of its principals is the subject of any investigation relating to the municipal industry by the SEC, NASD, NYSE or any other State or Federal organization that oversees, regulates, licenses or is otherwise responsible for the municipal industry.

III. FEE PROPOSAL

If engaged to serve the City as Bond Counsel, we would propose a flat fee of $45,000. If engaged to serve the City as Disclosure Counsel, we would propose a flat fee of $35,000. If engaged to serve the City as both Bond and Disclosure Counsel, we would propose a discounted flat fee of $65,000.

The foregoing fees would be contingent upon the successful closing of the Financing and would apply to any bonds issued within one year from the date the Firm is retained. We would request an opportunity to meet with the City to discuss adjustments to the fees for the Financing if it closes beyond one year, if justified by reason of increased cost to the Firm and the then prevailing fees for Bond and/or Disclosure Counsel services.

In addition to the fees set forth above, we would propose to be reimbursed for the actual cost of any out of-pocket expenses reasonably incurred by the Firm in the course of its employment, such as document delivery and messenger fees, photocopying, electronic research and travel at your direction (at the then current IRS rate), and similar items of expense. We would agree to cap expenses at $2,500, exclusive of publication costs, the cost of data ordered from third parties (such as California Municipal Statistics tables), title and escrow fees, and other costs typically paid as a separate cost of issuance.

IV. CONCLUSION

We are honored to be considered to provide Bond and/or Disclosure Counsel services to the City. We believe the Firm is the most experienced Bond and Disclosure Counsel Firm in the State, which is reflected by our recent rankings and relative experience. The attorneys assigned to the engagement are all recognized experts in their fields and will prioritize this important engagement with the City. In addition to Mr. Forbath, Ms. Eichar and Ms. Lew, the full resources and expertise of the Firm will be available to the City. Additionally, our experience working with large issuers like the State of California, the City and County of San Francisco, the Cities of Los Angeles, Long Beach, Riverside, Sacramento, San Diego and San Jose, the Metropolitan Water District of Southern California, East Bay Municipal Utility District and Eastern Municipal Water District provide important insights into current market trends and innovative legal analysis and financing techniques that we believe will benefit the City. We would be pleased to meet with you further to discuss our proposal in more detail or to answer any additional questions you may have.

I am President and Partner of the Firm and am authorized to execute a legally binding commitment with the City. Should you have any questions or need additional information, please do not hesitate to contact me at (949) 725-4193 or *bforbath@stradlinglaw.com*.

Very truly yours,

Brian P. Forbath
President/Partner
Stradling Yocca Carlson & Rauth LLP

Stradling

Brian Forbath

Partner
Newport Beach

bforbath@stradlinglaw.com
D: 949 725 4193

Education

Loyola Law School, J.D.

University of California, Santa Barbara, B.A.

Areas of Focus

Bond, Disclosure & Underwriter's Counsel

Public Private Partnerships

Land Secured Financing

Bar Admissions

California

The financing of public works through the issuance of municipal bonds is, under normal circumstances, a highly complex undertaking with many moving parts. But when the complexity reaches another level entirely — when the legal issues, debt structure, or sheer size of the transaction are particularly daunting — sophisticated issuers turn to Brian Forbath for innovative solutions.

Brian's long record of success representing major issuers in California — cities, counties, school districts, and other government entities — puts him in the forefront of lawyers devoted exclusively to public finance. As such, he serves as Bond Counsel, Disclosure Counsel, and Underwriter's Counsel in a wide range of public finance transactions. Clients rely on his strategic acumen to determine the optimal financial structure and to identify the best available revenue streams for every sort of public infrastructure project.

With a thorough grounding in federal securities law, Brian is an acknowledged leader in all manner of infrastructure funding, including land secured financing, utility revenue, general fund lease revenue, and the creative use of derivatives.

Representative Experience

Toll Roads. Brian serves as Bond/Disclosure Counsel to the Foothill/Eastern Transportation Corridor Agency and the South San Joaquin Transportation Corridor Agency on several billion dollars of outstanding toll revenue bonds.

The funding of a new stadium for the Oakland A's baseball team. Brian has represented the Oakland A's on bond related matters in their dual goals of acquiring the Oakland Coliseum Complex for redevelopment and the acquisition and development of a new stadium at Howard Terminal adjacent to the San Francisco Bay.

Inglewood Football Stadium for the Los Angeles Rams and Chargers. Brian and his team have assisted the Kroenke Group in analyzing and developing public financing options for the development of the Rams and Chargers new stadium and surrounding development. Brian previously assisted the Chargers on their attempts to develop stadium alternatives in the cities of Carson and San Diego.

Tahoe Douglas Visitor Authority Event Center. Brian and his team assisted the TDVA in drafting and passing legislation for a new tourism surcharge on transient occupancies in Douglas County to assist in financing a 6,000 seat event center to revitalize occupancy rates in the Casino core around Lake Tahoe. The complex financing utilized several sources of revenue including the surcharge, TDVA's share of transient occupancy taxes and tax increment revenues.

Stradling

Patricia Eichar

Partner
Sacramento

peichar@stradlinglaw.com
D: 916 449 2335

Education

University of the Pacific McGeorge School of Law, J.D.

San Diego State University, B.A.

Areas of Focus

Public Finance

Bar Admissions

California

Oregon

Patricia Eichar is a partner in Stradling's public finance practice group.

Patricia L. Eichar focuses her practice on public finance, representing municipal bond issuers, borrowers, and underwriters in a wide range of financing transactions. Patricia has significant experience advising on taxable and tax-exempt financings for public infrastructure projects, healthcare organizations, senior living communities, and other 501(c)(3) entities, as well as enterprise and general obligation financings.

Patricia has represented issuers, including the State of California, in complex financings involving general obligation bonds, deficit bonds, revenue anticipation notes, lease revenue bonds, enterprise revenue bonds, pension obligation bonds, and land-secured bonds. She also regularly serves as disclosure counsel to public agencies, advising on primary offering documents and ongoing disclosure obligations.

In addition to her transactional practice, Patricia has been actively involved in pro bono efforts, including representing clients in guardianship matters and assisting veterans with appeals of disability benefit denials. Ms. Eichar graduated from San Diego State University with her bachelor's and earned her J.D. from the University of the Pacific McGeorge School of Law.

Honors:

- BondBuyer Rising Star 2018
- Chief Symposium Editor, McGeorge Law Review, Volume 38
- Staff Writer, McGeorge Law Review, Volume 37
- Witkin Awards Outstanding Academic Achievement Award
- Traynor Honor Society

The Wiley W. Manuel Award for Pro Bono Legal Services, February 2009

Stradling

Carol L. Lew

Partner
Newport Beach

clew@stradlinglaw.com
D: 949 725 4237

For state and local governments and nonprofit organizations raising money for public infrastructure and other projects, Carol Lew's proven tax advice is a critical piece of the complex financing puzzle. With more than 30 years of federal tax law experience, Carol is nationally recognized for her ability to apply her in-depth knowledge of the Internal Revenue Code to tax-advantaged debt financings. The complicated tax analyses she undertakes keep issuers and buyers in compliance with all federal tax laws and help communities thrive.

Carol's sought-after tax advice helps states, highway authorities, water districts, housing authorities, hospitals, school districts and municipal agencies and nonprofits finance development projects through a variety of sources, including tax-advantaged and taxable bonds, and public/private partnerships. Many clients also rely on Carol for post-issuance compliance advice. If the IRS audits a bond issuer or buyer, she steps in to resolve any outstanding tax issues quickly. Carol also assists with voluntary closing agreements and private letter ruling requests.

When clients work with Carol, they get the full benefit of her cutting-edge insight and long-standing leadership in the organizations helping shape today's U.S. tax laws. She currently serves on the IRS IRSAC advisory committee that provides advice directly to the IRS Commissioner on a broad range of tax matters. Carol has also served as President of the National Association of Bond Lawyers and as Chair of The American Bar Association Taxation Section's Tax-Exempt Financing Committee.

Education

University of California, Hastings College of the Law, J.D., *magna cum laude*

California State University, Northridge, B.A., *summa cum laude*

Areas of Focus

Tax

Bond & Underwriter Disclosure

Disclosure Counsel

Public Finance

Bar Admissions

California

Representative Experience

Tax counsel for the State Public Works Board of the State of California with respect to their lease revenue bond program which has raised $3.4 billion in funding for major public improvements across the State of California.

Tax counsel for the City of San Diego in connection with their financing program of numerous city projects.

Tax counsel to San Joaquin Hills Transportation Corridor Agency in connection with the $1.4 billion financing of its $2.2 billion in outstanding debt issued to fund construction of the 73 Toll Road.

Tax counsel to the Foothill/Eastern Transportation Corridor Agency in its sale of $2.3 billion in revenue bonds; Carol coordinated one of the most complex tax analyses for a municipal bond offering in recent years.

Tax counsel to the Rancho California Municipal Water District in bond issuance and post-issuance matters related to its revenue bond financing program including both tax-exempt and taxable obligations.

Tax Counsel to the City of Chula Vista relating to various tax-exempt and taxable bonds for the city's public infrastructure.

EXHIBIT B
BOND COUNSEL WATER/WASTEWATER TRANSACTIONS
January 1, 2020 – Current

Issue Dated Date	Issuer (Full Name)	Issue Description	Par Amount ($ Millions)
1/23/2020	Exeter-California	Water Revenue Refunding Bonds	4.36
1/30/2020	Monte Vista Co Water Dt	Certificates of Participation	8.39
1/30/2020	Monte Vista Co Water Dt	Certificates of Participation	14.11
4/16/2020	Carpinteria Valley Water Dt	Ref & Rev Certs of Participation	19.43
4/16/2020	Carpinteria Valley Water Dt	Refunding Revenue Bonds	3.72
4/24/2020	Seattle City-Washington	Drainage & Wstwtr Sys Imp Bonds	192.18
4/29/2020	Las Virgenes Munic Water Dt	Installment Purchase Agreement	10.80
5/6/2020	Vernon City-California	Water System Revenue Bonds	14.84
5/27/2020	Eastern Municipal Water Dt	Special Tax Bonds	4.15
6/11/2020	Whittier Utilities Authority	Water Refunding Revenue Bonds	5.62
5/27/2020	Eastern Muni Water Fin Au (EMWD)	Ref Water & Wstwtr Rev Bonds	122.15
6/3/2020	Mesa Water Dt	Rev Certificates of Participation	55.99
6/9/2020	Henderson City-Nevada	GO Ltd Tax Utility System Bonds	125.34
6/9/2020	Henderson City-Nevada	GO Ltd Tax Utility Sys Ref Bonds	50.37
6/11/2020	San Luis Unit/Westlands Wtr Dt Fin Au	Revenue & Subordinate Bonds	225.37
6/23/2020	El Dorado Irrigation Dt	Ref & Rev Certs of Participation	66.68
6/23/2020	El Dorado Irrigation Dt	Refunding Revenue Bonds	129.02
6/30/2020	Chino Basin Regional Fin Auth	Refunding Revenue Bonds	56.26
6/30/2020	Chino Basin Regional Fin Auth	Revenue Note	196.44
7/23/2020	Oceanside City-California	Water Revenue Bonds	25.28
8/5/2020	Foster City-California	General Obligation Bonds	85.00
8/6/2020	El Dorado Irrigation Dt	Refunding Revenue Bonds	81.08
9/2/2020	Santa Margarita/Dana Pt Auth	Water & Wstewater Revenue Bonds	53.90
9/3/2020	Lower Tule River Irrigation Dt	Refunding Revenue Bonds	13.81
9/9/2020	Montecito Water Dt	Refunding Revenue Bonds	11.39
9/10/2020	East Valley Water Dt	Refunding Revenue Bonds	13.62
9/10/2020	East Valley Water Dt	Refunding Revenue Bonds	16.89
10/6/2020	Rosedale-Rio Bravo Wtr Storage Dt	Revenue Refunding Bonds	16.24
10/6/2020	Rosedale-Rio Bravo Wtr Storage Dt	Revenue Refunding Bonds	9.46
10/6/2020	Rosedale-Rio Bravo Wtr Storage Dt	Revenue Refunding Bonds	26.18
10/6/2020	Rosedale-Rio Bravo Wtr Storage Dt	Revenue Refunding Bonds	2.54
10/14/2020	Santa Clara Valley Water Dt	Water System Ref & Rev COPs	65.89
10/14/2020	Santa Clara Valley Water Dt	Water System Ref & Rev COPs	150.09
10/14/2020	Shafter Wasco Irrigation Dt	Refunding Revenue Bonds	9.41
10/22/2020	South Coast Water Dt Financing Au	Revenue Bonds	32.85
11/3/2020	Palmdale Water Dt	Water Revenue Refunding Bonds	14.56
11/3/2020	Garden Grove Public Fin Auth	Water Revenue Bonds	23.22
12/1/2020	Yerington City-Nevada	Interim Debentures	32.83
12/17/2020	Ceres Financing Authority	Water System Revenue Bonds	20.28
12/16/2020	Nevada Irrigation Dt Jt Powers Auth	Revenue Bonds	15.02
12/23/2020	Salinas City-California	Wastewater Revenue Ref Bonds	14.43
1/19/2021	Rancho Calif Wtr Dt Fin Auth	Refunding Revenue Bonds	46.40
1/29/2021	Eastern Municipal Water Dt	Special Tax Bonds	2.44
1/21/2021	West Stanislaus Irrigation Dt	Refunding Revenue Bonds	2.46
1/21/2021	West Stanislaus Irrigation Dt	Refunding Revenue Bonds	24.80
2/4/2021	San Luis & Delta-Mendota Wtr Au	Revenue Bonds	8.02
2/4/2021	San Luis & Delta-Mendota Wtr Au	Refunding Revenue Bonds	32.73
2/9/2021	San Luis Unit/San Luis Wtr Dt Fin Au	Revenue Bonds	22.55
2/11/2021	Western Riverside Wtr & Wstwtr Fin Au	Local Agebcy Rev Ref Bonds	24.94
3/16/2021	Silicon Valley Clean Water	Wastewater Refunding Rev Bonds	137.01
3/16/2021	Silicon Valley Clean Water	Wastewater Refunding Rev Bonds	6.83

Issue Dated Date	Issuer (Full Name)	Issue Description	Par Amount ($ Millions)
3/11/2021	Ellensburg City-Washington	Waterworks Utility Revenue Bond	10.00
4/6/2021	Calleguas Municipal Water Dt	Water Revenue Ref Bonds	39.15
6/3/2021	Cucamonga Valley Water Dt	Water Revenue Refunding Bonds	21.09
4/21/2021	Cucamonga Valley Water Dt	Water Revenue Refunding Bonds	33.79
5/20/2021	Eastern Municipal Water Dt	Special Tax Bonds	2.10
5/27/2021	Oceanside City-California	Water Revenue Refunding Bonds	8.95
5/27/2021	Eastern Muni Wtr CFD #2004-35	Special Tax Bonds	1.18
6/8/2021	Seattle City-Washington	Drainage &Wstwtr Sys Imp&Ref Bond	111.01
6/10/2021	Eastern Municipal Water Dt	Ref Water & Wastewater Rev Bonds	48.04
6/10/2021	Eastern Municipal Water Dt	Ref Water & Wastewater Rev Bonds	50.59
6/17/2021	Seattle City-Washington	Water System Imp & Ref Rev Bonds	82.22
6/22/2021	West Basin Municipal Water Dt	Refunding Revenue Bonds	74.90
6/24/2021	Coachella Valley Water Dt	Rev Certificates of Participation	42.08
6/24/2021	Coachella Valley Water Dt	Rev Certificates of Participation	0.81
7/20/2021	Palmdale Water Dt Pub Fin Auth	Water Revenue Bonds	9.39
7/29/2021	Hercules Public Financing Auth	Wastewater Revenue Bonds	8.45
8/5/2021	Panoche Financing Auth	Revenue Bonds	8.61
8/5/2021	Panoche Financing Auth	Revenue Bonds	8.55
8/19/2021	Walnut Valley Water Dt	Water Revenue Refunding Bonds	15.38
8/19/2021	Vallecitos Water Dt	Rev Certificates of Participation	25.55
9/8/2021	Rowland Water Dt	Water Revenue Refunding Bonds	6.00
9/8/2021	Rowland Water Dt	Water Revenue Refunding Bonds	30.18
9/28/2021	Silicon Valley Clean Water	Wastewater Revenue Notes	68.90
9/28/2021	Silicon Valley Clean Water	Wastewater Revenue Notes	73.84
10/7/2021	Eastern Municipal Water Dt	Special Tax Bonds	13.47
10/14/2021	Eastern Municipal Water Dt	Special Tax Bonds	4.19
11/4/2021	Orange Co Water Dt	Rev Certificates of Participation	94.42
11/17/2021	Santa Maria City-California	Water & Wastewater Rev Ref Bonds	35.69
11/18/2021	Poway Public Finance Auth	Water Revenue Bonds	12.93
12/8/2021	Escondido City-California	Wastewater Rev Ref Bonds	21.55
11/30/2021	San Francisco City/Co Public Util Comm	Wastewater Revenue Bonds	37.05
11/30/2021	San Francisco City/Co Public Util Comm	Wastewater Revenue Bonds	260.84
11/30/2021	San Francisco City/Co Public Util Comm	Wastewater Revenue Notes	129.11
11/30/2021	San Francisco City/Co Public Util Comm	Wastewater Revenue Notes	218.36
12/17/2021	Eastern Muni Water Fin Au (EMWD)	GO Refunding & Revenue Bonds	22.36
2/10/2022	West Basin Municipal Water Dt	Refunding Revenue Bonds	24.45
2/10/2022	Coachella Valley Water Dt	Drinking Water Sys Rev Notes	35.23
2/16/2022	Yucaipa Valley Water Dt	Revenue Bonds	34.69
2/16/2022	Yucaipa Valley Water Dt	Revenue Bonds	25.40
3/10/2022	El Toro Water Dt	Water & Wastewater Rev Bonds	40.91
3/16/2022	Sacramento Suburban Water Dt	Refunding Revenue Bonds	6.59
3/16/2022	Sacramento Suburban Water Dt	Refunding Revenue Bonds	34.73
4/5/2022	Alameda Co Water Dt Financing Authority	Water System Revenue Bonds	43.58
4/26/2022	El Dorado Irrigation Dt	Refunding Revenue Bonds	71.52
5/12/2022	Coachella Valley Water Dt	Stormwater Sys Rev COPs	53.34
5/26/2022	Pittsburg City Public Fin Auth	Water Revenue Bonds	43.87
6/21/2022	East Bay MUD	Water System Revenue Bonds	133.95
6/21/2022	East Bay MUD	Water System Rev & Ref Bonds	175.96

Issue Dated Date	Issuer (Full Name)	Issue Description	Par Amount ($ Millions)
6/16/2022	East Bay MUD	Wastewater Sys Rev Bonds	18.14
6/16/2022	East Bay MUD	Wastewater Sys Rev Bonds	17.35
6/22/2022	Seattle City-Washington	Drainage &Wstwtr Sys Imp&Ref Bond	117.17
6/30/2022	Truckee Donner Public Util Dt	Water System Revenue Bonds	14.83
7/28/2022	Seattle City-Washington	Water System Imp & Ref Rev Bonds	85.91
7/28/2022	Yorba Linda Water Dt	Financing Auth Rev Bonds	32.31
10/4/2022	Colorado Springs City-Colorado	Utilities Sys Imp & Ref Bonds	290.95
12/1/2022	Riverside City-California	Water Revenue Bonds	58.03
1/19/2023	Santa Clara Valley Water Dt	Water System Refunding Rev Bonds	69.05
1/19/2023	Santa Clara Valley Water Dt	Revenue COPs	25.15
1/19/2023	Santa Clara Valley Water Dt	Revenue COPs	37.43
1/19/2023	Santa Clara Valley Water Dt	Water Sys Ref Rev & COPs	93.38
1/19/2023	Santa Clara Valley Water Dt	Revenue COPs	53.18
1/19/2023	Santa Clara Valley Water Dt	Revenue COPs	64.19
6/8/2023	Seattle City-Washington	Drng & Wstwtr Sys Imp Rev Bond	97.94
6/7/2023	Tehachapi-Cummings Water Dt	Certificates of Participation	10.93
6/15/2023	Upper Santa Ana Rvr Wtrshd Infras Fin Au	Interim Notes	46.91
6/15/2023	Upper Santa Ana Rvr Wtrshd Infras Fin Au	Refunding Rev Bonds	5.62
8/8/2023	Upper Santa Clara Vlly Jt Powers Au	Revenue Bonds	62.65
8/31/2023	Colorado Springs City-Colorado	Util Sys Imp & Ref Rev Bonds	364.40
9/14/2023	Poway Public Finance Auth	Water Revenue Bonds	35.79
9/26/2023	Palmdale Water Dt Pub Fin Auth	Water Revenue Bonds	21.23
11/7/2023	Livermore Valley Wtr Fin Auth	Water Revenue Bonds	28.80
11/16/2023	Hidden Valley Lake Com Svc Dt	Water Revenue Bonds	5.00
12/14/2023	Goleta Water Dt	Refunding Revenue Bonds	30.43
2/7/2024	Vallejo Flood & Wastewater Dt	Wastewater Revenue Ref Bonds	18.83
3/5/2024	East Bay MUD	Water System Revenue Bonds	245.29
3/5/2024	East Bay MUD	Water System Rev Ref Bonds	180.72
3/12/2024	East Bay MUD	Wastewater System Revenue Bonds	24.95
3/27/2024	Eastern Municipal Water Dt	Ref Wtr & Wstwtr Rev Bonds	48.37
4/30/2024	Palmdale Water Dt Pub Fin Auth	Subordinate Water Rev Bonds	21.70
5/16/2024	Monterey Park Financing Authority	Water Revenue Bonds	20.56
6/6/2024	Seattle City-Washington	Water Sys Imp Rev Bonds	68.77
6/18/2024	Yucaipa Valley Water Dt	Interim Notes	81.41
6/18/2024	Yucaipa Valley Water Dt	Revenue Bonds	5.80
6/27/2024	Puente Basin Water Agency	Water Revenue Bonds	30.74
7/17/2024	Monte Vista Co Water Dt	Revenue COPs	23.89
7/25/2024	Temescal Vlly Wtr Dt Pub Fin Auth	Local Agency Rev Ref Bonds	34.17
8/21/2024	Ontario Public Financing Auth	Water Revenue Bonds	43.96
9/24/2024	Santa Clara Valley Water Dt	Water System Ref Rev Bonds	90.50
9/24/2024	Santa Clara Valley Water Dt	Water System Ref & Rev Bonds	147.92
9/24/2024	Santa Clara Valley Water Dt	Water System Ref Rev Bonds	50.59
9/24/2024	Santa Clara Valley Water Dt	Water System Ref Rev Notes	25.03
10/1/2024	Coalinga Public Financing Auth	Wastewater Revenue Bonds	3.03
10/1/2024	Coalinga Public Financing Auth	Water Revenue Bonds	8.40
10/17/2024	Amador Water Agency	Rev COPs	20.45
11/26/2024	El Dorado Irrigation Dt	Certificates of Participation	68.71
12/9/2024	Calleguas Municipal Water Dt	Water Revenue Ref Bonds	60.45
2/26/2025	Pagosa Springs Sanit Gen Imp Dt	Wastewater Revenue Bonds	4.75
3/18/2025	Union Sanitary Dt Fin Auth	Interim Notes	192.79
4/1/2025	Mid-Peninsula Water Dt	Certificates of Participation	32.73

Issue Dated Date	Issuer (Full Name)	Issue Description	Par Amount ($ Millions)
4/8/2025	Alameda Co Water Dt Financing Authority	Water System Rev Bonds	46.10
5/15/2025	East Bay MUD	Water System Rev Bonds	259.46
5/15/2025	East Bay MUD	Water System Rev Ref Bonds	479.00
5/22/2025	East Bay MUD	Wastewater System Rev Bonds	28.58
5/22/2025	East Bay MUD	Wastewater Sys Rev Ref Bonds	48.40
5/19/2025	Seattle City-Washington	Water Sys Imp & Ref Rev Bonds	230.81
6/5/2025	La Habra Utility Authority	Water Ref Rev Bonds	13.60
	Santa Clarita Valley Wtr Agy	Commercial Paper Notes	120.00
6/9/2025	Seattle City-Washington	Drainage & Wstwater Sys Imp Ref	151.81
6/26/2025	Everett City-Washington	Water & Sewer Rev Bonds	80.47
7/10/2025	Western Riverside Wtr & Wstwtr Fin Au	Lcl Agency Rev Ref Bonds	41.02
8/20/2025	Beaumont Co Public Imp Auth	Wastewater Revenue Ref Bonds	71.81
8/26/2025	Colorado Springs City-Colorado	Utilities Sys Imp Rev & Ref Bonds	738.16
8/28/2025	Riverside City-California	Refunding Sewer Rev Bonds	139.17
9/10/2025	Santa Clara Valley Water Dt	Water System Ref Rev Bonds	109.36
9/10/2025	Santa Clara Valley Water Dt	Water System Ref Rev Bonds	90.72
11/18/2025	Stockton-East Water Dt	Rev Certificates of Participation	32.13
2/26/2026	Marin Public Financing Auth	Wastewater Revenue Bonds	28.50
3/17/2026	El Dorado Irrigation Dt	Refunding Revenue Bonds	43.22
4/2/2026	Indio Public Financing Authority	Water Revenue Ref Bonds	33.47
5/6/2026	East Bay MUD	Water System Revenue Bonds	329.51
5/6/2026	East Bay MUD	Water System Revenue Ref Bonds	361.68
4/15/2026	Eastern Municipal Water Dt	Special Tax Bonds	3.73
5/20/2026	East Bay MUD	Wastewater Sys Rev & Ref Bonds	167.99
5/13/2026	Eastern Municipal Water Dt	Special Tax Bonds	3.65
5/14/2026	Eastern Municipal Water Dt	Special Tax Bonds	7.82
5/20/2026	Tahoe Public Utility Dt	Water Revenue Bonds	7.00
5/21/2026	Amador Water Agency	Water Revenue Refunding Bonds	23.22
5/21/2026	Amador Water Agency	Water Revenue Refunding Bonds	12.64
5/21/2026	Amador Water Agency	Revenue Certs of Participation	37.65
7/28/2026	Rancho Calif Wtr Dt Fin Auth	Fixed Rate Revenue Bonds	52.28
7/30/2026	Eureka Public Financing Auth	Wastewater System Revenue Bonds	22.68
7/30/2026	Eureka-California	Water System Refunding Bonds	9.27
8/12/2026	Eastern Municipal Water Dt	Refunding Water & Wastewater Rev	63.64
8/25/2026	Mission Springs Water Dt	Revenue COPs	26.75
9/17/2026	Santa Clara Valley Water Dt	Water System Ref Rev Bonds	271.86
9/17/2026	Santa Clara Valley Water Dt	Water System Revenue Notes	162.11
9/30/2026	Eastern Municipal Water Dt	Ref Water & Wastewater Rev Bonds	234.29
9/17/2026	Santa Clara Valley Water Dt	Water System Ref Rev Bonds	87.65

EXHIBIT C
DISCLOSURE COUNSEL WATER/WASTEWATER TRANSACTIONS
January 1, 2020 – Current

Issue Dated Date	Issuer (Full Name)	Issue Description	Par Amount ($ Millions)
1/23/2020	Exeter-California	Water Revenue Refunding Bonds	4.36
3/25/2020	Sacramento Area Flood Ctl Agcy	Consolidated Capital Bonds	57.11
4/1/2020	Las Vegas Valley Water Dt	GO Ltd Tx Water Refunding Bonds	98.08
4/16/2020	Carpinteria Valley Water Dt	Refunding Revenue Bonds	3.72
5/6/2020	Sacramento City-California	Water Revenue Refunding Bonds	188.39
5/6/2020	Vernon City-California	Water System Revenue Bonds	14.84
5/14/2020	Denver City Co Bd of Wtr Comm	Water Revenue Refunding Bonds	126.96
5/14/2020	Denver City Co Bd of Wtr Comm	Water Revenue Bonds	141.03
5/27/2020	Eastern Municipal Water Dt	Special Tax Bonds	4.15
6/11/2020	Whittier Utilities Authority	Water Refunding Revenue Bonds	5.62
6/3/2020	Mesa Water Dt	Rev Certificates of Participation	55.99
6/9/2020	Henderson City-Nevada	GO Ltd Tax Utility System Bonds	125.34
6/9/2020	Henderson City-Nevada	GO Ltd Tax Utility Sys Ref Bonds	50.37
6/11/2020	San Luis Unit/Westlands Wtr Dt Fin Au	Revenue & Subordinate Bonds	225.37
7/1/2020	So California Metro Water Dt	Water Revenue Refunding Bonds	268.00
7/1/2020	Sacramento City-California	Wastewater Revenue Ref Bonds	27.97
7/8/2020	Western Muni Wtr Dt Facs Au	Water Revenue Bonds	90.26
7/23/2020	Oceanside City-California	Water Revenue Bonds	25.28
8/12/2020	Beverly Hills Public Fin Auth	Water Revenue Bonds	25.62
8/12/2020	Beverly Hills Public Fin Auth	Water Refunding Bonds	30.47
9/2/2020	Santa Margarita/Dana Pt Auth	Water & Wstewater Revenue Bonds	53.90
10/22/2020	South Coast Water Dt Financing Au	Revenue Bonds	32.85
11/10/2020	United Water Conservation District	Rev Certificates of Participation	26.67
12/9/2020	Turlock Public Fin Auth	Water Revenue BANs	117.75
12/17/2020	Ceres Financing Authority	Water System Revenue Bonds	20.28
12/16/2020	Nevada Irrigation Dt Jt Powers Auth	Revenue Bonds	15.02
1/19/2021	Rancho Calif Wtr Dt Fin Auth	Refunding Revenue Bonds	46.40
2/4/2021	So California Metro Water Dt	Water Revenue Bonds	188.89
2/11/2021	Western Riverside Wtr & Wstwtr Fin Au	Local Agebcy Rev Ref Bonds	24.94
3/3/2021	Las Vegas Valley Water Dt	GO Ltd Tax Water Ref Bonds	32.80
3/3/2021	Las Vegas Valley Water Dt	GO Ltd Tax Water Ref Bonds	144.69
3/16/2021	Silicon Valley Clean Water	Wastewater Refunding Rev Bonds	137.01
3/16/2021	Silicon Valley Clean Water	Wastewater Refunding Rev Bonds	6.83
3/25/2021	Las Vegas Valley Water Dt	GO Ltd Tx Water Ref Bonds	208.15
4/6/2021	Calleguas Municipal Water Dt	Water Revenue Ref Bonds	39.15
6/3/2021	Cucamonga Valley Water Dt	Water Revenue Refunding Bonds	21.09
4/21/2021	Cucamonga Valley Water Dt	Water Revenue Refunding Bonds	33.79
5/4/2021	Washington	Motor Vehicle Fuel Tx GO Ref Bond	191.61
5/4/2021	Washington	Motor Vehicle Fuel Tx GO Bonds	240.41
5/4/2021	Denver City Co Bd of Wtr Comm	Water Revenue Bonds	316.79
5/20/2021	Eastern Municipal Water Dt	Special Tax Bonds	2.10
5/27/2021	Oceanside City-California	Water Revenue Refunding Bonds	8.95
5/27/2021	Eastern Muni Wtr CFD #2004-35	Special Tax Bonds	1.18
6/8/2021	Seattle City-Washington	Drainage &Wstwtr Sys Imp&Ref Bond	111.01
6/17/2021	Seattle City-Washington	Water System Imp & Ref Rev Bonds	82.22
6/16/2021	So California Metro Water Dt	Sub Water Revenue Ref Bonds	222.16
7/8/2021	So California Metro Water Dt	Water Revenue Refunding Bonds	98.41
7/20/2021	Palmdale Water Dt Pub Fin Auth	Water Revenue Bonds	9.39
8/5/2021	Panoche Financing Auth	Revenue Bonds	8.61
8/5/2021	Panoche Financing Auth	Revenue Bonds	8.55
8/19/2021	Walnut Valley Water Dt	Water Revenue Refunding Bonds	15.38
8/19/2021	Vallecitos Water Dt	Rev Certificates of Participation	25.55

Issue Dated Date	Issuer (Full Name)	Issue Description	Par Amount ($ Millions)
9/8/2021	Rowland Water Dt	Water Revenue Refunding Bonds	6.00
9/8/2021	Rowland Water Dt	Water Revenue Refunding Bonds	30.18
9/15/2021	Los Angeles Co Development Auth	Capital Proj Revenue Bonds	41.65
9/28/2021	Silicon Valley Clean Water	Wastewater Revenue Notes	68.90
9/28/2021	Silicon Valley Clean Water	Wastewater Revenue Notes	73.84
10/7/2021	Eastern Municipal Water Dt	Special Tax Bonds	13.47
11/18/2021	Poway Public Finance Auth	Water Revenue Bonds	12.93
12/8/2021	Escondido City-California	Wastewater Rev Ref Bonds	21.55
12/16/2021	Ontario City-California	Water Revenue Refunding Bonds	67.55
12/17/2021	Eastern Muni Water Fin Au (EMWD)	GO Refunding & Revenue Bonds	22.36
2/1/2022	Las Vegas Valley Water Dt	GO Ltd Tax Wtr Improvement Bonds	292.24
2/1/2022	Sacramento Co Water Fin Auth	Revenue Bonds	81.22
2/10/2022	West Basin Municipal Water Dt	Refunding Revenue Bonds	24.45
2/10/2022	Coachella Valley Water Dt	Drinking Water Sys Rev Notes	35.23
3/3/2022	Las Vegas Valley Water Dt	GO Ltd Tax Water Refunding Bonds	253.82
3/3/2022	Las Vegas Valley Water Dt	GO Ltd Water Refunding Bonds	31.50
2/16/2022	Yucaipa Valley Water Dt	Revenue Bonds	34.69
2/16/2022	Yucaipa Valley Water Dt	Revenue Bonds	25.40
3/10/2022	El Toro Water Dt	Water & Wastewater Rev Bonds	40.91
3/16/2022	Sacramento Suburban Water Dt	Refunding Revenue Bonds	6.59
3/16/2022	Sacramento Suburban Water Dt	Refunding Revenue Bonds	34.73
5/12/2022	Coachella Valley Water Dt	Stormwater Sys Rev COPs	53.34
5/26/2022	Pittsburg City Public Fin Auth	Water Revenue Bonds	43.87
6/21/2022	East Bay MUD	Water System Revenue Bonds	133.95
6/21/2022	East Bay MUD	Water System Rev & Ref Bonds	175.96
6/16/2022	East Bay MUD	Wastewater Sys Rev Bonds	18.14
6/16/2022	East Bay MUD	Wastewater Sys Rev Bonds	17.35
6/22/2022	Seattle City-Washington	Drainage &Wstwtr Sys Imp&Ref Bond	117.17
6/30/2022	Truckee Donner Public Util Dt	Water System Revenue Bonds	14.83
7/7/2022	So California Metro Water Dt	Water Revenue Ref Bonds	279.57
7/28/2022	Seattle City-Washington	Water System Imp & Ref Rev Bonds	85.91
7/27/2022	So California Metro Water Dt	Water Revenue Refunding Bonds	253.37
7/27/2022	So California Metro Water Dt	Special Water Rev Ref Bonds	134.63
7/27/2022	So California Metro Water Dt	Waterworks Revenue Ref Bonds	147.65
7/28/2022	Yorba Linda Water Dt	Financing Auth Rev Bonds	32.31
10/4/2022	Colorado Springs City-Colorado	Utilities Sys Imp & Ref Bonds	290.95
10/12/2022	Denver City and Co-Colorado	Water Revenue Bonds	189.52
6/8/2023	Corona Utility Authority	Water Revenue Refunding Bonds	20.09
6/8/2023	Seattle City-Washington	Drng & Wstwtr Sys Imp Rev Bond	97.94
6/7/2023	Tehachapi-Cummings Water Dt	Certificates of Participation	10.93
6/21/2023	So California Metro Water Dt	Water Rev and Ref Bonds	258.41
6/15/2023	Upper Santa Ana Rvr Wtrshd Infras Fin Au	Interim Notes	46.91
6/15/2023	Upper Santa Ana Rvr Wtrshd Infras Fin Au	Refunding Rev Bonds	5.62
8/8/2023	Upper Santa Clara Vlly Jt Powers Au	Revenue Bonds	62.65
8/31/2023	Colorado Springs City-Colorado	Util Sys Imp & Ref Rev Bonds	364.40
9/14/2023	Poway Public Finance Auth	Water Revenue Bonds	35.79
10/4/2023	Las Vegas Valley Water Dt	GO Water Bonds	185.86
9/26/2023	Palmdale Water Dt Pub Fin Auth	Water Revenue Bonds	21.23
	Denver City Co Bd of Wtr Comm	Sub Lien Water Revenue CP Notes	300.00
11/16/2023	Hidden Valley Lake Com Svc Dt	Water Revenue Bonds	5.00
12/14/2023	Goleta Water Dt	Refunding Revenue Bonds	30.43
12/19/2023	Sacramento City-California	Water Rev Ref Bonds	20.99
2/7/2024	Vallejo Flood & Wastewater Dt	Wastewater Revenue Ref Bonds	18.83
3/5/2024	East Bay MUD	Water System Revenue Bonds	245.29
3/5/2024	East Bay MUD	Water System Rev Ref Bonds	180.72

Issue Dated Date	Issuer (Full Name)	Issue Description	Par Amount ($ Millions)
3/12/2024	East Bay MUD	Wastewater System Revenue Bonds	24.95
4/30/2024	Palmdale Water Dt Pub Fin Auth	Subordinate Water Rev Bonds	21.70
5/8/2024	So California Metro Water Dt	Water Revenue Refunding Bonds	367.01
5/7/2024	Long Beach City-California	Senior Water Revenue Bonds	91.63
5/16/2024	Monterey Park Financing Authority	Water Revenue Bonds	20.56
6/25/2024	No California Sanit Agcy Fin Auth	Refunding Revenue Bonds	439.87
6/18/2024	Yucaipa Valley Water Dt	Interim Notes	81.41
6/18/2024	Yucaipa Valley Water Dt	Revenue Bonds	5.80
6/27/2024	Puente Basin Water Agency	Water Revenue Bonds	30.74
7/17/2024	Monte Vista Co Water Dt	Revenue COPs	23.89
7/25/2024	Temescal Vlly Wtr Dt Pub Fin Auth	Local Agency Rev Ref Bonds	34.17
8/1/2024	Riverfield MUD #1	Unlimited Tax Utility Bonds	4.41
8/21/2024	Ontario Public Financing Auth	Water Revenue Bonds	43.96
9/4/2024	Las Vegas Valley Water Dt	GO Water Ref Bonds	286.26
9/19/2024	So California Metro Water Dt	Water Revenue and Refunding Bonds	214.34
9/19/2024	So California Metro Water Dt	Subordinate Water Rev Ref Bonds	150.00
12/9/2024	Calleguas Municipal Water Dt	Water Revenue Ref Bonds	60.45
2/26/2025	Pagosa Springs Sanit Gen Imp Dt	Wastewater Revenue Bonds	4.75
3/18/2025	Union Sanitary Dt Fin Auth	Interim Notes	192.79
3/18/2025	Sacramento Co Water Fin Auth	Revenue Bonds	61.78
5/8/2025	Los Angeles City-California	Wastewater Sys Sub Rev Bonds	145.41
5/8/2025	Los Angeles City-California	Wstwtr Sys Sub Rev & Ref Bonds	565.89
5/15/2025	East Bay MUD	Water System Rev Bonds	259.46
5/15/2025	East Bay MUD	Water System Rev Ref Bonds	479.00
5/22/2025	East Bay MUD	Wastewater System Rev Bonds	28.58
5/22/2025	East Bay MUD	Wastewater Sys Rev Ref Bonds	48.40
5/19/2025	Seattle City-Washington	Water Sys Imp & Ref Rev Bonds	230.81
6/5/2025	La Habra Utility Authority	Water Ref Rev Bonds	13.60
6/24/2025	Las Vegas Valley Water Dt	GO Water Improvement Bonds	394.43
6/10/2025	Los Angeles City-California	Wastewater Sys Rev Ref Bonds	518.45
	Santa Clarita Valley Wtr Agy	Commercial Paper Notes	120.00
7/1/2025	So California Metro Water Dt	Water Revenue Ref Bonds	131.93
7/10/2025	Western Riverside Wtr & Wstwtr Fin Au	Lcl Agency Rev Ref Bonds	41.02
7/10/2025	Antelope Vlly-East Kern Wtr Agy	Water Bank Rev Bonds	52.43
7/10/2025	Antelope Vlly-East Kern Wtr Agy	Water Bank Rev Bonds	117.62
8/20/2025	Beaumont Co Public Imp Auth	Wastewater Revenue Ref Bonds	71.81
8/26/2025	Colorado Springs City-Colorado	Utilities Sys Imp Rev & Ref Bonds	738.16
8/28/2025	Riverside City-California	Refunding Sewer Rev Bonds	139.17
9/10/2025	Santa Clara Valley Water Dt	Water System Ref Rev Bonds	109.36
9/10/2025	Santa Clara Valley Water Dt	Water System Ref Rev Bonds	90.72
10/22/2025	Corona Utility Authority	Water Revenue Bonds	39.68
11/18/2025	Stockton-East Water Dt	Rev Certificates of Participation	32.13
3/4/2026	Las Vegas Valley Water Dt	GO Ltd Tax Water Refunding Bonds	335.06
2/26/2026	Marin Public Financing Auth	Wastewater Revenue Bonds	28.50
4/2/2026	Indio Public Financing Authority	Water Revenue Ref Bonds	33.47
5/6/2026	East Bay MUD	Water System Revenue Bonds	329.51
5/6/2026	East Bay MUD	Water System Revenue Ref Bonds	361.68
4/15/2026	Eastern Municipal Water Dt	Special Tax Bonds	3.73
5/20/2026	East Bay MUD	Wastewater Sys Rev & Ref Bonds	167.99
5/13/2026	Eastern Municipal Water Dt	Special Tax Bonds	3.65
5/14/2026	Eastern Municipal Water Dt	Special Tax Bonds	7.82
6/22/2026	No California Sanit Agcy Fin Auth	Refunding Revenue Bonds	135.08
7/28/2026	Rancho Calif Wtr Dt Fin Auth	Fixed Rate Revenue Bonds	52.28
7/30/2026	Eureka Public Financing Auth	Wastewater System Revenue Bonds	22.68
7/30/2026	Eureka-California	Water System Refunding Bonds	9.27

City Council
Agenda Report

ITEM NO. 11

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Melissa Snyder, Community Services Director

SUBJECT: **UPDATE ON METRO THRONE RESTROOM USAGE AND CONSIDERATION OF APPROVAL OF THE UPDATED EXTERIOR WRAP DESIGN FOR THE RESTROOM**

Recommendation

It is recommended that the City Council:

1. Receive and file an informational report regarding usage and operations of the Metro Throne Labs restroom located near the South Pasadena A Line Station; and
2. Consideration to approve the updated exterior wrap design proposed by the Los Angeles County Metropolitan Transportation Authority (Metro), as shown in Attachment No. 1, and authorize staff to coordinate implementation with Metro.

Executive Summary

The City of South Pasadena (City), in partnership with Metro, provides a Throne Labs smart restroom facility near the South Pasadena A Line Station. The facility offers free public restroom access to Metro passengers, local residents, employees of nearby businesses, and visitors, including those attending the weekly South Pasadena Farmers' Market.

Metro reports 17,326 uses since installation in October 2025, with monthly data reflecting approximately 49 uses per day on average from October 2025 through September 2026. The restroom operates daily from 6:00 a.m. to midnight, is cleaned multiple times throughout the day, and has a user-reported cleanliness rating of nearly four out of five stars. Thursdays have the highest share of usage, coinciding with the weekly Farmers' Market.

In addition to the operational update, Metro has proposed replacing the restroom's existing exterior wrap with an updated design that incorporates colorful imagery inspired by Southern California communities and landmarks served by Metro's rail system.

The purpose of this report is to provide the City Council with an update regarding restroom usage and operations and request approval of the proposed exterior wrap design.

Background

On May 7, 2025, the City Council approved a partnership with Metro for the installation of a Throne Labs smart restroom facility at no cost to the City. The partnership was established as part of Metro's broader initiative to expand public restroom access throughout its transit system.

Following the initial approval, staff evaluated potential locations for the restroom and presented the proposed options for consideration. On July 16, 2025, the City Council reviewed the proposed locations and provided direction regarding the placement of the facility. Following discussion, the City Council approved Option 2, with the inclusion of planters, by a 4–1 vote.

The restroom was subsequently installed in October 2025 near the South Pasadena A Line Station, providing free public restroom access to Metro passengers and community members visiting the surrounding commercial district, public spaces, and weekly Farmers' Market.

Analysis

Restroom Usage and Operational Data

Metro provided updated information regarding restroom usage, cleaning frequency, and user feedback. The South Pasadena facility has recorded 17,326 uses since its installation in October 2025. Based on the monthly daily-use averages reported from October 2025 through September 2026, the facility averages approximately 49 uses per day. Additional usage analytics are included in Attachment No. 2.

The restroom is available daily from 6:00 a.m. to midnight, with operating hours generally aligned with Metro rail service. Cleaning is performed three to four times per day, with additional service provided when priority maintenance or cleanliness concerns are reported.
Metro also collects user feedback regarding restroom cleanliness. Based on the information provided, the South Pasadena facility has received a cleanliness rating of nearly four out of five stars.

Usage data further indicates increased demand during community events and activities. Metro reports that restroom usage increases by approximately 120 percent on Thursdays, corresponding with the weekly South Pasadena Farmers' Market. This increase indicates that the restroom serves individuals visiting the surrounding area in addition to regular transit passengers.

Metro reports that its Throne restroom program has expanded to 64 facilities throughout its transit system. The South Pasadena restroom is part of this broader initiative to improve public restroom access for Metro passengers and surrounding communities.

Proposed Exterior Wrap Design

In conjunction with its operational update, Metro has proposed replacing the restroom's existing exterior wrap with an updated design consistent with its latest restroom branding.

The existing wrap features a predominantly blue-and-white color scheme with Throne Labs and Metro branding. The proposed design incorporates a broader color palette with illustrations reflecting Southern California landmarks, transportation, and communities connected by Metro's rail system.

The updated design retains Metro branding and restroom identification while providing a different exterior appearance. A comparison of the existing and proposed designs is included in Attachment No. 1.

The proposed modification is limited to the restroom's exterior appearance and does not include changes to the facility's location, operating hours, or existing public restroom services.

Staff is requesting City Council approval of the proposed design to allow Metro to proceed with coordinating the exterior wrap replacement. Following approval, staff will work with Metro to confirm the implementation schedule and coordinate any activities necessary to complete the work.

Fiscal Impact

There is no fiscal impact associated with the recommended actions. Metro provides the Throne Labs restroom facility, including its operation and maintenance, at no cost to the City. The proposed exterior wrap update will be coordinated through Metro and will not require City funding.

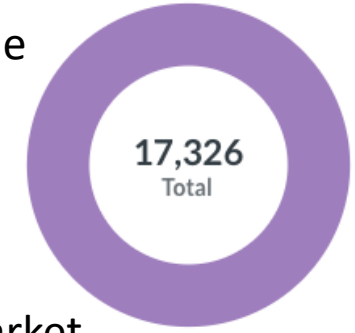
Attachment:

Attachment No. 1 - Metro Throne Restroom Usage Data and Design Update

Attachment No. 2 - Metro Throne Restroom Usage Analytics

Throne Analytics: South Pasadena

South Pasadena's Throne has served over 17,000 local residents, local workforce, and visitors for events like the weekly Farmer's Market



- Restroom is open 6:00am – 12:00am daily, aligned with train schedule
- Cleanings performed 3-4 times daily and when priority issues are reported
- Cleanliness rating reported by users, nearly 4 out of 5-star rating
- Farmer's Market shoppers choose Throne Restroom over traditional bathroom, as Throne usage jumps +120% on Thursdays

Parents with children are all smiles after using the free-to-use Throne Restroom made possible by Metro while shopping at the weekly Farmer's Market next to South Pasadena A Line Station

LA Metro Smart, Clean & Safe Restroom Design

Original Metro Throne Restroom design, shown at South Pasadena Station, which has been ***used by local residents & visitors over 17,000 times***

Latest Metro Throne Restroom design blends a versatile color palette with SoCal's iconic elements served by train; Metro now has 64 Throne Restrooms across the system, which has been especially helpful for families & older adults

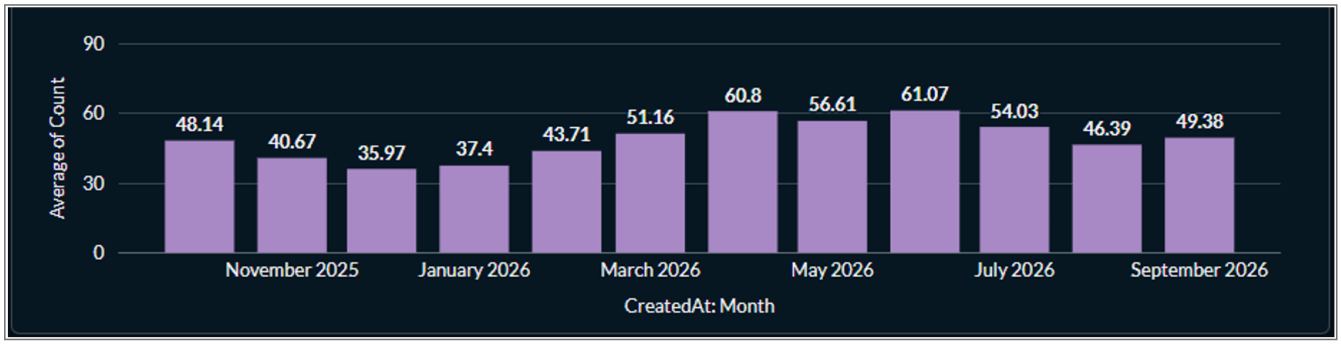
Metro

Metro Throne Restroom Usage Analytics

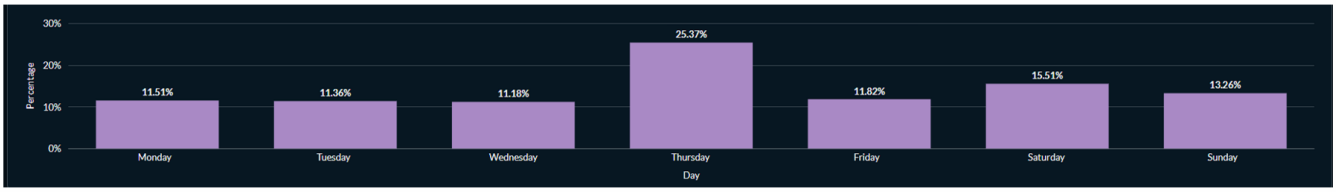
South Pasadena A Line Station | October 2025 - September 2026

~49	61.07	25.37%
AVERAGE USES PER DAY	HIGHEST MONTHLY DAILY AVERAGE	THURSDAY SHARE OF WEEKLY USES

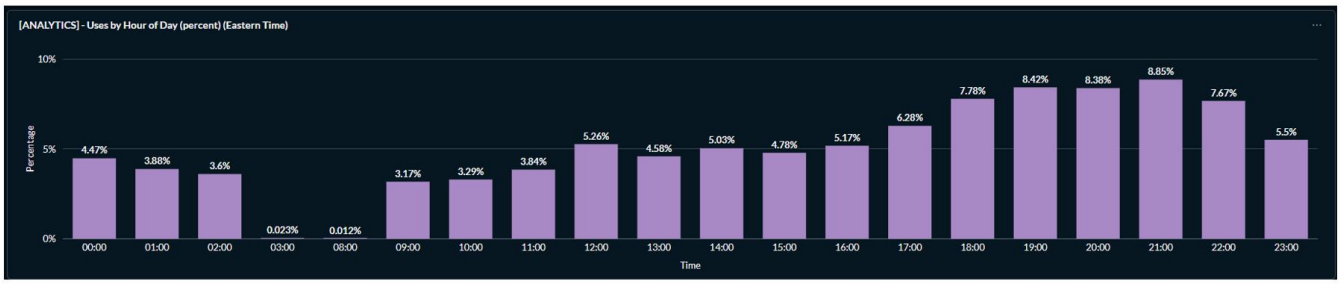
Average Uses per Day by Month



Uses by Day of the Week (percent)



Uses by Hour of the Day (percent) (Eastern Time)



Source: Metro/Throne Labs usage analytics supplied to the City.

City Council
Agenda Report

ITEM NO. 12

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Julian Lee, Director of Public Works
Michael Vartanians, City Engineer
Bassam AL-Beitawi, Transportation Program Manager

SUBJECT: **CONSIDERATION OF APPROVAL OF PLANS AND SPECIFICATIONS FOR THE NORTH SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEMS DEPLOYMENT ON FAIR OAKS AVENUE PROJECT RABA01-5071 (024)**

Recommendation
It is recommended that the City Council approve the plans (Attachment No. 1) and specifications (Attachment No. 2) for the North South Intelligent Transportation Systems Deployment on Fair Oaks Avenue Project.

Executive Summary
The Fair Oaks Avenue Intelligent Transportation Systems (ITS) Deployment Project (Project) will improve traffic operations, safety, and pedestrian accessibility along Fair Oaks Avenue between Huntington Drive and Columbia Street. The Project includes traffic signal upgrades, new traffic management technology, pedestrian crossing improvements, and modifications to existing intersections.

The Project design is complete, and staff is requesting City Council approval of the plans and specifications. The estimated total Project cost is $17.4 million, funded through federal Rogan funds, local funds, and LA Metro Measure R funds.

Background
On August 12, 2004, the City of South Pasadena was awarded $9,343,000 in Federal Highway Administration (FHWA) Rogan Funds (Bill No. HR 5394) for the construction of the SR-110 ramp. The project was not implemented because of right-of-way constraints and lack of technical studies and data.

In November 2019, FHWA and the California Department of Transportation (Caltrans) notified the City that the federal funds were at risk of expiring unless the project proceeded. To preserve the funding, City staff coordinated with FHWA and Caltrans to revise the project scope to focus on reducing traffic congestion and improving traffic operations along Fair Oaks Avenue between Huntington Drive and Columbia Street. Through continued coordination, the City successfully extended the federal funding expiration date to June 30, 2027.

On August 18, 2021, the City Council awarded a professional services agreement to KOA for

engineering design services for the Project. As the design progressed, additional traffic engineering and Intelligent Transportation Systems (ITS) expertise was needed to complete the proposed improvements. On July 16, 2025, the City Council approved a professional services agreement with Iteris, Inc. to provide traffic engineering and ITS support services. Subsequently, on March 4, 2026, the City Council approved an amendment to the agreement with Iteris to complete the Project's design plans.

The Project has since completed environmental review and final engineering design. The plans and specifications are now complete, and the Project is ready to proceed through the construction bidding process.

Analysis
The Project will improve traffic flow, enhance pedestrian safety, and modernize traffic signal infrastructure along Fair Oaks Avenue between Huntington Drive and Columbia Street.

The proposed scope of work includes:

- **Traffic Signal Improvements:** Installation of new traffic signal equipment at 11 signalized intersections along Fair Oaks Avenue, including Columbia Street/Raymond Hill Road, State Street/Grevelia Street, Hope Street, Mission Street, El Centro Street, Oxley Street, Monterey Road, Bank Street, Rollin Street, Oak Street, and Huntington Drive.
- **Traffic Management Technology:** Installation of traffic monitoring cameras, emergency vehicle preemption systems, and Intelligent Transportation Systems (ITS) equipment to improve traffic management and emergency response.
- **Pedestrian Safety Improvements:** Installation of Rectangular Rapid Flashing Beacons (RRFBs) at Fair Oaks Avenue and Spruce Street, upgrades to existing curb ramps to meet Americans with Disabilities Act (ADA) requirements, and modifications to existing curb extensions where necessary to improve accessibility.
- **Intersection Modifications:** Closure of Grevelia Street at Fair Oaks Avenue and closure of the existing slip lanes at Fair Oaks Avenue and Huntington Drive to improve intersection operations and safety.
- **Additional Infrastructure Improvements:** Installation of new internally illuminated street signs and fiber optic communication infrastructure connecting City Hall to the Public Works Garfield Yard.

Staff is also coordinating with the South Pasadena Arts Council (SPARC) to develop a plan for the removal of the existing painted traffic signal cabinets impacted by the Project. Following completion of construction, staff will work with SPARC to invite local artists to repaint the traffic signal cabinets, continuing the City's efforts to incorporate public art into the community.

The Project plans and specifications were prepared by registered professional engineers with Iteris, Inc. and Kimley-Horn and Associates in accordance with current professional engineering standards. The City Engineer has reviewed the plans and specifications and determined that the proposed design is reasonable and meets applicable engineering standards. Accordingly, the City Engineer recommends that the City Council approve the plans and specifications.

The Project design is 100% complete and has satisfied Caltrans' requirements to proceed with construction advertisement. The City issued the Invitation for Bids on October 8, 2026.

Construction is anticipated to begin in early 2027, with completion anticipated in fall 2027.

Approval of the plans and specifications will allow the City to advance the construction procurement process. Staff will return to the City Council for consideration of the construction contract award following completion of the bidding process.

Fiscal Impact
The total estimated Project cost is approximately $17.4 million, consisting of the following:

Design:	$1,300,000
Construction (Engineer's Estimate)	$15,300,000
Construction Management/Inspection:	$800,000
Total:	**$17,400,000**

The Project is funded through approximately $9.34 million in federal Rogan funds, local matching funds, and $10 million in LA Metro Measure R funds (Measure R is pending final approval from Metro). These funding sources are anticipated to be sufficient to complete the Project.

The federal Rogan funds are currently scheduled to expire on June 30, 2027. Since construction is anticipated to extend beyond this date, staff intends to request an extension following the selection of a construction contractor. Measure R funds are available to supplement the federal funding and address potential construction cost increases. Any unused Measure R funds may be considered for reallocation to other eligible projects in coordination with LA Metro.

Approval of the plans and specifications does not authorize a construction contract or result in any additional fiscal impact at this time.

Key Performance Indicators and Strategic Plan
This item is related to street improvement goals, traffic mitigation and safety goals in the City Council's 2026 compilation of priorities.

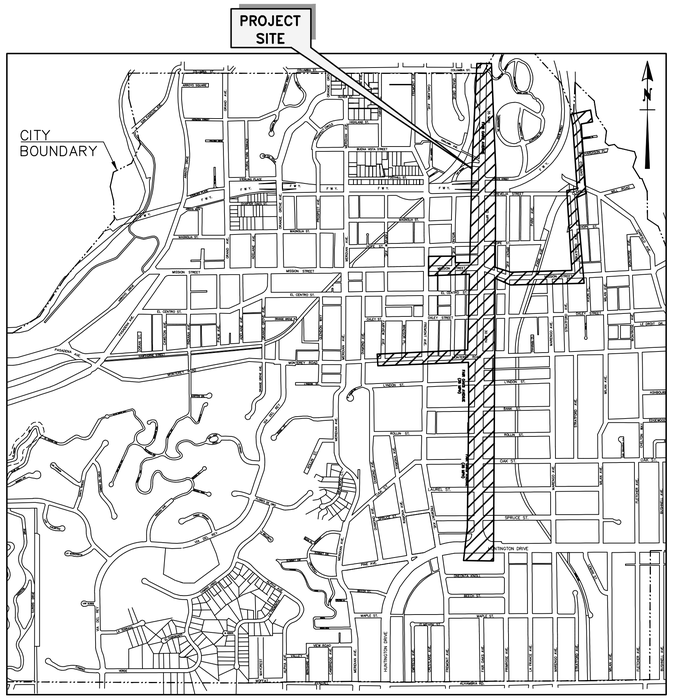
Commission Review and Recommendation
The Project was discussed with the Public Works and Infrastructure Commission (PWIC) Mobility on August 27, 2025 and May 13, 2026.

Public Notification
The public was made aware that this item was to be considered this evening by virtue of its inclusion on the publicly noticed agenda and posting of the same agenda and reports on the City's website.

Environmental Analysis
The Project meets the requirements of California Environmental Quality Act Guidelines Section 15301 for Class 1, Existing Facilities, as the Project is consistent with Sections 15301(c) and 15301(d) listed. The City posted a Notice of Exemption with the State Clearinghouse on October 23, 2025, and with the Los Angeles County Registrar Clerk Recorder on October 30, 2025.

Attachment:

Attachment No. 1 - Fair Oaks Plans
Attachment No. 2 - Fair Oaks ITS Specifications



VICINITY MAP
NOT TO SCALE

CITY OF SOUTH PASADENA

NORTH–SOUTH CORRIDOR

INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE BETWEEN HUNTINGTON DRIVE AND COLUMBIA STREET

CITY PROJECT NO. 2020–02

FEDERAL–AID PROJECT NO. RABA 01–5071(024)

FTIP NO. LA9918928

SHT NO.	TITLE
1	TITLE SHEET
2	GENERAL NOTES
3	CONSTRUCTION NOTES
	STREET IMPROVEMENT PLANS
4–5	FAIR OAKS AVENUE & COLUMBIA STREET/RAYMOND HILL ROAD
6	FAIR OAKS AVENUE & STATE STREET
7–8	S.R. 110 SB ON–RAMP/110 NB OFF–RAMP
9	FAIR OAKS AVENUE & GREVELIA STREET
10–11	FAIR OAKS AVENUE & HOPE STREET
12–13	FAIR OAKS AVENUE & MISSION STREET
14	FAIR OAKS AVENUE & EL CENTRO STREET
15–16	FAIR OAKS AVENUE & OXLEY STREET
17–18	FAIR OAKS AVENUE & MONTEREY ROAD
19–21	FAIR OAKS AVENUE & LYNDON STREET
22–24	FAIR OAKS AVENUE & BANK STREET
25–26	FAIR OAKS AVENUE & ROLLIN STREE
27–29	FAIR OAKS AVENUE & OAK STREET
30–32	FAIR OAKS AVENUE & LAUREL STREET
33–35	FAIR OAKS AVENUE & SPRUCE STREET
36–40	STANDARD PLANS
	TRAFFIC SIGNAL MODIFICATION PLANS
41	FAIR OAKS AVENUE & COLUMBIA STREET/RAYMOND HILL ROAD
42–43	FAIR OAKS AVENUE & STATE/GREVELIA STREET
44	FAIR OAKS AVENUE & HOPE STREET
45	FAIR OAKS AVENUE & MISSION STREET
46	FAIR OAKS AVENUE & EL CENTRO STREET
47	FAIR OAKS AVENUE & OXLEY STREET
48	FAIR OAKS AVENUE & MONTEREY ROAD
49	FAIR OAKS AVENUE & BANK STREET
50	FAIR OAKS AVENUE & ROLLIN STREET
51	FAIR OAKS AVENUE & OAK STREET
52	FAIR OAKS AVENUE & SPRUCE STREET
	FIBER OPTIC PLANS
53	CITY HALL TO GARFIELD PARK
54	GARFIELD PARK TO PUBLIC WORKS BUILDING
55	CITY HALL FACILITY AND PUBLIC WORKS BUILDING
56	FIBER OPTICS DETAILS
57	SPLICE DETAILS
	SIGNING AND STRIPING PLANS
58	FAIR OAKS AVENUE AND GREVELIA STREET/110 SB OFF/ON RAMP
59	FAIR OAKS AVENUE AND MONTEREY ROAD AND LYNDON STREET
60	FAIR OAKS AVENUE AND SPRUCE STREET
	IRRIGATION PLANS
61	OVERALL IRRIGATION PLAN
62	FAIR OAKS AVENUE & HOPE STREET
63	FAIR OAKS AVENUE & MISSION STREET
64	FAIR OAKS AVENUE & EL CENTRO STREET
65	FAIR OAKS AVENUE & OXLEY STREET
66	FAIR OAKS AVENUE & MONTEREY ROAD
67	FAIR OAKS AVENUE & ROLLIN STREET
68	IRRIGATION LEGEND AND NOTES
69	IRRIGATION DETAILS
	LANDSCAPE PLANS
70	PLANTING NOTES & SCHEDULES
71	PLANTING SCHEDULES
72	FAIR OAKS AVENUE & HOPE STREET
73	FAIR OAKS AVENUE & MISSION STREET
74	FAIR OAKS AVENUE & EL CENTRO STREET
75	FAIR OAKS AVENUE & OXLEY STREET
76	FAIR OAKS AVENUE & MONTEREY ROAD
77	FAIR OAKS AVENUE & ROLLIN STREET
78	PLANTING DETAILS
	FAIR OAKS AVENUE & HUNTINGTON DRIVE
79–97	UPDATED DESIGN

PUBLIC UTILITY AUTHORIZATION FOR OPERATION

CABLE: SPECTRUM
1041 E ROUTE 66
GLENDORA, CA 91740
818–407–3152

TELEPHONE: AT&T
RIGHT–OF–WAY DEPARTMENT
100 N. STONEMAN AVE.
ALHAMBRA, CA 91801
626–365–5733

SEWAGE DISPOSAL: PUBLIC WORKS DEPARTMENT
CITY OF SOUTH PASADENA
825 MISSION STREET
SOUTH PASADENA, CA 91030
626–403–7370

SOLID WASTE: ATHENS SERVICES
14048 E. VALLEY BLVD.
CITY OF INDUSTRY, CA 91746
888–336–6100

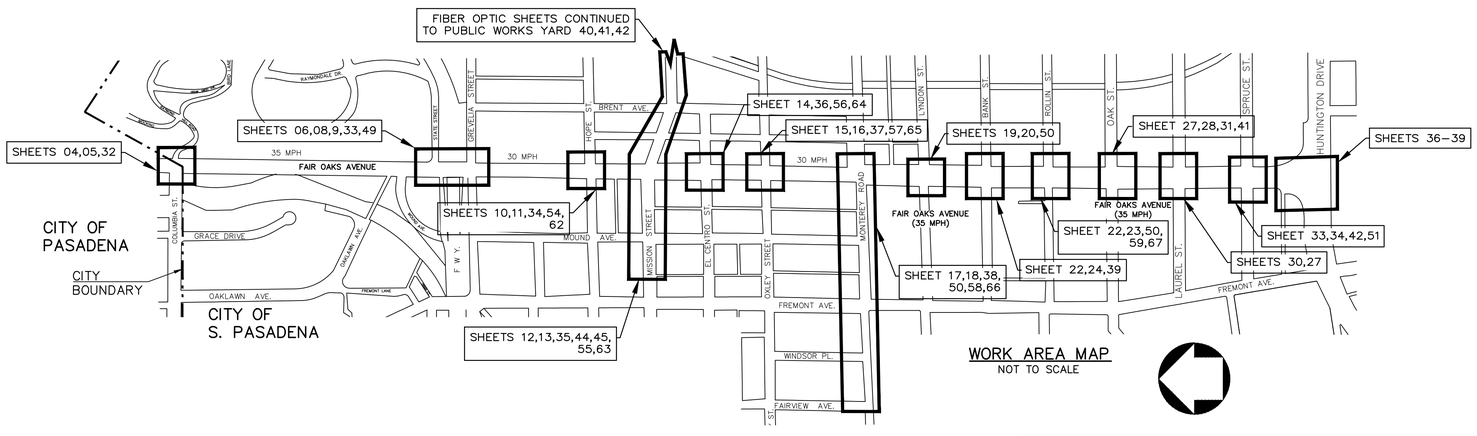
ELECTRIC: SO–CAL EDISON
P.O. BOX 11982
SANTA ANA, CA 92711
714–796–9932

GAS: SO–CAL GAS CO.
1919 S STATE COLLEGE BLVD.
ANAHEIM, CA 92806–6114
714–634–3079

WATER: PUBLIC WORKS DEPARTMENT
CITY OF SOUTH PASADENA
825 MISSION STREET
SOUTH PASADENA, CA 91030
626–441–4024 (PRODUCTION)
626–403–7377 (DISTRIBUTION)

UNDERGROUND STRUCTURES

THE EXISTENCE OR LOCATION OF ANY UNDERGROUND UTILITIES, PIPES, STRUCTURES, ETC. WHICH WERE NOT VISIBLE FOR FIELD VERIFICATION AND ARE SHOWN ON THIS PLAN SET, WERE SHOWN FROM INFORMATION PROVIDED BY OTHERS NOT CONNECTED WITH PSOMAS. THE UNDERGROUND UTILITIES ARE SHOWN FOR INFORMATION PURPOSES ONLY AND DO NOT REPRESENT PRECISE LOCATIONS OR DEPTHS. ANY CONSTRUCTION RELATIVE TO UNDERGROUND UTILITIES MUST REQUIRE THE CONTRACTOR OR OTHERS TO ASCERTAIN THE EXISTENCE OR THE TRUE LOCATION AND DEPTH OF ANY UNDERGROUND UTILITIES. VERIFICATION OF LOCATION AND DEPTH OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NONCOMPLIANCE OF VERIFICATION HOLDS PSOMAS HARMLESS FROM ANY DAMAGES OR LOSSES INCURRED.



WORK AREA MAP
NOT TO SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REGISTERED PROFESSIONAL ENGINEER MARC VIOLETT No. C73486 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5551
Phone: (949) 270-9400
Fax: (949) 270-9401

MARC VIOLETT DATE
R.C.E. NO. 73486

REVIEWED IN ACCORDANCE WITH CITY'S POLICY CONDITIONS OF APPROVAL BY:

JULIAN LEE, P.W. DIRECTOR DATE
R.C.E. NO. 67874

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

TITLE SHEET

PROJECT NO.
SHEET NO. 1 OF 97

C:\pms\iteris-pw.bentley.com_itrs-pw-01\jhd@iteris.com\dms21280\M-01_Title Sheet.dwg 10/07/26 – 4:15pm JHa

STREET IMPROVEMENT GENERAL NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK), 2024 EDITION, AND ALL SUBSEQUENT SUPPLEMENTS, CITY OF SOUTH PASADENA STANDARDS, CONTRACT DOCUMENTS, 2025 CALTRANS STANDARD PLANS (CURB RAMPS) AND THE LATEST REVISIONS THEREOF.
2. THE LOCATION AND EXISTENCE OF UTILITIES AND IMPROVEMENTS SHOWN ON THE PLANS ARE APPROXIMATE AND TAKEN FROM AVAILABLE RECORDS, THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING IMPROVEMENTS. AND SHALL TAKE ALL PRECAUTIONS TO PROTECT THEM WHETHER SHOWN OR NOT. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT AT (1-800-227-2600) 48 HOURS BEFORE ANY EXCAVATION.
3. INSPECTION BY THE CITY OF THE WORK CALLED FOR ON THE PLANS SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF THEIR OBLIGATION TO PERFORM WORK IN COMPLIANCE WITH THE PLANS AND SPECIFICATIONS.
4. IF ANY EXISTING RAISED PAVEMENT MARKERS ARE WITHIN THE TRENCH AREA, THEN CONTRACTOR SHALL REMOVE PRIOR TO CONSTRUCTION AND REPLACE THEM UPON THE FINISHED SURFACE. CONTRACTOR SHALL PLACE AND MAINTAIN TEMPORARY MARKERS UNTIL PERMANENT MARKERS HAVE BEEN INSTALLED.
5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL DEVICES AT ALL TIMES IN ACCORDANCE WITH THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (2026 EDITION), WATCH MANUAL AND AS DIRECTED BY THE ENGINEER. ARROW BOARDS ARE REQUIRED FOR ALL LANE CLOSURES. CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS STAMPED BY A TRAFFIC ENGINEER TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ISSUANCE OF THE NOTICE TO PROCEED.
6. STOCKPILING OF EXCESS MATERIAL SHALL NOT BE ALLOWED IN PUBLIC RIGHT OF WAY.
7. ALL WATER VALVES, SEWER CLEAN OUTS AND SEWER MANHOLES SHALL REMAIN ACCESSIBLE AND FREE OF DEBRIS THROUGHOUT ALL PHASES OF THE PROJECT.
8. INSTALL MINIMUM 1/2" STEEL PLATE BRIDGING OVER ALL SEWER MANHOLES WITHIN THE CONSTRUCTION AREA TO PREVENT DEBRIS FROM ENTERING INTO THE SEWER SYSTEM.
9. ACCESS TO ALL DRIVEWAYS SHALL BE MAINTAINED DURING CONSTRUCTION.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN UP AND DUST CONTROL AT ALL TIMES IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE AND OPERATE A SELF-LOADING MOTOR SWEEPER WITH SPRAY NOZZLES EVERY DAY, BEGINNING 1/2 HOUR PRIOR TO THE END OF CONSTRUCTION ACTIVITIES.
11. IF ENCOUNTERED, THE CONTRACTOR SHALL RELOCATE/ADJUST ALL PERTINENT IRRIGATION AS NEEDED TO IMPLEMENT THE NEW IMPROVEMENTS.

EROSION CONTROL NOTES:

1. IN CASE OF EMERGENCY CALL THE DEPARTMENT OF PUBLIC WORKS AT (626) 403-7240.
2. CONTRACTOR SHALL HAVE LABOR, MATERIALS AND EQUIPMENT AVAILABLE TO RESPOND TO A RAIN EVENT IN ACCORDANCE WITH THE SPECIFICATIONS.
3. EROSION CONTROL DEVICES SHALL NOT BE REMOVED OR MODIFIED WITHOUT THE APPROVAL OF THE CITY INSPECTOR.
4. ALL REMOVABLE EROSION PROTECTIVE DEVICES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5-DAY PROBABILITY FORECAST EXCEEDS 50%.
5. AFTER RAINSTORM ALL SILT AND DEBRIS SHALL BE REMOVED FROM STREETS, BERMS AND BASINS.
6. CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREA WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
7. ALL LOOSE SOIL AND DEBRIS WHICH MAY CREATE A POTENTIAL HAZARD TO OFFSITE PROPERTY SHALL BE REMOVED FROM THE SITE AS DIRECTED BY THE CITY INSPECTOR.
8. EROSION CONTROL DEVICES WILL BE MODIFIED AS NEEDED AS THE PROJECT PROGRESSES AND PLANS OF THESE CHANGES SUBMITTED FOR APPROVAL AS REQUIRED.
9. EROSION CONTROL MEASURES AND BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE MAINTAINED AND CLEAN AT ALL TIMES. CONTRACTOR SHALL SUBMIT THE WEEKLY SWPPP REPORTS TO THE ENGINEER.

NOTICE TO CONTRACTORS AND SUBCONTRACTORS:

1. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY, AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT.
2. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE PLANS, SPECIFICATIONS, SOILS AND/OR GEOLOGY REPORTS, AND THE SITE CONDITIONS PRIOR TO COMMENCING WORK.
3. SHOULD CONFLICTING INFORMATION BE FOUND ON THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE CITY BEFORE PROCEEDING WITH THE WORK IN QUESTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRE-CONSTRUCTION DAMAGE IDENTIFICATION AND APPROACH SLAB REPAIR. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL IDENTIFY AND DOCUMENT ANY EXISTING DAMAGES AT THE APPROACH SLAB REPAIR SITE. THE CONTRACTOR SHALL REPAIR ALL DEFECTIVE PORTIONS OF THE APPROACH SLAB, INCLUDING BUT NOT LIMITED TO SPALLING, CHIPPING OR CRACKING. ALL IDENTIFIED DEFECTS MUST BE REMOVED AND RECONSTRUCTED IN-KIND, IN ACCORDANCE WITH CURRENT CALTRANS STANDARD SPECIFICATIONS. THIS APPROACH SLAB-REPAIR INCLUDES SAW-CUTTING 1.0 INCH DEEP AROUND PERIMETER OF THE SPALL. ALL UNSOUND CONCRETE WITHIN AN 8-INCH WIDTH SHALL BE REMOVED AND PATCHED WITH FAST-SETTING CEMENT MORTAR. THE FINAL SURFACE MUST MATCH THE ORIGINAL GRADE AND TEXTURE.

STORMWATER POLLUTANT PLAN NOTES:

1. ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA, DRAINS NATURAL DRAINAGE COURSES OR WIND.
2. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY FORCES OF WINDS AND WATER.
3. FUELS, OILS, SOLVENTS AND OTHER MATERIAL MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATER, ALL APPROVED STORAGE CONTAINERS ARE TO BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATER. 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 DRAINAGE SYSTEM.
4. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO PUBLIC WAY OR ANY OTHER DRAINAGE STRUCTURES. PROVISION SHALL BE MADE TO RETAIN CONCRETE WASTE ON SITE UNTIL THEY CAN BE DEPOSITED OF AS SOLID WASTE.
5. TRASH AND CONSTRUCTION RELATED SOLID WASTE MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION OF RAINWATER AND DISPERSAL BY WIND.
6. SEDIMENTS AND OTHER MATERIAL 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 PUBLIC RIGHT OF WAY. ACCIDENTAL DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.
7. ANY SLOPES WITH DISTRIBUTED SOILS OR DENUDED VEGETATION MUST BE STABILIZED SO AS TO INHIBIT EROSION BY RAIN OR WATER.
8. CONTRACTOR TO INCORPORATE APPROPRIATE STORMWATER BEST MANAGEMENT PRACTICES (BMP) FOR RELEVANT TYPES OF DEMOLITION AND CONSTRUCTION ACTIVITIES. ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY CITY INSPECTOR. COVER ALL CATCH BASINS DURING CONSTRUCTION.

NOTES FOR TRAFFIC STRIPING:

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE LATEST CALTRANS STANDARD SPECIFICATIONS AND STANDARD PLANS (2025 EDITION), AND THE SPECIAL PROVISIONS FOR THIS PROJECT, UNLESS OTHERWISE SPECIFIED.
2. PAVEMENT LEGENDS AND MARKINGS SHALL CONFORM TO THE LATEST CALTRANS STANDARD SPECIFICATIONS AND STANDARD PLANS (2025 EDITION).
3. NEW STRIPING SHALL MATCH EXISTING AT EACH END OF THE PROJECT OR AS DIRECTED BY THE ENGINEER.
4. ALL CONFLICTING STRIPING AND PAVEMENT MARKINGS SHALL BE REMOVED BY WET SANDBLASTING.
5. ALL STRIPING SHALL BE THERMOPLASTIC, EXCEPT AS NOTED.
6. CONTRACTOR IS RESPONSIBLE FOR REINSTALLING EXISTING STRIPING AND PAVEMENT MARKINGS DAMAGED DURING CONSTRUCTION.
7. ALL CURVED PORTIONS OF MARKOUT SHALL BE LAID OUT WITH A ROPE.
8. NO PERMANENT STRIPING PRIOR TO APPROVAL OF CAT TRACKING.

DATUM STATEMENT

HORIZONTAL DATUM: CALIFORNIA COORDINATE SYSTEM OF 1983, CCS83, ZONE V, CSRS NAD83(2011) 2017.50 EPOCH
VERTICAL DATUM: NGVD29
GEOID MODEL: GEOID12B
BENCHMARK ID: CITY OF SOUTH PASADENA, AT FAIR OAKS AVENUE & OAK STREET
BENCHMARK ELEVATION: 597.44'
BENCHMARK DESCRIPTION: LEAD & TACK IN TOP OF CURB AT THE SOUTHEAST CORNER OF FAIR OAKS AVENUE & OAK STREET, 11.8' EAST OF THE B.C.R.

NOTE: ALL COORDINATES, ELEVATIONS, AND DISTANCES SHOWN, UNLESS OTHERWISE NOTED, ARE IN TERMS OF THE U.S. SURVEY FOOT (US FT).

CSRS STATIONS USED AND PUBLISHED ACCURACIES

STATION	LATITUDE	LONGITUDE	δLAT(2σ,US FT)	δLONG(2σ, US FT)
VDCY	34°10'42.829365"	-118°13'11.959061"	0.0067	0.0070
SILK	34°06'10.297634"	-118°15'49.894438"	0.0068	0.0069
ELSC	34°01'47.035072"	-118°12'30.316976"	0.0065	0.0068
GVRS	34°02'50.802592"	-118°06'46.377316"	0.0066	0.0067

MAPPING ANGLE AND COMBINED GRID FACTOR (CF)

STATION	NORTHING	EASTING	ELEVATION (NAVD88)	CF	MAPPING ANGLE	ELLIPSOID HEIGHT
202	1862436.20'	6516139.45'	609.24	0.99996051	-00°05'09"	496.62'

TRAFFIC SIGNAL LEGEND/SYMBOLS:

- BICYCLE DETECTION ZONE (6'X6' TYP.)
- ADJUSTED VIDEO DETECTION (AS SHOWN)
- EXISTING WIRELESS ANTENNA TO BE RELOCATED TO NEW MAST ARM
- EXISTING THERMAL DETECTION SENSOR TO BE RELOCATED TO NEW MAST ARM
- EXISTING VIDEO/RADAR DETECTION CAMERA TO BE RELOCATED TO NEW MAST ARM
- PROPOSED CCTV CAMERA
- PROPOSED TRAVEL TIME SENSOR
- PROPOSED TRAFFIC SIGNAL EQUIPMENT, AS NOTED
- PROPOSED PPB POST
- PROPOSED HYBRID VIDEO/RADAR DETECTION SENSOR.
- PROPOSED CONTINENTAL CROSSWALK
- NEW HYBRID VIDEO/RADAR DETECTION (AS SHOWN)
- ADJUSTED HYBRID VIDEO/RADAR DETECTION
- EXISTING PPB POST
- EXISTING TYPE 332 CABINET
- EXISTING SERVICE CABINET
- EXISTING LUMINAIRE
- EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED, AS NOTED
- EXISTING TRAFFIC POLE

CIVIL LINE LEGEND:

- CENTERLINE
- RIGHT-OF-WAY
- SAWCUT

CIVIL SYMBOL LEGEND:

- CATCH BASIN
- FIRE HYDRANT
- SEWER MANHOLE
- STORM DRAIN MANHOLE
- WATER METER

ABBREVIATIONS:

AC	ASPHALT CONCRETE
ADJ	ADJUST TO GRADE
ARHM	ASPHALT RUBBERIZED HOT MIX
AVE	AVENUE
BC	BEGIN CURB
BCR	BEGIN CURB RETURN
BEG	BEGINNING
BOC	BACK OF CURB
BOW	BACK OF WALK
BFPV	BACKFLOW PREVENTER
CATV PB	CABLE TV PULLBOX
CB	CATCH BASIN
CBMH	CATCH BASIN MAN HOLE
CCTV	CLOSED-CIRCUIT TELEVISION
CF	CURB FACE
C&G	CURB AND GUTTER
C/L	CENTERLINE
CMB	CRUSHED MISCELLANEOUS BASE
COMM	COMMUNICATION
CONC	CONCRETE
DR	DRIVE
DWY	DRIVEWAY
EC	END CURB
ECR	END CURB RETURN
EPB	ELECTRICAL PULL BOX
EOG	EDGE OF GUTTER
EVP	EMERGENCY VEHICLE PREEMPTION
EX	EXISTING
E	UNDERGROUND ELECTRICAL LINE
FH	FIRE HYDRANT
FL	FLOWLINE
FS	FINISHED SURFACE
GB	GRADE BREAK
GPS	GLOBAL POSITIONING SYSTEM
ICV	IRRIGATION CONTROL VALVE
IRR	IRRIGATION
IISNS	INTERNALLY ILLUMINATED STREET NAME SIGN
LD	LOCAL DEPRESSION
LF	LINEAR FEET
LP	LOW POINT
LT	LEFT
LUM	LUMINAIRE
MA	MAST ARM
MSWD	MESA WATER DISTRICT
MOC	MIDDLE OF CURB RETURN
(N)	NEW EQUIPMENT
N'LY	NORTHERLY
OL	OVERLAP
PB	PULL BOX
PED	PEDESTRIAN
PCC	PORTLAND CEMENT CONCRETE
PIP	PROTECT IN PLACE
PP	POWER POLE
PPB	PEDESTRIAN PUSH BUTTON
PRC	POINT OF REVERSE CURVE
PROP	PROPOSED
(R)	RELOCATE
R/C	RED CURB
REL	RELOCATE
REM	REMOVE
RT	RIGHT
R/W	RIGHT-OF-WAY
SL	STREET LIGHT
SLPB	STREET LIGHT PULL BOX
SMFO	SINGLE MODE FIBER OPTICS
SMH	SEWER MANHOLE
SOP	SOUTH OF PASADENA
SPPWC	STANDARD PLANS FOR PUBLIC WORK CONSTRUCTION
SS	SANITARY SEWER
SD	STORM DRAIN
ST	STREET
STA	STATION
STD	STANDARD
TC	TOP OF CURB
TCAN	TRASH CAN
TELE	TELEPHONE
TH	TOP OF HEADER
TMH	TELEPHONE MANHOLE
TS	TRAFFIC SIGNAL
TSCC	TRAFFIC SIGNAL CONTROL CABINET
TSPB	TRAFFIC SIGNAL PULL BOX
TYP.	TYPICAL
T	UNDERGROUND TELEPHONE LINE
VLT	VAULT
W=	WIDTH
W	WATER
WALK	SIDEWALK
WM	WATER METER
WV	WATER VALVE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REGISTERED PROFESSIONAL ENGINEER
MARC VIOLETT
No. C73486
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5551
Phone: (949) 270-9400
Fax: (949) 270-9401

MARC VIOLETT DATE
R.C.E. NO. 73486

CITY OF SOUTH PASADENA CALIFORNIA 1888

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

GENERAL NOTES

PROJECT NO.
SHEET NO. 2 OF 97

C:\Sharepoint\OneDrive - ITERIS INC\Documents\South Pasadena\RD-02_General Notes.dwg 10/07/26 - 5:16pm JJHa

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
3. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE) AND SUBGRADE TO A DEPTH OF 36" BELOW PROPOSED FINISH SURFACE.
3A. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE) AND SUBGRADE TO A DEPTH OF 18" BELOW PROPOSED FINISH SURFACE.
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
4A. SAWCUT AND REMOVE EXISTING PCC DRIVEWAY.
4B. SAWCUT AND REMOVE EXISTING PCC CROSS GUTTER SPANDREL.
4C. SAWCUT AND REMOVE EXISTING PCC CROSS GUTTER.
5. REMOVE EXISTING PCC CURB AND GUTTER.
6. REMOVE EXISTING PCC CURB.
7. REMOVE (ITEM PER PLAN).
8. REMOVE AND REINSTALL EXISTING (ITEM PER PLAN).
9. NOT USED
10. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 18" BELOW PROPOSED FINISH SURFACE.
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
12. REMOVE EXISTING AC PAVEMENT SECTION.
13. SAWCUT AND REMOVE EXISTING PCC PAVEMENT SECTION AND BASE MATERIAL AND/OR NATIVE SOIL (AS NEEDED) TO A DEPTH OF 20" BELOW PROPOSED FINISH SURFACE (SAWCUT TO NEAREST JOINT LINE WHEN POSSIBLE).
14. REMOVE EXISTING LANDSCAPING AND SUBGRADE TO A DEPTH OF 18" BELOW PROPOSED FINISH SURFACE.
15. REMOVE EXISTING LANDSCAPING AND SUBGRADE TO A DEPTH OF 4" BELOW PROPOSED FINISH SURFACE.
16. REMOVE MEDIAN PCC AND SUBGRADE TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.

17–19 ARE NOT USED

20. RESET EXISTING SURVEY TIE.

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112–2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120–3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
2A. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120–3, TYPE A2, "CF" PER PLAN (W=TO MATCH EXISTING). SEE REF. DETAIL ON SHEET 38.
3. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120–3, TYPE A2, "CF" PER PLAN (W=18"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120–3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
5. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120–3, TYPE A2, "CF" PER PLAN (W=18"). SEE REF. DETAIL ON SHEET 38.
5A. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN NO. 120–3, TYPE A2, "CF" & "W" PER PLAN. SEE REF. DETAIL ON SHEET 38.
6. CONSTRUCT PCC CURB PER SPPWC STD. PLAN NO. 120–3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
7. CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120–3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120–3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
9. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120–3, TYPE A2, "CF" PER PLAN (W=30"). SEE REF. DETAIL ON SHEET 38.
9A. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120–3, TYPE A2, "CF" PER PLAN (W=30"). SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111–5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
11. CONSTRUCT MODIFIED 4" PCC CURB RAMP PER SPPWC STD. PLAN 111–5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
11A. CONSTRUCT 4" PCC CURB RAMP PER CITY OF PASADENA STD. PLAN S–414. SEE REF. DETAIL ON SHEET 40.
12. CONSTRUCT 4" PCC CURB RAMP PER CALTRANS STD. PLAN A88A (CASE PER PLAN). SEE REF. DETAIL ON SHEET 40.
13. CONSTRUCT MODIFIED 4" PCC CURB RAMP PER CALTRANS STD. PLAN A88B (CASE PER PLAN). SEE REF. DETAIL ON SHEET 40.
14. CONSTRUCT PARKWAY DRAIN PER SPPWC STD. PLAN 151–3 ("S" PER PLAN). SEE REF. DETAIL ON SHEET 39.
15. CONSTRUCT PCC CROSS GUTTER SPANDREL, 8" THICK PER SPPWC STD. PLAN 122–3 ON 6" CMB. SEE REF. DETAIL ON SHEET 37.
15A. CONSTRUCT PCC CROSS GUTTER, 8" THICK PER SPPWC STD. PLAN 122–3 ON 6" CMB. SEE REF. DETAIL ON SHEET 37.
16. CONSTRUCT PCC DRIVEWAY APPROACH PER SPPWC STD. PLAN 110–2, "TYPE A" UNLESS SHOWN OTHERWISE (W & X PER PLAN). SEE REF. DETAIL ON SHEET 36.
17. CONSTRUCT PARTIAL PCC DRIVEWAY APPROACH PER SPPWC STD. PLAN 110–2, "TYPE C" UNLESS SHOWN OTHERWISE. SEE REF. DETAIL ON SHEET 36.
17A. CONSTRUCT PARTIAL LOCAL DEPRESSION PER SPPWC STD. PLAN 313–4, "CASE E" UNLESS SHOWN OTHERWISE. SEE REF. DETAIL ON SHEET 42.
18. CONSTRUCT CURB DRAIN PER SPPWC STD. PLAN 150–4 (N=1) UNLESS SHOWN OTHERWISE. SEE REF. DETAIL ON SHEET 39.
18A. CONSTRUCT CURB DRAIN (OUTLET ONLY) PER SPPWC STD. PLAN 150–4 (N=1) UNLESS SHOWN OTHERWISE. SEE REF. DETAIL ON SHEET 39.
19. INSTALL METAL HAND RAILS PER SPPWC STD. PLAN 606–5. SEE REF. DETAIL ON SHEET 39.
20. CONSTRUCT 1.5" ARHM ON 4.5" AC PAVEMENT OVER 12" CMB OVER 95% RELATIVE COMPACTED SUBGRADE.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
22. CONSTRUCT 12" PCC PAVEMENT PER SPPWC STD. PLAN 132–4 ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE.
23. INSTALL #5X24" TIE BARS @ (O.C. SPACING PER STD. PLAN) WITH EPOXY ADHESIVE AT PCC JOIN LOCATIONS PER SPPWC STD. PLAN 134–3. SEE REF. DETAIL ON SHEET 40.
24. COMPACT EXISTING BASE OR NATIVE SOIL PRIOR TO BACKFILL. IMPORT NATIVE BACKFILL TO BOTTOM OF PROPOSED IMPROVEMENTS. COMPACT TO 95% RELATIVE COMPACTION.
25. COMPACT EXISTING BASE OR NATIVE SOIL TO 95% RELATIVE COMPACTION AND CONSTRUCT AC PAVEMENT (THICKNESS TO EQUAL REMOVED SECTION).
26. INSTALL SILICONE LIQUID JOINT SEALANT PER CALTRANS STD. PLAN P20.
27. CONSTRUCT 4–INCH THICK PCC SIDEWALK OVER 4" CMB. EXPANSION JOINTS SHALL BE PLACED AT 24' INTERVALS AND WEAKENED PLANED JOINTS SHALL BE PLACED AT 8' INTERVALS UNLESS OTHERWISE SPECIFIED.
28. CONSTRUCT 4–INCH PLASTIC PIPE (UNSLOTTED) DRAIN OUTLET. MATERIAL SHALL CONFORM TO CALTRANS STANDARD SPEC SECTION 68–4.
29. CONSTRUCT TYPE A1 PCC CURB PER CALTRANS STD. PLAN A87A, "H2" PER PLAN.
30. ADJUST MANHOLE FRAME AND COVER TO GRADE (ITEM PER PLAN).
31. ADJUST UTILITY TO GRADE BY OTHERS (ITEM PER PLAN). CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.
32. ADJUST WATER VALVE FRAME AND COVER TO GRADE.
33. ADJUST WATER METER COVER TO GRADE.
34. ADJUST EXISTING TRAFFIC SIGNAL PULL BOX TO GRADE.
35. ADJUST EXISTING STREET LIGHT PULL BOX TO GRADE.

36–39 ARE NOT USED

40. RELOCATE EXISTING UTILITY BY OTHERS. CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.
41. RELOCATE EXISTING TRAFFIC SIGNAL PULL BOX TO GRADE.
41A. RELOCATE EXISTING STREET LIGHT PULL BOX TO GRADE.
42. RELOCATE EXISTING IRRIGATION CONTROL VALVE, IRRIGATION LINES, SPRINKLERS AND ALL PERTINENT IMPACTED ITEMS PER THE NEW CONSTRUCTION.
43. CONSTRUCT 4" THICK MEDIAN PCC.

44–49 ARE NOT USED

50. INSTALL CEMENT GROUT UNDER POLE PLATE (ONLY WHEN EXPOSED AND NEEDED).
51. PRUNE EXISTING ROOTS. CERTIFIED ARBORIST SHALL APPROVE ROOTS TO BE PRUNED.
52. MODIFY TOP OF EXISTING CATCH BASIN PER DETAIL AND SECTION HEREON.
53. CONSTRUCT 4'–1"x1'–4" CONC. SIDEWALK DRAINAGE BOX.
54. CONSTRUCT TYPE A2 PCC CURB AND GUTTER PER CALTRANS STD. PLAN A87A, "H2" PER PLAN.
55. CONSTRUCT 12–INCH JPCP ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE PER CALTRANS STD. PLAN P3A.

LS. SEE LANDSCAPE PLAN SHEETS 67–82 FOR ALL LANDSCAPE RELATED ITEMS.
SS. FINAL LOCATION OF SIGNING AND STRIPING PLAN PER SIGNAGE AND STRIPING RELATED ITEMS.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER
ALEXIS ESCOBAR
No. C094200
Exp. 12-31-26
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR, R.C.E. NO. 94200

10/7/2026
DATE

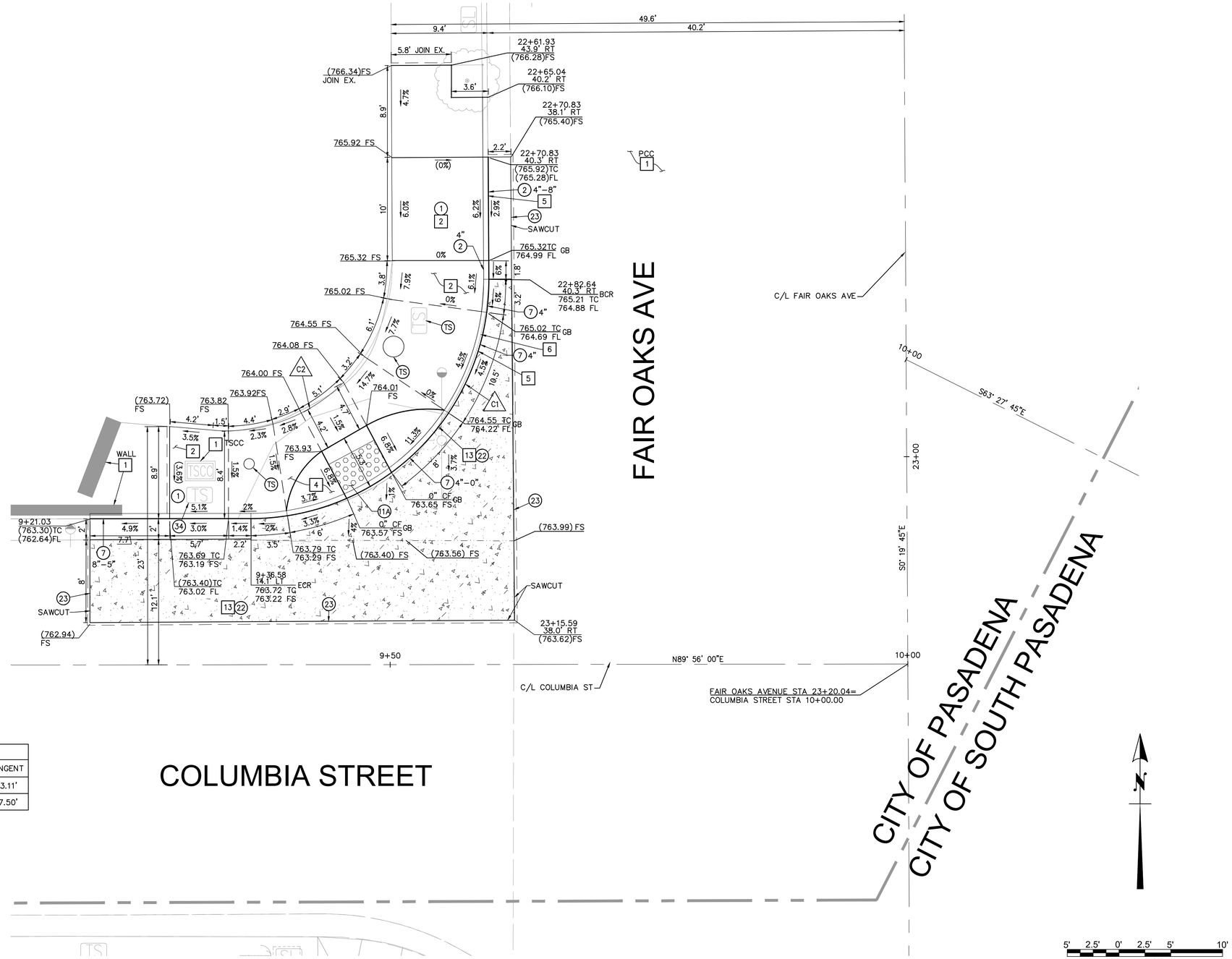
CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

CONSTRUCTION NOTES

PROJECT NO. 2020–02
SHEET NO. 3 OF 97

\\EgnyteDrive\Projects\LA\11ED10400\CADD\Design\Sheets\RD–03_Construction Notes.dwg 10/07/26 – 4:35pm alexis.escobar



CURVE TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	23.0'	36.23'	090°15'45"	23.11'
C2	16.0'	26.56'	095°07'13"	17.50'

CONSTRUCTION LEGEND

CONSTRUCT PCC PAVEMENT

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
5. REMOVE EXISTING PCC CURB AND GUTTER.
6. REMOVE EXISTING PCC CURB.
13. SAWCUT AND REMOVE EXISTING PCC PAVEMENT SECTION AND BASE MATERIAL AND/OR NATIVE SOIL (AS NEEDED) TO A DEPTH OF 20" BELOW PROPOSED FINISH SURFACE (SAWCUT TO NEAREST JOINT LINE WHEN POSSIBLE).

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
7. CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
11A. CONSTRUCT 4" PCC CURB RAMP PER CITY OF PASADENA STD. PLAN S-414. SEE REF. DETAIL ON SHEET 40.
17. CONSTRUCT PARTIAL PCC DRIVEWAY APPROACH PER SPPWC STD. PLAN 110-2, "TYPE C" UNLESS SHOWN OTHERWISE. SEE REF. DETAIL ON SHEET 36.
22. CONSTRUCT 12" PCC PAVEMENT PER SPPWC STD. PLAN 132-4 ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE.
23. INSTALL #5X24" TIE BARS @ (O.C. SPACING PER STD. PLAN) WITH EPOXY ADHESIVE AT PCC JOIN LOCATIONS PER SPPWC STD. PLAN 134-3. SEE REF. DETAIL ON SHEET 40.
34. ADJUST EXISTING TRAFFIC SIGNAL PULL BOX TO GRADE.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

NW CORNER
FAIR OAKS AVE & COLUMBIA ST

SCALE: 1"=5'

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

REGISTERED PROFESSIONAL ENGINEER BRENT MAGIC No. C80265 Exp. 09/30/2028 CIVIL STATE OF CALIFORNIA

APPROVED: CITY OF PASADENA

BY:_____ DATE:_____

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR, R.C.E. NO. 94200 — 10/7/2026 DATE

CITY OF SOUTH PASADENA

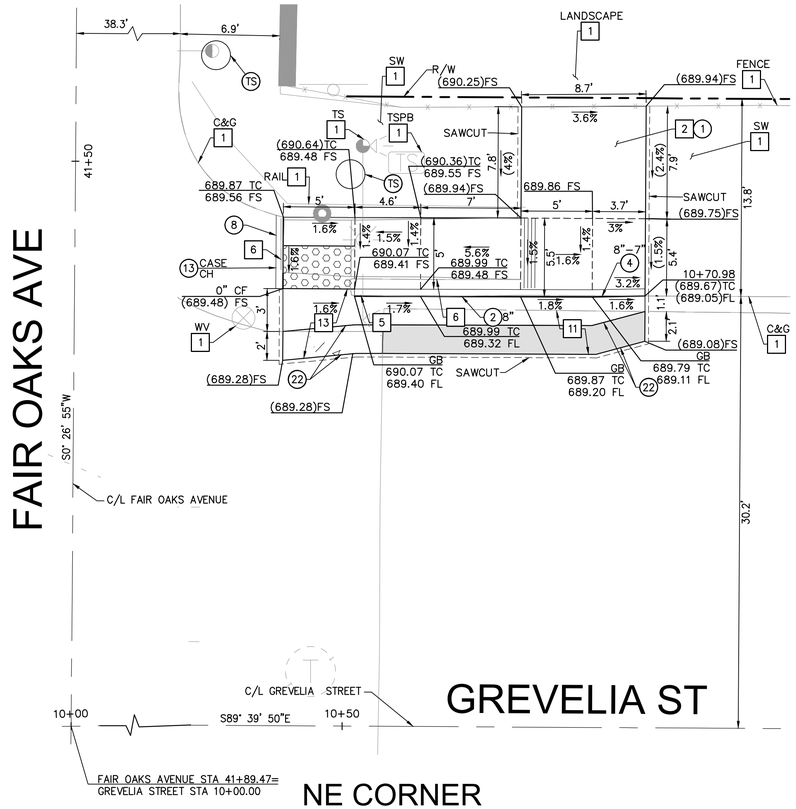
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & COLUMBIA STREET

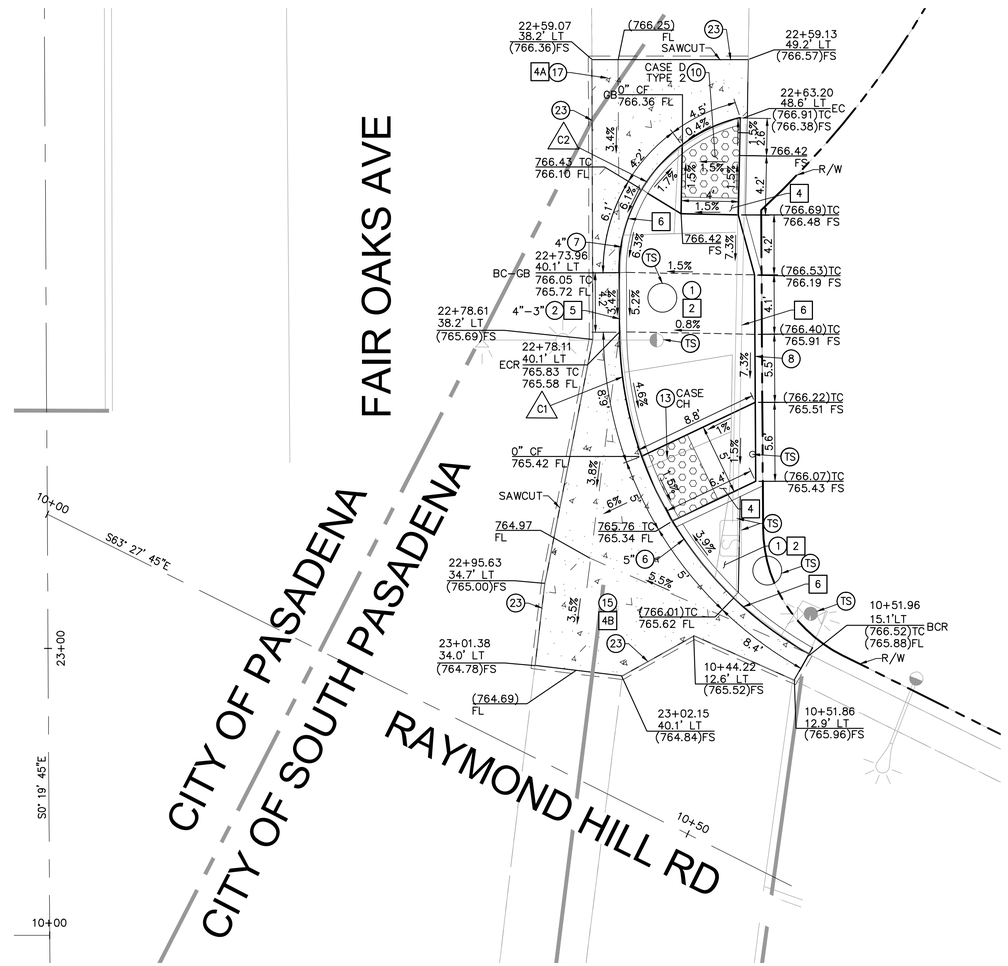
CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 4 OF 97

\\Egnytedrive\Projects\LA\11ED10400\CADD\Design\Sheets\RD-04_Columbia St - Pasadena.dwg 10/07/26 - 2:48pm alexis.escobar



NE CORNER
FAIR OAKS AVE & GREVELIA ST
SCALE: 1"=5'



NE CORNER
FAIR OAKS AVE & COLUMBIA ST/RAYMOND HILL RD
SCALE: 1"=5'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
3. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE) AND SUBGRADE TO A DEPTH OF 36" BELOW PROPOSED FINISH SURFACE.
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
4A. SAWCUT AND REMOVE EXISTING PCC DRIVEWAY.
4B. SAWCUT AND REMOVE EXISTING PCC CROSS GUTTER SPANDREL.
5. REMOVE EXISTING PCC CURB AND GUTTER.
6. REMOVE EXISTING PCC CURB.
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
13. SAWCUT AND REMOVE EXISTING PCC PAVEMENT SECTION AND BASE MATERIAL AND/OR NATIVE SOIL (AS NEEDED) TO A DEPTH OF 20" BELOW PROPOSED FINISH SURFACE (SAWCUT TO NEAREST JOINT LINE WHEN POSSIBLE).

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
6. CONSTRUCT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
7. CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
13. CONSTRUCT MODIFIED 4" PCC CURB RAMP PER CALTRANS STD. PLAN A88B (CASE PER PLAN). SEE REF. DETAIL ON SHEET 40.
15. CONSTRUCT PCC CROSS GUTTER SPANDREL, 8" THICK PER SPPWC STD. PLAN 122-3 ON 6" CMB. SEE REF. DETAIL ON SHEET 37.
17. CONSTRUCT PARTIAL PCC DRIVEWAY APPROACH PER SPPWC STD. PLAN 110-2, "TYPE C" UNLESS SHOWN OTHERWISE. SEE REF. DETAIL ON SHEET 36.
22. CONSTRUCT 12" PCC PAVEMENT PER SPPWC STD. PLAN 132-4 ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE.
23. INSTALL #5X24" TIE BARS @ (O.C. SPACING PER STD. PLAN) WITH EPOXY ADHESIVE AT PCC JOIN LOCATIONS PER SPPWC STD. PLAN 134-3. SEE REF. DETAIL ON SHEET 40.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT

N

5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	26.00'	27.34'	60°14'53"	15.09'
C2	11.00'	14.81'	77°07'35"	8.77'

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS			
NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

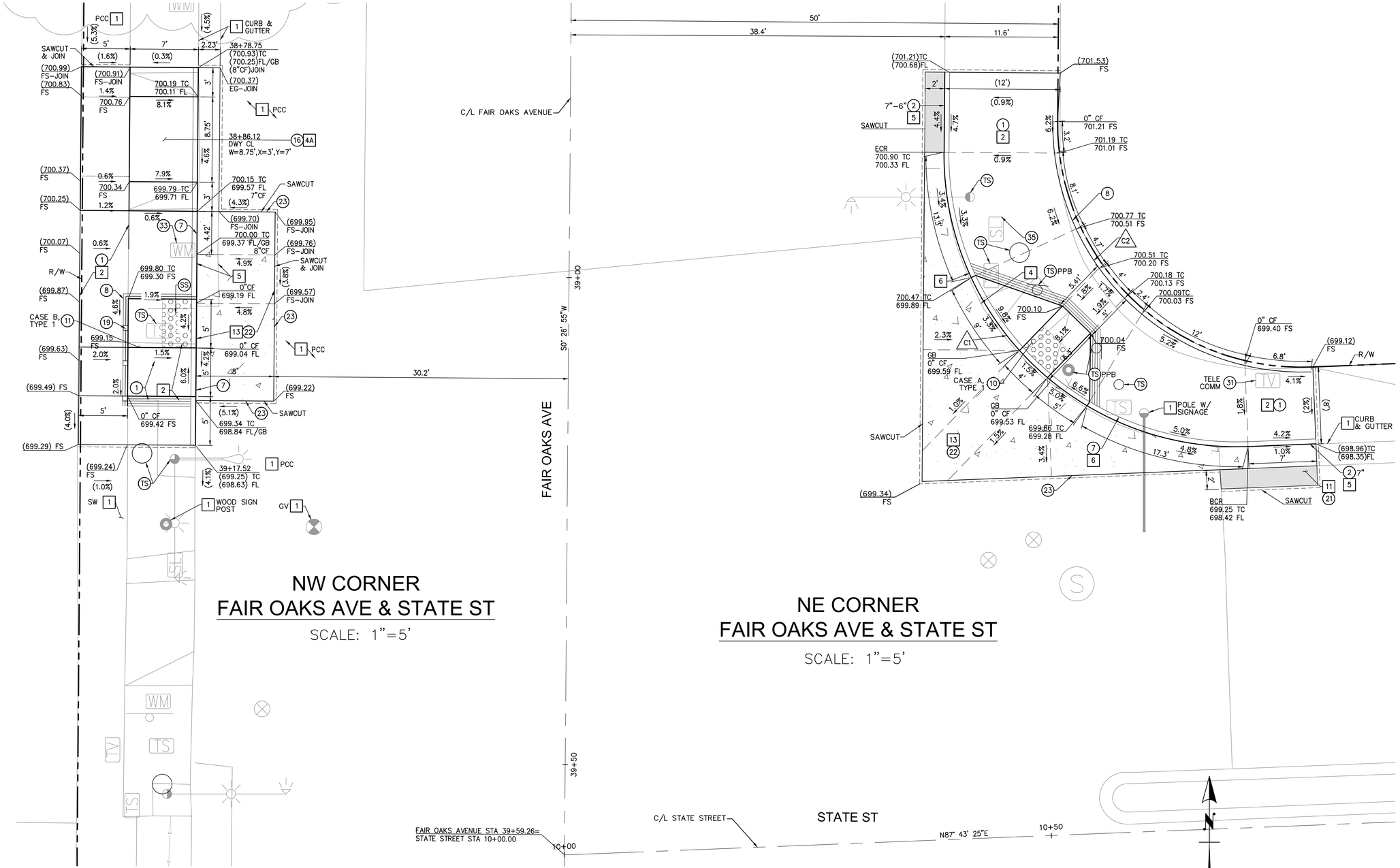
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & GREVELIA STREET/RAYMOND HILL ROAD

CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 5 OF 97

\\EgnyteDrive\Projects\LA\11TE010400\CADD\Design\Sheets\RD-05_Columbia St - Curb Ramp(s) Detail.dwg 10/07/26 - 2:48pm alexis.escobar



NW CORNER
FAIR OAKS AVE & STATE ST
SCALE: 1"=5'

NE CORNER
FAIR OAKS AVE & STATE ST
SCALE: 1"=5'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
5. REMOVE EXISTING PCC CURB AND GUTTER.
6. REMOVE EXISTING PCC CURB.
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
13. SAWCUT AND REMOVE EXISTING PCC PAVEMENT SECTION AND BASE MATERIAL AND/OR NATIVE SOIL (AS NEEDED) TO A DEPTH OF 20" BELOW PROPOSED FINISH SURFACE (SAWCUT TO NEAREST JOINT LINE WHEN POSSIBLE).

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
7. CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
11. CONSTRUCT MODIFIED 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
13. CONSTRUCT MODIFIED 4" PCC CURB RAMP PER CALTRANS STD. PLAN A88B (CASE PER PLAN). SEE REF. DETAIL ON SHEET 40.
16. CONSTRUCT PCC DRIVEWAY APPROACH PER SPPWC STD. PLAN 110-2, "TYPE A" UNLESS SHOWN OTHERWISE (W & X PER PLAN). SEE REF. DETAIL ON SHEET 36.
19. INSTALL METAL HAND RAILS PER SPPWC STD. PLAN 606-5. SEE REF. DETAIL ON SHEET 39.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
22. CONSTRUCT 12" PCC PAVEMENT PER SPPWC STD. PLAN 132-4 ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE.
23. INSTALL #5X24" TIE BARS @ (O.C. SPACING PER STD. PLAN) WITH EPOXY ADHESIVE AT PCC JOIN LOCATIONS PER SPPWC STD. PLAN 134-3. SEE REF. DETAIL ON SHEET 40.
31. ADJUST UTILITY TO GRADE BY OTHERS (ITEM PER PLAN). CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.
33. ADJUST WATER METER COVER TO GRADE.
35. ADJUST EXISTING STREET LIGHT PULL BOX TO GRADE.
SS. FINAL LOCATION OF SIGNING AND STRIPING PLAN PER SIGNAGE AND STRIPING RELATED ITEMS.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT

CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	30.00'	48.55'	92°43'30"	31.46'
C2	25.51'	41.26'	92°39'32"	26.73'

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR, R.C.E. NO. 94200 — 10/7/2026 DATE

CITY OF SOUTH PASADENA

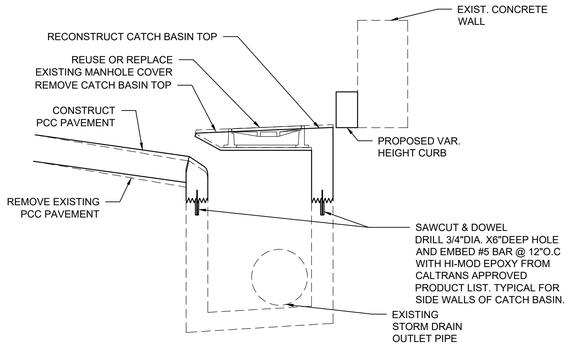
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & STATE STREET

CURB RAMP DETAILS

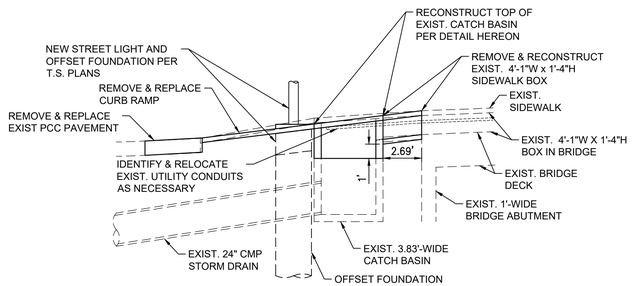
PROJECT NO. 2020-02
SHEET NO. 6 OF 97

\\EgnytedDrive\Projects\LA\11TED10400\CADD\Design\Sheets\RD-06_State St - Curb Ramp(s) Detail.dwg 10/07/26 - 2:48pm alexis.escobar



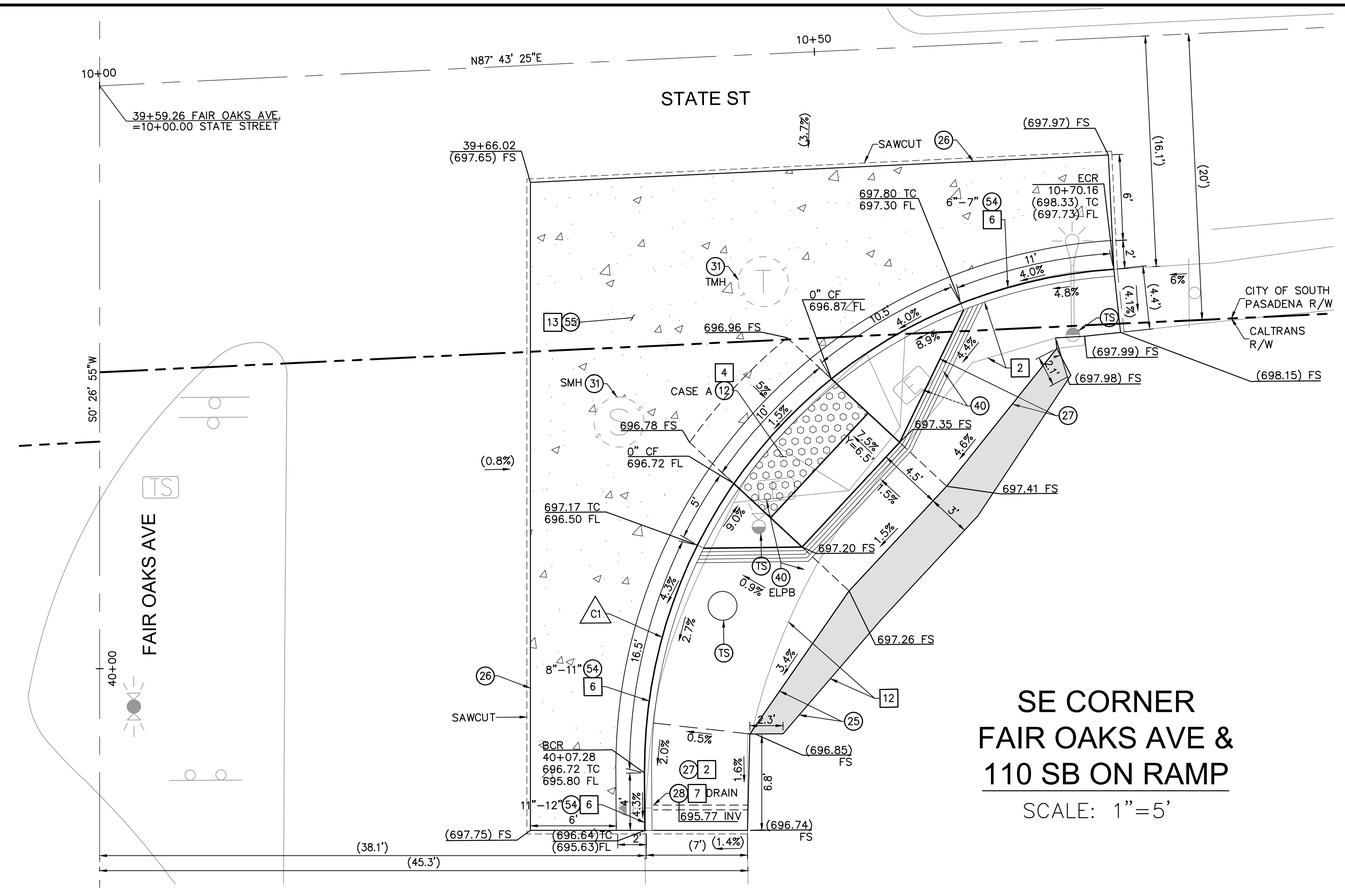
CURB OPENING CATCH BASIN RECONSTRUCTION DETAIL

NOT TO SCALE



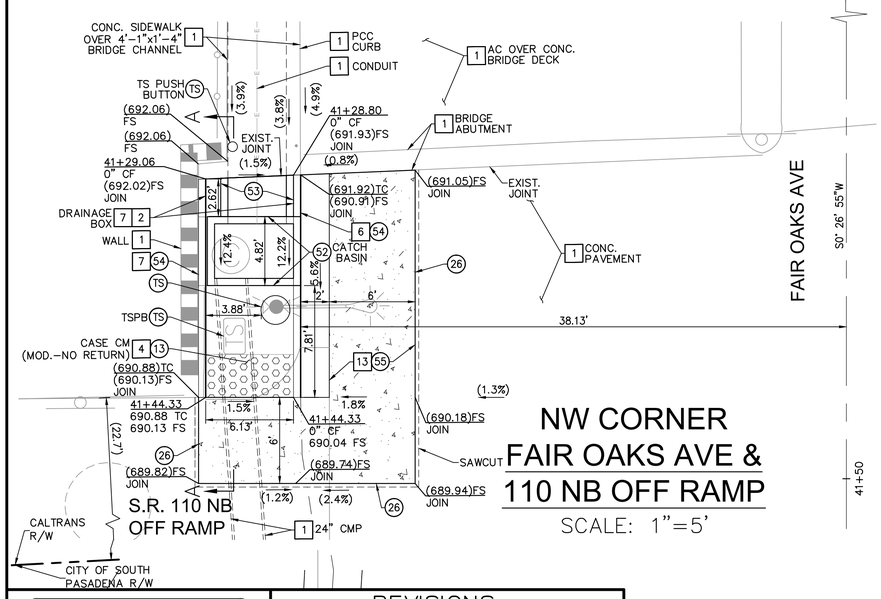
SECTION A-A (NB S.R. 110 OFF-RAMP)

SCALE: 1"=5'



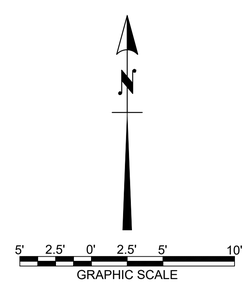
SE CORNER FAIR OAKS AVE & 110 SB ON RAMP

SCALE: 1"=5'



NW CORNER FAIR OAKS AVE & 110 NB OFF RAMP

SCALE: 1"=5'



CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT

CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	35.00'	53.02'	86°47'45"	33.10'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
4C. SAWCUT AND REMOVE EXISTING PCC CROSS GUTTER.
5. REMOVE EXISTING PCC CURB AND GUTTER.
6. REMOVE EXISTING PCC CURB.
7. REMOVE (ITEM PER PLAN).
8. REMOVE AND REINSTALL EXISTING (ITEM PER PLAN).
12. REMOVE EXISTING AC PAVEMENT SECTION.
13. SAWCUT AND REMOVE EXISTING PCC PAVEMENT SECTION AND BASE MATERIAL AND/OR NATIVE SOIL (AS NEEDED) TO A DEPTH OF 20" BELOW PROPOSED FINISH SURFACE (SAWCUT TO NEAREST JOINT LINE WHEN POSSIBLE).

CONSTRUCTION NOTES

(12) CONSTRUCT 4" PCC CURB RAMP PER CALTRANS STD. PLAN A88A (CASE PER PLAN). SEE REF. DETAIL ON SHEET 40.

(13) CONSTRUCT MODIFIED 4" PCC CURB RAMP PER CALTRANS STD. PLAN A88B (CASE PER PLAN). SEE REF. DETAIL ON SHEET 40.

(25) COMPACT EXISTING BASE OR NATIVE SOIL TO 95% RELATIVE COMPACTION AND CONSTRUCT AC PAVEMENT (THICKNESS TO EQUAL REMOVED SECTION).

(26) INSTALL SILICONE LIQUID JOINT SEALANT PER CALTRANS STD. PLAN P20.

(27) CONSTRUCT 4-INCH THICK PCC SIDEWALK OVER 4" CMB. EXPANSION JOINTS SHALL BE PLACED AT 24' INTERVALS AND WEAKENED PLANED JOINTS SHALL BE PLACED AT 8' INTERVALS UNLESS OTHERWISE SPECIFIED.

(28) CONSTRUCT 4-INCH PLASTIC PIPE (UNSLOTTED) DRAIN OUTLET. MATERIAL SHALL CONFORM TO CALTRANS STANDARD SPEC SECTION 68-4.

(31) ADJUST UTILITY TO GRADE BY OTHERS (ITEM PER PLAN). CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.

(40) RELOCATE EXISTING UTILITY BY OTHERS. CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.

(52) MODIFY TOP OF EXISTING CATCH BASIN PER DETAIL AND SECTION HEREON.

(53) CONSTRUCT 4'-1"x1'-4" CONC. SIDEWALK DRAINAGE BOX.

(54) CONSTRUCT TYPE A2 PCC CURB AND GUTTER PER CALTRANS STD. PLAN A87A, "H2" PER PLAN.

(55) CONSTRUCT 12-INCH JPCP ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE PER CALTRANS STD. PLAN P3A.

(TS) FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

Underground Service Alert
CALL: TOLL FREE 811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

CALTRANS PERMIT NO. 07-25-N-CS-2770

BY:_____ DATE:_____

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR, R.C.E. NO. 94200 — 10/7/2026 DATE

CITY OF SOUTH PASADENA

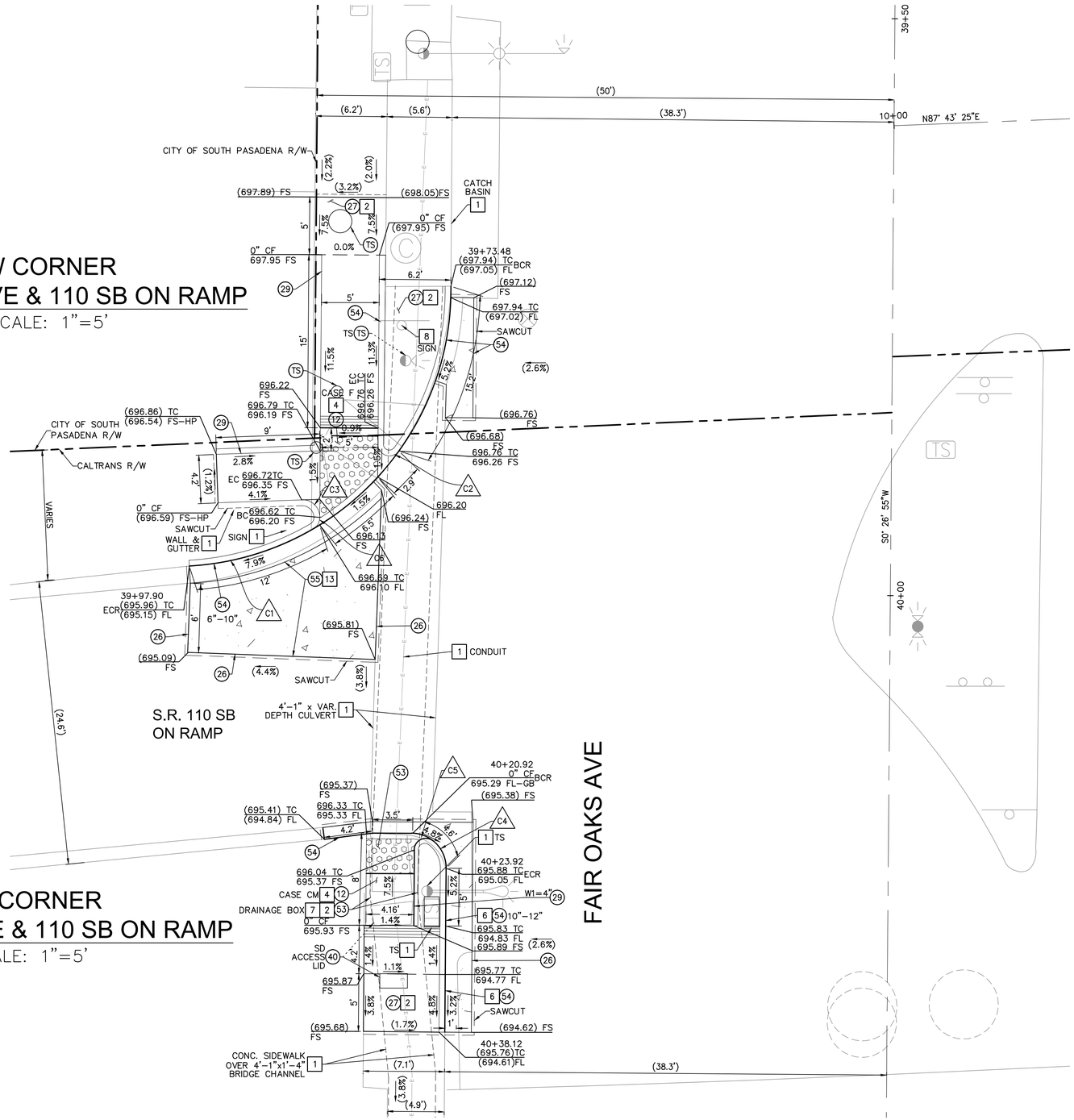
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & STATE STREET/
S.R. 110 SB ON-RAMP/S.R. 110 NB OFF-RAMP

CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 7 OF 97

\\EgnyteDrive\Projects\LA\ITE010400\CADD\Design\Sheets\RD-07_State St_Caltrans-South.dwg 10/07/25 — 7:17pm alexis.escobar



CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	24.00'	36.64'	87°28'20"	22.96'
C2	1.00'	2.53'	144°46'56"	3.15'
C3	1.50'	2.42'	92°24'20"	1.56'
C4	3.00'	4.71'	90°00'11"	3.00'
C5	1.00'	2.24'	128°28'05"	2.07'
C6	1.00'	1.03'	59°11'14"	0.57'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
4C. SAWCUT AND REMOVE EXISTING PCC CROSS GUTTER.
5. REMOVE EXISTING PCC CURB AND GUTTER.
6. REMOVE EXISTING PCC CURB.
7. REMOVE (ITEM PER PLAN).
8. REMOVE AND REINSTALL EXISTING (ITEM PER PLAN).
12. REMOVE EXISTING AC PAVEMENT SECTION.
13. SAWCUT AND REMOVE EXISTING PCC PAVEMENT SECTION AND BASE MATERIAL AND/OR NATIVE SOIL (AS NEEDED) TO A DEPTH OF 20" BELOW PROPOSED FINISH SURFACE (SAWCUT TO NEAREST JOINT LINE WHEN POSSIBLE).

CONSTRUCTION NOTES

(12) CONSTRUCT 4" PCC CURB RAMP PER CALTRANS STD. PLAN A88A (CASE PER PLAN). SEE REF. DETAIL ON SHEET 40.

(26) INSTALL SILICONE LIQUID JOINT SEALANT PER CALTRANS STD. PLAN P20.

(27) CONSTRUCT 4-INCH THICK PCC SIDEWALK OVER 4" CMB. EXPANSION JOINTS SHALL BE PLACED AT 24' INTERVALS AND WEAKENED PLANED JOINTS SHALL BE PLACED AT 8' INTERVALS UNLESS OTHERWISE SPECIFIED.

(29) CONSTRUCT TYPE A1 PCC CURB PER CALTRANS STD. PLAN A87A, "H2" PER PLAN.

(40) RELOCATE EXISTING UTILITY BY OTHERS. CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.

(53) CONSTRUCT 4'-1"x1'-4" CONC. SIDEWALK DRAINAGE BOX.

(54) CONSTRUCT TYPE A2 PCC CURB AND GUTTER PER CALTRANS STD. PLAN A87A, "H2" PER PLAN.

(55) CONSTRUCT 12-INCH JPCP ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE PER CALTRANS STD. PLAN P3A.

(TS) FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT

N

5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE 811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

CALTRANS PERMIT NO. 07-25-N-CS-2770

BY:_____ DATE:_____

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR, R.C.E. NO. 94200 — 10/7/2026 DATE

CITY OF SOUTH PASADENA

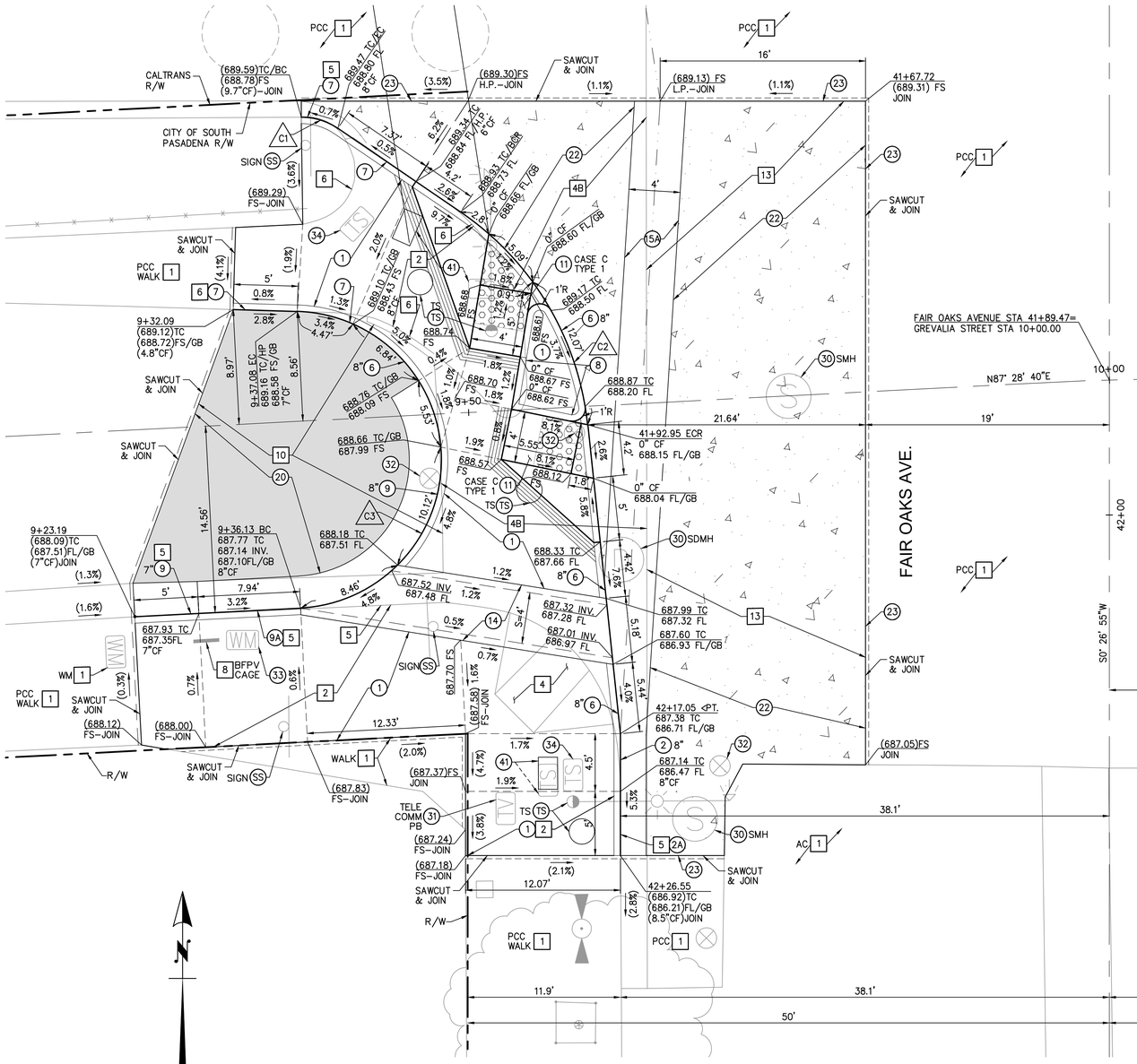
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & STATE STREET/
S.R. 110 SB ON-RAMP/S.R. 110 NB OFF-RAMP

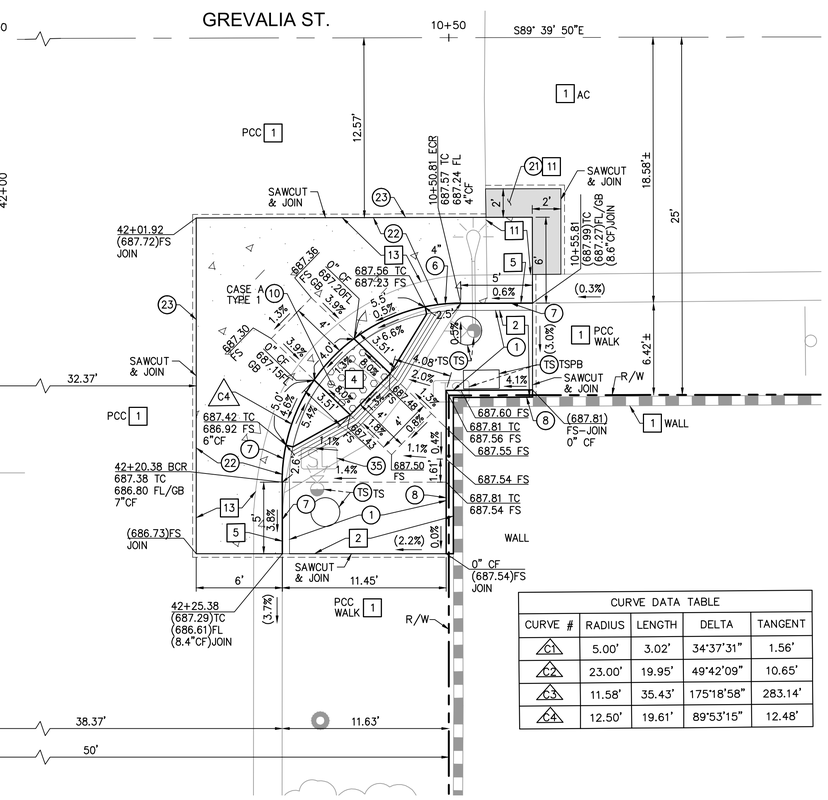
CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 8 OF 97

\\EgnyteDrive\Projects\LA\11TE01040\CADD\Design\Sheets\RD-08_State St_Caltrans-North.dwg 10/07/26 – 2:49pm alexis.escobar



SW CORNER
FAIR OAKS AVE & GREVELIA ST
SCALE: 1"=5'



SE CORNER
FAIR OAKS AVE & GREVELIA ST
SCALE: 1"=5'

5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
4B. SAWCUT AND REMOVE EXISTING PCC CROSS GUTTER SPANDREL.
5. REMOVE EXISTING PCC CURB AND GUTTER.
6. REMOVE EXISTING PCC CURB.
8. REMOVE AND REINSTALL EXISTING (ITEM PER PLAN).
10. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 18" BELOW PROPOSED FINISH SURFACE.
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
13. SAWCUT AND REMOVE EXISTING PCC PAVEMENT SECTION AND BASE MATERIAL AND/OR NATIVE SOIL (AS NEEDED) TO A DEPTH OF 20" BELOW PROPOSED FINISH SURFACE (SAWCUT TO NEAREST JOINT LINE WHEN POSSIBLE).

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
2A. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=TO MATCH EXISTING). SEE REF. DETAIL ON SHEET 38.
6. CONSTRUCT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
7. CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
9. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=30"). SEE REF. DETAIL ON SHEET 38.
9A. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=30"). SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
11. CONSTRUCT MODIFIED 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
14. CONSTRUCT PARKWAY DRAIN PER SPPWC STD. PLAN 151-3 ("S" PER PLAN). SEE REF. DETAIL ON SHEET 39.
15A. CONSTRUCT PCC CROSS GUTTER, 8" THICK PER SPPWC STD. PLAN 122-3 ON 6" CMB. SEE REF. DETAIL ON SHEET 37.
20. CONSTRUCT 1.5" ARHM ON 4.5" AC PAVEMENT OVER 12" CMB OVER 95% RELATIVE COMPACTED SUBGRADE.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
22. CONSTRUCT 12" PCC PAVEMENT PER SPPWC STD. PLAN 132-4 ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE.
23. INSTALL #5X24" TIE BARS @ (O.C. SPACING PER STD. PLAN) WITH EPOXY ADHESIVE AT PCC JOIN LOCATIONS PER SPPWC STD. PLAN 134-3. SEE REF. DETAIL ON SHEET 40.
30. ADJUST MANHOLE FRAME AND COVER TO GRADE (ITEM PER PLAN).
31. ADJUST UTILITY TO GRADE BY OTHERS (ITEM PER PLAN). CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.
32. ADJUST WATER VALVE FRAME AND COVER TO GRADE.
33. ADJUST WATER METER COVER TO GRADE.
34. ADJUST EXISTING TRAFFIC SIGNAL PULL BOX TO GRADE.
35. ADJUST EXISTING STREET LIGHT PULL BOX TO GRADE.
41. RELOCATE EXISTING TRAFFIC SIGNAL PULL BOX TO GRADE.
SS. FINAL LOCATION OF SIGNING AND STRIPING PLAN PER SIGNAGE AND STRIPING RELATED ITEMS.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CURVE DATA TABLE

CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	5.00'	3.02'	34°37'31"	1.56'
C2	23.00'	19.95'	49°42'09"	10.65'
C3	11.58'	35.43'	175°18'58"	283.14'
C4	12.50'	19.61'	89°53'15"	12.48'

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

CONSTRUCTION LEGEND

CONSTRUCT AC PAVEMENT

CONSTRUCT PCC PAVEMENT

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

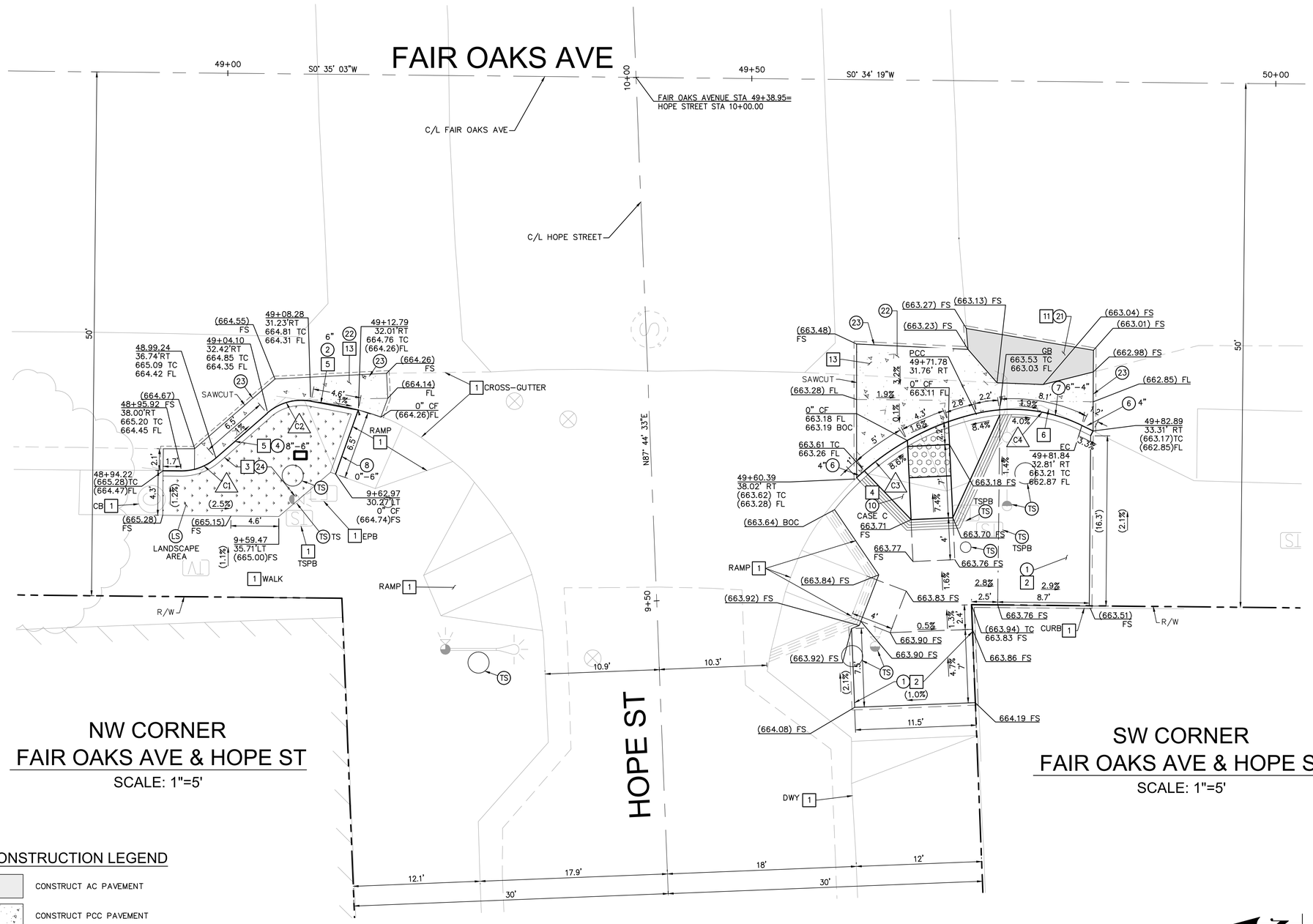
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & GREVELIA STREET/S.R. 110 NB OFF-RAMP

CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 9 OF 97

\\EgnyteDrive\Projects\LA\ITE010400\CADD\Design\Sheets\RD-09_Grevelia St - Curb Ramp(s) Detail.dwg 10/07/26 - 2:49pm alexis.escobar



NW CORNER
FAIR OAKS AVE & HOPE ST
SCALE: 1"=5'

SW CORNER
FAIR OAKS AVE & HOPE ST
SCALE: 1"=5'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
3. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE) AND SUBGRADE TO A DEPTH OF 36" BELOW PROPOSED FINISH SURFACE.
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
5. REMOVE EXISTING PCC CURB AND GUTTER.
6. REMOVE EXISTING PCC CURB.
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
13. SAWCUT AND REMOVE EXISTING PCC PAVEMENT SECTION AND BASE MATERIAL AND/OR NATIVE SOIL (AS NEEDED) TO A DEPTH OF 20" BELOW PROPOSED FINISH SURFACE (SAWCUT TO NEAREST JOINT LINE WHEN POSSIBLE).

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
6. CONSTRUCT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
7. CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
22. CONSTRUCT 12" PCC PAVEMENT PER SPPWC STD. PLAN 132-4 ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE.
23. INSTALL #5X24" TIE BARS @ (O.C. SPACING PER STD. PLAN) WITH EPOXY ADHESIVE AT PCC JOIN LOCATIONS PER SPPWC STD. PLAN 134-3. SEE REF. DETAIL ON SHEET 40.
24. COMPACT EXISTING BASE OR NATIVE SOIL PRIOR TO BACKFILL. IMPORT NATIVE BACKFILL TO BOTTOM OF PROPOSED IMPROVEMENTS. COMPACT TO 95% RELATIVE COMPACTION.

LS. SEE LANDSCAPE PLAN SHEETS 67-82 FOR ALL LANDSCAPE RELATED ITEMS.

TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	5.00'	3.63'	41°39'08"	1.90'
C2	5.00'	4.50'	51°31'36"	2.41'
C3	25.00'	13.14'	30°07'05"	6.73'
C4	15.00'	10.31'	39°23'25"	5.37'

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT
- PLANTER AREA

5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS			
NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & HOPE STREET

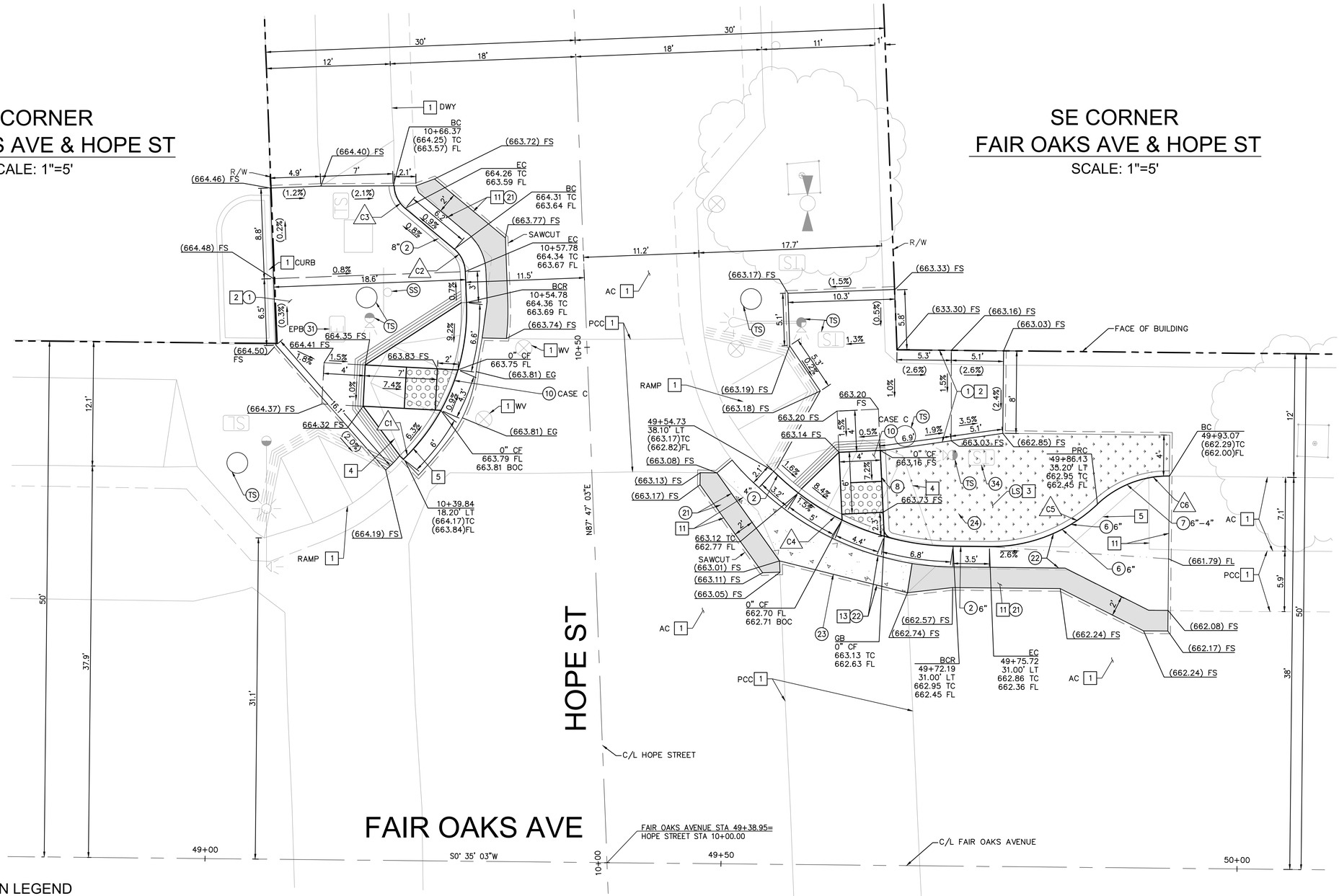
BULB OUT/CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 10 OF 97

\\EgnyteDrive\Projects\LA\ITE010400\CADD\Design\Sheets\RD-10_Hope St - Curb Ramp(s) Detail.dwg 10/07/26 - 2:49pm alexis.escobar

NE CORNER
FAIR OAKS AVE & HOPE ST
SCALE: 1"=5'

SE CORNER
FAIR OAKS AVE & HOPE ST
SCALE: 1"=5'



DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
3. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE) AND SUBGRADE TO A DEPTH OF 36" BELOW PROPOSED FINISH SURFACE.
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
5. REMOVE EXISTING PCC CURB AND GUTTER.
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
13. SAWCUT AND REMOVE EXISTING PCC PAVEMENT SECTION AND BASE MATERIAL AND/OR NATIVE SOIL (AS NEEDED) TO A DEPTH OF 20" BELOW PROPOSED FINISH SURFACE (SAWCUT TO NEAREST JOINT LINE WHEN POSSIBLE).

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
6. CONSTRUCT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
7. CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
22. CONSTRUCT 12" PCC PAVEMENT PER SPPWC STD. PLAN 132-4 ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE.
23. INSTALL #5X24" TIE BARS @ (O.C. SPACING PER STD. PLAN) WITH EPOXY ADHESIVE AT PCC JOIN LOCATIONS PER SPPWC STD. PLAN 134-3. SEE REF. DETAIL ON SHEET 40.
24. COMPACT EXISTING BASE OR NATIVE SOIL PRIOR TO BACKFILL. IMPORT NATIVE BACKFILL TO BOTTOM OF PROPOSED IMPROVEMENTS. COMPACT TO 95% RELATIVE COMPACTION.
31. ADJUST UTILITY TO GRADE BY OTHERS (ITEM PER PLAN). CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.
LS. SEE LANDSCAPE PLAN SHEETS 67-82 FOR ALL LANDSCAPE RELATED ITEMS.
SS. FINAL LOCATION OF SIGNING AND STRIPING PLAN PER SIGNAGE AND STRIPING RELATED ITEMS.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	20.00'	16.87'	48°19'46"	8.97'
C2	3.00'	2.51'	47°59'51"	1.34'
C3	3.00'	2.51'	47°59'51"	1.34'
C4	25.00'	19.32'	44°17'08"	10.17'
C5	15.00'	11.51'	43°57'42"	6.05'
C6	10.00'	7.67'	43°57'42"	4.04'

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT
- PLANTER AREA

GRAPHIC SCALE: 5' 2.5' 0' 2.5' 5' 10'

Underground Service Alert
CALL: TOLL FREE 811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS			
NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD: REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR, R.C.E. NO. 94200 — 10/7/2026 DATE

CITY OF SOUTH PASADENA

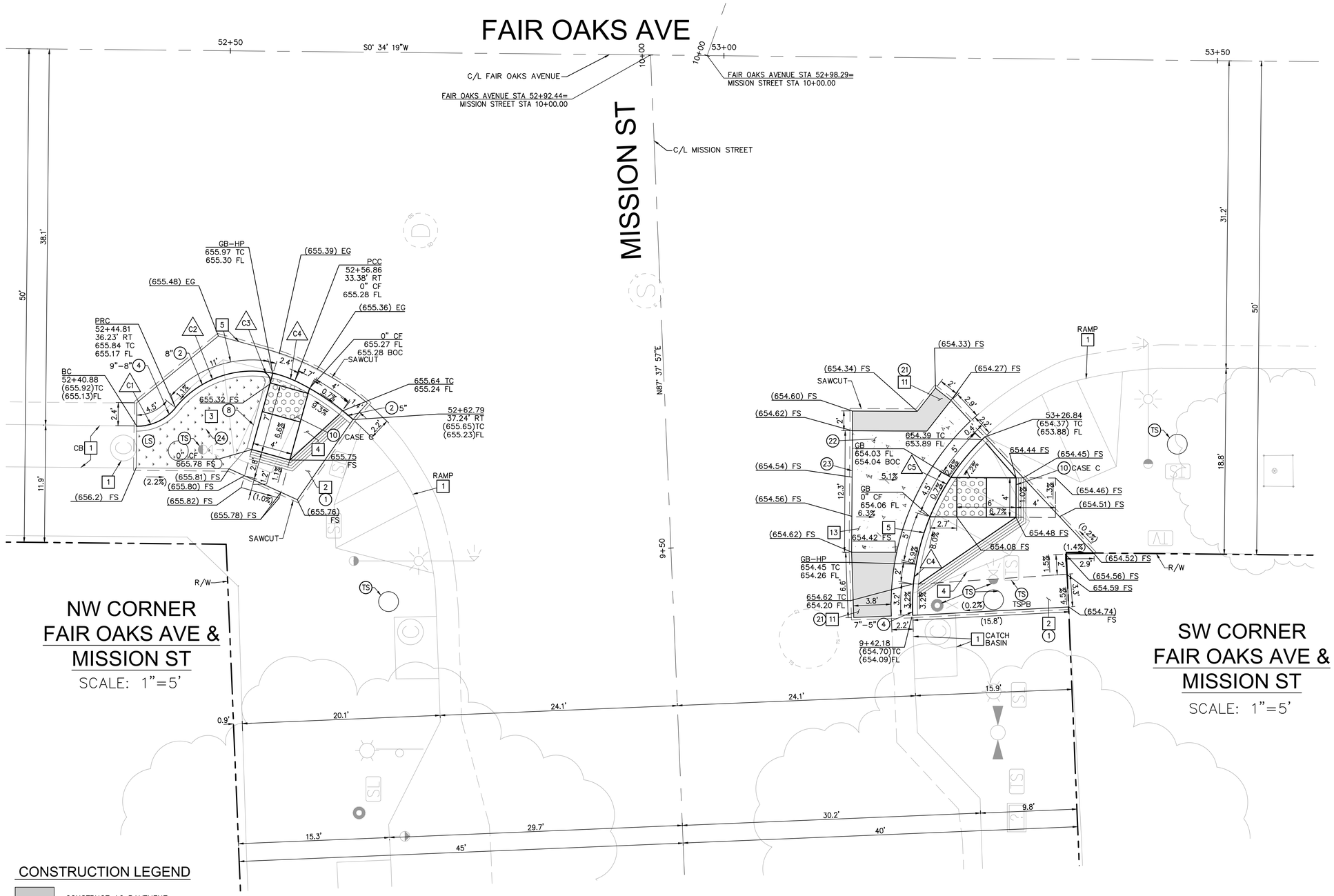
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & HOPE STREET

BULB OUT/CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 11 OF 97

\\Egnytedrive\Projects\LA\ITE01040\CADD\Design\Sheets\RD-11_Hope St - Curb Ramp(s) Detail.dwg 10/07/26 - 2:50pm alexis.escobar



DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
3. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE) AND SUBGRADE TO A DEPTH OF 36" BELOW PROPOSED FINISH SURFACE.
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
5. REMOVE EXISTING PCC CURB AND GUTTER.
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
13. SAWCUT AND REMOVE EXISTING PCC PAVEMENT SECTION AND BASE MATERIAL AND/OR NATIVE SOIL (AS NEEDED) TO A DEPTH OF 20" BELOW PROPOSED FINISH SURFACE (SAWCUT TO NEAREST JOINT LINE WHEN POSSIBLE).

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
22. CONSTRUCT 12" PCC PAVEMENT PER SPPWC STD. PLAN 132-4 ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE.
23. INSTALL #5X24" TIE BARS @ (O.C. SPACING PER STD. PLAN) WITH EPOXY ADHESIVE AT PCC JOIN LOCATIONS PER SPPWC STD. PLAN 134-3. SEE REF. DETAIL ON SHEET 40.
24. COMPACT EXISTING BASE OR NATIVE SOIL PRIOR TO BACKFILL. IMPORT NATIVE BACKFILL TO BOTTOM OF PROPOSED IMPROVEMENTS. COMPACT TO 95% RELATIVE COMPACTION.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.
LS. SEE LANDSCAPE PLAN SHEETS 67-82 FOR ALL LANDSCAPE RELATED ITEMS.

CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	5.00'	4.51'	51°43'21"	2.42'
C2	10.00'	13.36'	76°31'45"	7.89'
C3	1.00'	1.75'	100°16'24"	1.20'
C4	25.00'	7.10'	16°16'43"	3.58'
C5	23.50'	20.11'	49°02'13"	10.72'

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT
- PLANTER AREA

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS			
NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

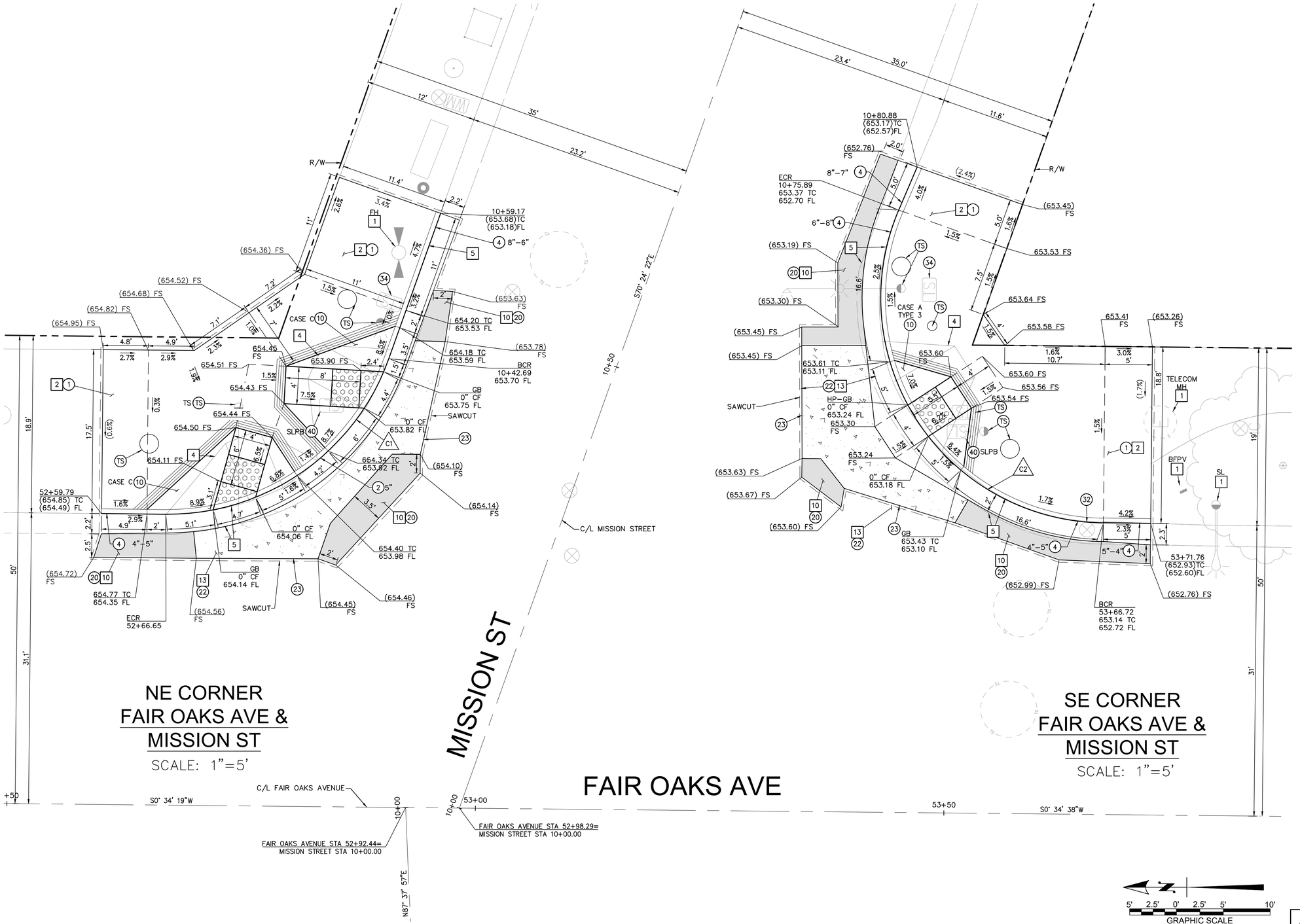
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & MISSION STREET

BULB OUT/CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 12 OF 97

\\EgryteDrive\Projects\LA\ITE010400\CADD\Design\Sheets\RD-12_Mission St - Curb Ramp(s) Detail.dwg 10/07/26 - 2:50pm alexis.escobar



DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
5. REMOVE EXISTING PCC CURB AND GUTTER.
10. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 18" BELOW PROPOSED FINISH SURFACE.
13. SAWCUT AND REMOVE EXISTING PCC PAVEMENT SECTION AND BASE MATERIAL AND/OR NATIVE SOIL (AS NEEDED) TO A DEPTH OF 20" BELOW PROPOSED FINISH SURFACE (SAWCUT TO NEAREST JOINT LINE WHEN POSSIBLE).

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
20. CONSTRUCT 1.5" ARHM ON 4.5" AC PAVEMENT OVER 12" CMB OVER 95% RELATIVE COMPACTED SUBGRADE.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
22. CONSTRUCT 12" PCC PAVEMENT PER SPPWC STD. PLAN 132-4 ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE.
23. INSTALL #5X24" TIE BARS @ (O.C. SPACING PER STD. PLAN) WITH EPOXY ADHESIVE AT PCC JOIN LOCATIONS PER SPPWC STD. PLAN 134-3. SEE REF. DETAIL ON SHEET 40.
32. ADJUST WATER VALVE FRAME AND COVER TO GRADE.
34. ADJUST EXISTING TRAFFIC SIGNAL PULL BOX TO GRADE.
40. RELOCATE EXISTING UTILITY BY OTHERS. CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	25.00'	30.97'	070°58'42"	17.83'
C2	24.00'	47.11'	112°27'46"	35.89'

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER
ALEXIS ESCOBAR
No. C094200
Exp. 12-31-26
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

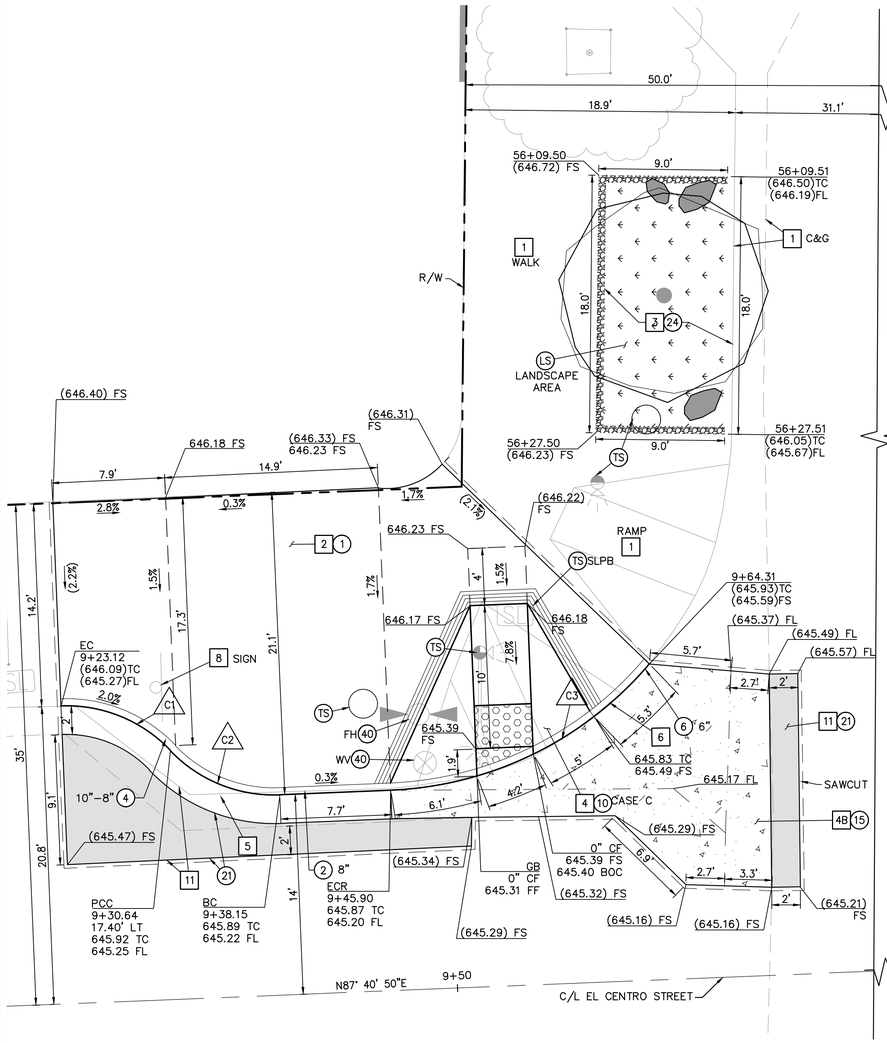
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & MISSION STREET

BULB OUT/CURB RAMP DETAILS

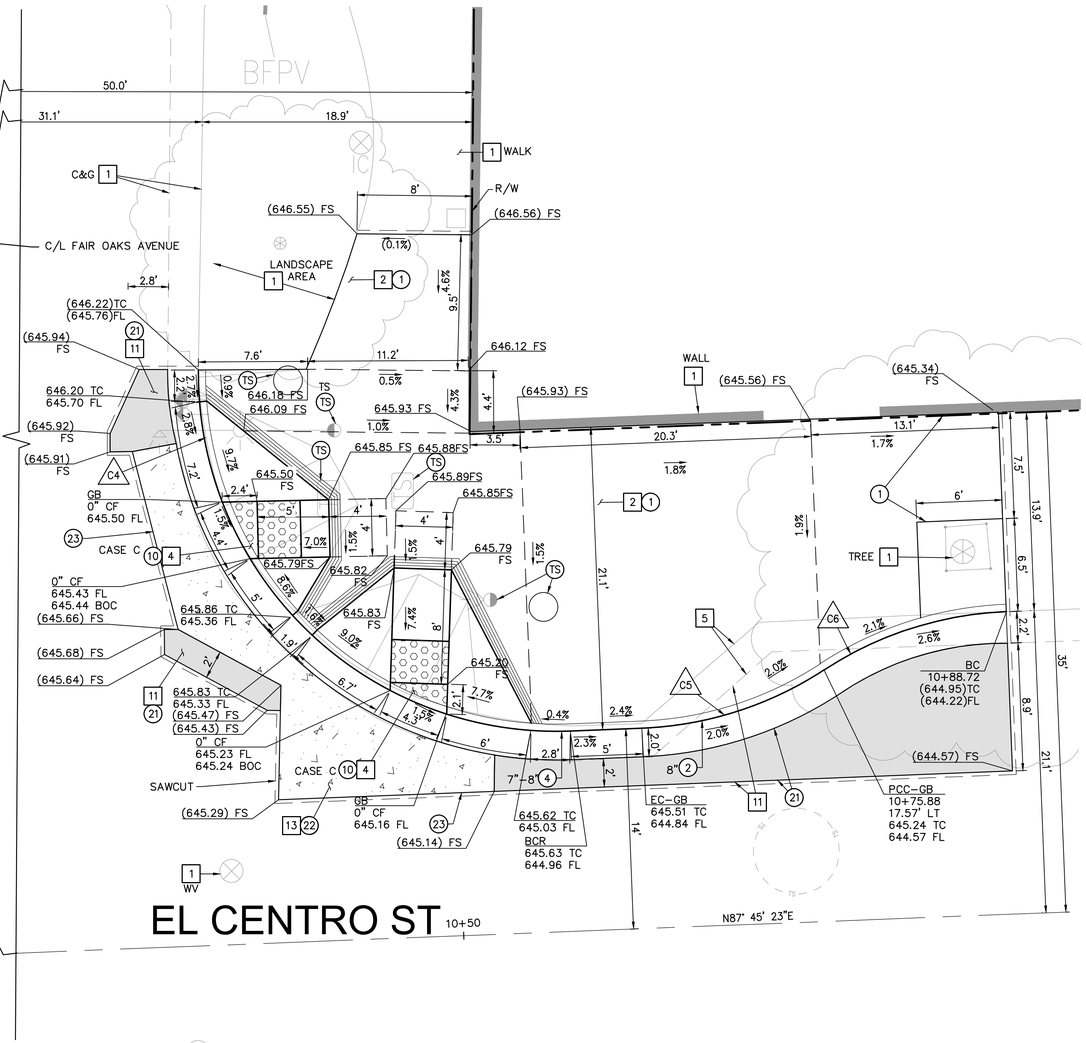
PROJECT NO. 2020-02
SHEET NO. 13 OF 97

\\Egnytedrive\Projects\LA\11TE01040\CADD\Design\Sheets\RD-13_Mission St - Curb Ramp(s) Detail.dwg 10/07/26 - 2:50pm alexis.escobar



NW CORNER
FAIR OAKS AVE & EL CENTRO ST

SCALE: 1"=5'



NE CORNER
FAIR OAKS AVE & EL CENTRO ST

SCALE: 1"=5'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
3. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE) AND SUBGRADE TO A DEPTH OF 36" BELOW PROPOSED FINISH SURFACE.
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
4B. SAWCUT AND REMOVE EXISTING PCC CROSS GUTTER SPANDREL.
5. REMOVE EXISTING PCC CURB AND GUTTER.
6. REMOVE EXISTING PCC CURB.
8. REMOVE AND REINSTALL EXISTING (ITEM PER PLAN).
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
13. SAWCUT AND REMOVE EXISTING PCC PAVEMENT SECTION AND BASE MATERIAL AND/OR NATIVE SOIL (AS NEEDED) TO A DEPTH OF 20" BELOW PROPOSED FINISH SURFACE (SAWCUT TO NEAREST JOINT LINE WHEN POSSIBLE).

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
6. CONSTRUCT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
15. CONSTRUCT PCC CROSS GUTTER SPANDREL, 8" THICK PER SPPWC STD. PLAN 122-3 ON 6" CMB. SEE REF. DETAIL ON SHEET 37.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
22. CONSTRUCT 12" PCC PAVEMENT PER SPPWC STD. PLAN 132-4 ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE.
23. INSTALL #5X24" TIE BARS @ (O.C. SPACING PER STD. PLAN) WITH EPOXY ADHESIVE AT PCC JOIN LOCATIONS PER SPPWC STD. PLAN 134-3. SEE REF. DETAIL ON SHEET 40.
24. COMPACT EXISTING BASE OR NATIVE SOIL PRIOR TO BACKFILL. IMPORT NATIVE BACKFILL TO BOTTOM OF PROPOSED IMPROVEMENTS. COMPACT TO 95% RELATIVE COMPACTION.
32. ADJUST WATER VALVE FRAME AND COVER TO GRADE.
40. RELOCATE EXISTING UTILITY BY OTHERS. CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.
LS. SEE LANDSCAPE PLAN SHEETS 67-82 FOR ALL LANDSCAPE RELATED ITEMS.

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT
- PLANTER AREA

CURVE DATA TABLE

CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	10.00'	8.50'	48°41'43"	4.53'
C2	10.00'	8.50'	48°41'43"	4.53'
C3	25.00'	20.70'	47°26'07"	10.98'
C4	25.00'	40.50'	92°49'15"	26.26'
C5	25.00'	13.53'	31°00'06"	6.93'
C6	25.00'	13.53'	31°00'06"	6.93'

N

5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

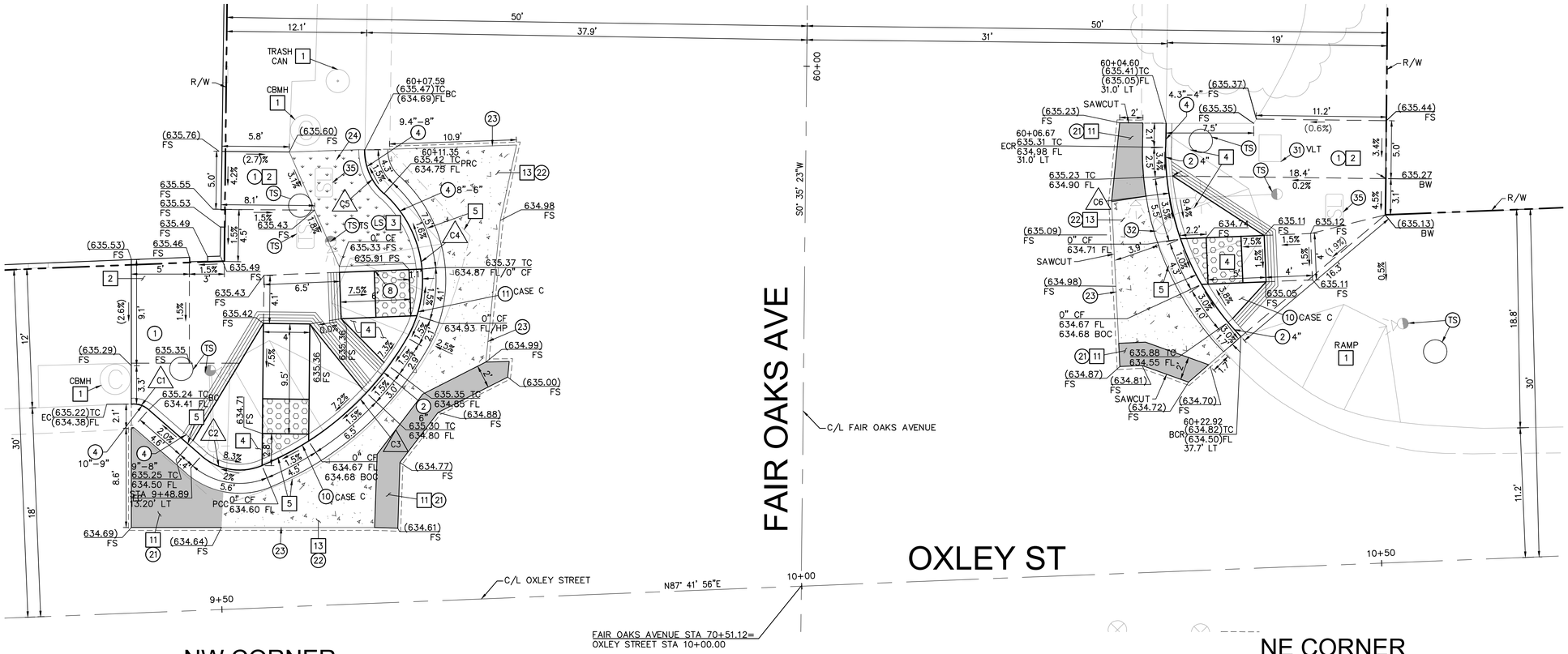
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & EL CENTRO STREET

BULB OUT/CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 14 OF 97

\\EgnyteDrive\Projects\LA\ITE010400\CADD\Design\Sheets\RD-14_El Centro St - Curb Ramp(s) Detail.dwg 10/07/26 - 2:50pm alexis.escobar



NW CORNER
FAIR OAKS AVE & OXLEY ST
SCALE: 1"=5'

NE CORNER
FAIR OAKS AVE & OXLEY ST
SCALE: 1"=5'

CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	2.00'	1.51'	43°19'26"	0.79'
C2	5.00'	5.56'	63°45'54"	3.11'
C3	26.00'	16.97'	37°23'58"	8.80'
C4	10.00'	13.62'	78°02'38"	8.10'
C5	5.00'	4.25'	48°42'31"	2.26'
C6	23.00'	18.02'	44°53'31"	9.50'

CONSTRUCTION LEGEND

CONSTRUCT PCC PAVEMENT

PLANTER AREA

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
3. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE) AND SUBGRADE TO A DEPTH OF 36" BELOW PROPOSED FINISH SURFACE.
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
5. REMOVE EXISTING PCC CURB AND GUTTER.
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
13. SAWCUT AND REMOVE EXISTING PCC PAVEMENT SECTION AND BASE MATERIAL AND/OR NATIVE SOIL (AS NEEDED) TO A DEPTH OF 20" BELOW PROPOSED FINISH SURFACE (SAWCUT TO NEAREST JOINT LINE WHEN POSSIBLE).

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
11. CONSTRUCT MODIFIED 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
22. CONSTRUCT 12" PCC PAVEMENT PER SPPWC STD. PLAN 132-4 ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE.
23. INSTALL #5X24" TIE BARS @ (O.C. SPACING PER STD. PLAN) WITH EPOXY ADHESIVE AT PCC JOIN LOCATIONS PER SPPWC STD. PLAN 134-3. SEE REF. DETAIL ON SHEET 40.
24. COMPACT EXISTING BASE OR NATIVE SOIL PRIOR TO BACKFILL. IMPORT NATIVE BACKFILL TO BOTTOM OF PROPOSED IMPROVEMENTS. COMPACT TO 95% RELATIVE COMPACTION.
31. ADJUST UTILITY TO GRADE BY OTHERS (ITEM PER PLAN). CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.
32. ADJUST WATER VALVE FRAME AND COVER TO GRADE.
35. ADJUST EXISTING STREET LIGHT PULL BOX TO GRADE.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.
LS. SEE LANDSCAPE PLAN SHEETS 67-82 FOR ALL LANDSCAPE RELATED ITEMS.

N

CIVIL PLAN

5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

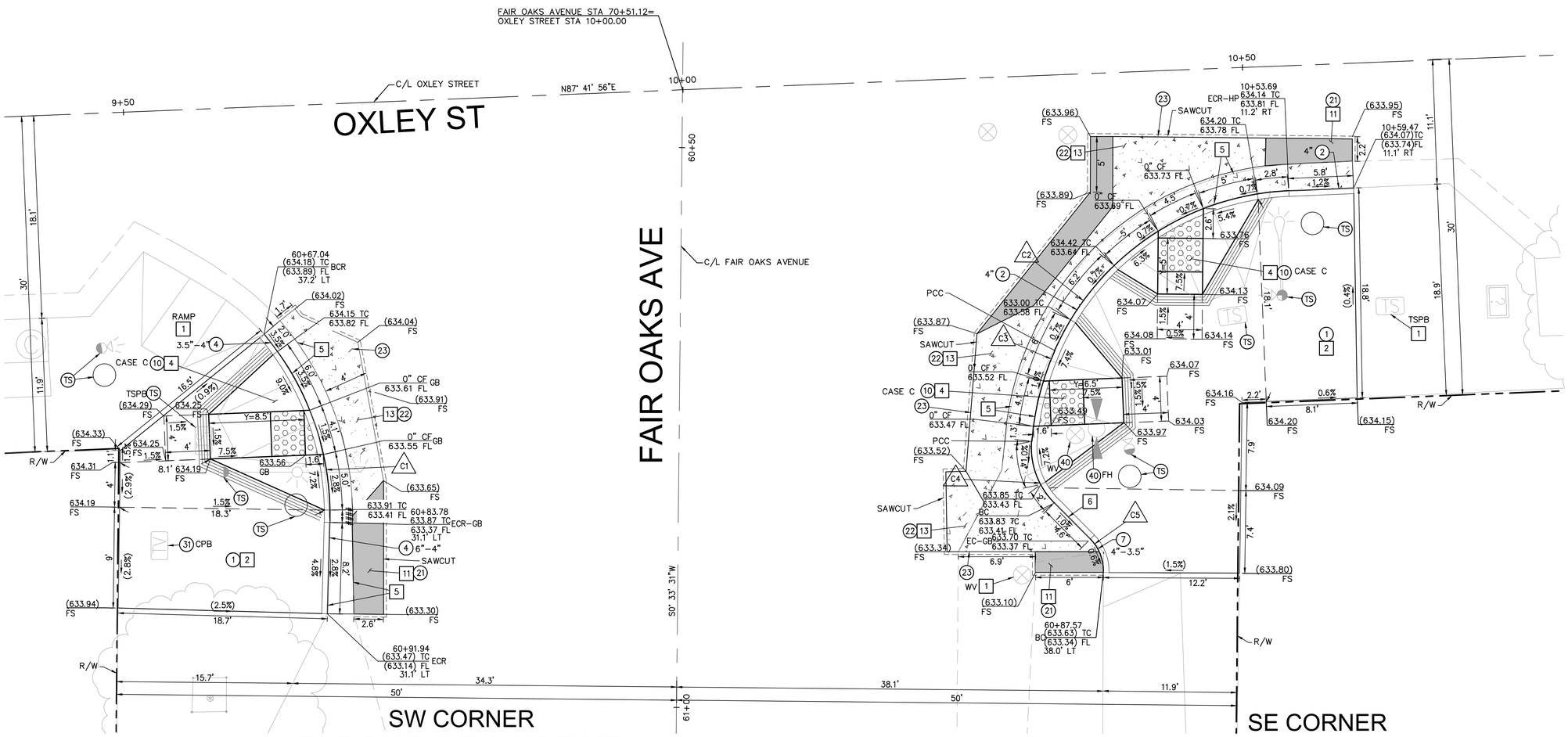
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & OXLEY STREET

BULB OUT/CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 15 OF 97

\\EgyteDrive\Projects\LA\ITE010400\CADD\Design\Sheets\RD-15_Oxley St - Curb Ramp(s) Detail.dwg 10/07/26 - 2:51pm alexis.escobar



DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
5. REMOVE EXISTING PCC CURB AND GUTTER.
6. REMOVE EXISTING PCC CURB.
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
13. SAWCUT AND REMOVE EXISTING PCC PAVEMENT SECTION AND BASE MATERIAL AND/OR NATIVE SOIL (AS NEEDED) TO A DEPTH OF 20" BELOW PROPOSED FINISH SURFACE (SAWCUT TO NEAREST JOINT LINE WHEN POSSIBLE).

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
7. CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
22. CONSTRUCT 12" PCC PAVEMENT PER SPPWC STD. PLAN 132-4 ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE.
23. INSTALL #5X24" TIE BARS @ (O.C. SPACING PER STD. PLAN) WITH EPOXY ADHESIVE AT PCC JOIN LOCATIONS PER SPPWC STD. PLAN 134-3. SEE REF. DETAIL ON SHEET 40.
31. ADJUST UTILITY TO GRADE BY OTHERS (ITEM PER PLAN). CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.
32. ADJUST WATER VALVE FRAME AND COVER TO GRADE.
40. RELOCATE EXISTING UTILITY BY OTHERS. CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT

CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	25.00'	18.21'	41°43'37"	9.53'
C2	24.00'	26.66'	63°39'06"	14.90'
C3	25.00'	8.39'	19°14'02"	4.24'
C4	7.00'	6.04'	49°28'20"	3.22'
C5	4.01'	3.29'	47°04'19"	1.75'

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER
ALEXIS ESCOBAR
No. C094200
Exp. 12-31-26
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

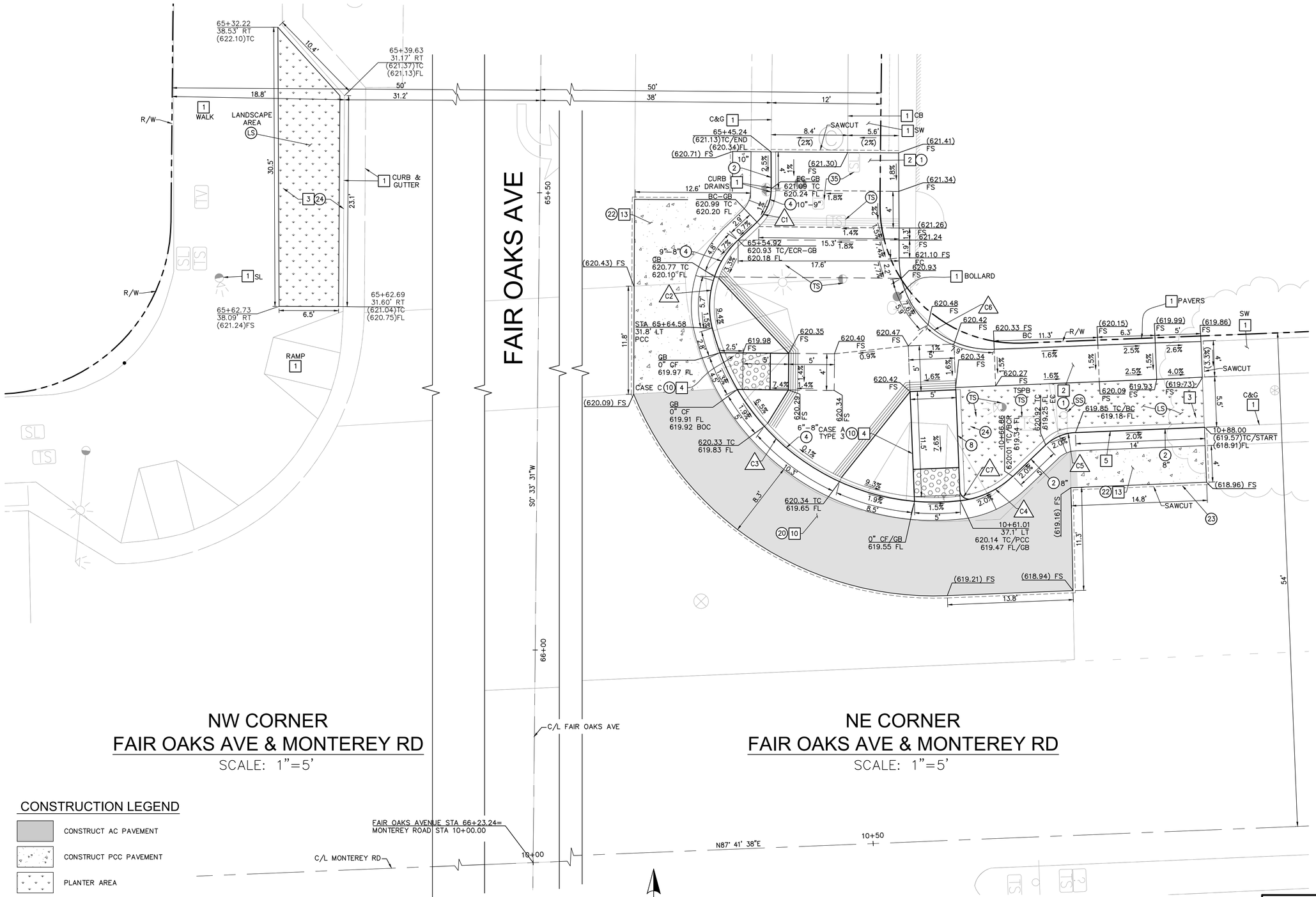
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & OXLEY STREET

BULB OUT/CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 16 OF 97

\\Egnytedrive\Projects\LA\11TE01040\CADD\Design\Sheets\RD-16_Oxley St - Curb Ramp(s) Detail.dwg 10/07/26 - 2:51pm alexis.escobar



NW CORNER
FAIR OAKS AVE & MONTEREY RD
SCALE: 1"=5'

NE CORNER
FAIR OAKS AVE & MONTEREY RD
SCALE: 1"=5'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
3. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE) AND SUBGRADE TO A DEPTH OF 36" BELOW PROPOSED FINISH SURFACE.
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
5. REMOVE EXISTING PCC CURB AND GUTTER.
10. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 18" BELOW PROPOSED FINISH SURFACE.
13. SAWCUT AND REMOVE EXISTING PCC PAVEMENT SECTION AND BASE MATERIAL AND/OR NATIVE SOIL (AS NEEDED) TO A DEPTH OF 20" BELOW PROPOSED FINISH SURFACE (SAWCUT TO NEAREST JOINT LINE WHEN POSSIBLE).

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112–2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120–3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120–3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120–3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111–5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
20. CONSTRUCT 1.5" ARHM ON 4.5" AC PAVEMENT OVER 12" CMB OVER 95% RELATIVE COMPACTED SUBGRADE.
22. CONSTRUCT 12" PCC PAVEMENT PER SPPWC STD. PLAN 132–4 ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE.
23. INSTALL #5X24" TIE BARS @ (O.C. SPACING PER STD. PLAN) WITH EPOXY ADHESIVE AT PCC JOIN LOCATIONS PER SPPWC STD. PLAN 134–3. SEE REF. DETAIL ON SHEET 40.
24. COMPACT EXISTING BASE OR NATIVE SOIL PRIOR TO BACKFILL. IMPORT NATIVE BACKFILL TO BOTTOM OF PROPOSED IMPROVEMENTS. COMPACT TO 95% RELATIVE COMPACTION.
35. ADJUST EXISTING STREET LIGHT PULL BOX TO GRADE.
LS. SEE LANDSCAPE PLAN SHEETS 67–82 FOR ALL LANDSCAPE RELATED ITEMS.
SS. FINAL LOCATION OF SIGNING AND STRIPING PLAN PER SIGNAGE AND STRIPING RELATED ITEMS.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CURVE DATA TABLE

CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	5.00'	4.05'	46°26'44"	2.15'
C2	10.00'	10.50'	60°10'24"	5.79'
C3	25.00'	36.06'	82°38'05"	21.98'
C4	10.00'	6.45'	36°58'01"	3.34'
C5	5.00'	3.59'	41°06'58"	1.88'
C6	10.00'	16.11'	92°17'46"	10.41'
C7	1.00'	1.76'	101°04'36"	1.21'

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT
- PLANTER AREA

5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

N

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER
ALEXIS ESCOBAR
No. C094200
Exp. 12-31-26
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR,
R.C.E. NO. 94200

10/7/2026
DATE

CITY OF SOUTH PASADENA

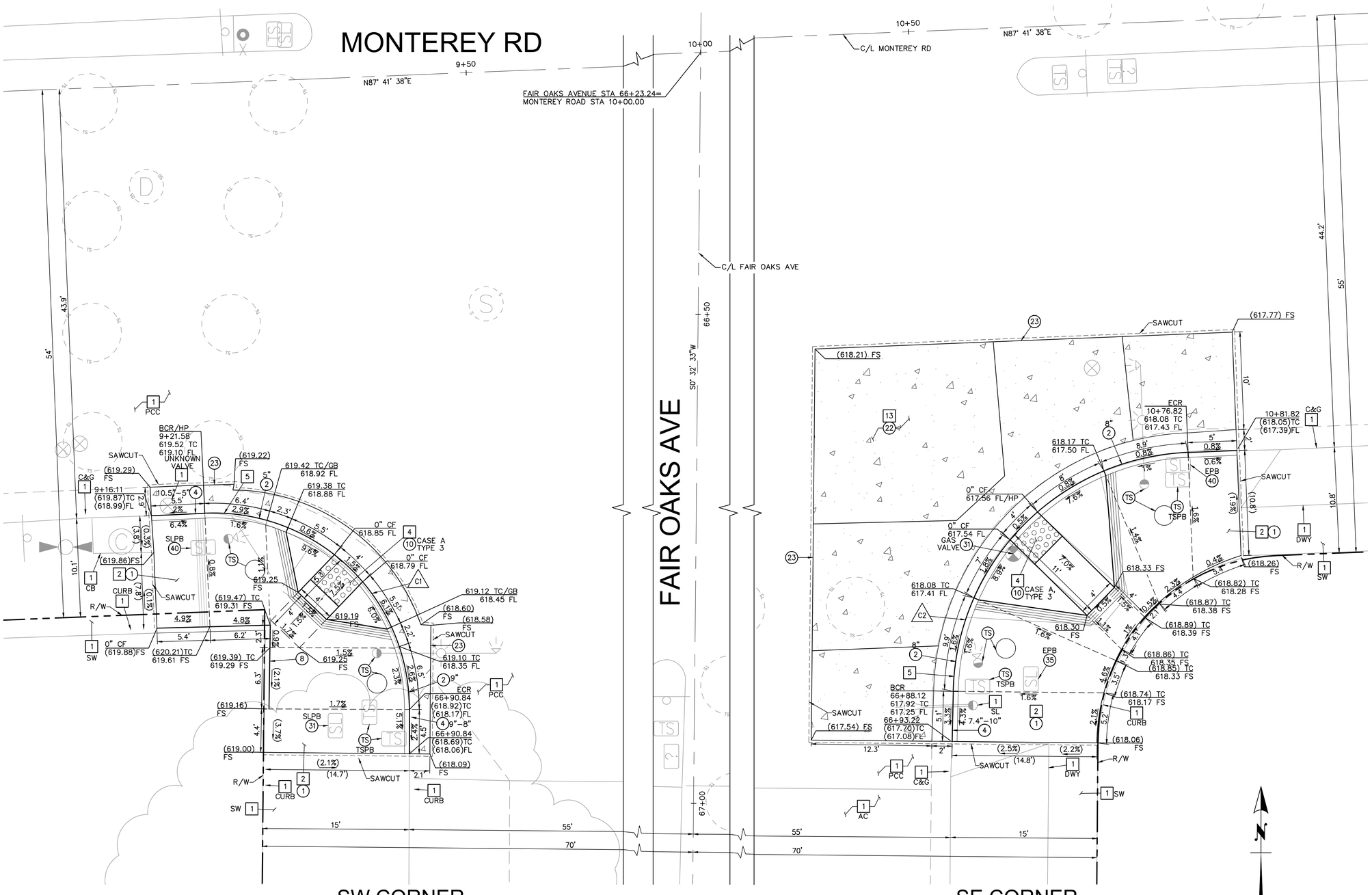
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & MONTEREY ROAD

BULB OUT/CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 17 OF 97

\\EgyteDrive\Projects\LA\ITE010400\CADD\Design\Sheets\RD-17_Monterey Rd - Curb Ramp(s) Detail.dwg 10/07/26 - 2:51pm alexis.escobar



SW CORNER
FAIR OAKS AVE & MONTEREY RD
SCALE: 1"=5'

SE CORNER
FAIR OAKS AVE & MONTEREY RD
SCALE: 1"=5'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
5. REMOVE EXISTING PCC CURB AND GUTTER.
13. SAWCUT AND REMOVE EXISTING PCC PAVEMENT SECTION AND BASE MATERIAL AND/OR NATIVE SOIL (AS NEEDED) TO A DEPTH OF 20" BELOW PROPOSED FINISH SURFACE (SAWCUT TO NEAREST JOINT LINE WHEN POSSIBLE).

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
22. CONSTRUCT 12" PCC PAVEMENT PER SPPWC STD. PLAN 132-4 ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE.
23. INSTALL #5X24" TIE BARS @ (O.C. SPACING PER STD. PLAN) WITH EPOXY ADHESIVE AT PCC JOIN LOCATIONS PER SPPWC STD. PLAN 134-3. SEE REF. DETAIL ON SHEET 40.
31. ADJUST UTILITY TO GRADE BY OTHERS (ITEM PER PLAN). CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.
35. ADJUST EXISTING STREET LIGHT PULL BOX TO GRADE.
40. RELOCATE EXISTING UTILITY BY OTHERS. CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CURVE TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	20.00'	32.40'	92°49'55"	21.01'
C2	25.00'	37.70'	86°24'47"	23.48'

CONSTRUCTION LEGEND

CONSTRUCT PCC PAVEMENT

5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS			
NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

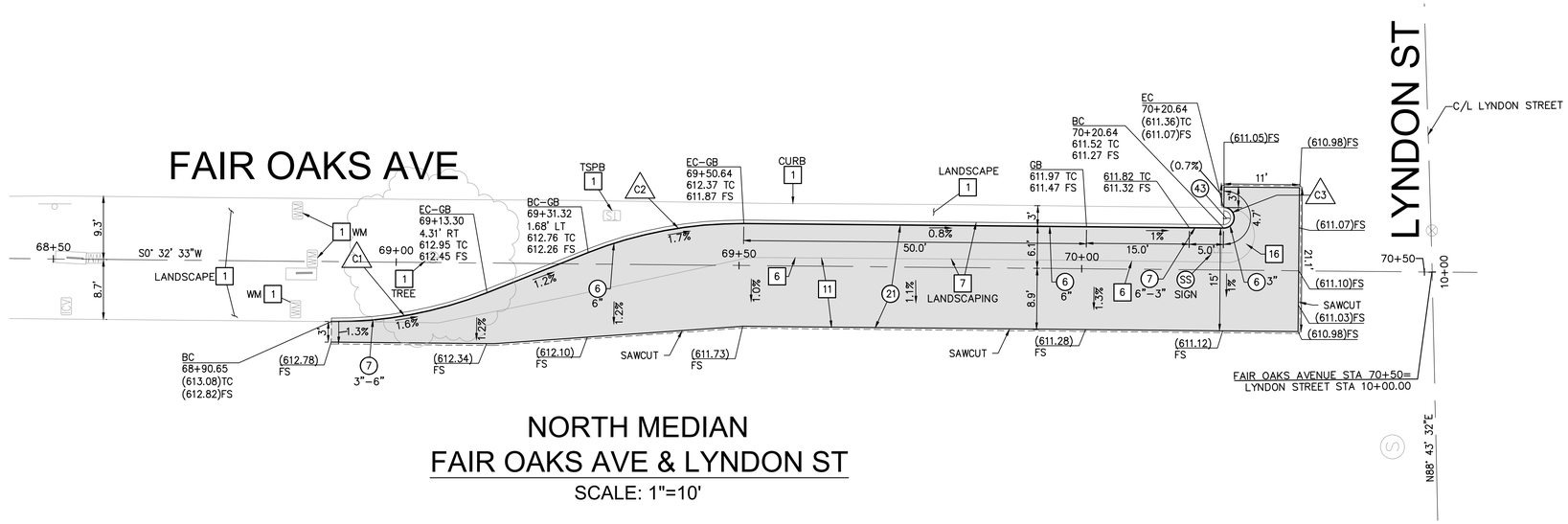
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & MONTEREY ROAD

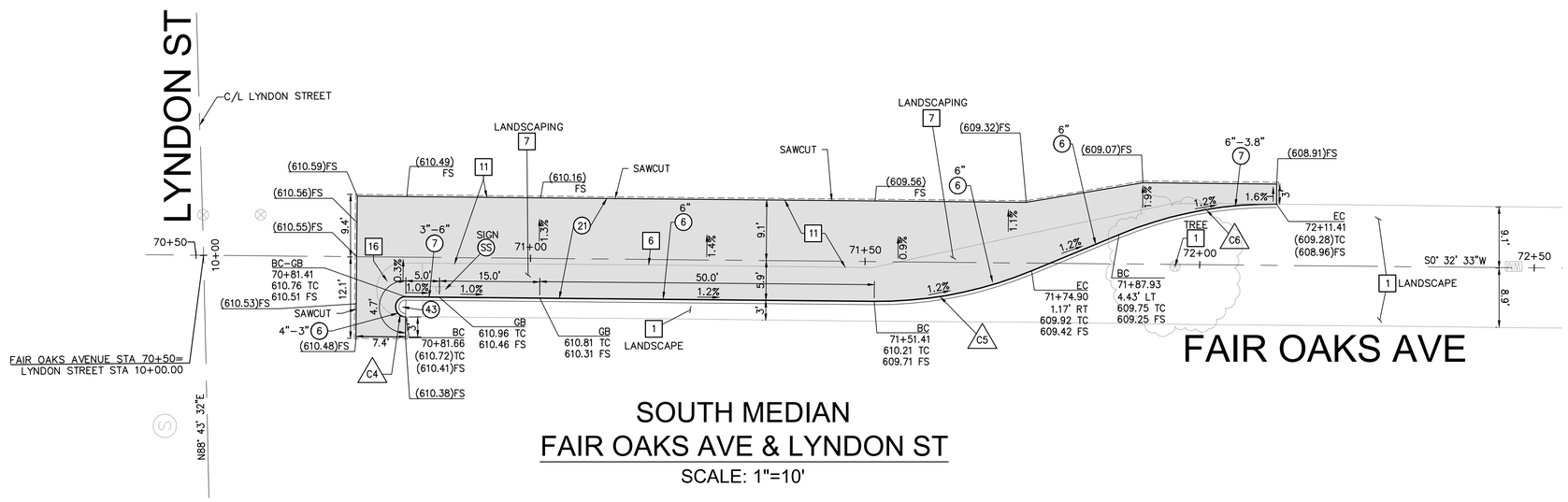
BULB OUT/CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 18 OF 97

\\EgnyteDrive\Projects\LA\ITE010400\CADD\Design\Sheets\RD-18_Monterey Rd.dwg 10/07/26 – 2:51pm alexis.escobar



NORTH MEDIAN
FAIR OAKS AVE & LYNDON ST
SCALE: 1"=10'



SOUTH MEDIAN
FAIR OAKS AVE & LYNDON ST
SCALE: 1"=10'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
6. REMOVE EXISTING PCC CURB.
7. REMOVE (ITEM PER PLAN).
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
16. REMOVE MEDIAN PCC AND SUBGRADE TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.

CONSTRUCTION NOTES

6. CONSTRUCT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
7. CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
43. CONSTRUCT 4" THICK MEDIAN PCC.
SS. FINAL LOCATION OF SIGNING AND STRIPING PLAN PER SIGNAGE AND STRIPING RELATED ITEMS.

CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	60.00'	23.23'	22°11'12"	11.76'
C2	60.00'	23.23'	22°11'14"	11.76'
C3	1.50'	4.72'	180°07'16"	1419.63'
C4	1.50'	4.71'	180°00'00"	INFINITY'
C5	60.00'	24.13'	23°02'32"	12.23'
C6	60.00'	24.13'	23°02'32"	12.23'

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT
- PLANTER AREA

5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS			
NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

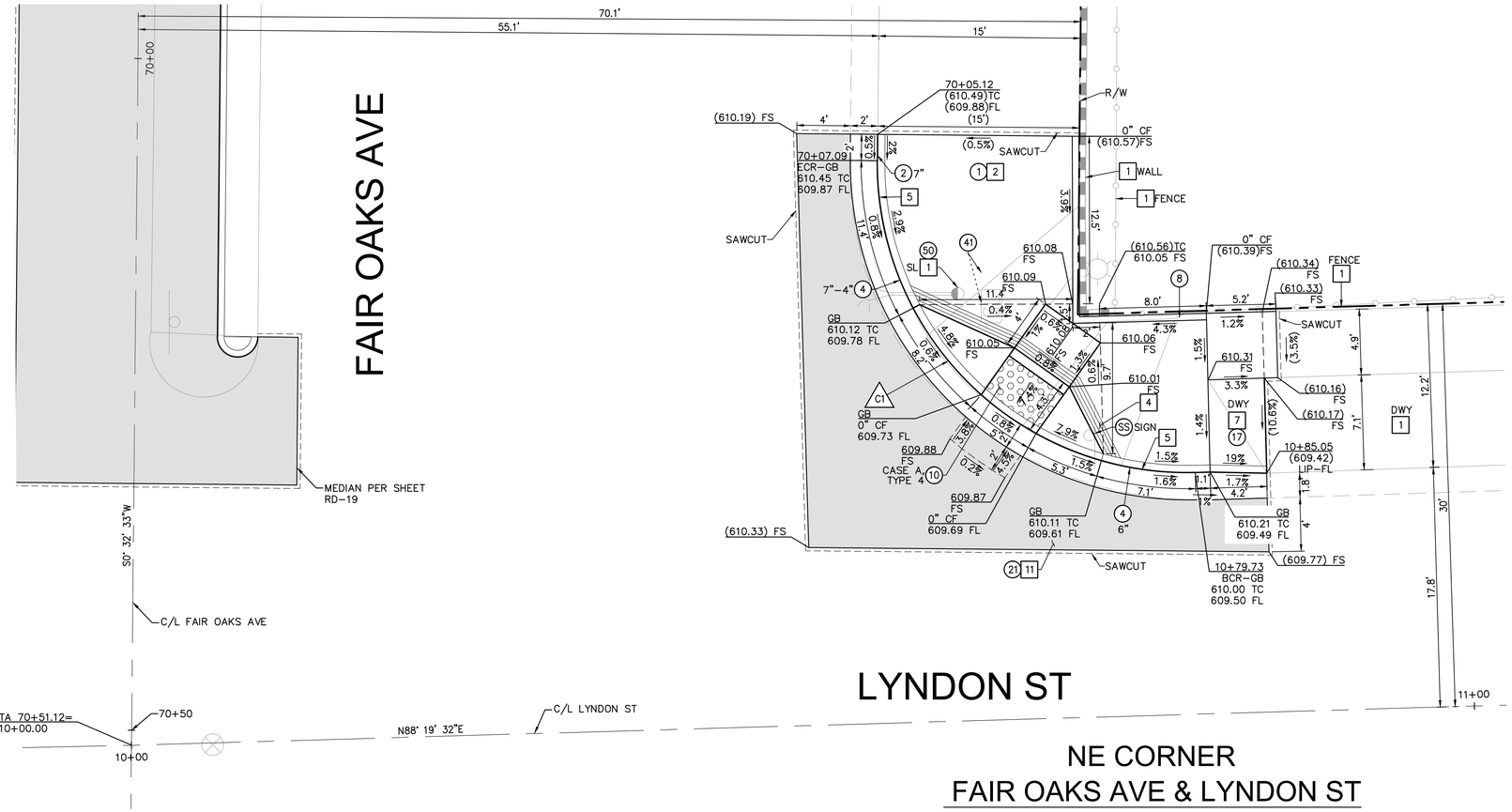
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & LYNDON STREET

MEDIAN DETAILS

PROJECT NO. 2020-02
SHEET NO. 19 OF 97

\\EgnyteDrive\Projects\LA\ITE010400\CADD\Design\Sheets\RD-19_Lyndon St - Median Detail.dwg 10/07/25 - 2:52pm alexis.escobar



NE CORNER
FAIR OAKS AVE & LYNDON ST
SCALE: 1"=5'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
5. REMOVE EXISTING PCC CURB AND GUTTER.
7. REMOVE (ITEM PER PLAN).
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
17. CONSTRUCT PARTIAL PCC DRIVEWAY APPROACH PER SPPWC STD. PLAN 110-2, "TYPE C" UNLESS SHOWN OTHERWISE. SEE REF. DETAIL ON SHEET 36.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
41. RELOCATE EXISTING TRAFFIC SIGNAL PULL BOX TO GRADE.
50. INSTALL CEMENT GROUT UNDER POLE PLATE (ONLY WHEN EXPOSED AND NEEDED).
SS. FINAL LOCATION OF SIGNING AND STRIPING PLAN PER SIGNAGE AND STRIPING RELATED ITEMS.

CURVE DATA TABLE

CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	23.00'	36.99'	92°09'08"	23.88'

CONSTRUCTION LEGEND

CONSTRUCT AC PAVEMENT

N

5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

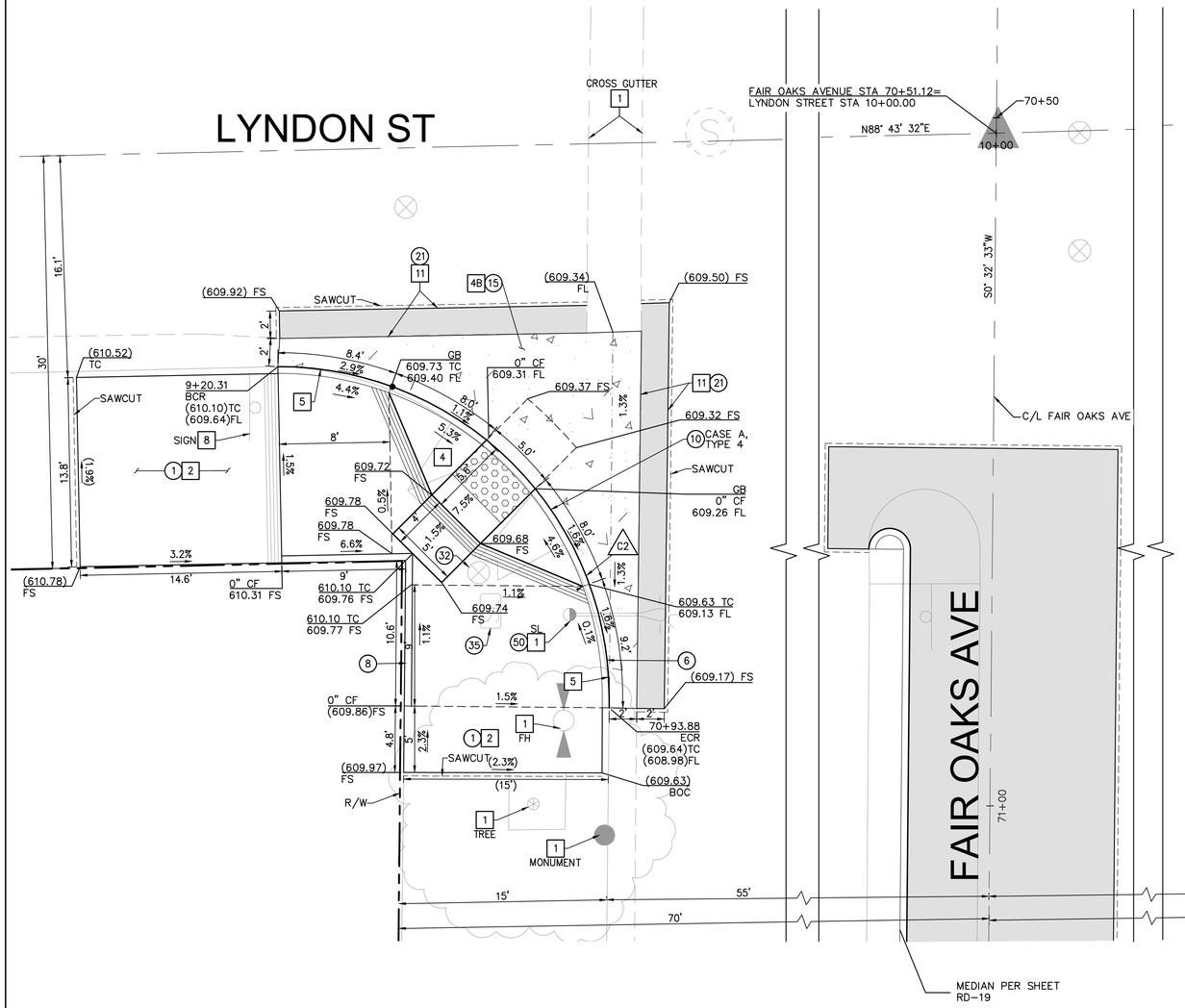
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & LYNDON STREET

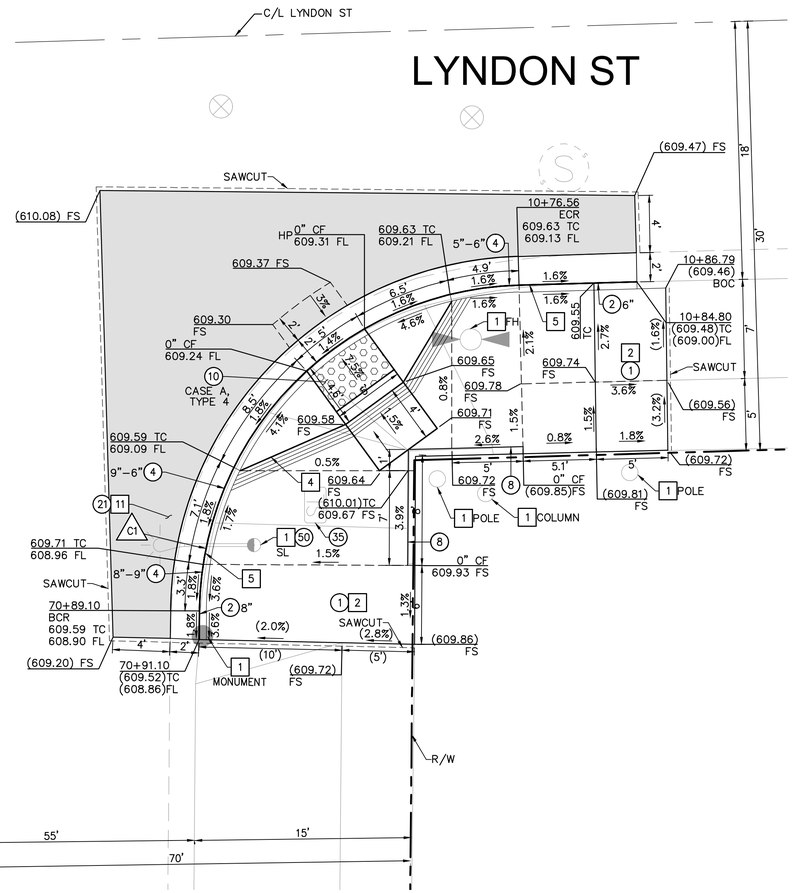
CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 20 OF 97

\\EgnyteDrive\Projects\LA\11TE010400\CADD\Design\Sheets\RD-20_Lyndon St - Curb Ramp(s) Details.dwg 10/07/26 - 2:52pm alexis.escobar



SW CORNER
FAIR OAKS AVE & LYNDON ST
SCALE: 1"=5'



SE CORNER
FAIR OAKS AVE & LYNDON ST
SCALE: 1"=5'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
4B. SAWCUT AND REMOVE EXISTING PCC CROSS GUTTER SPANDREL.
5. REMOVE EXISTING PCC CURB AND GUTTER.
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
6. CONSTRUCT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
15. CONSTRUCT PCC CROSS GUTTER SPANDREL, 8" THICK PER SPPWC STD. PLAN 122-3 ON 6" CMB. SEE REF. DETAIL ON SHEET 37.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
32. ADJUST WATER VALVE FRAME AND COVER TO GRADE.
35. ADJUST EXISTING STREET LIGHT PULL BOX TO GRADE.
50. INSTALL CEMENT GROUT UNDER POLE PLATE (ONLY WHEN EXPOSED AND NEEDED).

CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	24.01'	38.55'	091°59'55"	24.86'
C2	23.00'	35.24'	087°47'04"	22.13'

CONSTRUCTION LEGEND

CONSTRUCT AC PAVEMENT

N

5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

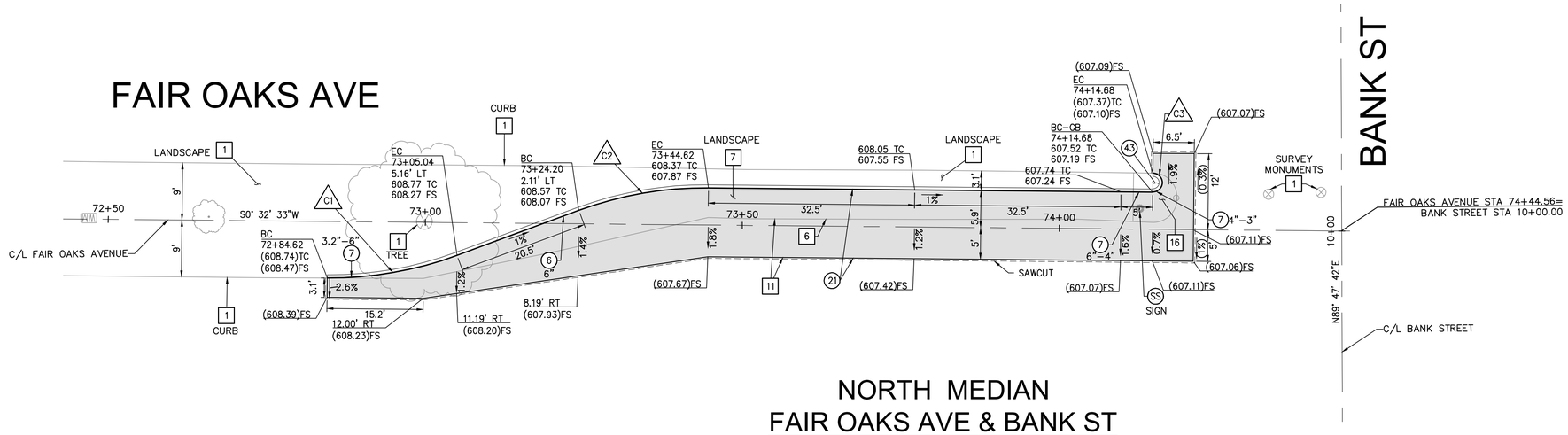
REVISIONS			
NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

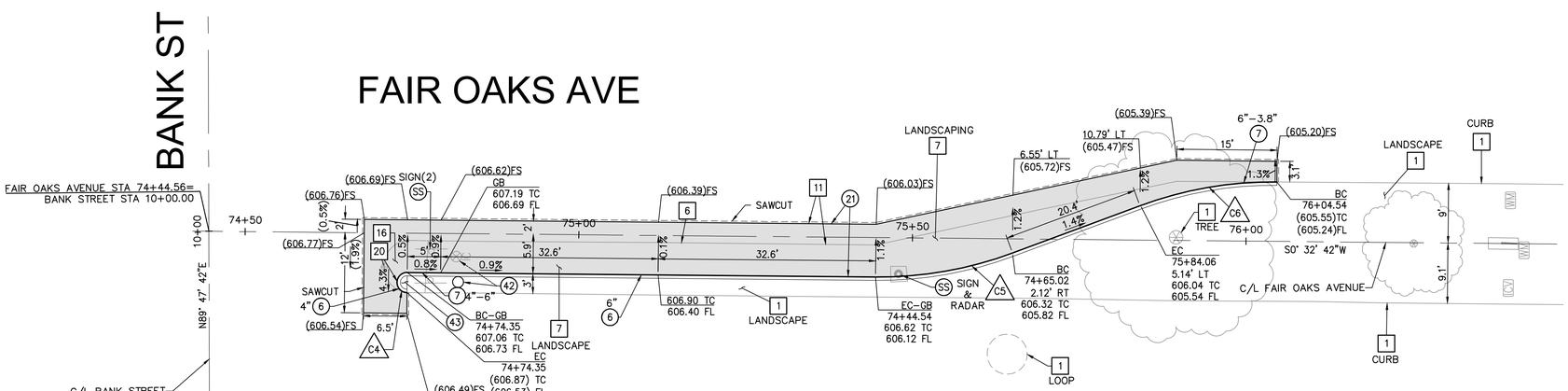
CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE & LYNDON STREET
CURB RAMP DETAILS
PROJECT NO. 2020-02
SHEET NO. 21 OF 97

\\EgnyteDrive\Projects\LA\ITE010400\CADD\Design\Sheets\RD-21_Lyndon St - Curb Ramp(s) Details.dwg 10/07/26 - 2:52pm alexis.escobar



NORTH MEDIAN
FAIR OAKS AVE & BANK ST

SCALE: 1"=10'



SOUTH MEDIAN
FAIR OAKS AVE & BANK ST

SCALE: 1"=10'

DEMOLITION NOTES

- 1 PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
- 6 REMOVE EXISTING PCC CURB.
- 7 REMOVE (ITEM PER PLAN).
- 11 REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
- 16 REMOVE MEDIAN PCC AND SUBGRADE TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
- 20 RESET EXISTING SURVEY TIE.

CONSTRUCTION NOTES

- (6) CONSTRUCT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
- (7) CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
- (21) CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
- (42) RELOCATE EXISTING IRRIGATION CONTROL VALVE, IRRIGATION LINES, SPRINKLERS AND ALL PERTINENT IMPACTED ITEMS PER THE NEW CONSTRUCTION.
- (43) CONSTRUCT 4" THICK MEDIAN PCC.
- (SS) FINAL LOCATION OF SIGNING AND STRIPING PLAN PER SIGNAGE AND STRIPING RELATED ITEMS.

CURVE DATA TABLE

CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	57.50'	20.88'	20°48'13"	10.56'
C2	57.50'	20.88'	20°48'13"	10.56'
C3	1.50'	4.71'	180°00'00"	INFINITY'
C4	1.50'	4.71'	180°00'00"	INFINITY'
C5	57.50'	20.94'	20°51'49"	10.59'
C6	57.50'	20.94'	20°51'50"	10.59'

CONSTRUCTION LEGEND

CONSTRUCT AC PAVEMENT

10' 5' 0' 5' 10' 20'
GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

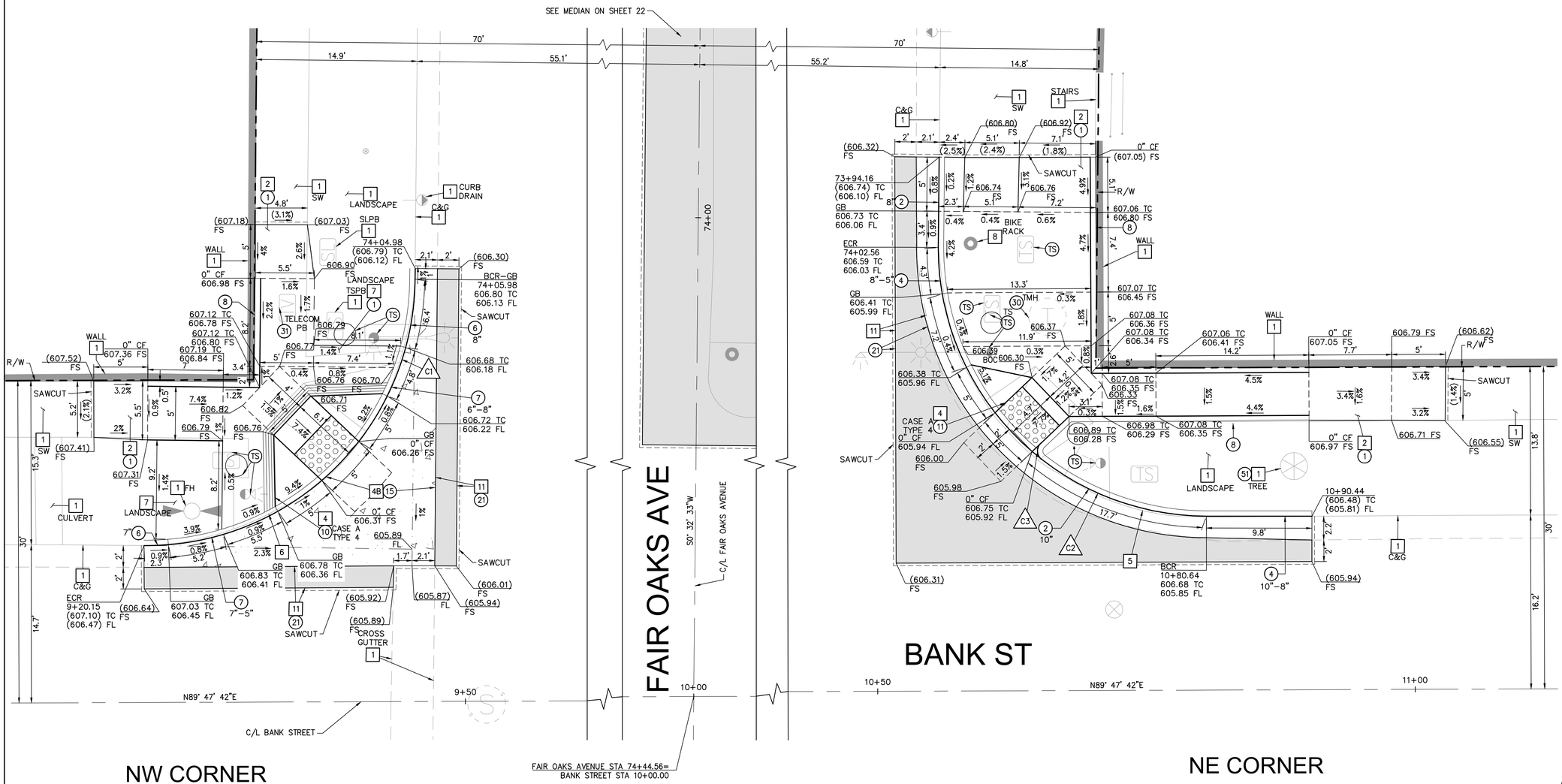
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & BANK STREET

MEDIAN DETAILS

PROJECT NO. 2020-02
SHEET NO. 22 OF 97

\\EgnyteDrive\Projects\LA\ITE010400\CADD\Design\Sheets\RD-22_Bank St - Median Detail.dwg 10/07/26 - 2:52pm alexis.escobar



NW CORNER
FAIR OAKS AVE & BANK ST

SCALE: 1"=5'

NE CORNER
FAIR OAKS AVE & BANK ST

SCALE: 1"=5'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
4B. SAWCUT AND REMOVE EXISTING PCC CROSS GUTTER SPANDREL.
5. REMOVE EXISTING PCC CURB AND GUTTER.
6. REMOVE EXISTING PCC CURB.
7. REMOVE (ITEM PER PLAN).
8. REMOVE AND REINSTALL EXISTING (ITEM PER PLAN).
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
6. CONSTRUCT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
7. CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
11. CONSTRUCT MODIFIED 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
15. CONSTRUCT PCC CROSS GUTTER SPANDREL, 8" THICK PER SPPWC STD. PLAN 122-3 ON 6" CMB. SEE REF. DETAIL ON SHEET 37.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
30. ADJUST MANHOLE FRAME AND COVER TO GRADE (ITEM PER PLAN).
31. ADJUST UTILITY TO GRADE BY OTHERS (ITEM PER PLAN). CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.
50. INSTALL CEMENT GROUT UNDER POLE PLATE (ONLY WHEN EXPOSED AND NEEDED).
51. PRUNE EXISTING ROOTS. CERTIFIED ARBORIST SHALL APPROVE ROOTS TO BE PRUNED.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	25.00'	39.26'	89°59'16"	24.99'
C2	25.00'	39.23'	89°53'51"	24.96'
C3	1.00'	1.72'	98°27'22"	1.16'

N

5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT

Underground Service Alert
CALL: TOLL FREE 811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS			
NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

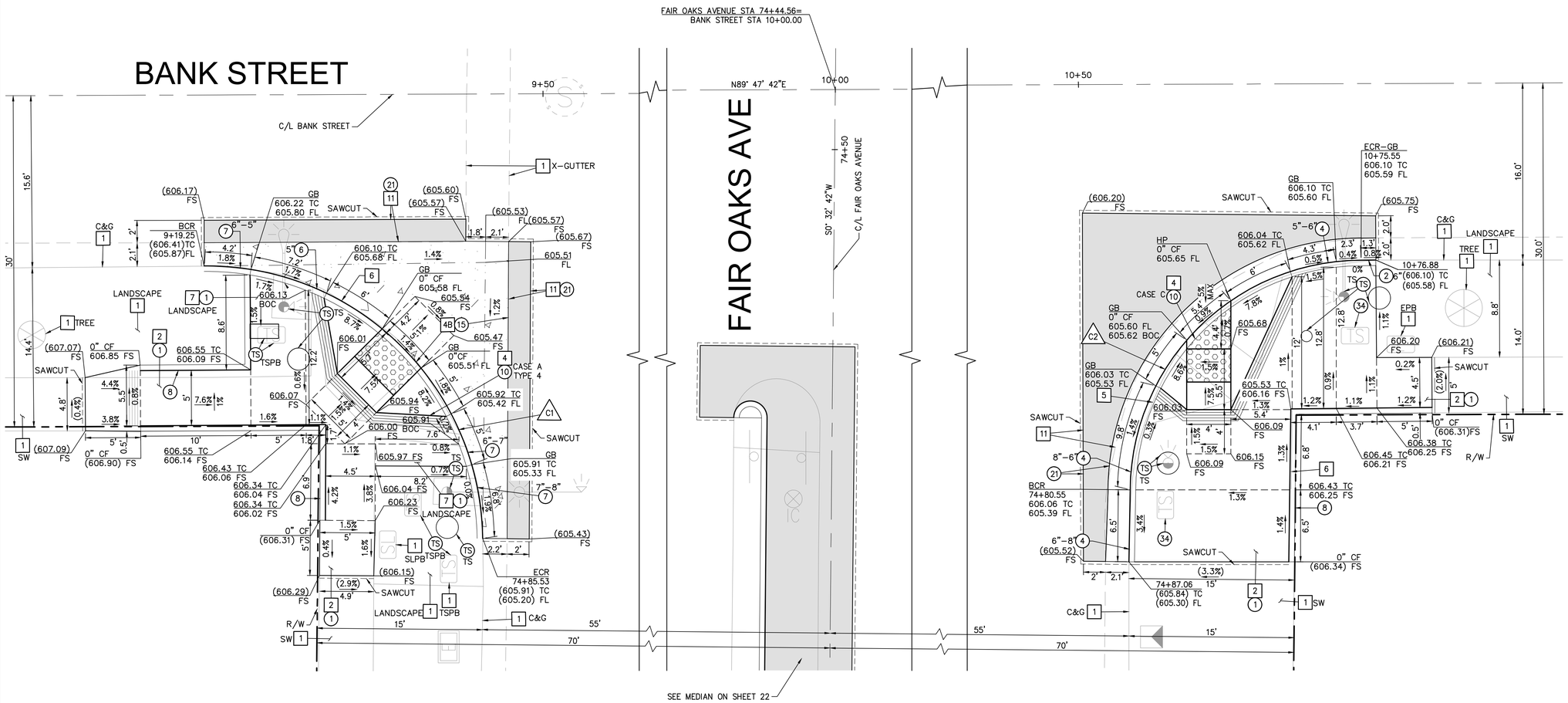
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & BANK STREET

CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 23 OF 97

\\EgnyteDrive\Projects\LA\11TE010400\CADD\Design\Sheets\RD-23_Bank St - Curb Ramp(s) Detail.dwg 10/07/26 - 2:52pm alexis.escobar



SW CORNER
FAIR OAKS AVE & BANK ST
SCALE: 1"=5'

SE CORNER
FAIR OAKS AVE & BANK ST
SCALE: 1"=5'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
4B. SAWCUT AND REMOVE EXISTING PCC CROSS GUTTER SPANDREL.
5. REMOVE EXISTING PCC CURB AND GUTTER.
6. REMOVE EXISTING PCC CURB.
7. REMOVE (ITEM PER PLAN).
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
7. CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
15. CONSTRUCT PCC CROSS GUTTER SPANDREL, 8" THICK PER SPPWC STD. PLAN 122-3 ON 6" CMB. SEE REF. DETAIL ON SHEET 37.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
34. ADJUST EXISTING TRAFFIC SIGNAL PULL BOX TO GRADE.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CURVE DATA TABLE

CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	25.00'	39.16'	89°45'34"	24.90'
C2	21.00'	32.71'	89°15'00"	20.73'

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT

5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE 811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & BANK STREET

CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 24 OF 97

\\EgnyteDrive\Projects\LA\11ED10400\CADD\Design\Sheets\RD-24_Bank St - Curb Ramp(s) Detail.dwg 10/07/26 - 2:53pm alexis.escobar

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
6. REMOVE EXISTING PCC CURB.
7. REMOVE (ITEM PER PLAN).
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
12. REMOVE EXISTING AC PAVEMENT SECTION.
16. REMOVE MEDIAN PCC AND SUBGRADE TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.

CONSTRUCTION NOTES

(6) CONSTRUCT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.

(7) CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.

(21) CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.

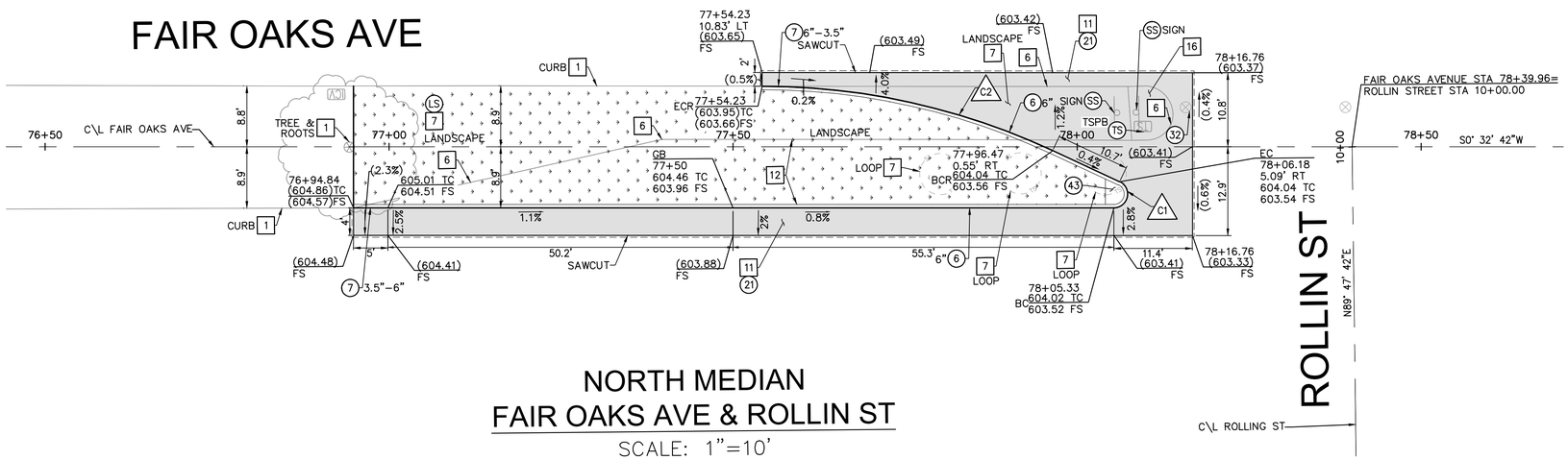
(32) ADJUST WATER VALVE FRAME AND COVER TO GRADE.

(43) CONSTRUCT 4" THICK MEDIAN PCC.

(LS) SEE LANDSCAPE PLAN SHEETS 67-82 FOR ALL LANDSCAPE RELATED ITEMS.

(SS) FINAL LOCATION OF SIGNING AND STRIPING PLAN PER SIGNAGE AND STRIPING RELATED ITEMS.

(TS) FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.



NORTH MEDIAN
FAIR OAKS AVE & ROLLIN ST

SCALE: 1"=10'

CURVE DATA TABLE				
CURVE #	LENGTH	RADIUS	DELTA	TANGENT
C1	5.41'	2.00'	154°59'23"	9.02'
C2	43.62'	100.00'	24°59'23"	22.16'

10' 5' 0' 5' 10' 20'
GRAPHIC SCALE

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- PLANTER AREA

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS			
NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

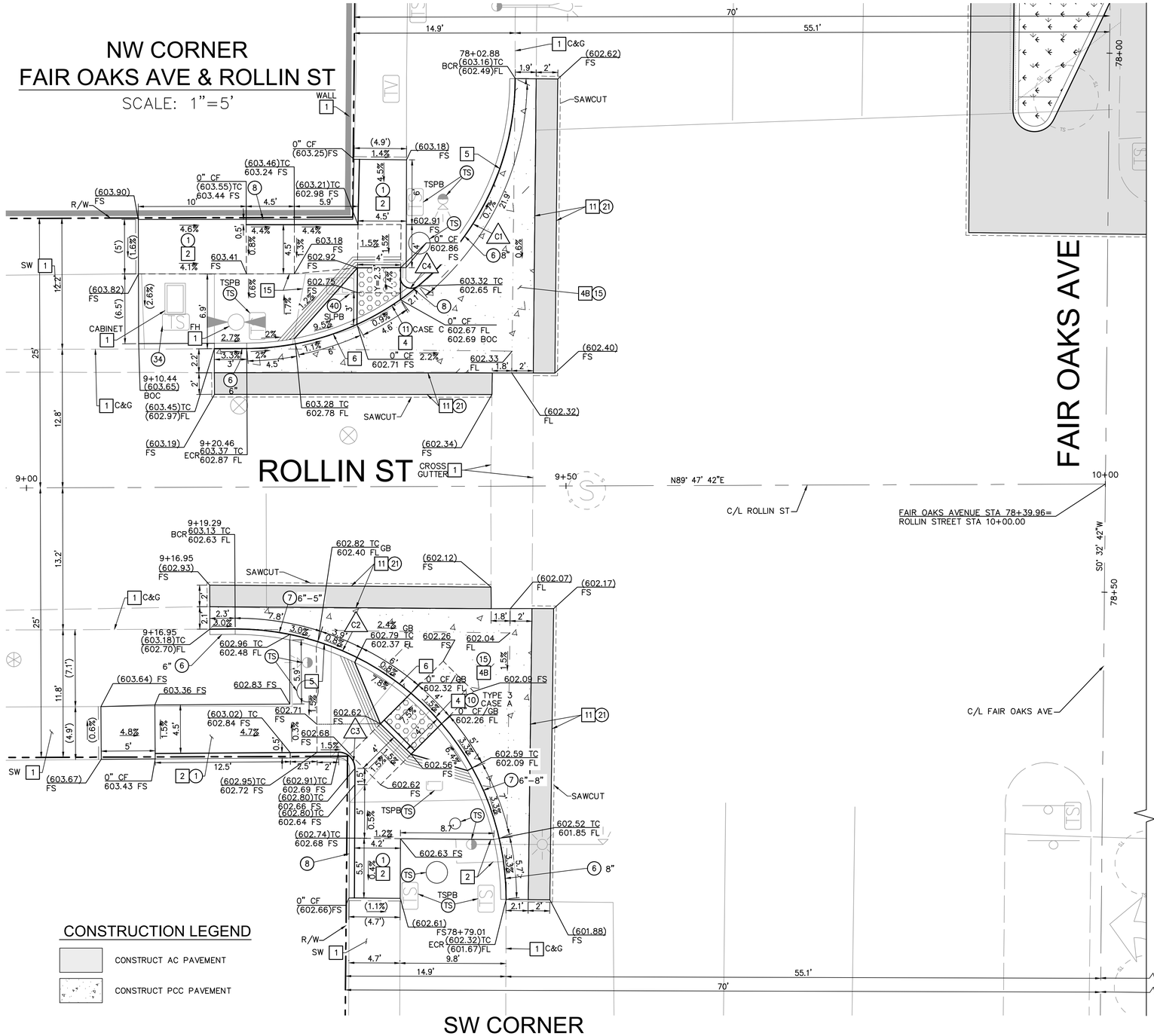
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

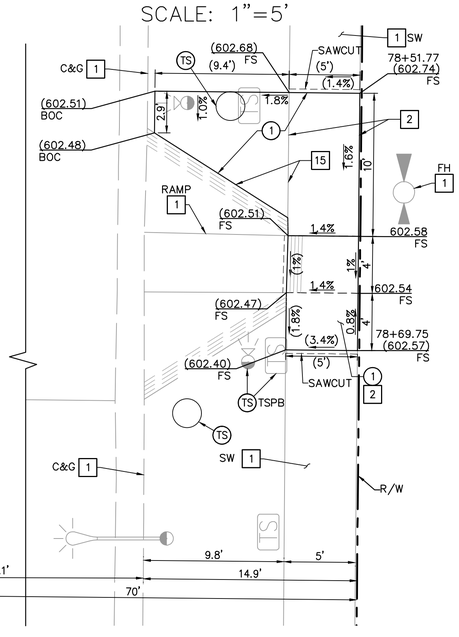
FAIR OAKS AVENUE & ROLLIN STREET

MEDIAN DETAILS

PROJECT NO. 2020-02
SHEET NO. 25 OF 97

\\EgnyteDrive\Projects\LA\1TE010400\CADD\Design\Sheets\RD-25_Rollin St - Median Detail.dwg 10/07/26 - 2:53pm alexis.escobar





DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
4B. SAWCUT AND REMOVE EXISTING PCC CROSS GUTTER SPANDREL.
5. REMOVE EXISTING PCC CURB AND GUTTER.
6. REMOVE EXISTING PCC CURB.
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
15. REMOVE EXISTING LANDSCAPING AND SUBGRADE TO A DEPTH OF 4" BELOW PROPOSED FINISH SURFACE.

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
6. CONSTRUCT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
7. CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
11. CONSTRUCT MODIFIED 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
15. CONSTRUCT PCC CROSS GUTTER SPANDREL, 8" THICK PER SPPWC STD. PLAN 122-3 ON 6" CMB. SEE REF. DETAIL ON SHEET 37.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
34. ADJUST EXISTING TRAFFIC SIGNAL PULL BOX TO GRADE.
40. RELOCATE EXISTING UTILITY BY OTHERS. CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.
LS. SEE LANDSCAPE PLAN SHEETS 67-82 FOR ALL LANDSCAPE RELATED ITEMS.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CURVE DATA TABLE

CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	25.00'	39.20'	89°49'55"	24.93'
C2	25.00'	39.46'	90°25'35"	25.19'
C3	1.50'	2.37'	90°38'33"	1.52'
C4	1.00'	2.28'	130°22'43"	2.16'

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT

GRAPHIC SCALE: 5' 2.5' 0' 2.5' 5' 10'

Underground Service Alert
CALL: TOLL FREE 811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD: REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR, R.C.E. NO. 94200 — 10/7/2026 DATE

CITY OF SOUTH PASADENA

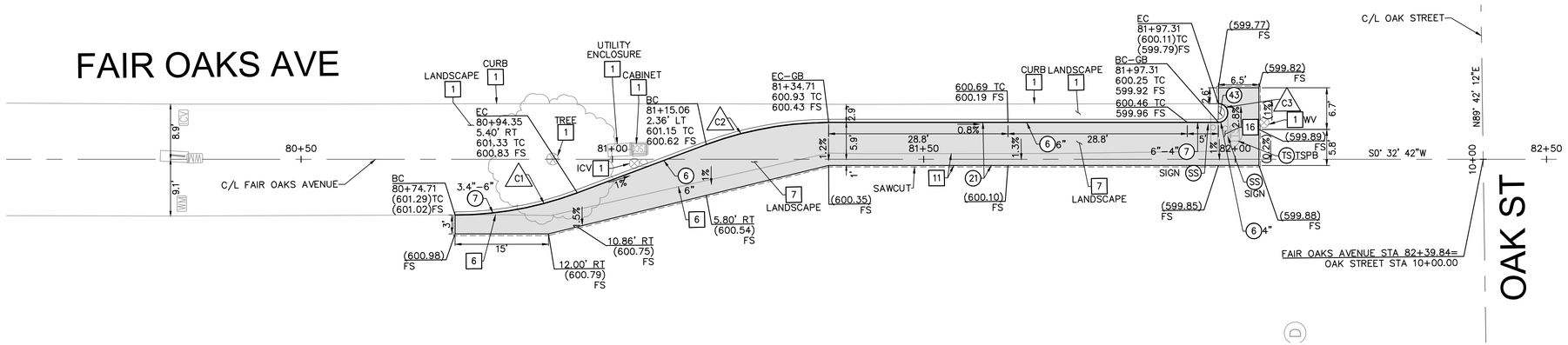
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & ROLLIN STREET

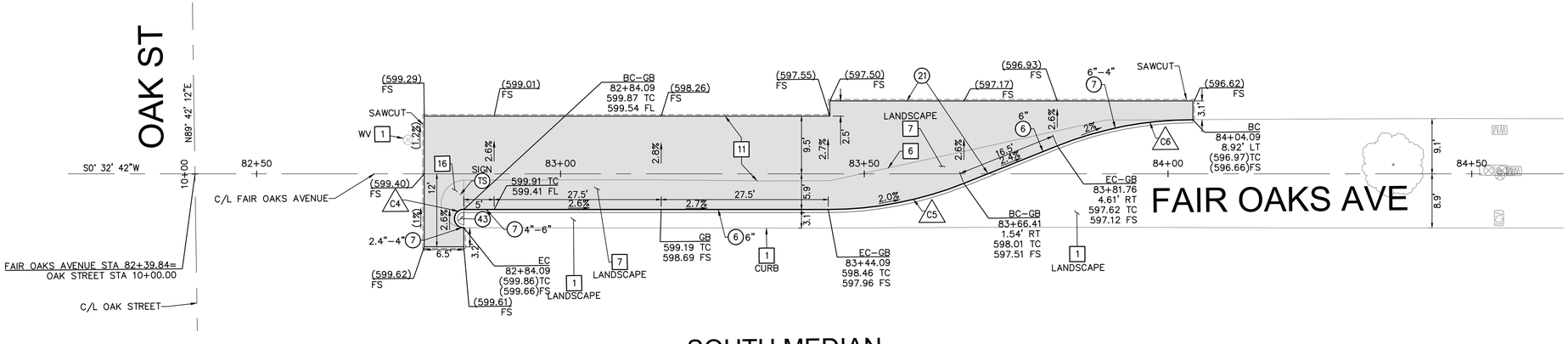
CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 26 OF 97

\\Egnytebrive\Projects\LA\ITE01040\CADD\Design\Sheets\RD-26_Rollin St - Curb Ramp(s) Detail.dwg 10/07/26 - 2:53pm alexis.escobar



NORTH MEDIAN
FAIR OAKS AVE & OAK ST
SCALE: 1"=10'



SOUTH MEDIAN
FAIR OAKS AVE & OAK ST
SCALE: 1"=10'

DEMOLITION NOTES

- 1 PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
- 6 REMOVE EXISTING PCC CURB.
- 7 REMOVE (ITEM PER PLAN).
- 11 REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
- 16 REMOVE MEDIAN PCC AND SUBGRADE TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.

CONSTRUCTION NOTES

- 6 CONSTRUCT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
- 7 CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
- 21 CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
- 43 CONSTRUCT 4" THICK MEDIAN PCC.
- SS FINAL LOCATION OF SIGNING AND STRIPING PLAN PER SIGNAGE AND STRIPING RELATED ITEMS.
- TS FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	56.00'	20.07'	20°32'12"	10.14'
C2	56.00'	20.07'	20°32'12"	10.14'
C3	1.50'	4.71'	180°00'00"	INFINITY'
C4	1.50'	4.71'	180°00'00"	INFINITY'
C5	60.00'	22.88'	21°50'41"	11.58'
C6	60.00'	22.88'	21°50'41"	11.58'

CONSTRUCTION LEGEND

CONSTRUCT AC PAVEMENT

10' 5' 0' 5' 10' 20'
GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE 811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE & OAK STREET
MEDIAN DETAILS
PROJECT NO. 2020-02
SHEET NO. 27 OF 97

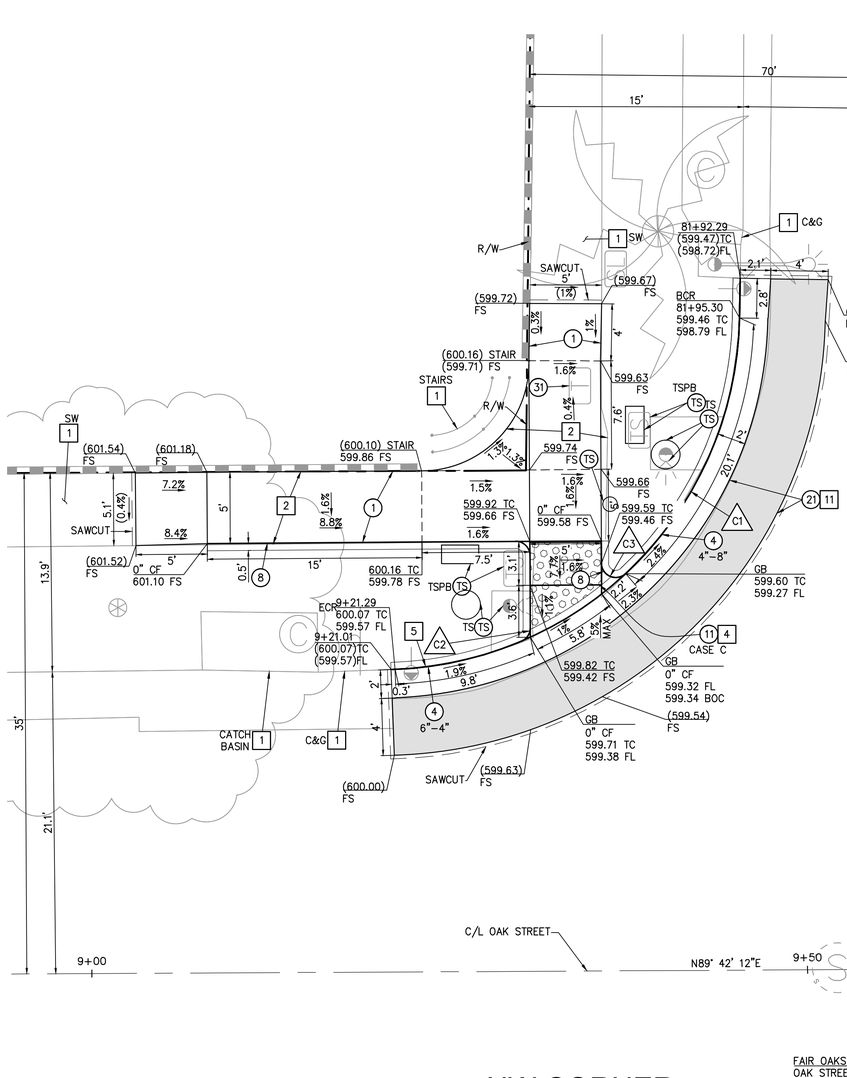
\\EgnyteDrive\Projects\LA\ITE010400\CADD\Design\Sheets\RD-27_Oak St - Median Detail.dwg 10/07/26 - 2:53pm alexis.escobar

DEMOLITION NOTES

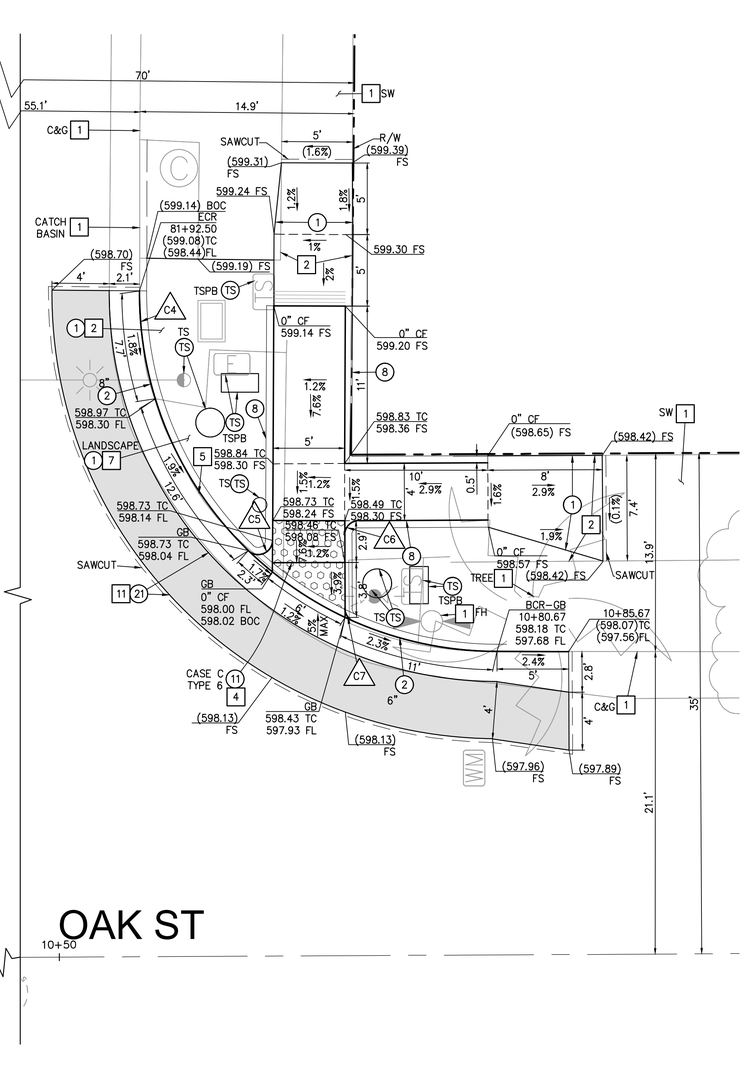
1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
5. REMOVE EXISTING PCC CURB AND GUTTER.
7. REMOVE (ITEM PER PLAN).
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
11. CONSTRUCT MODIFIED 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
31. ADJUST UTILITY TO GRADE BY OTHERS (ITEM PER PLAN). CONTRACTOR TO COORDINATE WITH UTILITY AGENCY.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

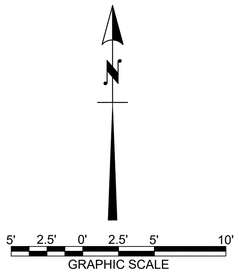


NW CORNER
FAIR OAKS AVE & OAK ST
SCALE: 1"=5'



NE CORNER
FAIR OAKS AVE & OAK ST
SCALE: 1"=5'

CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	25.00'	37.91'	86°53'28"	23.68'
C2	1.00'	1.17'	67°16'51"	0.67'
C3	1.00'	2.32'	132°40'42"	2.28'
C4	25.00'	39.44'	90°22'49"	25.17'
C5	1.00'	2.34'	133°48'30"	2.34'
C6	1.00'	1.57'	89°52'41"	1.00'
C7	1.00'	1.15'	66°08'22"	0.65'



CONSTRUCTION LEGEND

CONSTRUCT AC PAVEMENT

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS			
NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

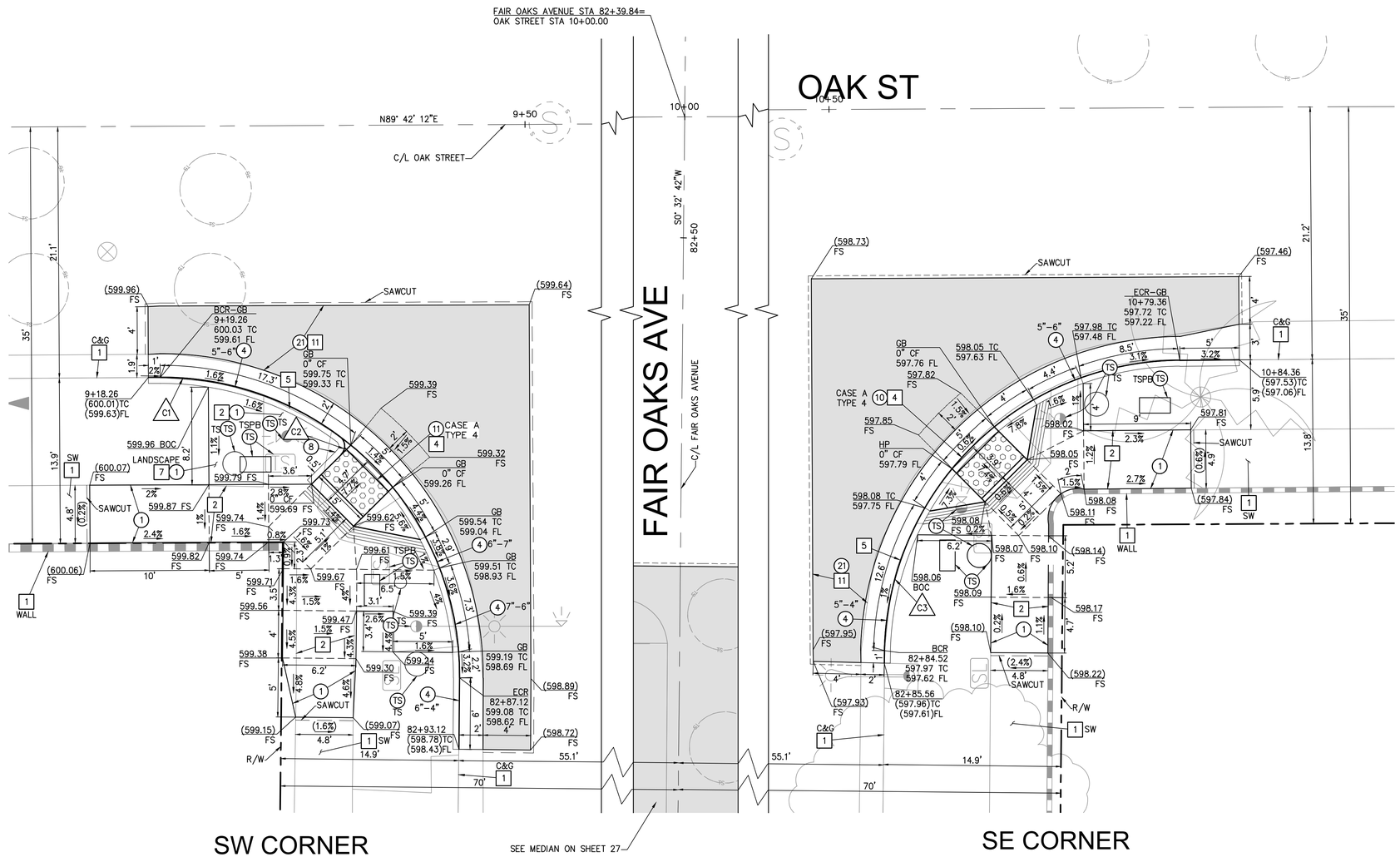
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & OAK STREET

CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 28 OF 97

\\Egnytedrive\Projects\LA\ITED10400\CADD\Design\Sheets\RD-28_Oak St.dwg 10/07/26 - 2:54pm alexis.escobar



SW CORNER
FAIR OAKS AVE & OAK ST
SCALE: 1"=5'

SE CORNER
FAIR OAKS AVE & OAK ST
SCALE: 1"=5'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
5. REMOVE EXISTING PCC CURB AND GUTTER.
7. REMOVE (ITEM PER PLAN).
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
11. CONSTRUCT MODIFIED 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CURVE DATA TABLE

CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	25.00'	39.64'	90°50'30"	25.37'
C2	1.00'	1.72'	98°23'08"	1.16'
C3	25.00'	38.46'	88°08'27"	24.20'

GRAPHIC SCALE
5' 2.5' 0' 2.5' 5' 10'

CONSTRUCTION LEGEND

CONSTRUCT AC PAVEMENT

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

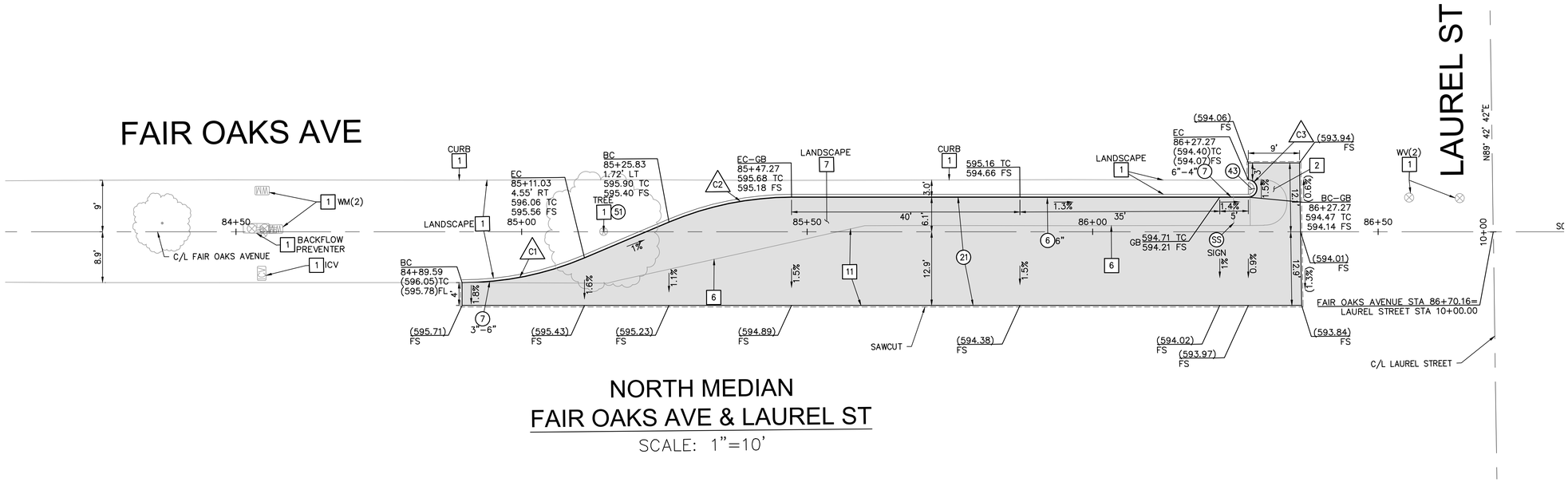
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & OAK STREET

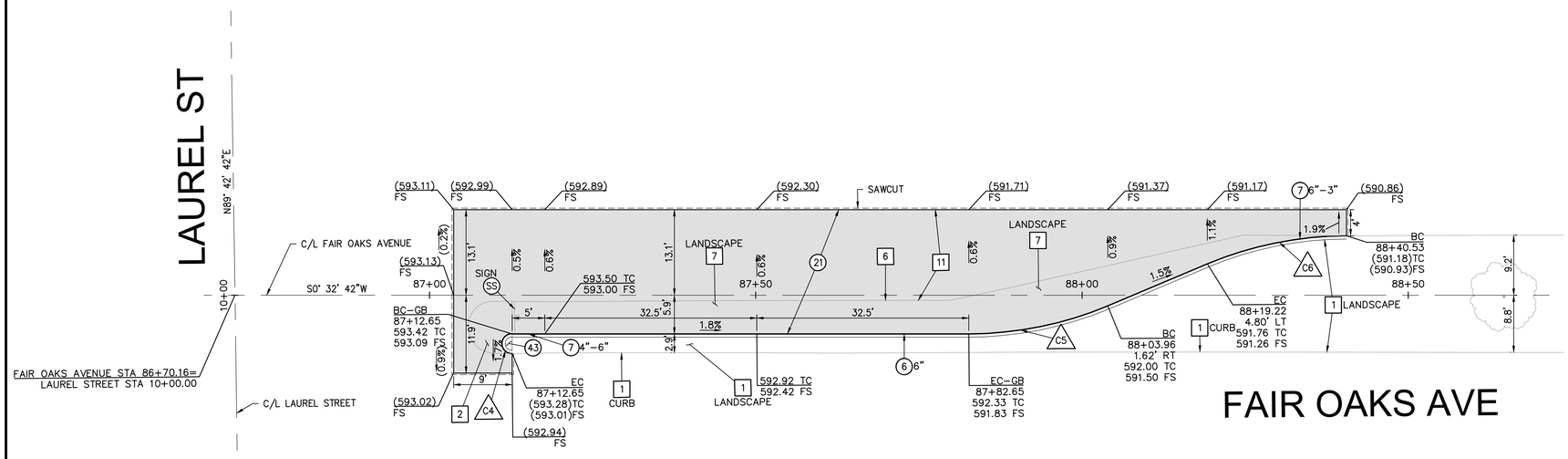
CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 29 OF 97

\\EgnyteDrive\Projects\LA\1TE010400\CADD\Design\Sheets\RD-29_Oak St.dwg 10/07/26 - 2:54pm alexis.escobar



NORTH MEDIAN
FAIR OAKS AVE & LAUREL ST
SCALE: 1"=10'



SOUTH MEDIAN
FAIR OAKS AVE & LAUREL ST
SCALE: 1"=10'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
6. REMOVE EXISTING PCC CURB.
7. REMOVE (ITEM PER PLAN).
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
16. REMOVE MEDIAN PCC AND SUBGRADE TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.

CONSTRUCTION NOTES

6. CONSTRUCT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
7. CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
43. CONSTRUCT 4" THICK MEDIAN PCC.
51. PRUNE EXISTING ROOTS. CERTIFIED ARBORIST SHALL APPROVE ROOTS TO BE PRUNED.
SS. FINAL LOCATION OF SIGNING AND STRIPING PLAN PER SIGNAGE AND STRIPING RELATED ITEMS.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CURVE DATA TABLE

CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	55.00'	22.03'	22°56'48"	11.16'
C2	55.00'	22.03'	22°56'48"	11.16'
C3	1.50'	4.71'	180°00'00"	INFINITY'
C4	1.50'	4.74'	181°05'24"	157.69'
C5	55.00'	21.88'	22°47'43"	11.09'
C6	55.00'	21.88'	22°47'43"	11.09'

CONSTRUCTION LEGEND

CONSTRUCT AC PAVEMENT

10' 5' 0' 5' 10' 20'
GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE 811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

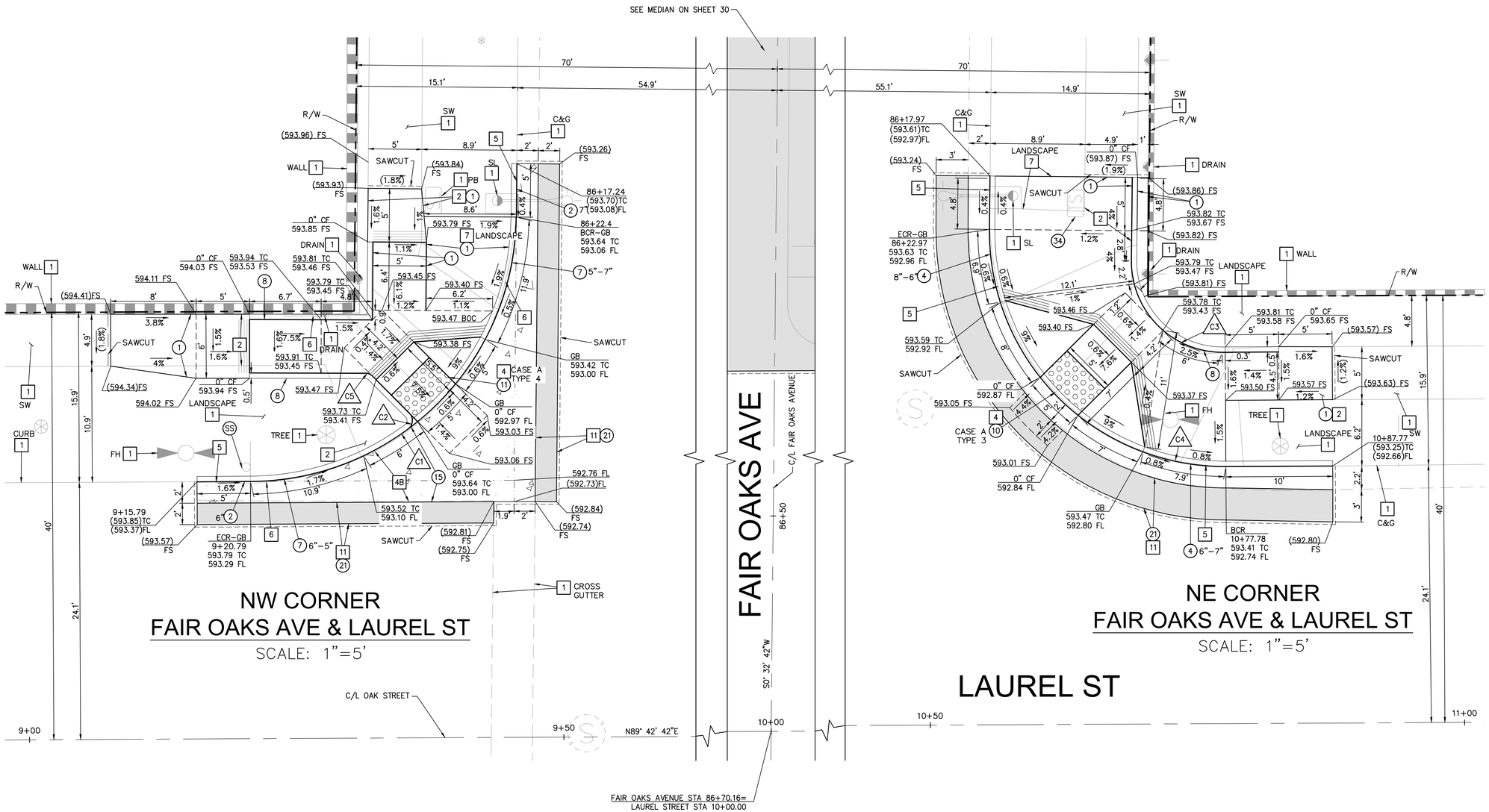
NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE & LAUREL STREET
MEDIAN DETAILS
PROJECT NO. 2020-02
SHEET NO. 30 OF 97

\\EgnyteDrive\Projects\LA\TIE010400\CADD\Design\Sheets\RD-30_Laurel St - Median Detail.dwg 10/07/26 - 2:54pm alexis.escobar



DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
4B. SAWCUT AND REMOVE EXISTING PCC CROSS GUTTER SPANDREL.
5. REMOVE EXISTING PCC CURB AND GUTTER.
6. REMOVE EXISTING PCC CURB.
7. REMOVE (ITEM PER PLAN).
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
7. CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
11. CONSTRUCT MODIFIED 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
15. CONSTRUCT PCC CROSS GUTTER SPANDREL, 8" THICK PER SPPWC STD. PLAN 122-3 ON 6" CMB. SEE REF. DETAIL ON SHEET 37.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
34. ADJUST EXISTING TRAFFIC SIGNAL PULL BOX TO GRADE.
SS. FINAL LOCATION OF SIGNING AND STRIPING PLAN PER SIGNAGE AND STRIPING RELATED ITEMS.

CURVE DATA TABLE

CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	25.00'	38.91'	89°10'00"	24.64'
C2	1.00'	1.72'	98°23'08"	1.16'
C3	8.50'	13.43'	90°32'42"	8.58'
C4	22.00'	34.88'	90°50'00"	22.32'
C5	1.00'	0.79'	44°59'31"	0.41'

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

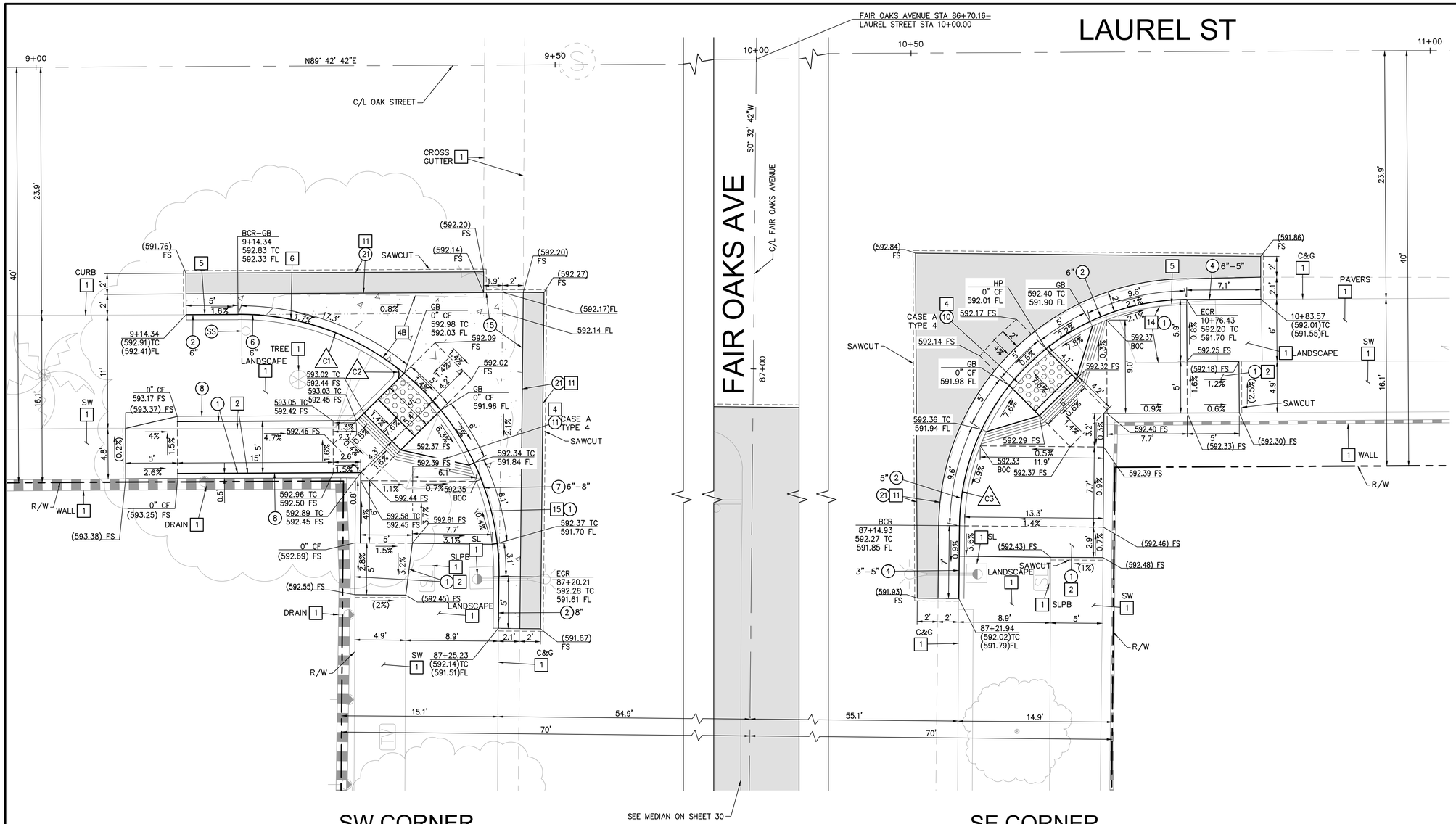
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & LAUREL STREET

CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 31 OF 97

\\EgnyteDrive\Projects\LA\ITE010400\CADD\Design\Sheets\RD-31_Laurel St - Curb Ramp(s) Detail.dwg 10/07/26 - 2:54pm alexis.escobar



SW CORNER
FAIR OAKS AVE & LAUREL ST
SCALE: 1"=5'

SE CORNER
FAIR OAKS AVE & LAUREL ST
SCALE: 1"=5'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
4B. SAWCUT AND REMOVE EXISTING PCC CROSS GUTTER SPANDREL.
5. REMOVE EXISTING PCC CURB AND GUTTER.
6. REMOVE EXISTING PCC CURB.
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
14. REMOVE EXISTING LANDSCAPING AND SUBGRADE TO A DEPTH OF 18" BELOW PROPOSED FINISH SURFACE.
15. REMOVE EXISTING LANDSCAPING AND SUBGRADE TO A DEPTH OF 4" BELOW PROPOSED FINISH SURFACE.

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
6. CONSTRUCT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
7. CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
11. CONSTRUCT MODIFIED 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
15. CONSTRUCT PCC CROSS GUTTER SPANDREL, 8" THICK PER SPPWC STD. PLAN 122-3 ON 6" CMB. SEE REF. DETAIL ON SHEET 37.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
SS. FINAL LOCATION OF SIGNING AND STRIPING PLAN PER SIGNAGE AND STRIPING RELATED ITEMS.

CURVE DATA TABLE

CURVE #	RADIUS	DELTA	LENGTH	TANGENT
C1	25.00'	39°40'39"	17.31'	9.02
C2	1.00'	98°23'08"	1.72'	1.16
C3	22.00'	89°10'00"	34.24'	21.68

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT

N

5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

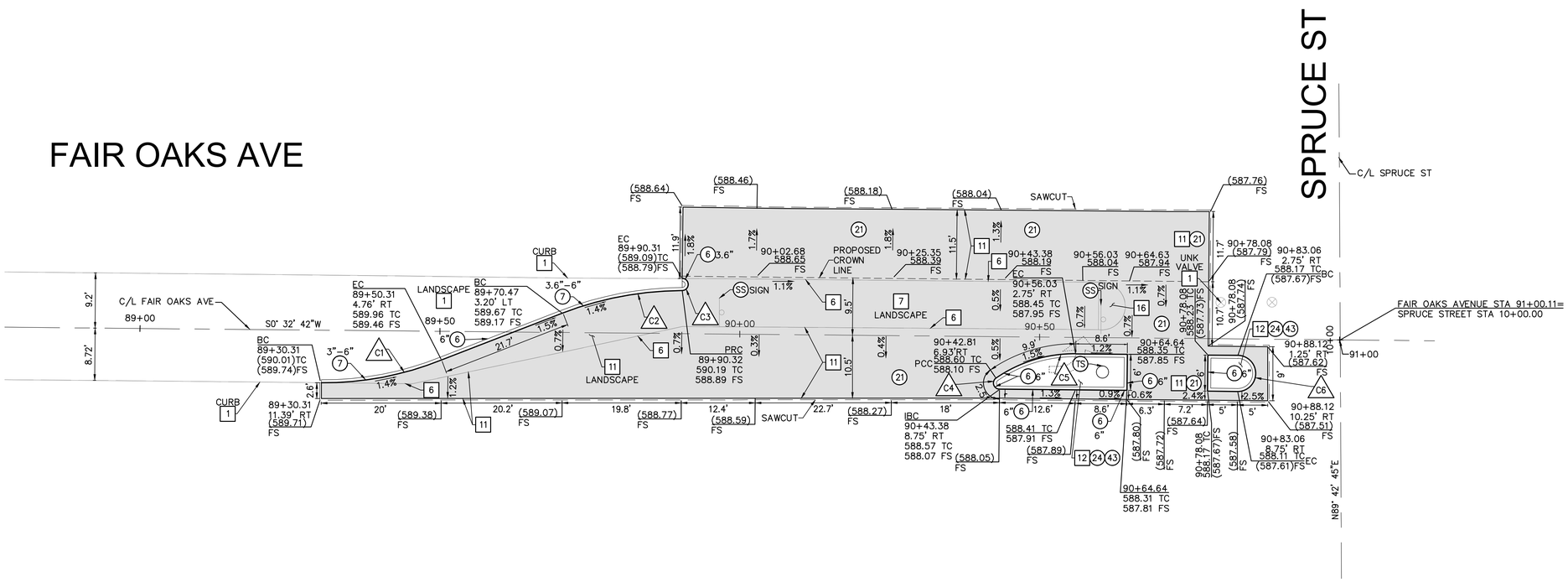
CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & LAUREL STREET

CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 32 OF 97

\\EgryteDrive\Projects\LA\ITE010400\CADD\Design\Sheets\RD-32_Laurel St - Curb Ramp(s) Detail.dwg 10/07/26 - 2:55pm alexis.escobar



NORTH MEDIAN
FAIR OAKS AVE & SPRUCE ST
SCALE: 1"=10'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
6. REMOVE EXISTING PCC CURB.
7. REMOVE (ITEM PER PLAN).
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
12. REMOVE EXISTING AC PAVEMENT SECTION.
16. REMOVE MEDIAN PCC AND SUBGRADE TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.

CONSTRUCTION NOTES

6. CONSTRUCT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
7. CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
9. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=30"). SEE REF. DETAIL ON SHEET 38.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
24. COMPACT EXISTING BASE OR NATIVE SOIL PRIOR TO BACKFILL. IMPORT NATIVE BACKFILL TO BOTTOM OF PROPOSED IMPROVEMENTS. COMPACT TO 95% RELATIVE COMPACTION.
43. CONSTRUCT 4" THICK MEDIAN PCC.
SS. FINAL LOCATION OF SIGNING AND STRIPING PLAN PER SIGNAGE AND STRIPING RELATED ITEMS.
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CURVE DATA TABLE

CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	52.19'	20.52'	22°31'56"	10.40'
C2	56.18'	20.33'	20°43'50"	10.28'
C3	1.00'	3.13'	179°12'10"	143.71'
C4	1.00'	2.53'	144°54'04"	3.16'
C5	23.00'	14.09'	35°05'48"	7.27'
C6	3.00'	9.42'	180°00'00"	INFINITY'

CONSTRUCTION LEGEND

CONSTRUCT AC PAVEMENT

10' 5' 0' 5' 10' 20'
GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

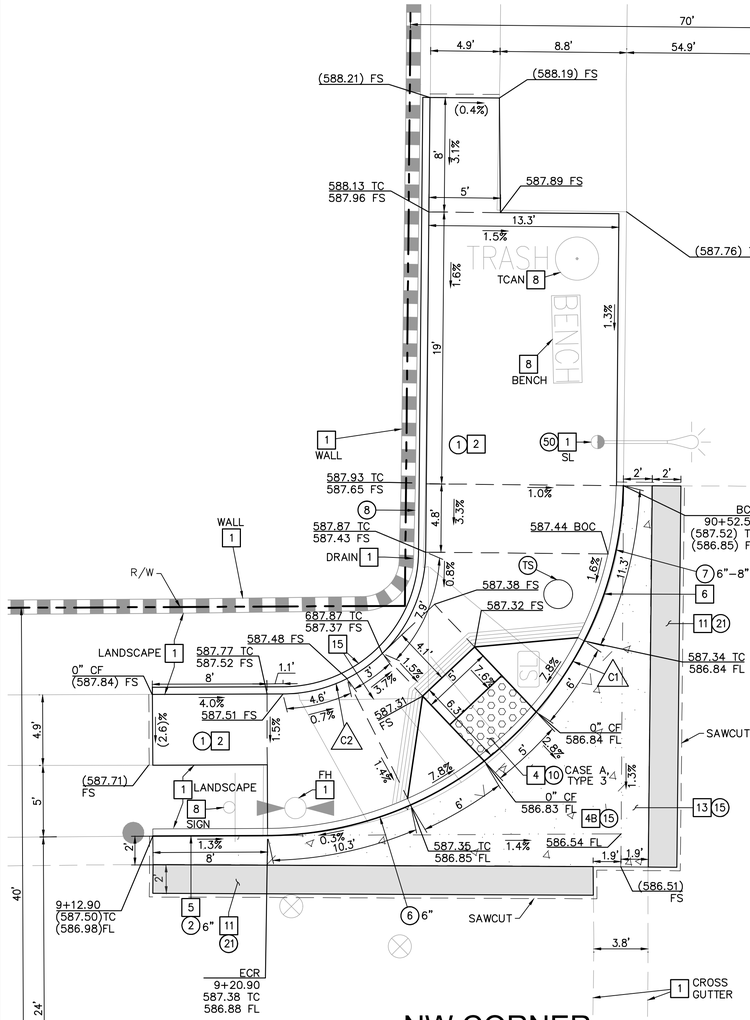
NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER
ALEXIS ESCOBAR
No. C094200
Exp. 12-31-26
CIVIL
STATE OF CALIFORNIA

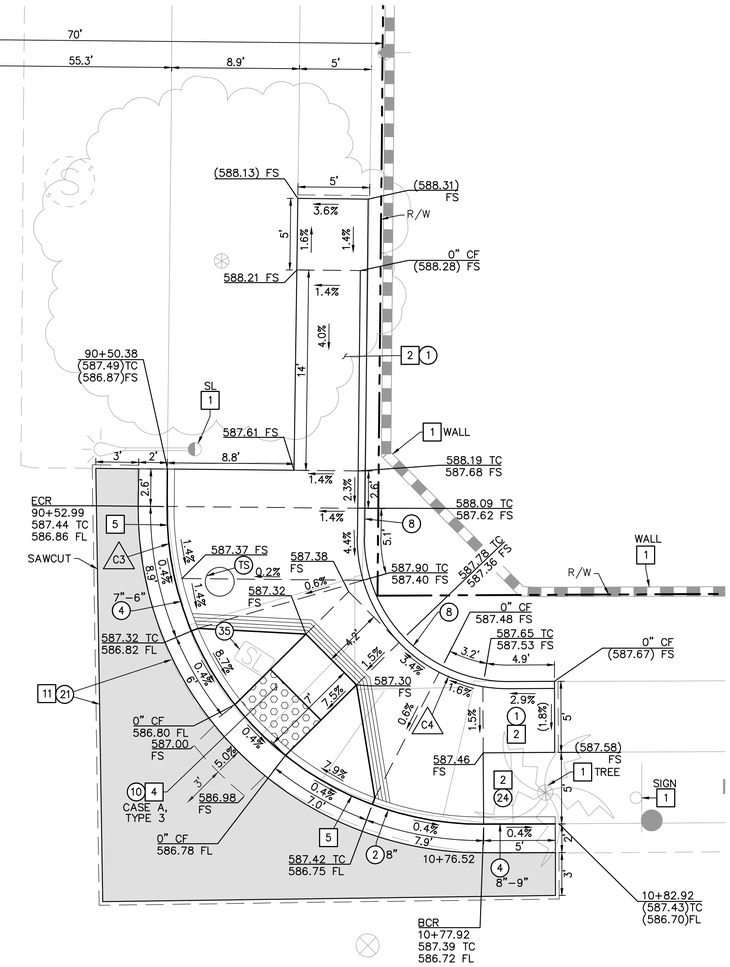
PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR,
R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE & SPRUCE STREET
MEDIAN DESIGN
PROJECT NO. 2020-02
SHEET NO. 33 OF 97

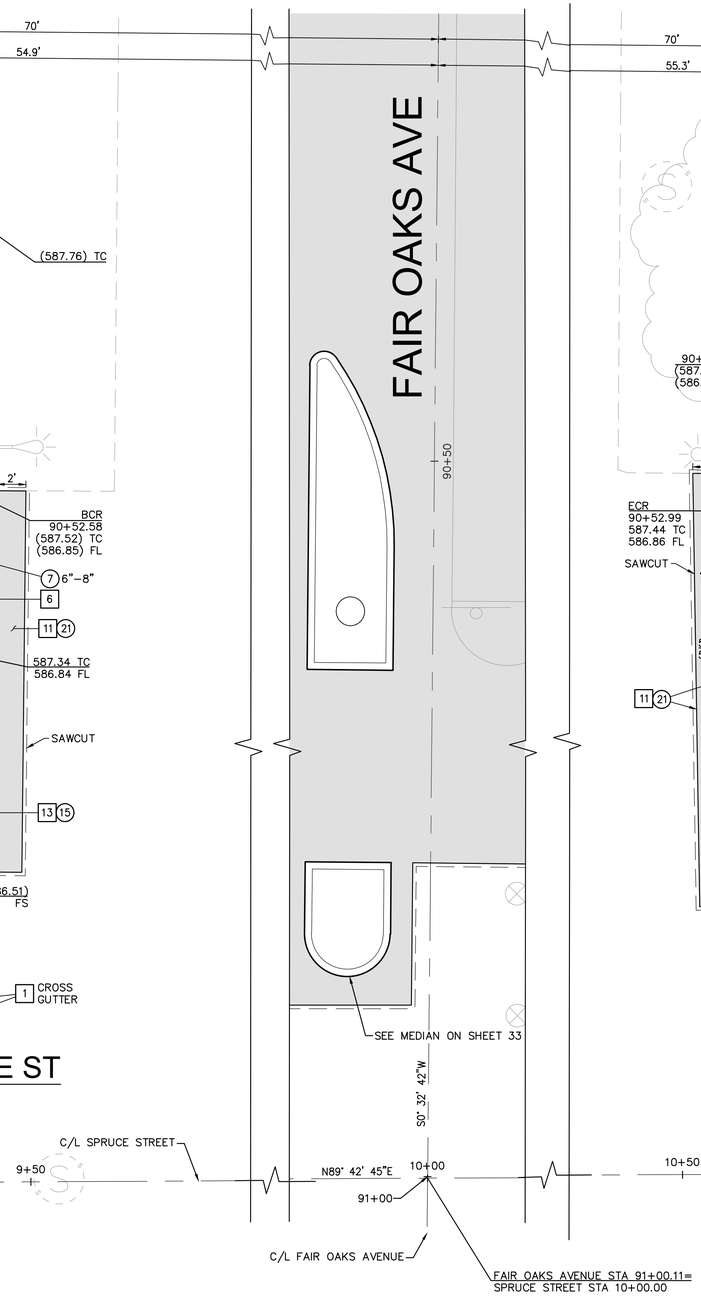
\\EgnyteDrive\Projects\LA\11ED10400\CADD\Design\Sheets\RD-33_Spruce St.dwg 10/07/26 - 2:55pm alexis.escobar



NW CORNER
FAIR OAKS AVE & SPRUCE ST
SCALE: 1"=5'



NE CORNER
FAIR OAKS AVE & SPRUCE ST
SCALE: 1"=5'



SPRUCE ST

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
4B. SAWCUT AND REMOVE EXISTING PCC CROSS GUTTER SPANDREL.
5. REMOVE EXISTING PCC CURB AND GUTTER.
6. REMOVE EXISTING PCC CURB.
8. REMOVE AND REINSTALL EXISTING (ITEM PER PLAN).
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
13. SAWCUT AND REMOVE EXISTING PCC PAVEMENT SECTION AND BASE MATERIAL AND/OR NATIVE SOIL (AS NEEDED) TO A DEPTH OF 20" BELOW PROPOSED FINISH SURFACE (SAWCUT TO NEAREST JOINT LINE WHEN POSSIBLE).
15. REMOVE EXISTING LANDSCAPING AND SUBGRADE TO A DEPTH OF 4" BELOW PROPOSED FINISH SURFACE.

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
6. CONSTRUCT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
7. CONSTRUCT VARIABLE HEIGHT PCC CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1 ("CF" PER PLAN). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
15. CONSTRUCT PCC CROSS GUTTER SPANDREL, 8" THICK PER SPPWC STD. PLAN 122-3 ON 6" CMB. SEE REF. DETAIL ON SHEET 37.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
23. INSTALL #5X24" TIE BARS @ (O.C. SPACING PER STD. PLAN) WITH EPOXY ADHESIVE AT PCC JOIN LOCATIONS PER SPPWC STD. PLAN 134-3. SEE REF. DETAIL ON SHEET 40.
24. COMPACT EXISTING BASE OR NATIVE SOIL PRIOR TO BACKFILL. IMPORT NATIVE BACKFILL TO BOTTOM OF PROPOSED IMPROVEMENTS. COMPACT TO 95% RELATIVE COMPACTION.
35. ADJUST EXISTING STREET LIGHT PULL BOX TO GRADE.
50. INSTALL CEMENT GROUT UNDER POLE PLATE (ONLY WHEN EXPOSED AND NEEDED).
TS. FINAL LOCATION OF TRAFFIC SIGNAL RELATED ITEMS PER TRAFFIC SIGNAL PLAN SHEETS.

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT

CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	25.00'	38.60'	88°27'15"	24.33'
C2	10.00'	15.57'	89°14'15"	9.87'
C3	22.00'	34.88'	90°49'57"	22.32'
C4	10.50'	16.65'	90°49'57"	10.65'

N

5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS			
NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

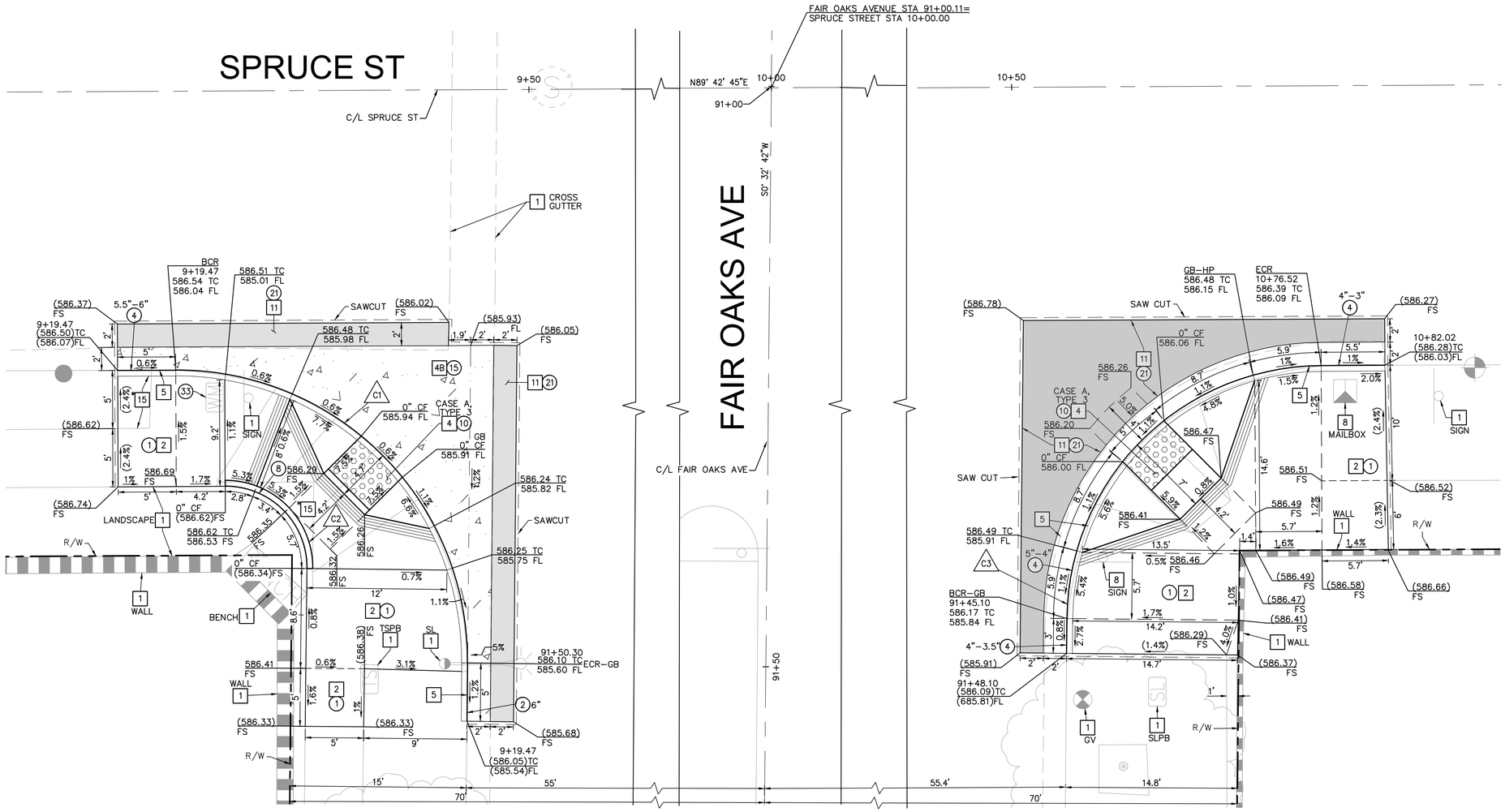
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & SPRUCE STREET

CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 34 OF 97

\\Egnytedrive\Projects\LA\1TE01040\CADD\Design\Sheets\RD-34_Spruce St - Curb Ramp(s) Detail.dwg 10/07/26 - 2:55pm alexis.escobar



SW CORNER
FAIR OAKS AVE & SPRUCE ST
SCALE: 1"=5'

SE CORNER
FAIR OAKS AVE & SPRUCE ST
SCALE: 1"=5'

DEMOLITION NOTES

1. PROTECT EXISTING ITEM IN PLACE (ITEM PER PLAN).
2. SAWCUT AND REMOVE EXISTING PCC SIDEWALK (TO NEAREST SCORE/JOINT LINE).
4. SAWCUT AND REMOVE EXISTING PCC CURB RAMP.
4B. SAWCUT AND REMOVE EXISTING PCC CROSS GUTTER SPANDREL.
5. REMOVE EXISTING PCC CURB AND GUTTER.
8. REMOVE AND REINSTALL EXISTING (ITEM PER PLAN).
11. REMOVE EXISTING AC PAVEMENT SECTION BASE MATERIAL AND SUBGRADE (IF APPLICABLE) TO A DEPTH OF 12" BELOW PROPOSED FINISH SURFACE.
15. REMOVE EXISTING LANDSCAPING AND SUBGRADE TO A DEPTH OF 4" BELOW PROPOSED FINISH SURFACE.

CONSTRUCTION NOTES

1. CONSTRUCT PCC SIDEWALK, 4" THICK PER SPPWC STD. PLAN NO. 112-2. SEE REF. DETAIL ON SHEET 37.
2. CONSTRUCT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
4. CONSTRUCT VARIABLE HEIGHT PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2, "CF" PER PLAN (W=24"). SEE REF. DETAIL ON SHEET 38.
8. CONSTRUCT VARIABLE HEIGHT PCC RETAINING CURB PER SPPWC STD. PLAN NO. 120-3, TYPE A1. SEE REF. DETAIL ON SHEET 38.
10. CONSTRUCT 4" PCC CURB RAMP PER SPPWC STD. PLAN 111-5 (CASE AND TYPE PER PLAN). SEE REF. DETAIL ON SHEET 36.
15. CONSTRUCT PCC CROSS GUTTER SPANDREL, 8" THICK PER SPPWC STD. PLAN 122-3 ON 6" CMB. SEE REF. DETAIL ON SHEET 37.
21. CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.
33. ADJUST WATER METER COVER TO GRADE.

CONSTRUCTION LEGEND

- CONSTRUCT AC PAVEMENT
- CONSTRUCT PCC PAVEMENT

CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	25.0'	38.91'	89°10'03"	24.64'
C2	7.5'	11.90'	90°54'50"	7.62'
C3	22.0'	34.24'	89°10'03"	21.68'

N

5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS			
NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA

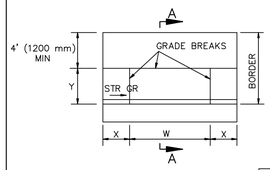
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & SPRUCE STREET

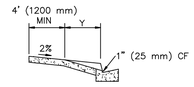
CURB RAMP DETAILS

PROJECT NO. 2020-02
SHEET NO. 35 OF 97

\\EgnyteDrive\Projects\LA\TTE010400\CADD\Design\Sheets\RD-35_Spruce St - Curb Ramp(s) Detail.dwg 10/07/26 - 2:56pm alexis.escobar

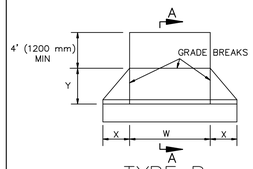


TYPE A

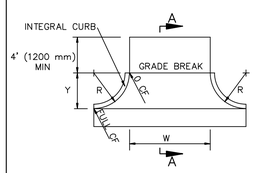


SECTION A–A

CURB FACE, inches (mm)	X, inches (mm)	Y, inches (mm)
6" (150) or less	3'–0" (900)	4'–0" (1200)
7" (175)	3'–6" (1050)	4'–9" (1425)
8" (200)	4'–0" (1200)	5'–8" (1700)
9" (225)	4'–6" (1350)	6'–6" (1950)
10" (250)	5'–0" (1500)	7'–3" (2175)
11" (275)	5'–6" (1650)	8'–0" (2400)
12" (300) or more	6'–0" (1800)	8'–9" (2625)



TYPE B



TYPE C

NOTES:

1. RESIDENTIAL DRIVEWAYS SHALL BE 4" (100 mm) THICK PCC.
2. COMMERCIAL DRIVEWAYS SHALL BE 6" (150 mm) THICK PCC.
3. WEAKENED PLANE JOINTS SHALL BE INSTALLED AT BOTH SIDES OF A DRIVEWAY AND AT 10' (3.0 m) INTERVALS.
4. CURB FOR TYPE C DRIVEWAY SHALL BE INTEGRAL AND MATCH ADJACENT CONSTRUCTION.
5. REFER TO LOCAL DEVELOPMENT REGULATIONS FOR AMERICANS WITH DISABILITIES ACCESS REQUIREMENTS AND MAXIMUM PERMITTED DRIVEWAY WIDTHS.

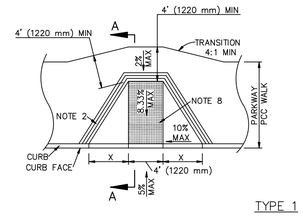
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1984 REV. 1996, 2009

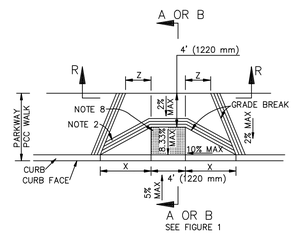
DRIVEWAY APPROACHES

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN 110–2 SHEET 1 OF 1



TYPE 1



TYPE 2

CASE A

PARTS OF THIS STANDARD PLAN SHOW INSTALLATION FOR TYPICAL RETROFIT CONDITIONS, AND ARE NOT FULLY COMPLIANT WITH CALIFORNIA BUILDING CODE REQUIREMENTS FOR NEW DEVELOPMENT.

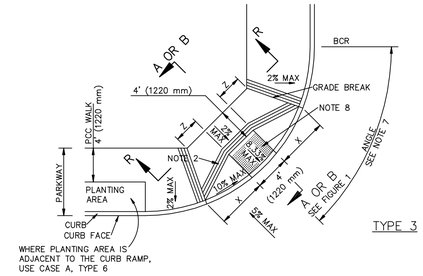
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1992 REV. 1996, 2000, 2005, 2009, 2013

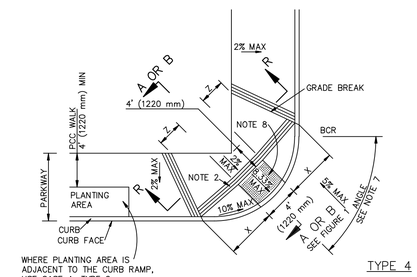
CURB RAMP

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN 111–5 SHEET 1 OF 10



TYPE 3



TYPE 4

CASE A

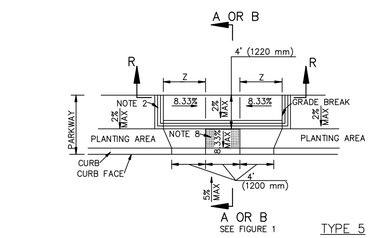
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1992 REV. 1996, 2000, 2005, 2009, 2013

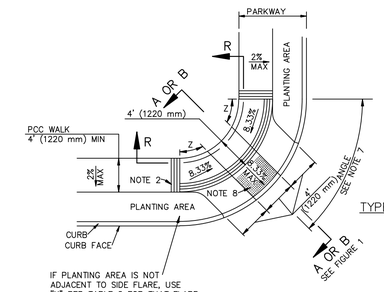
CURB RAMP

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN 111–5 SHEET 2 OF 10



TYPE 5



TYPE 6

CASE A

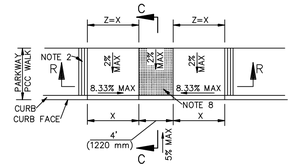
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1992 REV. 1996, 2000, 2005, 2009, 2013

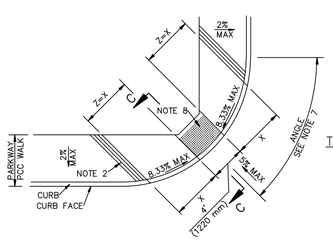
CURB RAMP

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN 111–5 SHEET 3 OF 10



TYPE 1



TYPE 2

CASE B

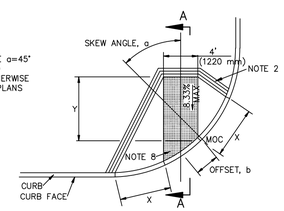
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1992 REV. 1996, 2000, 2005, 2009, 2013

CURB RAMP

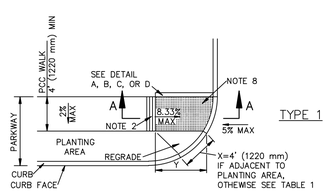
USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN 111–5 SHEET 4 OF 10

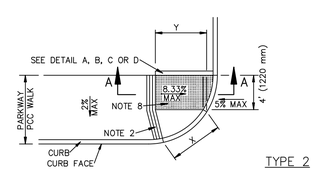


SKEW ANGLE α=45°
OFFSET b=0
UNLESS OTHERWISE
NOTED ON PLANS

CASE C



TYPE 1



TYPE 2

CASE D

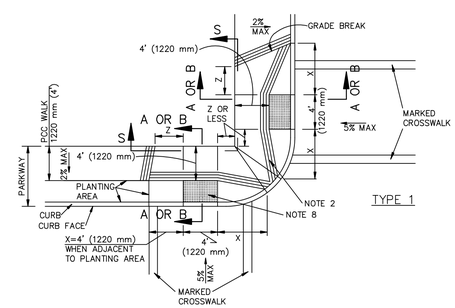
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1992 REV. 1996, 2000, 2005, 2009, 2013

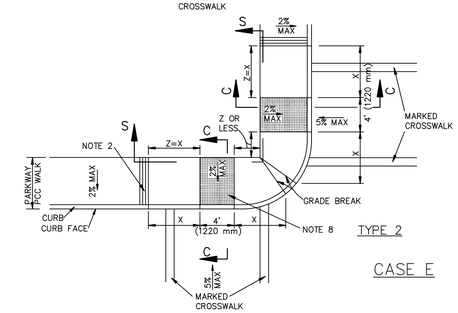
CURB RAMP

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN 111–5 SHEET 5 OF 10



TYPE 1



TYPE 2

CASE E

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1992 REV. 1996, 2000, 2005, 2009, 2013

CURB RAMP

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN 111–5 SHEET 6 OF 10

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:

REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:

PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR, R.C.E. NO. 94200

10/7/2026
DATE

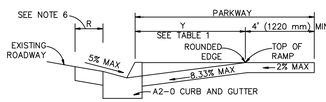
CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

STANDARD PLANS

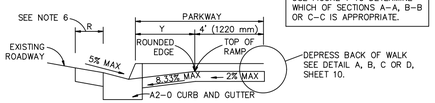
PROJECT NO. 2020-02
SHEET NO. 36 OF 97

\\Egnytedrive\Projects\LA\11TE01040\CADD\Design\Sheets\RD-40_Standard Details.dwg 10/07/26 – 4:35pm alexis.escobar

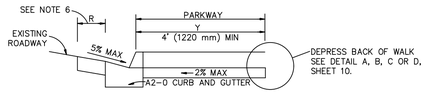


SECTION A–A

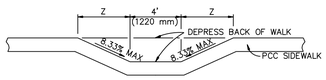
USE FIGURE 1 TO DETERMINE WHICH OF SECTIONS A–A, B–B OR C–C IS APPROPRIATE.



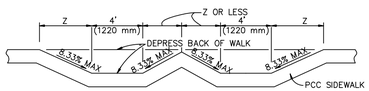
SECTION B–B



SECTION C–C



SECTION R–R



SECTION S–S

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1992 REV. 1996, 2000, 2005, 2009, 2013

CURB RAMP

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN 111–5 SHEET 7 OF 10

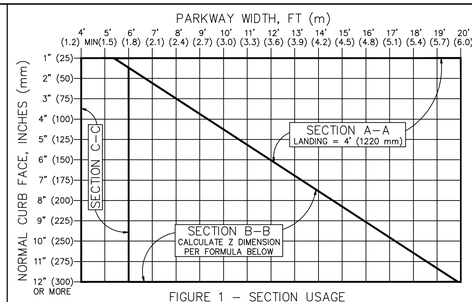


FIGURE 1 – SECTION USAGE

NORMAL CURB FACE, INCHES (mm)	X, FT (mm)	SECTION Y–Y Y, FT (mm)
2" (50)	4.00' (1220) MIN	2.63' (790)
3" (75)	4.00' (1220) MIN	3.95' (1185)
4" (100)	4.00' (1220) MIN	5.26' (1580)
5" (125)	4.17' (1275)	6.58' (1975)
6" (150)	5.00' (1525)	7.90' (2370)
7" (175)	5.83' (1775)	9.21' (2765)
8" (200)	6.67' (2035)	10.53' (3160)
9" (225)	7.50' (2285)	11.84' (3555)
10" (250)	8.33' (2540)	13.16' (3950)
11" (275)	9.17' (2795)	14.47' (4340)
12" (300)	10.00' (3050)	15.79' (4735)

SEE SHEET 9 FOR STREET SLOPE ADJUSTMENT FACTORS, ALL STREETS

TABLE 1 – X AND Y VALUES

TABLE 1 REFERENCE FORMULAS:
X = CF / 8.333%
Y = CF / (8.333% – 2% WALK CROSS SLOPE)

WHERE FIGURE 1 SHOWS USE OF SECTION B–B, FIGURE Z DIMENSION AS FOLLOWS:

W = PARKWAY WIDTH
L = LANDING WIDTH, 4' (1220 mm) TYP
Z = [(Y+L)–W] x 0.760

IF (Y+L) < W, THEN Z = 0

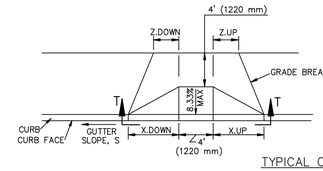
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1992 REV. 1996, 2000, 2005, 2009, 2013

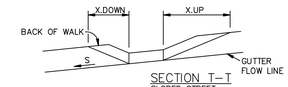
CURB RAMP

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN 111–5 SHEET 8 OF 10



TYPICAL CURB RAMP



SECTION T–T
SLOPED STREET

FOR SLOPED STREETS, MULTIPLY THE DIMENSIONS PARALLEL TO THE STREET, X AND Z, UPSTREAM AND DOWNSTREAM OF THE RAMP, BY THE FACTORS IN THE FOLLOWING TABLE.

FOR EXAMPLE, X.DOWN = X x K.DOWN

S	K.DOWN	K.UP
0%	1.000	1.000
0.2%	0.977	1.025
0.5%	0.943	1.064
1%	0.893	1.136
2%	0.806	1.316
3%	0.735	1.563
4%	0.676	1.923
5%	0.625	2.500

TABLE 2 – SLOPE ADJUSTMENTS

TABLE 2 REFERENCE FORMULAS:
K.DOWN = 8.333% / (8.333% + S)
K.UP = 8.333% / (8.333% – S)

STREET SLOPE ADJUSTMENTS

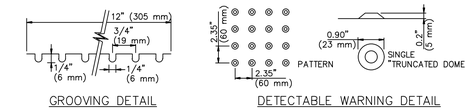
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

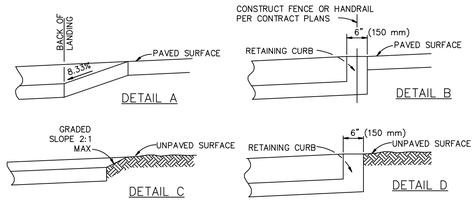
PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1992 REV. 1996, 2000, 2005, 2009, 2013

CURB RAMP

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN 111–5 SHEET 9 OF 10





GENERAL NOTES:

1. CONCRETE SHALL BE CLASS 520–C–2500 (310–C–17) CONFORMING TO SSPWC 201–1.1.2 AND SHALL BE 4" (100 mm) THICK.
2. THE RAMP SHALL HAVE A 12" (305 mm) WIDE BORDER WITH 1/4" (6 mm) GROOVES APPROXIMATELY 3/4" (19 mm) OC. SEE GROOVING DETAIL.
3. THE RAMP SURFACE SHALL HAVE A TRANSVERSE BROOMED SURFACE TEXTURE CONFORMING TO SSPWC 303–1.9.
4. USE DETAIL "A" OR "B" IF EXISTING SURFACE BEHIND LANDING IS PAVED.
5. USE DETAIL "C" OR "D" IF EXISTING SURFACE BEHIND LANDING IS UNPAVED.
6. R = 3' (900 mm) UNLESS OTHERWISE SHOWN ON PLAN. SEE SHEET 7.
7. ANGLE = Δ/2 UNLESS OTHERWISE SHOWN ON PLAN.
8. CONSTRUCT DETECTABLE WARNING SURFACE PER DETAIL THIS SHEET. MATERIALS SHALL BE PER CONTRACT DOCUMENTS.

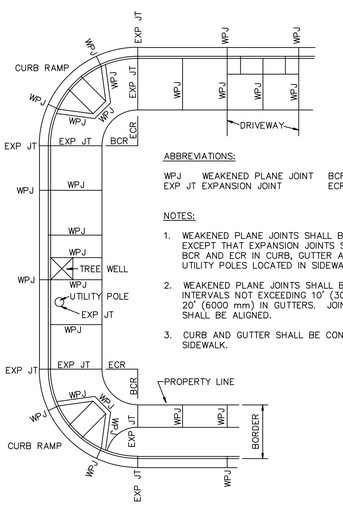
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1992 REV. 1996, 2000, 2005, 2009, 2013

CURB RAMP

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN 111–5 SHEET 10 OF 10



ABBREVIATIONS:

WPJ WEAKENED PLANE JOINT
EXP JT EXPANSION JOINT
BCR BEGINNING OF CURB RETURN
ECR END OF CURB RETURN

NOTES:

1. WEAKENED PLANE JOINTS SHALL BE USED FOR ALL JOINTS, EXCEPT THAT EXPANSION JOINTS SHALL BE PLACED AT THE BCR AND ECR IN CURB, GUTTER AND SIDEWALK, AND AROUND UTILITY POLES LOCATED IN SIDEWALK AREAS.
2. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT REGULAR INTERVALS NOT EXCEEDING 10' (3000 mm) IN WALKS AND 20' (6000 mm) IN GUTTERS. JOINTS IN CURB AND WALK SHALL BE ALIGNED.
3. CURB AND GUTTER SHALL BE CONSTRUCTED SEPARATELY FROM SIDEWALK.

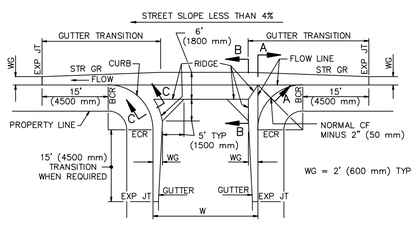
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1994 REV. 1996, 2009

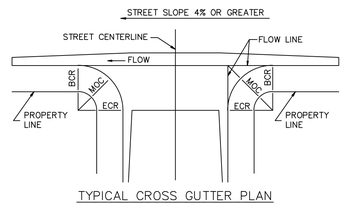
CURB AND SIDEWALK JOINTS

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

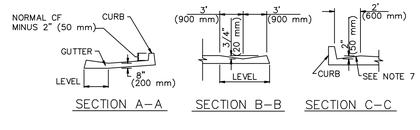
STANDARD PLAN 112–2 SHEET 1 OF 1



TYPICAL CROSS GUTTER PLAN
STREET SLOPE LESS THAN 4%



TYPICAL CROSS GUTTER PLAN
STREET SLOPE 4% OR GREATER



SECTION A–A SECTION B–B SECTION C–C

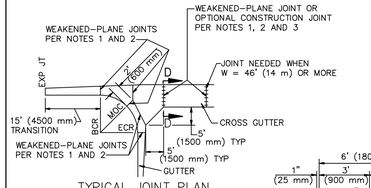
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1996 REV. 1996, 2006, 2021

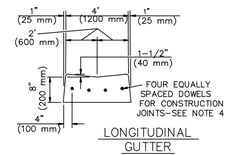
CROSS AND LONGITUDINAL GUTTERS

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

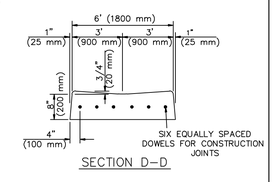
STANDARD PLAN 122–3 SHEET 1 OF 2



TYPICAL JOINT PLAN



LONGITUDINAL GUTTER



SECTION D–D

NOTES:

1. WEAKENED–PLANE AND/OR CONSTRUCTION JOINTS SHALL BE PLACED IN CURB AND GUTTER AT LOCATIONS SHOWN ON THE TYPICAL JOINT PLAN HEREON.
2. WEAKENED–PLANE JOINTS SHALL BE PLASTIC CONTROL JOINTS OR 1–1/2" (40 mm) DEEP SAW CUTS. CONCRETE SAWING SHALL TAKE PLACE WITHIN 24 HOURS AFTER CONCRETE IS PLACED.
3. DOWELS FOR CONSTRUCTION JOINTS SHALL BE #4 BARS 18" LONG (#13M BARS 450 mm LONG).
4. PLACE A WEAKENED–PLANE OR CONSTRUCTION JOINT WHERE LONGITUDINAL ALLEY GUTTER JOINS CONCRETE ALLEY INTERSECTION.
5. ALL EXPOSED CORNERS ON PCC CURBS AND GUTTERS SHALL BE ROUNDED WITH 1/2" (15 mm) RADIUS.
6. CONCRETE SHALL BE INTEGRAL WITH CURB UNLESS OTHERWISE SPECIFIED.
7. ADJACENT TO CURB RAMPS, CONCRETE SLOPE SHALL BE 5% MAXIMUM FOR A DISTANCE OF 5 FEET (1525 mm) FROM THE CURB FACE FOR THE WIDTH OF THE WIDTH OF THE RAMP, NOT INCLUDING SIDE TRANSITION CURBS.

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

CROSS AND LONGITUDINAL GUTTERS

STANDARD PLAN 122–3 SHEET 2 OF 2

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

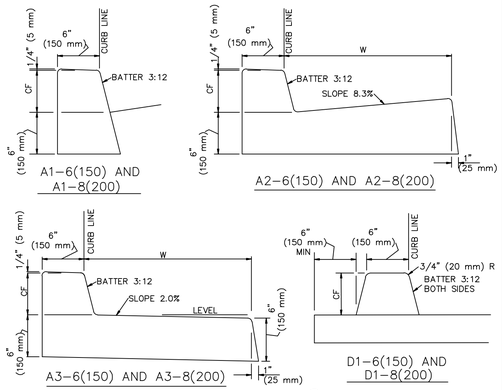
CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

STANDARD PLANS 2

PROJECT NO. 2020–02
SHEET NO. 37 OF 97

\\EgnyteDrive\Projects\LA\1TE010400\CADD\Design\Sheets\RD-41_Standard Details.dwg 10/07/26 – 4:35pm alexis.escobar



NOTES:

1. THE LAST NUMBER IN THE DESIGNATION IS THE CURB FACE (CF) HEIGHT, INCHES (mm). IF SHOWN AS "VAR" THE CURB FACE VARIES.
2. GUTTER WIDTH, W, IS 24" (600 mm) UNLESS OTHERWISE SPECIFIED.
3. TYPES A1, A2, A3 AND C1 SHALL BE CONSTRUCTED OF CONCRETE.
4. TYPE D1 CURB SHALL BE CONSTRUCTED OF ASPHALT CONCRETE.
5. TYPE C1 CURB SHALL BE ANCHORED WITH STEEL DOWELS AS SHOWN OR WITH AN EPOXY APPROVED BY THE ENGINEER.
6. ALL EXPOSED CORNERS ON CONCRETE CURBS AND GUTTERS SHALL BE ROUNDED WITH A 1/2" (15 mm) RADIUS.

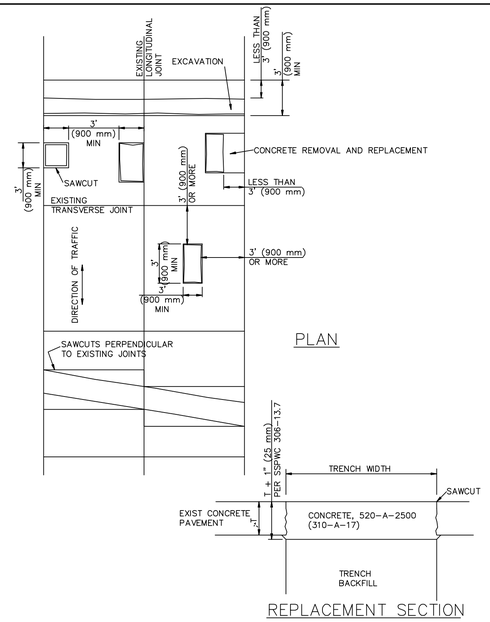
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1994
REV. 1998, 2005, 2009, 2021

CURB AND GUTTER – BARRIER

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN 120–3
SHEET 1 OF 1



STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1993
REV. 1996, 2005, 2009, 2021

CONCRETE PAVEMENT REPLACEMENT

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN 132–4
SHEET 1 OF 2

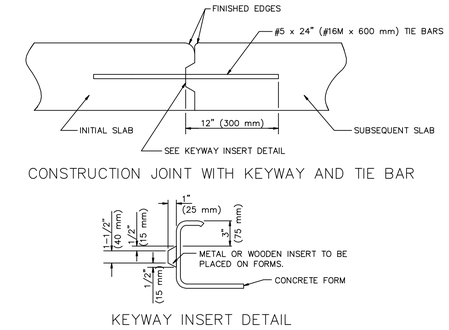
NOTES:

1. THE EXTENT OF REPAIRS FOR CONCRETE CUTS NOT SHOWN ON THIS STANDARD PLAN OR CUTS MADE WITHIN 3' (900 mm) OF EXISTING PATCHES, CRACKS, OR DETERIORATED SLABS SHALL BE DETERMINED BY THE ENGINEER.
2. CONCRETE PAVEMENT SHALL BE REMOVED PER SSPWC 401–3.1.
3. BACKFILL AND DENSIFICATION SHALL CONFORM TO SSPWC 306–1.3.
4. TEMPORARY RESURFACING SHALL BE PLACED PER SSPWC 306–1.5.1.

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

CONCRETE PAVEMENT REPLACEMENT

STANDARD PLAN 132–4
SHEET 2 OF 2



NOTES:

1. LONGITUDINAL JOINTS SHALL BE LOCATED AS SHOWN ON PLAN. CONSTRUCTION OR WEAKENED PLANE JOINTS MAY BE USED AT THE CONTRACTOR'S OPTION.
2. TRANSVERSE WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT INTERVALS OF 15' (4500 mm) AND SHALL BE AT LEAST 5' (1500 mm) FROM ANY TRANSVERSE CONSTRUCTION JOINT. (SEE NOTE 5.)
3. TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED AS SHOWN HEREON AND AS DIRECTED BY THE ENGINEER.
4. SPACE TIE BARS AT 36" (900 mm) ON–CENTER FOR TRANSVERSE JOINTS AND 45" (1125 mm) FOR LONGITUDINAL JOINTS. PLACE IN MIDDLE THIRD OF SLAB.
5. CONCRETE PAVEMENT JOINTS SHALL CONFORM TO SSPWC 302–6.5.
6. CONSTRUCT CONSTRUCTION JOINTS IN THE APPROACH SLABS AT THE FIRST THREE TRANSVERSE JOINTS OF CONCRETE INTERSECTIONS.

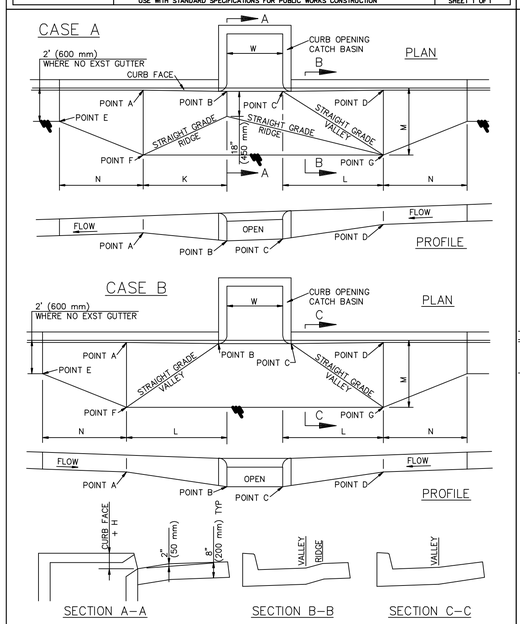
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1993
REV. 1998, 2005, 2021

CONCRETE PAVEMENT JOINT DETAILS

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN 134–3
SHEET 1 OF 1



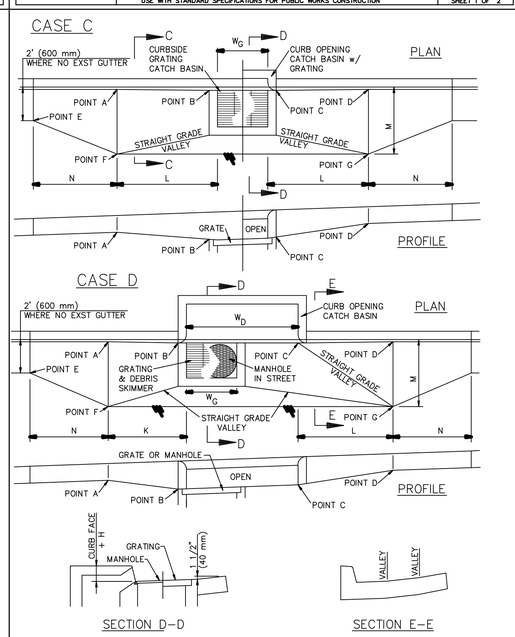
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1994
REV. 1998, 2005, 2009, 2021

LOCAL DEPRESSIONS AT CATCH BASINS

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

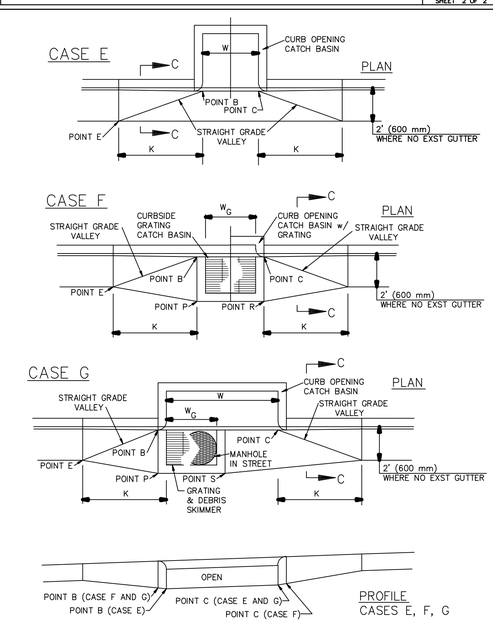
STANDARD PLAN 313–4
SHEET 1 OF 4



STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

LOCAL DEPRESSIONS AT CATCH BASINS

STANDARD PLAN 313–4
SHEET 2 OF 4



STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

LOCAL DEPRESSIONS AT CATCH BASINS

STANDARD PLAN 313–4
SHEET 3 OF 4

NOTES:

1. ALL EXPOSED EDGES SHALL BE ROUNDED TO A 1/2" (15 mm) RADIUS.
2. THE CURB FACE AT POINTS A AND D SHALL BE THE NORMAL CURB FACE OF THE ADJACENT CURB AT THE ENDS OF THE LOCAL DEPRESSION. THE CURB FACE AT POINTS B AND C SHALL BE THE NORMAL CURB FACE OF THE ADJACENT CURB AT THE ENDS OF THE LOCAL DEPRESSION PLUS H (SEE APPLICABLE CATCH BASIN STANDARD PLAN.)
3. IN EXISTING STREETS WHERE NO PAVEMENT RECONSTRUCTION IS SPECIFIED ON THE PLANS, THE ELEVATION OF THE OUTER EDGE OF THE LOCAL DEPRESSION SHALL MEET THE FINISHED STREET SURFACE.
4. IN NEW STREETS OR IN EXISTING STREETS WHERE PAVEMENT RECONSTRUCTION IS SPECIFIED ON THE PLANS:

   THE ELEVATIONS OF POINTS F AND G SHALL BE SET H1 HIGHER THAN THE GUTTER FLOW LINE ELEVATIONS AT POINTS A AND D, RESPECTIVELY.

   THE ELEVATIONS OF POINTS P AND R SHALL BE SET H2 HIGHER THAN THE GUTTER FLOW LINE ELEVATIONS AT POINTS B AND C, RESPECTIVELY.

   THE ELEVATION OF POINT S SHALL BE SET H2 HIGHER THAN THE ELEVATION AT THE NEAREST GUTTER FLOW LINE.

   WHERE THERE IS NO GUTTER ADJACENT TO THE LOCAL DEPRESSION, THE ELEVATION OF POINT E SHALL BE SET H3 HIGHER THAN THE ELEVATION AT THE NEAREST TOE OF CURB.
5. DIMENSIONS:

   H, H1, H2 AND H3 SHALL BE AS NOTED ON THE PLANS.

   G = 24" (600 mm)

   K = 5'–0" (1500 mm)

   L = 6'–0" (1800 mm)

   M = 4'–0" (1200 mm)

   N = 5'–0" (1500 mm)

   W = WIDTH OF CURB OPENING FOR CATCH BASIN

   W_G = WIDTH OF GRATING(S) FOR CATCH BASIN

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

LOCAL DEPRESSIONS AT CATCH BASINS

STANDARD PLAN 313–4
SHEET 4 OF 4

CITY OF SOUTH PASADENA

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12–31–26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com

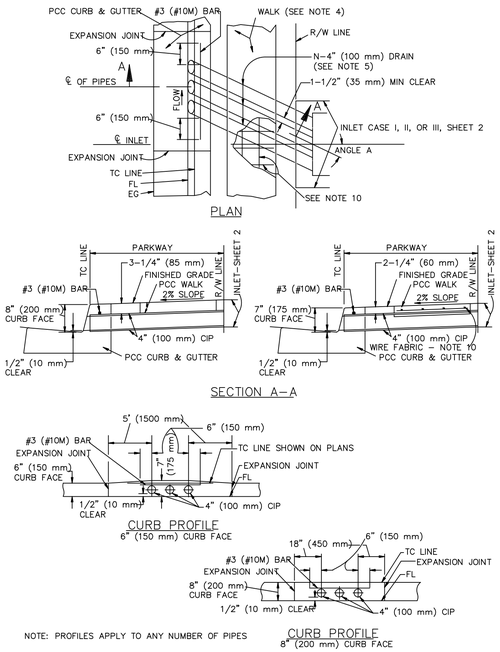
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

STANDARD PLANS

PROJECT NO. 2020–02
SHEET NO. 38 OF 97

\\EgnyteDrive\Projects\LA\ITE010400\CADD\Design\Sheets\RD-42_Standard Details.dwg 10/07/26 – 4:35pm alexis.escobar

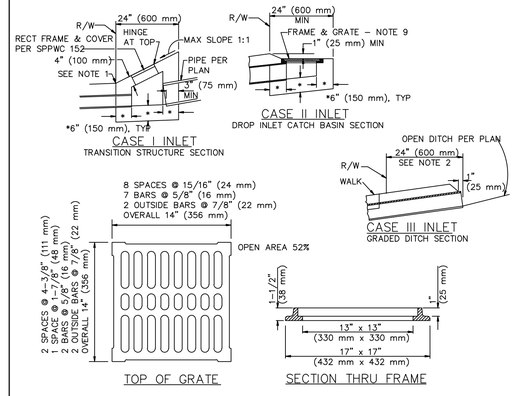


NOTE: PROFILES APPLY TO ANY NUMBER OF PIPES

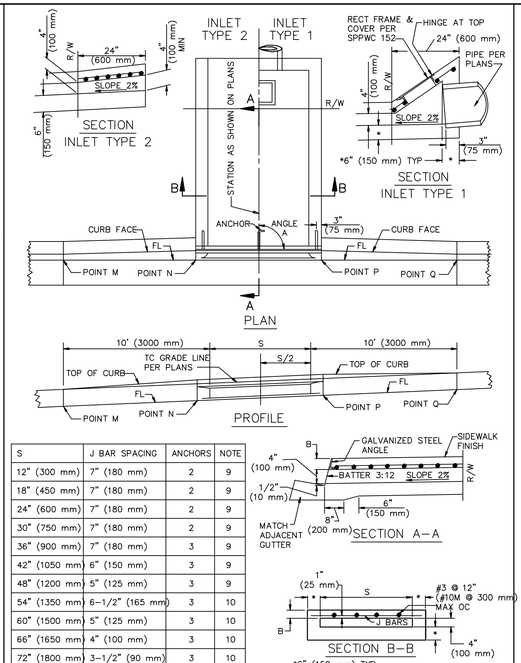
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION		
PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1994 REV. 1996, 1998, 2006, 2009, 2021	CURB DRAIN USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION	STANDARD PLAN 150–4 SHEET 1 OF 2

NOTES

1. IF THE TOE OF SLOPE IS ALLOWED WITHIN THE R/W, CASE I INLET BEGINS AT THE TOE RATHER THAN THE R/W LINE.
2. FOR OPEN DITCH (CASE III INLET), THE 24" (600 mm) EXTENSION BEYOND THE R/W LINE IS NOT REQUIRED WHEN BACK OF WALK IS 24" (600 mm) OR MORE FROM THE R/W LINE; HOWEVER, PIPE SHALL EXTEND TO R/W LINE.
3. TOP OF INLET STRUCTURE (CASE I AND II) SHALL BE FLUSH WITH ADJACENT SURFACE WHERE PRACTICAL.
4. CONSTRUCT PCC WALK WHEN SPECIFIED ON PLAN.
5. "N" EQUALS NUMBER OF PIPES (MAXIMUM OF THREE) AS SPECIFIED ON PLAN.
6. INLET CASE TO BE SPECIFIED ON PLAN.
7. ANGLE A EQUALS 0°, UNLESS OTHERWISE SPECIFIED.
8. TYPE, DIMENSIONS AND ELEVATIONS OF PCC. CURB AND GUTTER PER PLAN.
9. UNLESS OTHERWISE SPECIFIED, FRAME AND GRATE FOR CASE II INLET SHALL BE GALVANIZED CAST IRON. WEIGHT OF FRAME AND GRATE SHALL BE 80 LBS (36 kg).
10. AT LOCATIONS WITH LESS THAN 8" (200 mm) CURB FACE, USE 6x6–W1.4xW1.4 (152x152–MW9.1xMW9.1) GALVANIZED WIRE FABRIC. WIRE FABRIC SHALL EXTEND 8" (200 mm) BEYOND THE EDGE OF CAST IRON PIPES.

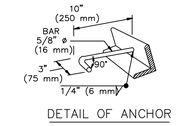


STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION		
	CURB DRAIN	STANDARD PLAN 150–4 SHEET 2 OF 2



S	J BAR SPACING	ANCHORS	NOTE
12" (300 mm)	7" (180 mm)	2	9
18" (450 mm)	7" (180 mm)	2	9
24" (600 mm)	7" (180 mm)	2	9
30" (750 mm)	7" (180 mm)	2	9
36" (900 mm)	7" (180 mm)	3	9
42" (1050 mm)	6" (150 mm)	3	9
48" (1200 mm)	5" (125 mm)	3	9
54" (1350 mm)	6-1/2" (165 mm)	3	10
60" (1500 mm)	5" (125 mm)	3	10
66" (1650 mm)	4" (100 mm)	3	10
72" (1800 mm)	3-1/2" (90 mm)	3	10

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION		
PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1994 REV. 1996, 2006, 2009, 2021	PARKWAY DRAIN USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION	STANDARD PLAN 151–3 SHEET 1 OF 2

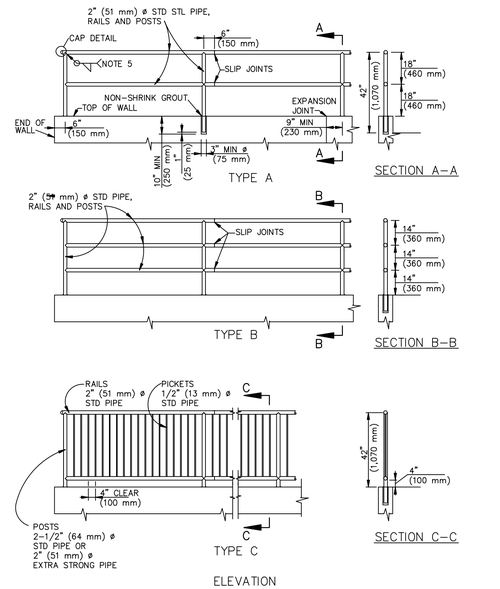


NOTES

1. FLOOR OF BOX SHALL BE TROWLED SMOOTH.
2. IF THE TOE OF SLOPE IS ALLOWED WITHIN THE R/W, INLET TYPE 1 BEGINS AT THE TOE RATHER THAN AT THE R/W LINE.
3. FOR OPEN DITCH (TYPE 2), THE 24" (600 mm) EXTENSION BEYOND THE R/W LINE IS NOT REQUIRED WHEN BACK OF WALK IS 24" (600 mm) OR MORE FROM THE R/W LINE; HOWEVER, THE PARKWAY DRAIN SHALL EXTEND TO THE R/W LINE IN ANY EVENT.

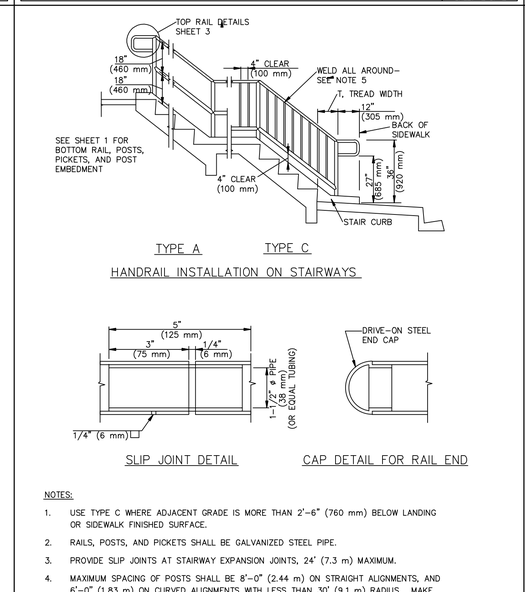
   TOP OF INLET STRUCTURE (TYPE 1 & 2) SHALL BE FLUSH WITH ADJACENT SURFACE WHERE PRACTICAL.
4. A HEADED STEEL STUD 5/8" x 6–3/8" WITH A 1" HEAD (16 x 160 mm, 25 mm HEAD) ATTACHED BY A FULL PENETRATION BUTT WELD MAY BE USED AS AN ALTERNATE ANCHOR.
5. NORMAL CURB FACE AT POINT M AND Q. CURB FACE IS B + 5" (125 mm) AT POINT N AND P.
6. THE 3" (75 mm) LEG OF THE 5/8" (16 mm) DIA ANCHORS SHALL BE PARALLEL TO THE TOP OF SIDEWALK.
7. J BARS ARE #3 (#10M).
8. FOR S = 48" (1200 mm) AND LESS, B = 3" (75 mm). USE 2-1/2" x 2" x 3/8" (64 x 51 x 9.5 mm) GALVANIZED STEEL ANGLE.
9. FOR S = 54" (1350 mm) OR MORE, B = 4" (100 mm). USE 3-1/2" x 3" x 1/2" (89 x 76 x 12.7 mm) GALVANIZED STEEL ANGLE.
10. ANGLE A EQUALS 90° UNLESS OTHERWISE SPECIFIED.
11.

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION		
	PARKWAY DRAIN	STANDARD PLAN 151–3 SHEET 2 OF 2



SEE CALIFORNIA BUILDING CODE FOR HANDRAIL AND OTHER REQUIREMENTS FOR HANDICAPPED ACCESSIBLE RAMPS OTHER THAN CURB RAMPS

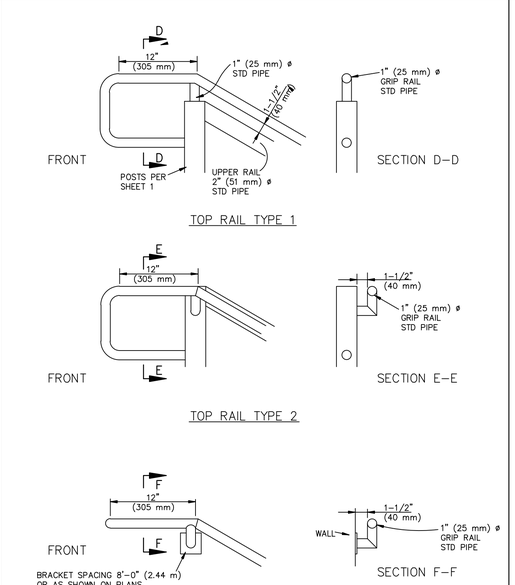
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION		
PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1994 REV. 1998, 2006, 2008, 2013, 2021	METAL HAND RAILINGS USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION	STANDARD PLAN 606–5 SHEET 1 OF 3



NOTES:

1. USE TYPE C WHERE ADJACENT GRADE IS MORE THAN 2'–6" (760 mm) BELOW LANDING OR SIDEWALK FINISHED SURFACE.
2. RAILS, POSTS, AND PICKETS SHALL BE GALVANIZED STEEL PIPE.
3. PROVIDE SLIP JOINTS AT STAIRWAY EXPANSION JOINTS, 24' (7.3 m) MAXIMUM.
4. MAXIMUM SPACING OF POSTS SHALL BE 8'–0" (2.44 m) ON STRAIGHT ALIGNMENTS, AND 6'–0" (1.83 m) ON CURVED ALIGNMENTS WITH LESS THAN 30' (9.1 m) RADIUS. MAKE SPACING UNIFORM BETWEEN CHANGES IN ALIGNMENT.
5. WELDS SHALL BE SLOT OR FILLET WELDS EQUAL TO THICKNESS OF PIPE. WELD ALL JOINTS ALL AROUND.

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION		
	METAL HAND RAILINGS	STANDARD PLAN 606–5 SHEET 2 OF 3



STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION		
	METAL HAND RAILINGS	STANDARD PLAN 606–5 SHEET 3 OF 3

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

STANDARD PLANS

PROJECT NO. 2020–02
SHEET NO. 39 OF 97

Underground Service Alert
CALL: TOLL FREE 811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS

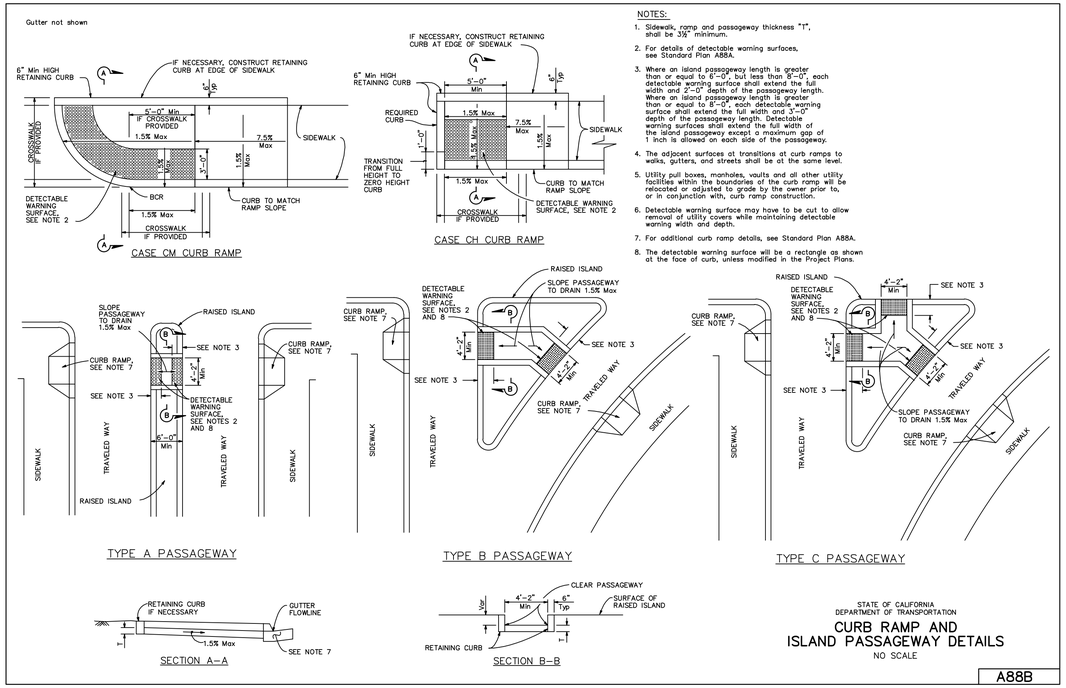
NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200
10/7/2026
DATE

CITY OF SOUTH PASADENA CALIFORNIA 1888

\\EgnyteDrive\Projects\LA\ITE010400\CADD\Design\Sheets\RD-43_Standard Details.dwg 10/07/26 – 4:35pm alexis.escobar



NOTES:

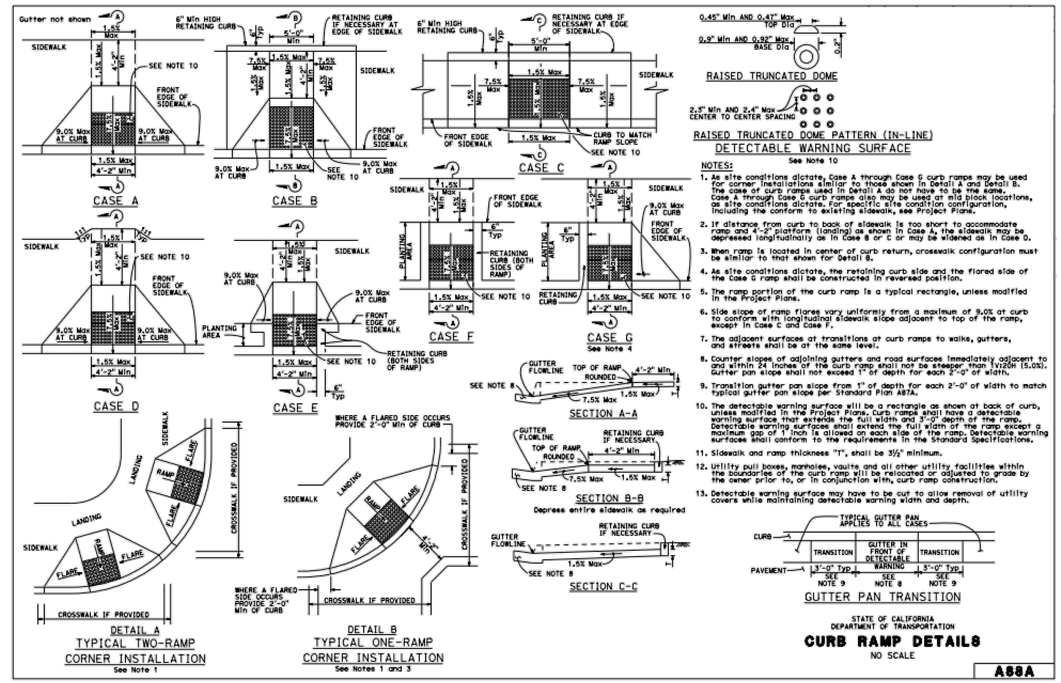
1. Sidewalk, ramp and passageway thickness "T", shall be 3½" minimum.
2. For details of detectable warning surfaces, see Standard Plan A88A.
3. Where an island passageway length is greater than or equal to 6'–0", but less than 8'–0", each detectable warning surface shall extend the full width and 2'–0" depth of the passageway length. Where an island passageway length is greater than or equal to 8'–0", each detectable warning surface shall extend the full width and 3'–0" depth of the passageway length. Detectable warning surfaces shall extend the full width of the island passageway except a maximum gap of 1 inch is allowed on each side of the passageway.
4. The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.
5. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
6. Detectable warning surface may have to be cut to allow removal of utility covers while maintaining detectable warning width and depth.
7. For additional curb ramp details, see Standard Plan A88A.
8. The detectable warning surface will be a rectangle as shown at the face of curb, unless modified in the Project Plans.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CURB RAMP AND ISLAND PASSAGEWAY DETAILS

NO SCALE

A88B



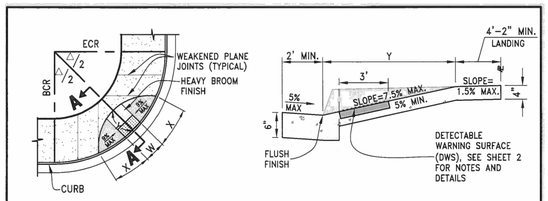
1. Sidewalk, ramp and passageway thickness "T", shall be 3½" minimum.
2. For details of detectable warning surfaces, see Standard Plan A88A.
3. Where an island passageway length is greater than or equal to 6'–0", but less than 8'–0", each detectable warning surface shall extend the full width and 2'–0" depth of the passageway length. Where an island passageway length is greater than or equal to 8'–0", each detectable warning surface shall extend the full width and 3'–0" depth of the passageway length. Detectable warning surfaces shall extend the full width of the island passageway except a maximum gap of 1 inch is allowed on each side of the passageway.
4. The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.
5. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
6. Detectable warning surface may have to be cut to allow removal of utility covers while maintaining detectable warning width and depth.
7. For additional curb ramp details, see Standard Plan A88A.
8. The detectable warning surface will be a rectangle as shown at the face of curb, unless modified in the Project Plans.
9. Sidewalk and ramp thickness "T", shall be 3½" minimum.
10. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
13. Detectable warning surface may have to be cut to allow removal of utility covers while maintaining detectable warning width and depth.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CURB RAMP DETAILS

NO SCALE

A88A



PLAN

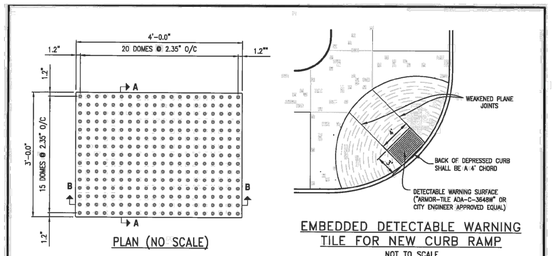
SECTION A-A

CURB RAMP NOTES:

1. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
2. MAXIMUM SLOPES OF ADJOINING GUTTERS, THE ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP AND CONTINUOUS PASSAGE TO THE CURB RAMP SHALL NOT EXCEED 5% WITHIN 4' OF THE BOTTOM OF THE CURB RAMP.
3. IF DISTANCE FROM CURB TO BACK OF SIDEWALK IS NOT SUFFICIENT TO ACCOMMODATE RAMP WITH A MAXIMUM 7.5% SLOPE AND 4'–2" MINIMUM LANDING, THE SIDEWALK MAY BE DEPRESSED LONGITUDINALLY WITH A RETAINING CURB AT THE BACK OF SIDEWALK IF FEASIBLE; HOWEVER, RETAINING CURBS SHALL NOT BE CONSTRUCTED WITHOUT THE APPROVAL OF THE CITY ENGINEER.
4. CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE THAT MEASURES 3' IN THE PEDESTRIAN DIRECTION OF TRAVEL AND EXTENDS THE FULL WIDTH OF THE RAMP. DETECTABLE WARNING SURFACES SHALL BE POLYMER COMPOSITE MATERIAL, YELLOW IN COLOR AND SHALL CONFORM TO THE DETAILS AS SHOWN ON SHEET 2 OF THIS STANDARD PLAN.
5. UTILITY MANHOLES, VENTS AND VAULTS WITHIN THE BOUNDARIES OF THE CURB RAMP SHALL BE RELOCATED OUTSIDE THE LIMITS OF THE RAMP AREA PRIOR TO, OR IN CONJUNCTION WITH, CURB RAMP CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THIS WORK WITH THE UTILITY OWNER.
6. PULL BOXES AND CONDUITS WITHIN THE BOUNDARIES OF THE CURB RAMP SHALL BE RELOCATED OUTSIDE THE LIMITS OF THE RAMP AREA. EXISTING WIRING SHALL BE PROTECTED AND REINSTALLED.

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

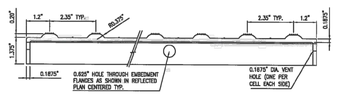
DRAWN BY: ANDREW CLAYTON	INTERSECTION CURB RAMP	REVISION: 5	UNITS: ENG.
CHECKED BY: CATHY CHANG		STANDARD PLAN: S-414	
SUBMITTED BY: SEAN SINGLETARY	APPROVED BY: CITY ENGINEER LICENSE No. 48660 EXPIRES JUNE 30, 2016 — DATE 8/20/15	SHEET 1 OF 2	



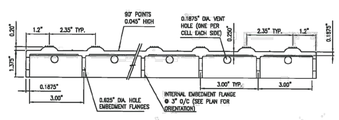
PLAN (NO SCALE)

EMBEDDED DETECTABLE WARNING TILE FOR NEW CURB RAMP

NOT TO SCALE



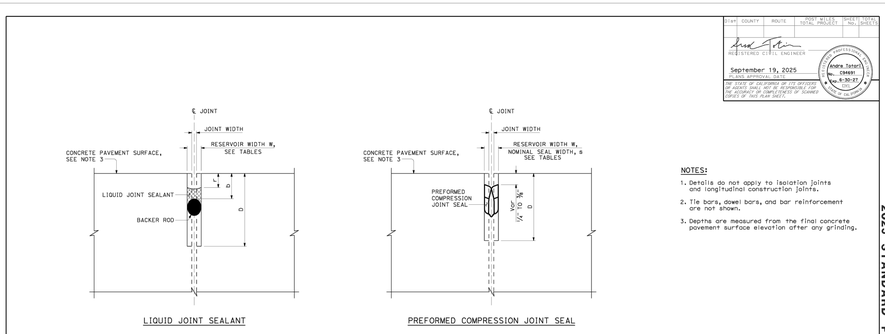
SECTION A–A



SECTION B–B

CITY OF PASADENA - DEPARTMENT OF PUBLIC WORKS

DRAWN BY: ANDREW CLAYTON	INTERSECTION CURB RAMP	REVISION: 5	UNITS: ENG.
CHECKED BY: CATHY CHANG		STANDARD PLAN: S-414	
SUBMITTED BY: SEAN SINGLETARY	APPROVED BY: CITY ENGINEER LICENSE No. 48660 EXPIRES JUNE 30, 2016 — DATE 8/20/15	SHEET 2 OF 2	



NOTES:

1. Details do not apply to isolation joints and longitudinal construction joints.
2. Tie bars, dowel bars, and bar reinforcement are not shown.
3. Depths are measured from the final concrete pavement surface elevation after any grinding.

LIQUID JOINT SEALANT DIMENSIONS

RESERVOIR WIDTH W ±1/16"	BACKER ROD NOMINAL Dia *	DEPTHS (ASPHALT RUBBER) ** RESERVOIR D ±1/4"	BACKER ROD b ±1/16"	DEPTHS (SILICONE) RESERVOIR D ±1/4"	BACKER ROD b ±1/16"	RECESS r ±1/16"
¼"	⅜"	1¾"	½"	1⅜"	½"	¼"
⅜"	½"	1⅞"	½"	1½"	½"	¼"
½"	¾"	2"	¾"	1¾"	¾"	⅜"
⅝"	⅞"	2¼"	1"	2"	⅞"	⅜"
¾"	1"	2⅜"	1¼"	2¼"	⅞"	⅜"
⅞"	1¼"	2"	1¼"	2½"	⅞"	⅜"
1"	1½"	3¼"	1⅜"	2⅞"	⅞"	⅜"
1¼"	1¾"	3½"	1½"	2⅞"	1"	½"

* Larger diameter backer rods may be substituted according to manufacturer recommendations if reservoir depth is increased equivalently.

** Asphalt rubber sealant recess depth "r" varies from ¼" to ⅜".

PREFORMED COMPRESSION JOINT SEAL DIMENSIONS

RESERVOIR WIDTH W ±1/16"	NOMINAL SEAL WIDTH s	RESERVOIR DEPTH D ±1/4"
¼"	⅜"	1¼"
⅜"	⅜"	1⅜"
½"	⅜"	1⅜"
⅝"	1"	1⅞"
¾"	1¼"	2¼"
⅞"	1⅜"	2⅝"
1"	1⅜"	2⅝"
1¼"	2"	2⅞"

CONSTRUCTION SEASON	MINIMUM RESERVOIR WIDTH * W ±1/16"
WINTER	¼"
SPRING	⅜"
SUMMER	
FALL	

* Minimum reservoir width for replace joint seal = existing joint width + ⅛".

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOINT SEALS

NO SCALE

P20

2025 STANDARD PLAN P20

Return to Table of Contents

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS			
NO.	DESCRIPTION	APP.	DATE

ENGINEER OF RECORD:
REGISTERED PROFESSIONAL ENGINEER ALEXIS ESCOBAR No. C094200 Exp. 12-31-26 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
PSOMAS
865 S. Figueroa Street, Suite 3200
Los Angeles, CA 90017-
213.223.1400 213.223
www.psomas.com
ALEXIS ESCOBAR, R.C.E. NO. 94200 — 10/7/2026 DATE

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

STANDARD PLANS

PROJECT NO. 2020-02
SHEET NO. 40 OF 97

\\EgnyteDrive\Projects\LA\11TE010400\CADD\Design\Sheets\RD-44_Standard Details.dwg 10/07/26 – 4:35pm alexis.escobar

CONDUCTOR SCHEDULE

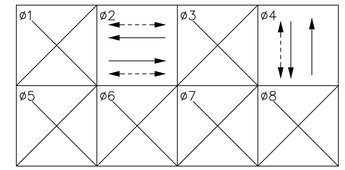
AWG	CABLE	RUNS 1	2	3	4	5	6	7	8	9	10
12 CSC	POLE A					–/1		–/1			–/1
	POLE B							–/1			–/1
	POLE C							1/–			1/–
	POLE D		1/1		1/1						1/1
	POLE E	–/1	–/2		–/2						–/1
	POLE F	1/–	1/–		1/–						1/–
	POLE G				1/1						1/1
3 CSC	POLE H			1/1	1/1						1/1
	POLE I										1/1
	POLE J								1/1		1/1
	TOTAL CABLES	1/2	2/2	1/1	4/4	–/1		1/2	1/1		7/8
#8	SERVICE										2(E)
#10	LUMINAIRE		2		2			2			
#12	IISNS		2		2			2			
VIDEO DETECTION			1	1	2			1			4
WIRELESS COMMUNICATION ANTENNA		1	1		1						2
TWP 12 PAIR/#19 S.PAS										1(E)	1(E)
CCTV CABLE											1
12 SMFO CABLE										1(E)	1(E)
24 SMFO CABLE						2(E)	1(E)			1(E)	
RJ45 CAT6						1(E)	1(E)				1(E)
CONDUIT SIZE		3"	4"	2"	4"	2"(E)	2"(E)	4"	2"	2"(E)	2–4"
PERCENT FILL (%)		10	11	21	22	16	9	8	18	15	22

ALL CONDUITS AND CONDUCTORS ARE NEW UNLESS OTHERWISE NOTED
(E) – EXISTING

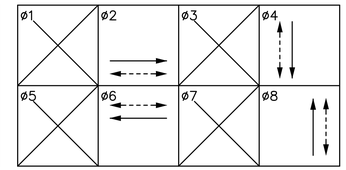
LEGEND:

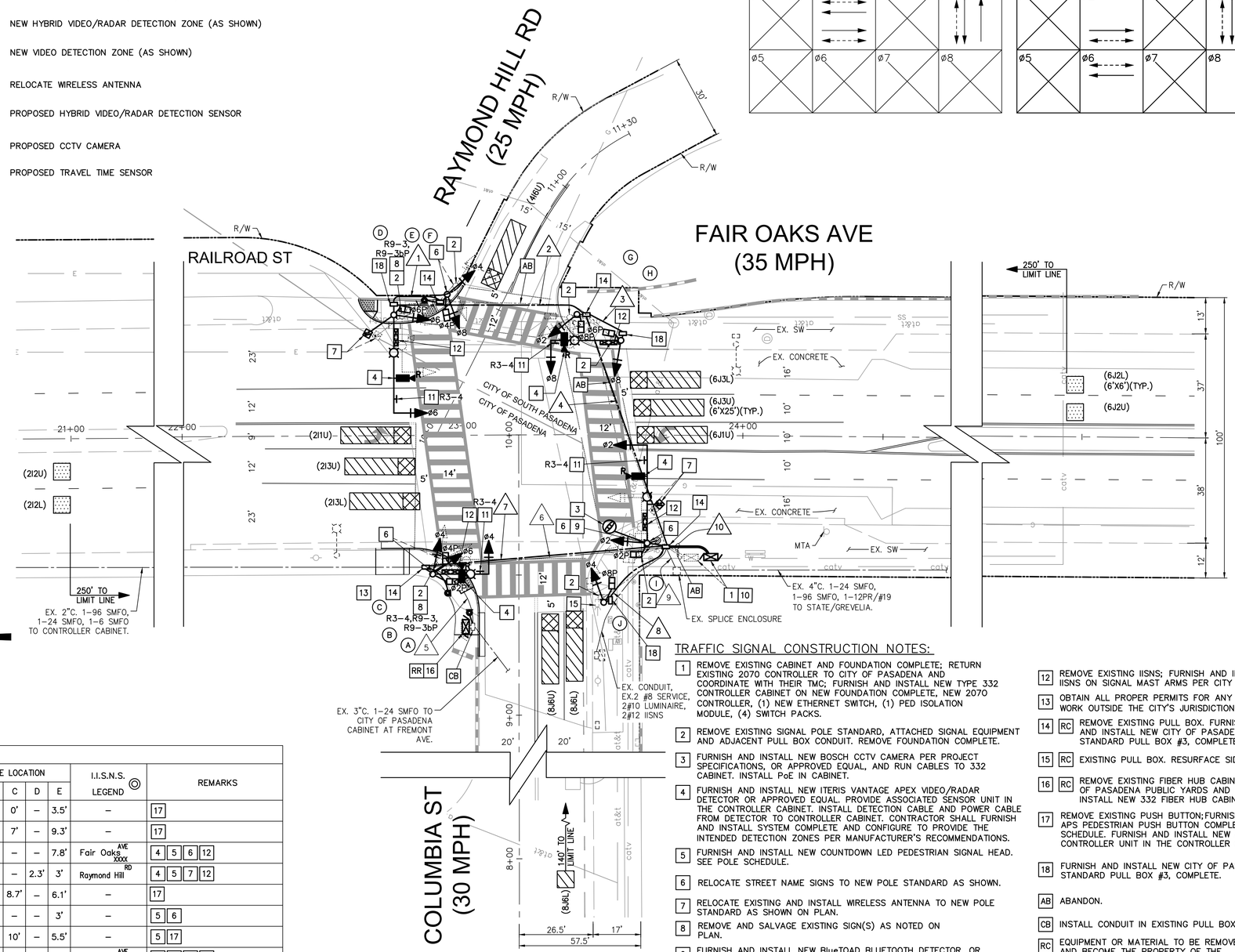
- BICYCLE DETECTION ZONE (6'X6' TYP.)
- NEW HYBRID VIDEO/RADAR DETECTION ZONE (AS SHOWN)
- NEW VIDEO DETECTION ZONE (AS SHOWN)
- W.C. RELOCATE WIRELESS ANTENNA
- R PROPOSED HYBRID VIDEO/RADAR DETECTION SENSOR
- PROPOSED CCTV CAMERA
- PROPOSED TRAVEL TIME SENSOR

EXISTING PHASE DIAGRAM



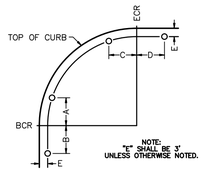
PROPOSED PHASE DIAGRAM





PROPOSED SIGN LEGEND

R3-4
36"x36"



POLE LOCATION DETAIL
(NO SCALE)

20' 10' 0 10' 20'
1"=20' GRAPHIC SCALE

TRAFFIC SIGNAL CONSTRUCTION NOTES:

1. REMOVE EXISTING CABINET AND FOUNDATION COMPLETE; RETURN EXISTING 2070 CONTROLLER TO CITY OF PASADENA AND COORDINATE WITH THEIR TMC; FURNISH AND INSTALL NEW TYPE 332 CONTROLLER CABINET ON NEW FOUNDATION COMPLETE, NEW 2070 CONTROLLER, (1) NEW ETHERNET SWITCH, (1) PED ISOLATION MODULE, (4) SWITCH PACKS.
2. REMOVE EXISTING SIGNAL POLE STANDARD, ATTACHED SIGNAL EQUIPMENT AND ADJACENT PULL BOX CONDUIT. REMOVE FOUNDATION COMPLETE.
3. FURNISH AND INSTALL NEW BOSCH CCTV CAMERA PER PROJECT SPECIFICATIONS, OR APPROVED EQUAL, AND RUN CABLES TO 332 CABINET. INSTALL PoE IN CABINET.
4. FURNISH AND INSTALL NEW ITERIS VANTAGE APEX VIDEO/RADAR DETECTOR OR APPROVED EQUAL. PROVIDE ASSOCIATED SENSOR UNIT IN THE CONTROLLER CABINET. INSTALL DETECTION CABLE AND POWER CABLE FROM DETECTOR TO CONTROLLER CABINET. CONTRACTOR SHALL FURNISH AND INSTALL SYSTEM COMPLETE AND CONFIGURE TO PROVIDE THE INTENDED DETECTION ZONES PER MANUFACTURER'S RECOMMENDATIONS.
5. FURNISH AND INSTALL NEW COUNTDOWN LED PEDESTRIAN SIGNAL HEAD. SEE POLE SCHEDULE.
6. RELOCATE STREET NAME SIGNS TO NEW POLE STANDARD AS SHOWN.
7. RELOCATE EXISTING AND INSTALL WIRELESS ANTENNA TO NEW POLE STANDARD AS SHOWN ON PLAN.
8. REMOVE AND SALVAGE EXISTING SIGN(S) AS NOTED ON PLAN.
9. FURNISH AND INSTALL NEW BlueTOAD BLUETOOTH DETECTOR, OR APPROVED EQUAL, ON POLE AND RUN CABLE TO THE 332 CABINET.
10. RC FOUNDATION COMPLETE.
11. FURNISH AND INSTALL NEW SIGN ON SIGNAL MAST ARM PER CALTRANS STD. PLAN ES-7N.
12. REMOVE EXISTING IISNS; FURNISH AND INSTALL NEW IISNS ON SIGNAL MAST ARMS PER CITY STANDARDS.
13. OBTAIN ALL PROPER PERMITS FOR ANY WORK OUTSIDE THE CITY'S JURISDICTION.
14. RC REMOVE EXISTING PULL BOX. FURNISH AND INSTALL NEW CITY OF PASADENA STANDARD PULL BOX #3, COMPLETE.
15. RC EXISTING PULL BOX. RESURFACE SIDEWALK.
16. RC REMOVE EXISTING FIBER HUB CABINET TO CITY OF PASADENA PUBLIC YARDS AND FURNISH AND INSTALL NEW 332 FIBER HUB CABINET.
17. REMOVE EXISTING PUSH BUTTON; FURNISH AND INSTALL APS PEDESTRIAN PUSH BUTTON COMPLETE. SEE POLE SCHEDULE. FURNISH AND INSTALL NEW ASSOCIATED CONTROLLER UNIT IN THE CONTROLLER CABINET.
18. FURNISH AND INSTALL NEW CITY OF PASADENA STANDARD PULL BOX #3, COMPLETE.

AB ABANDON.
CB INSTALL CONDUIT IN EXISTING PULL BOX.
RC EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR.
RR REMOVE AND REUSE EQUIPMENT.

POLE SCHEDULE

NO.	STANDARD TYPE	HGT.	SIG. M.A.	LUM. M.A.	LUMINAIRE LED (WATTS)	VEHICLE SIGNAL MOUNTING M.A.	POLE	PED.	APS PPB Ø	QUAD	POLE LOCATION A	B	C	D	E	I.I.S.N.S. LEGEND ◎	REMARKS
A	TYPE 2	4'-6"	–	–	–	–	–	–	Ø2	E	–	–	0'	–	3.5'	–	17
B	TYPE 2	4'-6"	–	–	–	–	–	–	Ø4	S	–	–	7'	–	9.3'	–	17
C	17-3-100	30'	20'	12'	200	MAS	SV-2-T	SP-2-T	–	–	6.4'	–	–	–	7.8'	Fair Oaks AVE XXXX	4 5 6 12
D	24-3-100	30'	35'	12'	200	MAS	SV-1-T	SP-1-T	Ø4	S	–	–	–	2.3'	3'	Raymond Hill RD	4 5 7 12
E	TYPE 2	4'-6"	–	–	–	–	–	–	Ø6	W	–	–	8.7'	–	6.1'	–	17
F	1-A	10'	–	–	–	–	SV-2-T	SP-1-T	–	–	5.4'	–	–	–	3'	–	5 6
G	1-A	10'	–	–	–	–	SV-1-T	SP-1-T	Ø6	W	–	–	10'	–	5.5'	–	5 17
H	19-3-100	30'	25'	15'	200	MAS	SV-1-T	SP-1-T	Ø8	N	–	4.6'	–	–	3'	Fair Oaks AVE XXXX	4 5 12 17
I	24-3-100	30'	35'	12'	200	MAS	SV-1-T	SP-1-T	Ø8	N	–	–	5.5'	–	6.5'	Columbia ST XXXX	4 5 6 7 9 12 17
J	1-A	10'	–	–	–	–	SV-1-T	SP-1-T	Ø2	E	–	3.7'	–	–	4'	–	5 17

ALL EQUIPMENT SHOWN IS NEW UNLESS OTHERWISE NOTED.
PPB – PEDESTRIAN PUSH BUTTON
◎ – INDICATES CITY OF SOUTH PASADENA LOGO

APPROVED: CITY OF PASADENA
BY:_____ DATE: _____

Underground Service Alert
CALL: TOLL FREE 811
AT LEAST TWO DAYS BEFORE YOU DIG

CITY OF SOUTH PASADENA 56%
CITY OF PASADENA 44%

REGISTERED PROFESSIONAL ENGINEER BRENT MAUE No. C80265 CIVIL STATE OF CALIFORNIA

REVIEWED BY THE CITY OF PASADENA FOR APPROVAL BY:

BRENT MAUE, PE DATE
R.C.E. NO. 80265

REGISTERED PROFESSIONAL ENGINEER MARC VIOLETT No. C73486 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5551
Phone – (949) 270-9400
Fax – (949) 270-9401

MARC VIOLETT DATE
R.C.E. NO. 73486

CITY OF SOUTH PASADENA CALIFORNIA 1888

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

FAIR OAKS AVENUE & COLUMBIA STREET

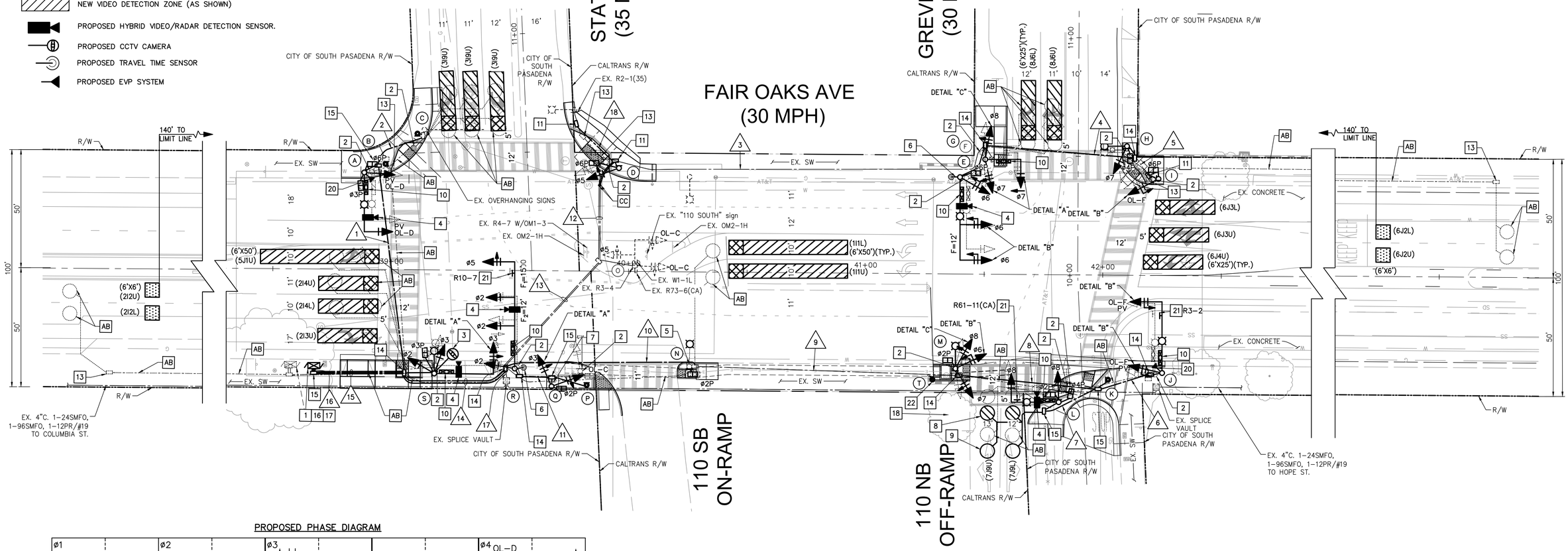
TRAFFIC SIGNAL MODIFICATION PLAN

PROJECT NO.
SHEET NO. 41 OF 97

C:\bms\iteris-pw.bentley.com_itrs-pw-01\yliang@iteris.com\dms21280\TS-1_Columbia - KOA.dwg 10/07/26 - 3:45pm rliang

LEGEND:

- BICYCLE DETECTION ZONE (6'X6' TYP.)
- NEW HYBRID VIDEO/RADAR DETECTION ZONE (AS SHOWN)
- NEW VIDEO DETECTION ZONE (AS SHOWN)
- PROPOSED HYBRID VIDEO/RADAR DETECTION SENSOR.
- PROPOSED CCTV CAMERA
- PROPOSED TRAVEL TIME SENSOR
- PROPOSED EVP SYSTEM



PROPOSED PHASE DIAGRAM

ø1		ø2		ø3				ø4	
OL-C	OL-F		OL-F		OL-F			OL-D, OL-C	
STATE	GREVELIA	STATE	GREVELIA	STATE	GREVELIA			STATE	GREVELIA
ø5		ø6				ø7		ø8	
		OL-D							
STATE	GREVELIA	STATE	GREVELIA			STATE	GREVELIA	STATE	GREVELIA

REMARKS:
OL-C = ø1 + ø4
OL-D = ø4 + ø6
OL-F = ø1 + ø2+ ø3
ø2 + ø6 ON MINIMUM VEHICLE RECALL
ø1 ON RED LOCK

EXISTING PHASE DIAGRAM

ø1		ø2		ø3		ø4	
OL-C	OL-F		OL-F		OL-F (R)	OL-D, OL-C	
STATE	GREVELIA	STATE	GREVELIA	STATE	GREVELIA	STATE	GREVELIA
ø5		ø6		ø7		ø8	
		OL-D			(R)		(R)
STATE	GREVELIA	STATE	GREVELIA	STATE	GREVELIA	STATE	GREVELIA

REMARKS:
(R) – RESTRICTED PHASES
OL-C = ø1 + ø4
OL-D = ø4 + ø6
OL-F = ø1 + ø2+ ø3

TRAFFIC SIGNAL CONSTRUCTION NOTES:

1. REMOVE EXISTING CABINET AND FOUNDATION; RELOCATE EXISTING 2070 CONTROLLER TO NEW CABINET; FURNISH AND INSTALL NEW TYPE 332 CONTROLLER CABINET ON NEW FOUNDATION COMPLETE, NEW (2) PED ISOLATION MODULES, (15) SWITCH PACKS, ETHERNET SWITCH, AND EVP GPS SYSTEM PER SPECIFICATION.
2. REMOVE EXISTING SIGNAL POLE STANDARD, ATTACHED SIGNAL EQUIPMENT AND ADJACENT PULL BOX CONDUIT. REMOVE FOUNDATION COMPLETE.
3. FURNISH AND INSTALL NEW BOSCH CCTV CAMERA PER PROJECT SPECIFICATIONS, OR APPROVED EQUAL, AND RUN CABLES TO 332 CABINET. INSTALL PoE IN CABINET.
4. FURNISH AND INSTALL NEW ITERIS VANTAGE APEX VIDEO/RADAR DETECTOR AND ASSOCIATED SENSOR OR APPROVED EQUAL. CONTRACTOR SHALL FURNISH AND INSTALL SYSTEM COMPLETE WITH DETECTION CABLE AND POWER CABLE FROM DETECTOR TO CONTROLLER CABINET AND CONFIGURE TO PROVIDE THE INTENDED DETECTION ZONES PER MANUFACTURER'S RECOMMENDATIONS.
5. PROTECT POLE AND LUMINAIRE ARM IN PLACE. REMOVE EXISTING LUMINAIRE AND SIGNAL EQUIPMENT. FURNISH AND INSTALL NEW LUMINAIRE AND SIGNAL EQUIPMENT PER POLE AND EQUIPMENT SCHEDULE.
6. FURNISH AND INSTALL NEW BlueTOAD BLUETOOTH DETECTOR, OR APPROVED EQUAL, ON POLE AND RUN CABLE TO THE 332 CABINET.
7. RL EXISTING SIGNS TO NEW POLE.
8. FURNISH AND INSTALL TYPE F LOOP DETECTOR PER CALTRANS STANDARD PLAN ES-5B.
9. FURNISH AND INSTALL TYPE E LOOP DETECTOR PER CALTRANS STANDARD PLAN ES-5B.
10. FURNISH AND INSTALL NEW IISNS ON MAST ARMS PER CITY STANDARDS.
11. INTERCEPT EXISTING CONDUIT AND FURNISH AND INSTALL NEW PULL BOX AS SHOWN.
12. REMOVE EXISTING; FURNISH AND INSTALL NEW APS PEDESTRIAN PUSH BUTTON COMPLETE. SEE POLE SCHEDULE. FURNISH AND INSTALL NEW ASSOCIATED CONTROLLER UNIT IN THE CONTROLLER CABINET.
13. RC EXISTING PULL BOX.
14. RC REMOVE EXISTING PULL BOX AND FURNISH AND INSTALL NEW PULL BOX AS SHOWN.
15. FURNISH AND INSTALL NEW PULL BOX.
16. RC FOUNDATION COMPLETE.
17. REMOVE (7) 2-CHANNEL ILD SENSOR UNITS.
18. TRIM TREE OR VEGETATION TO SECURE VISIBILITY OF SIGNAL EQUIPMENT.
19. RS EXISTING SIGNS ON POLE.
20. FURNISH AND INSTALL EVP GPS ANTENNA TO NEW POLE STANDARD AS SHOWN.
21. FURNISH AND INSTALL NEW SIGN ON SIGNAL MAST ARM PER CALTRANS STD. PLAN ES-7N.
22. FURNISH AND INSTALL PEDESTRIAN PUSH BUTTON EXTENSION. INSTALLATION ANGLE TO BE DETERMINED BY ENGINEER PRIOR TO INSTALLATION.

AB ABANDON.
CC CONNECT NEW AND EXISTING CONDUIT. REMOVE EXISTING CONDUCTORS AND INSTALL CONDUCTORS AS INDICATED.
RS REMOVE AND SALVAGE EQUIPMENT.
RC EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR.
RL RELOCATE EQUIPMENT.

20' 10' 0 10' 20'
1"=20' GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

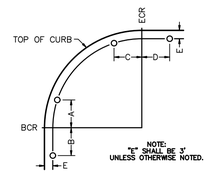
REGISTERED PROFESSIONAL ENGINEER
MARC VIOLETT
No. C73486
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5501
Phone: (949) 270-9400
Fax: (949) 270-9401

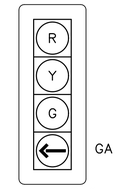
MARC VIOLETT DATE
R.C.E. NO. 73486

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT
FAIR OAKS AVENUE AT STATE ST/110 SB ON-RAMP & GREVELIA ST/110 NB OFF-RAMP
TRAFFIC SIGNAL MODIFICATION PLAN
PROJECT NO.
SHEET NO. 42 OF 97

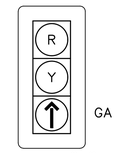
C:\bms\iteris-pw.bentley.com_itrs-pw-01\rliang@iteris.com\dms21280\TS-2_State - Layout1.dwg 10/07/26 - 3:45pm rliang



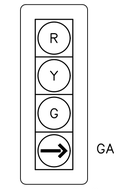
POLE LOCATION DETAIL
(NO SCALE)



DETAIL "A"
ALL 12" LENSES
(NO SCALE)



DETAIL "B"
ALL 12" LENSES
(NO SCALE)



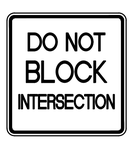
DETAIL "C"
ALL 12" LENSES
(NO SCALE)

POLE AND EQUIPMENT SCHEDULE

NO.	STANDARD TYPE	STANDARD HGT.	STANDARD SIG. M.A.	STANDARD LUM. M.A.	LUMINAIRE LED (WATTS)	VEHICLE SIGNAL MOUNTING M.A.	VEHICLE SIGNAL MOUNTING POLE	VEHICLE SIGNAL MOUNTING PED.	APS PPB ø	APS PPB QUAD	POLE LOCATION A	POLE LOCATION B	POLE LOCATION C	POLE LOCATION D	POLE LOCATION E	I.I.S.N.S. LEGEND	REMARKS
A	19-4-100	30'	25'	12'	200	MAS	SV-1-T	SP-2-T	–	–	–	–	9.6'	–	2.5'	State	4 10 20
B	TYPE 2	4'	–	–	–	–	–	–	ø3	S	–	–	18.5'	–	4.0'	–	12
C	TYPE 2	4'	–	–	–	–	–	–	ø6	W	19'	–	–	–	3.6'	–	12
D	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	ø6	E	15.6'	–	–	–	3.4'	–	12
E	24-4-100	30'	35'	12'	200	2-MAS	SV-1-T	SP-1-T	–	–	–	–	–	3.5'	2.6'	Grevalia	4 10
F	TYPE 2(E)	4'(E)	–	–	–	–	–	–	ø6	E	EXISTING					–	12
G	16-3-100	18-6"	15'	–	–	MAS	SV-2-TA	–	–	–	–	2.8'	–	–	9.1'	Fair Oaks	4 10
H	15TS	30'	–	12'	200	–	SV-1-T	SP-1-T	ø6	W	–	–	–	3.6'	1.9'	–	12
I	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	ø4	N	–	2.8'	–	–	2.3'	–	12
J	19-4-100	30'	30'	12'	200	MAS	SV-1-T	–	ø4	N	–	–	–	8'	3'	Grevalia	10 12 20 21
K	TYPE 2	4'	–	–	–	–	–	–	ø2	E	–	–	14.5'	–	4.4'	–	12
L	17-3-100	30'	20'	12'	200	MAS	SV-1-T	SP-2-T	ø2	E	AS SHOWN ON PLAN					Fair Oaks	4 10 21
M	15TS	30'	–	12'	200	–	SV-3-TA	SP-1-T	ø2	W	–	6.1'	–	–	1.8'	–	12
N	EXISTING	(E)	–	(E)	200	–	–	SP-1-T	ø2	W	EXISTING					–	5 12
O	33(E)	15'(E)	–	–	–	2-MAS (E)	SV-1-T (E)	–	–	–	EXISTING					–	
P	TYPE 2	4'	–	–	–	–	–	–	ø2	E	9.1'	–	–	–	7.3'	–	12
Q	1-A	10'	–	–	–	–	TV-2-T	SP-1-T	–	–	–	5.6'	–	–	10.4'	–	7
R	27-4-100	17'	45'	–	–	3-MAS	SV-1-T	–	–	–	–	21.2'*	–	–	2.9'	(110) Pkwy ➡	4 10 21
S	19-3-100	30'	25'	12'*	200	MAS	SV-2-T	SP-1-T	ø3	N	–	55.3'*	–	–	5.6'	Fair Oaks	3 4 10 12
T	TYPE 2	4'	–	–	–	–	–	–	ø2	E	TO BE DETERMINED^						12 22

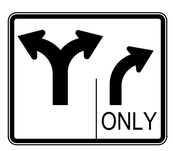
ALL EQUIPMENT IS NEW UNLESS OTHERWISE NOTED.
* – MEASURED FROM BCR AT NWC OF FAIR OAKS AVE AND 110 SB ON-RAMP
(E) – INDICATES EXISTING EQUIPMENT.
^ – ENGINEER TO SPOT INSTALLATION LOCATION IN THE FIELD PRIOR TO INSTALLATION

PROPOSED SIGN LEGEND



R10-7
24"x30"

R3-2
36"x36"



R61-11(CA)
36"X30"

CONDUCTOR SCHEDULE

AWG	CABLE	RUNS 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12 CSC	POLE A	1/-/-														1/-/-	1/-/-		
	POLE B	-/1/-														-/1/-	-/1/-		
	POLE C	-/1/-	-/1/-													-/1/-	-/1/-		
	POLE D												1/1/-	1/1/-	1/1/-	1/1/-	1/1/-		
	POLE E			1/-/-									1/-/-	1/-/-	1/-/-	1/-/-	1/-/-		
	POLE F			-/1/-									-/1/-	-/1/-	-/1/-	-/1/-	-/1/-		
	POLE G			1/-/-									1/-/-	1/-/-	1/-/-	1/-/-	1/-/-		
	POLE H			1/1/-	1/1/-								1/1/-	1/1/-	1/1/-	1/1/-	1/1/-		
	POLE I			1/1/-	1/1/-	1/1/-							1/1/-	1/1/-	1/1/-	1/1/-	1/1/-		
3 CSC	POLE J						1/-/-		1/-/-	1/-/-	1/-/-				1/-/-	1/-/-	1/-/-		
	POLE K						-/1/-		-/1/-	-/1/-	-/1/-				-/1/-	-/1/-	-/1/-		
	POLE L							1/1/-	1/1/-	1/1/-	1/1/-				1/1/-	1/1/-	1/1/-		
	POLE M									1/1/-	1/1/-				1/1/-	1/1/-	1/1/-		
	POLE N										1/1/-				1/1/-	1/1/-	1/1/-		
	POLE O													1/-/-	1/-/-	1/-/-	1/-/-		
	POLE P											1/-/-			1/-/-	1/-/-	1/-/-		
	POLE Q														1/-/-	1/-/-	1/-/-		
	POLE R															1/1/-	1/1/-		
5 CSC	POLE S											-/1/-			-/1/-	-/1/-	-/1/-		
	POLE T									-/1/1	-/1/1				-/1/1	-/1/1	-/1/1		
	TOTAL CABLES	1/2/-	-/1/-	4/3/-	2/2/-	1/1/-	1/1/-	1/1/-	2/2/-	3/4/1	4/5/1	1/1/-	5/4/-	6/4/-	12/10/1	14/13/1	14/13/1		
#10	LUMINAIRE	2		2	2		2	2	2	2	2		2	2	2	4	–		2(E)
#12	IISNS	2		2			2	2	2	2	2		2	2	2	4	–		
VIDEO CABLE		1		1				1	1	1	1		1	1	3	5	5		
TWP 12 PAIR/#19 S.PAS															2(E)	2(E)	2(E)	2(E)	
CCTV CABLE																1	1		
12 SMFO CABLE															1(E)	1(E)	1(E)	1(E)	
DLC LOOPS								2	2	2	2				2	2	2		
EVP CABLE		1					1	1	1	1		1				2	2		
CONDUIT SIZE		3"	2"	2"(E)	3"	2"(E)	3"	3"	4"	2"(E)	4"	2"	2–3"(E)	2–3"(E)	2–4"	3–4"	3–4"	2"(E)	2"
PERCENT FILL (%)		15	4	80	18	19	10	16	14	71	23	21	23	26	34	28	27	18	2

ALL CONDUITS AND CONDUCTORS ARE NEW UNLESS OTHERWISE NOTED
(E) – EXISTING

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS
BEFORE YOU DIG

REGISTERED PROFESSIONAL ENGINEER
MARC VIOLETT
No. C73486
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5551
Phone: (949) 270-9400
Fax: (949) 270-9401

MARC VIOLETT
R.C.E. NO. 73486
DATE

CITY OF SOUTH PASADENA
CALIFORNIA
1888

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

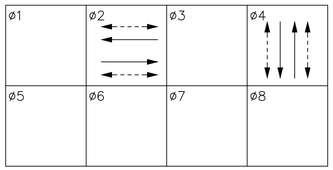
FAIR OAKS AVENUE AT STATE ST/110 SB
ON-RAMP & GREVELIA ST/110 NB OFF-RAMP

TRAFFIC SIGNAL MODIFICATION PLAN

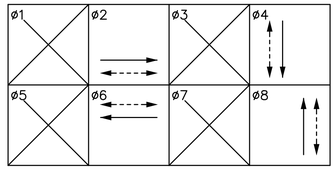
PROJECT NO.
SHEET NO. 43 OF 97

C:\bms\iteris-pw.bentley.com_itrs-pw-01\rliang@iteris.com\dms21280\TS-2_State - Layout1.dwg 10/07/26 - 3:45pm rliang

EXISTING PHASE DIAGRAM



PROPOSED PHASE DIAGRAM



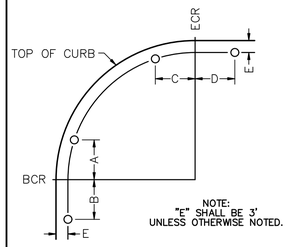
ø2 AND ø6 ON MINIMUM VEHICLE RECALL
ø4 AND ø8 ON NON-LOCK AND TIME DELAY FOR RIGHT TURNS

LEGEND:

- BICYCLE DETECTION ZONE (6'X6' TYP.)
- NEW HYBRID VIDEO/RADAR DETECTION ZONE (AS SHOWN)
- NEW VIDEO DETECTION ZONE (AS SHOWN)
- PROPOSED HYBRID VIDEO/RADAR DETECTION SENSOR.
- PROPOSED EVP GPS ANTENNA
- PROPOSED CCTV CAMERA

PROPOSED SIGN LEGEND

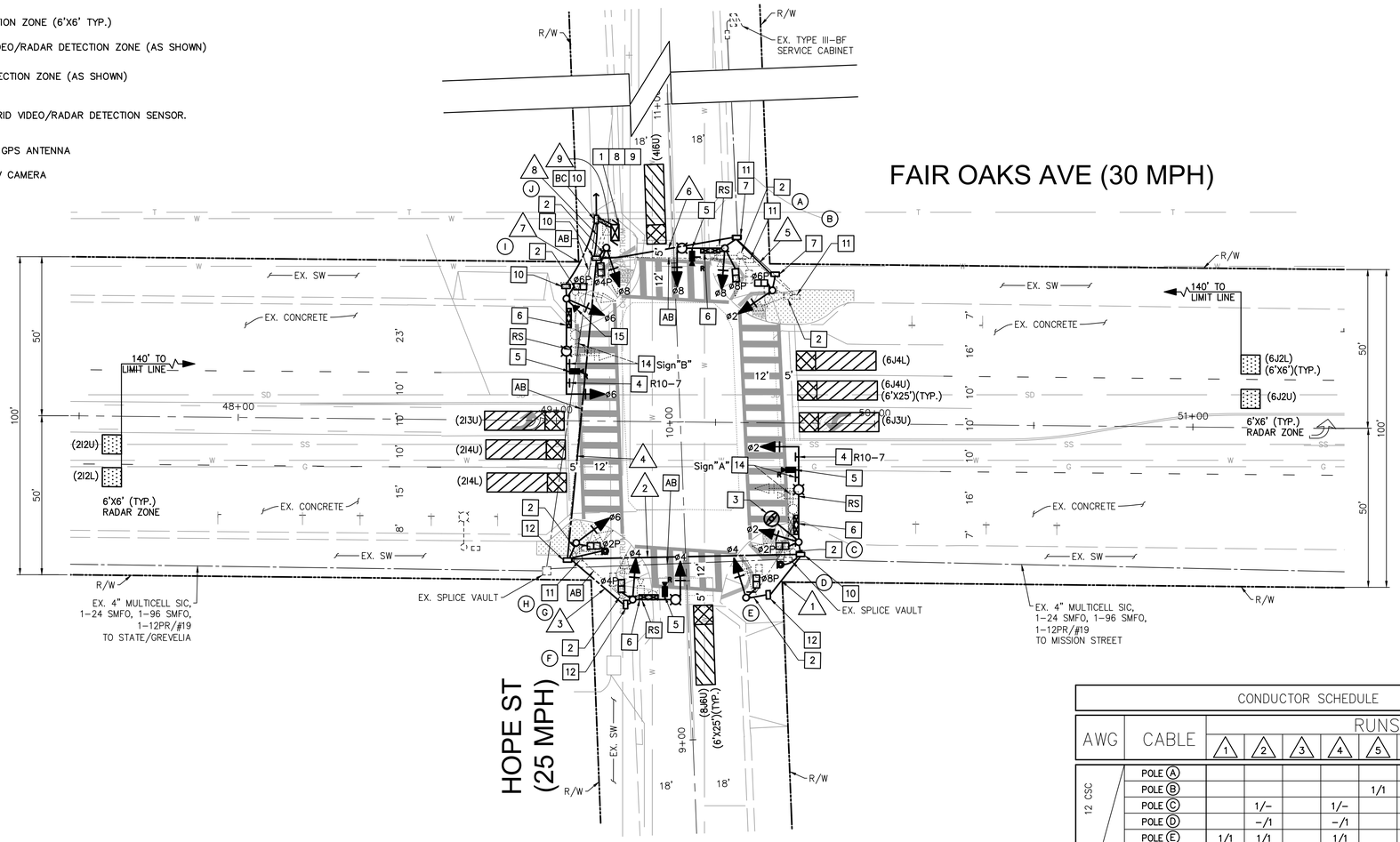
R10-7 24"x30" | Sign "A" | Sign "B"



NOTE:
"E" SHALL BE 3' UNLESS OTHERWISE NOTED.

POLE LOCATION DETAIL

(NO SCALE)



TRAFFIC SIGNAL CONSTRUCTION NOTES:

1. REMOVE EXISTING; RELOCATE EXISTING 2070 LDX CONTROLLER WITH MAXTIME PROGRAM, FURNISH AND INSTALL NEW TYPE 332 CONTROLLER CABINET WITH SIDE MOUNTED BBS CABINET ON NEW FOUNDATION. FURNISH AND INSTALL (1) NEW ETHERNET SWITCH, AND EVP GPS SYSTEM PER SPECIFICATIONS.
2. REMOVE EXISTING SIGNAL POLE STANDARD, ATTACHED SIGNAL EQUIPMENT AND ADJACENT PULL BOX CONDUIT. REMOVE FOUNDATION COMPLETE.
3. FURNISH AND INSTALL NEW BOSCH CCTV CAMERA PER PROJECT SPECIFICATIONS OR APPROVED EQUAL, AND RUN CABLES TO 332 CABINET. INSTALL PoE IN CABINET.
4. FURNISH AND INSTALL NEW SIGN ON SIGNAL MAST ARM PER CALTRANS STD. PLAN ES-7N.
5. FURNISH AND INSTALL ITERIS VANTAGE APEX VIDEO/RADAR DETECTOR OR APPROVED EQUAL. PROVIDE ASSOCIATED SENSOR UNIT IN THE CONTROLLER CABINET. FURNISH AND INSTALL DETECTION CABLE AND POWER CABLE FROM DETECTOR TO CONTROLLER CABINET. CONTRACTOR SHALL FURNISH AND INSTALL SYSTEM COMPLETE AND CONFIGURE TO PROVIDE THE INTENDED DETECTION ZONES PER MANUFACTURER'S RECOMMENDATIONS.
6. REMOVE EXISTING IISNS; FURNISH AND INSTALL NEW IISNS ON MAST ARMS PER CITY STANDARDS.
7. INTERCEPT EXISTING CONDUIT; FURNISH AND INSTALL NEW PULL BOX AS SHOWN.
8. FURNISH AND INSTALL (1) PED ISOLATION MODULE AND (4) SWITCH PACKS.
9. RC FOUNDATION COMPLETE.
10. RC EXISTING PULL BOX; FURNISH AND INSTALL NEW PULL BOX AS SHOWN.
11. RC EXISTING PULL BOX.
12. FURNISH AND INSTALL NEW PULL BOX.
13. FURNISH AND INSTALL NEW APS PEDESTRIAN PUSH BUTTON COMPLETE. SEE POLE SCHEDULE. FURNISH AND INSTALL NEW ASSOCIATED CONTROLLER UNIT IN THE CONTROLLER CABINET.
14. RELOCATE EXISTING SIGN TO NEW SIGNAL MAST ARM.
15. FURNISH AND INSTALL EVP GPS ANTENNA TO NEW POLE STANDARD AS SHOWN.

AB ABANDON.

RS REMOVE AND SALVAGE.

POLE SCHEDULE

NO.	STANDARD TYPE	STANDARD HGT.	STANDARD SIG. M.A.	STANDARD LUM. M.A.	LUMINAIRE LED (WATTS)	VEHICLE SIGNAL MOUNTING M.A.	VEHICLE SIGNAL MOUNTING POLE	VEHICLE SIGNAL MOUNTING PED. ^	PPB ø	PPB QUAD	POLE LOCATION A	POLE LOCATION B	POLE LOCATION C	POLE LOCATION D	POLE LOCATION E	I.I.S.N.S. ◎ LEGEND	REMARKS
A	17-3-100	30'	15'	12'	200	MAS	SV-1-T	SP-1-T	ø6	W	–	–	–	1.5'	4.9'	Fair Oaks AVE XXXX	5 6 13
B	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	ø8	N	3.9'	–	–	–	9.9'	–	13
C	19A-4-100	35'	30'	15'	200	MAS	SV-1-T	SP-1-T	–	–	–	–	1.5'	–	6'	Hope ST XXXX	3 5 6 14 15
D	TYPE 2	4'	–	–	–	–	–	–	ø8	N	–	–	6.7'	–	11.6'	–	13
E	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	ø2	E	1.3'	–	–	–	7.6'	–	13
F	17-3-100	30'	15'	12'	200	MAS	SV-1-T	SP-1-T	ø2	E	–	–	6.1'	–	6.3'	Fair Oaks AVE XXXX	5 6 13
G	TYPE 2	4'	–	–	–	–			ø4	N	5.1'	–	–	–	7'	–	13
H	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	–	–	–	4.3'	–	–	7.3'	–	
I	19A-4-100	35'	30'	15'	200	MAS	SV-1-T	SP-1-T	ø4	S	–	–	–	2.5'	3.2'	Hope ST XXXX	5 6 13 14
J	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	ø6	W	–	0.9'	–	–	9.6'	–	13

ALL EQUIPMENT IS NEW UNLESS OTHERWISE NOTED.
◎ – INDICATES CITY OF SOUTH PASADENA LOGO

CONDUCTOR SCHEDULE

AWG	CABLE	RUNS 1	2	3	4	5	6	7	8	9
12 CSC	POLE A						1/1		1/1	1/1
	POLE B					1/1	1/1		1/1	1/1
	POLE C		1/–		1/–				1/–	1/–
	POLE D		–/1		–/1				–/1	–/1
	POLE E	1/1	1/1		1/1				1/1	1/1
	POLE F			1/1	1/1				1/1	1/1
	POLE G				–/1				–/1	–/1
	POLE H				1/–				1/–	1/–
3 CSC	POLE I							1/1		1/1
	POLE J								1/1	1/1
	TOTAL CABLES	1/1	2/2	1/1	4/4	1/1	2/2	1/1	7/7	8/8
#10	LUMINAIRE		2	2	2		2	2	2	–
#12	IISNS		2	2	2		2	2	2	–
#6	SIGNAL SERVICE						2		2	2
VIDEO DETECTION CABLE			1	1	2		1	1	3	4
TWP 12 PAIR/#19 S.PAS										1(E)
CCTV CABLE			1		1				1	1
EVP								1		1
6 SMFO CABLE										1(E)
12 SMFO CABLE										1(E)
CONDUIT SIZE		2"	3"	2"	4"	2"	3"	2"	4"	2-4"
PERCENT FILL (%)		19	22	24	24	22	21	29	40	24

ALL CONDUITS AND CONDUCTORS ARE NEW UNLESS OTHERWISE NOTED
(E) – EXISTING

Underground Service Alert
CALL: TOLL FREE 811
AT LEAST TWO DAYS BEFORE YOU DIG

20' 10' 0 10' 20'
1"=20' GRAPHIC SCALE

REGISTERED PROFESSIONAL ENGINEER MARC VIOLETT No. C73486 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5501
Phone (949) 270-9400
Fax (949) 270-9401

MARC VIOLETT DATE
R.C.E. NO. 73486

CITY OF SOUTH PASADENA CALIFORNIA 1888

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

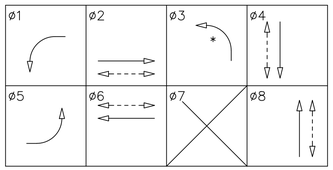
FAIR OAKS AVENUE & HOPE STREET

TRAFFIC SIGNAL MODIFICATION PLAN

PROJECT NO.
SHEET NO. 44 OF 97

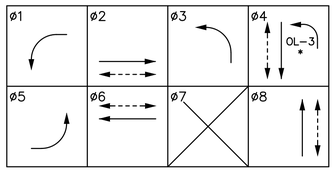
C:\bms\iteris-pw.bentley.com_itrs-pw-01\rliang@iteris.com\dms21280\TS-4_Hope - KOA.dwg 10/07/26 - 3:46pm rliang

EXISTING PHASE DIAGRAM

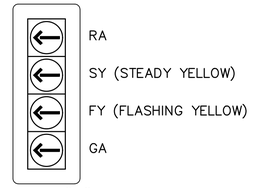


* – PROT–PERMISSIVE LT PHASING

PROPOSED PHASE DIAGRAM



ø2 AND ø6 ON MINIMUM VEHICLE RECALL
ø1, ø3 AND ø5 ON NON–LOCK
ø4 AND ø8 ON NON–LOCL AND TIME DELAY FOR RIGHT TURNS
* – FLASHING YELLOW ARROW (FYA) OVERLAP (PERMISSIVE MODE)



DETAIL "A"
ALL 12" LENSES
(NO SCALE)

LEGEND:

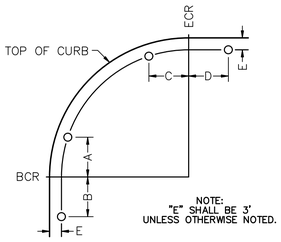
- BICYCLE DETECTION ZONE (6'X6' TYP.)
- NEW HYBRID VIDEO/RADAR DETECTION (AS SHOWN)
- NEW VIDEO DETECTION (AS SHOWN)
- RELOCATE WIRELESS ANTENNA
- PROPOSED HYBRID VIDEO/RADAR DETECTION SENSOR.
- PROPOSED EVP GPS ANTENNA
- PROPOSED CCTV CAMERA
- PROPOSED TRAVEL TIME SENSOR

PROPOSED SIGN LEGEND

R3–4b
36"x36"

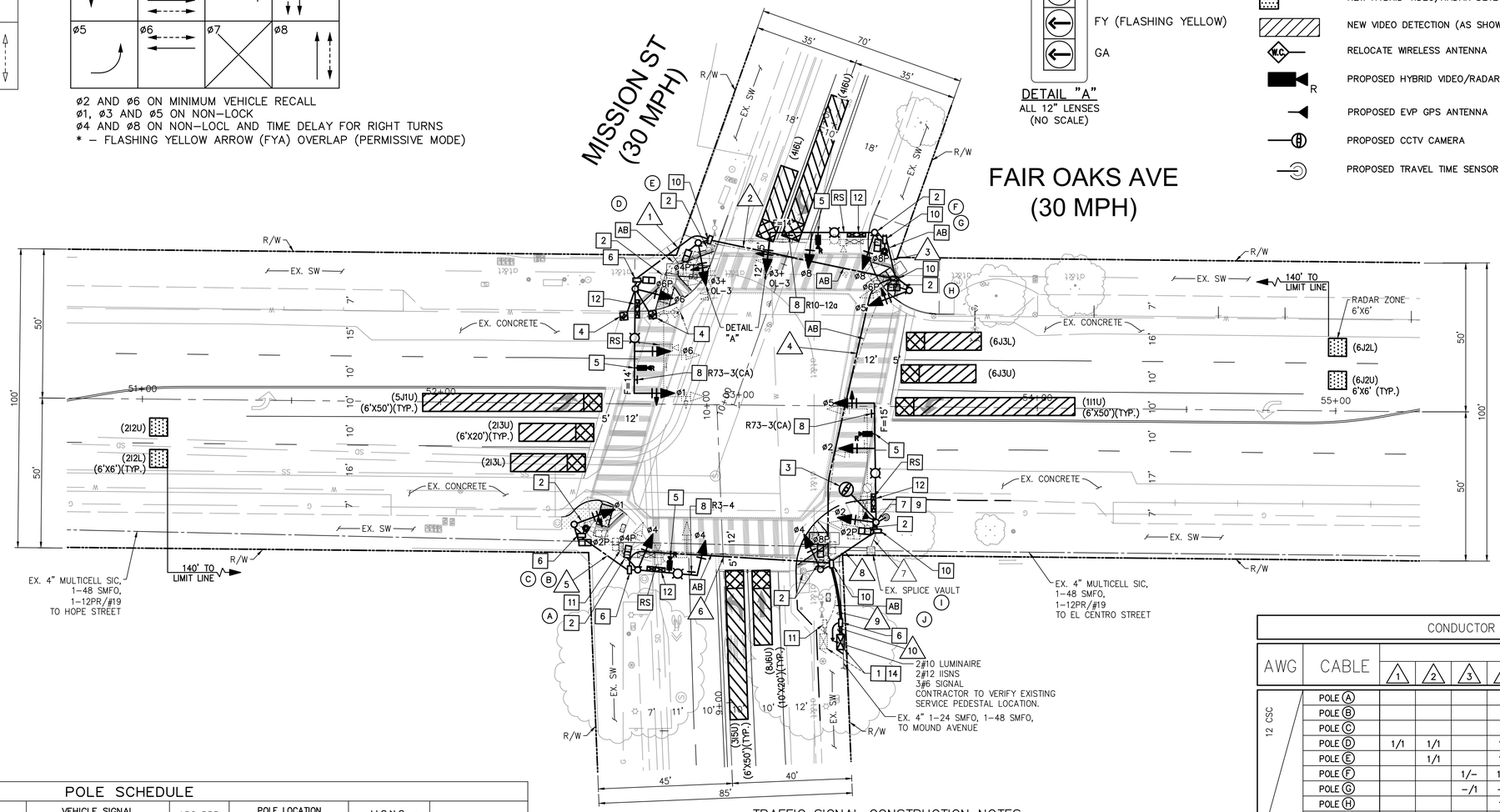
R73–3(CA)
36"x36"

R10–12a
30"x36"



NOTE:
"E" SHALL BE 3'
UNLESS OTHERWISE NOTED.

POLE LOCATION DETAIL
(NO SCALE)



POLE SCHEDULE

NO.	STANDARD TYPE	HGT.	SIG. M.A.	LUM. M.A.	LUMINAIRE LED (WATTS)	VEHICLE SIGNAL MOUNTING M.A.	POLE	PED.	APS PPB ø	QUAD	POLE LOCATION A	B	C	D	E	I.I.S.N.S. ◎ LEGEND	REMARKS
Ⓐ	17–3–100	30'	20'	12'	200	MAS	SV–1–T	SP–1–T	ø2	E	–	–	–	0.5'	4.8'	Fair Oaks AVE XXXX	5 12 13
Ⓑ	PPB POST	4'	–	–	–	–	–	–	ø4	S	–	0.7'	–	–	7'	–	13
Ⓒ	1–A	10'	–	–	–	–	TV–1–T	SP–1–T	–	–	–	3.6'	–	–	4.8'	–	
Ⓓ	24A–4–100	35'	35'	15'	200	2–MAS	SV–1–T	SP–1–T	ø4	S	–	–	–	1.8'	7.5'	Mission ST XXXX	4 5 13
Ⓔ	1–A	10'	–	–	–	–	TV–1–T	SP–1–T	ø6	W	–	4.5'	–	–	6.3'	–	13
Ⓕ	24–4–100	30'	35'	12'	200	2–MAS	SV–1–T	SP–1–T	–	–	–	–	5.6'	–	1.9'	Fair Oaks AVE XXXX	5 12
Ⓖ	PPB POST	4'	–	–	–	–	–	–	ø6	W	–	–	10'	–	5.3'	–	13
Ⓗ	1–A	10'	–	–	–	–	TV–1–T	SP–1–T	ø8	N	10'	–	–	–	4.9'	–	13
Ⓘ	26A–4–100	35'	40'	15'	200	2–MAS	SV–1–T	SP–1–T	ø8	N	–	–	–	1.5'	7.7'	Mission ST XXXX	3 5 7 9 13
Ⓙ	1–A	10'	–	–	–	–	TV–1–T	SP–1–T	ø2	E	1.2'	–	–	–	8.2'	–	13

ALL EQUIPMENT IS NEW UNLESS OTHERWISE NOTED.
◎ – INDICATES CITY OF SOUTH PASADENA LOGO

TRAFFIC SIGNAL CONSTRUCTION NOTES:

1. REMOVE EXISTING; RELOCATE EXISTING 2070 LDX CONTROLLER WITH MAXTIME PROGRAM TO NEW CABINET; FURNISH AND INSTALL NEW TYPE 332 CONTROLLER CABINET WITH SIDE MOUNTED BBS CABINET ON NEW FOUNDATION, (2) PED ISOLATION MODULES, (12) SWITCH PACKS, ETHERNET SWITCH, AND EVP GPS SYSTEM PER SPECIFICATIONS.
2. REMOVE EXISTING SIGNAL POLE STANDARD, ATTACHED SIGNAL EQUIPMENT AND ADJACENT PULL BOX CONDUIT. REMOVE FOUNDATION COMPLETE.
3. FURNISH AND INSTALL NEW BOSCH CCTV CAMERA PER PROJECT SPECIFICATIONS OR APPROVED EQUAL, AND RUN CABLES TO 332 CABINET. INSTALL PoE IN CABINET.
4. RELOCATE EXISTING WIRELESS ANTENNA TO NEW POLE AS SHOWN ON PLAN.
5. FURNISH AND INSTALL ITERIS VANTAGE APEX VIDEO/RADAR DETECTOR OR APPROVED EQUAL. PROVIDE ASSOCIATED SENSOR UNIT IN THE CONTROLLER CABINET. FURNISH AND INSTALL DETECTION CABLE AND POWER CABLE FROM DETECTOR TO CONTROLLER CABINET. CONTRACTOR SHALL FURNISH AND INSTALL SYSTEM COMPLETE AND CONFIGURE TO PROVIDE THE INTENDED DETECTION ZONES PER MANUFACTURER'S RECOMMENDATIONS.
6. FURNISH AND INSTALL NEW PULL BOX AS SHOWN.
7. REMOVE EXISTING; FURNISH AND INSTALL EVP GPS ANTENNA TO NEW POLE STANDARD AS SHOWN.
8. FURNISH AND INSTALL NEW SIGN ON SIGNAL MAST ARM PER CALTRANS STD. PLAN ES–7N.
9. FURNISH AND INSTALL BlueTOAD BLUETOOTH DETECTOR, OR APPROVED EQUAL, ON POLE AND RUN CABLE TO THE 332 CABINET.
10. RC EXISTING PULL BOX AND INSTALL NEW PULL BOX AS SHOWN.
11. RC EXISTING PULL BOX.
12. REMOVE EXISTING IISNS; FURNISH AND INSTALL NEW IISNS ON MAST ARMS PER CITY STANDARDS.
13. FURNISH AND INSTALL NEW APS PEDESTRIAN PUSH BUTTON COMPLETE. SEE POLE SCHEDULE. FURNISH AND INSTALL NEW ASSOCIATED CONTROLLER UNIT IN THE CONTROLLER CABINET.
14. RC FOUNDATION COMPLETE.

AB ABANDON.
RC EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR.
RS REMOVE AND SALVAGE.

CONDUCTOR SCHEDULE

AWG	CABLE	RUNS 1	2	3	4	5	6	7	8	9	10
12 CSC	POLE Ⓐ						1/1			1/1	1/1
	POLE Ⓑ					–/1	–/1			–/1	–/1
	POLE Ⓒ					1/–	1/–			1/–	1/–
	POLE Ⓓ	1/1	1/1		1/1					1/1	1/1
	POLE Ⓔ		1/1		1/1					1/1	1/1
	POLE Ⓕ			1/–	1/–					1/–	1/–
	POLE Ⓖ			–/1	–/1					–/1	–/1
	POLE Ⓗ				1/1					1/1	1/1
	POLE Ⓘ				1/1				1/1	1/1	1/1
	POLE Ⓙ				1/1					1/1	1/1
3 CSC	TOTAL CABLES	1/1	2/2	1/1	4/4	1/1	2/2		1/1	8/8	8/8
#10	LUMINAIRE	2	2	2	2		2		2	2	2
#12	IISNS	2	2	2	2		2		2	2	2
#6	SERVICE										3
VIDEO DETECTION CABLE		1	1	2	2		1		1	4	4
WIRELESS COMMUNICATION ANTENNA		2	2		2					2	2
CCTV CABLE									1	1	1
EVP									1	1	1
12 SMFO CABLE								1(E)	1(E)	1(E)	1(E)
CONDUIT SIZE		3"	3"	2"	4"	2"	3"	2"(E)	3"	2–4"	2–4"
PERCENT FILL (%)		12	21	27	23	19	20	4	16	24	26

ALL CONDUITS AND CONDUCTORS ARE NEW UNLESS OTHERWISE NOTED
(E) – EXISTING

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS
BEFORE YOU DIG

20' 10' 0 10' 20'
1"=20' GRAPHIC SCALE

REGISTERED PROFESSIONAL ENGINEER
MARC VIOLETT
No. C73486
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5551
Phone – (949) 270-9400
Fax – (949) 270-9401

MARC VIOLETT
R.C.E. NO. 73486
DATE

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

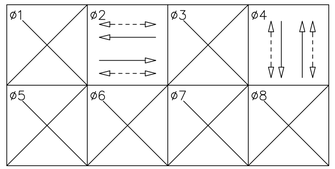
FAIR OAKS AVENUE & MISSION STREET

TRAFFIC SIGNAL MODIFICATION PLAN

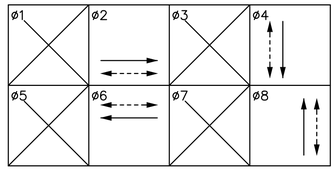
PROJECT NO.
SHEET NO. 45 OF 97

C:\bms\iteris-pw.bentley.com_itrs-pw-01\rlang@iteris.com\dms21280\TS-5_Mission - KOA.dwg 10/07/26 - 3:46pm rlang

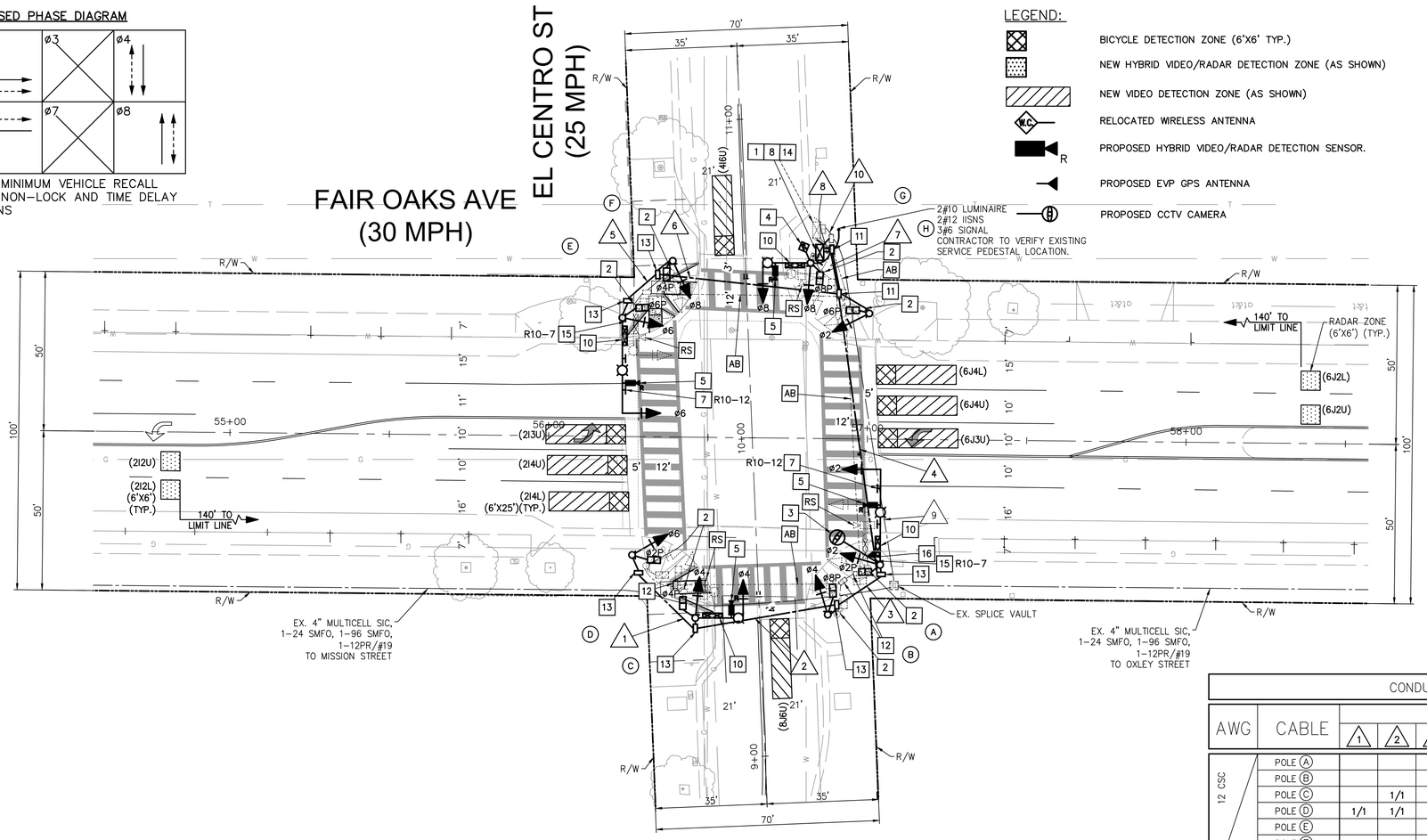
EXISTING PHASE DIAGRAM



PROPOSED PHASE DIAGRAM



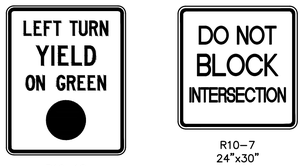
ø2 AND ø6 ON MINIMUM VEHICLE RECALL
ø4 AND ø8 ON NON-LOCK AND TIME DELAY FOR RIGHT TURNS



LEGEND:

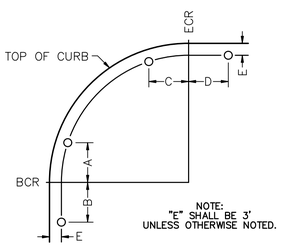
- BICYCLE DETECTION ZONE (6'X6' TYP.)
- NEW HYBRID VIDEO/RADAR DETECTION ZONE (AS SHOWN)
- NEW VIDEO DETECTION ZONE (AS SHOWN)
- RELOCATED WIRELESS ANTENNA
- PROPOSED HYBRID VIDEO/RADAR DETECTION SENSOR.
- PROPOSED EVP GPS ANTENNA
- PROPOSED CCTV CAMERA

PROPOSED SIGN LEGEND



R10-12
30"x36"

R10-7
24"x30"



POLE LOCATION DETAIL

(NO SCALE)

POLE SCHEDULE

NO.	TYPE	STANDARD HGT.	STANDARD SIG. M.A.	STANDARD LUM. M.A.	LUMINAIRE LED (EQUIV. WATTS)	VEHICLE SIGNAL MOUNTING M.A.	VEHICLE SIGNAL MOUNTING POLE	VEHICLE SIGNAL MOUNTING PED.	APS PPB ø	APS PPB QUAD	POLE LOCATION A	POLE LOCATION B	POLE LOCATION C	POLE LOCATION D	POLE LOCATION E	I.I.S.N.S. LEGEND	REMARKS
A	19A-4-100	35'	30'	15'	200	MAS	SV-1-T	SP-1-T	ø8	N	–	–	–	2.7'	3.3'	El Centro	3 5 6 9 10 16
B	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	ø2	E	2.2'	–	–	–	7.2'	–	6 9
C	17-3-100	30'	20'	12'	200	MAS	SV-1-T	SP-1-T	ø2	E	–	–	–	1.9'	6'	Fair Oaks	5 6 9 10
D	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	ø4	S	–	1.1'	–	–	6'	–	6 9
E	19A-4-100	35'	30'	15'	200	MAS	SV-1-T	SP-1-T	ø4	S	–	–	0.7'	–	6.2'	El Centro	5 6 9 10
F	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	ø6	W	1.5'	–	–	–	8.7'	–	6 9
G	17-3-100	30'	20'	12'	200	MAS	SV-1-T	SP-1-T	ø6	W	–	–	–	0.4'	6.5'	Fair Oaks	4 5 6 9 10
H	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	ø8	N	–	1.3'	–	–	8.2'	–	6 9

ALL EQUIPMENT IS NEW UNLESS OTHERWISE NOTED.

TRAFFIC SIGNAL CONSTRUCTION NOTES:

1. REMOVE EXISTING CABINET AND FOUNDATION COMPLETE; RELOCATE 2070 LDX CONTROLLER TO NEW CABINET; FURNISH AND INSTALL NEW TYPE 332 CONTROLLER CABINET WITH SIDE MOUNTED BBS CABINET ON NEW FOUNDATION COMPLETE, (1) LEVEL 2 HUB ETHERNET SWITCH, AND EVP GPS SYSTEM PER SPECIFICATIONS. .
2. REMOVE EXISTING SIGNAL POLE STANDARD, ATTACHED SIGNAL EQUIPMENT AND ADJACENT PULL BOX CONDUIT. REMOVE FOUNDATION COMPLETE.
3. FURNISH AND INSTALL NEW BOSCH CCTV CAMERA PER PROJECT SPECIFICATIONS, OR APPROVED EQUAL, AND RUN CABLES TO 332 CABINET. INSTALL PoE IN CABINET.
4. RELOCATE AND INSTALL EXISTING WIRELESS ANTENNA TO NEW POLE AS SHOWN ON PLAN.
5. REMOVE EXISTING; FURNISH AND INSTALL ITERIS VANTAGE APEX VIDEO/RADAR DETECTOR OR APPROVED EQUAL. PROVIDE ASSOCIATED SENSOR UNIT IN THE CONTROLLER CABINET. FURNISH AND INSTALL DETECTION CABLE AND POWER CABLE FROM DETECTOR TO CONTROLLER CABINET. CONTRACTOR SHALL FURNISH AND INSTALL SYSTEM COMPLETE AND CONFIGURE TO PROVIDE THE INTENDED DETECTION ZONES PER MANUFACTURER'S RECOMMENDATIONS.
6. FURNISH AND INSTALL NEW APS PEDESTRIAN PUSH BUTTON COMPLETE. SEE POLE SCHEDULE. FURNISH AND INSTALL NEW ASSOCIATED CONTROLLER UNIT IN THE CONTROLLER CABINET.
7. FURNISH AND INSTALL NEW SIGN ON SIGNAL MAST ARM PER CALTRANS STD. PLAN ES-7N.
8. FURNISH AND INSTALL (1) PED ISOLATION MODULE, AND (4) SWITCH PACKS.
9. FURNISH AND INSTALL NEW COUNTDOWN LED PEDESTRIAN SIGNAL HEAD. SEE POLE SCHEDULE.
10. REMOVE EXISTING IISNS; FURNISH AND INSTALL NEW IISNS ON MAST ARMS PER CITY STANDARDS.
11. RC EXISTING PULL BOX; FURNISH AND INSTALL NEW PULL BOX AS SHOWN.
12. RC EXISTING NEW PULL BOX.
13. FURNISH AND INSTALL NEW PULL BOX.
14. RC FOUNDATION COMPLETE.
15. FURNISH AND INSTALL NEW SIGN ON SIGNAL POLE STANDARD.
16. FURNISH AND INSTALL EVP GPS ANTENNA TO NEW POLE STANDARD AS SHOWN.

AB ABANDON.

RC EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR.

CONDUCTOR SCHEDULE

AWG	CABLE	RUNS 1	2	3	4	5	6	7	8	9	10
12 CSC	POLE A				1/1			1/1	1/1		
	POLE B			1/1	1/1			1/1	1/1		
	POLE C		1/1	1/1	1/1			1/1	1/1		
	POLE D	1/1	1/1	1/1	1/1			1/1	1/1		
	POLE E					1/1	1/1	1/1	1/1		
	POLE F						1/1	1/1	1/1		
3 CSC	POLE G								1/1		
	POLE H							1/1	1/1		
	TOTAL CABLES	1/1	2/2	3/3	4/4	1/1	2/2	7/7	8/8		
#10	LUMINAIRE		2	2	2	2	2	2	2		
#12	IISNS		2	2	2	2	2	2	2		
#6	SERVICE								3		
VIDEO DETECTION CABLE			1	1	2	1	1	3	4		
WIRELESS COMMUNICATION ANTENNA									1		
CCTV CABLE					1			1	1		
EVP					1			1	1		
12 SMFO CABLE										1(E)	1(E)
CONDUIT SIZE		2"	3"	3"	4"	3"	3"	2-4"	2-4"	2"(E)	3"
PERCENT FILL (%)		19	20	28	24	11	20	20	25	4	2

ALL CONDUITS AND CONDUCTORS ARE NEW UNLESS OTHERWISE NOTED
(E) – EXISTING

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

20' 10' 0 10' 20'
1"=20'
GRAPHIC SCALE

REGISTERED PROFESSIONAL ENGINEER
MARC VIOLETT
No. C73486
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5551
Phone: (949) 270-9400
Fax: (949) 270-9401

MARC VIOLETT
R.C.E. NO. 73486
DATE

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

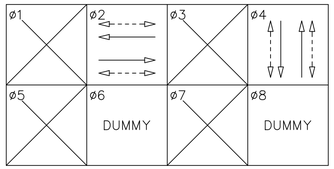
FAIR OAKS AVENUE & EL CENTRO STREET

TRAFFIC SIGNAL MODIFICATION PLAN

PROJECT NO.
SHEET NO. 46 OF 97

C:\bms\iteris-pw.bentley.com_itrs-pw-01\rlang@iteris.com\dms21280\TS-6_El Centro - KOA.dwg 10/07/26 - 3:46pm rlang

EXISTING PHASE DIAGRAM

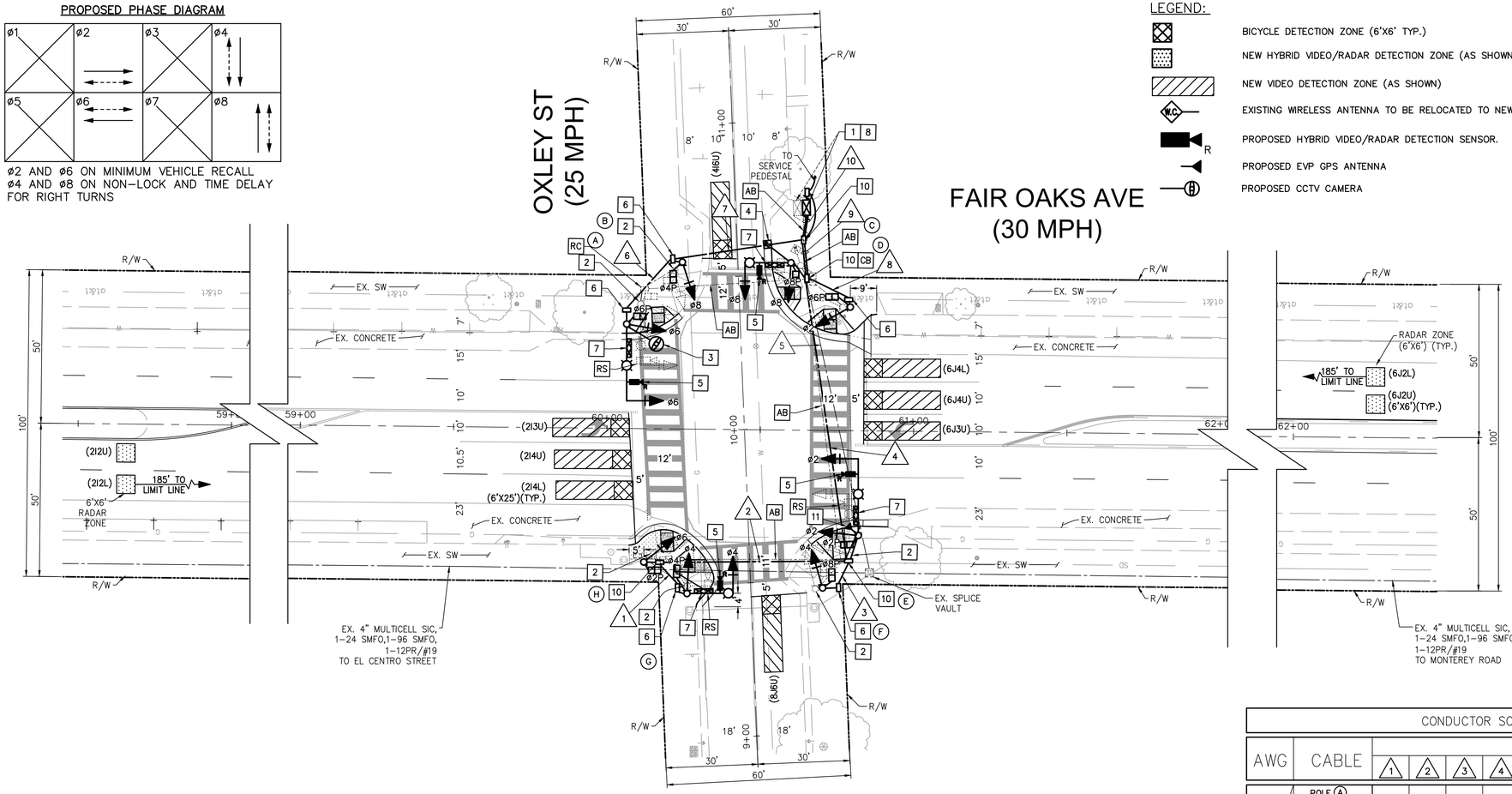


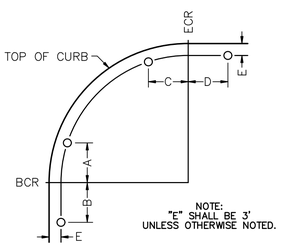
PROPOSED PHASE DIAGRAM

ø2 AND ø6 ON MINIMUM VEHICLE RECALL
ø4 AND ø8 ON NON-LOCK AND TIME DELAY FOR RIGHT TURNS

LEGEND:

- BICYCLE DETECTION ZONE (6'X6' TYP.)
- NEW HYBRID VIDEO/RADAR DETECTION ZONE (AS SHOWN)
- NEW VIDEO DETECTION ZONE (AS SHOWN)
- EXISTING WIRELESS ANTENNA TO BE RELOCATED TO NEW MAST ARM
- PROPOSED HYBRID VIDEO/RADAR DETECTION SENSOR.
- PROPOSED EVP GPS ANTENNA
- PROPOSED CCTV CAMERA





POLE LOCATION DETAIL

(NO SCALE)

POLE SCHEDULE

NO.	STANDARD TYPE	HGT.	SIG. M.A.	LUM. M.A.	LUMINAIRE LED (EQUIV. WATTS)	VEHICLE SIGNAL MOUNTING M.A.	POLE	PED.	APS PPB ø	QUAD	POLE LOCATION A	B	C	D	E	I.I.S.N.S. LEGEND ◎	REMARKS
(A)	19-4-100	30'	25'	12'	200	MAS	SV-1-T	SP-1-T	ø4	S	–	–	1.5'	–	3'	Oxley ST XXXX	3 5 7 9
(B)	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	ø6	W	–	–	4.1'	–	6.2'	–	9
(C)	17-3-100	30'	15'	12'	200	MAS	SV-1-T	SP-1-T	ø6	W	–	–	–	0.3'	6.2'	Fair Oaks AVE XXXX	5 7 9
(D)	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	ø8	N	AS SHOWN ON PLAN				6.5'	–	9
(E)	19-4-100	30'	25'	12'	200	MAS	SV-1-T	SP-1-T	ø8	N	–	–	1.6'	–	3'	Oxley ST XXXX	5 7 8 9 11
(F)	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	ø2	E	–	3.5'	–	–	5.4'	–	9
(G)	17-3-100	30'	15'	12'	200	MAS	SV-1-T	SP-1-T	ø2	E	AS SHOWN ON PLAN				4.5'	Fair Oaks AVE XXXX	5 7 9
(H)	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	ø4	S	AS SHOWN ON PLAN				6.5'	–	9

ALL EQUIPMENT IS NEW UNLESS OTHERWISE NOTED.
◎ – INDICATES CITY OF SOUTH PASADENA LOGO

TRAFFIC SIGNAL CONSTRUCTION NOTES:

1. REMOVE EXISTING CABINET AND FOUNDATION COMPLETE; RELOCATE 2070 LDX CONTROLLER WITH MAXTIME PROGRAM TO NEW CABINET; FURNISH AND INSTALL NEW 332 CONTROLLER CABINET WITH SIDE MOUNTED BBS CABINET ON NEW FOUNDATION COMPLETE WITH (1) PED ISOLATION MODULE, (4) SWITCH PACKS, AND (1) ETHERNET SWITCH. FURNISH AND INSTALL EVP GPS SYSTEM PER SPECIFICATIONS.
2. REMOVE EXISTING SIGNAL POLE STANDARD, ATTACHED SIGNAL EQUIPMENT AND ADJACENT PULL BOX CONDUIT. REMOVE FOUNDATION COMPLETE.
3. FURNISH AND INSTALL NEW BOSCH CCTV CAMERA PER PROJECT SPCIFICATIONS, OR APPROVED EQUAL, AND RUN CABLES TO 332 CABINET. INSTALL PoE IN CABINET.
4. REMOVE EXISTING; FURNISH AND INSTALL WIRELESS ANTENNA TO NEW POLE AS SHOWN ON PLAN.
5. FURNISH AND INSTALL ITERIS VANTAGE APEX VIDEO/RADAR DETECTOR OR APPROVED EQUAL. PROVIDE ASSOCIATED SENSOR UNIT IN THE CONTROLLER CABINET. FURNISH AND INSTALL DETECTION CABLE AND POWER CABLE FROM DETECTOR TO CONTROLLER CABINET. CONTRACTOR SHALL FURNISH AND INSTALL SYSTEM COMPLETE AND CONFIGURE TO PROVIDE THE INTENDED DETECTION ZONES PER MANUFACTURER'S RECOMMENDATIONS.
6. INSTALL NEW PULL BOX.
7. REMOVE EXISTING IISNS; FURNISH AND INSTALL NEW IISNS ON MAST ARMS PER CITY STANDARDS.
8. RC FOUNDATION COMPLETE.
9. FURNISH AND INSTALL NEW APS PEDESTRIAN PUSH BUTTON COMPLETE. SEE POLE SCHEDULE. FURNISH AND INSTALL NEW ASSOCIATED CONTROLLER UNIT IN THE CONTROLLER CABINET.
10. RC EXISTING PULL BOX; FURNISH AND INSTALL NEW PULL BOX AS SHOWN.
11. FURNISH AND INSTALL EVP GPS ANTENNA TO NEW POLE STANDARD AS SHOWN.

AB ABANDON.
CB FURNISH AND INSTALL CONDUIT INTO EXISTING PULL BOX.
RC EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR.
RR REMOVE AND REUSE EQUIPMENT.
RS REMOVE AND SALVAGE.

CONDUCTOR SCHEDULE

AWG	CABLE	RUNS 1	2	3	4	5	6	7	8	9	10
12 CSC	POLE (A)						1/1	1/1			1/1
	POLE (B)							1/1			1/1
	POLE (C)									1/1	1/1
	POLE (D)								1/1	1/1	1/1
	POLE (E)				1/1					1/1	1/1
	POLE (F)			1/1	1/1					1/1	1/1
3 CSC	POLE (G)	1/1	1/1		1/1					1/1	1/1
	POLE (H)		1/1		1/1					1/1	1/1
	TOTAL CABLES	1/1	2/2	1/1	4/4		1/1	2/2	1/1	6/6	8/8
#10	LUMINAIRE	2	2		2		2	2		2	
#12	IISNS	2	2		2		2	2		2	
VIDEO DETECTION CABLE		1	1		2		1	1		3	4
ANTENNA										1	1
CCTV CABLE							1	1			1
EVP					1					1	1
12 SMFO CABLE						1(E)				1(E)	1(E)
CONDUIT SIZE		2"	3"	2"	4"	2"(E)	3"	3"	2"	2-4"	2-4"
PERCENT FILL (%)		24	20	19	23	4	13	22	19	17	23

ALL CONDUITS AND CONDUCTORS ARE NEW UNLESS OTHERWISE NOTED
(E) – EXISTING

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

20' 10' 0 10' 20'
1"=20' GRAPHIC SCALE

REGISTERED PROFESSIONAL ENGINEER MARC VIOLETT No. C73486 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5551
Phone: (949) 270-9400
Fax: (949) 270-9401

MARC VIOLETT DATE
R.C.E. NO. 73486

CITY OF SOUTH PASADENA CALIFORNIA 1888

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

FAIR OAKS AVENUE & OXLEY STREET

TRAFFIC SIGNAL MODIFICATION PLAN

PROJECT NO.
SHEET NO. 47 OF 97

C:\bms\iteris-pw.bentley.com_itrs-pw-01\rliang@iteris.com\dms21280\TS-7_Oxley – KOA.dwg 10/07/26 – 3:46pm rliang

EXISTING PHASE DIAGRAM

* PROT–PERMISSIVE LT PHASING

PROPOSED PHASE DIAGRAM

ø2 AND ø6 ON MINIMUM VEHICLE RECALL.
ø1 AND ø5 ON NON–LOCK.
ø4 AND ø8 ON NON–LOCK AND TIME DELAY FOR RIGHT TURNS.
*FLASHING YELLOW ARROW (FYA) OVERLAP (PERMISSIVE MODE.)

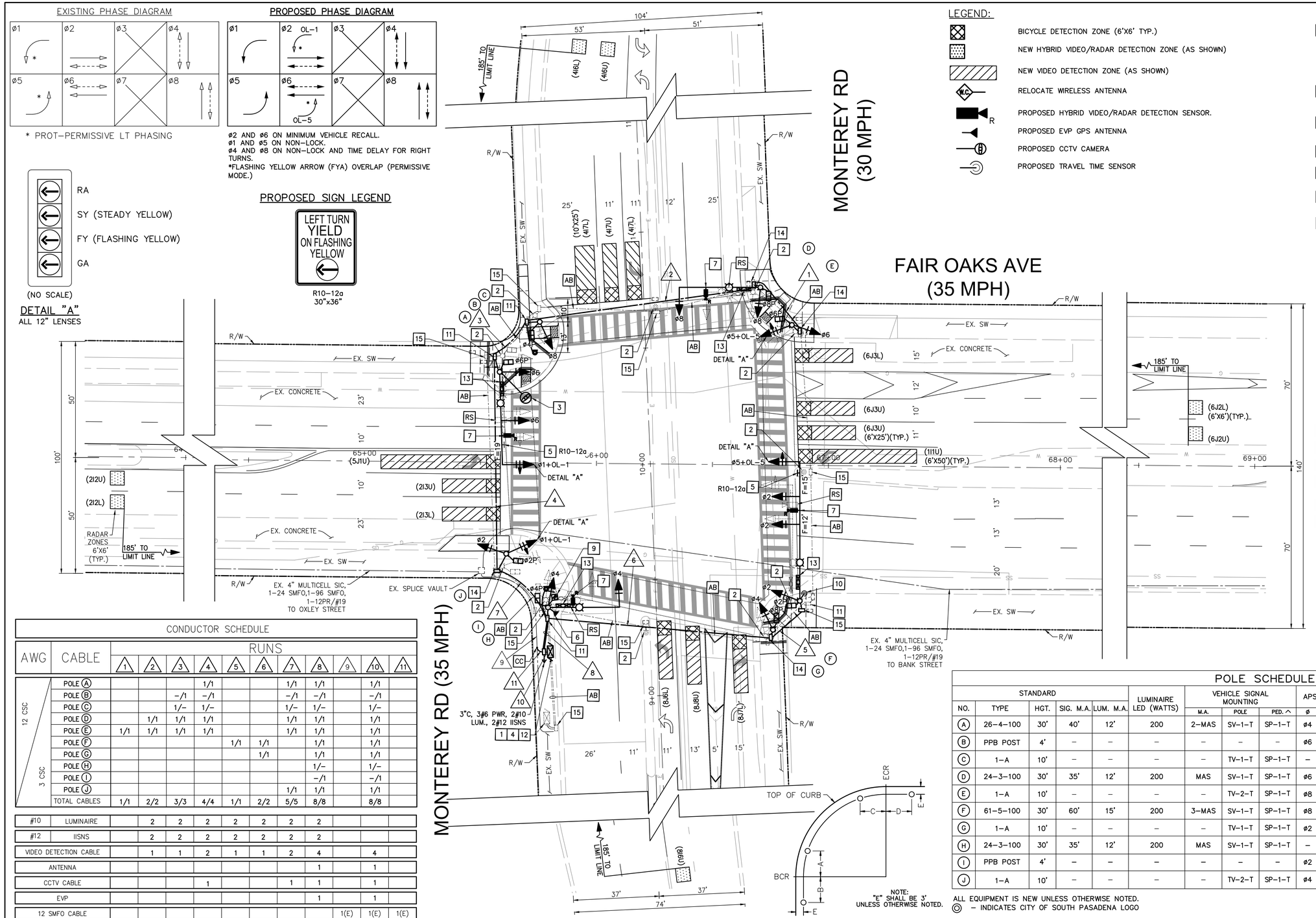
RA
SY (STEADY YELLOW)
FY (FLASHING YELLOW)
GA

(NO SCALE)

DETAIL "A"
ALL 12" LENSES

PROPOSED SIGN LEGEND

R10–12a
30"x36"



LEGEND:

- BICYCLE DETECTION ZONE (6'X6' TYP.)
- NEW HYBRID VIDEO/RADAR DETECTION ZONE (AS SHOWN)
- NEW VIDEO DETECTION ZONE (AS SHOWN)
- RELOCATE WIRELESS ANTENNA
- PROPOSED HYBRID VIDEO/RADAR DETECTION SENSOR.
- PROPOSED EVP GPS ANTENNA
- PROPOSED CCTV CAMERA
- PROPOSED TRAVEL TIME SENSOR

TRAFFIC SIGNAL CONSTRUCTION NOTES:

1. REMOVE EXISTING CABINET AND FOUNDATION COMPELTE; RELOCATE EXISTING 2070 LDX CONTROLLER WITH MAXTIME PROGRAM; FURNISH AND INSTALL NEW 332 CONTROLLER CABINET WITH SIDE MOUNTED BBS CABINET ON NEW FOUNDATION COMPLETE WITH NEW ETHERNET SWITCH. FURNISH AND INSTALL GPS EVP SYSTEM PER SPECIFICATIONS.
2. REMOVE EXISTING SIGNAL POLE STANDARD, ATTACHED SIGNAL EQUIPMENT AND ADJACENT PULL BOX CONDUIT. REMOVE FOUNDATION COMPLETE.
3. FURNISH AND INSTALL NEW BOSCH CCTV CAMERA PER PROJECT SPECIFICATIONS, OR APPROVED EQUAL, AND RUN CABLES TO 332 CABINET. INSTALL POE IN CABINET.
4. FURNISH AND INSTALL AUXILIARY OUTPUT FILE INTO NEW 332 CONTROLLER CABINET.
5. FURNISH AND INSTALL NEW SIGN ON SIGNAL MAST ARM PER CALTRANS STD. PLAN ES–7N.
6. REMOVE EXISTING; FURNISH AND INSTALL EVP GPS ANTENNA TO NEW POLE STANDARD AS SHOWN.
7. FURNISH AND INSTALL NEW ITERIS VANTAGE APEX VIDEO/RADAR DETECTOR OR APPROVED EQUAL. FURNISH AND INSTALL ASSOCIATED SENSOR UNIT IN THE CONTROLLER CABINET. FURNISH AND INSTALL DETECTION CABLE AND POWER CABLE FROM DETECTOR TO CONTROLLER CABINET. CONTRACTOR SHALL FURNISH AND INSTALL SYSTEM COMPLETE AND CONFIGURE TO PROVIDE THE INTENDED DETECTION ZONES PER MANUFACTURER'S RECOMMENDATIONS.
8. FURNISH AND INSTALL NEW APS PEDESTRIAN PUSH BUTTON COMPLETE. SEE POLE SCHEDULE. FURNISH AND INSTALL NEW ASSOCIATED CONTROLLER UNIT IN THE CONTROLLER CABINET.
9. RELOCATE EXISTING WIRELESS ANTENNA TO NEW POLE AS SHOWN ON PLAN.
10. FURNISH AND INSTALL NEW BlueTOAD BLUETOOTH DETECTOR, OR APPROVED EQUAL, ON POLE AND RUN CABLE TO THE 332 CABINET.
11. FURNISH AND INSTALL NEW PULL BOX.
12. RC FOUNDATION COMPLETE.
13. REMOVE EXISTING IISNS; FURNISH AND INSTALL NEW IISNS ON MAST ARMS PER CITY STANDARDS.
14. RC EXISTING PULL BOX; FURNISH AND INSTALL NEW PULL BOX AS SHOWN.
15. RC EXISTING PULL BOX.

AB ABANDON.
CC CONNECT NEW AND EXISTING CONDUIT. REMOVE EXISTING CONDUCTORS. FURNISH AND INSTALL CONDUCTORS AS INDICATED.
RC EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR.
RS REMOVE AND SALVAGE.

CONDUCTOR SCHEDULE

AWG	CABLE	RUNS 1	2	3	4	5	6	7	8	9	10	11
12 CSC	POLE Ⓐ				1/1			1/1	1/1		1/1	
	POLE Ⓑ			–/1	–/1			–/1	–/1		–/1	
	POLE Ⓒ			1/–	1/–			1/–	1/–		1/–	
	POLE Ⓓ		1/1	1/1	1/1			1/1	1/1		1/1	
	POLE Ⓔ	1/1	1/1	1/1	1/1			1/1	1/1		1/1	
	POLE Ⓕ					1/1	1/1		1/1		1/1	
	POLE Ⓖ						1/1		1/1		1/1	
3 CSC	POLE Ⓗ								1/–		1/–	
	POLE Ⓘ								–/1		–/1	
	POLE Ⓙ							1/1	1/1		1/1	
	TOTAL CABLES	1/1	2/2	3/3	4/4	1/1	2/2	5/5	8/8		8/8	
#10	LUMINAIRE		2	2	2	2	2	2	2			
#12	IISNS		2	2	2	2	2	2	2			
VIDEO DETECTION CABLE			1	1	2	1	1	2	4		4	
ANTENNA									1		1	
CCTV CABLE					1			1	1		1	
EVP									1		1	
12 SMFO CABLE										1(E)	1(E)	1(E)
CONDUIT SIZE		2"	3"	3"	4"	3"	3"	4"	2–4"	2"(E)	2–4"	2"
PERCENT FILL (%)		19	20	28	23	11	11	28	22	4	22	2

ALL CONDUITS AND CONDUCTORS ARE NEW UNLESS OTHERWISE NOTED
(E) – EXISTING

POLE SCHEDULE

NO.	TYPE	STANDARD HGT.	SIG. M.A.	LUM. M.A.	LUMINAIRE LED (WATTS)	VEHICLE SIGNAL MOUNTING M.A.	POLE	PED. ^	APS PPB ø	QUAD	POLE LOCATION A	B	C	D	E	I.I.S.N.S. ◎ LEGEND	REMARKS
Ⓐ	26–4–100	30'	40'	12'	200	2–MAS	SV–1–T	SP–1–T	ø4	S	AS SHOWN ON PLAN				5.2'	Monterey RD XXXX	3 7 8 13
Ⓑ	PPB POST	4'	–	–	–	–	–	–	ø6	E	AS SHOWN ON PLAN				8.2'	–	8
Ⓒ	1–A	10'	–	–	–	–	TV–1–T	SP–1–T	–	–	AS SHOWN ON PLAN				6.7'	–	
Ⓓ	24–3–100	30'	35'	12'	200	MAS	SV–1–T	SP–1–T	ø6	W	–	–	7.4'	–	6.3'	Fair Oaks AVE XXXX	7 8 13
Ⓔ	1–A	10'	–	–	–	–	TV–2–T	SP–1–T	ø8	N	4.7'	–	–	–	4.6'	–	8
Ⓕ	61–5–100	30'	60'	15'	200	3–MAS	SV–1–T	SP–1–T	ø8	N	–	–	2.7'	–	3.1'	Monterey RD XXXX	7 8 10 13
Ⓖ	1–A	10'	–	–	–	–	TV–1–T	SP–1–T	ø2	E	4.9'	–	–	–	5.2'	–	8
Ⓗ	24–3–100	30'	35'	12'	200	MAS	SV–1–T	SP–1–T	–	–	–	–	2.1'	–	6.3'	Fair Oaks AVE XXXX	6 7 9 13
Ⓘ	PPB POST	4'	–	–	–	–	–	–	ø2	E	–	–	10.2'	–	9.8'		8
Ⓙ	1–A	10'	–	–	–	–	TV–2–T	SP–1–T	ø4	S	–	–	–	–	8.2'	–	8

ALL EQUIPMENT IS NEW UNLESS OTHERWISE NOTED.
◎ – INDICATES CITY OF SOUTH PASADENA LOGO

NOTE:
"E" SHALL BE 3' UNLESS OTHERWISE NOTED.

POLE LOCATION DETAIL
(NO SCALE)

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

1"=20' GRAPHIC SCALE

REGISTERED PROFESSIONAL ENGINEER MARC VIOLETT No. C73486 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5501
Phone (949) 270-9400
Fax (949) 270-9401

MARC VIOLETT DATE
R.C.E. NO. 73486

CITY OF SOUTH PASADENA CALIFORNIA 1888

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

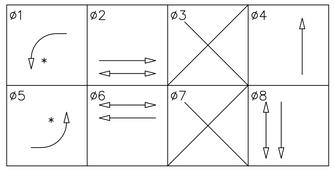
FAIR OAKS AVENUE & MONTEREY ROAD

TRAFFIC SIGNAL MODIFICATION PLAN

PROJECT NO.
SHEET NO. 48 OF 97

C:\bms\iteris-pw.bentley.com_itrs-pw-01\rliang@iteris.com\dms21280\TS-8_Monterey - KOA.dwg 10/07/26 - 3:47pm rliang

EXISTING PHASE DIAGRAM



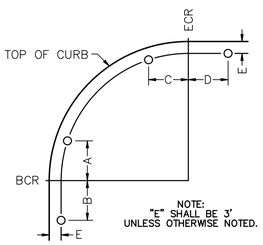
* PROT-PERMISSIVE LT PHASING

PROPOSED PHASE DIAGRAM

ø2 AND ø6 ON MINIMUM VEHICLE RECALL.
ø1 AND ø5 ON NON-LOCK.
ø4 AND ø8 ON NON-LOCK AND TIME DELAY FOR RIGHT TURNS.
*FLASHING YELLOW ARROW (FYA) OVERLAP (PERMISSIVE MODE.)

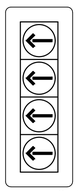
PROPOSED SIGN LEGEND

R10-12a
30"x36"

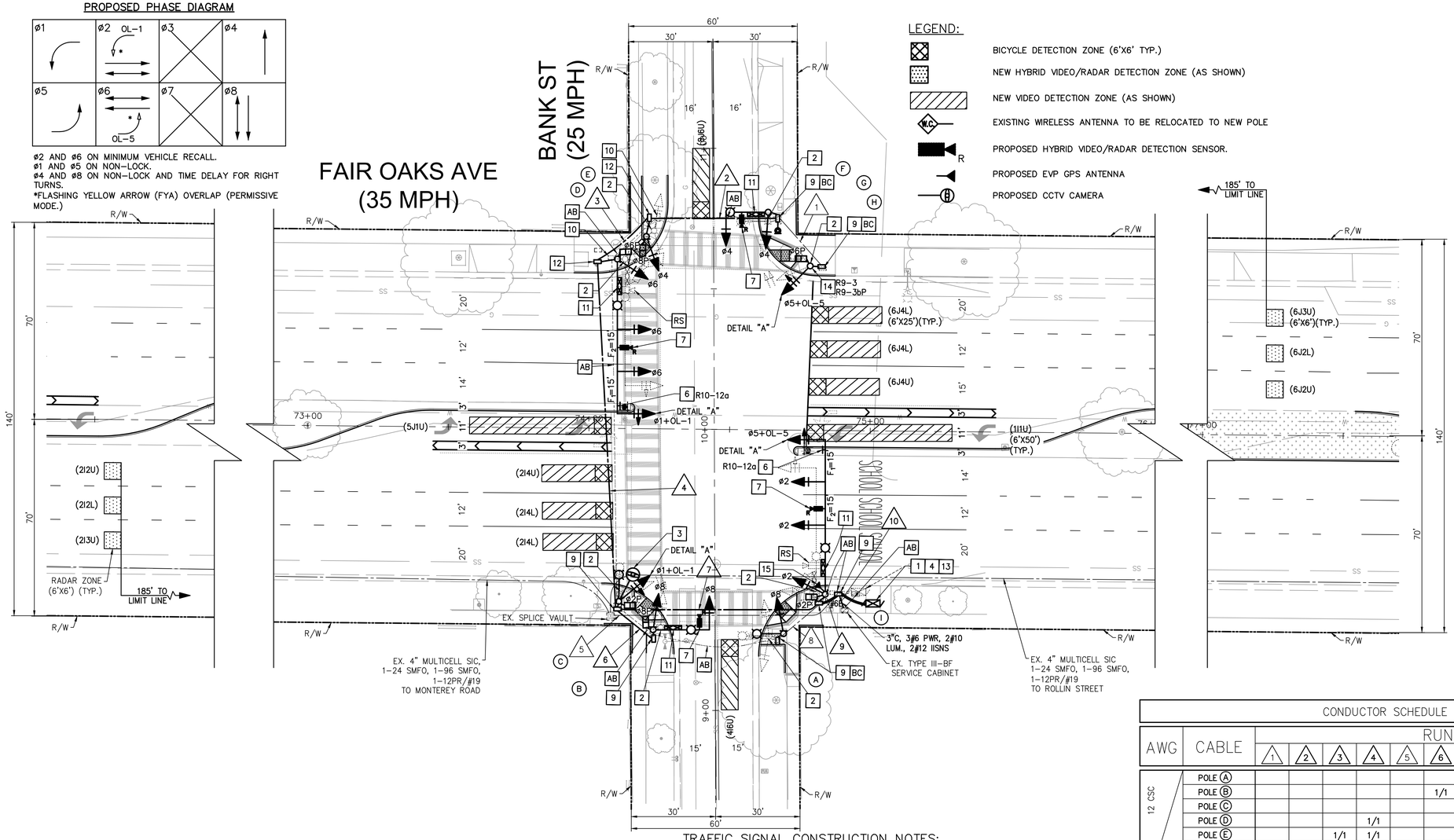


NOTE:
"E" SHALL BE 3'
UNLESS OTHERWISE NOTED.

POLE LOCATION DETAIL
(NO SCALE)



DETAIL "A"
ALL 12" LENSES
(NO SCALE)



LEGEND:

- BICYCLE DETECTION ZONE (6'X6' TYP.)
- NEW HYBRID VIDEO/RADAR DETECTION ZONE (AS SHOWN)
- NEW VIDEO DETECTION ZONE (AS SHOWN)
- EXISTING WIRELESS ANTENNA TO BE RELOCATED TO NEW POLE
- PROPOSED HYBRID VIDEO/RADAR DETECTION SENSOR.
- PROPOSED EVP GPS ANTENNA
- PROPOSED CCTV CAMERA

TRAFFIC SIGNAL CONSTRUCTION NOTES:

1. REMOVE EXISTING CABINET AND FOUNDATION COMPLETE; RELOATE EXISTING 2070 LDX CONTROLLER WITH MAXTIME PROGRAM; FURNISH AND INSTALL NEW 332 CONTROLLER CABINET WITH SIDE MOUNTED BBS CABINET ON NEW FOUNDATION COMPLETE WITH (1) PED ISOLATOR, (11) SWITCH PACKS, AND ETHERNET SWITCH. FURNISH AND INSTALL EVP GPS SYSTEM PER SPECIFICATIONS.
2. REMOVE EXISTING SIGNAL POLE STANDARD, ATTACHED SIGNAL EQUIPMENT AND ADJACENT PULL BOX CONDUIT. REMOVE FOUNDATION COMPLETE.
3. FURNISH AND INSTALL NEW BOSCH CCTV CAMERA PER PROJECT SPECIFICATIONS, OR APPROVED EQUAL. INSTALL POE IN CABINET.
4. FURNISH AND INSTALL NEW AUXILIARY OUTPUT FILE INTO NEW 332 CONTROLLER CABINET.
5. FURNISH AND INSTALL NEW COUNTDOWN LED PEDESTRIAN SIGNAL HEAD. SEE POLE SCHEDULE.
6. FURNISH AND INSTALL NEW SIGN ON SIGNAL MAST ARM PER CALTRANS STD. PLAN ES-7N.
7. REMOVE EXISTING; FURNISH AND INSTALL NEW ITERIS VANTAGE APEX VIDEO/RADAR DETECTOR OR APPROVED EQUAL. PROVIDE ASSOCIATED SENSOR UNIT IN THE CONTROLLER CABINET. FURNISH AND INSTALL DETECTION CABLE AND POWER CABLE FROM DETECTOR TO CONTROLLER CABINET. CONTRACTOR SHALL FURNISH AND INSTALL SYSTEM COMPLETE AND CONFIGURE TO PROVIDE THE INTENDED DETECTION ZONES PER MANUFACTURER'S RECOMMENDATIONS.
8. FURNISH AND INSTALL NEW APS PEDESTRIAN PUSH BUTTON COMPLETE. SEE POLE SCHEDULE. PROVIDE ASSOCIATED CONTROLLER UNIT IN THE CONTROLLER CABINET. FURNISH AND INSTALL NEW IISNS ON MAST ARMS PER CITY STANDARDS.
9. RC EXISTING PULL BOX; FURNISH AND INSTALL NEW PULL BOX AS SHOWN.
10. RC EXISTING PULL BOX.
11. REMOVE EXISTING IISNS; FURNISH AND INSTALL NEW IISNS ON MAST ARM PER CITY STANDARDS
12. INSTALL NEW PULL BOX.
13. RC FOUNDATION COMPLETE.
14. FURNISH AND INSTALL SIGN PER PLAN ON TRAFFIC SIGNAL STANDARD.
15. FURNISH AND INSTALL EVP GPS ANTENNA TO NEW POLE STANDARD AS SHOWN.

BC FURNISH AND INSTALL PULL BOX IN EXISTING CONDUIT RUN.
RC EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR.
RR REMOVE AND REUSE EQUIPMENT.
RS REMOVE AND SALVAGE.

POLE SCHEDULE

STANDARD NO.	STANDARD TYPE	STANDARD HGT.	STANDARD SIG. M.A.	STANDARD LUM. M.A.	LUMINAIRE LED (WATTS)	VEHICLE SIGNAL MOUNTING M.A.	VEHICLE SIGNAL MOUNTING POLE	VEHICLE SIGNAL MOUNTING PED. ^	PPB (N) ø	PPB (N) QUAD	POLE LOCATION A	POLE LOCATION B	POLE LOCATION C	POLE LOCATION D	POLE LOCATION E	I.I.S.N.S. LEGEND ◎	REMARKS
A	15TS	30'	–	12'	200	–	SV-1-TA	–	ø2	E	7.2'	–	–	–	7.9'	–	8
B	17-2-100	30'	20'	12'	200	MAS	SV-1-T	SP-1-T	ø2	E	–	–	8.5'	–	5.5'	Fair Oaks AVE XXXX	7 8 11
C	15TS	30'	–	12'	200	–	SV-1-T	SP-1-T	ø8	S	3.8'	–	–	–	5.8'	–	3 8
D	29-5-100	30'	55'	15'	200	3-MAS	SV-1-T	SP-1-T	ø8	S	–	–	6.9'	–	3.9'	Bank ST XXXX	7 8 11
E	1-A	10'	–	–	–	–	TV-1-TA	SP-1-T	ø6	W	11.8'	–	–	–	3.9'	–	8
F	17-2-100	30'	15'	12'	200	MAS	SV-1-T	–	–	–	–	–	–	1.7'	3.4'	Fair Oaks AVE XXXX	7 11
G	PPB POST	3'-6"	–	–	–	–	–	–	ø6	W	–	–	4.9'	–	6'	–	8
H	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	–	–	2.4'	–	–	–	3.3'	–	
I	29-5-100	30'	55'	15'	200	3-MAS	SV-1-T	SP-1-T	–	–	–	–	1'	–	3.1'	Bank ST XXXX	7 11 15

ALL EQUIPMENT IS NEW UNLESS OTHERWISE NOTED.
◎ – INDICATES CITY OF SOUTH PASADENA LOGO

CONDUCTOR SCHEDULE

AWG	CABLE	RUNS 1	2	3	4	5	6	7	8	9	10
12 CSC	POLE A								1/1	1/1	1/1
12 CSC	POLE B						1/1	1/1		1/1	1/1
12 CSC	POLE C							1/1		1/1	1/1
12 CSC	POLE D				1/1			1/1		1/1	1/1
12 CSC	POLE E			1/1	1/1			1/1		1/1	1/1
12 CSC	POLE F		1/–	1/–	1/–			1/–		1/–	1/–
12 CSC	POLE G		–/1	–/1	–/1			–/1		–/1	–/1
12 CSC	POLE H	1/1	1/1	1/1	1/1			1/1		1/1	1/1
3 CSC	POLE I									1/1	1/1
3 CSC	TOTAL CABLES	1/1	2/2	3/3	4/4		1/1	6/6	1/1	8/8	8/8
#10	LUMINAIRE		2	2	2		2	2	2	2	
#12	IISNS		2	2	2		2	2	2	2	
#6	SERVICE										3
VIDEO DETECTION CABLE			1	1	2		1	3		4	4
CCTV CABLE								1		1	1
EVP										1	1
12 SMFO CABLE						1					1
CONDUIT SIZE		2"(E)	3"	3"	4"	2"(E)	2"	4"	2"(E)	2-4"	2-4"
PERCENT FILL (%)		19	20	28	22	4	24	34	22	22	22

ALL CONDUITS AND CONDUCTORS ARE NEW UNLESS OTHERWISE NOTED
(E) – EXISTING

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS
BEFORE YOU DIG

20' 10' 0 10' 20'
1"=20' GRAPHIC SCALE

REGISTERED PROFESSIONAL ENGINEER
MARC VIOLETT
No. C73486
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, California 92705
Phone: (949) 270-9400
Fax: (949) 270-9401

MARC VIOLETT DATE
R.C.E. NO. 73486

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

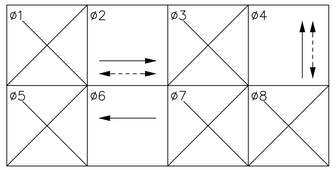
FAIR OAKS AVENUE & BANK STREET

TRAFFIC SIGNAL MODIFICATION PLAN

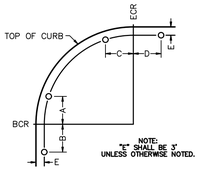
PROJECT NO.
SHEET NO. 49 OF 97

C:\bms\iteris-pw.bentley.com_itrs-pw-01\rliang@iteris.com\dms21280\TS-9_Bank - KOA.dwg 10/07/26 - 3:47pm rliang

EXISTING PHASE DIAGRAM



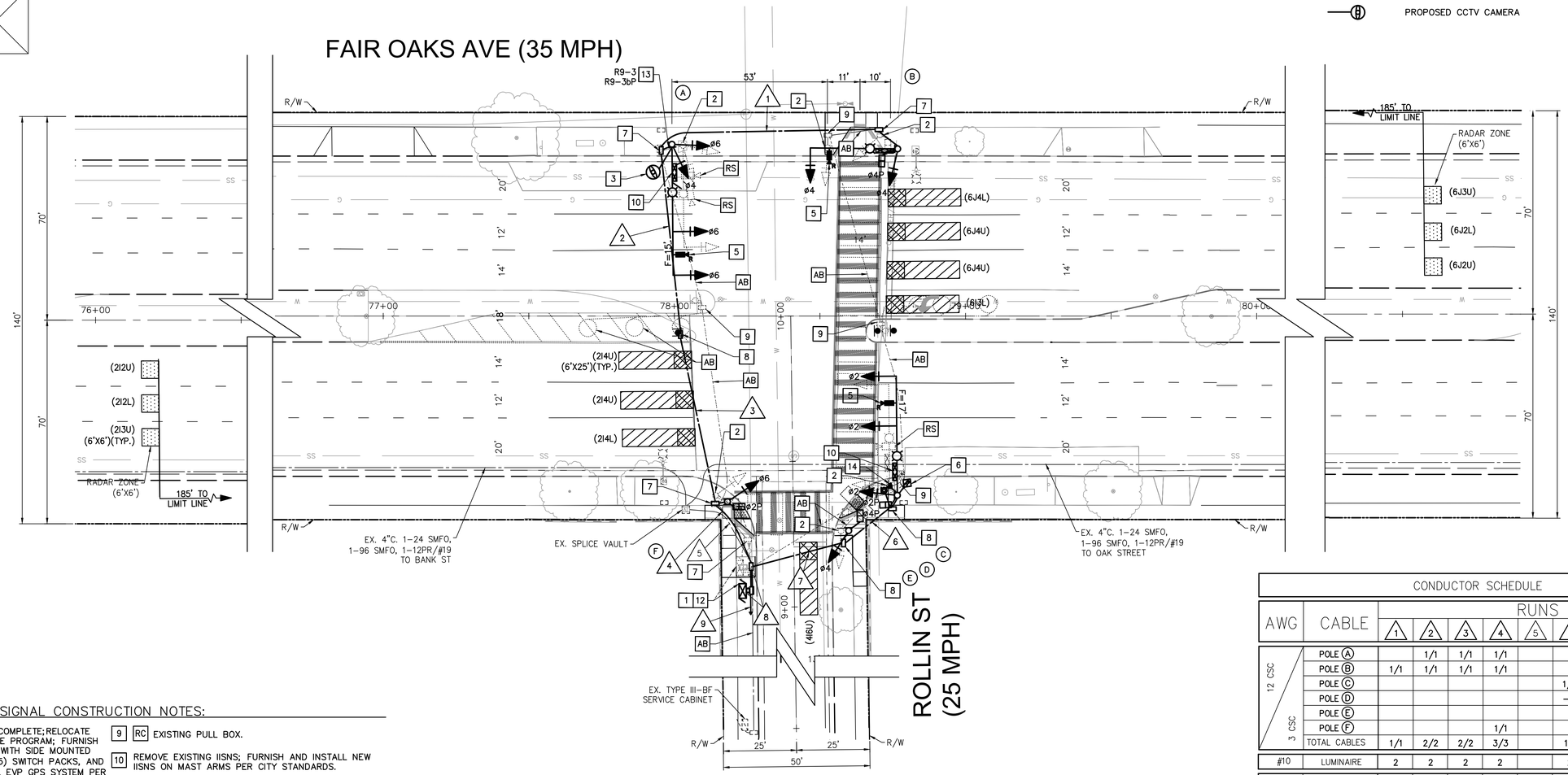
ø2 AND ø6 ON MINIMUM VEHICLE RECALL.
ø2 ON PED-RECALL – REST IN WALK.
ø4 ON NON-LOCK.



POLE LOCATION DETAIL
(NO SCALE)

LEGEND/SYMBOLS:

- BICYCLE DETECTION ZONE (6'X6' TYP.)
- NEW HYBRID VIDEO/RADAR DETECTION ZONE (AS SHOWN)
- NEW VIDEO DETECTION ZONE (AS SHOWN)
- W.C. EXISTING WIRELESS ANTENNA TO BE RELOCATED TO NEW MAST ARM
- R PROPOSED HYBRID VIDEO/RADAR DETECTION SENSOR.
- PROPOSED EVP GPS ANTENNA
- PROPOSED CCTV CAMERA



TRAFFIC SIGNAL CONSTRUCTION NOTES:

1. REMOVE EXISTING CABINET AND FOUNDATION COMPLETE; RELOCATE EXISTING 2070 LDX CONTROLLER WITH MAXTIME PROGRAM; FURNISH AND INSTALL NEW 332 CONTROLLER CABINET WITH SIDE MOUNTED BBS CABINET. (1) PED ISOLATION MODULE, (5) SWITCH PACKS, AND (1) ETHERNET SWITCH. FURNISH AND INSTALL EVP GPS SYSTEM PER SPECIFICATIONS.
2. REMOVE EXISTING SIGNAL POLE STANDARD, ATTACHED SIGNAL EQUIPMENT AND ADJACENT PULL BOX CONDUIT. REMOVE FOUNDATION COMPLETE.
3. FURNISH AND INSTALL NEW BOSCH CCTV CAMERA PER PROJECT SPECIFICATIONS, OR APPROVED EQUAL. INSTALL POE IN CABINET.
4. FURNISH AND INSTALL NEW COUNTDOWN LED PEDESTRIAN SIGNAL HEAD. SEE POLE SCHEDULE.
5. FURNISH AND INSTALL NEW ITERIS VANTAGE APEX VIDEO/RADAR DETECTOR OR APPROVED EQUAL. PROVIDE ASSOCIATED SENSOR UNIT IN THE CONTROLLER CABINET. INSTALL DETECTION CABLE AND POWER CABLE FROM DETECTOR TO CONTROLLER CABINET. CONTRACTOR SHALL FURNISH AND INSTALL SYSTEM COMPLETE AND CONFIGURE TO PROVIDE THE INTENDED DETECTION ZONES PER MANUFACTURER'S RECOMMENDATIONS.
6. REMOVE EXISTING; FURNISH AND INSTALL WIRELESS ANTENNA TO NEW POLE STANDARD AS SHOWN ON PLAN.
7. RC EXISTING PULL BOX; FURNISH AND INSTALL NEW PULL BOX AS SHOWN.
8. FURNISH AND INSTALL NEW PULL BOX.
9. RC EXISTING PULL BOX.
10. REMOVE EXISTING IISNS; FURNISH AND INSTALL NEW IISNS ON MAST ARMS PER CITY STANDARDS.
11. FURNISH AND INSTALL NEW APS PEDESTRIAN PUSH BUTTON COMPLETE. SEE POLE SCHEDULE. FURNISH AND INSTALL NEW ASSOCIATED CONTROLLER UNIT IN THE CONTROLLER CABINET.
12. RC FOUNDATION COMPLETE.
13. FURNISH AND INSTALL SIGN PER PLAN ON TRAFFIC SIGNAL STANDARD.
14. FURNISH AND INSTALL NEW EVP GPS ANTENNA TO NEW POLE STANDARD AS SHOWN.
15. FURNISH AND INSTALL NEW IISNS ON MAST ARM PER CITY STANDARD.

AB ABANDON.
BC FURNISH AND INSTALL NEW PULL BOX IN EXISTING CONDUIT RUN.
RS REMOVE AND SALVAGE.
RC EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR.
RR REMOVE AND REUSE EQUIPMENT.

POLE SCHEDULE

NO.	STANDARD TYPE	HGT.	SIG. M.A.	LUM. M.A.	LUMINAIRE LED (WATTS)	VEHICLE SIGNAL MOUNTING M.A.	POLE	PED. ^	PPB ø	QUAD	POLE LOCATION A	B	C	D	E	I.I.S.N.S. LEGEND ◎	REMARKS
A	26-4-100	30'	45'	15'	200	2-MAS	SV-2-TA	–	–	–	AS SHOWN				4'	Rollin ST XXXX	3 4 5 11
B	19A-4-100	35'	30'	15'	200	MAS	SV-1-T	SP-1-T	ø4	N	–	–	–	–	2.5'	Fair Oaks AVE XXXX	4 5 11
C	26-4-100	30'	40'	12'	200	2-MAS	SV-1-T	SP-1-T	–	–	–	–	2.4'	–	6.3'	Rollin ST XXXX	4 5 6 14
D	TYPE 2	4'	–	–	–	–	–	–	ø4	N	–	–	6.9'	–	3.6'		11
E	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	ø2	E	6.4'	–	–	–	4.7'	–	4 11
F	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	ø2	W	15.2'	–	–	–	2.8'	–	4 11

ALL EQUIPMENT IS NEW UNLESS OTHERWISE NOTED.
◎ – INDICATES CITY OF SOUTH PASADENA LOGO

CONDUCTOR SCHEDULE

AWG	CABLE	RUNS 1	2	3	4	5	6	7	8	9
12 CSC	POLE A		1/1	1/1	1/1				1/1	
12 CSC	POLE B	1/1	1/1	1/1	1/1				1/1	
12 CSC	POLE C						1/–	1/–	1/–	
12 CSC	POLE D						–/1	–/1	–/1	
12 CSC	POLE E							1/1	1/1	
3 CSC	POLE F				1/1				1/1	
	TOTAL CABLES	1/1	2/2	2/2	3/3		1/1	2/2	5/5	
#10	LUMINAIRE	2	2	2	2		2	2		2
#12	IISNS	2	2	2	2		2	2		2
VIDEO DETECTION CABLE		1	2	2	2		1	1	3	
#6	SERVICE									3
WIRELESS COMMUNICATION ANTENNA							1	1	1	
EVP							1	1	1	
CCTV CABLE			1	1	1				1	
12 SMFO CABLE						1			1	
CONDUIT SIZE		3"	4"	4"	4"	2"(E)	3"	3"	2-4"	2"
PERCENT FILL (%)		11	13	13	18	4	12	23	14	4

ALL CONDUITS AND CONDUCTORS ARE NEW UNLESS OTHERWISE NOTED
(E) – EXISTING

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

20' 10' 0 10' 20'
1"=20' GRAPHIC SCALE

REGISTERED PROFESSIONAL ENGINEER
MARC VIOLETT
No. C73486
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, California 92705-5551
Phone: (949) 270-9400
Fax: (949) 270-9401

MARC VIOLETT
R.C.E. NO. 73486
DATE

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

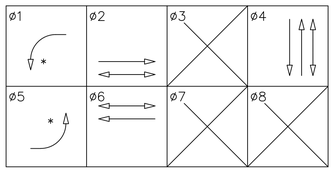
FAIR OAKS AVENUE & ROLLIN STREET

TRAFFIC SIGNAL MODIFICATION PLAN

PROJECT NO.
SHEET NO. 50 OF 97

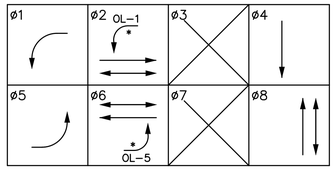
C:\bms\iteris-pw.bentley.com_itrs-pw-01\rliang@iteris.com\dms21280\TS-10_Rollin - KOA.dwg 10/07/26 - 3:47pm rliang

EXISTING PHASE DIAGRAM



* PROT–PERMISSIVE LT PHASING

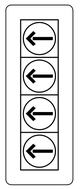
PROPOSED PHASE DIAGRAM



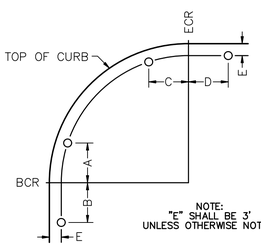
ø2 AND ø6 ON MINIMUM VEHICLE RECALL
ø1 AND ø5 ON NON–LOCK
ø4 AND ø8 ON NON–LOCK AND TIME DELAY FOR RIGHT TURNS
*FLASHING YELLOW ARROW (FYA) OVERLAP (PERMISSIVE MODE).

PROPOSED SIGN LEGEND

R10–12a
30"x36"

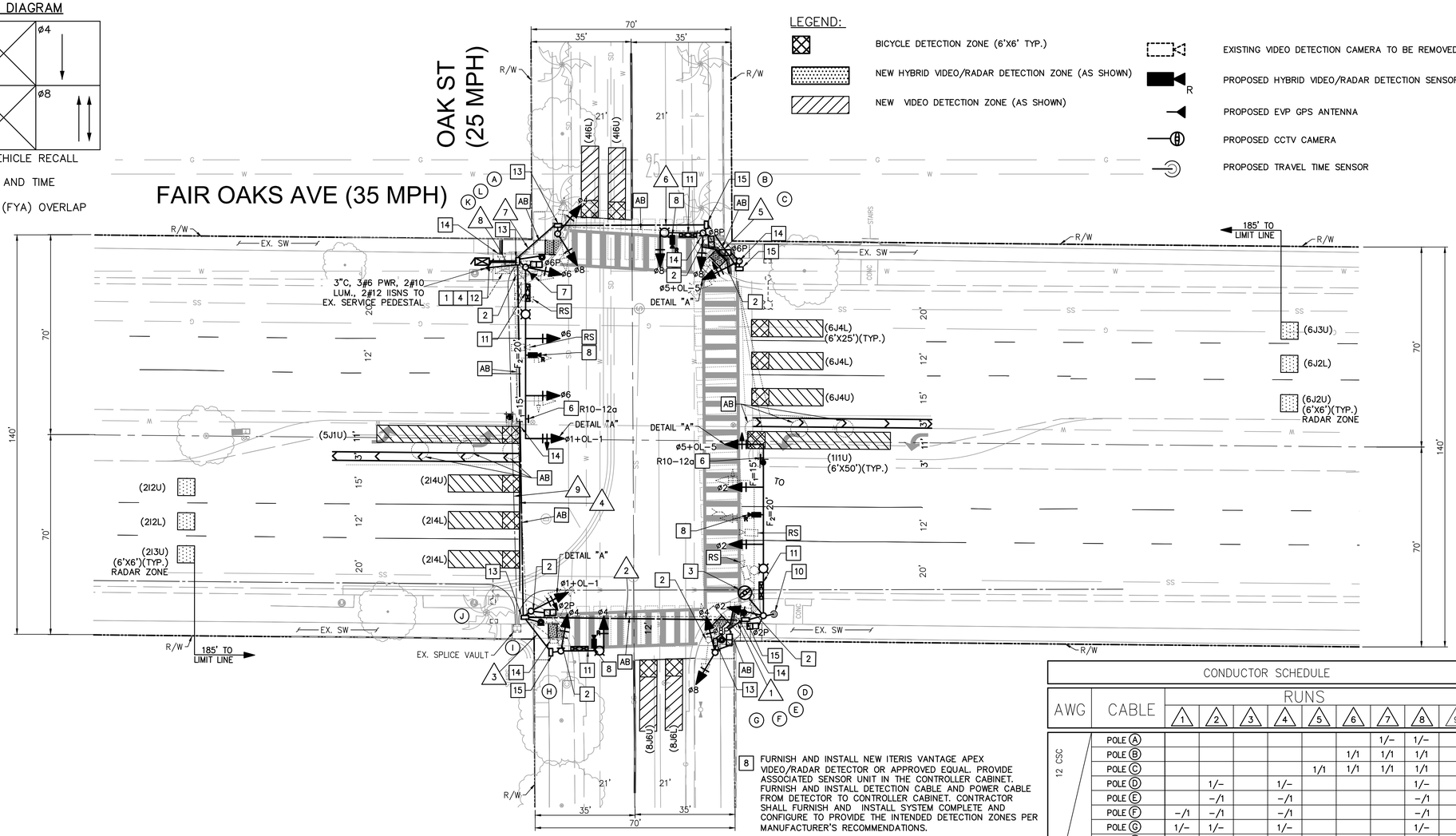


DETAIL "A"
ALL 12" LENSES
(NO SCALE)



NOTE:
"E" SHALL BE 3'
UNLESS OTHERWISE NOTED.

POLE LOCATION DETAIL
(NO SCALE)



LEGEND:

- BICYCLE DETECTION ZONE (6'X6' TYP.)
- NEW HYBRID VIDEO/RADAR DETECTION ZONE (AS SHOWN)
- NEW VIDEO DETECTION ZONE (AS SHOWN)
- EXISTING VIDEO DETECTION CAMERA TO BE REMOVED
- PROPOSED HYBRID VIDEO/RADAR DETECTION SENSOR
- PROPOSED EVP GPS ANTENNA
- PROPOSED CCTV CAMERA
- PROPOSED TRAVEL TIME SENSOR

POLE SCHEDULE

NO.	STANDARD TYPE	HGT.	SIG. M.A.	LUM. M.A.	LUMINAIRE LED (WATTS)	VEHICLE SIGNAL MOUNTING M.A.	POLE	PED. ^	PPB ø	QUAD	POLE LOCATION A	B	C	D	E	I.I.S.N.S. ◎ LEGEND	REMARKS
A	1–A	10'	–	–	–	–	TV–2–T	–	–	–	8.3'	–	–	–	4.8'	–	
B	17–3–100	30'	15'	12'	200	MAS	SV–1–T	SP–1–T	ø6	W	–	–	7.3'	–	3'	Fair Oaks AVE XXXX	5 8 9 11
C	1–A	10'	–	–	–	–	SV–1–T	SP–1–T	ø8	N	10'	–	–	–	3'	–	5 9
D	61–5–100	30'	60'	15'	200	3–MAS	SV–1–T	SP–1–T	–	–	–	–	1.4'	–	6'	Bank ST XXXX	5 8 10 11
E	TYPE 2	4'	–	–	–	–	–	–	ø8	N	–	–	8.3'	–	3.5'	–	9
F	TYPE 2	4'	–	–	–	–	–	–	ø2	E	10.7'	–	–	–	6.3'	–	9
G	1–A	10'	–	–	–	–	TV–2–T	SP–1–T	–	–	6.3'	–	–	–	6.1'	–	5
H	17–3–100	30'	15'	12'	200	MAS	SV–1–T	–	–	–	–	–	6.1'	–	3.7'	Fair Oaks AVE XXXX	8 11
I	TYPE 2	4'	–	–	–	–	–	–	ø2	W	12.8'	–	–	–	4.1'	–	9
J	1–A	10'	–	–	–	–	TV–1–T	SP–1–T	–	–	9.3'	–	–	–	2.8'	–	5
K	61–5–100	30'	60'	15'	200	3–MAS	SV–1–T	SP–1–T	–	–	–	–	9'	–	3'	Bank ST XXXX	5 7 8 11
L	TYPE 2	4'	–	–	–	–	–	–	ø6	E	–	–	14.7'	–	2.8'	–	9

TRAFFIC SIGNAL CONSTRUCTION NOTES:

1. REMOVE EXISTING CABINET AND FOUNDATION COMPLETE; RELOCATE EXISTING 2070 LDX CONTROLLER WITH MAXTIME PROGRAM; FURNISH AND INSTALL 332 CONTROLLER CABINET WITH SIDE MOUNTED BBS CABINET ON NEW FOUNDATION COMPLETE WITH (2) PED ISOLATOR MODULES, (11) SWITCH PACKS, PROGRAM AND (1) ETHERNET SWITCH. REMOVE EXISTING; FURNISH AND INSTALL EVP GPS SYSTEM PER SPECIFICATIONS.
2. REMOVE EXISTING SIGNAL POLE STANDARD, ATTACHED SIGNAL EQUIPMENT AND ADJACENT PULL BOX CONDUIT. REMOVE FOUNDATION COMPLETE.
3. FURNISH AND INSTALL NEW BOSCH CCTV CAMERA PER SPECIFICATIONS OR APPROVED EQUAL. INSTALL PoE IN CABINET.
4. FURNISH AND INSTALL NEW AUXILIARY OUTPUT FILE NEW 332 CONTROLLER CABINET.
5. FURNISH AND INSTALL NEW COUNTDOWN LED PEDESTRIAN SIGNAL HEAD. SEE POLE SCHEDULE.
6. FURNISH AND INSTALL NEW SIGN ON SIGNAL MAST ARM PER CALTRANS STD. PLAN ES–7N.
7. REMOVE EXISTING; FURNISH AND INSTALL NEW EVP GPS ANTENNA TO NEW POLE STANDARD AS SHOWN.

(RE) RELOCATE ROADSIDE SIGN POST/PANEL.

8. FURNISH AND INSTALL NEW ITERIS VANTAGE APEX VIDEO/RADAR DETECTOR OR APPROVED EQUAL. PROVIDE ASSOCIATED SENSOR UNIT IN THE CONTROLLER CABINET. FURNISH AND INSTALL DETECTION CABLE AND POWER CABLE FROM DETECTOR TO CONTROLLER CABINET. CONTRACTOR SHALL FURNISH AND INSTALL SYSTEM COMPLETE AND CONFIGURE TO PROVIDE THE INTENDED DETECTION ZONES PER MANUFACTURER'S RECOMMENDATIONS.
9. FURNISH AND INSTALL NEW APS PEDESTRIAN PUSH BUTTON COMPLETE. SEE POLE SCHEDULE. FURNISH AND INSTALL NEW ASSOCIATED CONTROLLER UNIT IN THE CONTROLLER CABINET.
10. FURNISH AND INSTALL NEW BlueTOAD BLUETOOTH DETECTOR, OR APPROVED EQUAL, ON POLE AND RUN CABLE TO THE 332 CABINET.
11. REMOVE EXISTING IISNS; FURNISH AND INSTALL NEW IISNS ON MAST ARMS PER CITY STANDARDS.
12. RC FOUNDATION COMPLETE.
13. RC EXISTING PULL BOX; FURNISH AND INSTALL NEW PULL BOX AS SHOWN.
14. RC EXISTING PULL BOX.
15. FURNISH AND INSTALL NEW PULL BOX.

AB ABANDON.

BC FURNISH AND INSTALL NEW PULL BOX IN EXISTING CONDUIT RUN.

RC EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR.

RS REMOVE AND SALVAGE.

CONDUCTOR SCHEDULE

AWG	CABLE	RUNS 1	2	3	4	5	6	7	8	9
12 CSC	POLE A							1/–	1/–	
	POLE B						1/1	1/1	1/1	
	POLE C					1/1	1/1	1/1	1/1	
	POLE D		1/–		1/–				1/–	
	POLE E		–/1		–/1				–/1	
	POLE F	–/1	–/1		–/1				–/1	
	POLE G	1/–	1/–		1/–				1/–	
3 CSC	POLE H			1/–	1/–				1/–	
	POLE I				–/1				–/1	
	POLE J				1/–				1/–	
	POLE K								1/–	
	POLE L								–/1	
	TOTAL CABLES	1/1	2/2	1/–	4/3	1/1	2/2	3/2	8/6	
#10	LUMINAIRE		2	2	2		2	2		
#12	IISNS		2	2	2		2	2		
VIDEO DETECTION CABLE			1	1	2		1	1	4	
EVP									1	
#6	SERVICE								3	
WIRELESS COMMUNICATION ANTENNA			1		1				1	
CCTV CABLE			1		1				1	
12 SMFO CABLE									1	1
CONDUIT SIZE		2"	3"	2"	4"	2"	3"	3"	2–4"	2"(E)
PERCENT FILL (%)		19	23	21	22	19	20	27	22	4

ALL CONDUITS AND CONDUCTORS ARE NEW UNLESS OTHERWISE NOTED
(E) – EXISTING

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

ALL EQUIPMENT IS NEW UNLESS OTHERWISE NOTED.
◎ – INDICATES CITY OF SOUTH PASADENA LOGO

N
20' 10' 0 10' 20'
1"=20' GRAPHIC SCALE

REGISTERED PROFESSIONAL ENGINEER MARC VIOLETT No. C73486 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, California 92705-5551
Phone: (949) 270-9400
Fax: (949) 270-9401

MARC VIOLETT
R.C.E. NO. 73486
DATE

CITY OF SOUTH PASADENA · CALIFORNIA · 1888

CITY OF SOUTH PASADENA

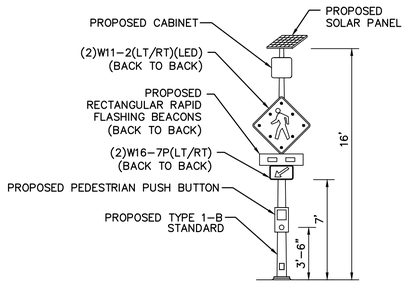
NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

FAIR OAKS AVENUE & OAK STREET

TRAFFIC SIGNAL MODIFICATION PLAN

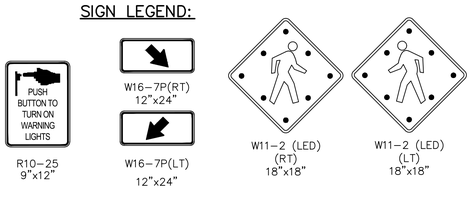
PROJECT NO.
SHEET NO. 51 OF 97

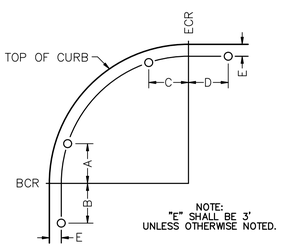
C:\bms\iteris-pw.bentley.com_itrs-pw-01\rliang@iteris.com\dms21280\TS-11_Oak - KOA.dwg 10/07/26 - 3:47pm rliang



DETAIL "A"
NOT TO SCALE

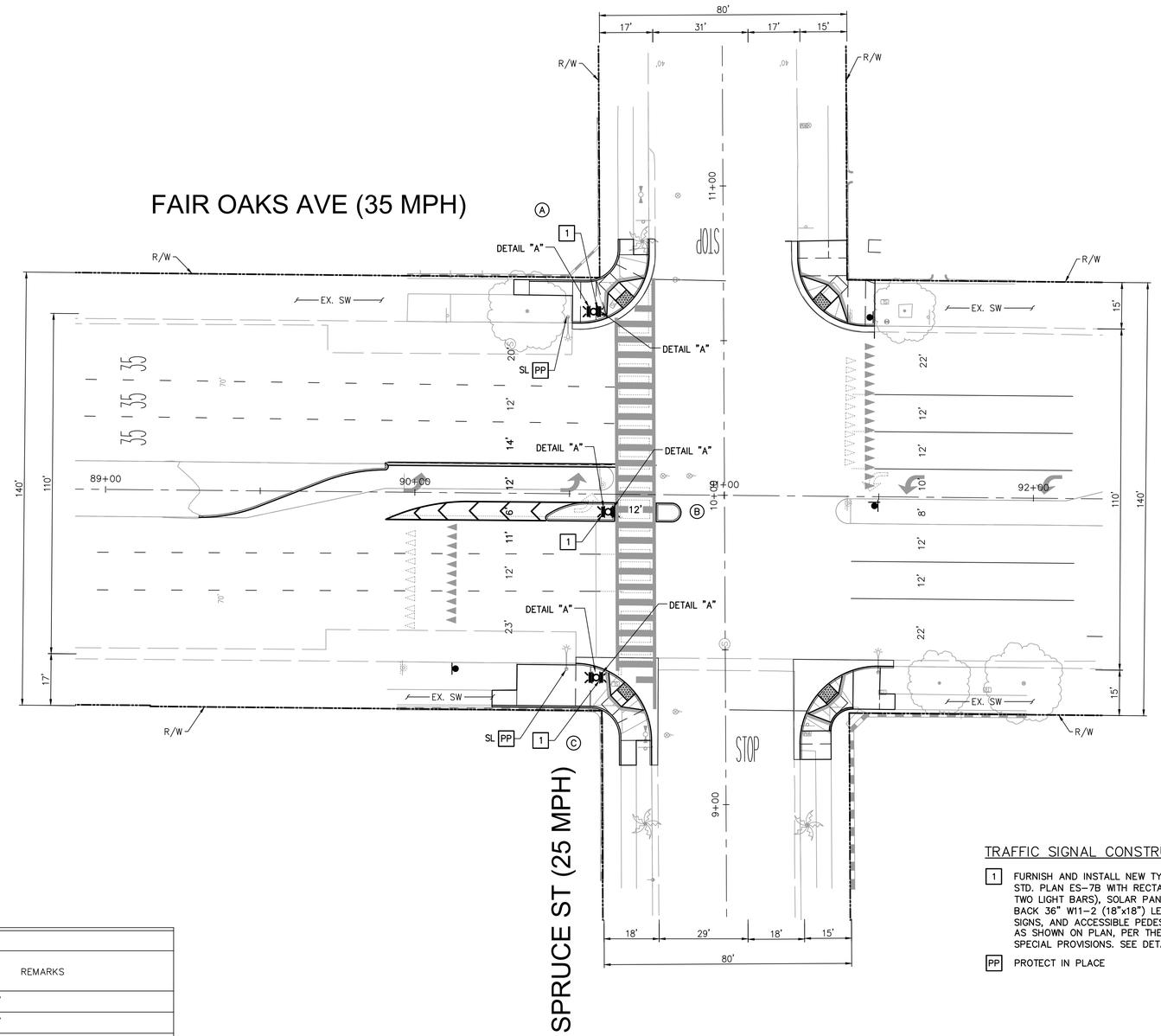
SIGN LEGEND:





NOTE:
"E" SHALL BE 3' UNLESS OTHERWISE NOTED.

POLE LOCATION DETAIL
(NO SCALE)



TRAFFIC SIGNAL CONSTRUCTION NOTES:

1. FURNISH AND INSTALL NEW TYPE 1-B STANDARD AND FOUNDATION COMPLETE PER CALTRANS STD. PLAN ES-7B WITH RECTANGULAR RAPID FLASHING BEACON ASSEMBLY (DUAL FACING, TWO LIGHT BARS), SOLAR PANEL, BATTERY, CABINET, WIRELESS ACTIVATOR, TWO BACK TO BACK 36" W11-2 (18"x18") LED ENHANCED SIGNS, TWO BACK TO BACK W16-7P (12"x24") SIGNS, AND ACCESSIBLE PEDESTRIAN SIGNAL WITH R10-25 (9"x12") SIGN ON EXISTING POLE AS SHOWN ON PLAN, PER THE MANUFACTURER RECOMMENDATIONS AND PER THE PROJECT SPECIAL PROVISIONS. SEE DETAIL "A" SHOWN HEREON.

PP PROTECT IN PLACE

POLE SCHEDULE

POLE DATA			SIGNAL M.A. LENGTH	PED PUSH BUTTON ARROW	POLE LOCATION					REMARKS
NO.	TYPE	HEIGHT			A	B	C	D	E	
A	1-B	16'	–	←	–	–	8'	–	3'	SEE DETAIL "A"
B	1-B	16'	–	↘ ↗	AS SHOWN				3'	SEE DETAIL "A"
C	1-B	16'	–	→	7.8'	–	–	–	3'	SEE DETAIL "A"

ALL EQUIPMENT SHOWN IS NEW UNLESS OTHERWISE NOTED.

20' 10' 0 10' 20'
1"=20' GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REGISTERED PROFESSIONAL ENGINEER
MARC VIOLETT
No. C73486
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5551
Phone: (949) 270-9400
Fax: (949) 270-9401

MARC VIOLETT
R.C.E. NO. 73486
DATE

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

FAIR OAKS AVENUE & SPRUCE STREET

RRFB PLAN

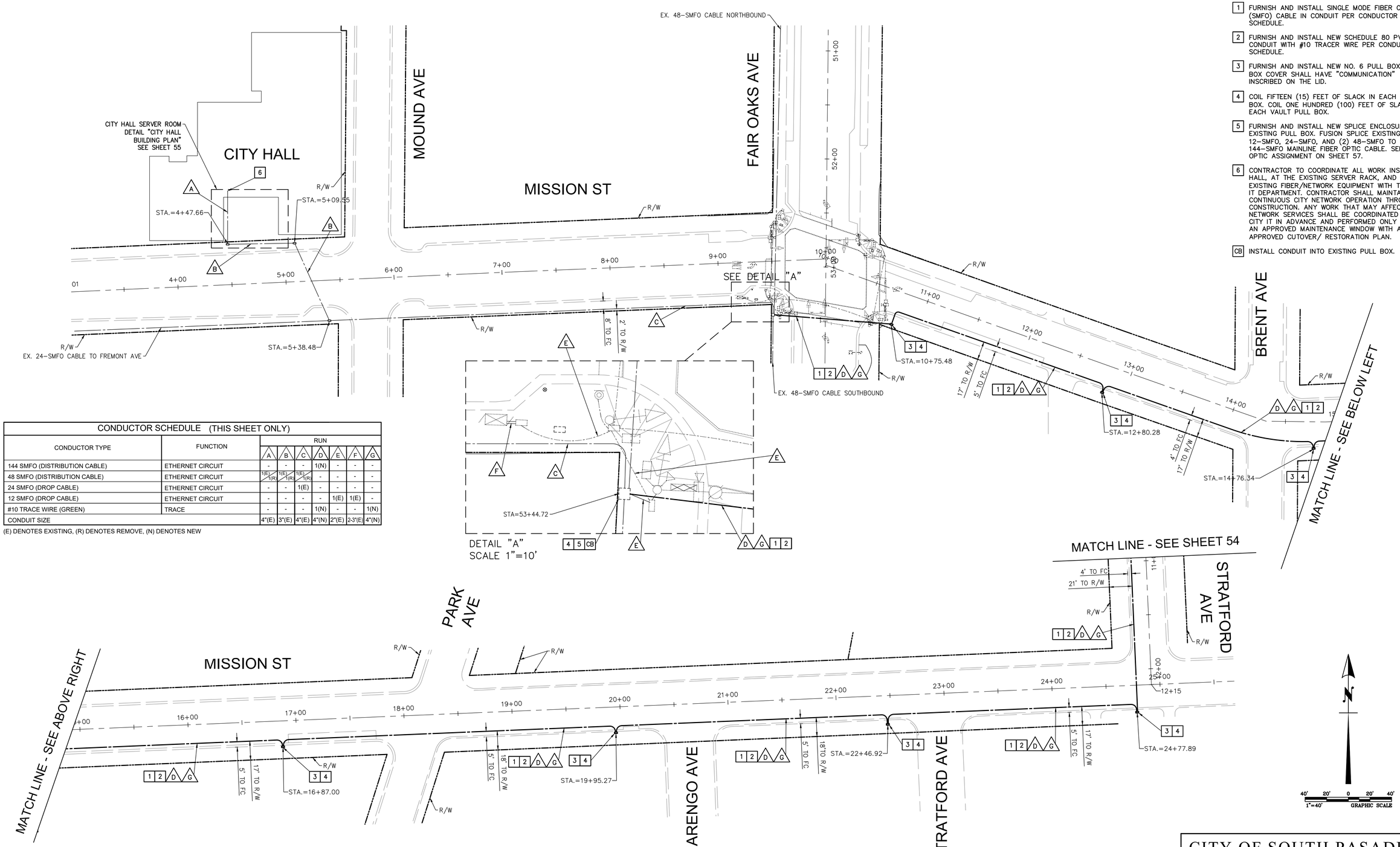
PROJECT NO.
SHEET NO. 52 OF 97

C:\bms\iteris-pw.bentley.com_itrs-pw-01\rliang@iteris.com\dms21280\TS-12_Spruce - KOA - KOA.dwg 10/07/26 - 3:48pm rliang

FIBER OPTIC CONSTRUCTION NOTES:

1. FURNISH AND INSTALL SINGLE MODE FIBER OPTIC (SMFO) CABLE IN CONDUIT PER CONDUCTOR SCHEDULE.
2. FURNISH AND INSTALL NEW SCHEDULE 80 PVC CONDUIT WITH #10 TRACER WIRE PER CONDUCTOR SCHEDULE.
3. FURNISH AND INSTALL NEW NO. 6 PULL BOX. PULL BOX COVER SHALL HAVE "COMMUNICATION" INSCRIBED ON THE LID.
4. COIL FIFTEEN (15) FEET OF SLACK IN EACH PULL BOX. COIL ONE HUNDRED (100) FEET OF SLACK IN EACH VAULT PULL BOX.
5. FURNISH AND INSTALL NEW SPLICE ENCLOSURE IN EXISTING PULL BOX. FUSION SPLICE EXISTING 12-SMFO, 24-SMFO, AND (2) 48-SMFO TO NEW 144-SMFO MAINLINE FIBER OPTIC CABLE. SEE FIBER OPTIC ASSIGNMENT ON SHEET 57.
6. CONTRACTOR TO COORDINATE ALL WORK INSIDE CITY HALL, AT THE EXISTING SERVER RACK, AND ON EXISTING FIBER/NETWORK EQUIPMENT WITH THE CITY IT DEPARTMENT. CONTRACTOR SHALL MAINTAIN CONTINUOUS CITY NETWORK OPERATION THROUGHOUT CONSTRUCTION. ANY WORK THAT MAY AFFECT ACTIVE NETWORK SERVICES SHALL BE COORDINATED WITH CITY IT IN ADVANCE AND PERFORMED ONLY DURING AN APPROVED MAINTENANCE WINDOW WITH AN APPROVED CUTOVER/ RESTORATION PLAN.

CB INSTALL CONDUIT INTO EXISTING PULL BOX.



CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN A	RUN B	RUN C	RUN D	RUN E	RUN F	RUN G
144 SMFO (DISTRIBUTION CABLE)	ETHERNET CIRCUIT	-	-	-	1(N)	-	-	-
48 SMFO (DISTRIBUTION CABLE)	ETHERNET CIRCUIT	1(E) 1(R)	1(E) 1(R)	1(E) 1(R)	-	-	-	-
24 SMFO (DROP CABLE)	ETHERNET CIRCUIT	-	-	1(E)	-	-	-	-
12 SMFO (DROP CABLE)	ETHERNET CIRCUIT	-	-	-	-	1(E)	1(E)	-
#10 TRACE WIRE (GREEN)	TRACE	-	-	-	1(N)	-	-	1(N)
CONDUIT SIZE		4"(E)	3"(E)	4"(E)	4"(N)	2"(E)	2-3"(E)	4"(N)

(E) DENOTES EXISTING, (R) DENOTES REMOVE, (N) DENOTES NEW

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REGISTERED PROFESSIONAL ENGINEER
MARC VIOLETT
No. C73486
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5551
Phone: (949) 270-9400
Fax: (949) 270-9401

MARC VIOLETT DATE
R.C.E. NO. 73486

CITY OF SOUTH PASADENA CALIFORNIA 1888

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

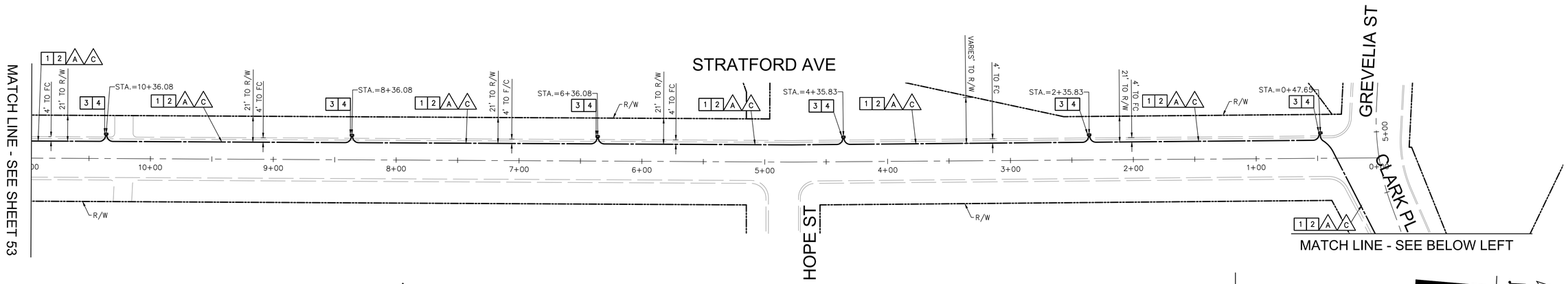
CITY HALL TO GARFIELD PARK

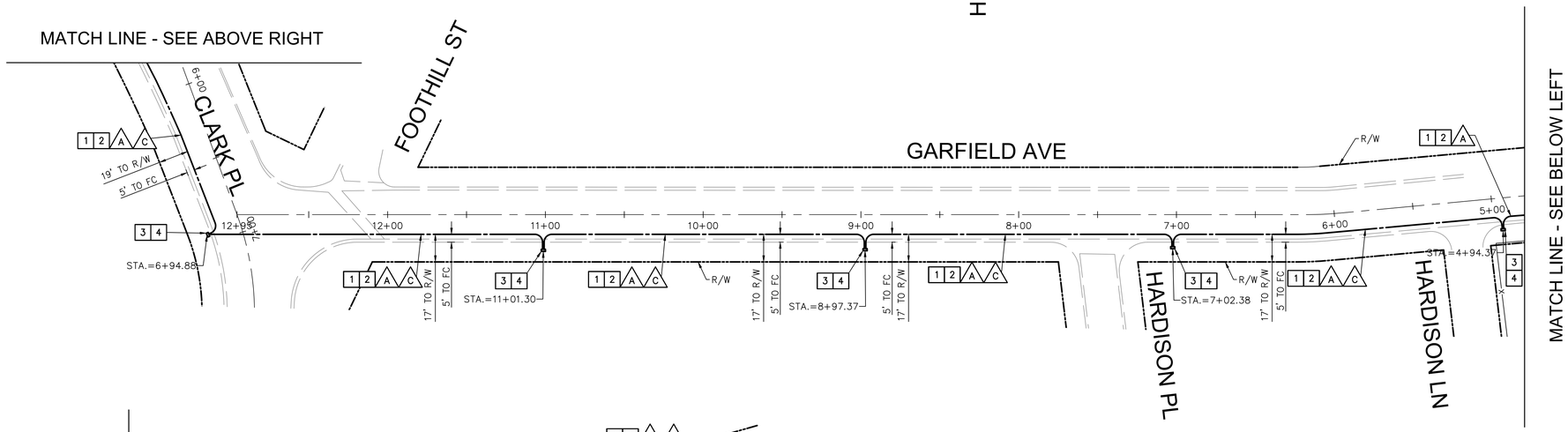
FIBER OPTICS PLAN

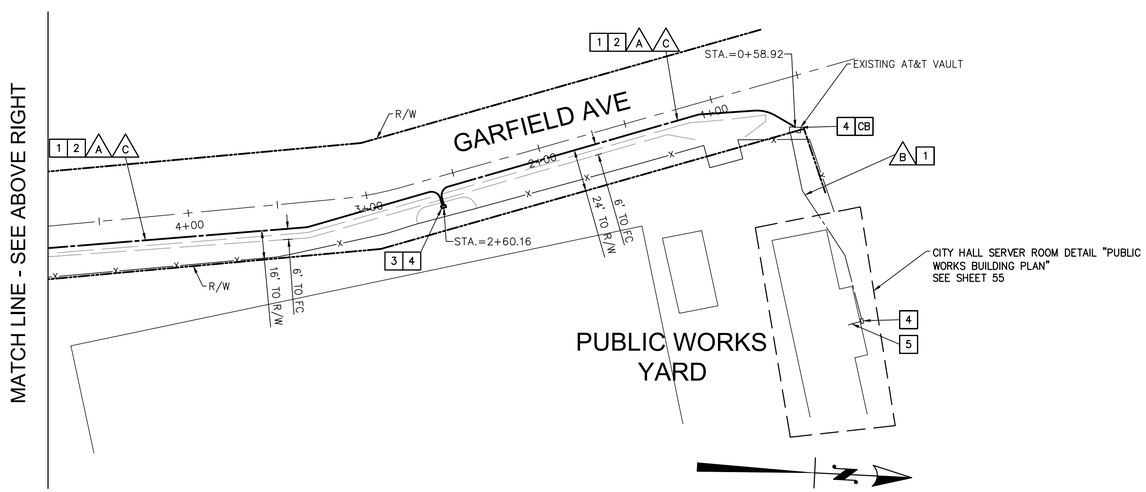
FO-01

PROJECT NO.
SHEET NO. 53 OF 97

C:\bms\iteris-pw.bentley.com_ltrs-pw-01\rliang@iteris.com\dms21280\FO-01 - City Hall to Garfield Park.dwg 10/07/26 - 3:57pm rliang







FIBER OPTIC CONSTRUCTION NOTES:

1. FURNISH AND INSTALL SINGLE MODE FIBER OPTIC (SMFO) CABLE IN CONDUIT PER CONDUCTOR SCHEDULE.
2. FURNISH AND INSTALL NEW SCHEDULE 80 PVC CONDUIT WITH #10 TRACER WIRE PER CONDUCTOR SCHEDULE.
3. FURNISH AND INSTALL NEW NO. 6 PULL BOX. PULL BOX COVER SHALL HAVE "COMMUNICATION" INSCRIBED ON THE LID.
4. COIL FIFTEEN (15) FEET OF SLACK IN EACH PULL BOX. COIL ONE HUNDRED (100) FEET OF SLACK IN VAULT PULL BOX.
5. FUNISH AND INSTALL NEW 144–SMFO CABLE IN EXISTING CONDUIT AND PULL TO NEW SERVER RACK IN THE ELECTRICAL ROOM LOCATED ON THE SECOND FLOOR.

CB INSTALL CONDUIT INTO EXISTING PULL BOX.

CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN A	RUN B	RUN C
144 SMFO (DISTRIBUTION CABLE)	ETHERNET CIRCUIT	1(N)	1(N)	-
#10 TRACE WIRE (GREEN)	TRACE	1(N)	-	1(N)
CONDUIT SIZE		4"(N)	4"(E)	4"(N)

(E) DENOTES EXISTING, (R) DENOTES REMOVE, (N) DENOTES NEW

40' 20' 0 20' 40'
1"=40' GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REGISTERED PROFESSIONAL ENGINEER
MARC VIOLETT
No. C73486
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5501
Phone (949) 270-9400
Fax (949) 270-9401

MARC VIOLETT DATE
R.C.E. NO. 73486

CITY OF SOUTH PASADENA
CITY OF SOUTH PASADENA CALIFORNIA 1888

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

GARFIELD PARK TO
PUBLIC WORKS BUILDING

FIBER OPTICS PLAN

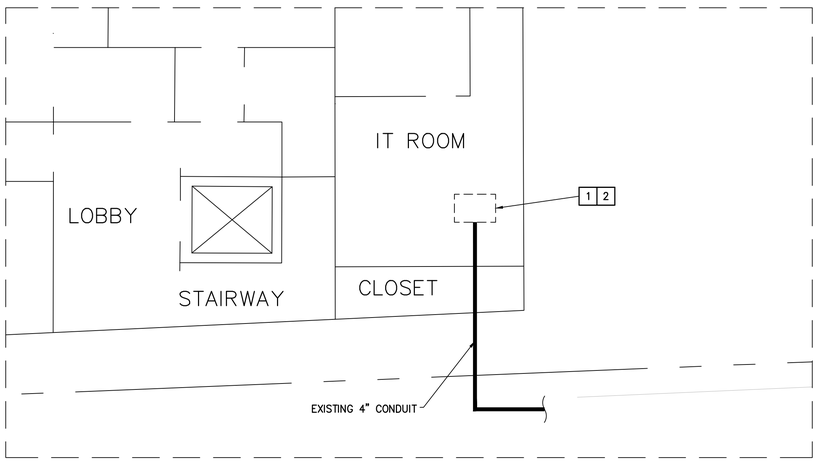
FO-02

PROJECT NO.
SHEET NO. 54 OF 97

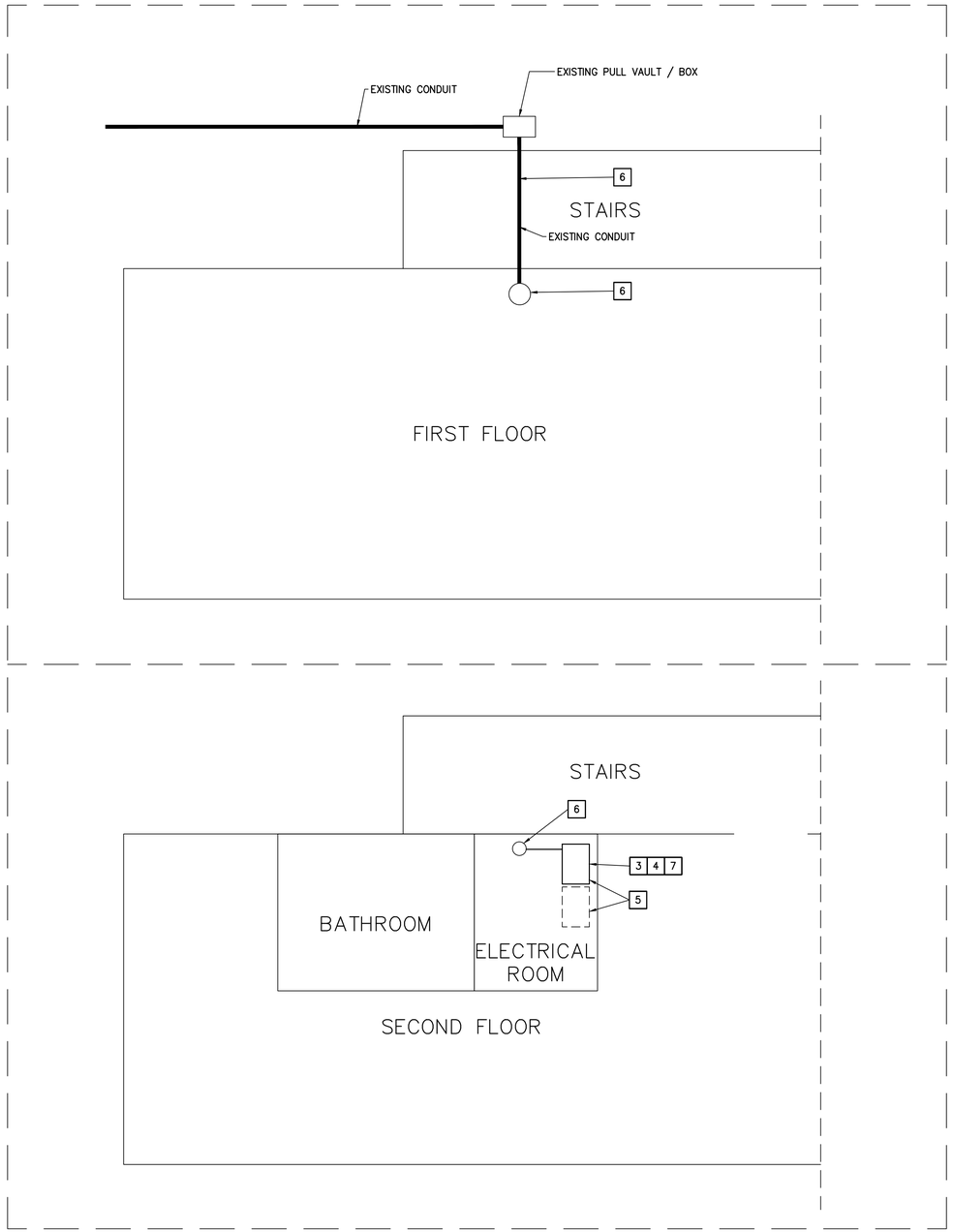
C:\bms\iteris-pw.bentley.com_itrs-pw-01\rliang@iteris.com\dms21280\FO-02 – Garfield Park to Public Works Building.dwg 10/07/26 – 3:57pm rliang

FIBER OPTIC CONSTRUCTION NOTES:

1. FURNISH AND INSTALL NEW L2 ETHERNET HUB SWITCH IN EXISTING SERVER RACK. COMPLETE CONNECTIONS FOR INTENDED OPERATIONS. REMOVE AND SALVAGE EXISTING ETHERNET SWITCH.
2. IDENTIFY EXISTING 48-SMFO CABLE AND PROTECT IN PLACE. CONTRACTOR TO COORDINATE WITH CITY IT/ CONSULTANTS TO ADJUST PATCH CABLES TO COMPLETE CONNECTION TO THE PUBLIC WORKS NETWORK FOR INTENDED OPERATION. SEE FIBER OPTIC ASSIGNMENT ON SHEET 57.
3. FURNISH AND INSTALL NEW SERVER RACK. FURNISH AND INSTALL NEW L3 ETHERNET AGGREGATION SWITCH. FURNISH AND INSTALL NEW 144-PORT FIBER DISTRIBUTION UNIT. FURNISH AND INSTALL NEW ATMS SERVER AND VMS SERVER MODULE. COMPLETE ALL CONNECTIONS FOR INTENDED OPERATIONS.
4. TERMINATE SMFO CABLE IN FIBER DISTRIBUTION UNIT PER FIBER SCHEMATICS. SEE FIBER OPTIC ASSIGNMENT ON SHEET 57.
5. RELOCATE EXISTING EQUIPMENT FROM EXISTING SERVER RACK TO NEW SERVER RACK. CONTRACTOR TO COORDINATE WITH CITY IT DEPARTMENT BEFORE RELOCATION.
6. FURNISH AND INSTALL 144-SMFO CABLE IN EXISTING CONDUIT INSIDE PUBLIC WORKS BUILDING.
7. CONTRACTOR TO FURNISH AND INSTALL NEW RACK MOUNTED UPS UNIT IN NEW SERVER RACK. COORDINATE POWER REQUIREMENTS AND FINAL CONNECTION WITH THE CITY IT DEPARTMENT.



CITY HALL
BUILDING PLAN
NOT TO SCALE



PUBLIC WORKS
BUILDING PLAN
NOT TO SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REGISTERED PROFESSIONAL ENGINEER
MARC VIOLETT
No. C73486
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5551
Phone (949) 270-9400
Fax (949) 270-9401

MARC VIOLETT
R.C.E. NO. 73486
DATE

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

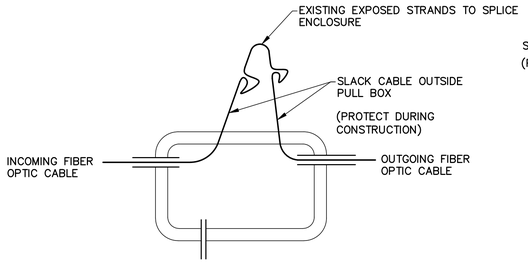
CITY HALL FACILITY
PUBLIC WORKS FACILITY

FIBER OPTICS PLAN

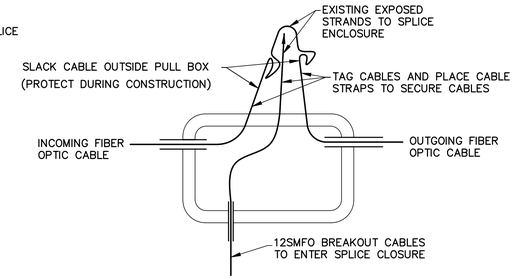
FO-03

PROJECT NO.
SHEET NO. 55 OF 97

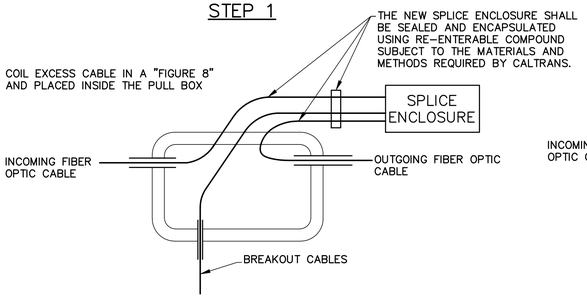
C:\bms\iteris-pw.bentley.com_itrs-pw-01\rliang@iteris.com\dms21280\FO-03 - within Public Works Building.dwg 10/07/26 - 3:57pm rliang



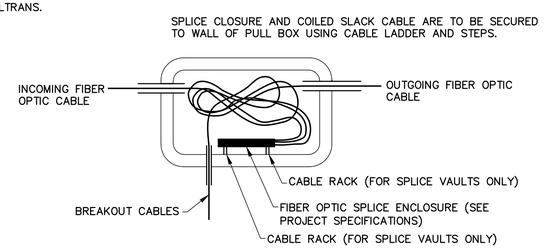
STEP 1



STEP 2

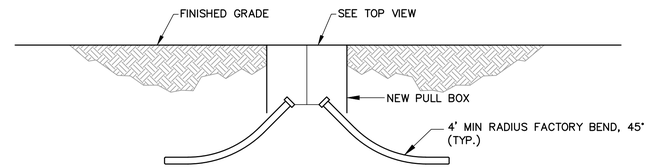


STEP 3



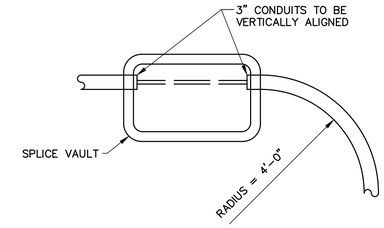
STEP 4

SPLICE PROCEDURE



PULL BOX REPLACEMENT AND CONDUIT SWEEP MODIFICATION

NO SCALE

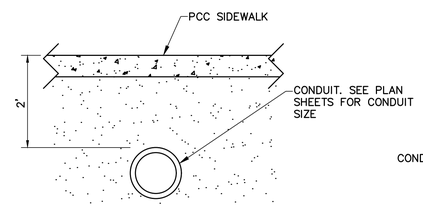


CONDUIT BEND

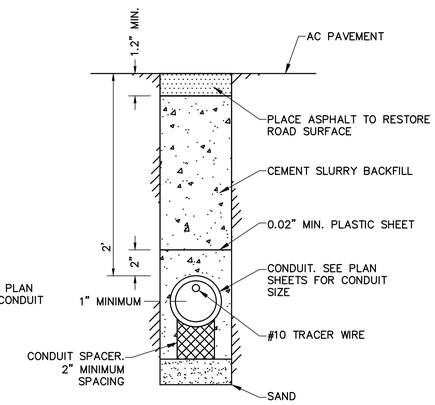
NO SCALE

NOTES:

1. DIMENSIONS VARY ACCORDING TO SIZE OF CONDUIT, ETC. BUT THE MINIMUM BEND RADIUS OF 4' MUST BE MAINTAINED ON ALL CONDUITS CONTAINING FIBER OPTIC CABLE AND SIX TIMES THE CONDUIT DIAMETER FOR ALL OTHER CONDUITS.
2. ALL BENDS MUST BE FACTORY BENDS.
3. CONTRACTOR MUST ADAPT CONDUIT STUBOUTS FOR SPECIFIC PROJECT REQUIREMENTS.
4. ADDITIONAL CONDUIT ENTRANCES AS REQUIRED.
5. CONDUITS MUST BE EXTENDED INTO THE PULL BOX A NOMINAL 2" FROM THE INSIDE WALL.



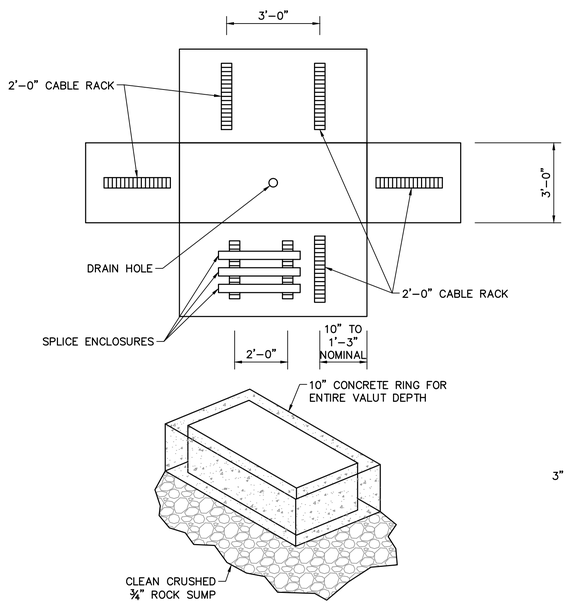
CONDUIT DEPTH – BORING

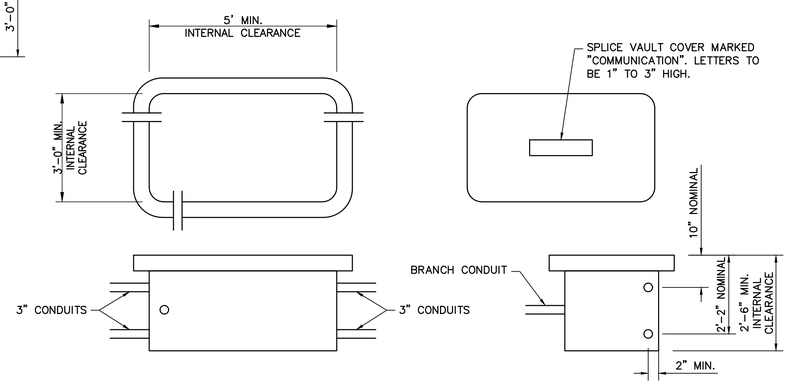


CONDUIT DEPTH – AC PAVEMENT

CONDUIT INSTALLATION DEPTH

NO SCALE





SPLICE VAULT DETAIL

NO SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REGISTERED PROFESSIONAL ENGINEER
MARC VIOLETT
No. C73486
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, California 92705
Phone: (949) 270-9400
Fax: (949) 270-9401

MARC VIOLETT
R.C.E. NO. 73486
DATE

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

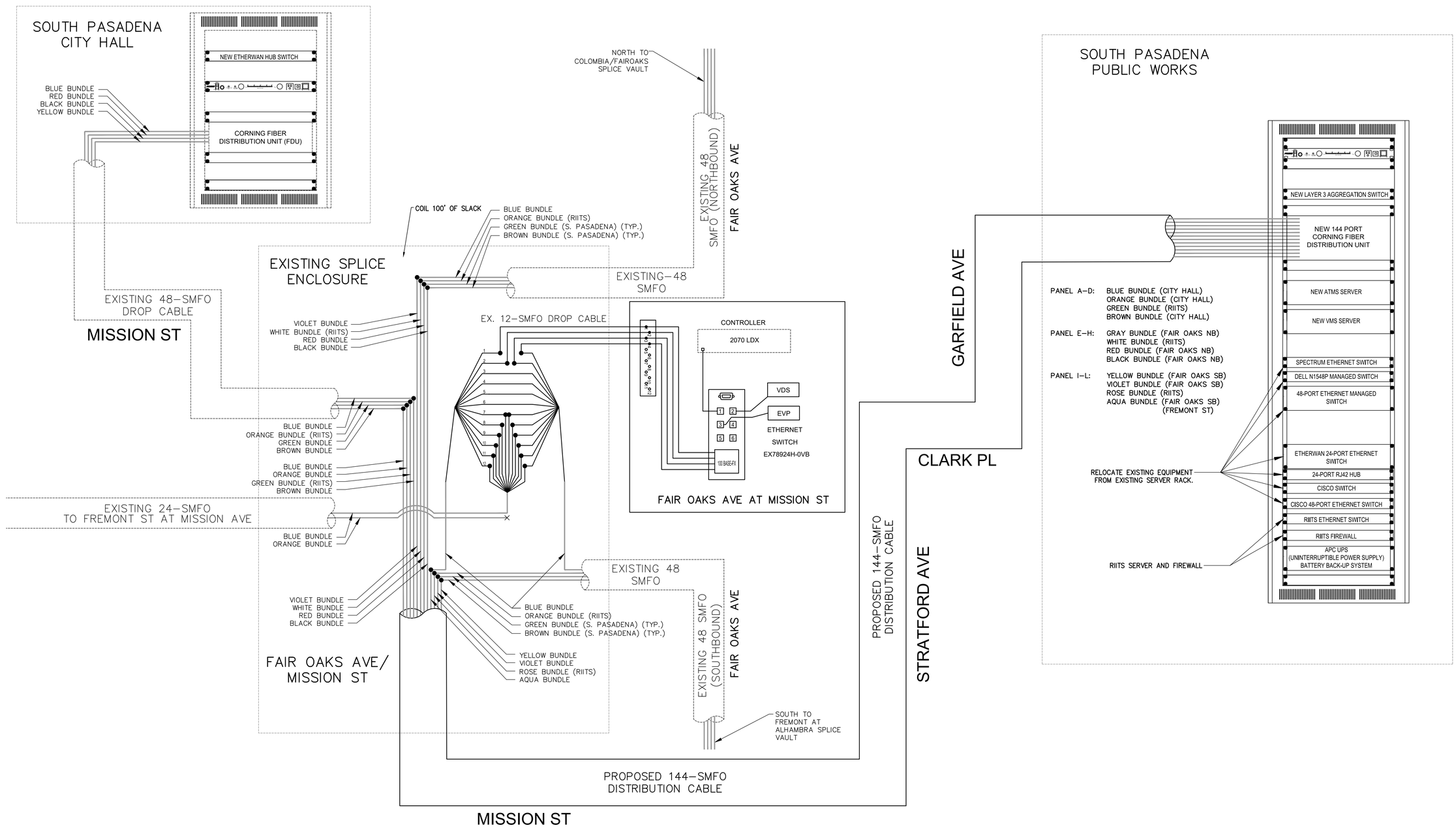
FIBER OPTICS DETAILS

FIBER OPTICS PLAN

FO-04

PROJECT NO.
SHEET NO. 56 OF 97

C:\pms\iteris-pw.bentley.com_itrs-pw-01\rliang@iteris.com\dms21280\FO-04 – Fiber Optics Details.dwg 10/07/26 – 3:57pm rliang



Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REGISTERED PROFESSIONAL ENGINEER
MARC VIOLETT
No. C73486
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5551
Phone: (949) 270-9400
Fax: (949) 270-9401

MARC VIOLETT
R.C.E. NO. 73486
DATE

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

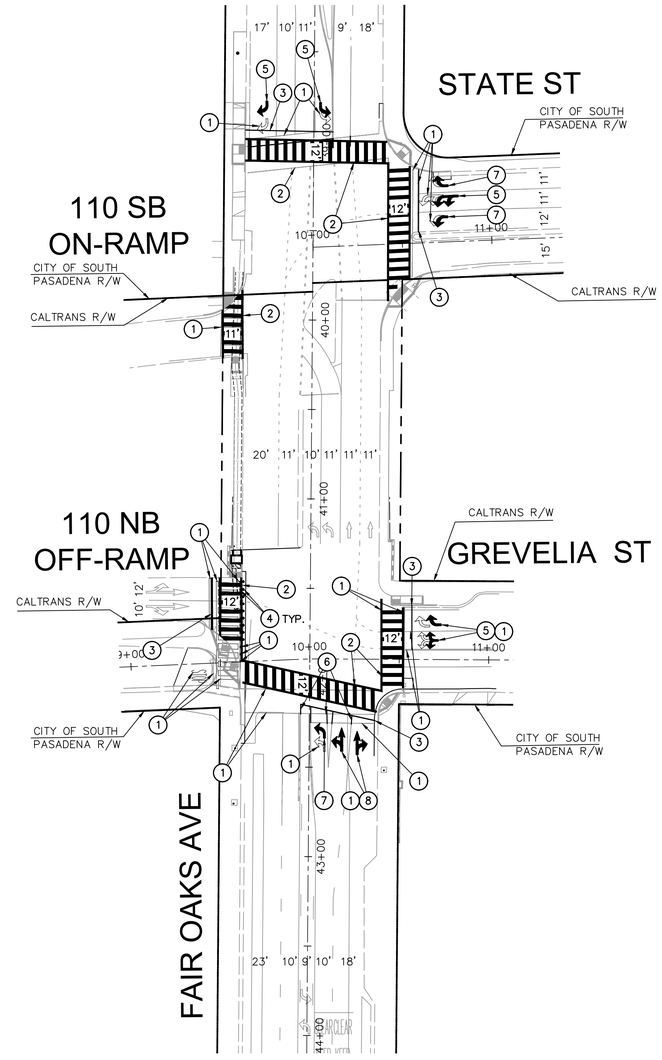
SPLICE DETAILS

FIBER OPTICS PLAN

FO-05

PROJECT NO.
SHEET NO. 57 OF 97

C:\bms\iteris-pw.bentley.com_itrs-pw-01\rliang@iteris.com\dms21280\FO-05 - Splice Details.dwg 10/07/26 - 3:57pm rliang



SIGNING AND STRIPING CONSTRUCTION NOTES:

1. REMOVE EXISTING STRIPING, PAVEMENT MARKING, AND/OR RAISED PAVEMENT MARKERS.
2. INSTALL LADDER TYPE CROSSWALK PER CALTRANS STD. PLAN A24F WITH LADDER SPACING OF A 2 FOOT STRIPE AND 2 FOOT GAP, ALTERNATING.
3. INSTALL 12" WHITE SOLID LIMIT LINE PER CALTRANS STD. PLAN A24G.
4. RELOCATE EXISTING RED RETROREFLECTIVE RAISED PAVEMENT MARKERS AS SHOWN.
5. INSTALL NEW PAVEMENT MARKING ARROW AS SHOWN ON PLAN. MATCH EXISTING TYPE AND SIZE OF MARKING.
6. EXTEND EXISTING STRIPING AS SHOWN ON PLAN.
7. INSTALL WHITE TYPE IV (L/R) ARROW PER CALTRANS STD. PLAN A24A.
8. INSTALL WHITE TYPE VII (L/R) ARROW PER CALTRANS STD. PLAN A24A.

N

40' 20' 0 20' 40'
1"=40' GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REGISTERED PROFESSIONAL ENGINEER
MARC VIOLETT
No. C73486
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5551
Phone: (949) 270-9400
Fax: (949) 270-9401

MARC VIOLETT DATE
R.C.E. NO. 73486

CITY OF SOUTH PASADENA CALIFORNIA 1888

CITY OF SOUTH PASADENA

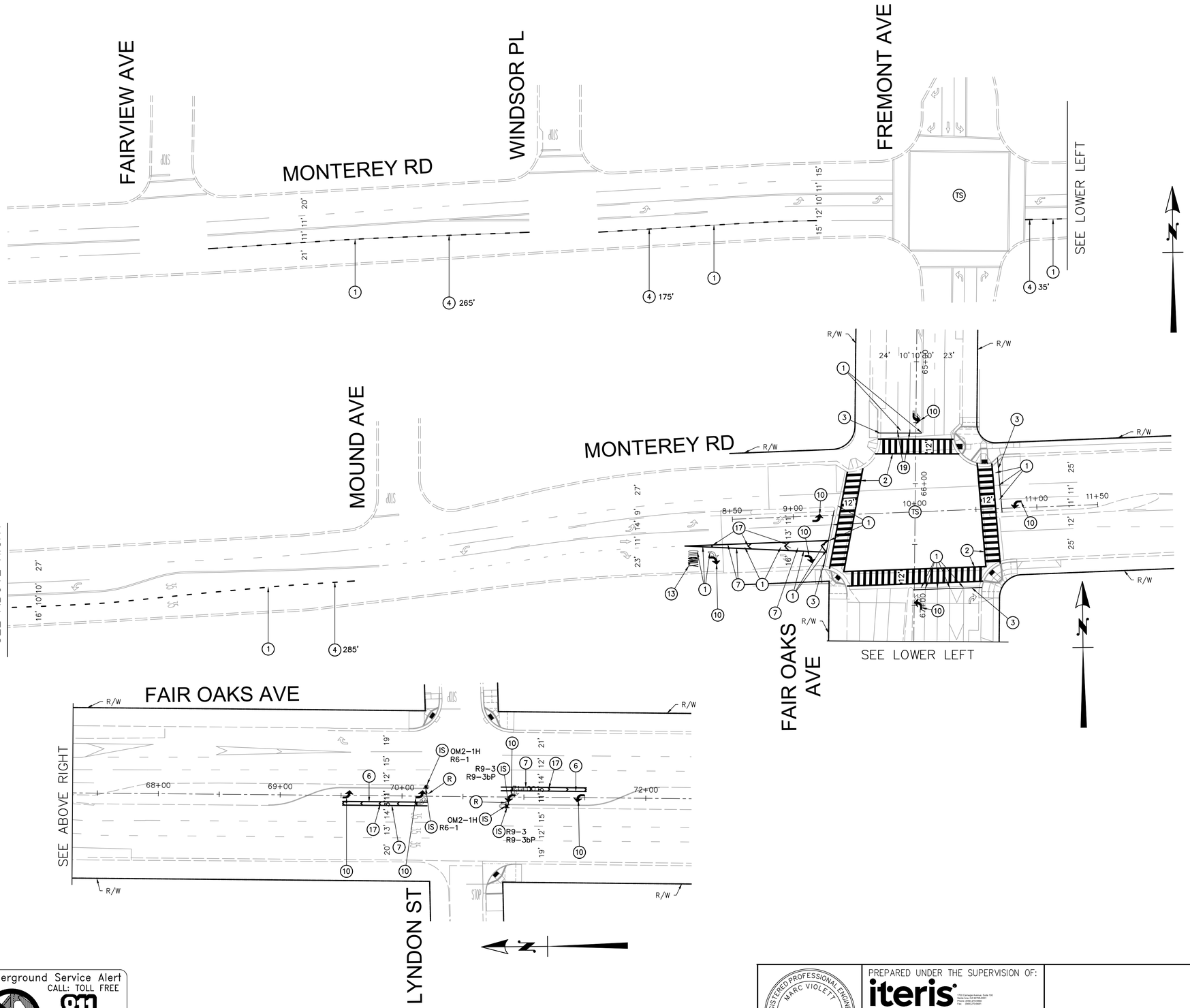
NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

FAIR OAKS AVENUE AT STATE ST/110 SB ON-RAMP & GREVELIA ST/110 NB OFF-RAMP

SIGNING AND STRIPING PLAN

PROJECT NO.
SHEET NO. 58 OF 97

C:\bms\iteris-pw.bentley.com_itrs-pw-01\rliang@iteris.com\dms21280\SS-01_Grevelia - KOA.dwg 10/07/26 - 3:59pm rliang



SIGNING AND STRIPING CONSTRUCTION NOTES:

1. REMOVE EXISTING STRIPING AND/OR PAVEMENT MARKING.
2. INSTALL LADDER TYPE CROSSWALK PER CALTRANS STD. PLAN A24F WITH LADDER SPACING OF A 2 FOOT STRIPE AND 2 FOOT GAP, ALTERNATING.
3. INSTALL 12" WHITE SOLID LIMIT LINE PER CALTRANS STD. PLAN A24G.
4. INSTALL 6" WHITE LANE LINE STRIPING WITH TYPE G MARKERS PER CALTRANS STD. PLAN A20A, DETAIL 9.
6. INSTALL 6" WHITE RIGHT EDGE LINE STRIPING PER CALTRANS STD. PLAN A20B, DETAIL 27B.
7. INSTALL 8" WHITE CHANNELIZING LINE WITH TYPE G MARKERS PER CALTRANS STD. PLAN A20D, DETAIL 38.
10. INSTALL WHITE TYPE IV (L/R) ARROW PER CALTRANS STD. PLAN A24A.
13. INSTALL PAVEMENT MARKINGS PER CALTRANS STD. PLAN A24E, "ONLY".
17. INSTALL 6" WHITE 45-DEGREE DIAGONAL LINES PER CA MUTCD FIGURE 9C-110 (CA) OR AS DIRECTED BY THE ENGINEER. SPACING AT 20' C-C.
19. EXTEND STRIPING AS SHOWN ON PLAN.

SIGN NOTES:

IS. FURNISH AND INSTALL SIGN AND/OR POST AS SHOWN.

R. REMOVE ROADSIDE SIGN AND/OR POST AS SHOWN.

SIGN LEGEND:

R9-3 (18"X18") | R9-3bP (12"X8") | R6-1 (48"X18") | OM2-1H (6"X12")

40' 20' 0 20' 40'
1"=40' GRAPHIC SCALE

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REGISTERED PROFESSIONAL ENGINEER
MARC VIOLETT
No. C73486
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5501
Phone: (949) 270-9400
Fax: (949) 270-9401

MARC VIOLETT DATE
R.C.E. NO. 73486

CITY OF SOUTH PASADENA CALIFORNIA 1888

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

FAIR OAKS AVENUE &
MONTEREY ROAD & LYNDON STREET

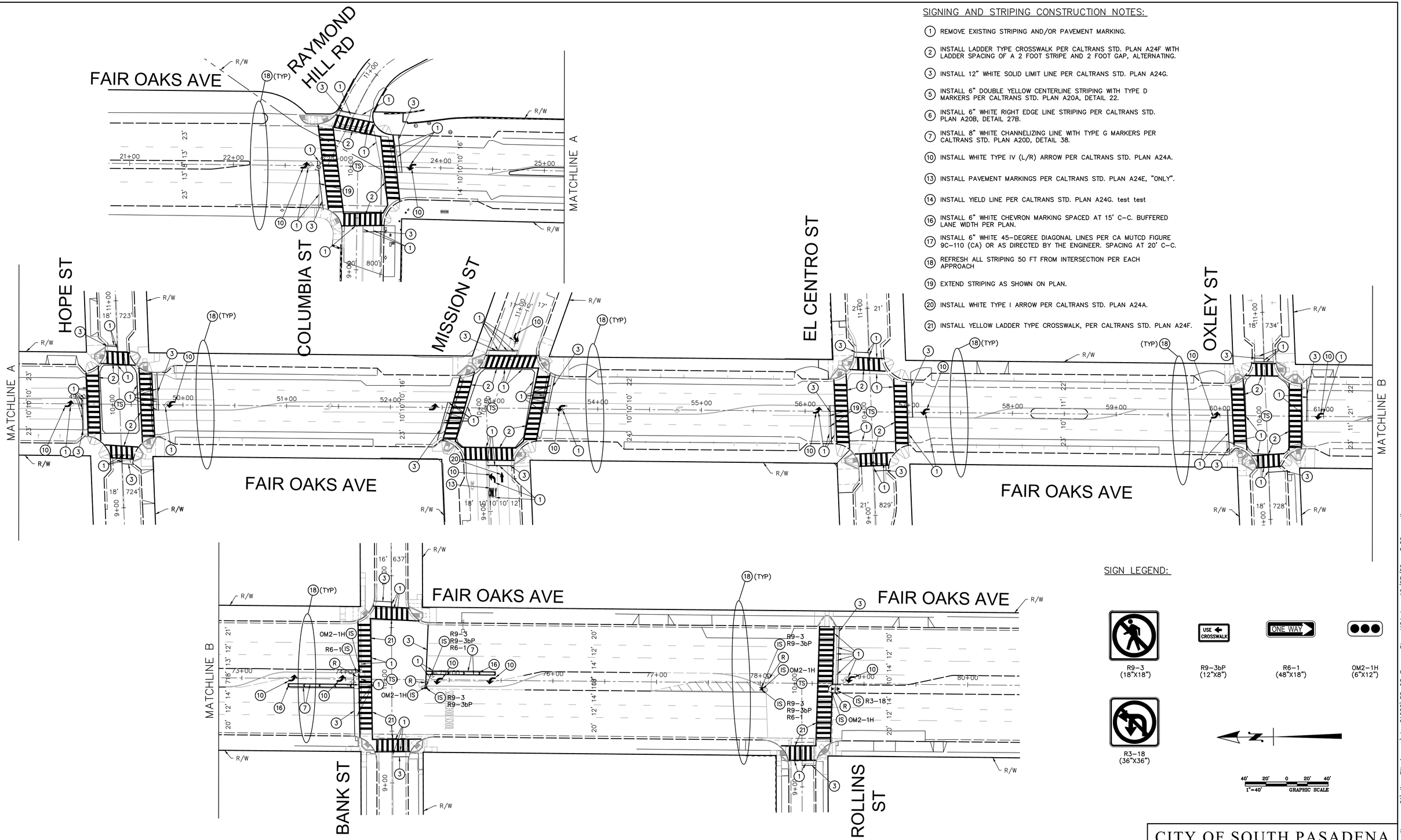
SIGNING AND STRIPING PLAN

PROJECT NO.
SHEET NO. 59 OF 97

C:\bms\iteris-pw.bentley.com_itrs-pw-01\rliang@iteris.com\dms21280\SS-02_Monterey Rd - KOA.dwg 10/08/26 - 2:20pm rliang

SIGNING AND STRIPING CONSTRUCTION NOTES:

1. REMOVE EXISTING STRIPING AND/OR PAVEMENT MARKING.
2. INSTALL LADDER TYPE CROSSWALK PER CALTRANS STD. PLAN A24F WITH LADDER SPACING OF A 2 FOOT STRIPE AND 2 FOOT GAP, ALTERNATING.
3. INSTALL 12" WHITE SOLID LIMIT LINE PER CALTRANS STD. PLAN A24G.
5. INSTALL 6" DOUBLE YELLOW CENTERLINE STRIPING WITH TYPE D MARKERS PER CALTRANS STD. PLAN A20A, DETAIL 22.
6. INSTALL 6" WHITE RIGHT EDGE LINE STRIPING PER CALTRANS STD. PLAN A20B, DETAIL 27B.
7. INSTALL 8" WHITE CHANNELIZING LINE WITH TYPE G MARKERS PER CALTRANS STD. PLAN A20D, DETAIL 38.
10. INSTALL WHITE TYPE IV (L/R) ARROW PER CALTRANS STD. PLAN A24A.
13. INSTALL PAVEMENT MARKINGS PER CALTRANS STD. PLAN A24E, "ONLY".
14. INSTALL YIELD LINE PER CALTRANS STD. PLAN A24G. test test
16. INSTALL 6" WHITE CHEVRON MARKING SPACED AT 15' C-C. BUFFERED LANE WIDTH PER PLAN.
17. INSTALL 6" WHITE 45-DEGREE DIAGONAL LINES PER CA MUTCD FIGURE 9C-110 (CA) OR AS DIRECTED BY THE ENGINEER. SPACING AT 20' C-C.
18. REFRESH ALL STRIPING 50 FT FROM INTERSECTION PER EACH APPROACH
19. EXTEND STRIPING AS SHOWN ON PLAN.
20. INSTALL WHITE TYPE I ARROW PER CALTRANS STD. PLAN A24A.
21. INSTALL YELLOW LADDER TYPE CROSSWALK, PER CALTRANS STD. PLAN A24F.



SIGN LEGEND:

Underground Service Alert
CALL: TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG

REGISTERED PROFESSIONAL ENGINEER BRENT MAUE No. C80265 CIVIL STATE OF CALIFORNIA

REVIEWED BY THE CITY OF PASADENA FOR APPROVAL BY:

BRENT MAUE, PE — DATE
R.C.E. NO. 80265

REGISTERED PROFESSIONAL ENGINEER MARC VIOLETT No. C73486 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
iteris
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705-5551
Phone: (949) 270-9400
Fax: (949) 270-9401

MARC VIOLETT — DATE
R.C.E. NO. 73486

CITY OF SOUTH PASADENA · 1888 · CITY OF SOUTH PASADENA CALIFORNIA

CITY OF SOUTH PASADENA

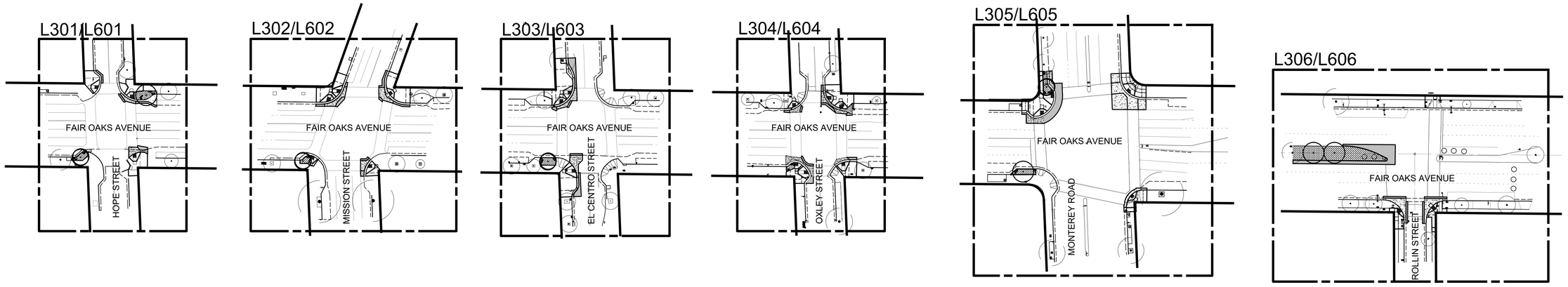
NORTH-SOUTH CORRIDOR
I.T.S. DEPLOYMENT PROJECT

FAIR OAKS AVENUE
COLUMBIA ST TO ROLLINS ST

SIGNING AND STRIPING PLAN

PROJECT NO.
SHEET NO. 60 OF 97

C:\bms\iteris-pw.bentley.com_itrs-pw-01\rliang@iteris.com\dms21280\SS-03_Spruce St - KOA.dwg 10/07/26 - 3:59pm rliang



OVERALL PLAN

SCALE: 1" = 60'

60' 30' 0' 30' 60' 120'

GRAPHIC SCALE

Underground Service Alert

CALL BEFORE YOU DIG

Call: TOLL FREE 8—1—1

TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

iteris

LICENSED LANDSCAPE ARCHITECT
DEAN HOWELL 5765
Signature
12-31-26
Renewal Date
Date
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:

DEAN HOWELL 10-07-26
P.L.A. No. 5765 DATE

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT

FAIR OAKS AVENUE & HOPE STREET

OVERALL PLAN

L100

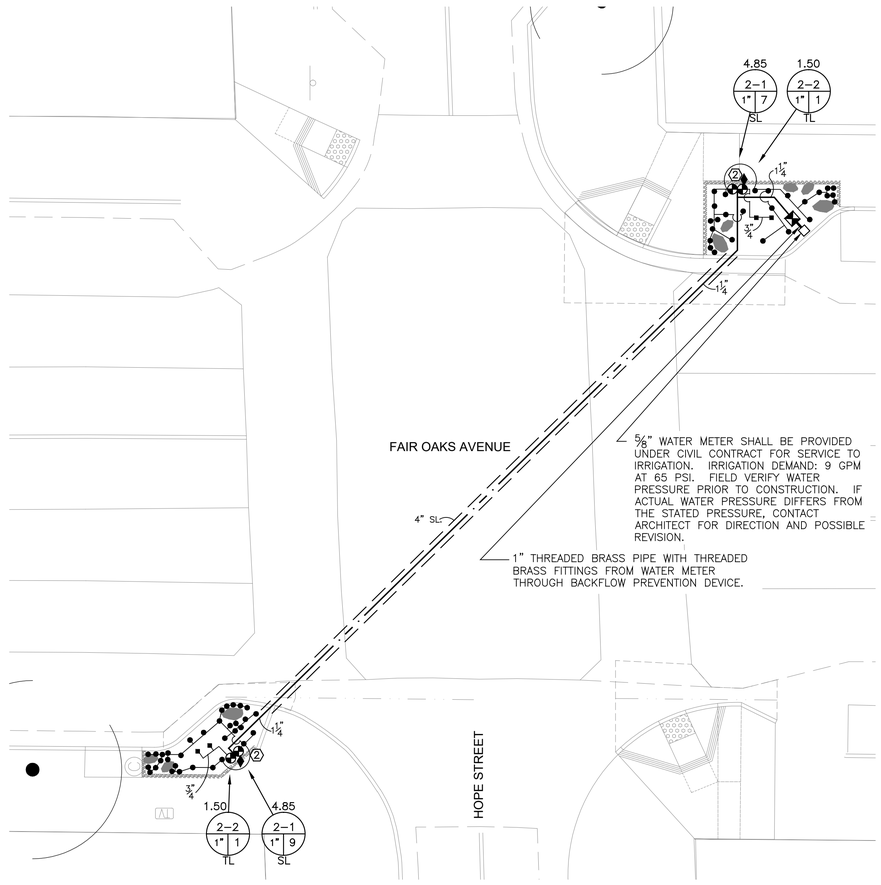
PROJECT NO. 2020-02
SHEET NO. 61 OF 97

100% SUBMITTAL

LAST SAVED BY: SAPINA

PLOT DATE: 10/7/2026

C:\Users\sapina\OneDrive – gruenassociates.com\8665 Fair Oaks Blvd – Documents\04Dwg\2L\–OSht\L100 – Overall Plan.dwg



FAIR OAKS AVE & HOPE ST

SCALE: 1"=10'

SHRUB BUBBLER LATERAL PIPE SIZING	
QUANTITY OF BUBBLERS	PIPE SIZE
1 – 16	¾"
17 – 32	1"
33 – 60	1¼"
61 – 100	1½"

10' 5' 0' 5' 10' 20'
GRAPHIC SCALE

DICKSON & ASSOCIATES, INC.
LANDSCAPE IRRIGATION
(530) 547-5515 www.dicksoninc.net
P.O. BOX 415
PALO CEDRO, CALIFORNIA 96073

© Dickson & Associates, Inc.

Underground Service Alert
Call: TOLL FREE 8–1–1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

iteris

LICENSED LANDSCAPE ARCHITECT
DEAN HOWELL 5765
Signature
12-31-26
Renewal Date
Date
STATE OF CALIFORNIA

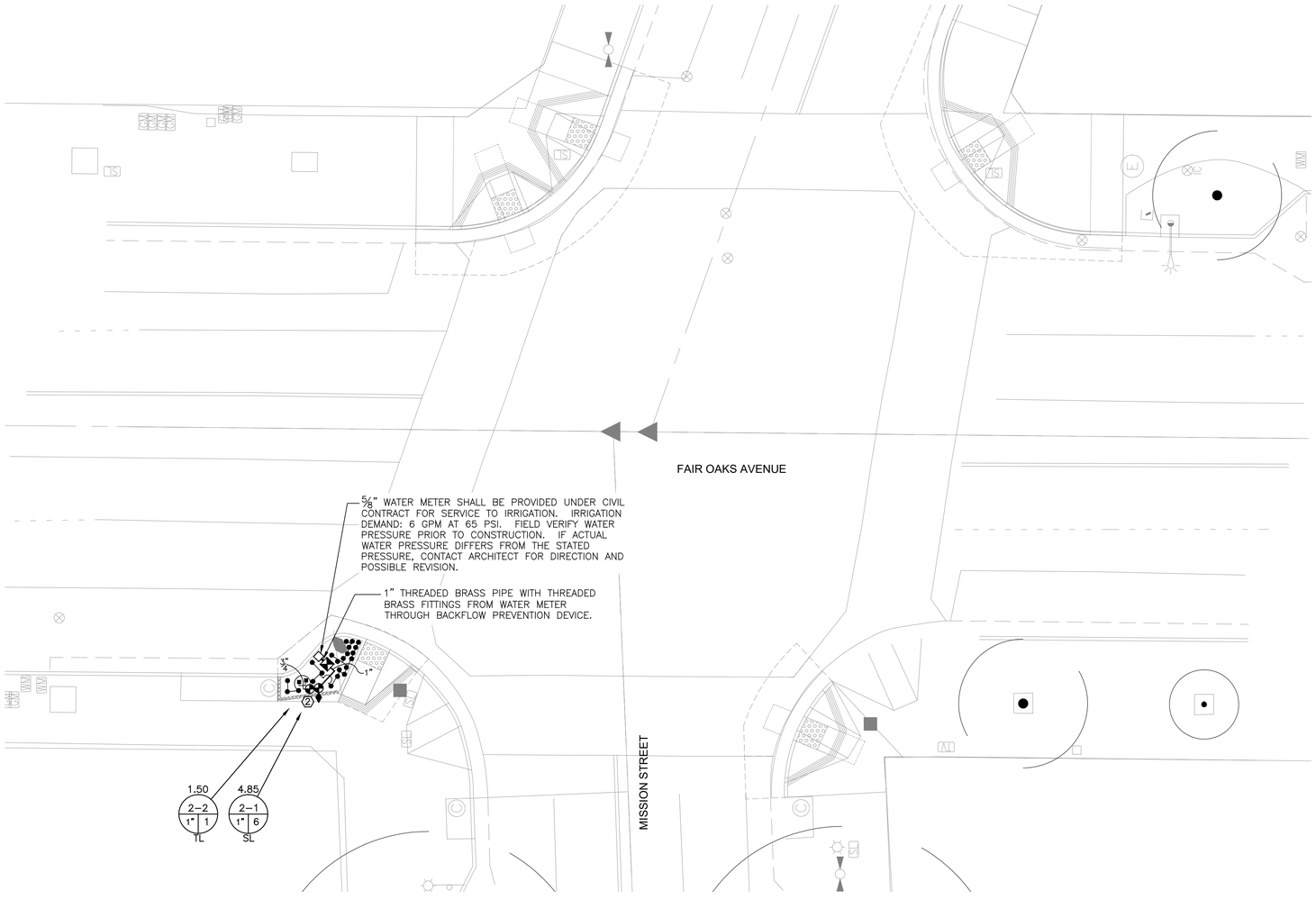
PREPARED UNDER THE SUPERVISION OF:
10-07-26
DEAN HOWELL DATE
P.L.A. No. 5765

CITY OF SOUTH PASADENA CALIFORNIA 1888

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT
FAIR OAKS AVENUE & HOPE STREET
IRRIGATION PLAN
L301
PROJECT NO. 2020-02
SHEET NO. 62 OF 97

100% SUBMITTAL

LAST SAVED BY: LEEANN
PLOT DATE: 12/17/2025
Z:\Jobs\2025\25-903\L30X – Irrigation Overall Plan and Notes – MAINTAINANCE.dwg



FAIR OAKS AVE & MISSION ST

SCALE: 1"=10'

SHRUB BUBBLER LATERAL PIPE SIZING	
QUANTITY OF BUBBLERS	PIPE SIZE
1 – 16	3/4"
17 – 32	1"
33 – 60	1 1/4"
61 – 100	1 1/2"

10' 5' 0' 5' 10' 20'
GRAPHIC SCALE

DICKSON & ASSOCIATES, INC.
LANDSCAPE IRRIGATION
(530) 547-5515 www.dicksoninc.net
P.O. BOX 415
PALO CEDRO, CALIFORNIA 96073

© Dickson & Associates, Inc.

Underground Service Alert
Call: TOLL FREE 8–1–1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

iteris

LICENSED LANDSCAPE ARCHITECT DEAN HOWELL 5765 Signature 12-31-26 Renewal Date Date STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
10-07-26
DEAN HOWELL DATE
P.L.A. No. 5765

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT

FAIR OAKS AVENUE & MISSION STREET

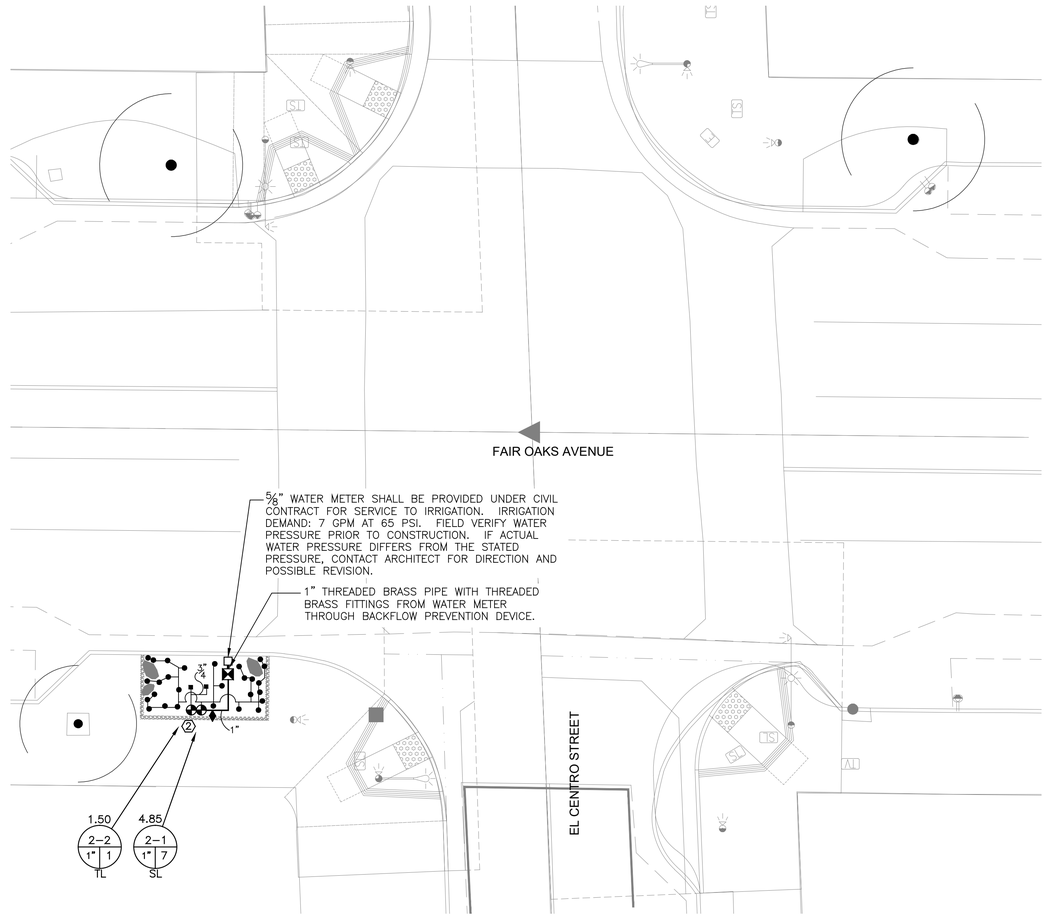
IRRIGATION PLAN

L302

PROJECT NO. 2020-02
SHEET NO. 63 OF 97

100% SUBMITTAL

LAST SAVED BY: LEEANN
PLOT DATE: 12/17/2025
Z:\Jobs\2025\25-903\L30X - Irrigation Overall Plan and Notes - MAINTAINANCE.dwg



FAIR OAKS AVE & EL CENTRO ST

SCALE: 1"=10'

SHRUB BUBBLER LATERAL PIPE SIZING	
QUANTITY OF BUBBLERS	PIPE SIZE
1 – 16	3/4"
17 – 32	1"
33 – 60	1 1/4"
61 – 100	1 1/2"

10' 5' 0' 5' 10' 20'
GRAPHIC SCALE

DICKSON & ASSOCIATES, INC.
LANDSCAPE IRRIGATION
(530) 547-5515 www.dicksoninc.net
P.O. BOX 415
PALO CEDRO, CALIFORNIA 96073

© Dickson & Associates, Inc.

Underground Service Alert
Call: TOLL FREE
8–1–1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

iteris

LICENSED LANDSCAPE ARCHITECT
DEAN HOWELL 5765
Signature
12-31-26
Renewal Date
Date
STATE OF CALIFORNIA

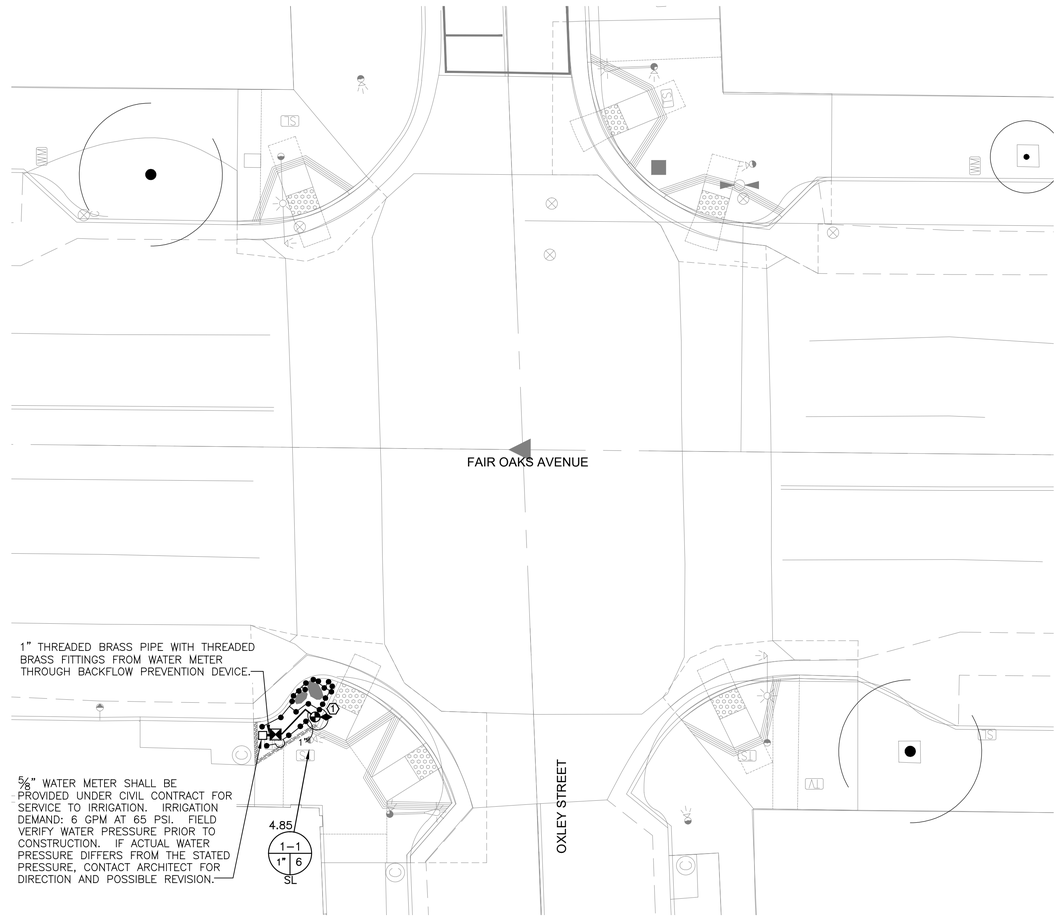
PREPARED UNDER THE SUPERVISION OF:
10-07-26
DEAN HOWELL DATE
P.L.A. No. 5765

REVIEWED IN ACCORDANCE WITH CITY'S POLICY CONDITIONS OF APPROVAL BY:
DATE
PW. DIRECTOR
R.C.E. NO.

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT
FAIR OAKS AVENUE & EL CENTRO STREET
IRRIGATION PLAN
L303
PROJECT NO. 2020-02
SHEET NO. 64 OF 97

100% SUBMITTAL

LAST SAVED BY: LEEANN
PLOT DATE: 12/17/2025
Z:\Jobs\2025\25-903\L30X - Irrigation Overall Plan and Notes - MAINTAINANCE.dwg



SHRUB BUBBLER LATERAL PIPE SIZING	
QUANTITY OF BUBBLERS	PIPE SIZE
1 – 16	3/4"
17 – 32	1"
33 – 60	1 1/4"
61 – 100	1 1/2"

FAIR OAKS AVE & OXLEY ST

SCALE: 1"=10'

10' 5' 0' 5' 10' 20'
GRAPHIC SCALE

DICKSON & ASSOCIATES, INC.
LANDSCAPE IRRIGATION
(530) 547-5515 www.dicksoninc.net
P.O. BOX 415
PALO CEDRO, CALIFORNIA 96073

© Dickson & Associates, Inc.

Underground Service Alert
Call: TOLL FREE
8–1–1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

iteris

LICENSED LANDSCAPE ARCHITECT
DEAN HOWELL 5765
Signature
12-31-26
Renewal Date
Date
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
10-07-26
DEAN HOWELL DATE
P.L.A. No. 5765

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT

FAIR OAKS AVENUE & OXLEY STREET

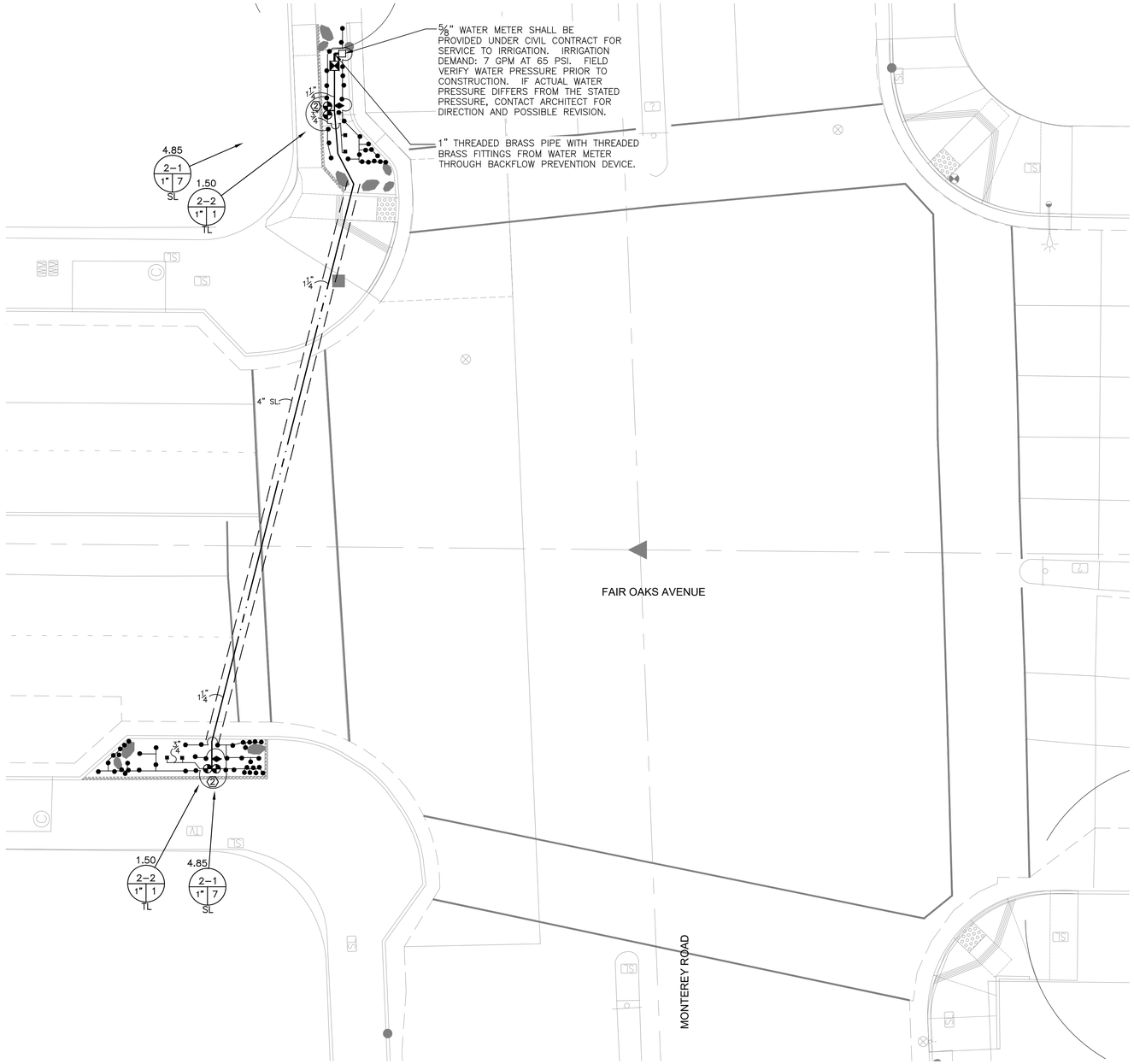
IRRIGATION PLAN

L304

PROJECT NO. 2020-02
SHEET NO. 65 OF 97

100% SUBMITTAL

LAST SAVED BY: LEEANN
PLOT DATE: 12/17/2025
Z:\Jobs\2025\25-903\L30X - Irrigation Overall Plan and Notes - MAINTAINANCE.dwg



SHRUB BUBBLER LATERAL PIPE SIZING	
QUANTITY OF BUBBLERS	PIPE SIZE
1 – 16	3/4"
17 – 32	1"
33 – 60	1 1/4"
61 – 100	1 1/2"

FAIR OAKS AVE & MONTEREY RD

SCALE: 1"=10'

10' 5' 0' 5' 10' 20'
GRAPHIC SCALE

DICKSON & ASSOCIATES, INC.
LANDSCAPE IRRIGATION
(530) 547-5515 www.dicksoninc.net
P.O. BOX 415
PALO CEDRO, CALIFORNIA 96073
© Dickson & Associates, Inc.

Underground Service Alert
Call: TOLL FREE
8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

iteris

LICENSED LANDSCAPE ARCHITECT
DEAN HOWELL 5765
Signature
12-31-26
Renewal Date
Date
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
10-07-26
DEAN HOWELL DATE
P.L.A. No. 5765

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT

FAIR OAKS AVENUE & MONTEREY RD

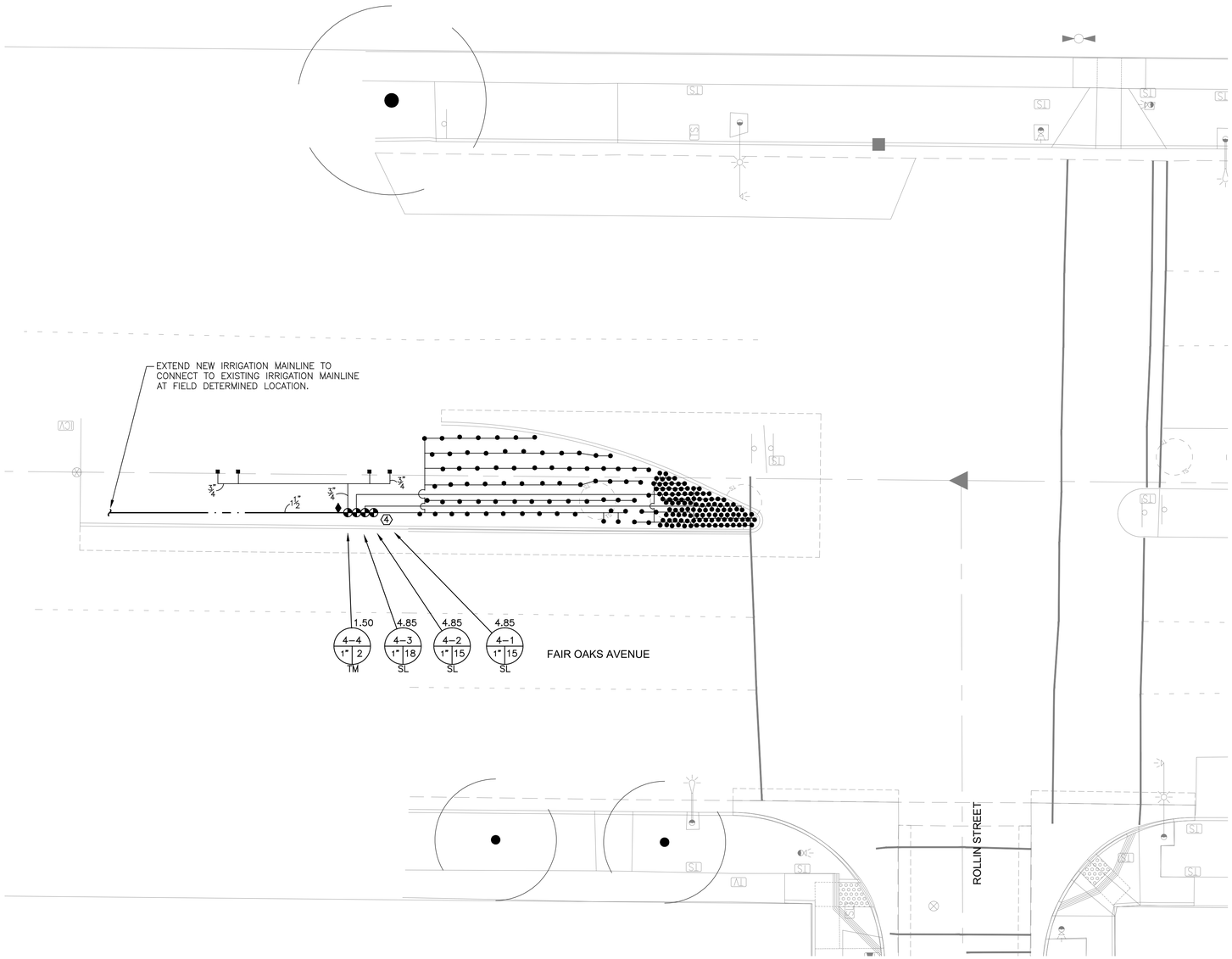
IRRIGATION PLAN

L305

PROJECT NO. 2020-02
SHEET NO. 66 OF 97

100% SUBMITTAL

LAST SAVED BY: LEEANN
PLOT DATE: 12/17/2025
Z:\Jobs\2025\25-903\L30X - Irrigation Overall Plan and Notes - MAINTAINANCE.dwg



SHRUB BUBBLER LATERAL PIPE SIZING	
QUANTITY OF BUBBLERS	PIPE SIZE
1 – 16	3/4"
17 – 32	1"
33 – 60	1 1/4"
61 – 100	1 1/2"

FAIR OAKS AVE & ROLLIN ST

SCALE: 1"=10'

10' 5'

DICKSON & ASSOCIATES, INC.
LANDSCAPE IRRIGATION
(530) 547-5515 www.dicksoninc.net
P.O. BOX 415
PALO CEDRO, CALIFORNIA 96073
© Dickson & Associates, Inc.

Underground Service Alert
Call: TOLL FREE 8–1–1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

iteris

LICENSED LANDSCAPE ARCHITECT
DEAN HOWELL 5765
Signature
12-31-26
Renewal Date
Date
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
DEAN HOWELL 10-07-26
P.L.A. No. 5765 DATE

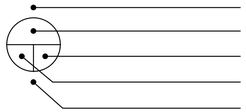
CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT
FAIR OAKS AVENUE & ROLLIN STREET
IRRIGATION PLAN
L306
PROJECT NO. 2020-02
SHEET NO. 67 OF 97

100% SUBMITTAL

LAST SAVED BY: LEEANN
PLOT DATE: 12/17/2025
Z:\Jobs\2025\25-903\L30X - Irrigation Overall Plan and Notes - MAINTAINANCE.dwg

IRRIGATION LEGEND

SYMBOL	MODEL NUMBER	DESCRIPTION
●	1401 / CV-0500-FM	RAIN BIRD BUBBLER / NDS FLOW MANAGEMENT INLINE SPRING CHECK VALVE (SHRUB)
■	1401 / CV-0500-FM	RAIN BIRD BUBBLER / NDS FLOW MANAGEMENT INLINE SPRING CHECK VALVE (TREE)
	100-PESB-1" / LT-T	RAIN BIRD REMOTE CONTROL VALVE / KBI SCHEDULE 80 PVC FULL PORT BALL VALVE
	33DRC	RAIN BIRD QUICK COUPLING VALVE
	975XL2-1"	WILKINS REDUCED PRESSURE BACKFLOW ASSEMBLY (LEAD FREE)
1	TBOS-BT1	RAIN BIRD BATTERY-OPERATED CONTROLLER - 1 STATION
2	TBOS-BT2	RAIN BIRD BATTERY-OPERATED CONTROLLER - 2 STATION
4	TBOS-BT4	RAIN BIRD BATTERY-OPERATED CONTROLLER - 4 STATION



PRECIPITATION RATE

CONTROLLER & STATION NUMBER

APPROXIMATE FLOW (GPM)

REMOTE CONTROL VALVE SIZE

HYDROZONE - PLANT TYPE / WATER REQUIREMENT
SL - SHRUB & GROUNDCOVER / LOW WATER-USE
TM - TREE / MODERATE WATER-USE
TL - TREE / LOW WATER-USE

MAINLINE: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT-WELD FITTINGS. 18" COVER. 24" COVER UNDER VEHICULAR PAVING.

LATERAL LINE: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT-WELD FITTINGS. 12" COVER. 24" COVER UNDER VEHICULAR PAVING.

SLEEVING: 1120-SCHEDULE 40 PVC PLASTIC PIPE. COVER TO BE AS INDICATED IN SPECIFICATIONS OR AS INDICATED ABOVE FOR PIPE DEPTH OF COVER.

IRRIGATION NOTES

1. THESE IRRIGATION DRAWINGS ARE DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS IS FOR CLARITY ONLY AND ARE TO BE INSTALLED WITHIN PLANTING AREAS WHERE POSSIBLE. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC., WHICH MAY BE REQUIRED. THE CONTRACTOR IS REQUIRED TO INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL OF THE CONTRACT WORK INCLUDING OBSTRUCTIONS, GRADE DIFFERENCES OR AREA DIMENSIONAL DIFFERENCES WHICH MAY NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. IN THE EVENT OF FIELD DIFFERENCES, THE CONTRACTOR IS REQUIRED TO PLAN THE INSTALLATION WORK ACCORDINGLY BY NOTIFICATION AND APPROVAL OF THE OWNER'S AUTHORIZED REPRESENTATIVE AND ACCORDING TO THE CONTRACT SPECIFICATION. THE CONTRACTOR IS ALSO REQUIRED TO NOTIFY AND COORDINATE IRRIGATION CONTRACT WORK WITH ALL APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT OR SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING, STRUCTURE, ETC., BEFORE CONSTRUCTION. IN THE EVENT THESE NOTIFICATIONS ARE NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL REQUIRED REVISIONS.

2. THE CONTRACTOR SHALL EXERCISE CARE IN LOCATING PIPING AS TO NOT CONFLICT WITH OTHER UTILITIES. DO NOT INSTALL IRRIGATION PIPING PARALLEL TO AND DIRECTLY OVER OTHER UTILITIES.

3. THE INTENT OF THIS IRRIGATION SYSTEM IS TO PROVIDE THE MINIMUM AMOUNT OF WATER REQUIRED TO SUSTAIN GOOD PLANT HEALTH.

4. IT IS THE RESPONSIBILITY OF THE LANDSCAPE MAINTENANCE CONTRACTOR AND/OR OWNER TO PROGRAM THE IRRIGATION CONTROLLERS TO PROVIDE THE MINIMUM AMOUNT OF WATER NEEDED TO SUSTAIN GOOD PLANT HEALTH. THIS INCLUDES MAKING ADJUSTMENTS TO THE PROGRAM FOR SEASONAL WEATHER CHANGES, PLANT MATERIAL WATER REQUIREMENTS, MOUNDS AND SLOPES, SUN, SHADE, AND WIND EXPOSURES.

5. AT THE END OF THE REQUIRED MAINTENANCE PERIOD OF THE CONTRACTOR, THE OWNER SHALL PROVIDE REGULAR MAINTENANCE OF THE IRRIGATION SYSTEM TO ENSURE THE EFFICIENT USE OF WATER. MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO CHECKING, ADJUSTING, AND REPAIRING IRRIGATION EQUIPMENT AND CONTROL SYSTEM.

6. THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.

7. IRRIGATION DEMAND: REFER TO IRRIGATION DRAWING SHEETS FOR GPM AND PSI DEMANDS AT EACH IRRIGATION WATER SERVICE LOCATION. FIELD VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. IF ACTUAL WATER PRESSURE DIFFERS FROM THE STATED PRESSURE CONTACT ARCHITECT FOR DIRECTION AND POSSIBLE REVISION.

8. CONTRACTOR SHALL PROGRAM THE IRRIGATION CONTROLLER TO PROVIDE IRRIGATION TO ALL PLANTING WITHIN THE ALLOWED WATERING WINDOW OF TIME AS REQUIRED. THE CONTRACTOR SHALL CREATE CONTROLLER PROGRAMMING THAT WILL NOT EXCEED THE MAXIMUM GALLONS PER MINUTE FLOW RATE STATED ON THE DRAWINGS, AND NOT EXCEED THE CAPACITY OF ANY MAINLINE PIPING.

9. IRRIGATION CONTROL WIRES SHALL BE COPPER WITH U.L. APPROVAL FOR DIRECT BURIAL IN GROUND, SIZE #14-1. COMMON GROUND WIRE SHALL HAVE WHITE INSULATING JACKET. CONTROL WIRE SHALL HAVE INSULATING JACKET OF COLOR OTHER THAN WHITE. SPLICE SHALL BE MADE WITH 3M-DBR/Y-6 SEAL PACKS.

10. SPLICING OF 24 VOLT WIRES IS NOT PERMITTED EXCEPT IN VALVE BOXES. SEAL WIRE SPLICES WITH 3M-DBR/Y-6 SPLICE SEALING DEVICES OF SIZE COMPATIBLE WITH WIRE SIZE.

11. PLASTIC VALVE BOXES AND LIDS ARE TO BE BLACK IN COLOR WITH BOLT DOWN, NON-HINGED COVER MARKED "IRRIGATION". BOX BODY SHALL HAVE KNOCK OUTS. MANUFACTURER SHALL BE RAIN BIRD.

12. INSTALL REMOTE CONTROL VALVE BOXES 12" FROM WALK, CURB, HEADER BOARD, OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE AN EQUAL DISTANCE FROM THE WALK, CURB, ETC. AND EACH BOX SHALL BE 12" APART. SHORT SIDE OF RECTANGULAR VALVE BOXES SHALL BE PARALLEL TO WALK, CURB, ETC.

13. VALVE LOCATIONS SHOWN ARE DIAGRAMMATIC. INSTALL IN GROUNDCOVER/SHRUB AREAS WHERE POSSIBLE.

14. THE IRRIGATION CONTRACTOR SHALL FLUSH ALL SYSTEMS FOR OPTIMUM PERFORMANCE AND COVERAGE OF THE LANDSCAPE AREA. THIS SHALL INCLUDE ADJUSTING THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM.

15. ALL IRRIGATION PIPING THAT IS NOT A DIRECT LINE TO TREES SHALL BE A MINIMUM FIVE (5) FEET FROM CENTER OF TREE.

16. LOCATE BUBBLERS ON UP-HILL SIDE OF PLANT OR TREE.

17. INSTALL AN NDS-FLO MANAGEMENT INLINE SPRING LOADED CHECK VALVE (CV-0500-FM) BELOW THOSE BUBBLERS WHERE LOW HEAD DRAINAGE WILL CAUSE EROSION AND/OR EXCESS WATER.

18. WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, THE CONTRACTOR SHALL USE ALL POSSIBLE CARE TO AVOID INJURY TO TREES AND TREE ROOTS. EXCAVATION IN AREAS WHERE TWO (2) INCH AND LARGER ROOTS OCCUR SHALL BE DONE BY HAND. TRENCHES ADJACENT TO TREE SHOULD BE CLOSED WITHIN TWENTY-FOUR (24) HOURS; AND WHERE THIS IS NOT POSSIBLE, THE SIDE OF THE TRENCH ADJACENT TO THE TREE SHALL BE KEPT SHADED WITH BURLAP OR CANVAS.

19. IRRIGATION CONTRACTOR TO NOTIFY ALL LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.

20. PRESSURE TEST PROCEDURE. THE CONTRACTOR SHALL:
   A. NOTIFY ARCHITECT AT LEAST THREE (3) DAY IN ADVANCE OF TESTING.
   B. PERFORM TESTING AT HIS OWN EXPENSE.
   C. CENTER LOAD PIPING WITH SMALL AMOUNT OF BACKFILL TO PREVENT ARCHING OR SLIPPING UNDER PRESSURE. NO FITTING SHALL BE COVERED.
   D. APPLY THE FOLLOWING TESTS AFTER WELD PLASTIC PIPE JOINTS HAVE CURED AT LEAST 24 HOURS.
      1. TEST LIVE (CONSTANT PRESSURE) AND QUICK COUPLER LINE HYDROSTATICALLY AT 125 PSI MINIMUM. LINES WILL BE APPROVED IF TEST PRESSURE IS MAINTAINED FOR SIX (6) HOURS. THE LINE WILL BE APPROVED OR NOT APPROVED AS SUCH RESULTS MAY INDICATE. THE CONTRACTOR SHALL MAKE TESTS AND REPAIRS AS NECESSARY UNTIL TEST CONDITIONS ARE MET.
      2. TEST RCV CONTROLLED LATERAL LINES WITH WATER AT LINE PRESSURE AND VISUALLY INSPECT FOR LEAKS. RETEST AFTER CORRECTING DEFECTS.

21. PIPE THREAD SEALANT COMPOUND SHALL BE RECTOR SEAL T+2, CHRISTY'S ULTRA SEAL, OR APPROVED EQUAL.

22. RECORD DRAWINGS:
   A. THE CONTRACTOR SHALL MAINTAIN IN GOOD ORDER IN THE FIELD OFFICE ONE COMPLETE SET OF BLACK LINE PRINTS OF ALL IRRIGATION DRAWINGS WHICH FORM A PART OF THE CONTRACT, SHOWING ALL WATER LINES, HEADS, VALVES, CONTROLLERS AND STUB-OUTS. IN THE EVENT ANY WORK IS NOT INSTALLED AS INDICATED ON THE DRAWINGS, SUCH WORK SHALL BE CORRECTED AND DIMENSIONED ACCURATELY FROM THE BUILDING WALLS.
   B. ALL UNDERGROUND STUB-OUTS FOR FUTURE CONNECTIONS AND VALVES SHALL BE LOCATED AND DIMENSIONED ACCURATELY FROM BUILDING WALLS ON ALL RECORD DRAWINGS.
   C. UPON COMPLETION OF THE WORK, OBTAIN REPRODUCIBLE PRINTS FROM ARCHITECT AND NEATLY CORRECT THE PRINTS TO SHOW THE AS-BUILT CONDITIONS.

23. FINE TUNE IRRIGATION SYSTEM TO PROVIDE COMPLETE AND UNIFORM COVERAGE OF THE LANDSCAPE WHILE AVOIDING RUNOFF OF WATER ONTO NON-IRRIGATED AREAS, PAVED AND OTHERWISE. THIS INCLUDES PROGRAMMING THE CONTROLLER RUN TIMES FOR OPTIMIZING SOIL INFILTRATION WITH OUT PUDDLING OR RUNOFF.

24. WARRANTY:
   A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FILL AND REPAIR ALL NECESSARY PLANTING DUE TO THE SETTLEMENT OF IRRIGATION TRENCHES FOR ONE YEAR FOLLOWING COMPLETION AND ACCEPTANCE OF THE JOB.
   B. THE CONTRACTOR SHALL ALSO WARRANTY ALL MATERIALS, EQUIPMENT AND WORKMANSHIP FURNISHED BY HIM TO BE FREE OF ALL DEFECTS OF WORKMANSHIP AND MATERIALS, AND SHALL AGREE TO REPLACE AT HIS EXPENSE, AT ANY TIME WITHIN ONE YEAR AFTER INSTALLATION IS ACCEPTED, ANY AND ALL DEFECTIVE PARTS THAT MAY BE FOUND.

25. AN IRRIGATION AUDIT REPORT BY A DISINTERESTED 3RD PARTY SHALL BE COMPLETED AT THE TIME OF FINAL INSPECTION. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR HIRING THE INDEPENDENT AUDITOR.

26. PRODUCT AVAILABILITY: SUPPLY CHAIN VOLATILITY CAN IMPACT CONSTRUCTION. CONTRACTOR SHALL ORDER MATERIALS IN ADVANCE OF SCHEDULED NEED TO ALLOW FOR DELIVERY OF IRRIGATION MATERIALS. IF IRRIGATION MATERIALS ARE NOT OBTAINABLE WITHIN THE CONSTRUCTION SCHEDULE, CONTACT DESIGNER VIA RFI FOR DIRECTION AND APPROVED SUBSTITUTE PRODUCT.

IRRIGATION WATERING SCHEDULES

BUBBLER IRRIGATION FOR LOW WATER-USE SHRUBS

SPRINKLER MANUFACTURER	RAIN BIRD	LOCATION:	SOUTH PASADENA, CALIFORNIA
PRECIPITATION RATE (INCHES/HOUR):	4.85	HEAD SPACING:	VARIES
IRRIGATION SYSTEM EFFICIENCY	0.81	HEAD GPM:	0.25
PLANT FACTOR:	0.30		
YEAR 2 REDUCTION AMOUNT:	-10% OF YEAR 1 (ESTABLISHMENT) RUN TIME MINUTES		

MONTH:		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ETO PER MONTH (INCHES):		2.40	2.60	3.70	4.60	5.30	6.10	6.90	6.40	5.10	3.80	2.70	2.10	51.70
ETO PER WEEK (INCHES):		0.554	0.600	0.855	1.062	1.224	1.409	1.594	1.478	1.178	0.878	0.624	0.485	
APPLIED ETO PER WEEK (INCHES):		0.205	0.222	0.316	0.393	0.453	0.522	0.590	0.547	0.436	0.325	0.231	0.180	
MINUTES OF WATER PER WEEK:	YEAR 1	3	3	4	5	6	6	7	7	5	4	3	2	
	YEAR 2	2	2	4	4	5	6	7	6	5	4	3	2	
DAYS PER WEEK:	YEAR 1	1	1	2	2	3	3	3	3	3	2	1	1	
	YEAR 2	1	1	2	2	3	3	3	3	3	2	1	1	
MINUTES OF WATER PER DAY:	YEAR 1	3	3	2	2	2	2	2	2	2	2	3	2	
	YEAR 2	2	2	2	2	2	2	2	2	2	2	3	2	
CYCLES PER DAY:	YEAR 1	1	1	1	1	1	1	1	1	1	1	1	1	
	YEAR 2	1	1	1	1	1	1	1	1	1	1	1	1	
MINUTES PER CYCLE:	YEAR 1	3	3	2	2	2	2	2	2	2	2	3	2	
	YEAR 2	2	2	2	2	2	2	2	2	2	2	3	2	

BUBBLER IRRIGATION FOR LOW WATER-USE TREES

SPRINKLER MANUFACTURER	RAIN BIRD	LOCATION:	SOUTH PASADENA, CALIFORNIA
PRECIPITATION RATE (INCHES/HOUR):	1.50	HEAD SPACING:	VARIES
IRRIGATION SYSTEM EFFICIENCY	0.81	HEAD GPM:	0.25 X 2
PLANT FACTOR:	0.30		
YEAR 2 REDUCTION AMOUNT:	-10% OF YEAR 1 (ESTABLISHMENT) RUN TIME MINUTES		

MONTH:		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ETO PER MONTH (INCHES):		2.40	2.60	3.70	4.60	5.30	6.10	6.90	6.40	5.10	3.80	2.70	2.10	51.70
ETO PER WEEK (INCHES):		0.554	0.600	0.855	1.062	1.224	1.409	1.594	1.478	1.178	0.878	0.624	0.485	
APPLIED ETO PER WEEK (INCHES):		0.205	0.222	0.316	0.393	0.453	0.522	0.590	0.547	0.436	0.325	0.231	0.180	
MINUTES OF WATER PER WEEK:	YEAR 1	8	9	13	16	18	21	24	22	17	13	9	7	
	YEAR 2	7	8	11	14	16	19	21	20	16	12	8	6	
DAYS PER WEEK:	YEAR 1	1	1	1	1	1	1	1	1	1	1	1	1	
	YEAR 2	1	1	1	1	1	1	1	1	1	1	1	1	
MINUTES OF WATER PER DAY:	YEAR 1	8	9	13	16	18	21	24	22	17	13	9	7	
	YEAR 2	7	8	11	14	16	19	21	20	16	12	8	6	
CYCLES PER DAY:	YEAR 1	1	1	1	1	1	1	1	1	1	1	1	1	
	YEAR 2	1	1	1	1	1	1	1	1	1	1	1	1	
MINUTES PER CYCLE:	YEAR 1	8	9	13	16	18	21	24	22	17	13	9	7	
	YEAR 2	7	8	11	14	16	19	21	20	16	12	8	6	

BUBBLER IRRIGATION FOR MODERATE WATER-USE TREES

SPRINKLER MANUFACTURER	RAIN BIRD	LOCATION:	SOUTH PASADENA, CALIFORNIA
PRECIPITATION RATE (INCHES/HOUR):	1.50	HEAD SPACING:	VARIES
IRRIGATION SYSTEM EFFICIENCY	0.81	HEAD GPM:	0.25 X 2
PLANT FACTOR:	0.50		
YEAR 2 REDUCTION AMOUNT:	-10% OF YEAR 1 (ESTABLISHMENT) RUN TIME MINUTES		

MONTH:		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ETO PER MONTH (INCHES):		2.40	2.60	3.70	4.60	5.30	6.10	6.90	6.40	5.10	3.80	2.70	2.10	51.70
ETO PER WEEK (INCHES):		0.554	0.600	0.855	1.062	1.224	1.409	1.594	1.478	1.178	0.878	0.624	0.485	
APPLIED ETO PER WEEK (INCHES):		0.342	0.371	0.527	0.656	0.756	0.870	0.984	0.912	0.727	0.542	0.385	0.299	
MINUTES OF WATER PER WEEK:	YEAR 1	14	15	21	26	30	35	39	36	29	22	15	12	
	YEAR 2	12	13	19	24	27	31	35	33	26	20	14	11	
DAYS PER WEEK:	YEAR 1	1	1	1	1	2	2	2	2	2	1	1	1	
	YEAR 2	1	1	1	1	2	2	2	2	2	1	1	1	
MINUTES OF WATER PER DAY:	YEAR 1	14	15	21	26	15	17	20	18	15	22	15	12	
	YEAR 2	12	13	19	24	14	16	18	16	13	20	14	11	
CYCLES PER DAY:	YEAR 1	1	1	1	1	1	1	1	1	1	1	1	1	
	YEAR 2	1	1	1	1	1	1	1	1	1	1	1	1	
MINUTES PER CYCLE:	YEAR 1	14	15	21	26	15	17	20	18	15	22	15	12	
	YEAR 2	12	13	19	24	14	16	18	16	13	20	14	11	

NOTES:
THE CHARTS ARE INTENDED TO BE USED AS A GUIDELINE ONLY AND INDICATE APPROXIMATE RUN TIMES (IN MINUTES) FOR EACH ZONE BASED ON ESTIMATED WEEKLY WATER REQUIREMENTS FOR ESTABLISHED PLANT MATERIAL. THE FIGURES SHOWN IN THIS SCHEDULE ARE APPROXIMATE AND HAVE BEEN DEVELOPED FROM LOCAL CURRENT AVERAGES FOR EVAPOTRANSPIRATION, AND REFLECT MAXIMUM IRRIGATION REQUIREMENTS OF THE PLANT MATERIAL BASED ON PLANT TYPE AND SPACING. ACTUAL RUN TIMES MAY BE DIFFERENT DEPENDING ON A VARIETY OF FACTORS INCLUDING TOPOGRAPHY, SOIL STRUCTURE, SUN AND WIND EXPOSURE, WEATHER, ACTUAL PLANT WATER REQUIREMENTS, ETC.

LAST SAVED BY: LEEANN

PLOT DATE: 12/17/2025

Z:\Jobs\2025\25-903\L30X - Irrigation Overall Plan and Notes - MAINTAINANCE.dwg

DICKSON & ASSOCIATES, INC.
LANDSCAPE IRRIGATION
(530) 547-5515 www.dicksoninc.net
P.O. BOX 415
PALO CEDRO, CALIFORNIA 96073

© Dickson & Associates, Inc.

Underground Service Alert
Call: TOLL FREE 8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

iteris

LICENSED LANDSCAPE ARCHITECT DEAN HOWELL 5765 Signature 12-31-26 Renewal Date Date STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
10-07-26
DEAN HOWELL DATE
P.L.A. No. 5765

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT

FAIR OAKS AVENUE

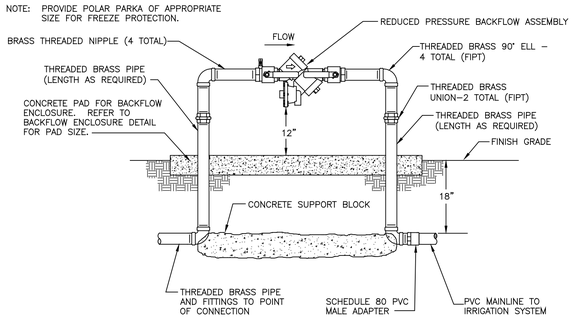
IRRIGATION LEGEND AND NOTES

L307

PROJECT NO. 2020-02
SHEET NO. 68 OF 97

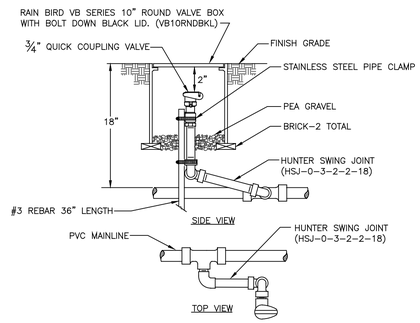
100% SUBMITTAL

NOTE: PROVIDE POLAR PARKA OF APPROPRIATE SIZE FOR FREEZE PROTECTION.



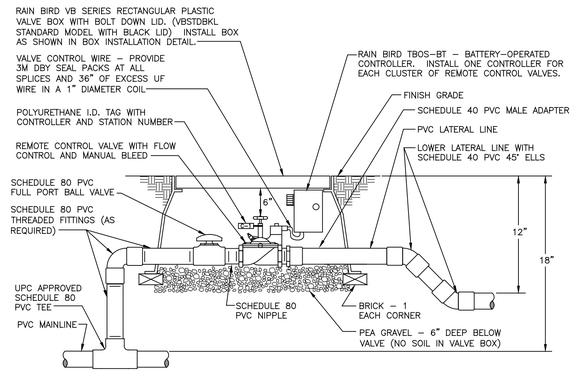
REDUCED PRESSURE BACKFLOW ASSEMBLY

NOT TO SCALE



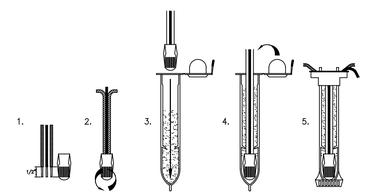
QUICK COUPLING VALVE

NOT TO SCALE



REMOTE CONTROL VALVE WITH TBOS–BT CONTROLLER

NOT TO SCALE



INSTRUCTIONS:

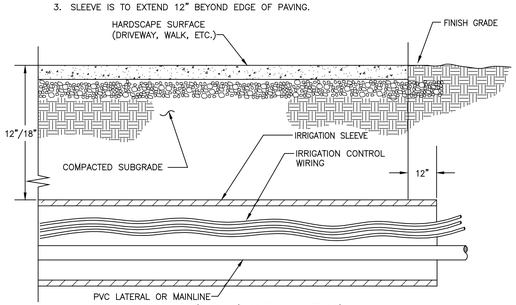
1. USE 3M–DBR/Y–6 WEATHER PROOF SPLICE.
2. STRIP WIRES APPROXIMATELY 1/2" (12.7 MM) TO EXPOSE WIRE.
3. TWIST CONNECTOR AROUND WIRES CLOCKWISE UNTIL HAND TIGHT, DO NOT OVERTIGHTEN.
4. INSERT WIRE ASSEMBLY INTO PLASTIC TUBE UNTIL WIRE CONNECTOR SNAPS PAST LIP IN BOTTOM OF TUBE.
5. PLACE WIRES WHICH EXIT TUBE IN WIRE EXIT HOLES AND CLOSE CAP UNTIL IT SNAPS.
6. INSPECT FINAL SPLICE ASSEMBLY TO ENSURE THE SEAL IS COMPLETE AND SECURE.

WEATHERPROOF SPLICE ASSEMBLY

NOT TO SCALE

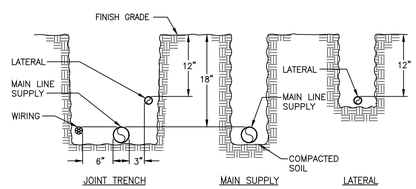
NOTES:

1. SLEEVING SHALL BE AT A 12" DEPTH FOR LATERAL LINES AND A 18" DEPTH FOR MAINLINE AND MAINLINE AND LATERAL LINES IN A SHARED SLEEVE.
2. ALL SLEEVING UNDER VEHICULAR PAVING SHALL BE AT A 24" DEPTH.
3. SLEEVE IS TO EXTEND 12" BEYOND EDGE OF PAVING.



SLEEVING INSTALLATION

NOT TO SCALE

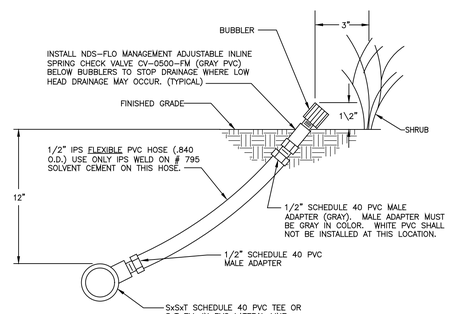


NOTES:

1. ALL PLASTIC PIPING SHALL BE INSTALLED IN THE TRENCH IN A SERPENTINE MANNER AS PER THE MANUFACTURER'S SPECIFICATIONS.
2. ALL SUPPLY LINES TO BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS.
3. TAPE AND BUNDLE TUBING OR WIRING AT 10 FEET INTERVALS.
4. ALL 120 VOLT WIRING IN CONDUIT TO BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES.
5. BACKFILL MATERIAL SHALL BE THE EARTH EXCAVATED FROM THE TRENCHES, FREE FROM ROCKS, CONCRETE CHUNKS, AND OTHER FOREIGN OR COARSE MATERIALS. CAREFULLY SELECT BACKFILL THAT IS TO BE PLACED NEXT TO PLASTIC PIPE TO AVOID ANY SHARP OBJECTS WHICH MAY DAMAGE THE PIPE.

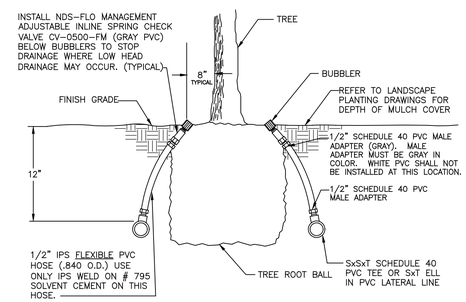
TRENCHING DETAIL

NOT TO SCALE



SHRUB BUBBLER WITH FLEXIBLE RISER

NOT TO SCALE



TREE BUBBLERS

NOT TO SCALE

DICKSON & ASSOCIATES, INC.
LANDSCAPE IRRIGATION
(530) 547-5515 www.dicksoninc.net
P.O. BOX 415
PALO CEDRO, CALIFORNIA 96073

© Dickson & Associates, Inc.

Underground Service Alert
Call: TOLL FREE 8–1–1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

iteris

LICENSED LANDSCAPE ARCHITECT DEAN HOWELL 5765 STATE OF CALIFORNIA
Signature
12-31-26
Renewal Date
Date

PREPARED UNDER THE SUPERVISION OF:
DEAN HOWELL 10-07-26
P.L.A. No. 5765 DATE

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT

FAIR OAKS AVENUE

IRRIGATION DETAILS

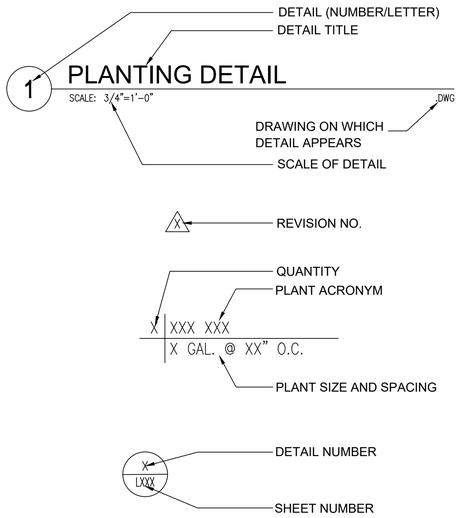
L308

PROJECT NO. 2020-02
SHEET NO. 69 OF 97

100% SUBMITTAL

LAST SAVED BY: LEEANN
PLOT DATE: 12/17/2025
Z:\Jobs\2025\25-903\L30X - Irrigation Overall Plan and Notes - MAINTAINANCE.dwg

SYMBOLS



ABBREVIATIONS

℄	CENTER LINE
DG	DECOMPOSED GRANITE
DIA.	DIAMETER
(E)	EXISTING
EQ.	EQUAL
FT OR ( ) '	FEET OR FOOT
IN OR ( ) "	INCHES OR INCH
(N)	NEW
MAX.	MAXIMUM
MIN.	MINIMUM
NTS	NOT TO SCALE
O.C.	ON CENTER
ROW OR R/W	RIGHT-OF-WAY
TYP.	TYPICAL
WD	WIDTH
W/	WITH

PLANTING NOTES

GENERAL

1. ALL WORK IN THE CITY OF SOUTH PASADENA SHALL CONFORM TO APPLICABLE CITY STANDARD CODES.
2. ALL WORK SHALL CONFORM TO AB 1881, STATE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO) SEPTEMBER, 2009.
3. PRIOR TO CONSTRUCTION, CONTRACTOR TO CONFIRM WITH THE ENGINEER THAT AGREEMENTS ARE IN PLACE WITH THE PROPERTY OWNERS TO DEMOLISH, RELOCATE OR PLANT TREES OR OTHER PLANTS INDICATED WITHIN PRIVATE PROPERTY LINES ON THESE LANDSCAPE PLANS.
4. CONTRACTOR SHALL CAREFULLY INSPECT THE SITE AND VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO PROCEEDING WITH WORK. CONTRACTOR SHALL NOTIFY ENGINEER IF ANY INCONSISTENCIES OCCUR.
5. CONTRACTOR SHALL MAINTAIN A QUALIFIED ENGLISH SPEAKING SUPERVISOR ON THE SITE AT ALL TIMES; DURING CONSTRUCTION THROUGH COMPLETION OF PUNCH LIST ITEMS.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BACKFILL AND TRENCH COMPACTION FINISH GRADING DRAINAGE AT A MINIMUM OF 2% AND INSTALLATION OF ALL EQUIPMENT AND MATERIALS, AS SHOWN ON THE DRAWINGS AND PER THE SPECIFICATIONS.
7. THE CONTRACTOR SHALL REMOVE ALL WEEDS, ROCKS, DEBRIS, AND OTHER EXTRANEOUS MATERIALS LARGER THAN 1" FROM THE JOB SITE PRIOR TO PROCEEDING WITH ANY WORK. RIP ANY COMPACTED SOIL TO A DEPTH OF 12" AND AMEND ALL SOIL 24" DEEP FOR PLANT ROOTING AND ESTABLISHMENT. WEED CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR IN ALL PLANTING AREAS DURING CONSTRUCTION AND MAINTENANCE PERIODS.
8. ALL EXISTING UTILITIES TO BE RELOCATED PER CIVIL PLANS.
9. ALL NEW PAVING LAYOUT PER CIVIL AND HARDSCAPE PLANS. SEE LANDSCAPE DRAWINGS FOR MATERIALS, FINISHES AND COLORS.
10. VERIFY ABOVE AND BELOW GROUND UTILITY LOCATIONS AND COORDINATE INSTALLATION OF TREES AND LANDSCAPING WITH THEM.
11. TREE LOCATIONS SHALL ADHERE TO AGENCY APPROVED MINIMUM DISTANCES TO STREET LIGHT STANDARDS, FIRE HYDRANTS, INTERSECTIONS, DRIVEWAY SETBACKS, ETC.
12. THE ENGINEER SHALL REVIEW ALL PLANTING WORK. PRIOR TO STARTING WORK, THE CONTRACTOR SHALL CONTACT THE ENGINEER AND COORDINATE ALL FIELD REVIEWS. THE ENGINEER SHALL REVIEW THE LOCATION OF ALL PLANT MATERIALS PRIOR TO THE EXCAVATION OF PLANT PITS.
13. ALL PLANT MATERIALS SHALL BE HANDLED OR STORED SO THAT THEY ARE ADEQUATELY PROTECTED FROM DRYING OUT, FROM SUN OR WINDBURN, OR FROM ANY OTHER INJURY.
14. PLANTS ARE SUBJECT TO REVIEW AT PLACE OF GROWTH AND ON THE PROJECT SITE AT ANY TIME BEFORE OR DURING PROGRESS WORK.
15. PLANT SPECIES SUBSTITUTES NOT PERMITTED UNLESS SPECIFICALLY APPROVED BY THE ENGINEER IN WRITING. ALL SUBSTITUTIONS MUST COMPLY WITH MWELO (MODEL WATER EFFICIENCY LANDSCAPE ORDINANCE).
16. CONTRACTOR SHALL SUPPLY OWNER'S REPRESENTATIVE WITH THE FOLLOWING:
    A. COPIES OF NURSERY INVOICES FOR THE PURPOSE OF VERIFYING PLANT QUANTITY AND TYPE AT THE TIME OF DELIVERY. NO PLANT MATERIALS WILL BE ACCEPTED WITHOUT THIS INFORMATION. ALL PATENT VARIETIES MUST HAVE PATENT TAGS ATTACHED.
    B. COPIES OF INVOICES FOR NITROHUMUS AND NITROGEN STABILIZED COMPOSTED WOOD PRODUCT. PHYSICAL AMENDMENTS WILL NOT BE APPROVED WITHOUT THIS INFORMATION.
    C. COPIES OF INVOICES FOR PROOF AND ANALYSIS AND AMOUNTS OF FERTILIZER AND HERBICIDES. PLANTING OPERATIONS SHALL NOT COMMENCE WITHOUT THIS INFORMATION.
17. THE MAINTENANCE PERIOD SHALL BEGIN AT THE ACCEPTANCE OF FINAL INSPECTION AND CONTINUE FOR NINETY (90) DAYS.
18. IF THE MAINTENANCE PERIOD IS EXTENDED DUE TO NON-COMPLETION OF WORK, THE CONTRACTOR SHALL BEAR THE EXPENSE OF ADDITIONAL COSTS.
19. THE CONTRACTOR SHALL GUARANTEE ALL NEW CONTAINER PLANT MATERIAL AND RELOCATED PLANT MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER INSTALLATION.
20. ALL MITIGATION GRADING AND RETAINING WALLS PER CIVIL DRAWINGS.
21. ALL EXISTING PLANTS, BOTH INSIDE AND OUTSIDE OF THE R/W, TO REMAIN IN PLACE SHALL BE PROTECTED PER SPECIFICATIONS DIVISION 1. IF ANY EXISTING SHRUBS OR PALMS ARE DAMAGED OR DESTROYED BECAUSE OF CONSTRUCTION, THE CONTRACTOR WILL REPLACE IN-KIND WITH SIMILAR SIZE OF DAMAGED OR DESTROYED MATERIAL TO MATCH SURROUNDING PLANTS. IN THE CASE OF TREES, REPLACEMENT TREES SHALL BE 36" BOX OR LARGER.
22. ALL PUBLIC PATHS OF TRAVEL ALTERED BY THIS PROJECT SHALL CONFORM TO ADA REQUIREMENTS. IF A CONFLICT ARISES BETWEEN THE PLANS AND AN IN-FIELD SITUATION DURING CONSTRUCTION, CONTACT OWNER'S REPRESENTATIVE FOR RESOLUTION.
23. PLANT QUANTITIES SHOWN FOR CONTRACTOR'S CONVENIENCE. CONTRACTOR TO VERIFY AND FULFILL DESIGN INTENT OF LANDSCAPE PLANS.

GRADING AND EXISTING SITE SOIL

24. SEE SPECIFICATIONS FOR SOIL AND TESTING REQUIREMENTS.
25. OBTAIN SOIL ANALYSIS FOR FROM APPROVED TESTING FACILITY. SITE SAMPLES SHALL BE GATHERED BY TESTING AGENCY. TEST SOIL PRIOR TO INSTALLING IRRIGATION. SUBMIT SOILS ANALYSIS RESULTS TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION. CONTRACTOR SHALL OBTAIN AND PAY FOR AGRONOMICAL SOIL TESTS FOR THE EXISTING SITE SOIL, ONE PER SOURCE. THE SOILS TEST SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE DELIVERY OF THE SOIL.
26. FOR SOILS LESS THAN 6% ORGANIC MATTER IN THE TOP SIX (6) INCHES OF SOIL, COMPOST AT A RATE OF A MINIMUM OF FOUR (4) CUBIC YARDS PER 1,000 SQUARE FEET OF PERMEABLE AREA SHALL BE INCORPORATED TO A DEPTH OF SIX (6) INCHES INTO THE SOIL.
27. THE FOLLOWING AMENDMENT TREATMENT TO BE USED FOR BIDDING PURPOSES ONLY. FINAL SPECIFICATION BY CONTRACTOR PER RECOMMENDATION OF EXISTING SITE SOIL ANALYSIS. BROADCAST UNIFORMLY AND INCORPORATE THOROUGHLY, TO A DEPTH OF 12" SOIL THE FOLLOWING AMENDMENT MIX PER 1 CUBIC YARD:
    7 PARTS ROCK-FREE NATIVE SOIL
    3 PARTS KELLOGG'S AMENDMENT
    2 LBS. 7-7-7 FERTILIZER
    2 LBS. AGRICULTURAL GYPSUM
28. CONTRACTOR TO REMOVE 2' DEPTH OF SOIL AT ALL PROPOSED PLANTING AREAS CURRENTLY UNDER PAVING AND 4' DEPTH BY 2X WIDTH OF ROOTBALL AT TREE LOCATIONS; REPLACE WITH TOPSOIL. ALTERNATELY, CONTRACTOR MAY TEST, AMEND, AND ROTOTILL NATIVE SOIL PER SOILS ANALYSIS.
29. (7 GRAM) PLANTING TABLETS SHALL BE USED IN ALL PLANTING PITS AS FOLLOWS:
    1 GALLON - 3 EACH
    5 GALLON - 9 EACH
    15 GALLON - 15 EACH
    24" BOX - 18 EACH
    36" BOX - 20 EACH
    48" BOX - 24 EACH
30. FERTILIZER AND AMENDMENT SHALL BE THOROUGHLY ROTOTILLED TO A DEPTH OF 2'. BACKFILL MIX: ALL PLANTING PITS SHALL BE BACKFILLED WITH NATIVE SOILS ONLY. PLANTING TABLET CHART
31. ROUGH GRADING SHALL CONSIST OF, BUT NOT LIMITED TO, ESTABLISHING ALL GRADES AS SHOWN AND NOTED ON PLAN, ESTABLISH FLOWLINES, CONTOUR GRADING AND REMOVING ANY FOREIGN MATERIAL. SEE CIVIL DRAWINGS.
32. A MINIMUM THREE INCH (3") LAYER OF MULCH SHALL BE APPLIED ON ALL EXPOSED SOIL SURFACES OF PLANTING AREAS EXCEPT TURF AREAS, CREEPING OR ROOTING GROUND COVERS, OR DIRECT SEEDING APPLICATIONS WHERE MULCH IS CONTRAINDICATED.
33. BRING ALL PLANTING AREAS TO FINISH GRADE AFTER SOIL PREP & MULCHING TO 1/2" BELOW PAVING AND CURBS, OR AS NOTED BY SPOT ELEVATIONS.
34. WATER SETTLE ALL LANDSCAPED AREAS WITH OVERHEAD WATER PRIOR TO FINE GRADING AND INSTALLATION OF PLANT MATERIAL.
35. DRAINAGE TESTING / DRAINAGE CHANNEL REQUIREMENTS.
    PRIOR TO PLANTING ALL PLANTING PITS SELECTED FOR TESTING SHALL BE TESTED IN THE FOLLOWING MANNER:
    A. DIG EACH PLANTING PIT TO THE MINIMUM SPECIFIED SIZE.
    B. FILL PLANTING PIT WITH TWELVE INCHES (12") OF WATER. IF THE WATER LEVEL DROPS FOUR INCHES (4") OR MORE WITHIN FOUR (4) HOURS, THE DRAINAGE IS SUFFICIENT AND DRAINAGE CHANNEL IS NOT REQUIRED. IF, HOWEVER, THE WATER LEVEL DROPS LESS THAN FOUR INCHES (4") WITHIN THE FOUR (4) HOUR PERIOD, A DRAINAGE CHANNEL IS REQUIRED.
    C. WHERE REQUIRED, THE DRAINAGE CHANNEL MUST EXTEND DOWN THROUGH THE NON-POROUS SOIL AND INTO POROUS SOIL.

PLANTING

37. NO WEED CONTROL MATERIAL OR METHOD SHALL AFFECT THE LANDSCAPE PLANTING OR ESTABLISHMENT AND MUST CONFORM TO FEDERAL, STATE AND LOCAL REGULATIONS.
38. TREES AND SHRUBS SHALL BE PLANTED IN ACCORDANCE AS FOLLOWS:
    TREE (24"/36"/48"/72" BOX) SEE DETAIL SHT. (PLUS GRO-POWER TABLETS PER CHART ABOVE).
    SHRUBS (15, 5 & 1 GAL.) SEE DETAIL SHT. (PLUS GRO-POWER TABLETS PER CHART ABOVE).
39. GROUNDCOVER PLANTING SHALL BE CONTINUOUS UNDER TREES AND SHRUBS. SEE LEGEND FOR THE VARIETY AND SPACING. SEE DETAIL SHEET FOR INSTALLATION.
40. PROVIDE AND INSTALL PLANT MATERIALS BASED ON COUNT OF PLANT SYMBOLS ON PLANS, OR ON THE SPACING DESCRIBED IN THE LEGEND.
41. ALL SHRUB AND GROUNDCOVER SPACING TO BE UNIFORM TRIANGULAR SPACING. SEE LEGEND FOR SPECIFIC SPACING.
42. COORDINATE TREE PLACEMENT WITH LOCATIONS OF BUBBLERS TO BEST PROVIDE FOR COMPLETE COVERAGE.
43. PRUNE TREES AND SHRUBS ONLY IF DIRECTED BY OWNER'S REPRESENTATIVE AND PER SPECIFICATION.
44. ANY ENCOUNTERED TREE THAT IS NOT SHOWN ON THESE PLANS WITHIN THE NEWLY ACQUIRED R/W, OR THAT WILL BE AFFECTED BY CONSTRUCTION, SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE FOR RESOLUTION IN ACCORDANCE WITH THE DESIGN INTENT OF THESE DRAWINGS.

TREE PROTECTION NOTES

GENERAL REQUIREMENTS

A CITY OF SOUTH PASADENA ARBORIST (OR THEIR DESIGNATED REPRESENTATIVE) SHALL BE INVITED TO THE KICKOFF MEETING AND ALSO NOTIFIED 48-HOURS PRIOR TO CONSTRUCTION.

1. NO EQUIPMENT IS TO BE OPERATED OR PARKED UNDER A TREE, NOR IS ANY MATERIAL TO BE STORED WITHIN THE DRIPLINE OF A TREE OR LEANED AGAINST A TREE TRUNK. DO NOT PILE OR COMPACT SOIL WITHIN A DRIPLINE.
2. IN AREAS OF CONSTRUCTION, PROTECT SOIL SURFACE FROM TRAFFIC COMPACTION WITH 3" OF MULCH OR OVERLAPPING 3/4" PLYWOOD SHEETS.
3. NO SURFACE IRRIGATION SHALL BE INSTALLED WITHIN THE DRIPLINE OF A TREE.
4. NO CHEMICAL HERBICIDES ARE TO BE USED WITHIN 100 FT. OF A TREE'S DRIPLINE.
5. DO NOT NAIL GRADE STAKES OR ANYTHING ELSE TO TREES.
6. ENCROACHMENT FROM PAVING OR STRUCTURES WITHIN THE DRIPLINE OF A TREE SHALL BE PERMITTED ONLY WITH WRITTEN AUTHORIZATION FROM THE CITY ARBORIST. NO ENCROACHMENT WITHIN 10' OF A TREE TRUNK WILL BE PERMITTED UNDER ANY CIRCUMSTANCES.
7. DO NOT STRIP TOPSOIL AROUND TREES. ANY VEGETATION TO BE REMOVED SHOULD BE REMOVED BY CUTTING AT GROUND LEVEL RATHER THAN PULLING OUT BY EQUIPMENT.
8. USE A PNEUMATIC DRILL TO EXCAVATE UNDER WOODY ROOTS LARGER THAN 2" IN DIAMETER. DO NOT CUT ANY ROOT LARGER THAN 2" DIAMETER. IF ROOTS MUST BE SEVERED, CUTS ARE TO BE MADE BY AN ARBORIST AND SOIL BACKFILLED IMMEDIATELY.

TYPICAL WORK PROCEDURES

ALL WORK AROUND ANY EXISTING OAK TREES AND ALL TREES DESIGNATED TO REMAIN AND TO BE PROTECTED SHALL FOLLOW THIS WORK PROCEDURES PROGRAM. THIS PROGRAM HAS BEEN DEVELOPED TO MINIMIZE THE IMPACTS TO EACH TREE AND PROTECT THEM FROM UNSCHEDULED DAMAGE.

1. ALL WORK WITHIN A TREE'S ROOT ZONE SHALL FOLLOW THE DRP TREE CARE MANUAL.
2. THE EXTENT OF ALL WORK AFFECTING ANY PROTECTED TREE SHALL BE STAKED BY FIELD SURVEY AND REVIEWED WITH THE RECREATION AND PARKS ARBORIST PRIOR TO CONSTRUCTION.
3. A CITY OF SOUTH PASADENA ARBORIST, TREE TRIMMING SUPERVISOR OR THEIR DESIGNATED REPRESENTATIVE SHALL APPROVE ANY PRUNING OF PROTECTED TREES PRIOR TO THE START OF CONSTRUCTION.
4. HAND DIG THE VERTICAL TRENCH AT THE FINAL CUT LINE AND TO THE FINAL GRADE; CLEANLY CUT ROOTS BEHIND TORN ENDS. THERE IS NO NEED TO APPLY ANY KIND OF PRUNING SEAL, SINCE ROOTS WILL FORM THEIR OWN INTERNAL BARRIERS TO DECAY.
5. TYPE I, II, OR III TREE PROTECTION FENCING SHALL BE CONSTRUCTED AT THE LIMIT OF APPROVED WORK TO PROTECT THE TREES FROM UNAUTHORIZED DAMAGE. IT SHALL REMAIN IN PLACE UNTIL LANDSCAPE WORK COMMENCES.
6. NO FURTHER WORK WITHIN THE ROOT ZONE SHALL BE DONE BEYOND THAT WHICH WAS APPROVED WITHOUT OBTAINING WRITTEN APPROVAL FORM THE CITY ARBORIST, PRIOR TO PROCEEDING.
7. THE AREA WITHIN THE CHAIN LINK FENCE SHALL NOT BE USED FOR MATERIAL OR EQUIPMENT STORAGE, OR PARKING DURING CONSTRUCTION.
8. DURING CONSTRUCTION, THE IMPACTED TREES SHOULD BE CLOSELY MONITORED FOR SYMPTOMS OF THE CONTRACTOR SHOULD BE PREPARED TO PROVIDE TEMPORARY WATER TO IRRIGATE AND IF NEEDED, WASH DUST FROM FOLIAGE. IRRIGATION SHOULD WET THE TOP 2-3 FEET OF SOIL TO REPLICATE SIMILAR VOLUMES AND NORMAL SEASONAL DISTRIBUTION. CONTACT A CITY ARBORIST IF A DECLINE IN TREE CONDITION IS NOTED.

DAMAGES

IF A TREE DESIGNATED TO REMAIN IS REMOVED OR IRREVERSIBLY DAMAGED AS DETERMINED BY THE CITY ARBORIST OR TREE TRIMMING DIVISION, A CONTRACTOR MAY BE REQUIRED TO INSTALL A REPLACEMENT TREE MATCHING IN SIZE, QUALITY AND VARIETY, USING A CONTRACTOR DESIGNATED BY THE CITY ARBORIST OR TREE TRIMMING DIVISION SUPERVISOR. IF AN ACCEPTABLE REPLACEMENT TREE IS NOT AVAILABLE, THE CONTRACTOR MAY BE REQUIRED TO PAY DAMAGES TO THE CITY FOR THE VALUE OF THE DAMAGED TREE IN ACCORDANCE WITH THE GUIDELINES SET FORTH IN THE GUIDE FOR PLANT APPRAISAL, 9THEDITION, USING THE TRUNK FORMULA METHOD.

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE
8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

iteris

LICENSED LANDSCAPE ARCHITECT
DEAN HOWELL
Signature
12-31-26
Renewal Date
Date
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
10-07-26
DEAN HOWELL DATE
P.L.A. No. 5765

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT

FAIR OAKS AVENUE

PLANTING NOTES & SCHEDULES

L500

PROJECT NO. 2020-02
SHEET NO. 70 OF 97

100% SUBMITTAL

C:\Users\sapina\OneDrive - gruenassociates.com\8665 Fair Oaks Blvd - Documents\04Dwg\2L\-0Sht\L50X - Planting Notes and Schedules.DWG
PLOTTED BY: LAST SAVED BY: SAPINA
PLOT DATE: 10/7/2026

RENDERING OF EXAMPLE BULB-OUT

SHRUB PALETTE

AGAVE ATTENUATA

BACCHARIS PILULARIS 'POZO SURF'

BOUTELOUA GRACILIS 'BLONDE AMBITION'

CALLISTEMON VIMINALIS 'LITTLE JOHN'

CHONDROPETALUM TECTORUM

LEYMUS CONDENSATUS 'CANYON PRINCE'

SALVIA APIANA

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS		QTY
TREES							
	LAG CRT	LAGERSTROEMIA X 'NATCHEZ' STD. PER S. PASADENA DOWNTOWN SPECIFIC PLAN	CREPE MYRTLE N.	24" BOX	M		4
	LIQ ROT	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA' STD	ROUND-LOBED SWEET GUM	24" BOX	M		2
	QUE KEL	QUERCUS KELLOGGII STD. PER S. PASADENA DOWNTOWN SPECIFIC PLAN	CALIFORNIA BLACK OAK	24" BOX	M		2
SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS	SPACING	QTY
SHRUBS							
	AGA ATT	AGAVE ATTENUATA	FOXTAIL AGAVE	5 GAL.	L	24" o.c.	28
	BAC POZ	BACCHARIS PILULARIS CONSANGUINEA 'POZO SURF'	POZO SURF COYOTE BRUSH	5 GAL.	L	30" o.c.	112
	BOU BLO	BOUTELOUA GRACILIS 'BLONDE AMBITION'	BLONDE AMBITION BLUE GRAMA	1 GAL.	L	12" o.c.	371
	CAL LJN	CALLISTEMON VIMINALIS 'LITTLE JOHN'	LITTLE JOHN WEEPING BOTTLEBRUSH	5 GAL.	L	33" o.c.	19
	CHO TEC	CHONDROPETALUM TECTORUM	SMALL CAPE RUSH	1 GAL.	L	48" o.c.	9
	LEY CAN	LEYMUS CONDENSATUS 'CANYON PRINCE'	CANYON PRINCE GIANT WILD RYE	5 GAL.	L	36" o.c.	39
	SAL API	SALVIA APIANA	WHITE SAGE	5 GAL.	L	36" o.c.	71

LAST SAVED BY: SAPINA

PLOTTED ON: 10/7/2026

C:\Users\sapina\OneDrive - gruenassociates.com\8665 Fair Oaks Blvd - Documents\040wg\2L\-0Sht\L50X - Planting Notes and Schedules.dwg

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE
8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS			
NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

iteris

LICENSED LANDSCAPE ARCHITECT
DEAN HOWELL
Signature
12-31-26
Renewal Date
Date
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
10-07-26
DEAN HOWELL DATE
P.L.A. No. 5765

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT

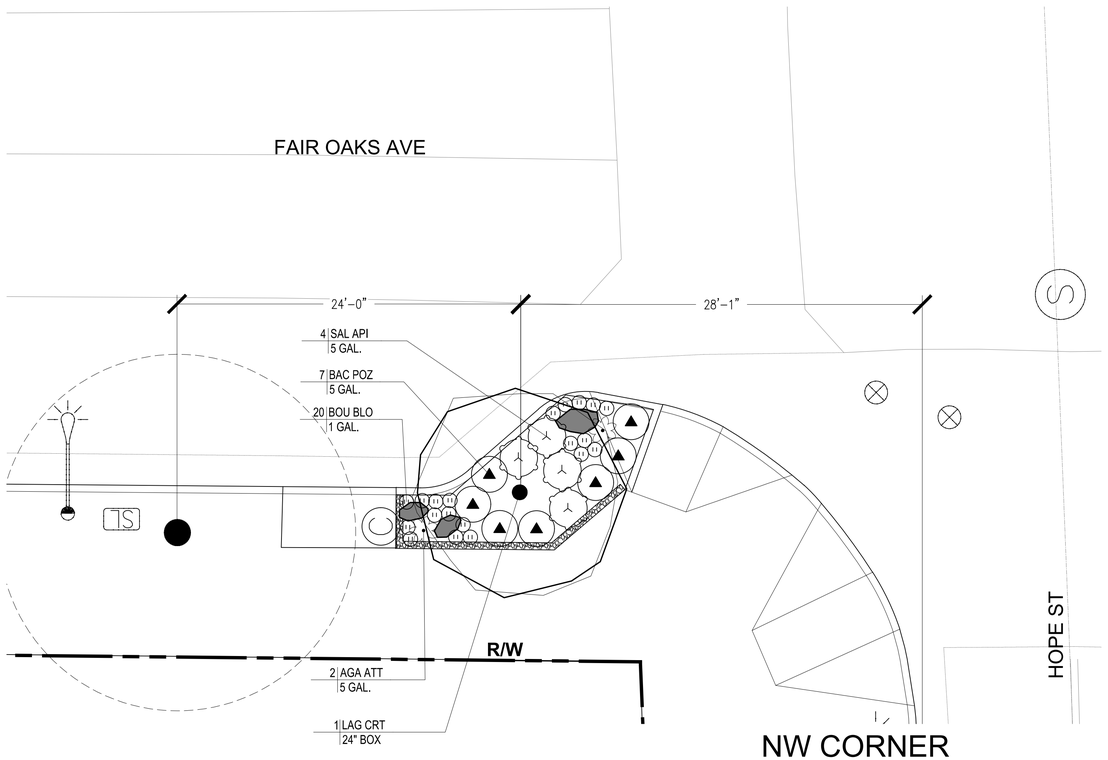
FAIR OAKS AVENUE

PLANTING SCHEDULE

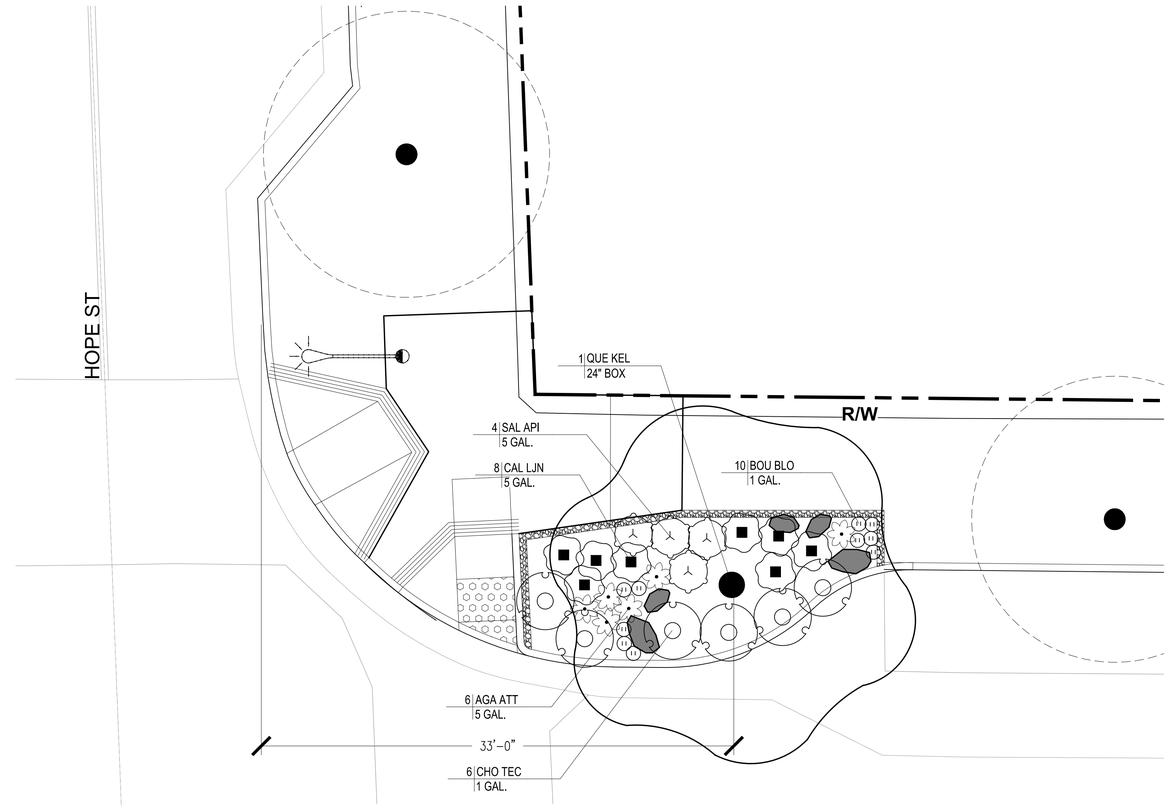
L501

PROJECT NO. 2020-02
SHEET NO. 71 OF 97

100% SUBMITTAL



NW CORNER
FAIR OAKS AVE & HOPE ST
SCALE: 1"=5'



SE CORNER
FAIR OAKS AVE & HOPE ST
SCALE: 1"=5'

FAIR OAKS AVE

PLANT LEGEND

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS	QTY
TREES						
	LAG CRT	LAGERSTROEMIA X 'NATCHEZ'	CREPE MYRTLE N.	24" BOX	M	1
	QUE KEL	QUERCUS KELLOGGII	CALIFORNIA BLACK OAK	24" BOX	M	1

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS	SPACING	QTY
SHRUBS							
	AGA ATT	AGAVE ATTENUATA	FOXTAIL AGAVE	5 GAL.	L	24" o.c.	8
	BAC POZ	BACCHARIS PILULARIS CONSANGUINEA 'POZO SURF'	POZO SURF COYOTE BRUSH	5 GAL.	L	30" o.c.	7
	BOU BLO	BOUTELOUA GRACILIS 'BLONDE AMBITION'	BLONDE AMBITION BLUE GRAMA	1 GAL.	L	12" o.c.	30
	CAL LJN	CALLISTEMON VIMINALIS 'LITTLE JOHN'	LITTLE JOHN WEEPING BOTTLEBRUSH	5 GAL.	L	33" o.c.	8
	CHO TEC	CHONDROPETALUM TECTORUM	SMALL CAPE RUSH	1 GAL.	L	48" o.c.	6
	SAL API	SALVIA APIANA	WHITE SAGE	5 GAL.	L	36" o.c.	8

MATERIAL LEGEND

SYMBOL	MATERIAL	DESCRIPTION	SIZE	MANUFACTURER	DETAIL
	ROCK BLANKET	MALIBU COBBLE	6" WIDE	SOUTHWEST BOULDER & STONE	4/L700
	BOULDERS	MALIBU BOULDER	1'-3' Ø	SOUTHWEST BOULDER & STONE	5/L700
TREES					
	EXISTING TREES				

SCALE: 1" = 5'
5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE
8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

iteris

LICENSED LANDSCAPE ARCHITECT
DEAN HOWELL
Signature
12-31-26
Renewal Date
Date
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
DEAN HOWELL 10-07-26
P.L.A. No. 5765 DATE

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT

FAIR OAKS AVENUE & HOPE STREET

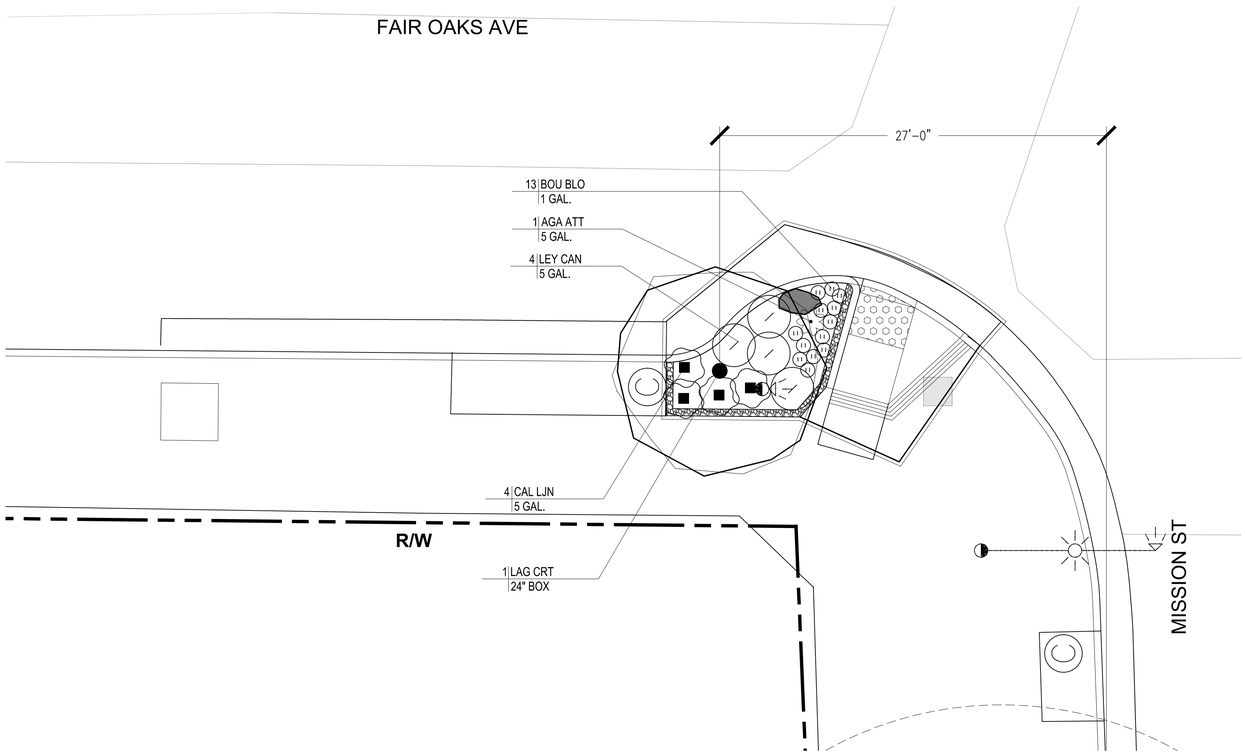
PLANTING PLANS

L601

PROJECT NO. 2020-02
SHEET NO. 72 OF 97

100% SUBMITTAL

C:\Users\sapina\OneDrive - gruenassociates.com\8665 Fair Oaks Blvd - Documents\04Dwg\2L\-0Sht\L60X - Planting Plans.dwg PLOT DATE: 10/7/2026 LAST SAVED BY: SAPINA



NW CORNER
FAIR OAKS AVE & MISSION ST
SCALE: 1"=5'

PLANT LEGEND

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS		QTY
TREES							
	LAG CRT	LAGERSTROEMIA X 'NATCHEZ'	CREPE MYRTLE N.	24" BOX	M		1
SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS	SPACING	QTY
SHRUBS							
	AGA ATT	AGAVE ATTENUATA	FOXTAIL AGAVE	5 GAL.	L	24" o.c.	1
	BOU BLO	BOUTELOUA GRACILIS 'BLONDE AMBITION'	BLONDE AMBITION BLUE GRAMA	1 GAL.	L	12" o.c.	13
	CAL LJN	CALLISTEMON VIMINALIS 'LITTLE JOHN'	LITTLE JOHN WEEPING BOTTLEBRUSH	5 GAL.	L	33" o.c.	4
	LEY CAN	LEYMUS CONDENSATUS 'CANYON PRINCE'	CANYON PRINCE GIANT WILD RYE	5 GAL.	L	36" o.c.	4

MATERIAL LEGEND

SYMBOL	MATERIAL	DESCRIPTION	SIZE	MANUFACTURER	DETAIL
	ROCK BLANKET	MALIBU COBBLE	6" WIDE	SOUTHWEST BOULDER & STONE	4/L700
	BOULDERS	MALIBU BOULDER	1'-3' Ø	SOUTHWEST BOULDER & STONE	5/L700
TREES					
	EXISTING TREES				

SCALE: 1" = 5'
5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE 8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

iteris

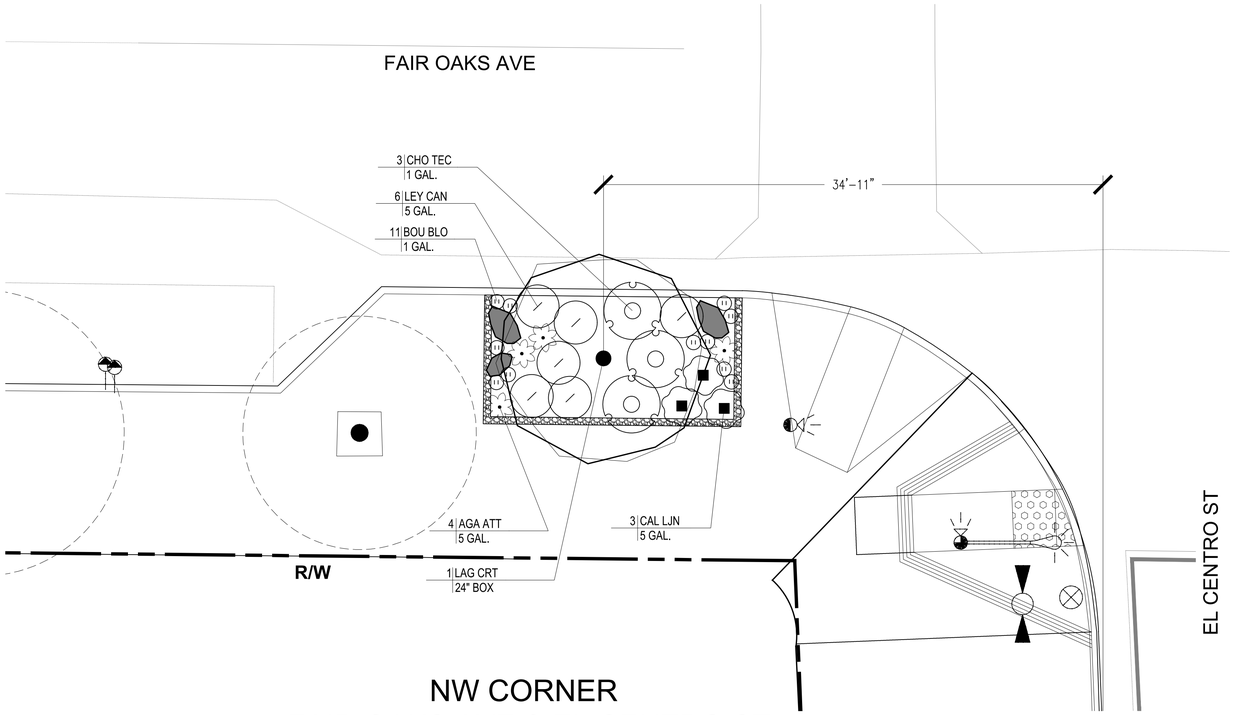
LICENSED LANDSCAPE ARCHITECT
DEAN HOWELL
Signature
12-31-26
Renewal Date
Date
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
10-07-26
DEAN HOWELL DATE
P.L.A. No. 5765

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT
FAIR OAKS AVENUE & MISSION STREET
PLANTING PLANS
L602
PROJECT NO. 2020-02
SHEET NO. 73 OF 97

100% SUBMITTAL

C:\Users\sapina\OneDrive - gruenassociates.com\8665 Fair Oaks Blvd - Documents\04Dwg\2L\-0Sht\L60X - Planting Plans.dwg PLOT DATE: 10/7/2026
LAST SAVED BY: SAPINA



NW CORNER
FAIR OAKS AVE & EL CENTRO ST

SCALE: 1"=5'

PLANT LEGEND

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS		QTY
TREES							
	LAG CRT	LAGERSTROEMIA X 'NATCHEZ'	CREPE MYRTLE N.	24" BOX	M		1
SYMBOL	**CODE**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**WUCOLS**	**SPACING**	**QTY**
SHRUBS							
	AGA ATT	AGAVE ATTENUATA	FOXTAIL AGAVE	5 GAL.	L	24" o.c.	4
	BOU BLO	BOUTELOUA GRACILIS 'BLONDE AMBITION'	BLONDE AMBITION BLUE GRAMA	1 GAL.	L	12" o.c.	11
	CAL LJN	CALLISTEMON VIMINALIS 'LITTLE JOHN'	LITTLE JOHN WEEPING BOTTLEBRUSH	5 GAL.	L	33" o.c.	3
	CHO TEC	CHONDROPETALUM TECTORUM	SMALL CAPE RUSH	1 GAL.	L	48" o.c.	3
	LEY CAN	LEYMUS CONDENSATUS 'CANYON PRINCE'	CANYON PRINCE GIANT WILD RYE	5 GAL.	L	36" o.c.	6

MATERIAL LEGEND

SYMBOL	MATERIAL	DESCRIPTION	SIZE	MANUFACTURER	DETAIL
	ROCK BLANKET	MALIBU COBBLE	6" WIDE	SOUTHWEST BOULDER & STONE	4/L700
	BOULDERS	MALIBU BOULDER	1'-3' Ø	SOUTHWEST BOULDER & STONE	5/L700
TREES					
	EXISTING TREES				

SCALE: 1" = 5'

5' 2.5' 0' 2.5' 5' 10'

GRAPHIC SCALE

Underground Service Alert

CALL BEFORE YOU DIG

Call: TOLL FREE 8-1-1

TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

iteris

LICENSED LANDSCAPE ARCHITECT
DEAN HOWELL
Signature
12-31-26
Renewal Date
Date
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:

10-07-26

DEAN HOWELL DATE

P.L.A. No. 5765

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT

FAIR OAKS AVENUE & EL CENTRO STREET

PLANTING PLANS

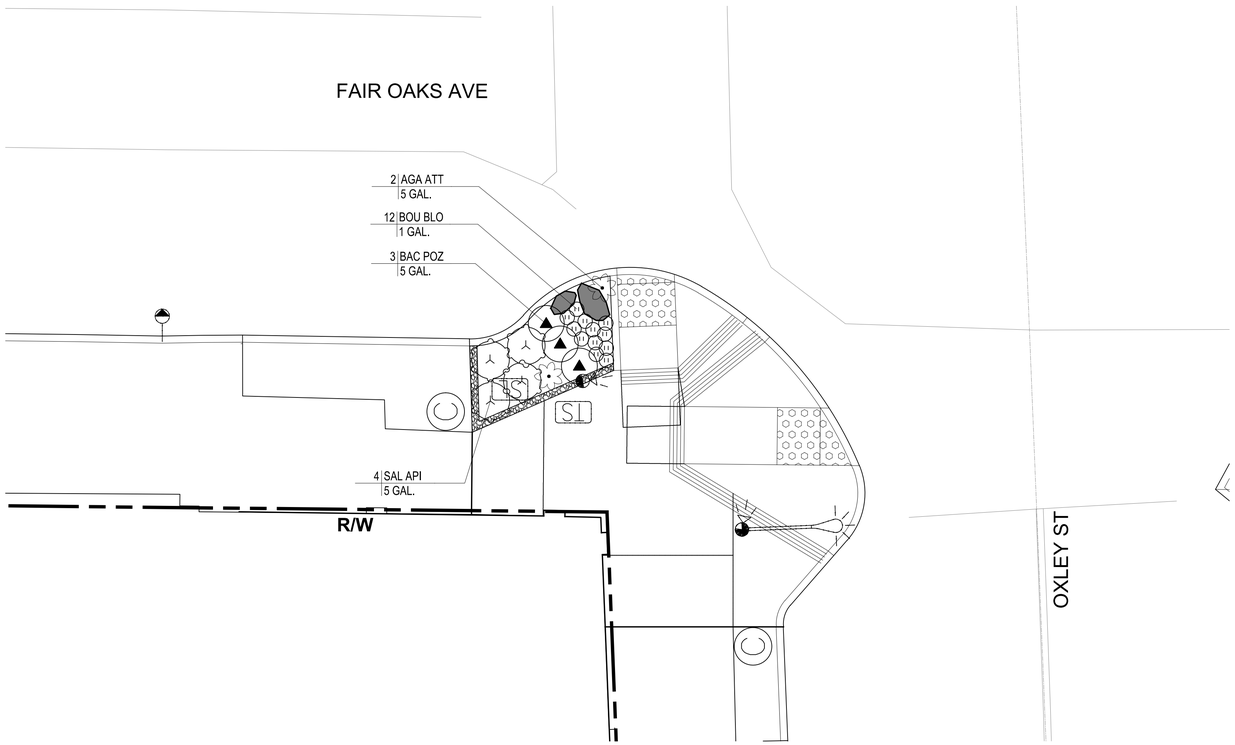
L603

PROJECT NO. 2020-02
SHEET NO. 74 OF 97

100% SUBMITTAL

C:\Users\sapina\OneDrive - gruenassociates.com\8665 Fair Oaks Blvd - Documents\04Dwg\2L\-0Sht\L60X - Planting Plans.dwg PLOT DATE: 10/7/2026

LAST SAVED BY: SAPINA



NW CORNER
FAIR OAKS AVE & OXLEY ST

SCALE: 1"=5'

PLANT LEGEND

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS	SPACING	QTY
SHRUBS							
	AGA ATT	AGAVE ATTENUATA	FOXTAIL AGAVE	5 GAL.	L	24" o.c.	2
	BAC POZ	BACCHARIS PILULARIS CONSANGUINEA 'POZO SURF'	POZO SURF COYOTE BRUSH	5 GAL.	L	30" o.c.	3
	BOU BLO	BOUTELOUA GRACILIS 'BLONDE AMBITION'	BLONDE AMBITION BLUE GRAMA	1 GAL.	L	12" o.c.	12
	SAL API	SALVIA APIANA	WHITE SAGE	5 GAL.	L	36" o.c.	4

MATERIAL LEGEND

SYMBOL	MATERIAL	DESCRIPTION	SIZE	MANUFACTURER	DETAIL
	ROCK BLANKET	MALIBU COBBLE	6" WIDE	SOUTHWEST BOULDER & STONE	4/L700
	BOULDERS	MALIBU BOULDER	1'-3' Ø	SOUTHWEST BOULDER & STONE	5/L700
TREES					
	EXISTING TREES				

SCALE: 1" = 5'

5' 2.5' 0' 2.5' 5' 10'

GRAPHIC SCALE

Underground Service Alert

CALL BEFORE YOU DIG

Call: TOLL FREE 8—1—1

TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

iteris

LICENSED LANDSCAPE ARCHITECT
DEAN HOWELL
Signature
12-31-26
Renewal Date
Date
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:

10-07-26

DEAN HOWELL DATE

P.L.A. No. 5765

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT

FAIR OAKS AVENUE & OXLEY STREET

PLANTING PLANS

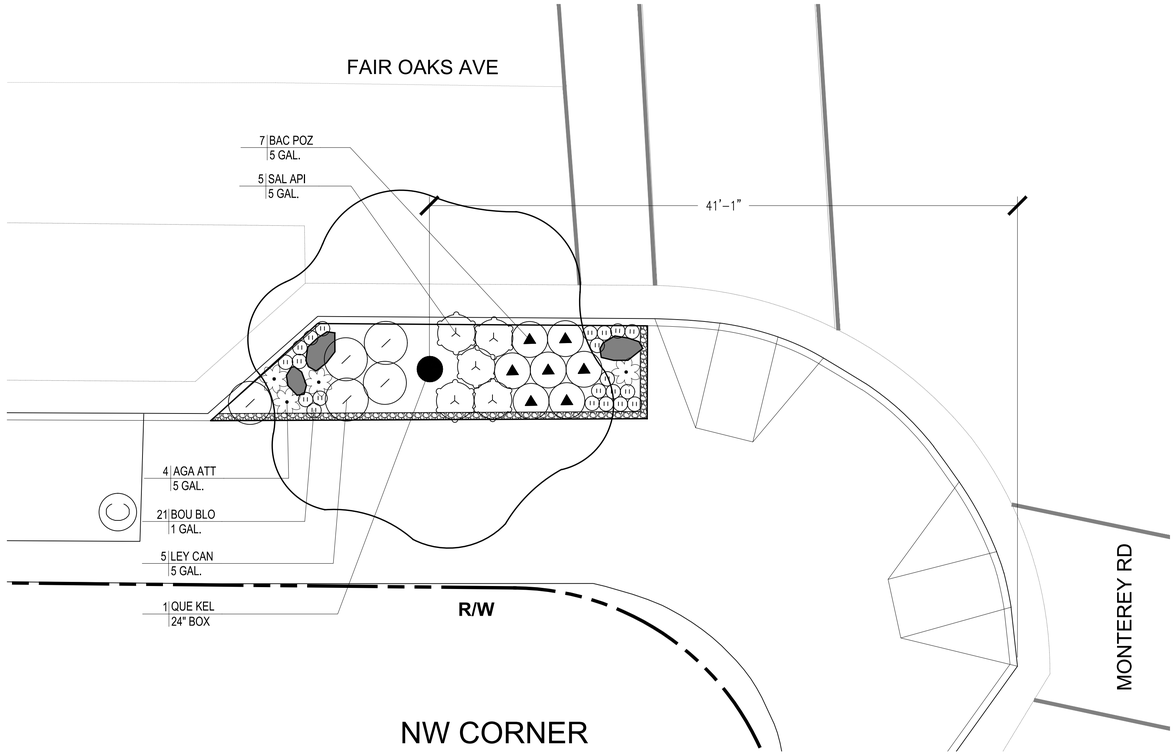
L604

PROJECT NO. 2020-02
SHEET NO. 75 OF 97

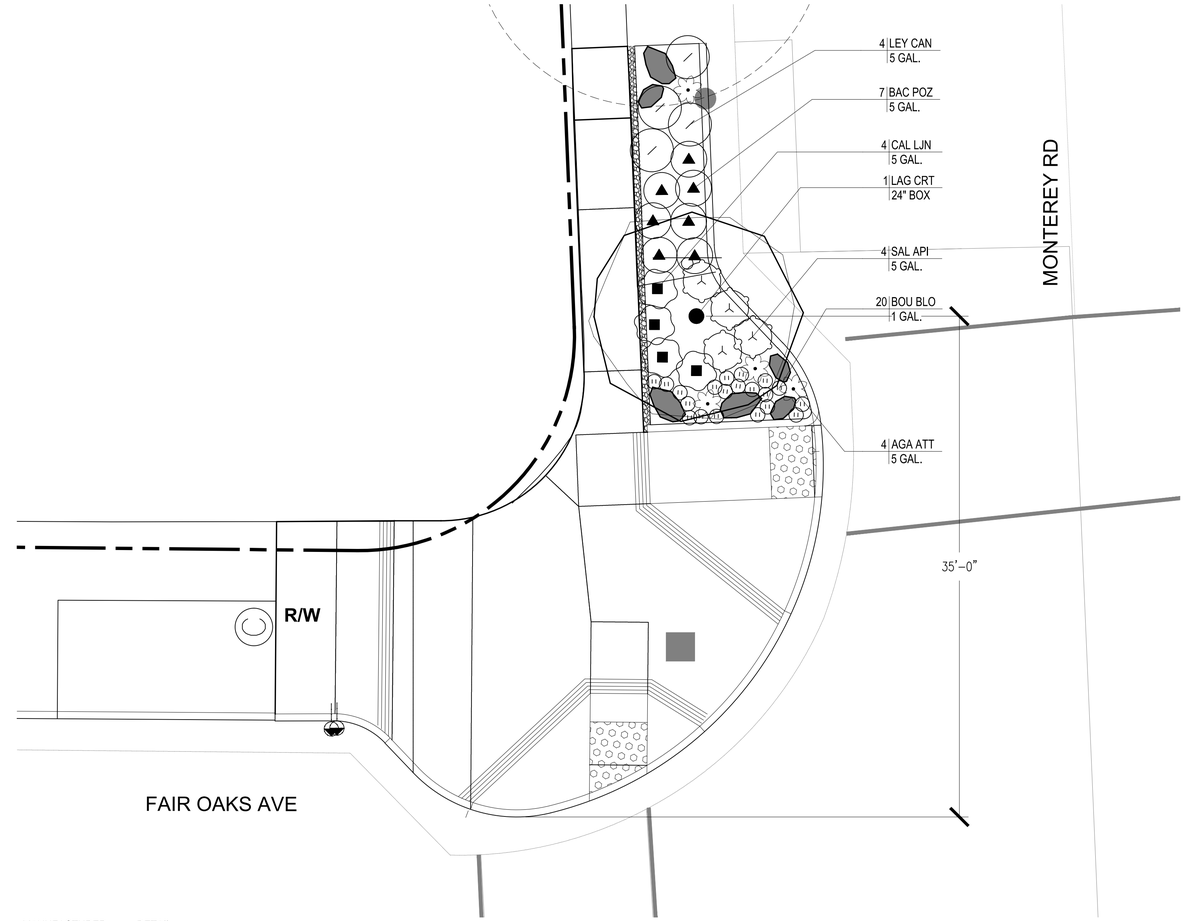
100% SUBMITTAL

C:\Users\sapina\OneDrive – gruenassociates.com\8665 Fair Oaks Blvd – Documents\04Dwg\2L\–0Sht\L60X – Planting Plans.dwg PLOT DATE: 10/7/2026

LAST SAVED BY: SAPINA



NW CORNER
FAIR OAKS AVE & MONTEREY RD
SCALE: 1"=5'



NE CORNER
FAIR OAKS AVE & MONTEREY RD
SCALE: 1"=5'

PLANT LEGEND

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS		QTY
TREES							
	LAG CRT	LAGERSTROEMIA X 'NATCHEZ'	CREPE MYRTLE N.	24" BOX	M		1
	QUE KEL	QUERCUS KELLOGGII	CALIFORNIA BLACK OAK	24" BOX	M		1
SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS	SPACING	QTY
SHRUBS							
	AGA ATT	AGAVE ATTENUATA	FOXTAIL AGAVE	5 GAL.	L	24" o.c.	8
	BAC POZ	BACCHARIS PILULARIS CONSANGUINEA 'POZO SURF'	POZO SURF COYOTE BRUSH	5 GAL.	L	30" o.c.	14
	BOU BLO	BOUTELOUA GRACILIS 'BLONDE AMBITION'	BLONDE AMBITION BLUE GRAMA	1 GAL.	L	12" o.c.	41
	CAL LJN	CALLISTEMON VIMINALIS 'LITTLE JOHN'	LITTLE JOHN WEEPING BOTTLEBRUSH	5 GAL.	L	33" o.c.	4
	LEY CAN	LEYMUS CONDENSATUS 'CANYON PRINCE'	CANYON PRINCE GIANT WILD RYE	5 GAL.	L	36" o.c.	9
	SAL API	SALVIA APIANA	WHITE SAGE	5 GAL.	L	36" o.c.	9

MATERIAL LEGEND

SYMBOL	MATERIAL	DESCRIPTION	SIZE	MANUFACTURER	DETAIL
	ROCK BLANKET	MALIBU COBBLE	6" WIDE	SOUTHWEST BOULDER & STONE	4/L700
	BOULDERS	MALIBU BOULDER	1'-3' Ø	SOUTHWEST BOULDER & STONE	5/L700
TREES					
	EXISTING TREES				

SCALE: 1" = 5'
5' 2.5' 0' 2.5' 5' 10'
GRAPHIC SCALE

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT

FAIR OAKS AVENUE & MONTEREY RD

PLANTING PLANS

L605

PROJECT NO. 2020-02
SHEET NO. 76 OF 97

Underground Service Alert
Call: TOLL FREE 8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

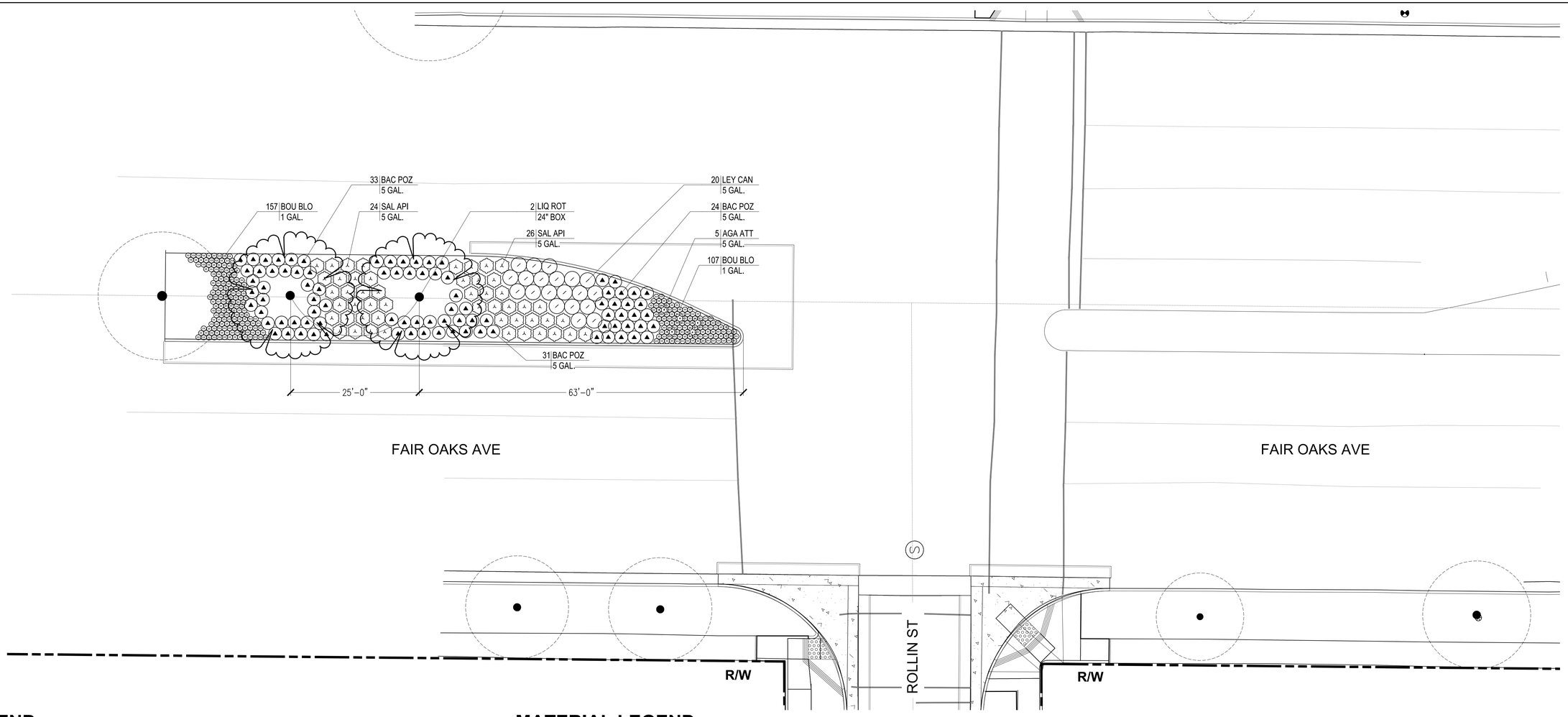
iteris

LICENSED LANDSCAPE ARCHITECT
DEAN HOWELL
Signature
12-31-26
Renewal Date
Date
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
10-07-26
DEAN HOWELL DATE
P.L.A. No. 5765

100% SUBMITTAL

LAST SAVED BY: SAPINA
PLOT DATE: 10/7/2026
C:\Users\sapina\OneDrive - gruenassociates.com\8665 Fair Oaks Blvd - Documents\04Dwg\2L\-0Sht\L60X - Planting Plans.dwg



PLANT LEGEND

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS		QTY
TREES							
	LIQ ROT	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'	ROUND-LOBED SWEET GUM	24" BOX	M		2

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS	SPACING	QTY
SHRUBS							
	AGA ATT	AGAVE ATTENUATA	FOXTAIL AGAVE	5 GAL.	L	24" o.c.	5
	BAC POZ	BACCHARIS PILULARIS CONSANGUINEA 'POZO SURF'	POZO SURF COYOTE BRUSH	5 GAL.	L	30" o.c.	88
	BOU BLO	BOUTELOUA GRACILIS 'BLONDE AMBITION'	BLONDE AMBITION BLUE GRAMA	1 GAL.	L	12" o.c.	264
	LEY CAN	LEYMUS CONDENSATUS 'CANYON PRINCE'	CANYON PRINCE GIANT WILD RYE	5 GAL.	L	36" o.c.	20
	SAL API	SALVIA APIANA	WHITE SAGE	5 GAL.	L	36" o.c.	50

MATERIAL LEGEND

SYMBOL	MATERIAL	DESCRIPTION	SIZE	MANUFACTURER	DETAIL
	ROCK BLANKET	MALIBU COBBLE	6" WIDE	SOUTHWEST BOULDER & STONE	4/L700
	BOULDERS	MALIBU BOULDER	1'-3' Ø	SOUTHWEST BOULDER & STONE	5/L700
TREES					
	EXISTING TREES				

N MEDIAN
FAIR OAKS AVE & ROLLIN ST
SCALE: 1"=10'

SCALE: 1" = 10'
10' 5' 0' 10' 20'
GRAPHIC SCALE

Underground Service Alert
Call: TOLL FREE
8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

iteris

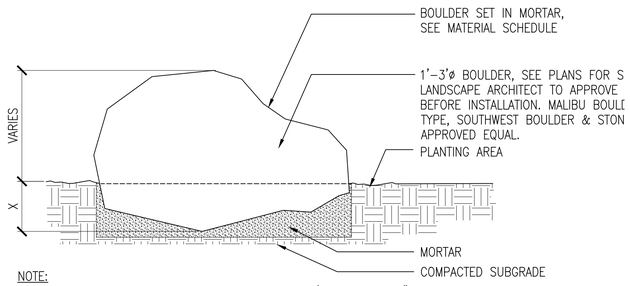
LICENSED LANDSCAPE ARCHITECT
DEAN HOWELL 5765
Signature
12-31-26
Renewal Date
Date
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
10-07-26
DEAN HOWELL DATE
P.L.A. No. 5765

CITY OF SOUTH PASADENA
NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT
FAIR OAKS AVENUE & ROLLIN STREET
PLANTING PLANS
L606
PROJECT NO. 2020-02
SHEET NO. 77 OF 97

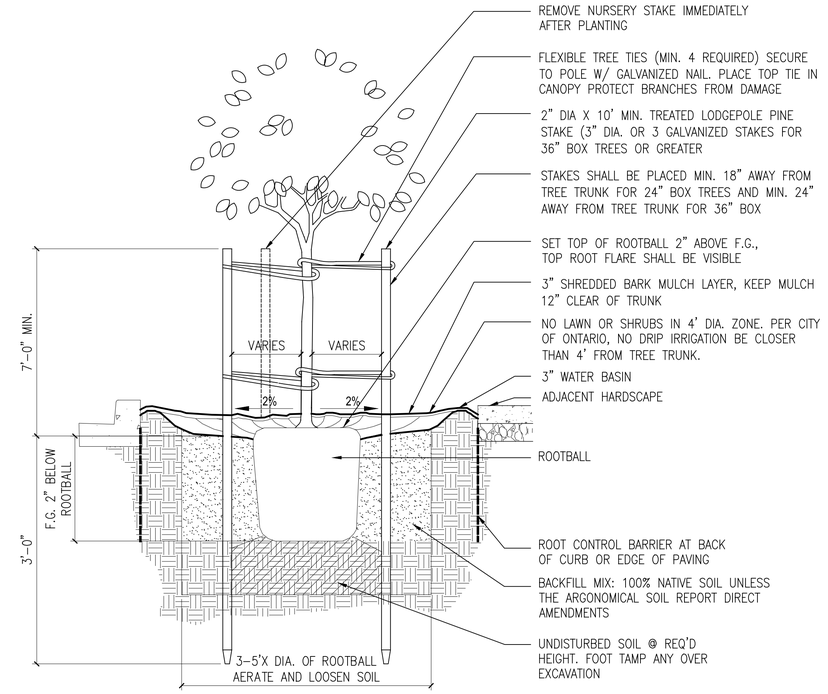
100% SUBMITTAL

LAST SAVED BY: SAPINA
PLOT DATE: 10/7/2026
C:\Users\sapina\OneDrive - gruenassociates.com\8665 Fair Oaks Blvd - Documents\04Dwg\2L\-0Sht\L60X - Planting Plans.dwg

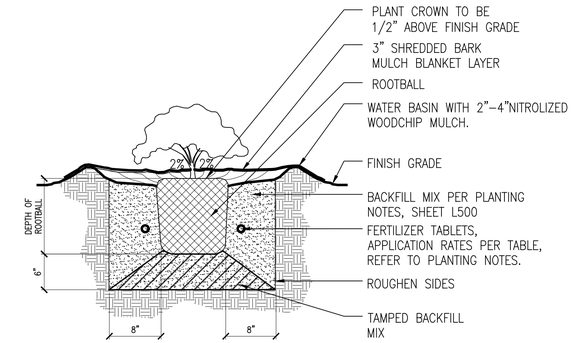


NOTE:
1. MAXIMUM HEIGHT OF LANDSCAPE BOULDERS IS 3' AND ONLY 18" ABOVE FINISH GRADE OF PLANTING AREA IS ACCEPTABLE
2. SEE PLANTING PLANS FOR BOULDER LOCATIONS
3. BOULDER SYMBOLS SHOWN ON PLANS ARE FOR GRAPHIC PURPOSES ONLY. CONTRACTOR SHALL VERIFY SIZES, QUANTITIES, AND SUBMIT PHOTOS OR SUPPLIER CUT SHEET OF BOULDERS TO LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
4. CONTRACTOR SHALL PLACE BOULDERS IN GROUPS OF VARIOUS SIZES TO SIMULATE NATURAL ROCK OUTCROP.
5. CONTRACTOR SHALL CHALK EXACT LAYOUT OF BOULDERS AND VERIFY WITH LANDSCAPE ARCHITECT PRIOR TO PLACEMENT.
6. PLACEMENT OF BOULDERS SHALL OCCUR PRIOR TO INSTALLATION OF PLANT MATERIAL.

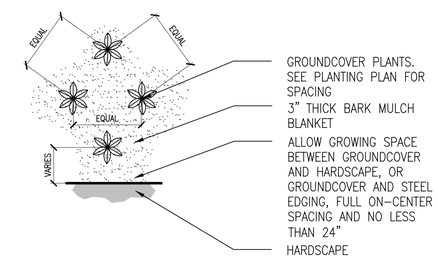
5 BOULDER IN PLANTING
SCALE: 1"=1'-0"

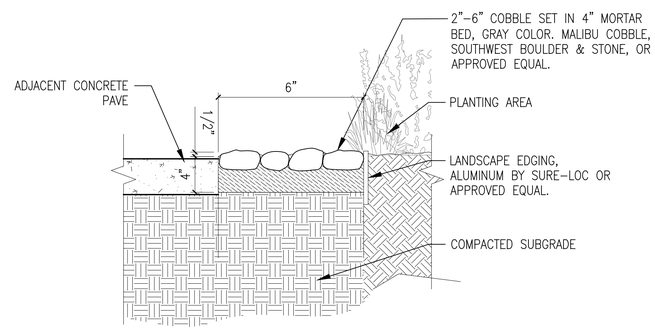


3 TREE IN PARKWAY
SCALE: 1-1/2"=1'-0"

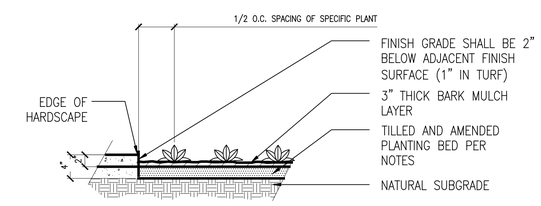


1 SHRUB PLANTING
SCALE: 1"=1'-0"





4 COBBLE STRIP SET IN MORTAR
SCALE: 1-1/2"=1'-0"



NOTE:
A. CROSS RIP AREAS TO RECEIVE SOIL AMENDMENTS TO A DEPTH OF 6". BLEND SOIL AMENDMENTS INTO NATIVE SOIL TO AVOID ANY DISTINCT SOIL PROFILE.

2 MASS PLANTING
SCALE: 1"=1'-0"

Underground Service Alert
Call: TOLL FREE 8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

GRUENASSOCIATES
ARCHITECTURE PLANNING INTERIORS LANDSCAPE
6330 San Vicente Boulevard, Suite 200, Los Angeles, CA 90048
www.gruenassociates.com T 323 937-4270 F 323 937-6001

iteris

LICENSED LANDSCAPE ARCHITECT DEAN HOWELL 5765 STATE OF CALIFORNIA
Signature 12-31-26 Renewal Date Date

PREPARED UNDER THE SUPERVISION OF:
10-07-26
DEAN HOWELL DATE
P.L.A. No. 5765

CITY OF SOUTH PASADENA

NORTH-SOUTH CORRIDOR
I.T.S DEPLOYMENT PROJECT

FAIR OAKS AVENUE & HOPE STREET

PLANTING DETAILS

L700

PROJECT NO. 2020-02
SHEET NO. 78 OF 97

100% SUBMITTAL

LAST SAVED BY: SAPINA

PLOT DATE: 10/7/2026

C:\Users\sapina\OneDrive - gruenassociates.com\8665 Fair Oaks Blvd - Documents\040wg\2L\-0Sht\L700 - Planting Details.dwg

REMOVAL NOTES (THIS SHEET ONLY)

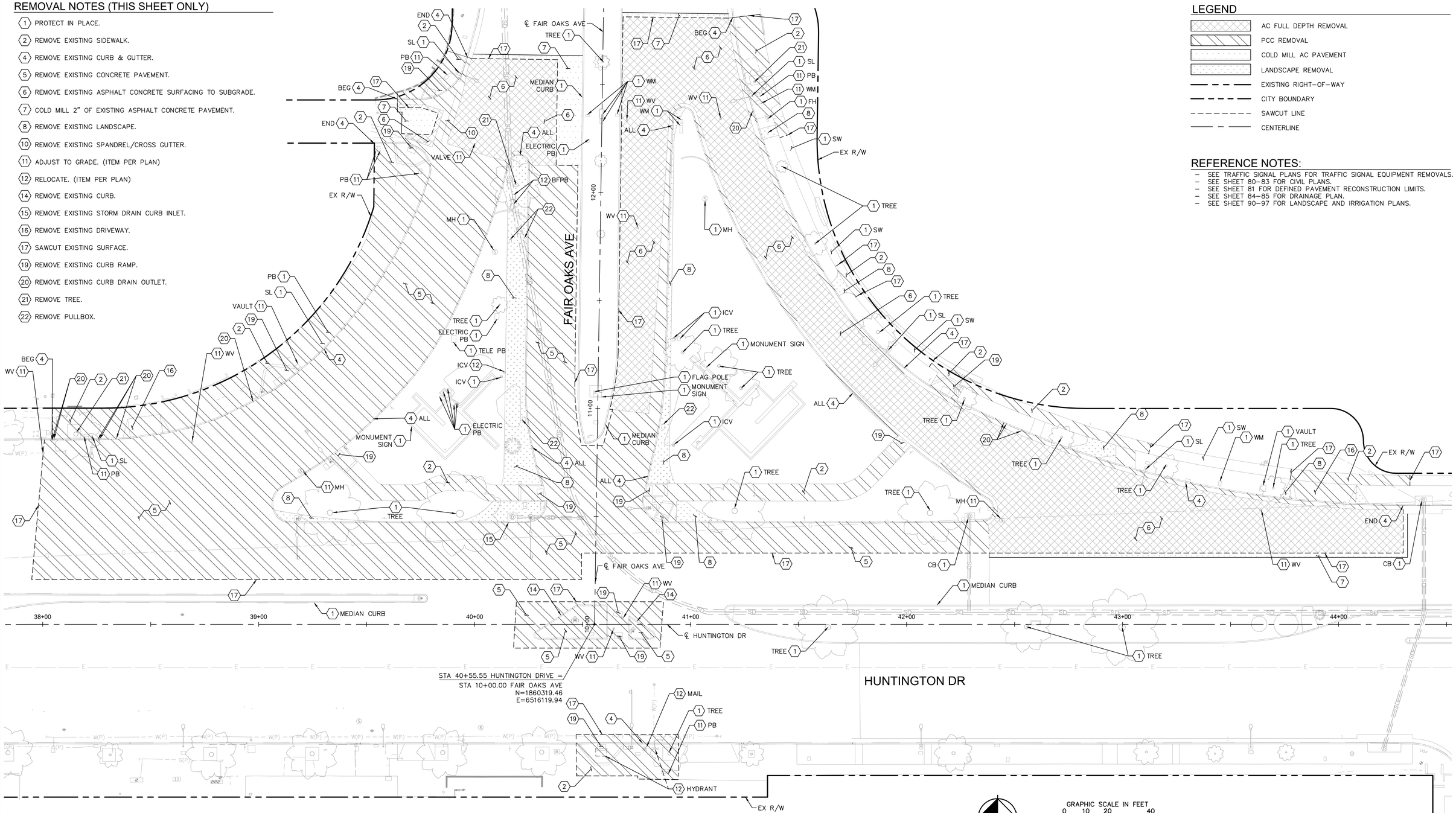
1. PROTECT IN PLACE.
2. REMOVE EXISTING SIDEWALK.
4. REMOVE EXISTING CURB & GUTTER.
5. REMOVE EXISTING CONCRETE PAVEMENT.
6. REMOVE EXISTING ASPHALT CONCRETE SURFACING TO SUBGRADE.
7. COLD MILL 2" OF EXISTING ASPHALT CONCRETE PAVEMENT.
8. REMOVE EXISTING LANDSCAPE.
10. REMOVE EXISTING SPANDREL/CROSS GUTTER.
11. ADJUST TO GRADE. (ITEM PER PLAN)
12. RELOCATE. (ITEM PER PLAN)
14. REMOVE EXISTING CURB.
15. REMOVE EXISTING STORM DRAIN CURB INLET.
16. REMOVE EXISTING DRIVEWAY.
17. SAWCUT EXISTING SURFACE.
19. REMOVE EXISTING CURB RAMP.
20. REMOVE EXISTING CURB DRAIN OUTLET.
21. REMOVE TREE.
22. REMOVE PULLBOX.

LEGEND

- AC FULL DEPTH REMOVAL
- PCC REMOVAL
- COLD MILL AC PAVEMENT
- LANDSCAPE REMOVAL
- EXISTING RIGHT-OF-WAY
- CITY BOUNDARY
- SAWCUT LINE
- CENTERLINE

REFERENCE NOTES:

- SEE TRAFFIC SIGNAL PLANS FOR TRAFFIC SIGNAL EQUIPMENT REMOVALS.
- SEE SHEET 80-83 FOR CIVIL PLANS.
- SEE SHEET 81 FOR DEFINED PAVEMENT RECONSTRUCTION LIMITS.
- SEE SHEET 84-85 FOR DRAINAGE PLAN.
- SEE SHEET 90-97 FOR LANDSCAPE AND IRRIGATION PLANS.



Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE 8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn

© 2026 KIMLEY-HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

LICENSED PROFESSIONAL ENGINEER
MATTHEW B. JACOBSON
C 98363
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
Matthew Jacobson 10/7/26
MATTHEW B. JACOBSON DATE
R.C.E. NO. 98363

CITY OF SOUTH PASADENA
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

HUNTINGTON DRIVE AND FAIR OAKS AVENUE

DEMOLITION PLANS

DM-01

PROJECT NO. 2020-02
SHEET NO. 79 OF 97

Plotted By: Ung, Rebecca Date: October 07, 2026 06:43:40pm Path: K:\LDT_TPTO_TS\099910002 - South Pasadena Huntington-Fremont\Design\CADD\PlanSheets\DEMOLITION - HUNTINGTON - FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

BASIS OF BEARINGS:

SURVEY DATE: 1/7/2026

THE BASIS OF BEARING 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 = 1868257.60' EASTING = 6592998.41'

N.G.S C.O.R.S. VDCY:
NORTHING = 1887437.08' EASTING = 6495130.69'

THE COMBINATION FACTOR FOR THIS PROJECT WAS APPLIED AT THE FOLLOWING POINT:
NORTHING = 1868257.60' EASTING = 6592998.41'

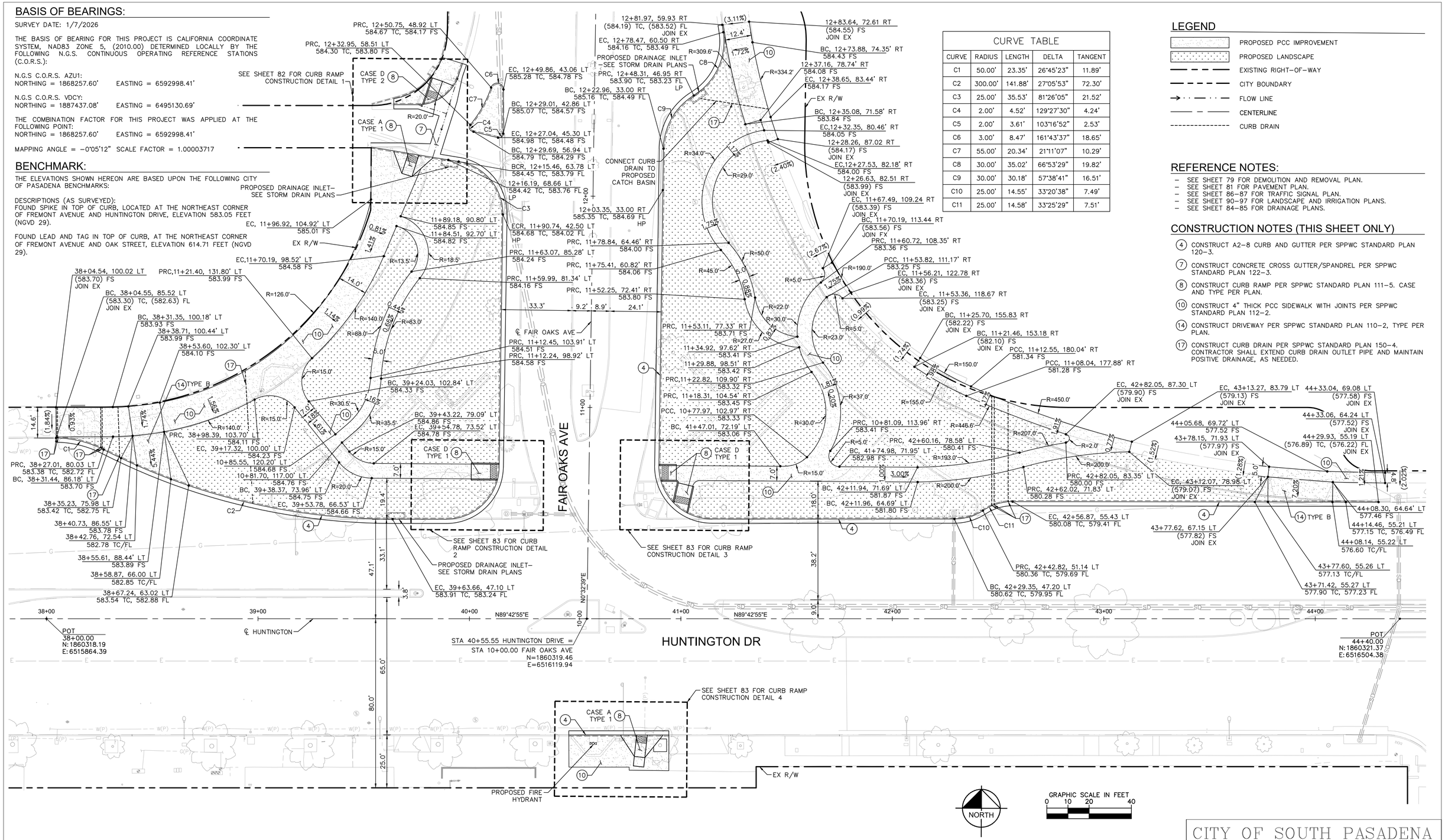
MAPPING ANGLE = −0°05'12" SCALE FACTOR = 1.00003717

BENCHMARK:

THE ELEVATIONS SHOWN HEREON ARE BASED UPON THE FOLLOWING CITY OF PASADENA BENCHMARKS:

DESCRIPTIONS (AS SURVEYED):
FOUND SPIKE IN TOP OF CURB, LOCATED AT THE NORTHEAST CORNER OF FREMONT AVENUE AND HUNTINGTON DRIVE, ELEVATION 583.05 FEET (NGVD 29).

FOUND LEAD AND TAG IN TOP OF CURB, AT THE NORTHEAST CORNER OF FREMONT AVENUE AND OAK STREET, ELEVATION 614.71 FEET (NGVD 29).



CURVE TABLE				
CURVE	RADIUS	LENGTH	DELTA	TANGENT
C1	50.00'	23.35'	26°45'23"	11.89'
C2	300.00'	141.88'	27°05'53"	72.30'
C3	25.00'	35.53'	81°26'05"	21.52'
C4	2.00'	4.52'	129°27'30"	4.24'
C5	2.00'	3.61'	103°16'52"	2.53'
C6	3.00'	8.47'	161°43'37"	18.65'
C7	55.00'	20.34'	21°11'07"	10.29'
C8	30.00'	35.02'	66°53'29"	19.82'
C9	30.00'	30.18'	57°38'41"	16.51'
C10	25.00'	14.55'	33°20'38"	7.49'
C11	25.00'	14.58'	33°25'29"	7.51'

LEGEND

- PROPOSED PCC IMPROVEMENT
- PROPOSED LANDSCAPE
- EXISTING RIGHT–OF–WAY
- CITY BOUNDARY
- FLOW LINE
- CENTERLINE
- CURB DRAIN

REFERENCE NOTES:

- SEE SHEET 79 FOR DEMOLITION AND REMOVAL PLAN.
- SEE SHEET 81 FOR PAVEMENT PLAN.
- SEE SHEET 86–87 FOR TRAFFIC SIGNAL PLAN.
- SEE SHEET 90–97 FOR LANDSCAPE AND IRRIGATION PLANS.
- SEE SHEET 84–85 FOR DRAINAGE PLANS.

CONSTRUCTION NOTES (THIS SHEET ONLY)

(4) CONSTRUCT A2–8 CURB AND GUTTER PER SPPWC STANDARD PLAN 120–3.

(7) CONSTRUCT CONCRETE CROSS GUTTER/SPANDREL PER SPPWC STANDARD PLAN 122–3.

(8) CONSTRUCT CURB RAMP PER SPPWC STANDARD PLAN 111–5. CASE AND TYPE PER PLAN.

(10) CONSTRUCT 4" THICK PCC SIDEWALK WITH JOINTS PER SPPWC STANDARD PLAN 112–2.

(14) CONSTRUCT DRIVEWAY PER SPPWC STANDARD PLAN 110–2, TYPE PER PLAN.

(17) CONSTRUCT CURB DRAIN PER SPPWC STANDARD PLAN 150–4. CONTRACTOR SHALL EXTEND CURB DRAIN OUTLET PIPE AND MAINTAIN POSITIVE DRAINAGE, AS NEEDED.

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE 8–1–1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn
© 2026 KIMLEY–HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213–261–4040
WWW.KIMLEY–HORN.COM

LICENSED PROFESSIONAL ENGINEER MATTHEW B. JACOBSON C 98363 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
Matthew Jacobson 10/7/26
MATTHEW B. JACOBSON DATE
R.C.E. NO. 98363

CITY OF SOUTH PASADENA

INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

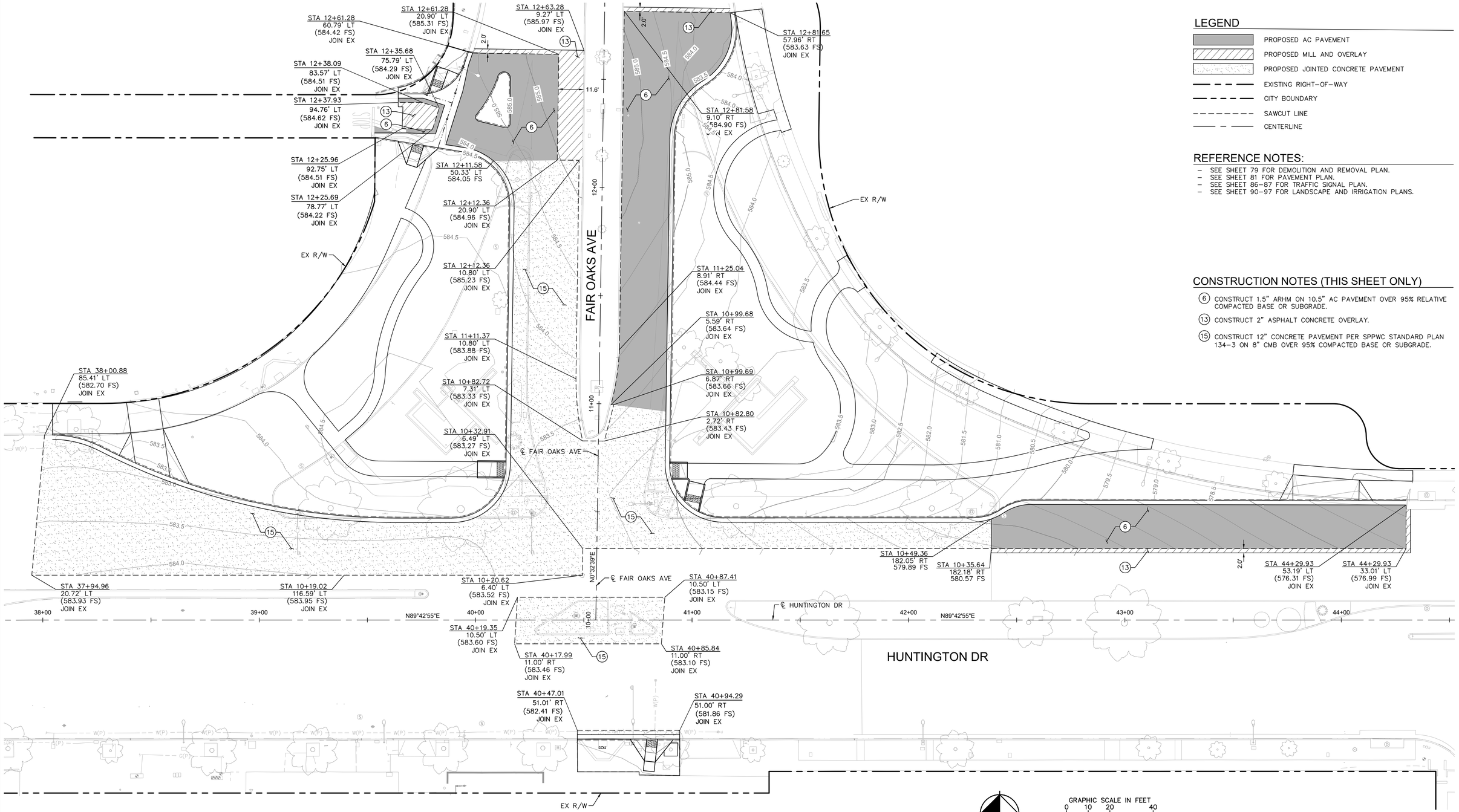
HUNTINGTON DRIVE AND FAIR OAKS AVENUE

STREET IMPROVEMENTS

ST-01

PROJECT NO. 2020-02
SHEET NO. 80 OF 97

Plotted By: Ung, Rebecca Date: October 07, 2026 06:44:08pm Path: K:\LDT_TPTO_TTS\099910002 – South Pasadena Huntington–Fremont\Design\CADD\PlanSheets\ROADWAY IMPROVEMENTS – HUNTINGTON – FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley–Horn and Associates, Inc. shall be without liability to Kimley–Horn and Associates, Inc.



LEGEND

- PROPOSED AC PAVEMENT
- PROPOSED MILL AND OVERLAY
- PROPOSED JOINTED CONCRETE PAVEMENT
- EXISTING RIGHT-OF-WAY
- CITY BOUNDARY
- SAWCUT LINE
- CENTERLINE

REFERENCE NOTES:

- SEE SHEET 79 FOR DEMOLITION AND REMOVAL PLAN.
- SEE SHEET 81 FOR PAVEMENT PLAN.
- SEE SHEET 86-87 FOR TRAFFIC SIGNAL PLAN.
- SEE SHEET 90-97 FOR LANDSCAPE AND IRRIGATION PLANS.

CONSTRUCTION NOTES (THIS SHEET ONLY)

(6) CONSTRUCT 1.5" ARHM ON 10.5" AC PAVEMENT OVER 95% RELATIVE COMPACTED BASE OR SUBGRADE.

(13) CONSTRUCT 2" ASPHALT CONCRETE OVERLAY.

(15) CONSTRUCT 12" CONCRETE PAVEMENT PER SPPWC STANDARD PLAN 134-3 ON 8" CMB OVER 95% COMPACTED BASE OR SUBGRADE.

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

Underground Service Alert
Call: TOLL FREE
8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn

© 2026 KIMLEY-HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

LICENSED PROFESSIONAL ENGINEER
MATTHEW B. JACOBSON
C 98363
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:

Matthew Jacobson 10/7/26
MATTHEW B. JACOBSON DATE
R.C.E. NO. 98363

CITY OF SOUTH PASADENA

INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

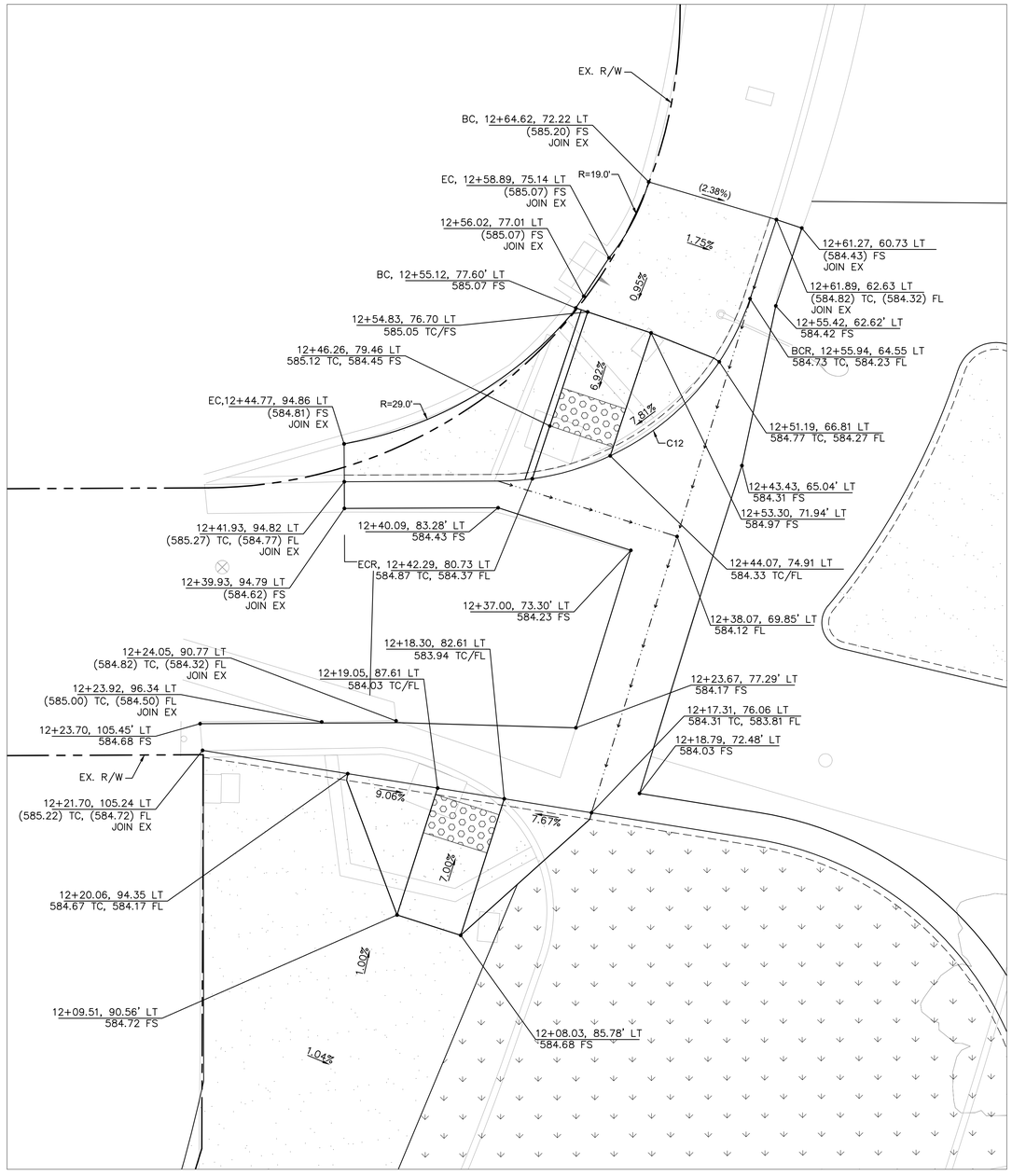
HUNTINGTON DRIVE AND FAIR OAKS AVENUE

PAVEMENT IMPROVEMENTS

PI-01

PROJECT NO. 2020-02
SHEET NO. 81 OF 97

Plotted By: Ung, Rebecca Date: October 07, 2026 06:44:01pm Path: K:\LDT_TPTO_ITS\099910002 - South Pasadena Huntington-Fremont\Design\CADD\PlanSheets\PAVEMENT PLAN - HUNTINGTON - FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



NE BOULEVARD
CURB RAMP DETAIL 1

REFERENCE NOTES:

THESE NOTES SHALL BE APPLICABLE TO PLAN SHEETS 79–97.

1. THE TERM "DESIGN ENGINEER" USED HEREIN SHALL MEAN THE ENGINEER WHO HAS SIGNED AND SEALED THEIR RESPECTIVE PLAN SHEETS AND IS IN RESPONSIBLE CHARGE OF THE ENGINEERING DESIGN ON THOSE SHEETS. THE TERM "CONTRACTOR" USED HEREIN SHALL MEAN ANY GENERAL CONTRACTOR OR SUBCONTRACTOR USING THESE PLANS.

2. THE DESIGN ENGINEER SHALL NOT PROVIDE, OBSERVE, COMMENT ON NOR ENFORCE ANY SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, IMPLEMENT, AND MAINTAIN ALL SAFETY MEASURES AND SHALL BE SOLELY RESPONSIBLE FOR ALL REQUIRED SAFETY MEASURES, PROCEDURES AND PROGRAMS AND COMPLYING WITH ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS. THE CONTRACTOR AGREES THAT SHE/HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS AND SAFETY OF ALL PERSONS AND PROPERTY DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

3. THE DESIGN ENGINEER SHALL HAVE NO RESPONSIBILITY FOR ANY OF THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION, TECHNIQUES, EQUIPMENT CHOICE AND USAGE, SEQUENCE, SCHEDULE, SAFETY PROGRAMS, OR SAFETY PRACTICES, NOR SHALL THE DESIGN ENGINEER HAVE ANY AUTHORITY OR RESPONSIBILITY TO DIRECT OR STOP THE WORK OF ANY CONTRACTOR.

4. ANY CHANGES MADE BY THE CONTRACTOR TO THE CONTRACTUALLY AGREED UPON SCOPE, SCHEDULE AND/OR FEE, WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF THE CITY, IS THE SOLE RESPONSIBILITY AND LIABILITY OF THE CONTRACTOR. THE DESIGN ENGINEER IS NOT RESPONSIBLE FOR DIRECTING, IMPLICITLY OR EXPLICITLY ANY SUCH CHANGES AND THE CONTRACTOR ASSUMES ALL RISK OF UNDERTAKING ANY SUCH CHANGES.

5. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE DESIGN ENGINEER AND CITY, THEIR OFFICERS, AGENTS AND EMPLOYEES, HARMLESS FROM ANY AND ALL CLAIMS, DEMANDS, JUDGMENTS, LOSS, DAMAGES, COSTS, EXPENSES, FEES OR LIABILITY WHATSOEVER, REAL OR ALLEGED, IN CONNECTION WITH, IN WHOLE OR IN PART, DIRECTLY OR INDIRECTLY, THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE OR CONCURRENT NEGLIGENCE OF THE CITY OR THE DESIGN ENGINEER.

6. IF THERE ARE ANY QUESTIONS REGARDING THESE PLANS, THE CONTRACTOR SHALL ISSUE A RFI IN WRITING FROM THE DESIGN ENGINEER AND THE CITY, REQUESTING A CLARIFICATION BEFORE PERFORMING ANY RELATED OR IMPACTED WORK. ANY ELECTRONIC FILES ARE PROVIDED ONLY FOR THE CONVENIENCE OF THE RECEIVING PARTY AND ARE INTENDED SOLELY FOR THE EXCLUSIVE USE BY THAT PARTY FOR THE PURPOSES EXPRESSLY AUTHORIZED. IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICE, ONLY PRINTED COPIES OF DOCUMENTS DESIGNATED AS "ISSUED FOR CONSTRUCTION", OR EQUIVALENT DESIGNATION, MAY BE RELIED UPON.
7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PREPARING ITS BID, IN WHOLE AND IN PART, BASED UPON THE DESIGN SHOWN ON THESE PLANS. THE CONTRACTOR IS NOT AUTHORIZED TO USE ANY QUANTITIES SHOWN ON THESE PLANS WITHOUT THE EXPLICIT WRITTEN PERMISSION OF THE ENGINEER OF RECORD. THE DESIGN ENGINEER MAKES NO WARRANTY OR REPRESENTATION AS TO THE SUITABILITY OF ANY INFORMATION SHOWN HEREON FOR DETERMINING A CONTRACTOR BID.

8. ANYTHING MENTIONED IN THE SPECIFICATIONS, IF ANY, AND NOT SHOWN ON THE DRAWINGS, OR SHOWN ON THE DRAWINGS AND NOT MENTIONED IN THE SPECIFICATIONS, SHALL BE OF LIKE EFFECT AS IF SHOWN OR MENTIONED IN BOTH.

9. THE EXISTENCE, LOCATION, TYPE, CONDITION AND SIZE OF UNDERGROUND UTILITIES, FACILITIES OR STRUCTURES ("FACILITIES") SHOWN ON THESE PLANS WAS OBTAINED FROM A SEARCH OF READILY AVAILABLE RECORDS, OR AS PROVIDED BY OTHERS. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID INFORMATION. THE CONTRACTOR SHALL CONFIRM SAID INFORMATION BY FIELD MEASUREMENTS, OBSERVATIONS AND WHATEVER MEANS NECESSARY, PRIOR TO CONSTRUCTION. THE CONTRACTOR WILL IMMEDIATELY INFORM THE DESIGN ENGINEER IN WRITING IF ANY DISCREPANCIES OR CONFLICTING INFORMATION IS FOUND. THE CONTRACTOR SHALL PROTECT THE FACILITIES SHOWN HEREON AND ANY OTHERS NOT OF RECORD OR NOT SHOWN ON THESE PLANS, AS NEEDED. ALL DAMAGES THERETO CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE APPROPRIATE SPECIFICATIONS AND STANDARDS AT THE SOLE EXPENSE OF THE CONTRACTOR.

10. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES AS NEEDED, SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY DUE TO THE ACTUAL LOCATION, SIZE, TYPE, OR CONDITION OF EXISTING FACILITIES DIFFERING FROM WHAT IS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ALL SUCH FACILITIES WHETHER NOTED ON THESE PLANS OR NOT. THE DESIGN ENGINEER ASSUMES NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING FACILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY DAMAGE TO THE EXISTING IMPROVEMENTS AND REPLACEMENT TO THE SATISFACTION OF THE CITY AND/OR AUTHORITY HAVING JURISDICTION AS NEEDED.

11. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO STARTING WORK ADJACENT TO, ABOVE OR BELOW THEIR FACILITIES AND SHALL COORDINATE ALL WORK WITH UTILITY COMPANY REPRESENTATIVES.

12. THE CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED GRADING ELEMENTS BEFORE THE START OF CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES.

13. UNLESS EXPLICITLY STATED OTHERWISE HEREIN, THE EARTHWORK QUANTITIES SHOWN ON THESE PLANS ARE APPROXIMATE IN PLACE VOLUMES CALCULATED FROM THE EXISTING GROUND TO THE PROPOSED FINISHED GRADE. EXISTING GROUND IS DEFINED BY THE CONTOURS AND SPOT GRADES ON THE BASE SURVEY. PROPOSED FINISHED GRADE IS DEFINED AS THE FINAL GRADE AS INDICATED ON THE GRADING PLAN(S) AS FINISHED GROUND, FINISHED SURFACE, AND FINISHED FLOOR ELEVATIONS. NO REPRESENTATIONS OF SUCH QUANTITIES OR A BALANCED SITE CONDITION ARE MADE BY THE ENGINEER OF RECORD. THE EARTHWORK QUANTITIES SHOWN ON THESE PLANS ARE FOR PERMITTING PURPOSES ONLY. UNLESS EXPLICITLY STATED OTHERWISE HEREIN, THEY HAVE NOT BEEN FACTORED TO ACCOUNT FOR CHANGES IN VOLUME DUE TO BULKING, CLEARING AND GRUBBING, SHRINKAGE, SUBSIDENCE, OVER-EXCAVATION AND RE-COMPACTION, AND CONSTRUCTION METHODS. NOR DO THEY ACCOUNT FOR THE THICKNESS OF PAVEMENT SECTIONS, STORMWATER QUALITY MEDIA SECTIONS, UTILITY PIPES, TRENCHING AND BEDDING MATERIALS, BUILDING OR WALL FOOTINGS, BUILDING SLABS THICKNESSES AND UNDERLYING BASE OR SAND LAYERS, REUSE OF PULVERIZED MATERIALS THAT WILL UNDERLIE PAVEMENTS, ETC. THE CONTRACTOR IS NOT AUTHORIZED TO USE THE ESTIMATES HEREIN FOR BIDDING AND CONSTRUCTION PURPOSES WITHOUT THE EXPLICIT WRITTEN PERMISSION OF THE ENGINEER OF RECORD

14. THE CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, LANDSCAPE, TRAFFIC SIGNAL, SIGNING AND STRIPING, FIBER OPTIC COMMUNICATION, DRAINAGE PLANS, AND ALL OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. SHOULD DISCREPANCIES OR CONFLICTING INFORMATION BE FOUND ON ANY PLANS, OR IN ANY SPECIFICATIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY AND DESIGN ENGINEER IN WRITING BEFORE PROCEEDING WITH THE WORK IN QUESTION.

15. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO PROTECT THE PROJECT LIMITS FROM ANY EROSION AND SILTATION THAT RESULT FROM CONTRACTOR OPERATIONS, BY APPROPRIATE MEANS, OR BY SPECIFIC MEANS DESCRIBED IN THE PROJECT'S PLANS, SPECIFICATIONS OR STORM WATER POLLUTION PREVENTION REPORT, UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY WHOMEVER IS TO BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE AND THE AGENCY HAVING JURISDICTION. THE DESIGN ENGINEER SHALL HAVE NO RESPONSIBILITY TO DIRECT THE CONTRACTOR REGARDING THE MEANS AND METHODS OF STORMWATER POLLUTION PREVENTION, SEQUENCE, OR SCHEDULE.

16. ALL SHOP DRAWINGS, RFIS AND ANY OTHER DOCUMENTS THAT REQUIRE DESIGN ENGINEER REVIEW SHALL BE SUBMITTED BY THE CONTRACTOR SUFFICIENTLY IN ADVANCE OF CONSTRUCTION OF THAT ITEM, TO ALLOW ADEQUATE REVIEW, COORDINATION AND RESPONSE. SAID DOCUMENTS ARE NOT A DIRECTION FROM THE DESIGN ENGINEER TO MODIFY THE CONTRACTORS SCOPE, SCHEDULE OR PRICE, AND THE CONTRACTOR WARRANTS NOT TO USE THEM AS SUCH.

17. THE CONTRACTOR SHALL ENSURE APPROPRIATE LICENSED PROFESSIONALS HAVE BEEN RETAINED BY THE CONTRACTOR TO PROVIDE ANY/ALL REQUIRED PROJECT CERTIFICATIONS AS MAY BE REQUIRED BY ANY AUTHORITY HAVING JURISDICTION. THE DESIGN ENGINEER WILL NOT PROVIDE ANY PROJECT CERTIFICATIONS UNLESS SPECIFICALLY RETAINED BY THE CITY TO PROVIDE LIMITED SERVICES.

18. CONTRACTOR SHALL RETAIN A LICENSED SURVEYOR TO DOCUMENT ALL CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS DURING CONSTRUCTION. THE LICENSED SURVEYOR SHALL PREPARE A SIGNED AND SEALED "AS-BUILT" DRAWING UPON COMPLETION OF CONSTRUCTION. THE DESIGN ENGINEER IS NOT RESPONSIBLE FOR THE PREPARATION IN WHOLE OR IN PART OF THE "AS-BUILT" DRAWINGS.

19. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONUMENTATION AND BENCHMARKS WHICH WILL BE DISTURBED OR DESTROYED BY CONSTRUCTION. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENTATION BY A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED BY THE LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER AS REQUIRED BY LAND SURVEYORS ACT, AS AMENDED.

LEGEND

- PROPOSED PCC IMPROVEMENT
- PROPOSED LANDSCAPE
- EXISTING RIGHT-OF-WAY
- CITY BOUNDARY
- FLOW LINE
- CENTERLINE

REFERENCE NOTES:

- SEE SHEET 79 FOR DEMOLITION AND REMOVAL PLAN.
- SEE SHEET 81 FOR PAVEMENT PLAN.
- SEE SHEET 86–87 FOR TRAFFIC SIGNAL PLAN.
- SEE SHEET 90–97 FOR LANDSCAPE AND IRRIGATION PLANS.

CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA	TANGENT
C12	20.00'	24.89'	71°17'38"	14.34'

NORTH

GRAPHIC SCALE IN FEET
0 2.5 5 10

1"=5' WHEN PLOTTED
FULL SIZE AT 24"X36"

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE
8–1–1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn
© 2026 KIMLEY-HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

LICENSED PROFESSIONAL ENGINEER
MATTHEW B. JACOBSON
C 98363
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:

Matthew Jacobson 10/7/26
MATTHEW B. JACOBSON DATE
R.C.E. NO. 98363

CITY OF SOUTH PASADENA

INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

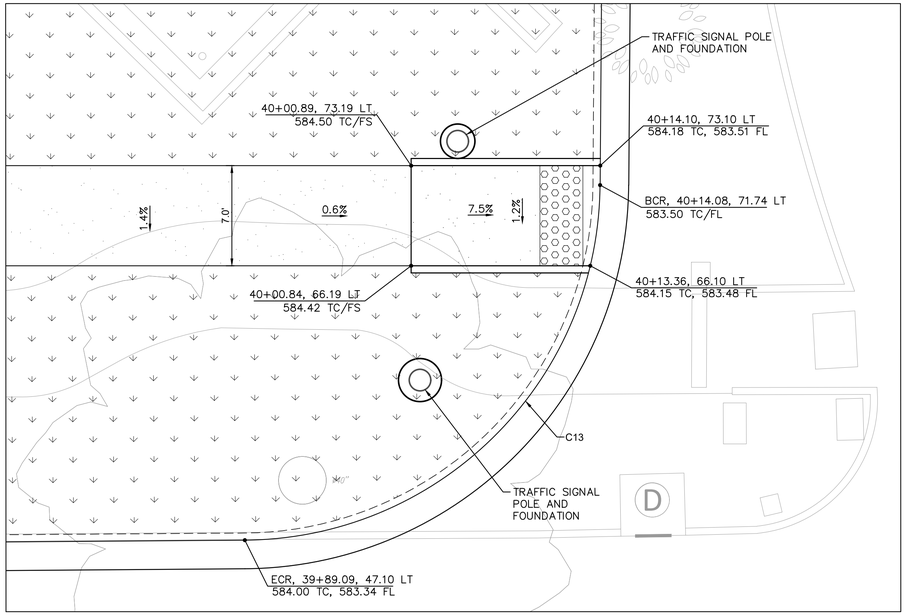
HUNTINGTON DRIVE AND FAIR OAKS AVENUE

CURB RAMP DETAILS 1

CD-1

PROJECT NO. 2020-02
SHEET NO. 82 OF 97

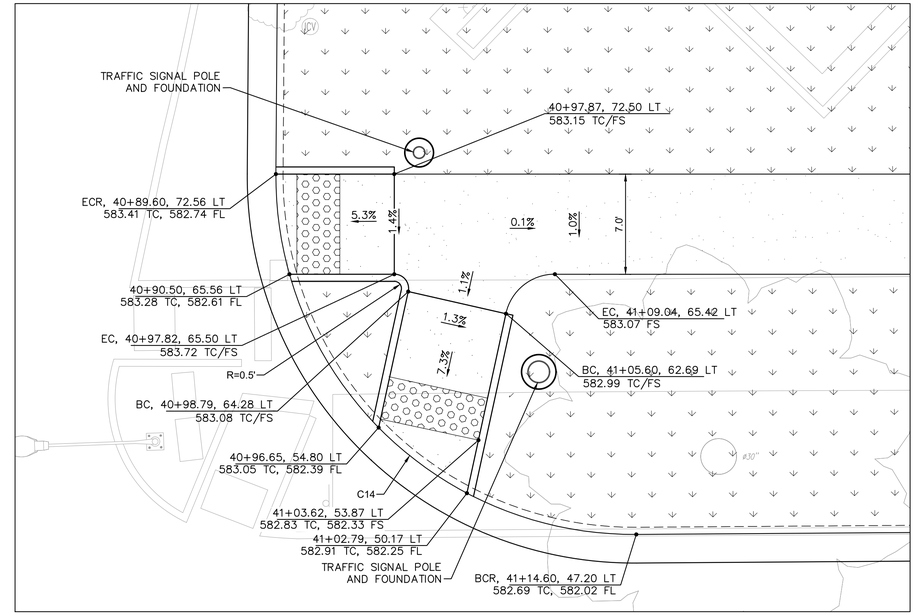
Plotted By: Ung, Rebecca Date: October 07, 2026 06:44:01pm Path: K:\LDT_TPTO_ITS\099910002 – South Pasadena Huntington-Fremont\Design\CADD\PlanSheets\CURB RAMPS –HUNTINGTON – FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



NW CORNER
CURB RAMP DETAIL 2

FAIR OAKS AVE

HUNTINGTON DR



NE CORNER
CURB RAMP DETAIL 3

LEGEND

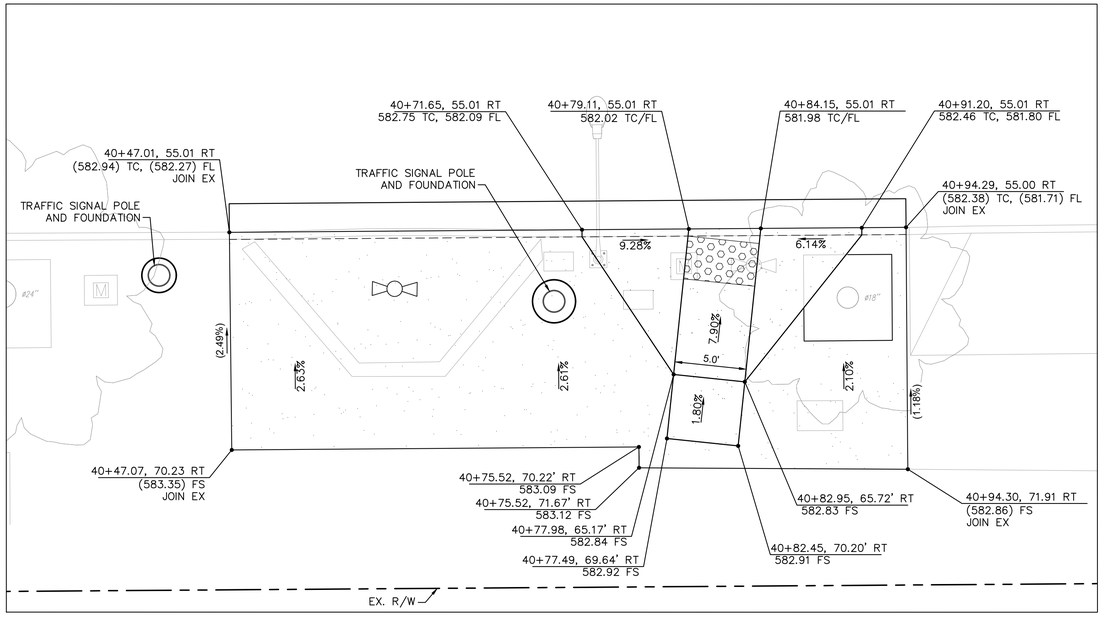
- PROPOSED PCC IMPROVEMENT
- PROPOSED LANDSCAPE
- EXISTING RIGHT-OF-WAY
- CITY BOUNDARY
- FLOW LINE
- CENTERLINE

REFERENCE NOTES:

- SEE SHEET 79 FOR DEMOLITION AND REMOVAL PLAN.
- SEE SHEET 81 FOR PAVEMENT PLAN.
- SEE SHEET 86-87 FOR TRAFFIC SIGNAL PLAN.
- SEE SHEET 90-97 FOR LANDSCAPE AND IRRIGATION PLANS.

CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA	TANGENT
C13	25.00'	38.91'	89°10'16"	24.64'
C14	25.00'	39.63'	90°49'44"	25.36'



S CORNER
CURB RAMP DETAIL 4

NORTH

GRAPHIC SCALE IN FEET
0 2.5 5 10

1"=5' WHEN PLOTTED
FULL SIZE AT 24"X36"

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE
8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn

© 2026 KIMLEY-HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

LICENSED PROFESSIONAL ENGINEER
MATTHEW B. JACOBSON
C 98363
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:

10/7/26
MATTHEW B. JACOBSON DATE
R.C.E. NO. 98363

CITY OF SOUTH PASADENA

INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

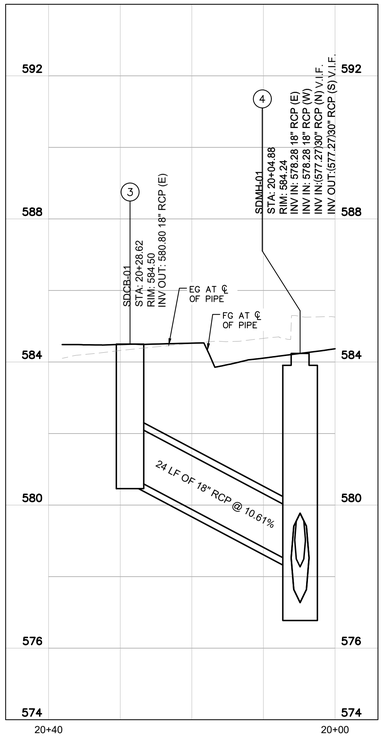
HUNTINGTON DRIVE AND FAIR OAKS AVENUE

CURB RAMP DETAILS 2

CD-02

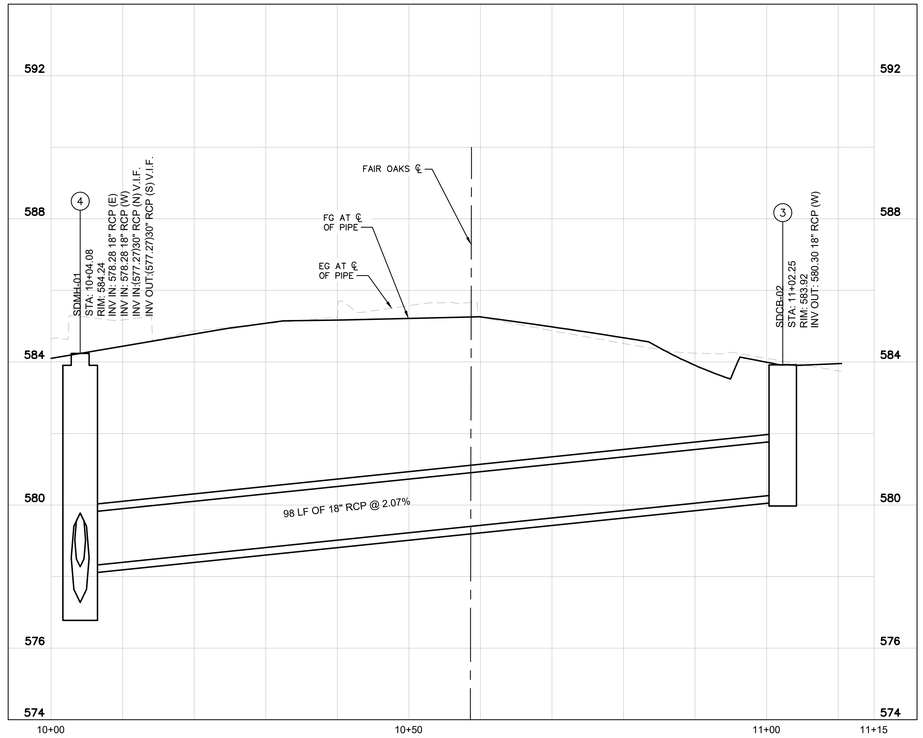
PROJECT NO. 2020-02
SHEET NO. 83 OF 97

Plotted By: Ung, Rebecca Date: October 07, 2026 06:44:30pm Path: K:\LDT_TPTO_TTS\099910002 - South Pasadena Huntington-Fremont\Design\CADD\PlanSheets\CURB RAMPS -HUNTINGTON - FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



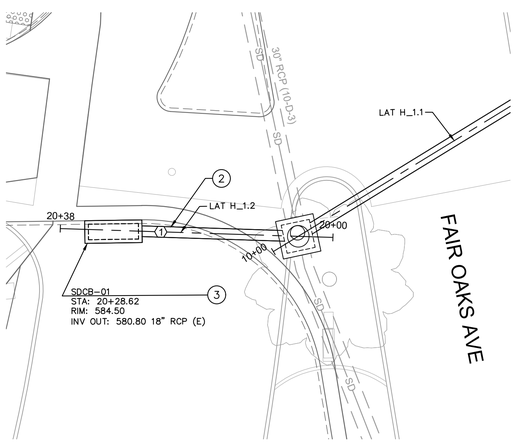
PROFILE: FAIR OAKS LATERAL H_1.2

VERTICAL SCALE: 1" = 2'
HORIZONTAL SCALE: 1" = 10'



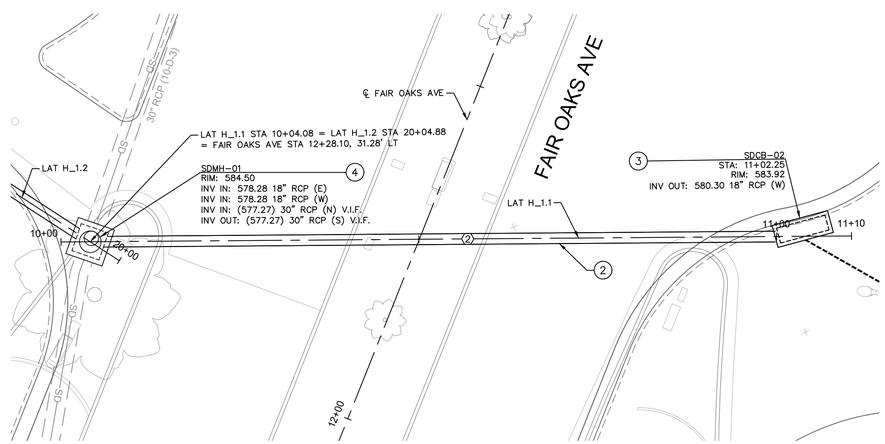
PROFILE: FAIR OAKS LATERAL H_1.1

VERTICAL SCALE: 1" = 2'
HORIZONTAL SCALE: 1" = 10'



PLAN: FAIR OAKS LATERAL H_1.2

HORIZONTAL SCALE: 1" = 10'



PLAN: FAIR OAKS LATERAL H_1.1

HORIZONTAL SCALE: 1" = 10'

DRAINAGE GENERAL NOTES

1. EXISTING ELEVATIONS ARE ESTIMATED BASED ON AVAILABLE INFORMATION AND DATA. ELEVATIONS TO BE CONFIRMED IN THE FIELD BY THE CONTRACTOR.
2. REFER TO CIVIL DETAILS FOR HORIZONTAL, VERTICAL, AND CURB HEIGHT INFORMATION.
3. ALL NEW AND REMODELED/REPLACED CATCH BASINS UNDER THIS PROJECT SHALL BE STENCILED WITH PROHIBITIVE LANGUAGE TO DISCOURAGE ILLEGAL DUMPING OF POLLUTANTS, SUCH AS "NO DUMPING – DRAINS TO OCEAN" PER CITY SPECIFICATIONS/GUIDELINES.
4. CONTRACTOR TO USE EXISTING PIPES TO THE MAXIMUM EXTENT PRACTICABLE AS SHOWN ON THESE PLANS. ENGINEER IS TO BE NOTIFIED IF EXISTING PIPES CANNOT BE USED PRIOR TO PIPE REMOVAL.
5. PROPOSED PIPE LENGTHS ARE ROUNDED AND SHOULD NOT BE USED FOR BIDDING/PRICING PURPOSES. THE CONTRACTOR SHALL DETERMINE EXACT LENGTHS REQUIRED FOR CONSTRUCTION.
6. EXISTING UTILITIES WERE PLOTTED FROM THE BEST AVAILABLE INFORMATION OBTAINED FROM UTILITY OWNERS AND SURVEYED LOCATIONS. KIMLEY-HORN MAKES NO GUARANTEES AS TO THE ACCURACY AND COMPLETENESS OF THE EXISTING UTILITIES SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION AND NOTIFY THE ENGINEER AND THE CITY OF ANY CONFLICTS IDENTIFIED IN THE FIELD. ALL EXISTING UTILITIES ARE TO BE PROTECTED IN PLACE UNLESS DETERMINED THAT RELOCATION IS NECESSARY BY THE ENGINEER AND THE CITY.
7. ALL RIM ELEVATIONS ARE AT CENTER OF MANHOLE/GRATE.
8. RIM ELEVATIONS OF CURB INLETS ARE AT CENTER OF INLET AT TOP BACK OF CURB.
9. ALL ON-GRADE INLETS SHALL MATCH THE ROADWAY SLOPE.
10. STATIONING IS CENTER OF PIPE.
11. IN LOCATIONS WHERE PROPOSED GRADING IS NOT INCLUDED, CONTRACTOR IS TO REESTABLISH EXISTING GRADES.
12. IF ADDITIONAL STORM PIPES AND UTILITIES ARE FOUND IN FIELD WITHIN THE LIMITS OF DISTURBANCE, NOTIFY CITY AND ENGINEER.
13. ALL DISTURBANCES TO EXISTING ROADWAY, SIDEWALK, CURB OR GUTTER, INCLUDING SURFACE DAMAGE TO PAVEMENT OR STRIPING THAT IS TO REMAIN, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
14. ALL CATCH BASIN STATIONS PROVIDED INDICATE THE GEOMETRIC CENTER OF EACH CATCH BASIN.
15. CONTRACTOR SHALL NOT REMOVE MORE CONCRETE THAN NECESSARY TO MODIFY THE EXISTING CATCH BASINS PER PLAN.
16. SAWCUT SHALL BE NO LESS THAN 6" ABOVE THE SOFFIT OF THE OUTLET PIPE WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
17. CONTRACTOR SHALL PRESERVE CATCH BASIN REINFORCEMENT STEEL WHERE POSSIBLE. OTHERWISE CONTRACTOR WILL BE REQUIRED TO DRILL AND EPOXY BOND NEW REINFORCING STEEL TO A MINIMUM EMBEDMENT DEPTH OF 8" OR AS DIRECTED BY THE ENGINEER.

LEGEND

- EXISTING RIGHT-OF-WAY
- CITY BOUNDARY
- FLOW LINE
- CENTERLINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- PROPOSED STORM DRAIN MANHOLE
- EXISTING STORM DRAIN
- EXISTING STORM DRAIN INLET
- EXISTING STORM DRAIN MANHOLE

REFERENCE NOTES:

- SEE SHEETS 79 FOR DEMOLITION PLAN.
- SEE SHEETS 80 FOR STREET IMPROVEMENT PLANS.
- SEE SHEETS 81 FOR ROADWAY PAVING PLANS.
- SEE SHEETS 82-83 FOR CURB RAMPS PLANS
- SEE SHEETS 86-87 FOR TRAFFIC PLANS.
- SEE SHEETS 89 FOR ROADWAY STRIPING PLANS.
- SEE SHEETS 90-93 FOR IRRIGATION PLANS.
- SEE SHEETS 94-97 FOR LANDSCAPE PLANS.

DRAINAGE CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING CURB INLET.
2. INSTALL RCP STORM DRAIN PIPE (D-1500). SIZE PER PLAN.
3. FURNISH AND INSTALL CURB OPENING CATCH BASIN PER SPPWC STANDARD PLAN 300-4. W-7', V=6' (UNLESS SPECIFIED OTHERWISE). CONSTRUCT LOCAL DEPRESSION CASE-E PER SPPWC STANDARD PLAN 313-4.
4. FURNISH AND INSTALL STORM DRAIN MANHOLE PER SPPWC STANDARD PLAN 321-2 (MAIN LINE IDS 33" OR SMALLER).

STORM DRAIN CENTERLINE ALIGNMENT TABLE		
NO.	BEARING	LENGTH
1	N 78°14'31" W	38.12'
2	N 68°22'32" E	110.45'

GRAPHIC SCALE IN FEET
0 5 10 20
1"=10' WHEN PLOTTED FULL SIZE AT 24"X36"

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE 8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn
© 2026 KIMLEY-HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

LICENSED PROFESSIONAL ENGINEER MATTHEW B. JACOBSON C 98363 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
Matthew Jacobson 10/7/26
MATTHEW B. JACOBSON DATE
R.C.E. NO. 98363

CITY OF SOUTH PASADENA

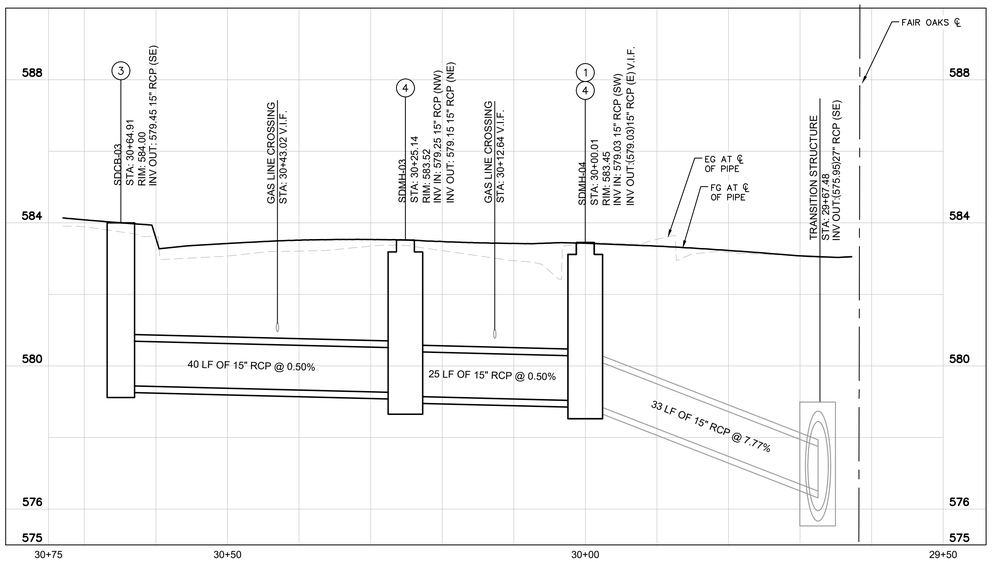
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

HUNTINGTON DRIVE AND FAIR OAKS AVENUE

DRAINAGE IMPROVEMENTS

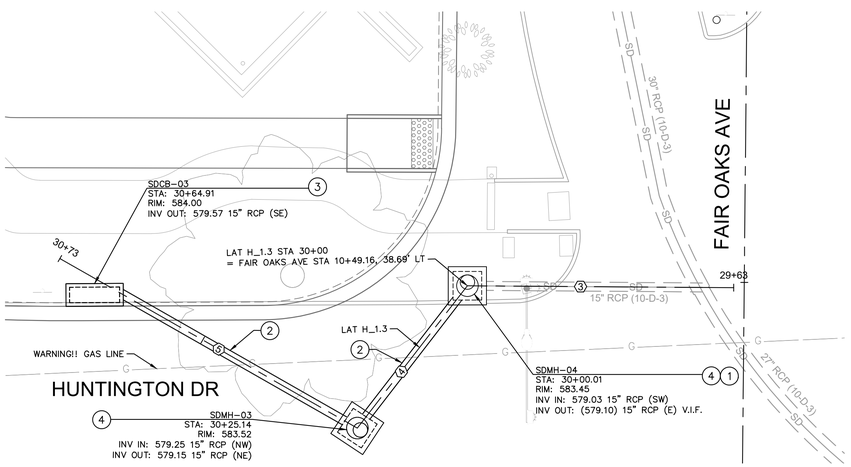
PROJECT NO. 2020-02
SHEET NO. 84 OF 97

Plotted By: Ung, Rebecca Date: October 07, 2026 06:44:13pm Path: K:\LDT_TP1O_IT\C099910002 - South Pasadena Huntington-Fremont\Design\CADD\PlanSheets\DRAINAGE IMPROVEMENTS- FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



PROFILE: FAIR OAKS LATERAL H_1.3

VERTICAL SCALE: 1" = 2'
HORIZONTAL SCALE: 1" = 10'



PLAN: FAIR OAKS LATERAL H_1.3

HORIZONTAL SCALE: 1" = 10'

DRAINAGE GENERAL NOTES

1. EXISTING ELEVATIONS ARE ESTIMATED BASED ON AVAILABLE INFORMATION AND DATA. ELEVATIONS TO BE CONFIRMED IN THE FIELD BY THE CONTRACTOR.
2. REFER TO CIVIL DETAILS FOR HORIZONTAL, VERTICAL, AND CURB HEIGHT INFORMATION.
3. ALL NEW AND REMODELED/REPLACED CATCH BASINS UNDER THIS PROJECT SHALL BE STENCILED WITH PROHIBITIVE LANGUAGE TO DISCOURAGE ILLEGAL DUMPING OF POLLUTANTS, SUCH AS "NO DUMPING – DRAINS TO OCEAN" PER CITY SPECIFICATIONS/GUIDELINES.
4. CONTRACTOR TO USE EXISTING PIPES TO THE MAXIMUM EXTENT PRACTICABLE AS SHOWN ON THESE PLANS. ENGINEER IS TO BE NOTIFIED IF EXISTING PIPES CANNOT BE USED PRIOR TO PIPE REMOVAL.
5. PROPOSED PIPE LENGTHS ARE ROUNDED AND SHOULD NOT BE USED FOR BIDDING/PRICING PURPOSES. THE CONTRACTOR SHALL DETERMINE EXACT LENGTHS REQUIRED FOR CONSTRUCTION.
6. EXISTING UTILITIES WERE PLOTTED FROM THE BEST AVAILABLE INFORMATION OBTAINED FROM UTILITY OWNERS AND SURVEYED LOCATIONS. KIMLEY-HORN MAKES NO GUARANTEES AS TO THE ACCURACY AND COMPLETENESS OF THE EXISTING UTILITIES SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION AND NOTIFY THE ENGINEER AND THE CITY OF ANY CONFLICTS IDENTIFIED IN THE FIELD. ALL EXISTING UTILITIES ARE TO BE PROTECTED IN PLACE UNLESS DETERMINED THAT RELOCATION IS NECESSARY BY THE ENGINEER AND THE CITY.
7. ALL RIM ELEVATIONS ARE AT CENTER OF MANHOLE/GRATE.
8. RIM ELEVATIONS OF CURB INLETS ARE AT CENTER OF INLET AT TOP BACK OF CURB.
9. ALL ON-GRADE INLETS SHALL MATCH THE ROADWAY SLOPE.
10. STATIONING IS CENTER OF PIPE.
11. IN LOCATIONS WHERE PROPOSED GRADING IS NOT INCLUDED, CONTRACTOR IS TO REESTABLISH EXISTING GRADES.
12. IF ADDITIONAL STORM PIPES AND UTILITIES ARE FOUND IN FIELD WITHIN THE LIMITS OF DISTURBANCE, NOTIFY CITY AND ENGINEER.
13. ALL DISTURBANCES TO EXISTING ROADWAY, SIDEWALK, CURB OR GUTTER, INCLUDING SURFACE DAMAGE TO PAVEMENT OR STRIPING THAT IS TO REMAIN, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
14. ALL CATCH BASIN STATIONS PROVIDED INDICATE THE GEOMETRIC CENTER OF EACH CATCH BASIN.
15. CONTRACTOR SHALL NOT REMOVE MORE CONCRETE THAN NECESSARY TO MODIFY THE EXISTING CATCH BASINS PER PLAN.
16. SAWCUT SHALL BE NO LESS THAN 6" ABOVE THE SOFFIT OF THE OUTLET PIPE WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
17. CONTRACTOR SHALL PRESERVE CATCH BASIN REINFORCEMENT STEEL WHERE POSSIBLE. OTHERWISE CONTRACTOR WILL BE REQUIRED TO DRILL AND EPOXY BOND NEW REINFORCING STEEL TO A MINIMUM EMBEDMENT DEPTH OF 8" OR AS DIRECTED BY THE ENGINEER.

LEGEND

- EXISTING RIGHT-OF-WAY
- CITY BOUNDARY
- FLOW LINE
- CENTERLINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- PROPOSED STORM DRAIN MANHOLE
- EXISTING STORM DRAIN
- EXISTING STORM DRAIN INLET
- EXISTING STORM DRAIN MANHOLE

REFERENCE NOTES:

- SEE SHEETS 79 FOR DEMOLITION PLAN.
- SEE SHEETS 80 FOR STREET IMPROVEMENT PLANS.
- SEE SHEETS 81 FOR ROADWAY PAVING PLANS.
- SEE SHEETS 82-83 FOR CURB RAMPS PLANS
- SEE SHEETS 86-87 FOR TRAFFIC PLANS.
- SEE SHEETS 89 FOR ROADWAY STRIPING PLANS.
- SEE SHEETS 90-93 FOR IRRIGATION PLANS.
- SEE SHEETS 94-97 FOR LANDSCAPE PLANS.

DRAINAGE CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING CURB INLET.
2. INSTALL RCP STORM DRAIN PIPE (D-1500). SIZE PER PLAN.
3. FURNISH AND INSTALL CURB OPENING CATCH BASIN PER SPPWC STANDARD PLAN 300-4. W-7', V=6' (UNLESS SPECIFIED OTHERWISE). CONSTRUCT LOCAL DEPRESSION CASE-E PER SPPWC STANDARD PLAN 313-4.
4. FURNISH AND INSTALL STORM DRAIN MANHOLE PER SPPWC STANDARD PLAN 321-2 (MAIN LINE IDS 33" OR SMALLER).

STORM DRAIN CENTERLINE ALIGNMENT TABLE

NO.	BEARING	LENGTH
3	N 89°35'52" W	37.22'
4	S 37°42'56" W	25.14'
5	N 60°18'31" W	47.84'

NORTH

GRAPHIC SCALE IN FEET
0 5 10 20
1"=10' WHEN PLOTTED
FULL SIZE AT 24"X36"

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE
8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn
© 2026 KIMLEY-HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

LICENSED PROFESSIONAL ENGINEER
MATTHEW B. JACOBSON
C 98363
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
10/7/26
MATTHEW B. JACOBSON DATE
R.C.E. NO. 98363

CITY OF SOUTH PASADENA

INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

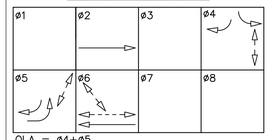
HUNTINGTON DRIVE AND FAIR OAKS AVENUE

DRAINAGE IMPROVEMENTS

PROJECT NO. 2020-02
SHEET NO. 85 OF 97

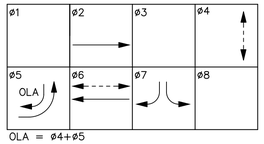
Plotted By: Ung, Rebecca Date: October 07, 2026 06:44:30pm Path: K:\LDT_TPTO_ITS\039910002 – South Pasadena Huntington-Fremont\Design\CADD\PlanSheets\DRAINAGE IMPROVEMENTS– FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

EXISTING PHASE DIAGRAM

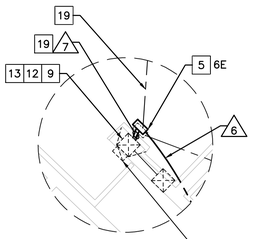


OLA = ø4+ø5

PROPOSED PHASE DIAGRAM



OLA = ø4+ø5

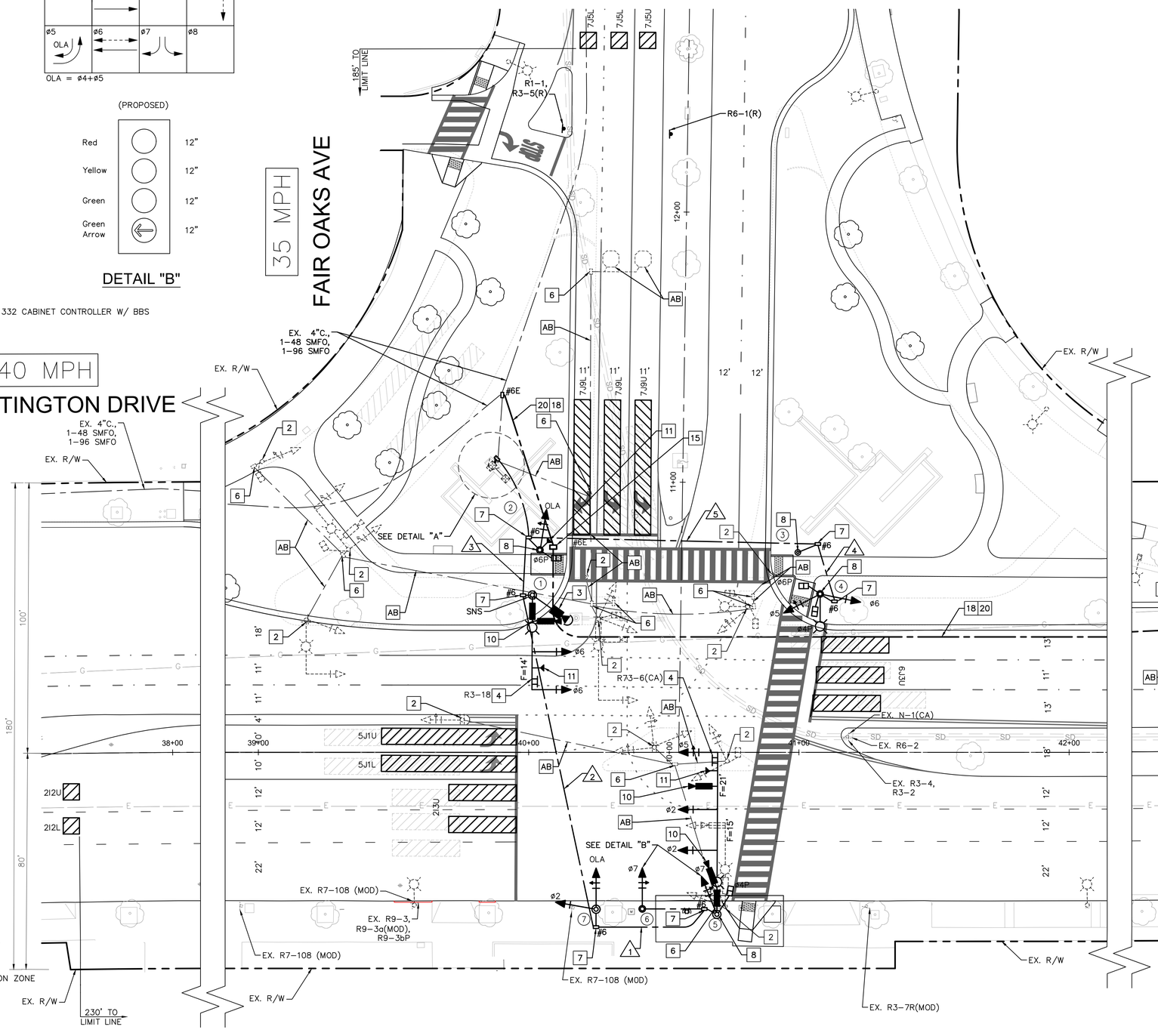


DETAIL "A"

(SCALE: 1"=10')

(PROPOSED)

DETAIL "B"



TRAFFIC SIGNAL CONSTRUCTION NOTES (THIS SHEET ONLY):

2 REMOVE AND SALVAGE EXISTING TRAFFIC SIGNAL POLE AND EQUIPMENT. FOUNDATION TO BE COMPLETELY REMOVED AND BECOME DISPOSED.

3 FURNISH AND INSTALL BOSCH AUTODOME CCTV CAMERA MODEL V65-ITS1080P-30X4, OR APPROVED EQUAL, WITH ALL WIRING FROM CAMERA TO TRAFFIC SIGNAL CABINET, POE INJECTOR, AND BRACKETS ON SIGNAL POLE. SEE SPECIAL PROVISIONS AND CCTV CAMERA INSTALLATION SHEET FOR DETAILS.

4 INSTALL SIGN ON SIGNAL MAST ARM PER DETAIL "U" ON CALTRANS STD. PLAN ES-7N.

5 REMOVE AND SALVAGE EXISTING PULL BOX. FURNISH AND INSTALL NEW PULL BOX AS SHOWN.

6 REMOVE AND SALVAGE EXISTING PULL BOX.

7 INSTALL NEW PULL BOX AS SHOWN.

8 FURNISH AND INSTALL APS PEDESTRIAN PUSH BUTTON COMPLETE. SEE POLE SCHEDULE. PROVIDE ASSOCIATED CONTROLLER UNIT INSIDE CONTROLLER CABINET (1 PER INTERSECTION).

9 FURNISH AND INSTALL ITERIS VANTAGE APEX VIDEO/RADAR DETECTION UNIT COMPLETE (CCU, MAIN/POWER DIN, ANTENNA, & CABLES) INSIDE CONTROLLER CABINET. CONTRACTOR SHALL CONFIGURE TO PROVIDE THE INTENDED DETECTION ZONES PER MANUFACTURER'S RECOMMENDATIONS.

10 FURNISH AND INSTALL ITERIS VANTAGE APEX VIDEO/RADAR DETECTION CAMERA, OR APPROVED EQUAL, PER MANUFACTURER'S INSTRUCTION AS REQUIRED. MANUFACTURER REPRESENTATIVE SHALL BE PRESENT DURING INSTALLATION OF VIDEO/RADAR DETECTION SYSTEM.

11 FURNISH AND INSTALL EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR ON SIGNAL MAST ARM.

12 FURNISH AND INSTALL FIBER OPTIC PATCH PANEL, HARDENED ETHERNET SWITCH, AND ALL NECESSARY AUXILIARY EQUIPMENT INSIDE CONTROLLER CABINET TO PROVIDE THE INTENDED OPERATION PER THESE PLANS AND THE SPECIAL PROVISIONS. TERMINATE ALL FIBERS AND COMPLETE ALL CONNECTIONS NECESSARY FOR INTENDED OPERATIONS.

13 EXISTING TRAFFIC SIGNAL CABINET TO REMAIN. REMOVE AND SALVAGE CONTROLLER COMPLETE. FURNISH AND INSTALL NEW MODEL 2070 ATC CONTROLLER ASSEMBLY, PED ISOLATION MODULES, SWITCH PACKS, BLUETOAD BLUETOOTH DETECTOR AND EVP GPS ANTENNA SYSTEM. FURNISH AND INSTALL ALL REQUIRED APPURTENANCES INSIDE CONTROLLER CABINET AS NEEDED TO PROVIDE THE INTENDED OPERATION.

15 INSTALL CONDUIT AT PULL BOX NO MORE THAN 45-DEGREE ANGLE.

18 FURNISH AND INSTALL 144 SMFO CABLE IN EXISTING/NEW CONDUIT.

19 FURNISH AND INSTALL 12 SMFO CABLE IN EXISTING/NEW CONDUIT.

20 FURNISH AND INSTALL 4" SCHEDULE 80 PVC CONDUIT WITH 3 1-1/4" INNERDUCT AND MULETAPE PULL ROPE IN EACH INNERDUCT THROUGH DIRECTIONAL BORING METHOD.

AB ABANDON. IF APPLIED TO CONDUIT, REMOVE CONDUCTORS.

SIGN LEGEND

R73-6(CA) 36"X36"

R3-18 24"X24"

LEGEND: (THIS SHEET ONLY)

- PROPOSED VIDEO DETECTION CAMERA
- PROPOSED VIDEO DETECTION ZONE
- PROPOSED ADVANCED VIDEO DETECTION ZONE
- PROPOSED IISNS
- PROPOSED EVP GPS DETECTOR
- PROPOSED CCTV CAMERA

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

1"=20' WHEN PLOTTED FULL SIZE AT 24"X36"

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE 8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn

© 2026 KIMLEY-HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

LICENSED PROFESSIONAL ENGINEER MATTHEW B. JACOBSON C 98363 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:

Matthew Jacobson 10/7/26
MATTHEW B. JACOBSON DATE
R.C.E. NO. 98363

CITY OF SOUTH PASADENA CALIFORNIA 1888

CITY OF SOUTH PASADENA

INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

HUNTINGTON DRIVE AT FAIR OAKS AVENUE

TRAFFIC SIGNAL PLAN

PROJECT NO. 2020-02
SHEET NO. 86 OF 97

Plotted By: Ung, Rebecca Date: October 07, 2026 06:42:49pm Path: K:\LDT_TP1TO_ITS\099910002 - South Pasadena Huntington-Fremont\Design\CADD\PlanSheets\TRAFFIC SIGNAL - FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

CONDUCTOR SCHEDULE▲

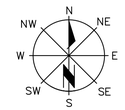
	POLE NO.	PHASES	RUN NUMBER 1	2	3	4	5	6	7
12 WIRE CONDUCTOR CABLE	1	ø6/–	– / –	– / –	1 / –	– / –	– / –	1 / –	1 / –
	2	ø7,ø6P/ø6PPB	– / –	– / –	– / –	– / –	– / –	1 / 1	1 / 1
	3	–/ø6PPB	– / –	– / –	– / –	– / –	– / 1	– / 1	– / 1
	4	ø5,ø6,ø4P,ø6P/ø4PPB	– / –	– / –	– / –	2 / 1	2 / 1	2 / 1	2 / 1
	5	ø2,ø5,ø7,ø4P/ø4PPB	2 / 1	2 / 1	2 / 1	– / –	– / –	2 / 1	2 / 1
	6	ø7/–	1 / –	1 / –	1 / –	– / –	– / –	1 / –	1 / –
3 WIRE CONDUCTOR CABLE	7	ø2,ø7/–	– / –	1 / –	1 / –	– / –	– / –	1 / –	1 / –
		TOTAL CABLES	3 / 1	4 / 1	5 / 1	2 / 1	2 / 2	8 / 4	8 / 4
VIDEO DETECTION			2	2	3	–	–	3	3
EVP			1	1	2	–	–	2	2
CCTV			–	–	1	–	–	1	1
#6	SIGNAL SERVICE		–	–	–	–	–	–	1
#8	GROUND		1	1	1	1	1	1	1
#10	LUMINAIRE		2	2	2	2	2	2	–
INTERCONNECT	12–SMFO		–	–	–	–	–	–	1
CONDUIT FILL (%)			21%	25%	19%	12%	13%	25%	26%
CONDUIT SIZE			3"	3"	4"	3"	3"	2–3"	2–3"

▲ ALL CONDUITS ARE NEW UNLESS OTHERWISE NOTED.
CONDUCTOR SCHEDULE IS FURNISHED AS AN INSTALLATION GUIDE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CORRECT CONDUCTORS REQUIRED FOR THE INTENDED OPERATIONS. CONTRACTOR SHALL REMOVE ALL EXISTING CONDUCTORS FOR ALL EXISTING CONDUITS PRIOR TO INSTALLATION OF NEW CABLES PER LATEST CALTRANS STANDARD SPECIFICATION.

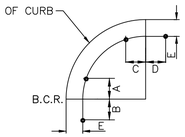
POLE SCHEDULE■

POLE NO.	POLE TYPE	SIGNAL M.A. LENGTH	SIGNAL MOUNTING** M.A.	POLE	PED	LUMINAIRE M.A. LENGTH	LED* WATTS	APS PUSH BUTTON PHASE	ARROW	QUAD	STREET NAME SIGN TYPE	LEGEND	POLE LOCATION A	B	C	D	E
1	24–3–100	35'	2–MAS	–	–	12'	250W	–	–	–	I.I.	Fair Oaks Av	–	–	12.5'	–	6.5'
2	1–A	–	–	TV–1–T	SP–1–T	–	–	6	→	S	–	–	–	3'	–	–	10'
3	TYPE 2 POST	–	–	–	–	–	–	6	←	S	–	–	–	–	–	1.5'	10'
4	15TS	–	–	SV–2–T	SP–2–T	12'	250W	4	→	W	–	–	7'	–	–	–	10'
5	61–5–100	60'	3–MAS	SV–1–T	SP–1–T	12'	250W	4	→	E	I.I.	Fair Oaks Av	STA: 40+69.67				5'
6	1–A	–	–	TV–1–T	–	–	–	–	–	–	–	–	STA: 40+42.09				3'
7	1–A	–	–	TV–2–T	–	–	–	–	–	–	–	–	STA: 40+25.03				3'

■ALL EQUIPMENT IS NEW.
I.I.S.N.S – INTERNALLY ILLUMINATED STREET NAME SIGN.
ALL NEW SIGNAL POLES, MAST ARMS, AND FOUNDATIONS SHALL BE PER CALTRANS STANDARD PLANS, LATEST EDITION.
* ALL SIGNAL MOUNTINGS SHALL BE PER STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION LATEST EDITION. LED EQUIVALENT HIGHWAY SAFETY LIGHT. SEE SPECIAL PROVISIONS.
** VEHICLE SIGNAL HEADS SHALL HAVE 2" RETROREFLECTIVE STRIP ON THE FACE AROUND THE PERIMETER PER CALTRANS STANDARD PLAN RSP ES–4C. THE STRIP SHALL BE TYPE XI FLUORESCENT YELLOW RETROREFLECTIVE SHEETING PER CALTRANS REVISED STANDARD SPECIFICATIONS, SECTION 86.102F(3).



PUSH BUTTON LOCATION
(NO SCALE)



POLE LOCATION DETAIL

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE 8–1–1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn
© 2026 KIMLEY–HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213–261–4040
WWW.KIMLEY–HORN.COM

LICENSED PROFESSIONAL ENGINEER MATTHEW B. JACOBSON C 98363 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
10/7/26
MATTHEW B. JACOBSON DATE
R.C.E. NO. 98363

CITY OF SOUTH PASADENA

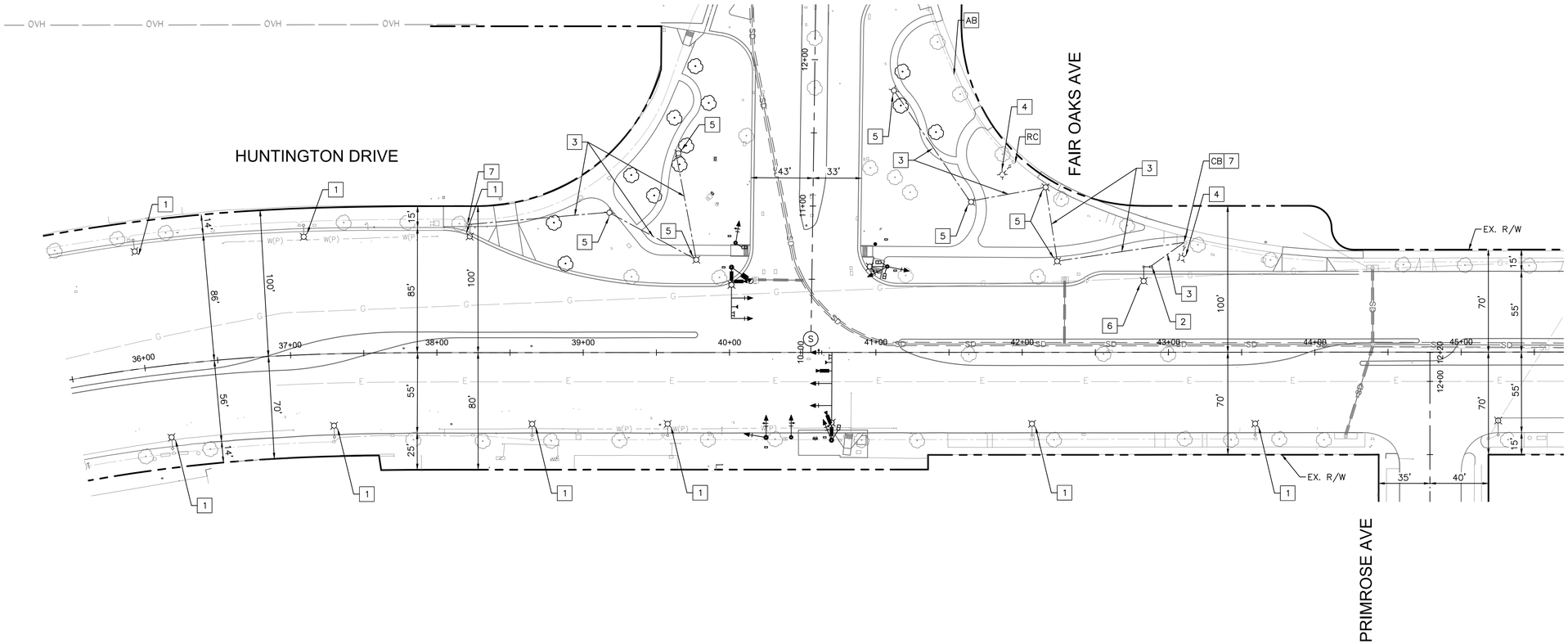
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

HUNTINGTON DRIVE AT FAIR OAKS AVENUE

TRAFFIC SIGNAL DETAILS

PROJECT NO. 2020-02
SHEET NO. 87 OF 97

Plotted By: Ung, Rebecca Date: October 07, 2026 06:42:52pm Path: K:\LDT_TPTO_ITS\099910002 – South Pasadena Huntington–Fremont\Design\CADD\PlanSheets\TRAFFIC SIGNAL – FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley–Horn and Associates, Inc. shall be without liability to Kimley–Horn and Associates, Inc.



LEGEND

- CENTERLINE
- RIGHT OF WAY
- EASEMENT
- EXISTING STREET LIGHT CONDUIT TO BE REMOVED
- PROPOSED STREET LIGHT CONDUIT
- PROPOSED TRAFFIC SIGNAL CONDUIT PER TRAFFIC SIGNAL INSTALLATION PLAN
- EXISTING STREET LIGHT TO REMAIN
- EXISTING STREET LIGHT TO BE REMOVED
- PROPOSED LUMINAIRE ON EXISTING STREET LIGHT POLE
- PROPOSED STREET LIGHT
- EXISTING STREET LIGHT PULL BOX
- EXISTING STREET LIGHT PULL BOX TO BE REMOVED
- PROPOSED STREET LIGHT PULL BOX
- PROPOSED TRAFFIC SIGNAL PULL BOX PER TRAFFIC SIGNAL INSTALLATION PLAN
- TREE

STREET LIGHTING NOTES

1. PROTECT IN PLACE EXISTING LIGHT POLE. REMOVE EXISTING LUMINAIRE. FURNISH AND INSTALL NEW 250W LED LEOTEK CAT #GCL1–80J–MV–30K–2R–GY–185 LUMINAIRE, 3000K COLOR TEMPERATURE LIGHTING FIXTURE OR CITY APPROVED EQUAL ON EXISTING STREET LIGHT POLE. REUSE EXISTING WIRES.
2. FURNISH AND INSTALL NEW 3–1/2 PULL BOX.
3. FURNISH AND INSTALL NEW 2" PVC SCHEDULE 80 CONDUIT WITH 2#10 THW, 1#10 THW (GROUND).
4. REMOVE EXISTING LUMINAIRE AND POLE.
5. FURNISH AND INSTALL NEW VALMONT CAT #R–080040404S4–P2–DBL LIGHT POLE, 14' POLE HEIGHT, TENON TOP AND DART SQUARE–2T BASE COVER ON NEW FOUNDATION; WITH 52W LED RAB LIGHTING CAT #ALED–5T–52–N–K POST TOP, 4000K COLOR TEMPERATURE, OR CITY APPROVED EQUAL.
6. FURNISH AND INSTALL NEW AMERON CAT #6B129 LIGHT POLE, 29'1" POLE HEIGHT, ON NEW FOUNDATION; WITH 250W LED LEOTEK CAT #GCL1–80J–MV–30K–2R–GY–185 LUMINAIRE, 3000K COLOR TEMPERATURE; WITH 6' AMERON 1AZ6 ALADDIN ARM, OR CITY APPROVED EQUAL. LUMINAIRE ORIENTATION AS SHOWN ON PLAN.
7. SPLICE NEW CONDUCTOR TO EXISTING CONDUCTOR. PRIOR TO SPLICING, CONDUCTOR INSULATION SHALL BE PENCILED, TRIMMED TO A CONICAL SHAPE AND ROUGHENED BEFORE APPLYING SPLICE INSULATION. SPLICE INSULATION SHALL CONSIST OF LAYERS OF VINYLCHLORIDE ELECTRICAL INSULATING TAPE, CONFORMING TO ASTM D2301 TYPE 1, APPLIED TO A THICKNESS EQUAL TO AND WELL LAPPED OVER THE ORIGINAL INSULATION, OR USE HEAT SHRINK INSULATION TUBE EQUIVALENT TO RAYCHEM, WCSM–19/6–150–S (B50) UL LISTEN 96J4.

AB ABANDON. IF APPLIED TO CONDUIT, REMOVE CONDUCTORS.

CB INSTALL CONDUIT IN EXISTING PULL BOX.

RC EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR.

NORTH

GRAPHIC SCALE IN FEET
0 20 40 80

1"=40' WHEN PLOTTED
FULL SIZE AT 24"X36"

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE
8–1–1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn

© 2026 KIMLEY–HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213–261–4040
WWW.KIMLEY–HORN.COM

LICENSED PROFESSIONAL ENGINEER
MATTHEW B. JACOBSON
C 98363
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:

Matthew Jacobson 10/7/26
MATTHEW B. JACOBSON DATE
R.C.E. NO. 98363

CITY OF SOUTH PASADENA

INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

FAIR OAKS AVENUE & HUNTINGTON DRIVE

LIGHTING PLAN

SL-01

PROJECT NO. 2020-02
SHEET NO. 88 OF 97

Plotted By: Ung, Rebecca Date: October 07, 2026 06:42:52pm Path: K:\LDT_IPTO_ITS\099910002 – South Pasadena Huntington–Fremont\Design\CADD\PlanSheets\SL – HUNTINGTON – FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley–Horn and Associates, Inc. shall be without liability to Kimley–Horn and Associates, Inc.

We are always looking for summer interns if you are interested in civil.

SIGNING NOTES:

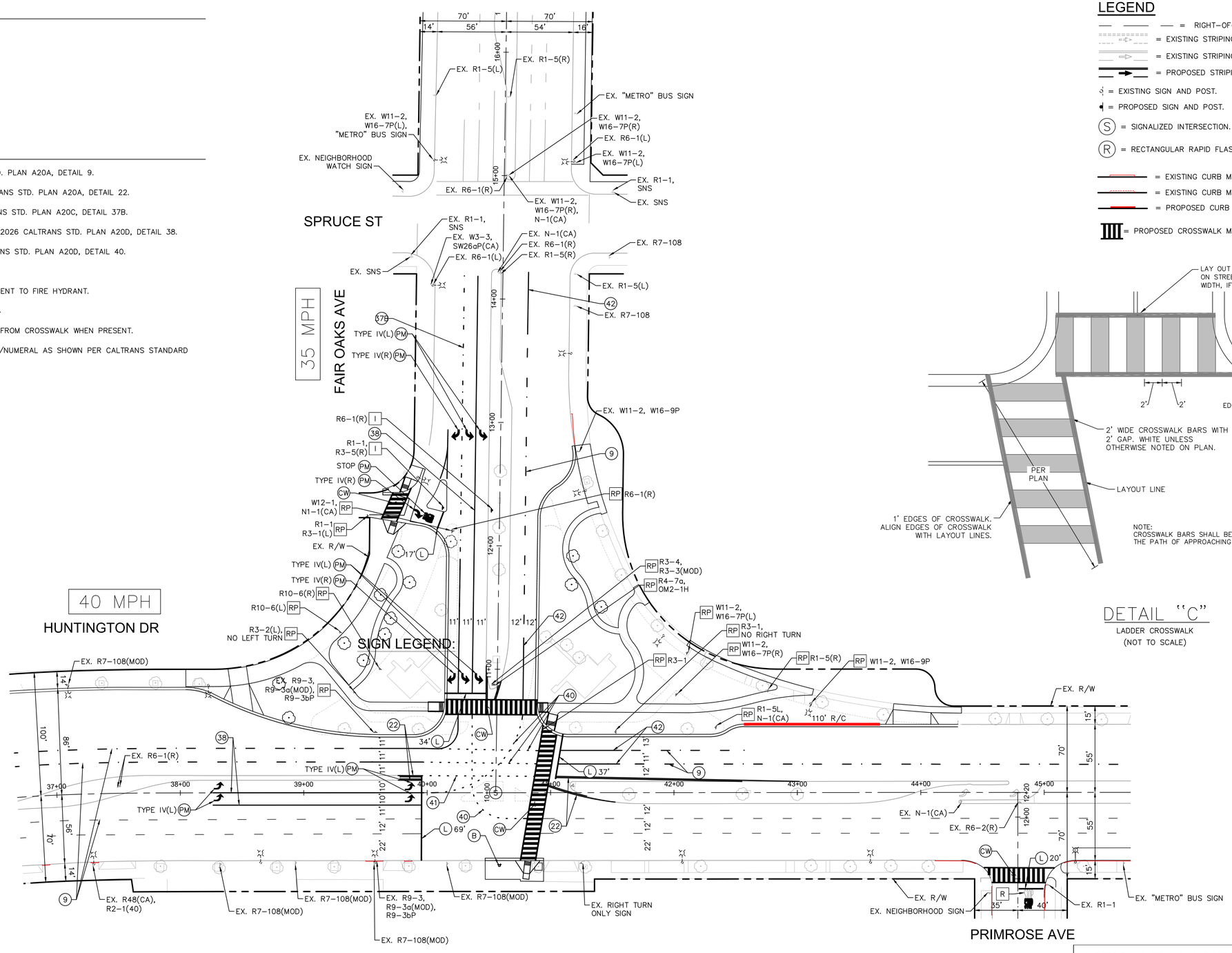
- I — FURNISH AND INSTALL NEW SIGN AND POST.
- R — REMOVE AND DISPOSE EXISTING SIGN.
- RP — REMOVE AND DISPOSE OF EXISTING SIGN AND POST.

CONSTRUCTION NOTES:

- (9) INSTALL 6" WHITE DASHED LANE STRIPING PER 2025 CALTRANS STD. PLAN A20A, DETAIL 9.
- (22) INSTALL 6" DOUBLE YELLOW CENTERLINE STRIPING PER 2025 CALTRANS STD. PLAN A20A, DETAIL 22.
- (37B) INSTALL 8" WHITE DASHED LANE DROP STRIPING PER 2025 CALTRANS STD. PLAN A20C, DETAIL 37B.
- (38) INSTALL 8" WHITE CHANNELIZING LANE WITH TYPE G MARKERS PER 2026 CALTRANS STD. PLAN A20D, DETAIL 38.
- (40) INSTALL 6" WHITE DASHED LANE LINE EXTENSION PER 2025 CALTRANS STD. PLAN A20D, DETAIL 40.
- (42) FURNISH AND INSTALL 6" SOLID WHITE LINE, 50' LONG LANE LINE.
- (B) INSTALL BLUE RAISED PAVEMENT MARKER (RPM) AT 40' O.C. ADJACENT TO FIRE HYDRANT.
- (CW) INSTALL LADDER CROSSWALK PER 2025 CALTRANS STD. PLAN A24F.
- (L) FURNISH AND INSTALL 12" WHITE LIMIT LINE. 5' BACK (4.5' CLEAR) FROM CROSSWALK WHEN PRESENT.
- (PM) FURNISH AND INSTALL THERMOPLASTIC PAVEMENT MARKING SYMBOL/NUMERAL AS SHOWN PER CALTRANS STANDARD PLAN A24A–A24E.

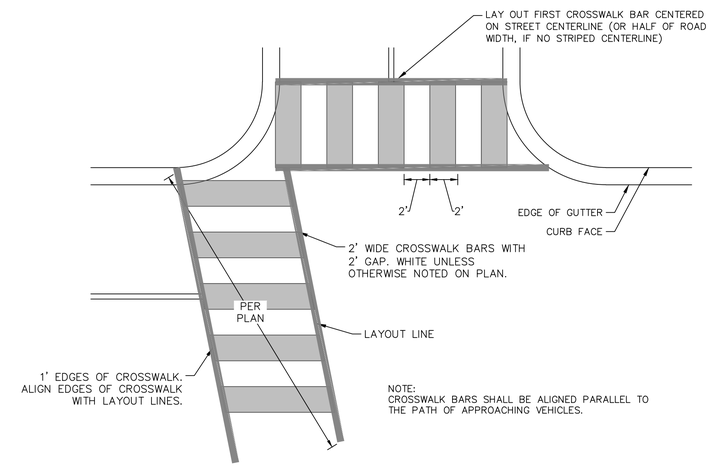
PROPOSED SIGN LEGEND

R3–5(R) 24"X30" | R6–1(R) 54"X18" | R1–1 36"X36"



LEGEND

- = RIGHT–OF–WAY
- = EXISTING STRIPING & MARKINGS TO BE REMOVED.
- = EXISTING STRIPING & MARKINGS TO REMAIN.
- = PROPOSED STRIPING & MARKINGS.
- = EXISTING SIGN AND POST.
- = PROPOSED SIGN AND POST.
- (S) = SIGNALIZED INTERSECTION.
- (R) = RECTANGULAR RAPID FLASHING BEACON INTERSECTION.
- = EXISTING CURB MARKINGS TO REMAIN.
- = EXISTING CURB MARKINGS TO BE REMOVED.
- = PROPOSED CURB MARKINGS.
- = PROPOSED CROSSWALK MARKINGS.



DETAIL "C"
LADDER CROSSWALK
(NOT TO SCALE)

Underground Service Alert
Call: TOLL FREE 8–1–1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn
© 2026 KIMLEY–HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213–261–4040
WWW.KIMLEY–HORN.COM

LICENSED PROFESSIONAL ENGINEER MATTHEW B. JACOBSON C 98363 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
Matthew Jacobson 10/7/26
MATTHEW B. JACOBSON DATE
R.C.E. NO. 98363

CITY OF SOUTH PASADENA

INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

HUNTINGTON DRIVE AT FAIR OAKS STREET

SIGNING AND STRIPING

PROJECT NO. 2020-02
SHEET NO. 89 OF 97

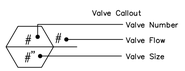
Plotted By: Ung, Rebecca Date: October 07, 2026 06:42:52pm Path: K:\LDT_TPTO_TS\099910002 – South Pasadena Huntington–Fremont\Design\CADD\PlanSheets\SIGNING & STRIPING – FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley–Horn and Associates, Inc. shall be without liability to Kimley–Horn and Associates, Inc.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
1401 1402 1404	RAIN BIRD 1804-SAM-1400 FLOOD 1401 FLOOD BUBBLER 4.0IN. POPUP WITH CHECK VALVE. INSTALL W/ PA-80 ADAPTER.	24	20

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	RAIN BIRD XCZ-100-LC WIDE FLOW DRIP CONTROL KIT, FOR LIGHT COMMERCIAL USES. 1IN. PEB VALVE, WITH 1IN. PRESSURE REGULATING 40PSI BASKET FILTER. 0.3-20 GPM.	12
A	NETAFIM TLAVRV AIR/VACUUM RELIEF VALVE, 1/2IN. MALE PIPE THREAD.	12
DI	RAIN BIRD OPERIND DRIP SYSTEM OPERATION INDICATOR, STEM RISES 6IN. FOR CLEAR VISIBILITY WHEN DRIP SYSTEM IS CHARGED TO A MINIMUM OF 20PSI. INCLUDES 16IN. OF 1/4IN. DISTRIBUTION TUBING WITH CONNECTION FITTING PRE-INSTALLED.	12
	NETAFIM TLCV-06-12 DRIP RING	7
	AREA TO RECEIVE DRIPLINE NETAFIM TLCV-06-18 TECHLINE PRESSURE COMPENSATING LANDSCAPE DRIPLINE WITH CHECK VALVE. 0.6 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 15" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. 17MM.	22,475 SF

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	EXISTING IRRIGATION VALVES TO REMAIN PROTECT IN PLACE. CONTRACTOR TO FIELD VERFIY LOCATION AND ENSURE ALL EXISTING VALVES REMAIN OPERATIONAL. ANY DAMAGE CAUSE DUE TO CONSTRUCTION SHALL BE REPAIR OR EUIPMENT SHALL BE REPLACED	5
	RAIN BIRD PESB 1IN., 1-1/2IN., 2IN., 3IN., 3IN. PLASTIC INDUSTRIAL REMOTE CONTROL VALVE. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION. WITH SCRUBBER TECHNOLOGY FOR RELIABLE PERFORMANCE IN DIRTY WATER IRRIGATION APPLICATIONS.	2
	LANDSCAPE PRODUCTS INC. BBV 1/2IN., 3/4IN., 1IN., 1-1/4IN., 1-1/2IN., 2IN., 2-1/2IN., 3IN. FULL PORT BRASS BALL VALVE. SUITABLE FOR A FULL RANGE OF LIQUIDS AND GASES IN RESIDENTIAL AND COMMERCIAL APPLICATIONS.	2
MV	RAIN BIRD EFB-CP-PRS-D 1" 1IN., 1-1/4", 1-1/2IN., 2IN. BRASS MASTER VALVE, THAT IS CONTAMINATION PROOF W/SELF-FLUSHING FILTER SCREEN. GLOBE CONFIGURATION, RECLAIMED WATER COMPATIBLE, AND PURPLE HANDLE COVER DESIGNATES NON-POTABLE WATER USE. WITH PRESSURE REGULATOR.	1
EX-BF	EXISTING BACKFLOW-PROTECT IN PLACE	1
BF	FEBCO 825Y 1" REDUCED PRESSURE BACKFLOW PREVENTER	1
C	HUNTER I2C-3200-M/ICC-PED-SS 32 STATION OUTDOOR MODULAR CONTROLLER. WITH THREE ICM-800 MODULE. COMMERCIAL USE. STAINLESS STEEL PEDESTAL.	2
FS	HUNTER HFS-200 FLOW SENSOR FOR USE WITH ACC CONTROLLER, 2IN. SCHEDULE 40 SENSOR BODY, 24 VAC, 2 AMP.	1
R-M	EXISITING METER- CONTRACTOR TO RELOCATE INTO NEW LANDSCAPE AREA	1
EX-M	EXISTING METER- PROTECT IN PLACE	1
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40	1,587 LF
	IRRIGATION MAINLINE: PVC SCHEDULE 40	469.1 LF
	PIPE SLEEVE: PVC SCHEDULE 40	165.3 LF



VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	DESIGN PSI	PSI	PSI @ POC
1	RAIN BIRD PESB	1"	BUBBLER	4.5	20	21.8	33.8
2	RAIN BIRD XCZ-100-LC	1"	AREA FOR DRIPLINE	12.14	15	31.3	44.5
3	RAIN BIRD XCZ-100-LC	1"	AREA FOR DRIPLINE	9.92	15	28.2	41.4
4	RAIN BIRD XCZ-100-LC	1"	AREA FOR DRIPLINE	10.12	15	27.6	40.9
5	RAIN BIRD XCZ-100-LC	1"	AREA FOR DRIPLINE	3.45	15	22.3	34.4
6	RAIN BIRD XCZ-100-LC	1"	AREA FOR DRIPLINE	13.85	15	33.1	46.3
7	RAIN BIRD XCZ-100-LC	1"	AREA FOR DRIPLINE	5.09	15	22.4	34.4
8	RAIN BIRD PESB	1"	BUBBLER	1.5	20	21.4	33.4
9	RAIN BIRD XCZ-100-LC	1"	AREA FOR DRIPLINE	13.72	15	33.0	46.0
10	RAIN BIRD XCZ-100-LC	1"	DRIP RING	0.84	15	22.0	34.0
11	RAIN BIRD XCZ-100-LC	1"	AREA FOR DRIPLINE	7.67	15	24.8	37.6
12	RAIN BIRD XCZ-100-LC	1"	AREA FOR DRIPLINE	9.51	15	27.7	40.9
13	RAIN BIRD XCZ-100-LC	1"	AREA FOR DRIPLINE	18.7	15	40.7	54.6
14	RAIN BIRD XCZ-100-LC	1"	AREA FOR DRIPLINE	15.56	15	35.2	48.4

IRRIGATION NOTES

1. THE SYSTEM HAS BEEN DESIGNED TO PROVIDE 100% COVERAGE. ANY CHANGES MADE IN THE LAYOUT DUE TO FIELD CONDITIONS SHALL BE IN ACCORDANCE WITH THESE STANDARDS. QUANTITIES IN SCHEDULE ARE ESTIMATED. PLAN SHALL TAKE PRECEDENCE.
2. ALL IRRIGATION LINES AND VALVES ARE SHOWN DIAGRAMMATICALLY. ALL LINES AND VALVES TO BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE.
3. CONTRACTOR TO FIELD LOCATE ALL PROPOSED IRRIGATION WATER MAIN LINE LOCATIONS. CONTACT LANDSCAPE ARCHITECT PRIOR TO START OF WORK IF DISCREPANCIES BETWEEN THIS PLAN AND EXISTING CONDITIONS ARE FOUND.
4. LOCATE ALL VALVES INSIDE LANDSCAPE AREAS, ALLOWING ACCESS FOR MAINTENANCE PURPOSES, BUT HIDING THEM FROM PUBLIC VIEW WHENEVER POSSIBLE.
5. ALL PRESSURE MAINLINES UNDER ASPHALT PAVEMENT SHALL BE PLACED WITHIN SLEEVES AS NOTED. WHERE ELECTRIC VALVE CONTROL LINES PASS THROUGH A SLEEVE WITH OTHER MAIN OR LATERAL LINES THEY SHALL BE CONTAINED WITHIN A SEPARATE, SMALLER CONDUIT.
6. CONTRACTOR SHALL PROVIDE "AS-BUILT" DRAWINGS OF THE FINAL INSTALLATION TO OWNER AT SUBSTANTIAL COMPLETION BEFORE RECEIVING FINAL PAYMENT.
7. ALL SLEEVES UTILIZED BY THE IRRIGATION CONTRACTOR, WHETHER INSTALLED BY HIM OR NOT, SHALL BE LOCATED ON THE "AS-BUILT" DRAWINGS. THE DEPTH BELOW FINISH GRADE, TO THE NEAREST FOOT OF EACH END OF EACH SLEEVE SHALL BE NOTED AT EACH SLEEVE LOCATION ON THE "AS-BUILT" DRAWINGS. ALL SLEEVES SHALL BE SIZED TWO PIPE SIZES GREATER THAN PIPE IT CARRIES.
8. ALL DRIP ZONES SHALL BE INSTALLED WITH A SELF-FLUSHING DISC FILTER, OR APPROVED EQUAL
9. IRRIGATION CONTRACTOR SHALL SECURE ANY AND ALL NECESSARY PERMITS FOR THE WORK PRIOR TO COMMENCEMENT OF HIS OPERATIONS ON-SITE. COPIES OF THE PERMITS SHALL BE SENT TO THE OWNER/GENERAL CONTRACTOR. WORK IN THE R.O.W. SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF LOCAL AND/OR STATE HIGHWAY JURISDICTION.
10. VERIFY CONTROLLER AND RAIN SENSOR LOCATION AND MAINLINE POINT OF CONNECTION AT PROJECT SITE WITH OWNER.
11. ELECTRIC SERVICE TO CONTROLLER SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.
12. ALL 24 VAC WIRING SHALL BE OF DIRECT BURIAL COPPER WIRE AS FOLLOWS:
    - CONTROL WIRES - #14
    - COMMON WIRES - #12
13. INSTALLATION OF WORK SHALL BE COORDINATED WITH OTHER CONTRACTORS IN SUCH A MANNER AS TO ALLOW FOR A SPEEDY AND ORDERLY COMPLETION OF ALL WORK ON THE SITE.
14. COORDINATE WITH PLANTING PLAN FOR PLANTER BED LOCATIONS AND TREE LOCATIONS.
15. PRIOR TO THE START OF CONSTRUCTION, CONTRACTOR SHALL COORDINATE WITH DEVELOPER FOR OPERATING PARAMETERS OF MASTER SYSTEM. THIS DESIGN REQUIRES 65 PSI TO OPERATE. IF THE MASTER SYSTEM CANNOT PROVIDE THESE PARAMETERS, CONTRACTOR SHALL MAKE ADJUSTMENTS TO THE DESIGN BY ADDING CONTROL VALVES, A BOOSTER PUMP, PRESSURE REDUCING VALVE, OR OTHER EQUIPMENT, AS NECESSARY. CONTRACTOR SHALL PERFORM A PRESSURE AND FLOW TEST AT ALL POINTS OF CONNECTION AND PROVIDE RESULTS FOR REVIEW AND CONFIRMATION PRIOR TO COMPLETE IRRIGATION INSTALLATION. CONTRACTOR SHALL SUBMIT DESIGN REVISIONS TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO SUBMITTING BID. CONTRACTOR SHALL PERFORM A PRESSURE AND FLOW TEST AT ALL POINTS OF CONNECTION AND PROVIDE RESULTS FOR REVIEW AND CONFIRMATION PRIOR TO COMPLETE IRRIGATION INSTALLATION.
16. A FINAL REPORT FOR THE TESTING AND ADJUSTING OF ALL NEW SYSTEMS SHALL BE COMPLETED PRIOR TO FINAL APPROVAL BY THE FIELD INSPECTOR. THIS REPORT SHALL BE SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESES SERVICES.
17. A LAMINATED DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES SHALL BE KEPT WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES.
18. A CERTIFICATE OF COMPLETION SHALL BE FILLED OUT AND CERTIFIED BY EITHER THE SIGNER OF THE LANDSCAPE PLANS, THE SIGNER OF THE IRRIGATION PLANS, OR THE LICENSED LANDSCAPE CONTRACTOR FOR THE PROJECT.
19. AN IRRIGATION AUDIT REPORT SHALL BE COMPLETED AT THE TIME OF FINAL INSPECTION.

I HAVE COMPLIED WITH THE CRITERIA OF THE WATER EFFICIENT LANDSCAPE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE AND IRRIGATION DESIGN PLAN.

Michael P. Madsen

MICHAEL P. MADSEN, LLA 5798

MAINTENANCE

1. LOW-FLOW BUBBLER ZONES WILL BE DRAINED IN COLD WEATHER SITUATIONS USING THE MANUAL FLUSH VALVES.
2. FILTER CLEANING AND REPLACEMENT ON A REGULAR BASIS.
3. CHECKING FOR LEAKS AT EACH VALVE AND INSPECTION OF EACH ZONE ON A MONTHLY BASIS.
4. HAVE THE CONTRACTOR WALK EACH SECTION OF LOW-FLOW BUBBLERS TO CHECK FOR CLOGGING OR PROBLEMS.
5. IF AN ON-SITE WEATHER STATION IS SPECIFIED, IT NEEDS TO BE CALIBRATED REGULARLY TO PROVIDE ACCURATE DATA. BECAUSE OF THE COST OF MAINTAINING AN ON-SITE WEATHER STATION, IT IS RECOMMENDED TO USE A CONTROL SYSTEM WHICH UTILIZES A NETWORK OF ET DATA THAT CAN ASSURE ACCURACY TO WITHIN ONE MILE OF THE SITE.

EXISTING IRRIGATION NOTES

1. CONTRACTOR TO CONFIRM EXISTING SYSTEM SOURCE AND BACKFLOW ARE FULLY OPERATIONAL.
2. CONTRACTOR TO CONFIRM EXISTING BACKFLOW IS TO SERVE IRRIGATION SYSTEM ONLY. EXISTING BACKFLOW MUST BE PLACED ON IRRIGATION SERVICE LINE TO PREVENT ANY POSSIBILITY OF BACKFLOW FROM BEING DIRECTED INTO THE BUILDING. IF THE EXISTING BACKFLOW IS NOT A DEDICATED IRRIGATION BACKFLOW, CONTRACTOR IS TO INSTALL A NEW BACKFLOW. SIZE ACCORDING TO METER SIZE.
3. CAP EXISTING LINES WHERE NECESSARY FOR CONSTRUCTION.
4. MAINLINE APPROXIMATE LOCATION AS SHOWN. CONTRACTOR TO LOCATE EXACT LOCATION AND UTILIZE. PROTECT MAINLINE IN PLACE DURING CONSTRUCTION. CAP EXISTING MAINLINE AND LEAVE IN PLACE WHERE NECESSARY.
5. DO NOT TRENCH UNDER EXISTING TREES. HAND TRENCH LATERALLY TO INSTALL HEADS, DRIP, ETC.
6. ALL PROPOSED IRRIGATION TO MATCH EXISTING PRECIPITATION RATES, IF ZONES ARE COMBINED WITH EXISTING ZONES, NO DRIP AND HEADS TO BE ON SAME ZONES.
7. ALL EXISTING IRRIGATION SHOWN TO REMAIN SHOULD BE PROTECTED DURING CONSTRUCTION. CONTRACTOR TO CONFIRM 100 PERCENT COVERAGE ON EXISTING AND MODIFY IF NEEDED.
8. MODIFY ZONES PER REVISED CHANGES. CAP LINES WHERE NECESSARY. ADD HEADS AS NEEDED, REPLACE HEADS/NOZZLES TO PROVIDE FULL COVERAGE.
9. DO NOT REMOVE EXISTING SLEEVED LINES UNDER PAVEMENT UNLESS SPECIFIED.
10. CONTRACTOR TO NUMBER EXISTING VALVES AND PROPOSED VALVES IN NUMERICAL ORDER STARTING FROM THE METER AND GOING IN A CLOCKWISE CIRCLE
11. CONTRACTOR TO FIELD INVESTIGATE EXISTING CONDITIONS TO LOCATE EXISTING IRRIGATION LATERAL LINES AND RE-PURPOSE FOR NEW IRRIGATION IN THE LANDSCAPE ISLAND.

IRRIGATION MAINTENANCE SCHEDULE:

THE IRRIGATION MAINTENANCE SCHEDULE TASKS LISTED BELOW ARE INTENDED AS MINIMUM STANDARDS AND MORE FREQUENT ATTENTION MAY BE REQUIRED DEPENDING ON THE PARTICULAR SITE CONDITIONS. MAINTENANCE SHALL BE DONE TO ENSURE WATER EFFICIENCY. REPAIR OF IRRIGATION EQUIPMENT SHALL BE DONE WITH THE ORIGINALLY SPECIFIED MATERIALS OR APPROVED EQUIVALENTS.

FREQUENCY - QUARTERLY

TASK - CONTROLLER CABINET : OPEN CABINET AND CLEAN OUT DEBRIS AND REPLACE BATTERY AS NECESSARY.CHECK WIRING AND REPAIR AS NEEDED AND CHECK CLOCK AND RESET IF NECESSARY.
FREQUENCY - MONTHLY

TASK - IRRIGATION SCHEDULE: ADJUST SCHEDULE FOR SEASONAL VARIATIONS AND OTHER CONDITIONS WHICH MAY AFFECT THE AMOUNT OF WATER NEEDED TO MAINTAIN PLANT HEALTH. ADJUST AS NECESSARY.
FREQUENCY - QUARTERLY

TASK - POC: VISUALLY INSPECT COMPONENTS FOR LEAKS, PRESSURE SETTINGS, SETTLEMENT OR OTHER DAMAGE AFFECTING THE OPERATION OF A COMPONENT. REPAIR AS NEEDED.
FREQUENCY - QUARTERLY

TASK - REMOTE CONTROL VALVES : ISOLATION VALVES AND QUICK COUPLER VALVES: VISUALLY INSPECT FOR LEAKS, SETTLEMENTS, WIRE CONNECTIONS AND PRESSURE SETTINGS. REPAIR AS NEEDED.
FREQUENCY - QUARTERLY

TASK - MAINLINE AND LATERALS: VISUALLY INSPECT FOR LEAKS OR SETTLEMENTS OF TRENCH.
FREQUENCY - WEEKLY

TASK - FILTERS AND STRAINERS - VISUALLY CHECK FOR ANY BROKEN MALIGNED OR CLOGGED HEADS, HEADS WITH INCORRECT ARC, INADEQUATE COVERAGE OR OVERSPRAY AND LOW HEAD DRAINAGE. REPAIR AS NEEDED.
FREQUENCY - MONTHLY

TASK - FILTERS AND STRAINERS: VISUALLY CHECK FOR LEAKS, BROKEN FITTINGS. CLEAN AND FLUSH SCREENS.

CRITICAL ANALYSIS

Generated: 2026-10-06 12:25

P.O.C. NUMBER: 01
Water Source Information: EXISITING METER-CONTRACTOR TO RELOCATE INTO NEW LANDSCAPE AREA

FLOW AVAILABLE
Water Meter Size: 1"
Flow Available 37.5 GPM

PRESSURE AVAILABLE
Static Pressure at POC: 65 PSI
Elevation Change: 5.00 ft
Service Line Size: 4"
Length of Service Line: 20 ft
Pressure Available: 63 PSI

DESIGN ANALYSIS
Flow Velocity: 5 Ft.sec.
Maximum Station Flow: 13.85 GPM
Flow Available at POC: 37.5 GPM
Residual Flow Available: 23.65 GPM

Critical Station: 6
Design Pressure: 15 PSI
Friction Loss: 0.41 PSI
Fittings Loss: 0.04 PSI
Elevation Loss: 0 PSI
Loss through Valve: 17.7 PSI
Pressure Req. at Critical Station: 33.1 PSI
Loss for Fittings: 0.04 PSI
Loss for Main Line: 0.41 PSI
Loss for POC to Valve Elevation: 0 PSI
Loss for Backflow: 11.6 PSI
Loss for Water Meter: 1.09 PSI
Critical Station Pressure at POC: 46.3 PSI
Pressure Available: 63 PSI
Residual Pressure Available: 16.7 PSI

P.O.C. NUMBER: 02
Water Source Information: EXISTING METER-PROTECT IN PLACE

FLOW AVAILABLE
Water Meter Size: 1"
Flow Available 37.5 GPM

PRESSURE AVAILABLE
Static Pressure at POC: 65 PSI
Elevation Change: 5.00 ft
Service Line Size: 2"
Length of Service Line: 20 ft
Pressure Available: 63 PSI

DESIGN ANALYSIS
Flow Velocity: 5 Ft.sec.
Maximum Station Flow: 18.7 GPM
Flow Available at POC: 37.5 GPM
Residual Flow Available: 18.8 GPM

Critical Station: 13
Design Pressure: 15 PSI
Friction Loss: 1.77 PSI
Fittings Loss: 0.18 PSI
Elevation Loss: 0 PSI
Loss through Valve: 23.7 PSI
Pressure Req. at Critical Station: 40.7 PSI
Loss for Fittings: 0.07 PSI
Loss for Main Line: 0.66 PSI
Loss for POC to Valve Elevation: 0 PSI
Loss for Backflow: 11.3 PSI
Loss for Water Meter: 1.94 PSI
Critical Station Pressure at POC: 54.6 PSI
Pressure Available: 63 PSI
Residual Pressure Available: 8.43 PSI

WATERING TIME ADJUSTMENT (HYDROZONE 'A' LOW DRIP)

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
MAXIMUM MINUTES PER START TIME	16	16	16	16	16	16	16	16	16	16	16	16
START TIMES PER WEEK	2	2	3	3	4	5	5	5	4	3	2	2
TOTAL MINUTES PER WEEK	32	32	48	48	64	80	80	80	64	48	32	32

WATERING TIME ADJUSTMENT (HYDROZONE 'B' MOD WATER BUBBLER)

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
MAXIMUM MINUTES PER START TIME	16	16	16	16	16	16	16	16	16	16	16	16
START TIMES PER WEEK	2	2	3	3	4	5	5	5	4	3	2	2
TOTAL MINUTES PER WEEK	32	32	48	48	64	80	80	80	64	48	32	32

NOTES:

1. WATERING REQUIREMENTS ARE APPROXIMATE PER SEASON AND SHOULD BE ADJUSTED TO REFLECT SEASONAL FLUCTUATIONS IN AVERAGE PRECIPITATION.
2. "IRRIGATION SCHEDULING INFORMATION" IS TO BE USED FOR WATERING TIME/DURATION/FREQUENCY FOR THE FIRST THREE YEARS, HOWEVER THE SYSTEM SHOULD BE MONITORED FREQUENTLY AND ADJUSTED TO MEET THE NEEDS OF THE PLANT MATERIAL AS MATURE ROOT SYSTEMS DEVELOP.
3. ALL PLANTS TO RECEIVE APPROPRIATE ADDITIONAL 15% HIGHER WATERING DURING INSTALLATION PERIOD IN ORDER TO ESTABLISH HEALTHY AND DEEP ROOT GROWTH.
4. RUN TIME SCHEDULES ARE PRELIMINARY AND PROVIDED AS AN INITIAL CALCULATION. CONTRACTOR IS RESPONSIBLE FOR PROVIDING RUN TIME SCHEDULE FOR ESTABLISHMENT AND POST ESTABLISHMENT PERIODS BASED ON SITE CONDITIONS AND INSTALLATION AT THE TIME OF PROJECT CLOSE OUT AND FOR ALL CITY REQUIRED PROJECT CLOSE OUT DOCUMENTS.

STATE OF CALIFORNIA ESTIMATED WATER USE

TOTAL WATER USE IS CALCULATED BY SUMMING THE AMOUNT OF WATER ESTIMATED FOR EACH HYDROZONE. WATER USE FOR EACH HYDROZONE IS ESTIMATED WITH THE FOLLOWING FORMULA:

EWU (HYDROZONE) = ESTIMATED WATER USE (GAL / YEAR)
ETO = REFERENCE EVAPOTRANSPIRATION (INCHES / YEAR)
PF = PLANT ETO ADJUSTMENT FACTOR
HA = HYDROZONE AREA (S.F.)
.62 = CONVERSION FACTOR
IE = IRRIGATION EFFICIENCY
SLA = SPECIAL LANDSCAPE AREA (S.F.)

EWU (HYDROZONE) = (ETO * PF * HA * .62) / (IE)

HYDROZONE A (DRIP)

ETO	PF	HA	IE	CONVERSION FACTOR	EWU GAL/YEAR
52.5	.2	22475	.81	.62	180632

HYDROZONE B (BUBBLER)

ETO	PF	HA	IE	CONVERSION FACTOR	EWU GAL/YEAR
52.5	.4	384	.75	.62	6666
ESTIMATED TOTAL WATER USE (ETWU)					187299

MAWA (MAXIMUM APPLIED WATER ALLOWANCE)

ETO	ET ADJUSTMENT FACTOR	TOTAL HA	CONVERSION FACTOR	MAWA
52.5	.45	22859	.62	334827
ESTIMATED ANNUAL WATER USE (% OF MAWA)				56

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE
8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn
© 2026 KIMLEY-HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

LICENSED LANDSCAPE ARCHITECT
MICHAEL MADSEN LOWER BOWER
Michael P. Madsen
8/31/2027
Expiration Date
10/7/2026
Date
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
Michael P. Madsen 10/7/2026
MICHAEL MADSEN DATE
L.L.A. No. 5798

CITY OF SOUTH PASADENA

INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

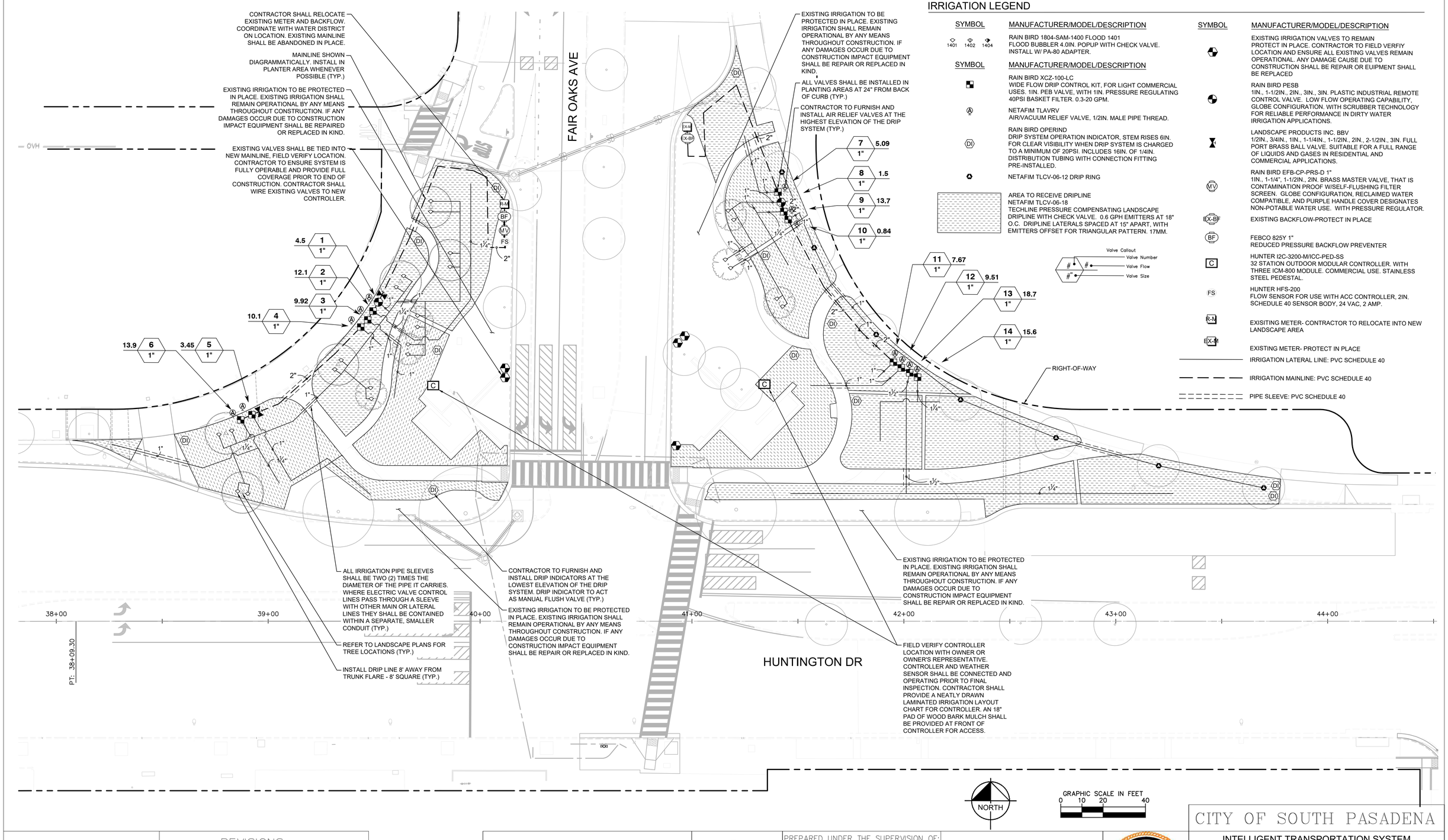
HUNTINGTON DRIVE AND FAIR OAKS AVENUE

IRRIGATION NOTES AND SCHEDULE

IR1.0

PROJECT NO. 2020-02
SHEET NO. 90 OF 97

Plotted By: Ung, Rebecca Date: October 07, 2026 06:43:11pm Path: K:\LDT_TPTO_ITS\099910002 - South Pasadena Huntington-Fremont\Design\CADD\PlanSheets\IRRIGATION - HUNTINGTON - FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



IRRIGATION LEGEND

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
1401 1402 1404	RAIN BIRD 1804-SAM-1400 FLOOD 1401 FLOOD BUBBLER 4.0IN. POPUP WITH CHECK VALVE. INSTALL W/ PA-80 ADAPTER.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD XCZ-100-LC WIDE FLOW DRIP CONTROL KIT, FOR LIGHT COMMERCIAL USES. 1IN. PEB VALVE, WITH 1IN. PRESSURE REGULATING 40PSI BASKET FILTER. 0.3-20 GPM.
A	NETAFIM TLAVRV AIR/VACUUM RELIEF VALVE, 1/2IN. MALE PIPE THREAD.
DI	RAIN BIRD OPERIND DRIP SYSTEM OPERATION INDICATOR, STEM RISES 6IN. FOR CLEAR VISIBILITY WHEN DRIP SYSTEM IS CHARGED TO A MINIMUM OF 20PSI. INCLUDES 16IN. OF 1/4IN. DISTRIBUTION TUBING WITH CONNECTION FITTING PRE-INSTALLED.
	NETAFIM TLCV-06-12 DRIP RING
	AREA TO RECEIVE DRIPLINE NETAFIM TLCV-06-18 TECHLINE PRESSURE COMPENSATING LANDSCAPE DRIPLINE WITH CHECK VALVE. 0.6 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 15" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. 17MM.

Valve Callout
Valve Number
Valve Flow
#" Valve Size

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	EXISTING IRRIGATION VALVES TO REMAIN PROTECT IN PLACE. CONTRACTOR TO FIELD VERFIY LOCATION AND ENSURE ALL EXISTING VALVES REMAIN OPERATIONAL. ANY DAMAGE CAUSE DUE TO CONSTRUCTION SHALL BE REPAIR OR EUIPMENT SHALL BE REPLACED
	RAIN BIRD PESB 1IN., 1-1/2IN., 2IN., 3IN., 3IN. PLASTIC INDUSTRIAL REMOTE CONTROL VALVE. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION. WITH SCRUBBER TECHNOLOGY FOR RELIABLE PERFORMANCE IN DIRTY WATER IRRIGATION APPLICATIONS.
	LANDSCAPE PRODUCTS INC. BBV 1/2IN., 3/4IN., 1IN., 1-1/4IN., 1-1/2IN., 2IN., 2-1/2IN., 3IN. FULL PORT BRASS BALL VALVE. SUITABLE FOR A FULL RANGE OF LIQUIDS AND GASES IN RESIDENTIAL AND COMMERCIAL APPLICATIONS.
MV	RAIN BIRD EFB-CP-PRS-D 1" 1IN., 1-1/4", 1-1/2IN., 2IN. BRASS MASTER VALVE, THAT IS CONTAMINATION PROOF W/SELF-FLUSHING FILTER SCREEN. GLOBE CONFIGURATION, RECLAIMED WATER COMPATIBLE, AND PURPLE HANDLE COVER DESIGNATES NON-POTABLE WATER USE. WITH PRESSURE REGULATOR.
EX-BF	EXISTING BACKFLOW-PROTECT IN PLACE
BF	FEBCO 825Y 1" REDUCED PRESSURE BACKFLOW PREVENTER
C	HUNTER I2C-3200-M/ICC-PED-SS 32 STATION OUTDOOR MODULAR CONTROLLER. WITH THREE ICM-800 MODULE. COMMERCIAL USE. STAINLESS STEEL PEDESTAL.
FS	HUNTER HFS-200 FLOW SENSOR FOR USE WITH ACC CONTROLLER, 2IN. SCHEDULE 40 SENSOR BODY, 24 VAC, 2 AMP.
R-M	EXISITING METER- CONTRACTOR TO RELOCATE INTO NEW LANDSCAPE AREA
EX-M	EXISTING METER- PROTECT IN PLACE
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40
	IRRIGATION MAINLINE: PVC SCHEDULE 40
	PIPE SLEEVE: PVC SCHEDULE 40

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE 8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn
© 2026 KIMLEY-HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

LICENSED LANDSCAPE ARCHITECT MICHAEL PATRICK MADSEN LANDSCAPE ARCHITECT 8/31/2027 10/7/2026 STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
MICHAEL P. MADSEN 10/7/2026
MICHAEL MADSEN DATE
L.L.A. No. 5798

CITY OF SOUTH PASADENA

INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

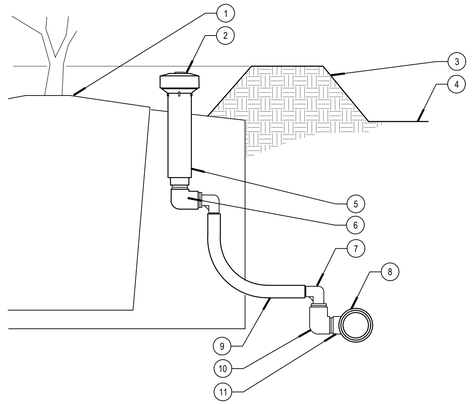
HUNTINGTON DRIVE AND FAIR OAKS AVENUE

IRRIGATION PLAN

IR1.1

PROJECT NO. 2020-02
SHEET NO. 91 OF 97

Plotted By: Ung, Rebecca Date: October 07, 2026 06:43:21pm Path: K:\LDT_TPTO_ITS\C099910002 - South Pasadena Huntington-Fremont\Design\CADD\PlanSheets\IRRIGATION - HUNTINGTON - FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

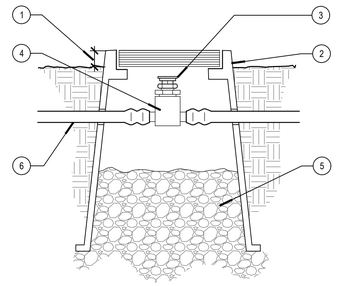


LEGEND

1. PLANT ROOTBALL, SEE PLANTING DETAIL
2. SET HEAD 2" ABOVE GRADE AND INSIDE WATER WELL
3. WATER WELL, SEE PLANTING DETAIL
4. FINISHED GRADE
5. POPUP AS SPECIFIED
6. 1/2" MARLEX STREET ELL.
7. BARB ELL X MIPT
8. LATERAL LINES
9. 1/2" POLYETHYLENE FLEXIBLE TUBING, LENGTH AS REQUIRED
10. 1/2" MARLEX STREET ELL
11. PVC TEE (SXSXT) OR ELL

1 POPUP BUBBLER AT PLANT PIT

SCALE: 1" = 1" NTS

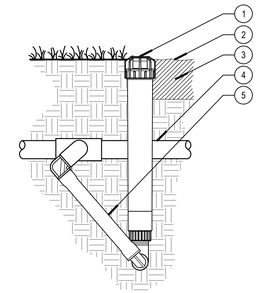


LEGEND

1. FINISH GRADE. 2" TYP.
2. 6" ROUND PLASTIC PURPLE VALVE BOX.
3. AIR RELIEF VALVE- REFER TO IRRIGATION LEGEND.
4. DRIPLINE ADAPTER TEE PER MANUF.
5. PEA GRAVEL- 12" DEPTH.
6. DRIPLINE TUBING - REFER TO IRRIGATION LEGEND.

2 AIR RELIEF VALVE

SCALE: NTS

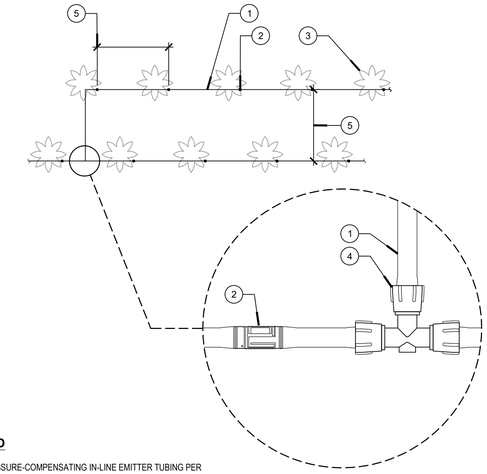


LEGEND

1. ECO-INDICATOR
2. FINISHED GRADE
3. ADJACENT MULCH
4. PVC LATERAL PIPE
5. SWING JOINT

3 DRIP INDICATOR ON SWING JOINT

SCALE: 1" = 1" NTS

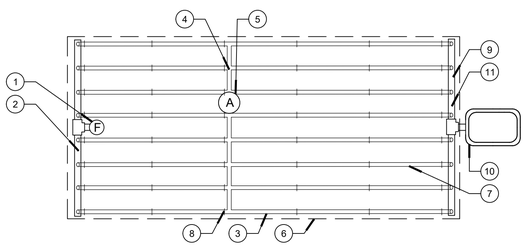


LEGEND

1. PRESSURE-COMPENSATING IN-LINE EMITTER TUBING PER LEGEND
2. EMITTER PRE-INSTALLED IN TUBING
3. PLANT MATERIAL - SEE PLANS FOR SPACING
4. LOCKING INSERT FITTING
5. SPACING PER LEGEND

4 DRIP TUBING CONNECTION

SCALE: 1" = 1'-0"



LEGEND

1. FLUSH VALVE PLUMBED TO PVC OR POLY EXHAUST MANIFOLD
2. PVC OR POLY EXHAUST MANIFOLD
3. PERIMETER LATERALS 2" TO 4" MIN., $\frac{1}{2}$ LATERAL SPACING MAX FROM EDGE
4. BLANK TUBING MANIFOLD FOR AIR VAC RELIEF (CENTERED ON MOUND OR BERM)
5. AIR/VACUUM RELIEF VALVE (INSTALL AT HIGHEST LOCAL ELEVATION)
6. AREA PERIMETER/EDGE OF PLANTER
7. DRIP TUBING LATERAL LINE
8. SECURE SIP LINES WITH JUTE NET STAPLED, OR EQUAL 5" O.C.
9. PVC OR POLY SUPPLY MANIFOLD
10. REMOTE CONTROL VALVE WITH DISC, FILTER AND PRV
11. START CONNECTION AS APPROPRIATE (SEE OTHER DETAILS)

NOTES

A. DRIP LINES TO BE EQUALLY AND UNIFORMLY SPACED FOR ENTIRE LENGTH OR RUN

B. SPACE LINES AS SHOWN AND/OR NOTED ON DRAWINGS AND SPECS

C. SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION

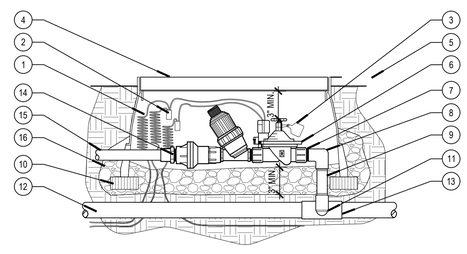
D. DRIP LINES TO BE LAID FLAT AND SECURED TO SUBGRADE WITH STAPLES AT 5' CENTERS PRIOR TO BACKFILL

E. USE CAUTION WHEN SECURING DRIP LINE WITH STAPLES. DRIP LINE SHALL NOT BE OBSTRUCTED, KINKED, OR PUNCTURED.

F. DRIP LINE TO BE EQUALLY SPACED THROUGHOUT. SEE NOTES AND LEGEND FOR SPACING.

5 DRIP TUBING LAYOUT

N.T.S.



LEGEND

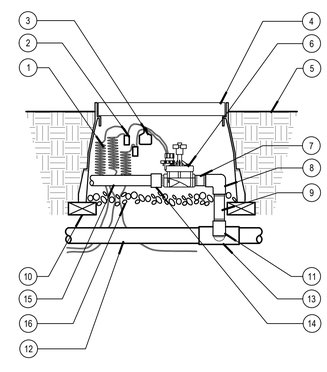
1. 30" LENGTH OF COILED WIRE
2. WATER PROOF CONNECTOR- REFER TO IRRIGATION SPECIFICATIONS
3. ID TAG- REFER TO IRRIGATION SPECIFICATIONS
4. RECTANGULAR, PURPLE PLASTIC VALVE BOX WITH LOCKING COVER- LID SHALL BE HEAT BRANDED WITH LETTERS "RVC" AND STATION NUMBER- REFER TO IRRIGATION SPECIFICATIONS.
5. FINISH GRADE. - 1" IN TURF AREAS.- 2" IN SHRUB AREAS
6. REMOTE CONTROL VALVE FILTER AND PRV - REFER TO IRRIGATION SPECIFICATIONS
7. SCH. 80 PVC NIPPLE (CLOSE)
8. SCH. 40 PVC ELL
9. SH. 80 PVC NIPPLE (LENGTH AS REQUIRE)
10. BICK (1 OF 4)
11. SCH. 80 OVC 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 $\frac{3}{4}$" MINUS WASHED GRAVEL

NOTES

A. ALL THREADS SHALL BE WRAPPED WITH TEFLON TAPE

6 REMOTE CONTOL DRIP VALVE

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



NOTES

A. ALL THREADS SHALL BE WRAPPED WITH TEFLON TAPE.

B. VALVE BOX SHALL BE PLACED 12" MIN. FROM ANY ADJACENT HARDSCAPE UNLESS NOTED OTHERWISE.

LEGEND

1. 30" LENGTH OF WIRE, COILED.
2. WATERPROOF CONNECTIONS, TYP.
3. VALVE ID TAG, TYP.
4. PURPLE VALVE BOX W/ LOCKING COVER (SIZE AS REQ'D.)
5. FINISH GRADE - 1" IN LAWN AREAS / 2" IN SHRUB AREAS
6. REMOTE CONTROL VALVE PER LEGEND
7. PVC SCH. 80 NIPPLE (CLOSE)
8. PVC SCH. 40 ELL
9. PVC SCH. 80 NIPPLE (LENGTH AS REQ'D.)
10. BRICK SUPPORT (4 TOTAL)
11. SCH. 80 NIPPLE (2" LENGTH, HIDDEN) AND SCH. 40 ELL
12. PVC MAINLINE PER PLAN AND LEGEND
13. PVC SCH 40 TEE OR ELL
14. PVC SCH 40 MALE ADAPTER
15. PVC LATERAL PIPE
16. 3" MIN. DEPTH OF 3/4" WASHED GRAVEL

7 REMOTE CONTROL VALVE

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

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE
8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn
© 2026 KIMLEY-HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

LICENSED LANDSCAPE ARCHITECT
Michael P. Madsen License No. 5798
Expiration Date 8/31/2027
10/7/2026
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
Michael P. Madsen 10/7/2026
MICHAEL MADSEN DATE
L.L.A. No. 5798

CITY OF SOUTH PASADENA

INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

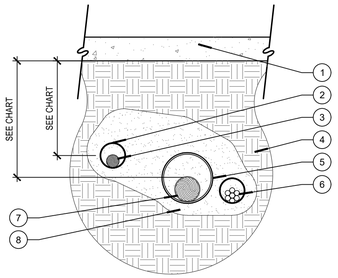
HUNTINGTON DRIVE AND FAIR OAKS AVENUE

IRRIGATION DETAILS

IR2.0

PROJECT NO. 2020-02
SHEET NO. 92 OF 97

Plotted By: Ung, Rebecca Date: October 07, 2026 06:43:24pm Path: K:\LDT_TPTO_ITS\C99910002 - South Pasadena Huntington-Fremont\Design\CADD\PlanSheets\IRRIGATION - HUNTINGTON - FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



LEGEND

1. HARDSCAPE PAVING
2. LATERAL LINE SLEEVING SHALL BE SCH. 40 PVC - SLEEVE DIA. SHALL BE 2x LATERAL DIA.
3. LATERAL LINE - REFER TO IRRIGATION LEGEND FOR 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 2x MAINLINE DIA.
7. MAINLINE - REFER TO IRRIGATION LEGEND FOR SPECIFICATIONS
8. SAND BACKFILL 2" BASE & 6" OF COVER, MIN.

NOTES

A. ALL IRRIGATION WIRES, LATERALS AND MAINLINE SHALL BE PLACED IN SLEEVES

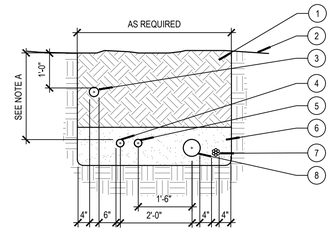
B. IRRIGATION CONTRACTOR SHALL COORDINATE ALL SLEEVING LOCATIONS & SIZES WITH HARDSCAPE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION

C. ALL SLEEVES SHALL EXTEND A MINIMUM OF 12" BEYOND THE EDGE OF THE 12" BEYOND THE EDGE OF THE HARDSCAPE SURFACE

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

1 IRRIGATION SLEEVING

SCALE: 1" = 1'-0"



LEGEND

1. REFER TO IRRIGATION SPECS FOR BACKFILL AND COMPACTION REQUIREMENTS
2. FINISH GRADE
3. NON-PRESSURIZED LATERAL LINE PIPING
4. COMMUNICATION CABLE CONDUIT (WHERE REQUIRED)
5. FLOW SENSOR AND CABLE CONDUIT
6. APPROVED BACKFILL OR SAND- PROVDE 3" UNDER PIPE AND 4" AROUND PIPE
7. CONTROL WIRE BUNDLES AND TAPED AT 10'-0" INTERVALS. INSTALL ADJACENT TO MAINLINE.
8. PRESSURIZED MAINLINE PIPING

LINETYPE	DEPTH
PRESSURIZED MAINLINE 2 1/2" AND SMALLER	18"
PRESSURIZED MAINLINE 3" AND LARGER	24"
LATERAL LINES	12"

NOTES

A. ALL PLASTIC PIPING SHALL BE SNAKED IN TRENCHES

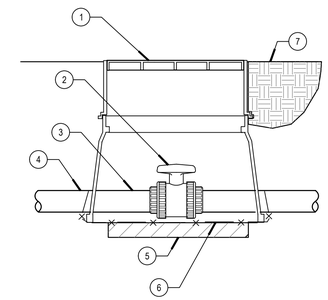
B. TIE LOOSE 20" LOOP IN WIRING AT ANY CHANGE IN DIRECTION GREATER THAN 30' - UNTIE ANY LOOPS AFTER ALL CONNECTIONS HAVE BEEN MADE.

C. ALL MAINLINE, LATERAL LINES, AND CONTROL WIRES SHALL BE SLEEVED BELOW ALL HARDSCAPE ELEMENTS. SEE SLEEVE DETAIL

D. ALL MAINLINE PIPING TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER INSTALLATION SPECIFICATIONS.

2 TRENCHING

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



LEGEND

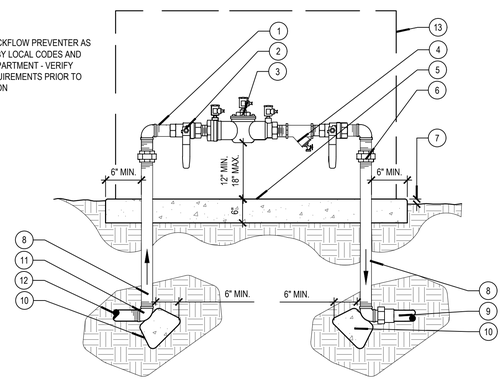
1. 10"X15" RECTANGULAR BOX WITH 6" EXTENSION
2. ISOLATION BALL VALVE AS SPECIFIED, SAME SIZE AS MAIN LINE.
3. SCHEDULE 80 THREADED NIPPLE AS REQUIRED
4. ADAPTER PVC MAIN LINE
5. TWO 6X2X16 CONCRETE BLOCK CAPS, ONE ON EACH SIDE OF BOX.
6. 1/2" WIRE CLOTH GOPHER SCREEN, WRAP UP SIDES
7. SET BOX FLUSH TO GRADE

3 BALL VALVE

SCALE: 1" = 1" NTS

NOTES

A. INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES AND HEALTH DEPARTMENT - VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION



LEGEND

1. BRASS NIPPLE, 4" LENGTH, MIN (TYP.)
2. BALL VALVE, TYPICAL FOR TWO (2)
3. REDUCED PRESSURE TYPE BACKFLOW PREVENTER
4. BRASS WYE STRAINER WITH 40 MESH MONEL SCREEN AND HOSE BIB
5. NATURAL GRAY CONCRETE BASE WITH HAND TROWELED FINISH AND 1/4" TOOLED RADIUS EDGES
6. BRASS UNION (2)
7. FINISH GRADE:
   - 1" IN TURF AREAS
   - 2" IN SHRUB AREAS
8. BRASS RISER
9. PIPE OUT TO IRRIGATION SYSTEM - ADAPT AS REQUIRED
10. CONCRETE THRUST BLOCK
11. BRASS 90 DEGREE ELL, TYPICAL FOR (4)
12. PIPE IN FROM POINT OF CONNECTION - ADAPT AS REQUIRED
13. SECURE ENCLOSURE - SUBMIT CUT-SHEET FOR REVIEW AND APPROVAL.

4 BACKFLOW PREVENTER

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

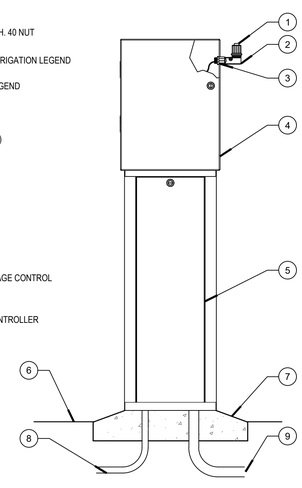
LEGEND

1. RAIN SENSOR WHEN OCCURS - SEE IRRIGATION PLAN AND LEGEND
2. 3/4" SCH. 40 RISER EXTENSION
3. (FIPT X MIPT) SECURED TO ENCLOSURE WITH SCH. 40 NUT
4. STAINLESS STEEL CONTROLLER CABINET - SEE IRRIGATION LEGEND
5. PEDESTAL, WHERE OCCURS - SEE IRRIGATION LEGEND
6. FINISH GRADE
7. 4" THICK CONCRETE BASE, MIN. (SLOPE TO DRAIN)
8. 3/4" CONDUIT FOR 120 VAC
9. 2" CONDUIT VALVE WIRES

NOTES

A. PROVIDE RECTANGULAR PULL BOX FOR LOW VOLTAGE CONTROL WIRES AT BASE OF CONTROLLER

B. CONTRACTOR TO INSTALL ON/OFF SWITCH FOR CONTROLLER



5 PEDESTAL MOUNT CONTROLLER

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

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE
8—1—1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn
© 2026 KIMLEY—HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213—261—4040
WWW.KIMLEY—HORN.COM

LICENSED LANDSCAPE ARCHITECT
MICHAEL PATRICK MADSEN
LICENSE NO. 5798
8/31/2027
10/7/2026
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
10/7/2026
MICHAEL MADSEN DATE
L.L.A. No. 5798

CITY OF SOUTH PASADENA

INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

HUNTINGTON DRIVE AND FAIR OAKS AVENUE

IRRIGATION DETAILS

IR2.1

PROJECT NO. 2020-02
SHEET NO. 93 OF 97

Plotted By: Ung, Rebecca Date: October 07, 2026 06:43:29pm Path: K:\LDT_TPTO_ITS\099910002 – South Pasadena Huntington–Fremont\Design\CADD\PlanSheets\IRRIGATION – HUNTINGTON – FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

GENERAL LANDSCAPE NOTES

1. THE WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS AND THE MOST CURRENT EDITION OF THE APPLICABLE CITY AND/OR REGIONAL STANDARDS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF THESE STANDARDS, SPECIFICATIONS AND DRAWINGS, AS WELL AS ALL OTHER STANDARDS AND SPECIFICATIONS WHICH MAY BE NECESSARY TO COMPLETE AND ACCURATELY INTERPRET THESE PLANS.
2. ALL QUANTITIES LISTED IN THE LANDSCAPE SCHEDULE ARE FOR THE CONVENIENCE OF THE CONTRACTOR. IN THE CASE OF ANY DISCREPANCIES, PLANS SHALL OVERRIDE THE LANDSCAPE AND BID SCHEDULE QUANTITIES. CONTRACTOR SHALL VERIFY QUANTITIES SHOWN ON THE PLANS AND BASE THEIR BID ACCORDINGLY.
3. RESPONSIBILITY FOR ESTABLISHING SUBGRADES IS NOT INCLUDED IN THIS WORK. INSPECT SUBGRADES PRIOR TO COMMENCING WORK TO CONFIRM SUBGRADE DEPTHS AND GRADES. ADVISE LANDSCAPE ARCHITECT OF DISCREPANCIES WITH DRAWINGS OR SPECIFICATIONS. ALL PLANTING AREAS SHALL BE LEFT FREE OF CONSTRUCTION DEBRIS AND/OR TOXIC MATERIAL AND GRADED TO A LEVEL TO PERMIT LANDSCAPE CONSTRUCTION. TRENCHES OR OTHER FILLED EXCAVATIONS SHALL BE COMPACTED PRIOR TO LANDSCAPE INSTALLATION.
4. SITE GRADING NECESSITATED BY THE WORK AS IT PROGRESSES AND NOT SPECIFICALLY CALLED OUT ON THE PLANS WILL BE CONSIDERED INCIDENTAL WORK.
5. ALL LANDSCAPE AREAS SHALL BE UNIFORMLY GRADED SO THAT FINISHED SURFACES CONFORM TO THE TYPICAL SECTIONS AND PROPOSED GRADES SHOWN. FINISHED SURFACES SHALL BE REASONABLY SMOOTH, COMPACTED, AND FREE FROM IRREGULAR SURFACE DRAINAGE. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING THE FINISH GRADE AND SHALL BEAR FINAL RESPONSIBILITY FOR PROPER SURFACE DRAINAGE OF PLANTED AREAS.
6. AFTER ROUGH GRADING HAS OCCURRED, CONTRACTOR SHALL OBTAIN AN AGRONOMIC SOILS REPORT AND SUBMIT TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO AMENDMENTS AND/OR PLANTING. CONTRACTOR SHALL APPLY RECOMMENDATIONS UNLESS OTHERWISE NOTED BY LANDSCAPE ARCHITECT.
7. BACKFILL MIX SHALL BE PLACED IN 6" LIFTS AND TAMPED INTO PLACE AROUND THE PLANT. NO TRANSPLANTING SHALL BE DONE WHEN SOIL IS EXCESSIVELY WET. DO NOT COUNTERSINK AROUND CACTI OR SUCCULENTS. PROVIDE POSITIVE DRAINAGE AWAY FROM PLANT.
8. ALL TREES SHALL BE PLANTED A MINIMUM OF 5 FEET, ALL SHRUBS AND ACCENTS A MINIMUM OF 24", AND ALL GROUNDCOVERS 18" FROM EDGE OF CURBS, WALKS, WALLS, PADS, ETC., UNLESS DIRECTED OTHERWISE BY THE LANDSCAPE ARCHITECT.
9. EXCAVATE PITS, AS SHOWN ON DRAWINGS AND DETAILS. LOOSEN HARD SUBSOIL IN BOTTOM OF PIT. TEST DRAINAGE OF TREE, SHRUB AND PLANT PITS BY FILLING WITH WATER TWICE IN SUCCESSION. THE RETENTION OF WATER IN PLANTING PITS FOR MORE THAN TWENTY-FOUR (24) HOURS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. SUBMIT IN WRITING A PROPOSAL FOR THE CORRECTION TO THE OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE PROCEEDING WITH WORK.
10. IF ROCK, UNDERGROUND CONSTRUCTION, ADVERSE DRAINAGE CONDITIONS, OR OTHER OBSTRUCTIONS ARE ENCOUNTERED IN EXCAVATION FOR PLANTING OF ANY PLANT MATERIAL, NOTIFY THE OWNER'S REPRESENTATIVE. NEW LOCATIONS MAY BE SELECTED BY THE OWNER'S REPRESENTATIVE, OR INSTRUCTIONS MAY BE ISSUED TO DIRECT REMOVAL OF OBSTRUCTION. PROCEED WITH WORK ONLY AFTER APPROVAL OF THE OWNER'S REPRESENTATIVE.
11. DO NOT MAKE SUBSTITUTIONS. IF SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON-AVAILABILITY FROM AT LEAST FIVE SOURCES TO THE OWNER'S REPRESENTATIVE, TOGETHER WITH PROPOSAL FOR USE OF EQUIVALENT MATERIAL FOR FINAL APPROVAL.
12. ALL PLANT MATERIAL AND SPECIFICATIONS TO CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK STANDARDS UNLESS OTHERWISE NOTED.
13. LAY OUT INDIVIDUAL TREE AND PLANT LOCATIONS AND AREAS FOR MULTIPLE PLANTINGS, STAKE LOCATIONS AND OUTLINE AREAS AND SECURE THE OWNER'S REPRESENTATIVE'S ACCEPTANCE BEFORE START OF PLANTING WORK. MAKE MINOR ADJUSTMENTS AS DIRECTED.
14. ALL SHRUBS SHALL HAVE A FULL HEAD THAT COVERS THE CAN DIAMETER (CAN FULL) AND A MINIMUM OF THREE STEMS/BRANCHES.
15. FINISH GRADE FOR PLANTED AREAS SHALL BE 1" BELOW ALL CURBS, WALKS AND PAVING WITH SMOOTH EVEN LINES AT EDGES OF STRUCTURES.
16. FINISH LANDSCAPE GRADES SHALL SLOPE AT A 2% GRADE AWAY FROM CURBS, WALKS, AND WALLS.
17. ALL LANDSCAPE AREAS SHALL RECEIVE A 3" DEPTH OF MULCH, UNLESS OTHERWISE NOTED ON THESE PLANS. TREES TO HAVE A 6' DIAMETER RING AROUND TRUNK FREE OF MULCH. MULCH SHALL EXTEND UNDER ALL SHRUBS AND PLANTS. APPLY PRE-EMERGENT HERBICIDE PRIOR TO AND AFTER MULCH INSTALLATION.
18. PROVIDE SAMPLES OF PROPOSED MULCH SHOWING COLOR, GRADATION SIZE RANGE AND TEXTURE INCLUDING PROPOSED SOURCE. PROVIDE 1/2 CUBIC FOOT SAMPLE OF EACH.
19. ANY ROCK MULCH OR DECOMPOSED GRANITE SHALL NOT CONTAIN LUMPS OR BALLS OF CLAY, CALICHE, ORGANIC MATTER OR CALCAREOUS COATING. PROVIDE WEED BARRIER UNDER ALL DG AND/OR ROCK MULCH. THE CONTRACTOR SHALL ENSURE THAT SUFFICIENT QUANTITY IS AVAILABLE FROM A SINGLE SOURCE TO COMPLETE THE PROJECT. THE OWNER'S REPRESENTATIVE SHALL APPROVE SAMPLES PRIOR TO ORDERING.
20. NO JOB WILL BE CONSIDERED COMPLETE UNTIL ALL CURBS, PAVEMENT AND SIDEWALKS HAVE BEEN SWEPT CLEAN OF ALL DIRT AND DEBRIS ACCORDING TO PLANS.
21. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY PERMITS REQUIRED. (SEE THE CITY GENERAL CONDITIONS)
22. ALL CONSTRUCTION ROADS AND COMPACTED AREAS DEVELOPED THROUGH CONSTRUCTION THAT ARE WITHIN THE LANDSCAPE AREAS SHALL BE SCARIFIED AND LOOSENED TO A DEPTH OF 12" PRIOR TO LANDSCAPE AND IRRIGATION WORK BEGINNING
23. PLANTINGS WITHIN THE SIGHT VISIBILITY TRIANGLE LINE SHALL BE MAINTAINED SO THAT NO LIMBS HANG LOWER THAN SEVEN (7) FEET AND SHRUBS OR OTHER PLANTS PLANTED WITHIN THE SIGHT VISIBILITY TRIANGLE LINE SHALL BE NO TALLER THAN TWO (2) FEET AT FULL GROWTH.

I HAVE COMPLIED WITH THE CRITERIA OF THE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO) AND HAVE APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE AND IRRIGATION DESIGN PLAN

Michael P. Madsen

MICHAEL P. MADSEN, LLA 5798

LANDSCAPE ARCHITECT NOTES

1. THE TERM "LANDSCAPE ARCHITECT" USED HEREIN SHALL MEAN THE LANDSCAPE ARCHITECT WHO HAS SIGNED AND SEALED THESE PLANS AND IS IN RESPONSIBLE CHARGE OF THE LANDSCAPE ARCHITECTURE DESIGN. THE TERM "CONTRACTOR" USED HEREIN SHALL MEAN ANY GENERAL CONTRACTOR OR SUBCONTRACTOR USING THESE PLANS. ANY AGENCY SIGNATURE OR APPROVAL ON THESE PLANS DOES NOT CONSTITUTE APPROVAL OF ANY OF THESE NOTES.
2. THE LANDSCAPE ARCHITECT WILL NOT PROVIDE, OBSERVE, COMMENT ON NOR ENFORCE ANY SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY MEASURES AND SHALL BE SOLELY RESPONSIBLE FOR SAME AND COMPLYING WITH ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS. THE CONTRACTOR AGREES THAT SHE/HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS AND SAFETY OF ALL PERSONS AND PROPERTY DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
3. THE LANDSCAPE ARCHITECT SHALL HAVE NO RESPONSIBILITY FOR ANY OF THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION, TECHNIQUES, EQUIPMENT CHOICE AND USAGE, SEQUENCE, SCHEDULE, SAFETY PROGRAMS, OR SAFETY PRACTICES, NOR SHALL THE LANDSCAPE ARCHITECT HAVE ANY AUTHORITY OR RESPONSIBILITY TO STOP OR DIRECT THE WORK OF ANY CONTRACTOR.
4. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE LANDSCAPE ARCHITECT AND OWNER, THEIR AGENTS AND EMPLOYEES, HARMLESS FROM ANY AND ALL CLAIMS, DEMANDS, JUDGMENTS, LOSS, DAMAGES, COSTS, EXPENSES, FEES OR LIABILITY WHATSOEVER, REAL OR ALLEGED, IN CONNECTION WITH, IN WHOLE OR IN PART, DIRECTLY OR INDIRECTLY, THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE LANDSCAPE ARCHITECT.
5. IF THERE ARE ANY QUESTIONS REGARDING THESE PLANS, THE CONTRACTOR SHALL REQUEST IN WRITING FROM THE LANDSCAPE ARCHITECT AND THE OWNER, AN INTERPRETATION BEFORE DOING ANY RELATED OR IMPACTED WORK.
6. THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO PROTECT THE PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM CONTRACTOR OPERATIONS BY APPROPRIATE MEANS UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY WHOMEVER IS TO BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE.
7. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO STARTING WORK NEAR THEIR FACILITIES AND SHALL COORDINATE WORK WITH UTILITY COMPANY REPRESENTATIVES.
8. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM A SEARCH OF READILY AVAILABLE RECORDS. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHERS NOT OF RECORD OR NOT SHOWN ON THESE PLANS. ALL DAMAGES THERETO CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE APPROPRIATE SPECIFICATIONS AND STANDARDS AT THE SOLE EXPENSE OF THE CONTRACTOR.
9. THE LOCATION, ELEVATIONS, SIZE, TYPE AND CONDITION OF EXISTING IMPROVEMENTS ADJACENT TO THE PROPOSED WORK INDICATED ON THESE PLANS SHALL BE CONFIRMED BY THE CONTRACTOR BY FIELD MEASUREMENTS AND OBSERVATIONS PRIOR TO CONSTRUCTION OF NEW WORK. THE CONTRACTOR WILL IMMEDIATELY INFORM THE LANDSCAPE ARCHITECT IN WRITING IF ANY DISCREPANCIES OR CONFLICTING INFORMATION IS FOUND.
10. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES AS NEEDED, SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY DUE TO THE ACTUAL LOCATION, SIZE, TYPE, OR CONDITION OF EXISTING FACILITIES DIFFERING FROM WHAT IS SHOWN ON THESE PLANS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY DAMAGE TO THE EXISTING IMPROVEMENTS AND REPLACEMENT TO THE SATISFACTION OF THE OWNER.
12. SHOULD CONFLICTING INFORMATION BE FOUND ON THE PLANS THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING IMMEDIATELY BEFORE PROCEEDING WITH THE WORK IN QUESTION.
13. ANYTHING MENTIONED IN THE SPECIFICATIONS, IF ANY, AND NOT SHOWN ON THE DRAWINGS, OR SHOWN ON THE DRAWINGS AND NOT MENTIONED IN THE SPECIFICATIONS, SHALL BE OF LIKE EFFECT AS IF SHOWN OR MENTIONED IN BOTH.

TREE PROTECTION NOTES

A. THE LIMITS OF ALL TREE PROTECTION ZONES SHALL BE STAKED IN THE FIELD. A 6'-0" HIGH CHAIN LINK FENCE WITH POSTS SUNK INTO THE GROUND SHALL BE ERECTED TO ENCLOSE THE TREE PROTECTION ZONE.

B. THE TREE PROTECTION ZONE (TPZ) IS DEFINED AS THE LARGER OF THE DRIP LINE OF THE TREE OR THE DISTANCE FROM THE TRUNK EQUAL TO ONE (1) FOOT FOR EACH INCH OF TRUNK DIAMETER MEASURED AT FOUR AND A HALF (4.5) FEET ABOVE EXISTING GRADE (AKA DBH; DIAMETER AT BREAST HEIGHT).

C. FENCES ARE TO REMAIN UNTIL ALL SITE WORK HAS BEEN COMPLETED. FENCES MAY NOT BE RELOCATED OR MOVED WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT.

D. STRUCTURES AND UNDERGROUND FEATURES TO BE REMOVED WITHIN THE TREE PROTECTION ZONE SHALL USE THE SMALLEST EQUIPMENT POSSIBLE, AND OPERATE FROM OUTSIDE THE TREE PROTECTION ZONE.

E. IF TEMPORARY HAUL OR ACCESS ROADS MUST PASS OVER THE ROOT AREA OF TREES TO BE RETAINED, A ROAD BED OF 6" OF MULCH OR GRAVEL SHALL BE CREATED TO PROTECT THE SOIL. THE ROAD BED MATERIAL SHALL BE REPLENISHED AS NECESSARY TO MAINTAIN A 6" DEPTH.

F. CONSTRUCTION TRAILERS AND TRAFFIC AND STORAGE AREAS MUST REMAIN OUTSIDE FENCED AREAS AT ALL TIMES.

G. NO MATERIALS, EQUIPMENT, WASTE OR WASHOUT WATER MAY BE DEPOSITED, STORED, OR PARKED WITHIN THE TREE PROTECTION ZONE. NO DEBRIS OR GARBAGE MAY BE DUMPED OR BURIED WITHIN THE TREE PROTECTION ZONE.

H. ANY GRADING, CONSTRUCTION, DEMOLITION OR OTHER WORK THAT IS EXPECTED TO ENCOUNTER TREE ROOTS, MUST BE MONITORED BY THE LANDSCAPE ARCHITECT.

I. ALL UNDERGROUND UTILITIES AND DRAIN OR IRRIGATION LINES SHALL BE ROUTED OUTSIDE THE TREE PROTECTION ZONE. IF REROUTING IS NOT POSSIBLE, TRENCHING WITHIN THE TPZ IS TO BE PERFORMED BY AIRSPADE UNDER THE SUPERVISION AND DIRECTION OF A LICENSED ARBORIST. IF AT ANY TIME, TWENTY-FIVE (25) PERCENT OF THE AREA WITHIN THE ROOT PROTECTION ZONE WOULD BE SEPARATED FROM THE TREE BY A TRENCH, THE LINE SHALL BE LOCATED BY BORING.

J. NO ROOTS LARGER THAN ONE INCH (1.5") DIAMETER SHALL BE CUT UNLESS REVIEWED AND APPROVED BY LICENSED ARBORIST. ALL SMALLER ROOTS THAT REQUIRE CUTTING SHALL BE CUT WITH PRUNING SAWS (NO TRENCHES OR BACKHOES). CUTS SHALL BE MADE FLUSH WITH THE SIDE OF THE EXCAVATION.

K. MINOR ROOT DAMAGE DURING GRADING OR CONSTRUCTION SHALL BE PRUNED TO SOUND TISSUE AND CUT CLEANLY WITH A SAW. CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT IMMEDIATELY IN THE EVENT OF EXTENSIVE ROOT DAMAGE.

L. ADDITIONAL TREE PRUNING REQUIRED FOR CLEARANCE DURING CONSTRUCTION MUST BE PERFORMED BY A QUALIFIED ARBORIST OR AT THE DIRECTION OF THE LANDSCAPE ARCHITECT AND NOT BY CONSTRUCTION PERSONNEL.

M. EROSION CONTROL DEVICES SUCH AS SILT FENCING, DEBRIS BASINS, AND WATER DIVERSION STRUCTURES SHALL BE INSTALLED TO PREVENT SILTATION AND/OR EROSION WITHIN THE TREE PROTECTION ZONE.

N. SPOIL FROM TRENCHES OR OTHER EXCAVATIONS SHALL NOT BE PLACED WITHIN THE TREE PROTECTION ZONE, EITHER TEMPORARILY OR PERMANENTLY.

O. IF INJURY SHOULD OCCUR TO ANY TREE DURING CONSTRUCTION, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY IN ORDER TO RECOMMEND EVALUATION BY A LICENSED ARBORIST. PROCUREMENT OF A LICENSED ARBORIST SHALL BE AT NO ADDITIONAL COST TO THE OWNER.

PLANTING SCHEDULE

SYMBOL	QTY	BOTANICAL / COMMON NAME	CONT	HEIGHT/SPREAD	CAL.	WUCOLS
TREES						
	6	CERCIS OCCIDENTALIS / WESTERN REDBUD STANDARD TRUNK	24" BOX	9'-11' HT. X 4'-5' SPR.	1" CAL.	LOW
	6	QUERCUS ENGELMANNII / ENGELMANN OAK	24" BOX	8-10' HT. X 3-4' SPR.	1" CAL.	LOW
EXISTING TREES						
	26	EXISTING TREE TO BE REMAIN PROTECT IN PLACE	-			
TREE REMOVAL						
	1	EXISTING TREE TO BE REMOVED	-			

SYMBOL	QTY	BOTANICAL / COMMON NAME	CONT.	SPACING	WUCOLS
SHRUBS					
	45	CALLISTEMON VIMINALIS 'LITTLE JOHN' / LITTLE JOHN WEEPING BOTTLEBRUSH	5 GAL.	4' O.C.	LOW
	57	LEYMUS CONDENSATUS 'CANYON PRINCE' / CANYON PRINCE GIANT WILD RYE	5 GAL.	5' O.C.	LOW
	33	SALVIA X 'ALLEN CHICKERING' / ALLEN CHICKERING SAGE	5 GAL.	5' O.C.	LOW
	287	SENECIO SERPENS / BLUE CHALKSTICKS	1 GAL.	3' O.C.	LOW
ACCENT SHRUBS					
	66	AGAVE ATTENUATA 'BOUTIN BLUE' / BOUTIN BLUE FOXTAIL AGAVE	5 GAL.	4' O.C.	LOW
	108	ALOE STRIATA / CORAL ALOE	5 GAL.	2' O.C.	LOW

INERT MATERIAL		
	9,769 SF	EXISTING LANDSCAPE TO REMAIN PROTECT IN PLACE
	33,367 SF	WOOD BARK MULCH
	220 LF	ROOT BARRIER
	820 LF	TREE PROTECTION FENCING

SITE FURNISHING SCHEDULE

SYMBOL	QTY	DESCRIPTION
	4	6' BENCH MANUFACTURER: ULTURASITE MODEL: JACKSON BENCH WITH BACK (#96-S6) COLOR: BROWN SURFACE MOUNT OR APPROVED EQUAL
	4	TRASH RECEPTACLE MANUFACTURER: ULTURASITE MODEL: JACKSON RECEPTACLE (JK-36FT) COLOR: BROWN SURFACE MOUNT OR APPROVED EQUAL

TURF REMOVAL AND DEMOLITION NOTES

1. ALL EXISTING TURF GRASS WITHIN THE DESIGNATED REMOVAL AREA AS SHOWN ON THE PLANS SHALL BE FULLY REMOVED PRIOR TO INSTALLATION OF NEW LANDSCAPE FEATURES. REMOVAL SHALL INCLUDE ALL ABOVE-GROUND AND BELOW-GROUND VEGETATIVE MATERIAL TO A MINIMUM DEPTH OF 3 INCHES TO ELIMINATE RE-GROWTH POTENTIAL.
2. BEFORE PLANT INSTALLATION, SUBGRADE SHALL BE CLEARED OF WEEDS, ROCKS $\frac{3}{4}$" AND LARGER AND OTHER EXTRANEOUS MATERIALS FROM DESIGNATED PLANTING AREAS TO BE A DEPTH OF 6"
3. APPLY PRE-EMERGENT PER MANUFACTURE SPECIFICATIONS AND AS RECOMMENDED TO ENSURE AND PREVENT RE-GROWTH OF TURF
4. CONTRACTOR SHALL VERIFY LIMITS OF TURF REMOVAL ONSITE WITH OWNER'S REPRESENTATIVE PRIOR TO WORK. DISPOSE OF ALL REMOVED TURF IN ACCORDANCE WITH OWNERS DIRECTION AND OR LOCAL GREEN WASTE AND ENVIRONMENTAL REGULATION.
5. AVOID DAMAGE TO EXISTING TREES, IRRIGATION, AND HARDSCAPE FEATURES DURING REMOVAL. NOTED TO REMAIN AND BE PROTECTED IN PLACE.
6. CAP AND/OR CONVERT EXISTING IRRIGATION HEADS IN TURF ZONES AS NOTED ON IRRIGATION PLANS.
7. PREPARE SOIL PER SPECIFICATIONS PRIOR TO PLANTING OR INSTALLING MULCH OR OTHER SURFACE TREATMENTS.
8. TURF REMOVAL MUST COMPLY WITH ALL APPLICABLE WATER AGENCY REQUIREMENTS AND REBATES PROGRAM GUIDELINES IF APPLICABLE.
8. REFER TO SPECIFICATION SECTION 32 92 00 ON SHEET L7.0

Underground Service Alert
Call: TOLL FREE 8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn
© 2026 KIMLEY-HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

LICENSED LANDSCAPE ARCHITECT MICHAEL P. MADSEN LICENSE NO. 5798 8/31/2027 10/7/2026 STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:

Michael P. Madsen 10/7/2026
MICHAEL MADSEN DATE
L.L.A. No. 5798

CITY OF SOUTH PASADENA

INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

HUNTINGTON DRIVE AND FAIR OAKS AVENUE

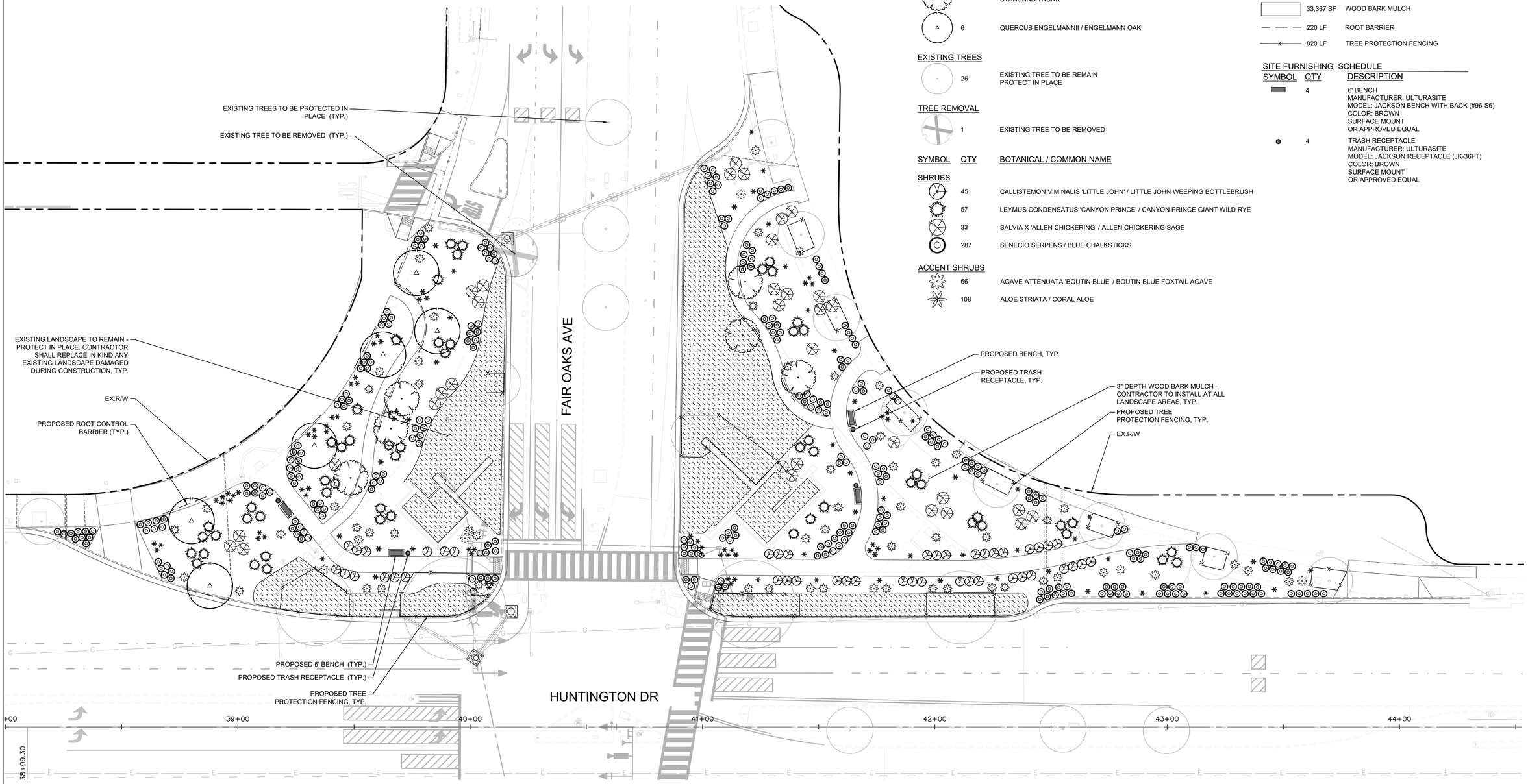
LANDSCAPE NOTES AND SCHEDULE

L1.0

PROJECT NO. 2020-02
SHEET NO. 94 OF 97

Plotted By: Ung, Rebecca Date: October 07, 2026 06:42:49pm Path: K:\LDT_TPTO_ITS\099910002 - South Pasadena Huntington-Fremont\Design\CADD\PlanSheets\LANDSCAPING - HUNTINGTON - FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Plotted By: Ung, Rebecca Date: October 07, 2026 06:43:02pm Path: K:\LDT_TPTO_TS\099910002 - South Pasadena Huntington-Fremont\Design\CADD\PlanSheets\LANDSCAPING - HUNTINGTON - FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



PLANTING LEGEND

SYMBOL	QTY	BOTANICAL / COMMON NAME
TREES		
	6	CERCIS OCCIDENTALIS / WESTERN REDBUD STANDARD TRUNK
	6	QUERCUS ENGELMANNII / ENGELMANN OAK
EXISTING TREES		
	26	EXISTING TREE TO BE REMAIN PROTECT IN PLACE
TREE REMOVAL		
	1	EXISTING TREE TO BE REMOVED

SYMBOL	QTY	BOTANICAL / COMMON NAME
SHRUBS		
	45	CALLISTEMON VIMINALIS 'LITTLE JOHN' / LITTLE JOHN WEEPING BOTTLEBRUSH
	57	LEYMUS CONDENSATUS 'CANYON PRINCE' / CANYON PRINCE GIANT WILD RYE
	33	SALVIA X 'ALLEN CHICKERING' / ALLEN CHICKERING SAGE
	287	SENECIO SERPENS / BLUE CHALKSTICKS
ACCENT SHRUBS		
	66	AGAVE ATTENUATA 'BOUTIN BLUE' / BOUTIN BLUE FOXTAIL AGAVE
	108	ALOE STRIATA / CORAL ALOE

SYMBOL	QTY	BOTANICAL / COMMON NAME
INERT MATERIAL		
	9,769 SF	EXISTING LANDSCAPE TO REMAIN PROTECT IN PLACE
	33,367 SF	WOOD BARK MULCH
	220 LF	ROOT BARRIER
	820 LF	TREE PROTECTION FENCING

SITE FURNISHING SCHEDULE

SYMBOL	QTY	DESCRIPTION
	4	6' BENCH MANUFACTURER: ULTURASITE MODEL: JACKSON BENCH WITH BACK (#96-S6) COLOR: BROWN SURFACE MOUNT OR APPROVED EQUAL
	4	TRASH RECEPTACLE MANUFACTURER: ULTURASITE MODEL: JACKSON RECEPTACLE (JK-36FT) COLOR: BROWN SURFACE MOUNT OR APPROVED EQUAL

Underground Service Alert
Call: TOLL FREE
8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn

© 2026 KIMLEY-HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

REGISTERED LANDSCAPE ARCHITECT
Michael P. Madsen License No. 5798
8/31/2027
10/7/2026
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:

Michael P. Madsen 10/7/2026
MICHAEL MADSEN DATE
L.L.A. No. 5798

CITY OF SOUTH PASADENA

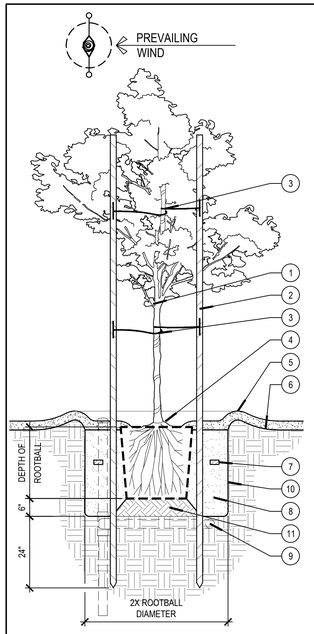
INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

HUNTINGTON DRIVE AND FAIR OAKS AVENUE

LANDSCAPE PLAN

L1.1

PROJECT NO. 2020-02
SHEET NO. 95 OF 97



LEGEND

1. PROPOSED TREE
2. LODGE POLE PINE STAKES. TWO (2) - 2" DIA. x 10' LONG STAKES FOR 15 GALLON AND 24" BOX TREES.
3. TREE TIE, LOOP TREE TIE AROUND TREE BRANCH, TWIST TIE, THEN LOOP AROUND STAKE & DRIVE NAIL THROUGH THE TIE AT THE BACK OF STAKE. PROVIDE THREE (3) TIES 15 GAL. & LARGER TREES.
4. TREE ROOTBALL; 1" ABOVE GRADE. 24" BOX & LARGER, 3" ABOVE GRADE. TAPER ROOTBALL EDGE TO GRADE.
5. 4" HIGH WATER RETENTION BASIN. FORM FROM PLANT PIT EXCAVATION. BASIN NO LARGER THAN ROOTBALL.
6. FINISHED GRADE WITH APPROVED MULCH; REFER TO NOTES.
7. PLANTING TABLETS; REFER TO NOTES.
8. PREPARED BACKFILL/NATIVE SOIL MIX; GRADUALLY ADD SOIL AND COMPACT LIGHTLY WHEN BACKFILLING; WATER HALFWAY AND ALLOW TO DRAIN PRIOR TO ADDING MORE SOIL
9. SEE SEPARATE ROOTBALL DRAINAGE AND AERATION DETAIL
10. UNDISTURBED SOIL. SCARIFY SIDES OF PLANT PIT. BREAK UP HARD/COMPACTED SOIL AND LOOSEN SOIL.
11. 6" ZONE OF OVER-EXCAVATED AND RECOMMENDED BACKFILL SOIL

NOTES

A. ALL PLANT AREAS SHALL HAVE A 3" LAYER OF LANDSCAPE MULCH, TYP. PLACED IN WATER RETENTION BASIN.

B. LIBERALLY DUST SIDES AND BOTTOM OF PITS W/ FINELY GROUND AGRICULTURAL GYPSUM.

C. TREE TIES TO BE "CINCH TIE" BY V.I.T. PRODUCTS OR APPROVED EQUAL.

D. FOR AGENCY MAINTAINED TREES, REFER TO THE GOVERNING AGENCY STANDARD DETAIL FOR TREE TIE REQUIREMENTS.

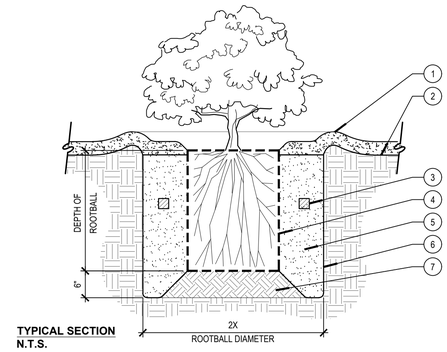
E. REFER TO THE PROJECT HORTICULTURAL SOILS REPORT FOR ALL REQUIRED BACKFILL SOIL AMENDMENTS.

F. PLANT TABS TO BE "SCOTTS-AGRIFORM" OR APPROVED EQUAL AS RECOMMENDED BY THE MANUFACTURER PLANT SIZE TABLET CHART.

G. REFER TO SINGLE STAKE TREE DETAIL FOR LOPHOSTEMON CONFERTUS, CUPRESSUS SEMPERVIRENS AND COLUMNAR TREES.

H. MAINTAIN A MINIMUM 3'-0" RADIUS CLEAR EARTH AREA AROUND TREE TRUNK WHEN PLANTED IN TURF AREAS.

1 TREE PLANTING
NOT TO SCALE



TYPICAL SECTION
N.T.S.

LEGEND

1. 3" HIGH WATER RETENTION BASIN, FORMED FROM PLANT PIT SPOILS/MULCH; MAINTAIN 2" MIN. MULCH ATOP ROOTBALL.
2. FINISH GRADE WITH APPROVED MULCH. REFER TO NOTES.
3. PLANTING TABLETS. REFER TO NOTES.
4. ROOTBALL. INSTALL CROWN 1" MINIMUM ABOVE FINISHED GRADE.
5. PREPARED BACKFILL/NATIVE SOIL MIX; GRADUALLY ADD SOIL AND COMPACT LIGHTLY WHEN BACKFILLING; WATER HALFWAY AND ALLOW TO DRAIN PRIOR TO ADDING MORE SOIL.
6. SCARIFY SIDES OF PLANT PIT; BREAK UP HARD/COMPACTED SOIL AND LOOSEN SOIL.
7. 6" ZONE OF OVER-EXCAVATED AND RECOMMENDED BACKFILL SOIL.

NOTES

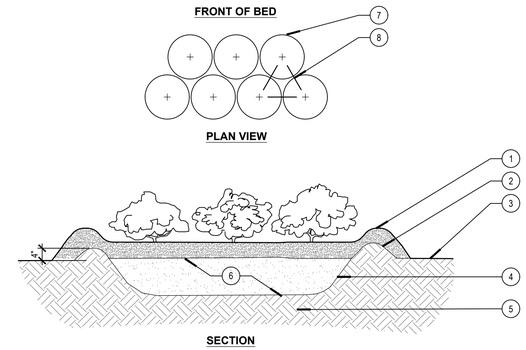
A. ALL PLANTING AREAS SHALL HAVE A 3" LAYER OF APPROVED LANDSCAPE MULCH.

B REFER TO THE PROJECT HORTICULTURAL SOILS REPORT FOR ALL BACKFILL SOIL AMENDMENTS REQUIRED.

C. AVOID PLANT INSTALLATION DIRECTLY IN FRONT OF IRRIGATION SPRAY AND RAKE OUT ALL SOIL EXCAVATION AS REQUIRED.

D. PLANT TABS TO BE "SCOTTS-AGRIFORM" OR APPROVED EQUAL. QUANTITY AS RECOMMENDED BY MANUFACTURER SIZE TABLET CHART.

2 SHRUB PLANTING
NOT TO SCALE

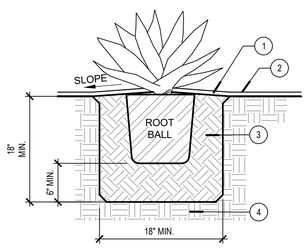


LEGEND

1. 3" DEPTH MULCH LAYER
2. 4" HIGH BERM FIRMLY COMPACTED
3. FINISH GRADE
4. SCARIFY BOTTOM AND SIDES OF PLANTING PIT
5. UNDISTURBED SUB SOIL
6. PREPARED PLANTING SOIL AMEND ENTIRE BED FOR GROUNDCOVER BED
7. BEST FACE OF PLANT TO FACE FRONT OF PLANTING
8. REFER TO PLANT SCHEDULE AND PLANS FOR SPACING/ LAYOUT

NOTES:
1. REFERENCE PLANTING SPECIFICATIONS FOR ADDITIONAL INFORMATION.

3 TYPICAL GROUNDCOVER PLANTING
SCALE: 1/2" = 1'-0"



LEGEND

1. MULCH PER PLANS, 1" MAXIMUM OVER ROOTBALL
2. FINISHED GRADE
3. NATIVE SOIL OR CLEAN SAND BACKFILL, AS SPECIFIED. DO NOT INCLUDE MULCH. THOROUGHLY INCORPORATE 0.25 LBS. OF SOIL SULFUR INTO BACKFILL. WATER SETTLE AND TAMP SOIL BELOW ROOT BALL.
4. UNDISTURBED SUBGRADE

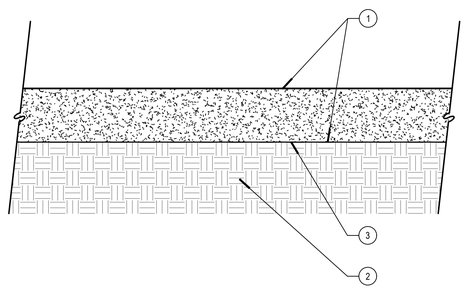
NOTES

A. DO NOT CREATE A BASIN AT BASE OF AGAVE. SLOPE BACKFILL AWAY FROM STEM.

B. SET STEM SUCCULENT SO THAT TOP OF ROOT BALL MATCHES ADJACENT GRADE.

C. THIS DETAIL APPLIES TO NURSERY GROWN AND SALVAGE STOCK OF THE GENERA AGAVE, ALOE, DASYLIRION, HESPERALOE, NOLINA, AND YUCCA.

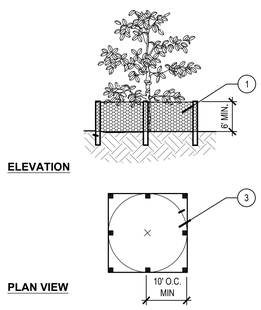
4 STEM SUCCULENT PLANTING
SCALE: 1" = 1" NTS



LEGEND

1. 3" MULCH LAYER. REFER TO SCHEDULE FOR ADDITIONAL INFORMATION
2. PREPARED PLANTING SOIL PER SPECIFICATIONS.
3. (2) ROUNDS PRE-EMERGENT HERBICIDE TO BE APPLIED PRIOR TO LAYING MULCH

5 WOOD BARK MULCH
SCALE: 3" = 1'-0"



LEGEND

1. 6' H CHAINLINK FENCE. SUBMIT PRODUCT INFORMATION FOR APPROVAL PRIOR TO INSTALLATION.
2. DRIPLINE (TYP.)

NOTES

A. GALVANIZED STEEL POST SELECTION SHOULD BE BASED ON EXPECTED STRENGTH NEEDS AND THE LENGTH OF TIME FENCE WILL BE IN PLACE.

B. POSTS SHOULD BE DRIVEN INTO THE GROUND TO A DEPTH OF 1/4 OF THE HEIGHT OF THE POST. FOR EXAMPLE, A 8' POST SHOULD BE SET AT LEAST 2' INTO THE GROUND.

C. SPACE POSTS EVERY 10' (MIN.).

6 TREE PROTECTION FENCE
NOT TO SCALE

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE 8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn
© 2026 KIMLEY-HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

REGISTERED LANDSCAPE ARCHITECT MICHAEL PATRICK MADSEN 8/31/2027 10/7/2026 STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
Michael P. Madsen 10/7/2026
MICHAEL MADSEN DATE
L.L.A. No. 5798

CITY OF SOUTH PASADENA

INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

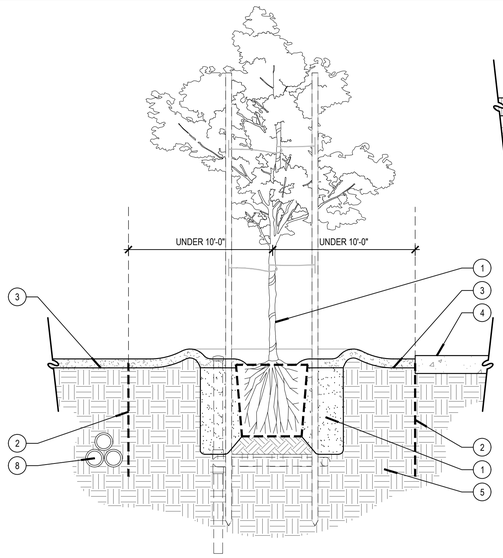
HUNTINGTON DRIVE AND FAIR OAKS AVENUE

LANDSCAPE DETAILS

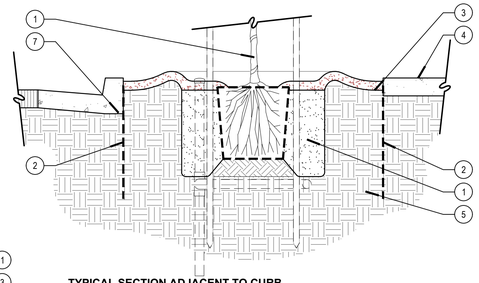
L2.0

PROJECT NO. 2020-02
SHEET NO. 96 OF 97

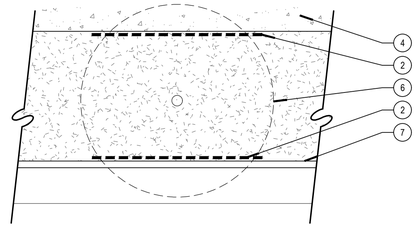
Plotted By: Ung, Rebecca Date: October 07, 2026 06:43:07pm Path: K:\DT_TPTO_ITS\099910002 - South Pasadena Huntington-Fremont\Design\CADD\PlanSheets\LANDSCAPING - HUNTINGTON - FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



TYPICAL SECTION
N.T.S.



TYPICAL SECTION ADJACENT TO CURB
N.T.S.



PLAN VIEW - ADJACENT TO CURB
N.T.S.

LEGEND

1. PROPOSED TREE/ROOTBALL WITH STAKES AND TIES; REFER TO TREE PLANTING DETAIL
2. ROOT BARRIER AS REQUIRED. 10' MIN CLEARANCE FROM TREE TRUNK TO ADJACENT HARDSCAPE. PROVIDE A 2'-0" MIN. DEEP HIGH DENSITY POLYETHYLENE BLACK LINEAR BARRIER.
3. FINISH GRADE WITH APPROVED MULCH. REFER TO NOTES
4. ADJACENT HARDSCAPE. REFER TO CONSTRUCTION PLANS FOR ADDITIONAL INFORMATION
5. NATIVE SOIL BACKFILLED FIRMLY ALONG ROOT BARRIER
6. TREE DRIP LINE
7. CONCRETE CURB AND GUTTER, WHERE APPLICABLE
8. ADJACENT UTILITY LINES, WHERE APPLICABLE

NOTES

A. ROOT BARRIER TO BE AVAILABLE AT VIT PRODUCTS OR APPROVED EQUAL. PROVIDE MATERIAL SUBMITTALS FOR REVIEW/ APPROVALS.

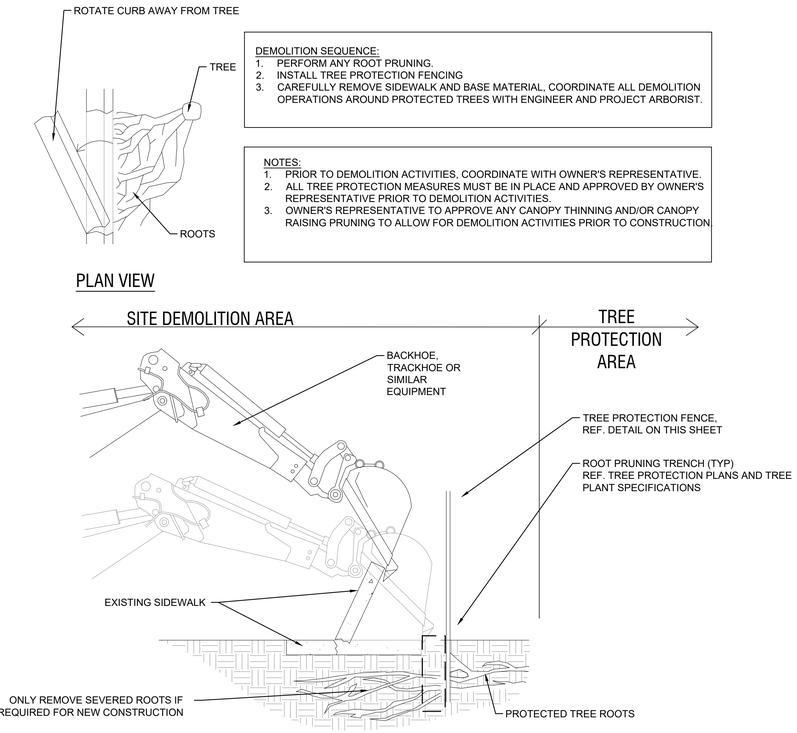
B. TOP OF BARRIER SHALL BE 1" ABOVE FINISHED GRADE. DO NOT ENCIRCLE ROOTBALL

C. PROVIDE MATERIAL SUBMITTALS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

D. LENGTH OF ROOT BARRIER SHALL BE A MINIMUM OF 12' OR EQUAL TO THE DRIP LINE OF THE TREE AT MATURITY, WHICHEVER IS GREATER.

E. ADDITIONAL LOCATIONS FOR ROOT BARRIERS PER THE DIRECTION OF THE LANDSCAPE ARCHITECT,

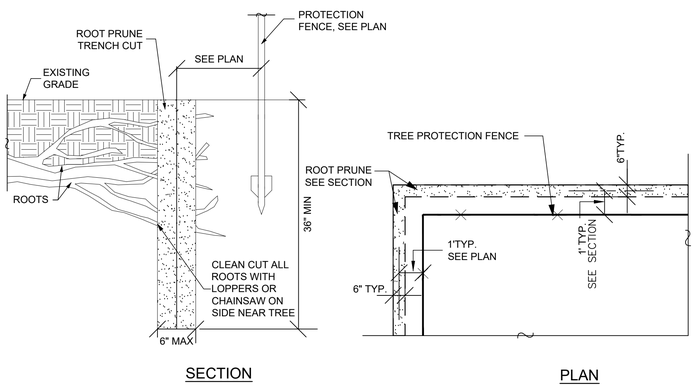
1 ROOT BARRIER INSTALL
NOT TO SCALE



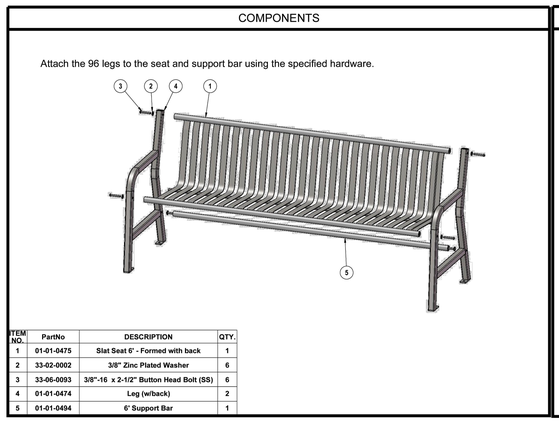
DEMOLITION SEQUENCE:
1. PERFORM ANY ROOT PRUNING.
2. INSTALL TREE PROTECTION FENCING
3. CAREFULLY REMOVE SIDEWALK AND BASE MATERIAL, COORDINATE ALL DEMOLITION OPERATIONS AROUND PROTECTED TREES WITH ENGINEER AND PROJECT ARBORIST.

NOTES:
1. PRIOR TO DEMOLITION ACTIVITIES, COORDINATE WITH OWNER'S REPRESENTATIVE.
2. ALL TREE PROTECTION MEASURES MUST BE IN PLACE AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO DEMOLITION ACTIVITIES.
3. OWNER'S REPRESENTATIVE TO APPROVE ANY CANOPY THINNING AND/OR CANOPY RAISING PRUNING TO ALLOW FOR DEMOLITION ACTIVITIES PRIOR TO CONSTRUCTION.

2 CURB AND SIDEWALK DEMOLITION W/ LANDSCAPE PROTECTION
NOT TO SCALE

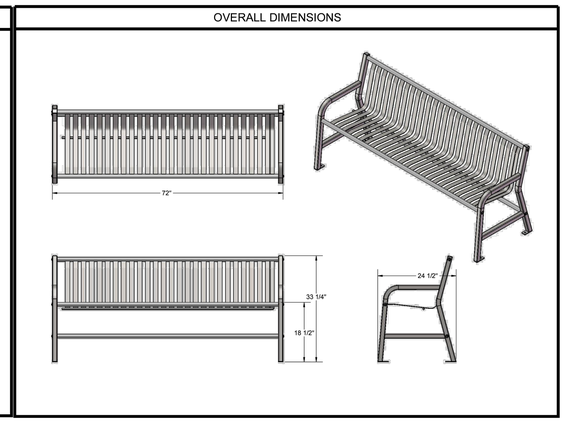


3 ROOT PRUNING
NOT TO SCALE



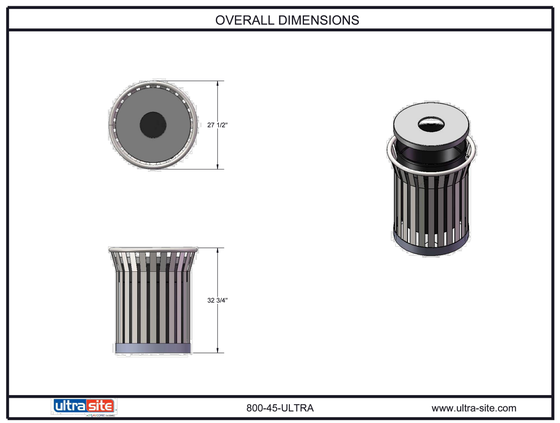
ITEM NO.	PartNo	DESCRIPTION	QTY.
1	01-01-0475	Slat Seat 6' - Formed with back	1
2	33-02-0002	3/8" Zinc Plated Washer	6
3	33-06-0093	3/8"-16 x 2-1/2" Button Head Bolt (SS)	6
4	01-01-0474	Leg (w/back)	2
5	01-01-0494	6' Support Bar	1

Page 6 of 7



Page 7 of 7

4 BENCH
NOT TO SCALE



Page 5 of 5

5 TRASH CAN
NOT TO SCALE

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE
8-1-1
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS

NO.	DESCRIPTION	APP.	DATE

Kimley»Horn
© 2026 KIMLEY-HORN AND ASSOCIATES, INC.
35 N. LAKE AVE, SUITE 810, PASADENA, CA 91101
PHONE: 213-261-4040
WWW.KIMLEY-HORN.COM

REGISTERED LANDSCAPE ARCHITECT MICHAEL PETER MADSEN LICENSE NO. 5798 8/31/2027 10/7/2026 STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
MICHAEL P. MADSEN 10/7/2026
MICHAEL MADSEN DATE
L.L.A. No. 5798

CITY OF SOUTH PASADENA

INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT

HUNTINGTON DRIVE AND FAIR OAKS AVENUE

LANDSCAPE DETAILS

L2.1

PROJECT NO. 2020-02
SHEET NO. 97 OF 97

Plotted By: Ung, Rebecca Date: October 07, 2026 06:43:09pm Path: K:\LDT_TPTO_ITS\099910002 - South Pasadena Huntington-Fremont\Design\CADD\PlanSheets\LANDSCAPING - HUNTINGTON - FAIR OAKS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Public Works Project Bid Packet

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT NO. 2020-02
FEDERAL AID PROJECT NO. RABA01-5071(024)
FTIP NO. LA9918928

CITY OF SOUTH PASADENA
Public Works Department

Purpose: Construction, repair, modifications, improvements etc. of traffic signals, curb ramps, Intelligent Transportation System (ITS) elements, fiber optic cabling infrastructure, Traffic Management Center (TMC) communication system.

Value: Over $15,000,000

Bidding: Formal Bid Process in accordance with South Pasadena Municipal Code (SPMC) Chapter 2 Administration, Article XIII Awarding Public Works Contracts and the Uniform Public Construction Cost Accounting Act (Public Contract Code Section 22000 et seq.)

Required Documents Checklist:

- □ Notice Inviting Sealed Bids
- □ Instruction to Bidders
- □ Proposal Information and Documents
- □ Contract Information and Documents
- □ Standard Specifications
- □ Special Provisions
- □ Appendices

Mandatory Forms Checklist:

- □ Bid Proposal
- □ Bid Schedule (Bid costs submitted through PlanetBids)
- □ Bid Bond & Certificate of Acknowledgment or Bid Guarantee
- □ Bidder Information
- □ Experience Statement
- □ Designation of Suppliers and Subcontractors

Approved for use on June 7, 2023
294856.v3

□ Statement Regarding Insurance Coverage
□ Statement Regarding Contractor's Licensing Laws
□ Non-Collusion Affidavit

Documents Required Upon Award:

□ Contract Agreement & Certificate of Acknowledgment
□ Payment Bond & Certificate of Acknowledgment
□ Faithful Performance Bond & Certificate of Acknowledgment
□ Maintenance Bond & Certificate of Acknowledgment
□ Worker's Compensation Insurance Certificate
□ Endorsements to Insurance Policy

NOTICE INVITING BIDS AND CONTRACT DOCUMENTS

for

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET) PROJECT NO. 2020-02 FEDERAL AID PROJECT NO. RABA01-5071(024) FTIP NO. LA9918928 IN THE CITY OF SOUTH PASADENA, CALIFORNIA

Prepared by:
Iteris, Inc.
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705
(949) 270-9400

Approved by:
City of South Pasadena
Public Works Department
1414 Mission Street
South Pasadena, CA 91030
(626) 403-7240

TABLE OF CONTENTS

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

TABLE OF CONTENTS:

SECTION A – NOTICE INVITING SEALED BIDS 1
SECTION B – INSTRUCTIONS TO BIDDERS 2
SECTION C – PROPOSAL INFORMATION AND DOCUMENTS 3
SECTION D – CONTRACT INFORMATION AND DOCUMENTS 4
SECTION E – STANDARD SPECIFICATIONS 5
SECTION F – SPECIAL PROVISIONS 6
APPENDIX I – TECHNICAL PROVISIONS 7
APPENDIX II – STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION (SPPWC) STANDARD 8
APPENDIX III – GEOTECHNICAL REPORT 9
APPENDIX IV – ETHERNET SWITCHES 9
APPENDIX V – SMALL FORM-FACTOR PLUGGABLE TRANSCIEVERS 10
APPENDIX VI – VEHICLE DETECTION SYSTEM 11
APPENDIX VII – CCTV CAMERA AND SYSTEM 12
APPENDIX VIII – REMOTE TRAFFIC MONITORING AND MAINTENANCE DEVICE 13
APPENDIX IX – BACKPLATE WITH REFLECTIVE BORDERS 14
APPENDIX X – RECTANGULAR RAPID FLASHING BEACON SYSTEM 15
APPENDIX XI – TRAFFIC SIGNAL CONTROLLER AND SOFTWARE 16
APPENDIX XII – ATMS 17
APPENDIX XIII – ACCESSIBLE PEDESTRIAN SYSTEM 18

SECTION A – NOTICE INVITING SEALED BIDS

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02

IN THE CITY OF SOUTH PASADENA, CALIFORNIA

CALENDAR OF EVENTS*

Bid Advertisement.....October 8, 2026

Pre-Bid Meeting https://teams.microsoft.com/meet/229541939355465?p=Ao5jTsZnGBqW28mFvY
(Optional Attendance).....October 14,2026 at 10am

Mandatory Pre-Bid Site Visit (Fair Oaks Avenue and Mission Street) …..……October 19, 2026 at 8am

Questions Regarding the Proposal Due .....October 20, 2026

City Response to Questions.....October 26, 2026

Addendum Posted on City's Planet Bids system.....October 29, 2026

Bid Due Date and Time.....November 4, 2026 at 4pm

Bid Opening https://teams.microsoft.com/meet/244916859894148?p=cqMMA85knLOx82HfLT
(Optional Attendance).....November 4, 2026 at 4pm

Bid Results/Contractor Selection..... November 11, 2026

Council approval of Contract.....November 18, 2026

New Contract in Effect..... December 18, 2026

*All dates are subject to change.

NOTICE INVITING SEALED BIDS

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

PUBLIC NOTICE IS HEREBY GIVEN that the City of South Pasadena as AGENCY, invites sealed bids for the above stated project and will receive such bids through the City's online bid management system ("PlanetBids"), up to the hour of 4:00 p.m. local time, on Wednesday, November 4, 2026. The date and time shall be extended by no less than 72 hours if the officer, department, or Project Manager issues any material changes, additions, or deletions to the invitation later than 72 hours prior to the bid closing. Bidders are encouraged to submit their bids to PlanetBids sufficiently prior to the bid submission deadline to ensure timely receipt. Each bidder bears all risks of their bid not being actually and timely received by PlanetBids, including any such failure based on internet connectivity issues or any other cause. Any bids received after the time specified above or any extension due to material changes shall not be considered.

Project Name: *North-South Corridor Intelligent Transportation System Deployment Project*
Project No. 2020-02
Mandatory Pre-Bid Site Visit October 19th at 8am at Fair Oaks Avenue and Mission Street
City PlanetBids Project Bid Opportunities: https://vendors.planetbids.com/portal/44654/bo/bo-search

Project Description: The work consists of furnishing all materials, equipment, tools, labor, and incidentals required to complete and make operational the improvements shown on the Specifications and Contract Documents. The work performed under this contract is summarized in the Notice Inviting Sealed Bids and includes, but is not limited to each bid item listed in the Contractor's Bid Proposal, as covered in the Standard Specifications, and as described in the corresponding items on the following pages. The work in general, to be performed pursuant to these specifications, consists of constructing traffic safety improvements and installing traffic signal upgrades at various intersections. Traffic safety improvements include construction of modification of existing bulb outs, median modifications, landscaping and irrigation, construction of curb ramps, construction of a cul-de-sac closing an existing road, and replacing and overlaying asphalt concrete pavement, furnishing and installing pavement markers, markings, traffic signs, and traffic striping. The project will also include the installation or modification of various traffic signal systems items, including replacement of existing traffic signal poles and foundations, new rectangular rapid flashing beacon (RRFB) systems, Bluetooth-based vehicle tracking road side units, ethernet switches, fiber hub switches, ethernet modules, advanced dilemma video detection, 2070 controller, CCTV traffic monitoring systems, as well as Single Mode Fiber Optic (SMFO) cable, conduit, detectors, system integration, splice vaults, and fiber patch panels, traffic signing, thermoplastic striping and pavement markings; traffic control and all appurtenant work thereto necessary for the proper construction of the contemplated improvements, in accordance to Plans and Specification entitled as North-South Corridor Intelligent Transportation System Deployment Project, Project No. 2020-02.

Engineer's Estimate: $15,500,000

Bids must be submitted on the City's Bid Forms. A bidder may obtain a copies of the plans, specifications, and contract documents from PlanetBids. To the extent required by section 20103.7 of the Public Contract Code, upon request from a contractor plan room service, the City shall provide an electronic copy of the contract documents at no charge to the contractor plan room. Please Note: Prospective bidders who choose to review the contract documents at a plan room must also register with the City through PlanetBids to obtain the required contract documents if they decide to submit a bid for the Project.

It is the responsibility of each prospective bidder to download and print all contract documents for review and to verify the completeness of contract documents before submitting a bid. Any addenda will be posted on PlanetBids. It is the responsibility of each prospective bidder to check PlanetBids on a daily basis through the close of bids for any applicable addenda or updates. The City does not assume any liability or responsibility based on any defective or incomplete copying, excerpting, scanning, faxing, downloading or printing of the contract documents. Information on PlanetBids may change without notice to prospective bidders. The contract documents shall supersede any information posted or transmitted by PlanetBids.

In accordance with the provisions of California Public Contract Code § 3300, and Business and Professions Code § 7028.15(e), the AGENCY has determined that the contractor shall possess a valid **Class A contractor's license** at the time that the bid is submitted. Failure to possess the specified license shall render a bidder's bid as non-responsive and shall bar award of the contract to any bidder not possessing the specified license at the time of the award.

CONTRACTORS ARE REQUIRED BY LAW TO BE LICENSED AND REGULATED BY THE CONTRACTORS' STATE LICENSE BOARD. ANY QUESTIONS CONCERNING A CONTRACTOR MAY BE REFERRED TO THE REGISTRAR, CONTRACTORS' STATE LICENSE BOARD, P.O. BOX 2600, SACRAMENTO, CA 95826. At the time the contract is awarded, the contractor shall be properly licensed in accordance with the laws of this state. The first payment for work or material shall not be made unless and until the Registrar of Contractors verifies to the AGENCY that the records of the Contractors' State License Board indicate that the contractor was properly licensed at the time the contract was awarded. Any bidder or contractor not so licensed shall be subject to all legal penalties imposed by law including, but not limited to, any appropriate disciplinary action by the Contractors' State Board. Failure of the bidder to obtain proper and adequate licensing for an award of a contract shall constitute a failure to execute the contract and shall result in the forfeiture of the security of the bidder. (Public Contract Code § 20103.5)

CONTRACTORS AND SUBCONTRACTORS ARE ALSO REQUIRED TO BE REGISTERED WITH THE CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS FOR ANY BID PROPOSAL SUBMITTED ON OR AFTER MARCH 1, 2015, AND FOR ANY CONTRACT FOR PUBLIC WORK ENTERED INTO ON OR AFTER APRIL 1, 2015. A contractor or subcontractor shall not be qualified to bid on, be listed on a bid proposal for, or perform any public work contract unless it is currently registered with the California Department of Industrial Relations as described in Labor Code § 1725.5.

Bids must be prepared on the approved bid forms in conformance with INSTRUCTIONS TO BIDDERS and submitted through PlanetBids.

The bid must be accompanied by a bid guarantee in the amount of 10% of the total bid by THE TIME AND DATE ADVERTISED FOR THE OPENING OF BIDS. More specifically, pursuant to Public Contract Code §§ 20170 and 20171, all bids for the project shall be presented, under sealed cover and shall be accompanied by one of the following forms of bidder's security in the amount of ten percent (10%) of the bid: (a) cash; (b) a cashier's check made payable to the City of South Pasadena; (c) a certified check made payable to the City of South Pasadena; or (d) a bidder's bond executed by an admitted surety insurer, made payable to the City of South Pasadena. Such security shall be forfeited should the successful bidder to whom the contract is awarded fails to timely execute the contract and to deliver the necessary bonds and insurance certificates as specified in the contract documents. **The bid guarantee must be submitted in hard copy**

directly to the City prior to the specified date and time for bid opening as set forth in the Instructions to Bidders.

To the extent applicable, at any time during the term of the Agreement for the proposed project, the successful bidder may, at its own expense, substitute securities equivalent to the amount withheld as retention (or the retained percentage) in accordance with Public Contract Code § 22300.

Pursuant to California Civil Code § 9550, a payment bond is required to be submitted for all projects estimated in excess of $25,000.00.

The AGENCY has determined that the proposed project is a public works project subject to the provisions of Labor Code § 1720 thereby requiring the Contractor to pay the prevailing wage rates for all work performed under the Contract. Accordingly, the proposed project is subject to compliance monitoring and enforcement by the California Department of Industrial Relations.

The AGENCY reserves the right to reject any and all bids and to waive any minor irregularities in the proposal documents.

All questions should be submitted via PlanetBids. City staff will not respond to questions made via phone or email.

CITY OF SOUTH PASADENA

Date: 10/6/2026

By: _____
Julian Lee
Public Works Director

SECTION B – INSTRUCTIONS TO BIDDERS

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

INSTRUCTIONS TO BIDDERS

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

B1.01 INSPECTION OF SITE OF WORK

Bidders are required to inspect the site of the work in order to satisfy themselves, by personal examination or by such other means as they may prefer, of the location of the proposed work and as to the actual conditions of and at the site of work. If, during the course of his/her examination, a bidder finds facts or conditions which appear to him/her to conflict with the letter or spirit of the contract documents, or with any other data furnished him/her, he/she may apply to the AGENCY in writing in accordance with **B1.04 INTERPRETATION OF CONTRACT DOCUMENTS** for additional information and explanation before submitting his/her bid.

The submission of a proposal by the bidder shall constitute the acknowledgment that, if awarded the contract, he/she has relied and is relying on his/her own examination of (a) the site of the work, (b) the access to the site, and (c) all other data, matters, and things requisite to the fulfillment of the work and on his/her own knowledge of existing services and utilities on and in the vicinity of the site of the work to be constructed under the contract, and not on any representation or warranty of the AGENCY. No claim for additional compensation will be allowed which is based upon a lack of knowledge of these items.

Notice inviting formal bids for projects by a public agency that include a requirement for any type of mandatory prebid conference, site visit, or meeting shall include the time, date, and location of the mandatory prebid site visit, conference or meeting, and when and where project documents, including final plans and specifications are available. Any mandatory prebid site visit, conference or meeting shall not occur within a minimum of five calendar days of the publication of the initial notice.

B1.02 EXAMINATION OF CONTRACT DOCUMENTS

Each bidder shall thoroughly examine and be familiar with legal and procedural documents, general conditions, specifications, drawings and addenda (if any). The submission of a proposal shall constitute an acknowledgment upon which the AGENCY may rely that the bidder has thoroughly examined and is familiar with the contract documents. The bidders' attention is directed to the need, if any, for special invoicing for this project. The failure or neglect of a bidder to receive or examine any of the contract documents shall in no way relieve him/her from any obligations with respect to his/her proposal or to the contract. No claim for additional compensation will be allowed which is based upon a lack of knowledge of any contract document.

B1.03 CONTRACT PERIOD/CONSTRUCTION COMPLETION DATE

Bidder's attention is called to the provisions set forth in **SECTION E, STANDARD SPECIFICATIONS**, particularly those pertaining to the contract period and liquidated damages for avoidable delays.

The CONTRACTOR shall begin work within fifteen (15) calendar days after the date of the Notice to Proceed, and shall diligently prosecute said work to completion before the expiration, **196 WORKING DAYS.** The CONTRACTOR shall pay to the AGENCY liquidated damages in accordance with Section 6-9 of the special Provisions (Section F) for each calendar day, or portion thereof, of delay in finishing the work in excess of the number of working days prescribed above.

B1.04 INTERPRETATION OF CONTRACT DOCUMENTS

No oral interpretations will be made to any bidder as to the meaning of the contract documents. Requests for an interpretation shall be made in writing and submitted to the AGENCY through PlanetBids at least five (5) working days before the time announced for opening the proposals. Interpretations by the AGENCY will be in the form of addenda to the contract documents and, when issued, will be posted on PlanetBids. It is the responsibility of each prospective bidder to check PlanetBids on a daily basis through the close of bids for any applicable addenda or updates. All such addenda shall become part of the contract.

B1.05 SOIL INFORMATION

Geotechnical soil reports are included in Appendix III.

B1.05 PROPOSAL

Proposals shall be made on the forms enclosed in **SECTION C** of these specifications. All proposals shall give the prices proposed, both in words and in numbers, shall give all other information requested herein, and shall be signed by the bidder or his/her authorized representative, with his/her address. If the proposal is made by an individual, his/her name, signature and mailing address must be shown; if made by firm or partnership, the name and mailing address of the firm or partnership and the signature of at least one of the general partners must be shown; if made by a corporation, the proposal shall show the name of the state under the laws of which the corporation is chartered, the name and mailing address of the corporation, and the name and title of the person who signs on behalf of the corporation. If the proposal is made by a corporation, a certified copy of the bylaws or resolution of the board of directors of the corporation shall be furnished demonstrating the authority of the officer signing the proposal to execute contracts on behalf of the corporation.

Each proposal shall be submitted through PlanetBids. Bidders are warned against making erasures or alterations of any kind, and proposals which contain omissions, erasures or irregularities of any kind may be rejected. No oral, telegraphic or telephonic proposals or modifications will be considered.

The Bid Schedule is available on PlanetBids through the "Line Items" tab. Bidders must insert and submit their Bid prices directly through PlanetBids by selecting "Place eBid" under the "Line Items" tab. The Bid Schedule will be incorporated into the Contract Documents. Failure to submit the Bid Schedule will render a bid nonresponsive. Bidders must provide pricing for every bid item. The costs of any Work shown or required in the Contract Documents, but not specifically identified as a Pay Item are to be included in related Pay Items and no additional compensation shall be due Contractor by virtue of Contractor's compliance with the Contract Documents. The estimated quantities for unit price items are for purposes of comparing bids only and City makes no representation that the actual quantities of Work performed will not vary from the estimates.

In conformance with the Business and Profession Code, § 7028.15, the CONTRACTOR must state clearly his/her license number and expiration date. In addition, he/she shall sign a statement that these representations were made under the penalty of perjury. This statement shall be made on the **EXPERIENCE STATEMENT** in **SECTION C**.

The CONTRACTOR will be required to pay prevailing wage pursuant to California Law, including California Labor Code §§ 1770 et seq. Copies of the prevailing rates can be found in Appendix XIV.

The following Bid Forms shall be completed and signed by the Bidder and uploaded to PlanetBids as a single PDF file:

- Bidder Information
- Experience Statement
- Designation of Suppliers and Subcontractors
- Statement Regarding Insurance Coverage
- Statement Regarding Contractor's Licensing Laws
- Non-Collusion Affidavit

B1.06 ADDENDA

Each proposal shall include specific acknowledgment in the space provided on **SECTION C - BID PROPOSAL** of receipt of all addenda issued during the bidding period. Failure to so acknowledge may result in the proposal being rejected as not responsive.

Each prospective Bidder shall register with the City through PlanetBids. Addenda will be uploaded to PlanetBids. Please Note: Bidders are responsible for ensuring that they have received any and all Addenda. To this end, each Bidder should visit PlanetBids to verify that it has received all Addenda issued, if any, prior to the Bid opening.

B1.07 BID PRICES

Bid prices shall include everything necessary for the completion of construction and fulfillment of the contract including, but not limited to, furnishing all materials, equipment, tools, plant and other facilities and all management, superintendence, labor and services, except as may be provided otherwise in the contract documents. In the event of a difference between a price quoted in words and a price quoted in numbers for the same quotation, the words shall be the amount bid.

In preparing bid prices, bidder represents that he/she has carefully examined the Contract Documents and the site where the work is to be performed and that he/she has familiarized himself with all local conditions and federal, state and local laws, ordinances, rules, and regulations that may affect the performance of the work in any manner. The bidder further represents that he/she has studied all surveys and investigation reports about subsurface and physical conditions pertaining to the job site, that he/she has performed such additional surveys and investigations as he/she deems necessary to complete the work at his/her bid price, and that he/she has correlated the results of all such data with the requirements of the Contract Documents. The submittal of a bid shall be conclusive evidence that the bidder has investigated and is satisfied as to the conditions to be encountered, including locality, uncertainty of weather and all other contingencies, and as to the character, quality, quantities, and scope of the work.

The plans and specifications for the work show subsurface conditions or otherwise hidden conditions as the Design Engineer supposes or believes them to exist, but is not intended or to be inferred that the conditions as shown thereon constitute a representation that such conditions are actually existent. Except as otherwise specifically provided in the Contract Documents, the AGENCY, the Design Engineer and their consultants or agents shall not be liable for any loss sustained by the CONTRACTOR as a result of any variance of such conditions as shown on the plans and the actual conditions revealed during the progress of the work or otherwise.

The CONTRACTOR shall perform an independent take-off of the plans and bid accordingly. Quantities listed in the **BID SCHEDULE** in **SECTION C** are intended only as a guide for the CONTRACTOR as to the anticipated order of magnitude of work. CONTRACTOR shall be responsible for verifying all estimated

quantities. CONTRACTOR will be reimbursed for the quantity of items actually installed as required by the Contract Documents and shown on the plans to neat line and grade.

The CONTRACTOR will not be reimbursed for unauthorized work performed outside of that required by the Contract Documents.

B1.08 TAXES

No mention shall be made in the proposal of sales tax, use tax, or any other tax, as all amounts bid will be deemed and held to include any such taxes which may be applicable.

B1.9 RECOGNITION OF BONDING COMPANIES

All bonding companies used by the CONTRACTOR in this contract must be recognized by the Federal Government within Circular 570. All proposals or contracts received that include bonds posted by bonding companies not recognized in Circular 570 will result in the disqualification of the bid proposal and forfeiture of the bid bond.

B1.10 QUALIFICATION OF BIDDERS

Each bidder shall be skilled and regularly engaged in the general class or type of work called for under the contract. A statement setting forth his/her experience shall be submitted by each bidder on the **EXPERIENCE STATEMENT** form provided in **SECTION C**.

Each bidder shall possess a valid CONTRACTOR's License issued by the CONTRACTOR's State License Board at the time his/her bid is submitted. The class of license shall be applicable to the work specified in the contract. Each bidder shall also have no less than five (5) years of experience in the magnitude and character of the work bid.

It is the intention of the AGENCY to award a contract to a bidder who furnished satisfactory evidence that he/she has the requisite experience and ability, and that he/she has sufficient capital, facilities, and plant to enable him/her to prosecute the work successfully and properly, and to complete it within the time stated in the contract.

To determine the degree of responsibility to be credited to the bidder, the AGENCY will weigh any evidence that the bidder has performed satisfactorily other contracts of like nature, magnitude and comparable difficulty and comparable rates of progress. If in the opinion of the AGENCY, a bidder is determined to be insufficiently qualified, then that bidder will not be considered for award of the contract.

B1.11 DESIGNATION OF SUPPLIERS AND SUBCONTRACTORS

Each proposal shall have listed on the **DESIGNATION OF SUPPLIERS AND SUBCONTRACTORS** form provided in **SECTION C** the name, California contractor license number, and Department of Industrial Relations registration number, and address of each subcontractor to whom the bidder proposes to sublet portions of the work in excess of one-half of one percent of the total amount of his/her bid. For the purpose of this paragraph, a subcontractor is defined as one who contracts with the CONTRACTOR to furnish materials and labor, or labor only for the performance of work at the site of the work or who will specially fabricate a portion of the work off the site pursuant to detailed drawings in the contract documents.

CONTRACTOR shall self-perform at least 50% of the work.

Public Contract Code § 4104 requires all bidders to list subcontractors and state the license number of all subcontractors who will perform work in excess of one-half of one percent of the total bid, or in the case of streets and highways, one-half of one percent of the total bid or $10,000, whichever is greater.

Public Contract Code § 6109 prohibits a CONTRACTOR from performing work with a subcontractor who is debarred pursuant to Labor Code §§ 1777.1 or 1777.7.

B1.12 PROPOSAL GUARANTEE

The proposal shall be accompanied by a proposal guarantee bond duly completed on the form provided herewith by a guarantee company authorized to carry on business in the State of California for payments to the AGENCY in the sum of at least 10% of the total amount of the bid proposal, or alternatively by a certified or cashier's check payable to the AGENCY, or cash, in the sum of at least 10% of the total amount of the bid proposal. The amount payable to the AGENCY under the proposal guarantee shall be forfeited to the AGENCY in case of failure or neglect of the bidder to furnish, execute and deliver to the AGENCY the required bonds, evidence of insurance and to enter into, execute and deliver to the AGENCY the agreement on the form provided herewith, within ten (10) days after being notified in writing by the AGENCY that the award has been made and the agreement is ready for execution.

The bid security must be submitted in original hard copy directly to the City Clerk's office prior to specified time and date for the Bid opening.

B1.13 WITHDRAWAL OF PROPOSAL

A proposal may be withdrawn through PlanetBids, incurring no penalty, if they are submitted prior to the bid opening hour stipulated in **SECTION A – NOTICE INVITING SEALED BIDS**. Proposals may not be withdrawn after that time without forfeiture of the proposal guarantee, except as authorized by Public Contract Code sections 5100 through 5110. The withdrawal of a proposal will not prejudice the right of the bidder to submit a new proposal, providing there is time to do so.

B1.14 POSTPONEMENT OF BID OPENING

The AGENCY reserves the right to postpone the date and time for opening of bids at any time prior to the date and time announced in **SECTION A–NOTICE INVITING SEALED BIDS**.

B1.15 DISQUALIFICATION OF BIDDERS

If there is reason to believe that collusion exists among the bidders, none of the bids of the participants in such collusion will be considered. In the event that any bidder acting as a prime CONTRACTOR has an interest in more than one proposal, all such proposals will be rejected, and the bidder will be disqualified. This restriction does not apply to subcontractors or suppliers who may submit quotations to more than one bidder, and while doing so, may also submit a formal proposal as a prime CONTRACTOR.

B1.16 REJECTION OF PROPOSALS

The AGENCY reserves the right to reject any and all proposals, to waive any irregularity, and to reject any proposals which are incomplete, obscure or irregular; any proposals which omit a bid on any one or more items on which bids are required; which omit unit prices if unit prices are required; in which unit prices are unbalanced in the opinion of the AGENCY; which are accompanied by insufficient or irregular bid security; or which are from bidders who have previously failed to perform properly or to timely complete contracts of any nature.

B1.17 AWARD OF CONTRACT

The Contract will be awarded, if at all, to the lowest responsible and responsive bidder, whose bid proposal is not rejected for cause by the AGENCY. However, until an award is made, the AGENCY reserves the right to reject any or all bids, and to waive technical errors or discrepancies, if to do so is deemed to best serve the interests of the AGENCY. In no event will an award be made until all necessary investigations are made as to the responsibility and qualifications of the bidder to whom it is proposed to make such an award.

Each bidder's attention is directed to the possibility that the award of the project may be delayed for various reasons. The AGENCY reserves the right to delay the award of the project for 45 calendar days. After 45 calendar days, the low bidder may at any time request release from its bid without penalty.

The acceptance of a proposal will be evidenced by a Notice of Award of Contract in writing, delivered by mail to the bidder whose proposal is accepted. No other act of the AGENCY shall constitute acceptance of a proposal. The award of contract shall obligate the bidder whose proposal is accepted to furnish a performance bond, and maintain a payment bond, as well as evidence of insurance and to execute the contract set forth herein.

B1.18 RETURN OF PROPOSAL GUARANTEES

Within ten (10) calendar days after the bids are opened, the AGENCY will release the proposal guarantees accompanying the proposals which are not to be considered in making the award. Proposal guarantees for the two lowest bidders will be held until the contract has been fully executed, after which they will be returned to the respective bidders.

B1.19 EXECUTION OF CONTRACT

The contract agreement shall be executed in duplicate by the successful bidder and returned, together with the contract bonds and evidence of insurance, within ten (10) calendar days after the notification of the contract award by the AGENCY in writing. In case of failure of the successful bidder to execute the contract agreement within ten (10) calendar days after such notice, or any subsequent extension approved by AGENCY, the AGENCY at its option may consider the bidder in default, in which case the bid bond or proposal guarantee accompanying the bid shall become the property of the AGENCY. After execution by the AGENCY, one original contract shall be returned to the CONTRACTOR.

B1.20 FLEXIBILITY OF BID SCHEDULE

It is the intent of the AGENCY to award a contract to the lowest responsible and responsive bidder and the flexibility shown in the bid schedule is necessary to ensure a project within the AGENCY's budget limits and constraints.

SECTION C – PROPOSAL INFORMATION AND DOCUMENTS

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

Proposal Information and Documents:

- □ Bid Proposal
- □ Bid Schedule
- □ Bid Bond
- □ Bid Guarantee
- □ Bidder Information
- □ Experience Statement
- □ Designation of Suppliers and Subcontractors
- □ Statement Regarding Insurance Coverage
- □ Statement Regarding Contractor's Licensing Laws
- □ Non-Collusion Declaration

BID PROPOSAL

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

CITY OF SOUTH PASADENA
1414 MISSION STREET
SOUTH PASADENA, CALIFORNIA 91030

HONORABLE MAYOR AND
MEMBERS OF THE CITY COUNCIL:

The undersigned, as bidder, declares that he/she has examined all of the contract documents and specifications contained in this project manual for the above referenced project, and that he/she will contract with the AGENCY on the form of contract provided herewith to do everything necessary for the fulfillment of this contract at the price, and on the terms and conditions therein contained.

The following are included and are to be considered as forming a part of this proposal: **BID PROPOSAL**, **BID SCHEDULE**, **BID BOND, NONCOLLUSION DECLARATION, BID GUARANTEE** (if submitted in lieu of Bid Bond), **BIDDER INFORMATION**, **EXPERIENCE STATEMENT**, **DESIGNATION OF SUPPLIERS & SUBCONTRACTORS**, **BIDDER'S STATEMENT REGARDING INSURANCE COVERAGE**, and **STATEMENT REGARDING CONTRACTOR'S LICENSING LAWS**.

CONTRACTOR acknowledges receipt and inclusion of addenda _____ to _____ into this bid proposal and the contract documents.

Attached is a Bid Bond duly completed by a guarantee company authorized to carry on business in the State of California in the amount of at least 10% of the total amount of this proposal, or alternatively, there is attached a certified or cashier's check payable to the AGENCY or evidence of a cash payment to the AGENCY, in the amount of at least 10% of the total amount of our proposal.

If this proposal is accepted, we agree to sign the contract form and to furnish the Performance Bond and the Payment Bond (each to be 100% of the bid amount), the Maintenance Bond (to be 50% of the bid amount), and the required evidences of insurance within ten (10) calendar days after receiving written Notice of Award of Contract.

We further agree if our proposal is accepted and a contract for the performance of the work is entered into with the AGENCY, to so plan the work and to prosecute it with such diligence that all of the work shall be completed within the time stipulated in **B1.03 CONTRACT PERIOD/CONSTRUCTION COMPLETION DATE of SECTION B - INSTRUCTION TO BIDDERS**.

NAME OF BIDDER: _____

MAILING ADDRESS: _____

_____

TELEPHONE NO. _____

STATE CONTRACTOR'S LICENSE NO. _____

STATE OF INCORPORATION:_____

AUTHORIZED SIGNATURE:_____

TITLE:_____

DATE:_____

(If Company is a Corporation, provide corporate resolution per **B1.06 PROPOSAL of SECTION B – INSTRUCTION TO BIDDERS.**)

BID SCHEDULE

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

IMPORTANT:

THE ELECTRONIC BID SCHEDULE MUST BE COMPLETED BY EACH BIDDER AND PROPERLY SUBMITTED ON PLANETBIDS.

FAILURE TO COMPLETE THE BID SCHEDULE WILL RESULT IN AN INCOMPLETE AND NON-RESPONSIVE BID.

THE ELECTRONIC BID SCHEDULE WILL BE INCORPORATED INTO THE CONTRACT DOCUMENTS.

The cost of all labor, services, material, equipment and installation necessary for the completion of the work itemized under this schedule, even though not shown or specified, shall be included in the unit price for the various items shown herein. For a description of the work associated with each bid item, see **SECTION F – SPECIAL PROVISIONS**. The AGENCY reserves the right to increase or decrease the quantity of any item or omit items as may be necessary, and the same shall in no way affect or void the contract, except that appropriate additions or deductions from the contract total price will be made at the stipulated unit price in accordance with these Contract Documents.

The AGENCY reserves the right to reject any and all bids, to waive any informality in a bid, and to make awards in the interest of the AGENCY.

The CONTRACTOR shall perform an independent take-off of the plans and bid accordingly. Quantities listed in this Bid Schedule are intended only as a guide for the CONTRACTOR as to the anticipated order of magnitude of work. The CONTRACTOR shall be responsible for verifying all estimated quantities. The CONTRACTOR will be reimbursed for the quantity of items actually installed as required by the Contract Documents, including addenda, and shown on the plans to neat line and grade.

The CONTRACTOR will not be reimbursed for work performed for his convenience, or as required to adapt to field conditions, or for unauthorized work performed outside of that required by the Contract Documents. The proposal schedule shall include all costs for labor, services, material, equipment, and installation associated with completing the work in place per the plans, specifications and details.

NAME OF BIDDER:_____

CONTRACTOR'S LICENSE NO.:_____

AUTHORIZED SIGNATURE:_____

TITLE:_____

DATE:_____

BID BOND

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

KNOW ALL MEN BY THESE PRESENTS that Bidder _____, as PRINCIPAL, and _____, as SURETY, are held and firmly bound unto the City of South Pasadena as AGENCY, in the penal sum of _____ dollars ($_____), which is ten percent (10%) of the total amount bid by PRINCIPAL to AGENCY for the above stated project, for the payment of which sum, PRINCIPAL and SURETY agree to be bound, jointly and severally, firmly by these presents.

The SURETY, for value received, hereby stipulates and agrees that the obligations of said SURETY and its BOND shall be in no way impaired or affected by any extension of the time within which the AGENCY may accept such Bid; and said SURETY does hereby waive notice of any such extension.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that, whereas PRINCIPAL is about to submit a bid to AGENCY for the above stated project, if said bid is rejected, or if said bid is accepted and a contract is awarded and entered into by PRINCIPAL in the manner and time specified, and PRINCIPAL provides the required payment and performance bonds and insurance coverages to AGENCY, then this obligation shall be null and void, otherwise it shall remain in full force and effect in favor of AGENCY.

IN WITNESS WHEREOF the parties hereto have set their names, titles, hands, and seals this ____ day of _____, 20__.

PRINCIPAL* _____

_____

_____

_____

SURETY* _____

_____

_____

_____

*Provide BIDDER and SURETY name, address and telephone number and the name, title, address and telephone number for their authorized representatives. Power of Attorney must be attached.

CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of _____

On _____ before me, _____,
(insert name and title of the officer)
personally appeared _____
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature_____ (SEAL)

BID GUARANTEE

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

Note: The following statement shall be used if other than a bid surety bond accompanies bid.

"Accompanying this proposal is a money order*, certified check*, cashier's check*, cash*, payable to the order of the City of South Pasadena in the amount of _____ Dollars ($_____) which is at least ten percent (10%) of the total amount of this bid. The proceeds of this bid guarantee shall become the property of the City of South Pasadena provided this bid is accepted by said City, through action of its legally constituted contracting authorities, and the undersigned fails to execute a contract and furnish the required bonds and insurance within the stipulated time. Otherwise, the proceeds of this bid guarantee shall be returned to the undersigned."

NAME OF BIDDER: _____

MAILING ADDRESS: _____

_____

_____

AUTHORIZED SIGNATURE: _____

TITLE: _____

DATE: _____

(*circle one option)

BIDDER INFORMATION

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

BIDDER certifies that the following information is true and correct:

Name of Bidder:_____

Business Address:_____

Telephone:_____FAX:_____

E-mail: _____

CONTRACTOR's License No.:_____ Date License Issued:_____

License Expiration Date:_____

The following are the names, titles, addresses, and phone numbers of all individuals, firm members, partners, joint venturers, and/or corporate officers having a principal interest in this proposal:
(Name / Title / Address / Telephone)

_____

_____

_____

_____

Any voluntary or involuntary bankruptcy judgments against any principal having an interest in this proposal are as follows: (Type of Judgment / Date)

_____

_____

_____

All current and prior DBA's, aliases, and/or fictitious business names for any principal having an interest in this proposal are as follows: (Principal / DBA's / Applicable Dates)

_____

_____

_____

Prior Disqualification

Has your firm ever been disqualified from performing work for any City, County, Public or Private Contracting entity? Yes / No _____. If yes, provide the following information. (If more than once, use separate sheets):

Date: _____ Entity:_____

Location:_____

Reason:_____

Provide Status and any Supplemental Statement:_____

_____

_____

_____

_____

Has your firm been reinstated by this entity? Yes / No _____

Violations of Federal or State Law

A. Has your firm or its officers been assessed any penalties by any agency for noncompliance, violations of Federal or State labor laws and/or business or licensing regulations within the past five (5) years relating to your construction projects?

Yes / No: _____ Federal / State: _____

If "yes", identify and describe, (including status):_____

_____

_____

_____

_____

Have the penalties been paid? Yes / No:_____

B. Does you firm or its officers have any ongoing investigations by any agency regarding violations of the State Labor Code, California Business and Professions Code or State Licensing laws?

Yes / No:_____ Codes / Laws:_____ Section / Article:_____

If "yes", identify and describe (including status):_____

_____

_____

I declare under penalty of perjury under the laws of the State of California that all of the representations made in this **BIDDER INFORMATION** are true and correct. Executed this _____ day of _____, 20__, at _____, California.

Authorized Representative: Signature _____

Title _____

EXPERIENCE STATEMENT

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

Pursuant to this **BID PROPOSAL** and **QUALIFICATION OF BIDDERS**, the following is a record of the Bidder's experience in construction of a type similar in magnitude and character to that contemplated under this contract. Included in this section should be a complete list of references for similar projects in terms of scope of work, value of work, and time constraints. The CONTRACTOR must demonstrate that he/she has experience with this type of project and can manage this project effectively. If necessary, additional numbered pages can be attached to this page. The CONTRACTOR must be properly licensed to perform the work in this project as determined by the State CONTRACTOR's License Board.

Project Title:_____ Client:_____

Date: _____ Project Value: _____ Contact: _____ Tel #_____

Description: _____

_____

_____

Subject to Federal Labor Standards: Yes No

Project Title:_____ Client:_____

Date: _____ Project Value: _____ Contact: _____ Tel #_____

Description: _____

_____

_____

Subject to Federal Labor Standards: Yes No

EXPERIENCE STATEMENT (Continued)

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

Project Title:_____ Client:_____

Date: _____ Project Value: _____ Contact: _____ Tel #_____

Description: _____

_____

_____

Subject to Federal Labor Standards: Yes No

Project Title:_____ Client:_____

Date: _____ Project Value: _____ Contact: _____ Tel #_____

Description: _____

_____

_____

Subject to Federal Labor Standards: Yes No

I declare under penalty of perjury under the laws of the State of California that all of the representations made in this **EXPERIENCE STATEMENT** are true and correct. Executed this _____ day of _____, 20__, at _____, California.

Authorized Representative: Signature _____

Title _____

DESIGNATION OF SUPPLIERS AND SUBCONTRACTORS

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

The following is a list of subcontractors and suppliers, as defined in 2-3 SUBCONTRACTS of the Standard Specifications, who will perform work or provide materials of value in excess of one-half of one percent of the total bid price or $10,000, whichever is greater.

No subcontractor shall perform work in excess of the amount specified in 3-2 Self-Performance of the Standard Specifications, without the written approval of the AGENCY.

The CONTRACTOR is responsible to ensure that appropriate provisions are to be inserted in all subcontracts to bind subcontractors to the contract requirements as contained herein.

Each subcontractor must agree to comply with all applicable Federal, State, and local requirements.

Name, License No., and Address of Subcontractor	License No.	MBE/ WBE (Y/N)	Work Subcontracted (List Line Items, e.g. #3, #6, etc.)	Portion of Work (% of Contract Price)

Name, License No., and Address of Subcontractor	License No.	MBE/ WBE (Y/N)	Work Subcontracted	Portion of Work (% of Contract Price)

These representations are made under the penalty of perjury under the laws of the State of California. The undersigned hereby certifies that each subcontractor has been notified in writing of its equal opportunity obligations.

NAME OF BIDDER: _____

AUTHORIZED SIGNATURE: _____

Date: _____

STATEMENT REGARDING INSURANCE COVERAGE

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

The undersigned representative of Bidder hereby certifies that he/she has reviewed the insurance coverage requirements specified in **5-4 INSURANCE** of Section E, Standard Specifications and Section F, Special Provisions. Should Bidder be awarded the contract for the work, the undersigned further certifies that Bidder can meet all of these specification requirements for insurance including insurance coverage of his/her subcontractors.

NAME OF BIDDER: _____

MAILING ADDRESS: _____

_____

_____

AUTHORIZED SIGNATURE: _____

TITLE: _____

DATE: _____

STATEMENT REGARDING CONTRACTOR'S LICENSING LAWS

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

[Business & Professions Code § 7028.15]
[Public Contract Code § 20103.5]

I, the undersigned, certify that I am aware of the following provisions of California law and that I, or the entity on whose behalf this certification is given, hold a currently valid California CONTRACTOR's license as set forth below:

Business & Professions Code § 7028.15:

a) **It is a misdemeanor for any person to submit a bid to a public agency to engage in the business or act in the capacity of a CONTRACTOR within this state without having a license therefor,** except in any of the following cases:

(1)The person is particularly exempted from this chapter.

(2)The bid is submitted on a state project governed by Section 10164 of the Public Contract Code or on any local agency project governed by Section 20104 [now § 20103.5] of the Public Contract Code.

b) If a person has been previously convicted of the offense described in this section, the court shall impose a fine of 20 percent of the price of the contract under which the unlicensed person performed contracting work, or four thousand five hundred dollars ($4,500), whichever is greater, or imprisonment in the county jail for not less than 10 days nor more than six months, or both.

In the event the person performing the contracting work has agreed to furnish materials and labor on an hourly basis, "the price of the contract" for the purposes of this subdivision means the aggregate sum of the cost of materials and labor furnished and the cost of completing the work to be performed.

c) This section shall not apply to a joint venture license, as required by Section 7029.1. However, at the time of making a bid as a joint venture, each person submitting the bid shall be subject to this section with respect to his/her individual licenser.

d) This section shall not affect the right or ability of a licensed architect, land surveyor, or registered professional engineer to form joint ventures with licensed CONTRACTORs to render services within the scope of their respective practices.

e) Unless one of the foregoing exceptions applies, a bid submitted to a public agency by a CONTRACTOR who is not licensed in accordance with this chapter shall be considered nonresponsive and shall be rejected by the public agency. Unless one of the foregoing exceptions applies, a local public agency shall, before awarding a contract or issuing a purchase order, verify that the CONTRACTOR was properly licensed when the CONTRACTOR submitted the bid. Notwithstanding any other provision of law, unless one of the foregoing exceptions applies, the registrar may issue a citation to any public officer or employee of a public entity who knowingly awards a contract or issues a purchase order to a CONTRACTOR who is not licensed pursuant to this chapter. The amount of

civil penalties, appeal, and finality of such citations shall be subject to Sections 7028.7 to 7028.13, inclusive. **Any contract awarded to, or any purchase order issued to, as CONTRACTOR who is not licensed pursuant to this chapter is void.**

f) Any compliance or noncompliance with subdivision (e) of this section, as added by Chapter 863 of the Statutes of 1989, shall not invalidate any contract or bid awarded by a public agency during which time that subdivision was in effect.

g) A public employee or officer shall not be subject to a citation pursuant to this section if the public employee, officer, or employing agency made an inquiry to the board for the purposes of verifying the license status of any person or CONTRACTOR and the board failed to respond to the inquiry within three business days. For purposes of this section, a telephone response by the board shall be deemed sufficient.

Public Contract Code § 20103.5:

In all contracts subject to this part where federal funds are involved, no bid submitted shall be invalidated by the failure of the bidder to be licensed in accordance with the laws of this state. However, at the time the contract is awarded, the CONTRACTOR shall be properly licensed in accordance with the laws of this state. The first payment for work or material under any contract shall not be made unless and until the Registrar of CONTRACTORs verifies to the AGENCY that the records of the Contractors' State License Board indicate that the CONTRACTOR was properly licensed at the time the contract was awarded. Any bidder or CONTRACTOR not so licensed shall be subject to all legal penalties imposed by law, including, but not limited to, any appropriate disciplinary action by the Contractors' State License Board. The AGENCY shall include a statement to that effect in the standard form of pre-qualification questionnaire and financial statement. **Failure of the bidder to obtain proper and adequate licensing for an award of a contract shall constitute a failure to execute the contract and shall result in the forfeiture of the security of the bidder.**

CONTRACTOR's License Number: _____

License Expiration Date:_____

Authorized Signature:_____

Date:_____

NON-COLLUSION DECLARATION

The undersigned declares:

I am the _____ of _____, the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on the ___ day _____, 20__ at _____, California.

_____
CONTRACTOR's Signer's Name

_____
CONTRACTOR's Signer's Title

_____
CONTRACTOR's Business Name

Contractor's Business Address:

_____
Mailing Street Address

_____
City, State, Zip Code

_____
Telephone #

SECTION D – CONTRACT INFORMATION AND DOCUMENTS

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

Contract Information and Documents:

- □ Contract Agreement and Attachment A
- □ Payment Bond
- □ Faithful Performance Bond
- □ Maintenance Bond
- □ Worker's Compensation Insurance Certificate
- □ Endorsements to Insurance Policy

CONTRACT AGREEMENT

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

THIS AGREEMENT ("AGREEMENT") is made and entered into for the above-stated project this _____ day of_____, 20__ *(Council Action Date)*, BY AND BETWEEN the City of South Pasadena, a municipal corporation, hereafter designated as "AGENCY", and _____ a _____
[CONTRACTOR'S BUSINESS NAME] [corporation, partnership, limited liability company, or other business form]

in the State of _____, hereafter designated as "CONTRACTOR."

WITNESSETH that AGENCY and CONTRACTOR have mutually agreed as follows:

1) **Project Name:** North-South Corridor Intelligent Transportation System Deployment Project, SPECIFICATION NO. 2020-02
2) **Project Scope of Work:** CONTRACTOR shall provide and install:

All materials, equipment, tools, labor, and incidentals required to complete the improvements and make system operational shown on the Specifications and Contract Documents. The work performed under this contract is summarized in the Notice Inviting Sealed Bids and includes, but is not limited to each bid item listed in the Contractor's Bid Proposal, as covered in the Standard Specifications, and as described in the corresponding items on the following pages. The work in general, to be performed pursuant to these specifications, consists of constructing traffic safety improvements and installing traffic signal upgrades at various intersections. Traffic safety improvements include construction of modification of existing bulb outs, median modifications, landscaping and irrigation, construction of curb ramps, construction of a cul-de-sac closing an existing road, and replacing and overlaying asphalt concrete pavement, furnishing and installing pavement markers, markings, traffic signs, and traffic striping. The project will also include the installation or modification of various traffic signal systems items, including replacement of existing traffic signal poles and foundations, new rectangular rapid flashing beacon (RRFB) systems, Bluetooth-based vehicle tracking road side units, ethernet switches, fiber hub switches, ethernet modules, advanced dilemma video detection, 2070 controller, CCTV traffic monitoring systems, as well as SMFO cable, conduit, detectors, system integration, splice vaults, and fiber patch panels, traffic signing, thermoplastic striping and pavement markings; traffic control and all appurtenant work thereto necessary for the proper construction of the contemplated improvements, in accordance to Plans and Specification entitled as North-South Corridor Intelligent Transportation System Deployment Project, Project No. 2020-02.

The limits of work include:

- **Fair Oaks Avenue (Huntington Drive to Columbia Street)**
- **Mission Street (City Hall to Stratford Avenue)**
- **Stratford Avenue (Mission Street to Clark Place)**
- **Clark Place (Stratford Avenue to Garfield Avenue)**
- **Garfield Avenue (Clark Place to Public Works building)**

3) **Contract Documents:** The complete contract and agreement ("AGREEMENT") consists of this Contract Agreement, including all attachments hereto, and:

- Approved Plans and Specifications for City Project No. 2020-02
- Notice Inviting Sealed Bids
- Instructions to Bidders
- Information for Bidders
- Contractor's Bid Proposal
- Bid Schedule
- Standard Specifications
- Special Provisions
- All reference specifications, plans, details, standard drawings, and appendices
- Bonds, insurance certificates, permits, notices, and affidavits
- Appendices, Addendums, and Memorandums
- And all mutually agreed-upon modifications and amendments thereto.

4) **Compensation:** CITY agrees to pay, and CONTRACTOR agrees to accept in full payment for the Work, the stipulated sum of _____ Dollars, ($_____).
5) **Time of Completion:** _____ Working Days *[see B1.03 CONTRACT PERIOD/CONSTRUCTION COMPLETION DATE of Section B Instruction to Bidders]*.
6) **Liquidated Damages:** $9,500 for each calendar day delay beyond the Time of Completion *[see 6-9 LIQUIDATED DAMAGES of Section F – Special Provisions]*.
7) **Notices:** Any notices, bills, invoices, or reports required by this Agreement shall be addressed to:

To CITY:

To CONTRACTOR:

Contractor's Name _____
Address _____
_____
City, State Zip Code _____

City of South Pasadena
Public Works Department
1414 Mission Street
South Pasadena, CA 91030

IN WITNESS WHEREOF the parties hereto for themselves, their heirs, executors, administrators, successors, and assigns do hereby agree to the full performance of the covenants herein contained and have caused this AGREEMENT to be executed in duplicate by setting hereunto their names, titles, hands, and seals this _____ day of _____, 20__ *(Council Action Date)*

CONTRACTOR: _____
[CONTRACTOR'S BUSINESS NAME]

_____
CONTRACTOR's Sign Name, Title

CONTRACTOR's License No. _____

AGENCY: _____ _____
Todd Hileman, City Manager Date
City of South Pasadena

ATTESTED: _____ _____
Nikima S. Newsome, Chief City Clerk Date
City of South Pasadena

APPROVED AS
TO FORM: _____ _____
Roxanne Diaz, City Attorney Date
City of South Pasadena

CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of _____

On _____ before me, _____,
(insert name and title of the officer)
personally appeared _____
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature_____ (SEAL)

ATTACHMENT A

ADDITIONAL TERMS AND CONDITIONS OF THE AGREEMENT

ARTICLE I: Contract Documents

The complete contract and agreement ("AGREEMENT") consists of the Contract Documents described on the Contract Agreement, and all terms and conditions of this Attachment are incorporated therein. In the event of conflict between these documents, precedence shall be determined under section 2-5.2 of the Standard Specifications.

All of the provisions of the Contract Documents are made a part hereof as though fully set forth herein.

ARTICLE II: Scope of Work

For and in consideration of the payments and agreements to be made and performed by AGENCY, CONTRACTOR agrees to furnish all materials and equipment and perform all work required for the above-stated project, and to fulfill all other obligations as set forth in the aforesaid Contract Documents.

AGENCY hereby employs CONTRACTOR to provide the materials, do the work, and fulfill the obligations according to the terms and conditions herein contained and referred to, for the prices provided herein, and hereby contracts to pay the same at the time, in the manner, and upon the conditions set forth in this AGREEMENT.

In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to this AGREEMENT, CONTRACTOR offers and agrees to assign to the AGENCY all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (Section 16700, et seq.) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to CONTRACTOR, without further acknowledgment by the parties.

ARTICLE III: Compensation

A. CONTRACTOR agrees to receive and accept the prices set forth in the Bid Proposal and Bid Schedule as full compensation for furnishing all materials, performing all work, and fulfilling all obligations hereunder. In no event shall the total compensation and costs payable to CONTRACTOR under this Agreement exceed the sum shown on the Contract Agreement, unless specifically approved in advance and in writing by AGENCY.

Such compensation shall cover all expenses, losses, damages, and consequences arising out of the nature of the work during its progress or prior to its acceptance including those for well and faithfully completing the work and the whole thereof in the manner and time specified in the aforesaid Contract Documents; and also including those arising from actions of the elements,

unforeseen difficulties or obstructions encountered in the prosecution of the work, suspension or discontinuance of the work, and all other unknowns or risks of any description connected with the work. Such unforeseen difficulties or obstructions includes any act of God, the elements, strike, walkout, or any other cause beyond CONTRACTOR's reasonable control that occurs before AGENCY accepts the work as complete.

B. This AGREEMENT is subject to the provisions of Article 1.7 (commencing at Section 20104.50) of Division 2, Part 3 of the Public Contract Code regarding prompt payment of CONTRACTORs by local governments. Article 1.7 mandates certain procedures for the payment of undisputed and properly submitted payment requests within 30 days after receipt, for the review of payment requests, for notice to CONTRACTOR of improper payment requests, and provides for the payment of interest on progress payment requests which are not timely made in accordance with that Article. This AGREEMENT hereby incorporates the provisions of Article 1.7 as though fully set forth herein.

C. At the request and expense of CONTRACTOR, securities equivalent to the amount withheld shall be deposited with AGENCY, or with a state or federally chartered bank in this state as the escrow agent, who shall then pay those moneys to CONTRACTOR upon AGENCY's confirmation of CONTRACTOR'S satisfactory completion of this AGREEMENT. At any time during the term of this AGREEMENT CONTRACTOR may, at its own expense, substitute securities for funds otherwise withheld as retention (or the retained percentage) in accordance with Public Contract Code § 22300.

ARTICLE IV: Labor Code

AGENCY and CONTRACTOR acknowledge that this AGREEMENT is subject to the provisions of Division 2, Part 7, Chapter 1 (commencing with Section 1720) of the California Labor Code relating to public works and public agencies and agree to be bound by all the provisions thereof as though set forth fully herein. Full compensation for conforming to the requirements of the Labor Code and with other Federal, State, and local laws related to labor, and rules, regulations and ordinances which apply to any work performed pursuant to this AGREEMENT is included in the price for all contract items of work involved.

This AGREEMENT is further subject to prevailing wage law, including, but not limited to, the following:

A. The CONTRACTOR shall pay the prevailing wage rates for all work performed under the AGREEMENT. When any craft or classification is omitted from the general prevailing wage determinations, the CONTRACTOR shall pay the wage rate of the craft or classification most closely related to the omitted classification. The CONTRACTOR shall forfeit as a penalty to AGENCY $200.00, or any greater penalty provided in the Labor Code for each Calendar Day, or portion thereof, for each worker paid less than the prevailing wage rates for any work done under the AGREEMENT in violation of the provisions of the Labor Code whether such worker is employed in the execution of the work by CONTRACTOR or by any Subcontractor under CONTRACTOR. In addition, CONTRACTOR shall pay each worker the difference between such prevailing wage rates and the amount paid to each worker for each Calendar Day, or portion thereof, for which each worker was paid less than the prevailing wage rate.

B. CONTRACTOR shall comply with the provisions of Labor Code Section 1777.5 concerning the employment of apprentices on public works projects, and further agrees that CONTRACTOR is responsible for compliance with Section 1777.5 by all of its subcontractors.

C. Pursuant to Labor Code § 1725.5, CONTRACTOR and any subcontractor must be registered with the California Department of Industrial Relations for any bid proposal submitted on or after March 1, 2015, and for any contract for public work entered into on or after April 1, 2015. Further, this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

D. Pursuant to Labor Code § 1776, CONTRACTOR and any subcontractor shall keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with this AGREEMENT. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following: (1) The information contained in the payroll record is true and correct; and (2) The employer has complied with the requirements of Labor Code §§ 1811, and 1815 for any work performed by his or her employees on the public works project. The payroll records enumerated under subdivision (a) shall be certified and shall be available for inspection at all reasonable hours as required by Labor Code § 1776.

E. This AGREEMENT is further subject to 8-hour workday and wage and hour penalty law, including, but not limited to, Labor Code Sections 1810 and 1813, as follows:

CONTRACTOR shall strictly adhere to the provisions of the Labor Code regarding the 8-hour day and the 40-hour week, overtime, Saturday, Sunday and holiday work and nondiscrimination based on race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, sex, or sexual orientation, except as provided in Section 12940 of the Government Code. Pursuant to the provisions of the Labor Code, eight hours' labor shall constitute a legal day's work. Work performed by CONTRACTOR's employees in excess of eight hours per day, and 40 hours during any one week, must include compensation for all hours worked in excess of eight hours per day, or 40 hours during any one week, at not less than one and one-half times the basic rate of pay. CONTRACTOR shall forfeit as a penalty to AGENCY $25.00, or any greater penalty set forth in the Labor Code for each worker employed in the execution of the work by CONTRACTOR or by any Subcontractor of CONTRACTOR, for each Calendar Day during which such worker is required or permitted to the work more than eight hours in one Calendar Day or more than 40 hours in any one calendar week in violation of the Labor Code.

F. This AGREEMENT is subject to Public Contract Code Section 6109: CONTRACTOR shall be prohibited from performing work on this project with a subcontractor who is ineligible to perform work on the project pursuant to Sections 1777.1 or 1777.7 of the Labor Code.

ARTICLE V: Work Site Conditions

A. In compliance with and pursuant to Government Code Section 4215, AGENCY shall assume the responsibility, as between the parties to this AGREEMENT, for the timely removal, relocation, or protection of existing main- or trunk-line utility facilities located on the site of any construction project that is a subject of this AGREEMENT, if such utilities are not identified by AGENCY in

the plans and specifications made a part of the invitation for bids. The Contract Documents shall include provisions to compensate CONTRACTOR for the costs of locating, repairing damage not due to the failure of CONTRACTOR to exercise reasonable care, and removing or relocating such utility facilities not indicated in the plans and specifications with reasonable accuracy, and for equipment on the project necessarily idled during such work. CONTRACTOR shall not be assessed liquidated damages for delay in completion of the project when such delay was caused by the failure of AGENCY or the owner of a utility to provide for removal or relocation of such utility facilities.

B. To the extent that the work requires trenches in excess of five feet (5') and is estimated to cost more than $25,000, prior to any excavation, CONTRACTOR must provide the AGENCY, or a registered civil or structural engineer employed by the AGENCY to whom authority has been delegated to accept such plans, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer. Nothing in this section shall be deemed to allow the use of a shoring, sloping, or protective system less effective than that required by the Construction Safety Orders.

C. This AGREEMENT is further subject to Public Contract Code Section 7104 with regard to any trenches deeper than four feet (4') involved in the proposed work as follows:

CONTRACTOR shall promptly, and before the following conditions are disturbed, notify AGENCY, in writing, of any:

(1) Material that CONTRACTOR believes may be hazardous waste, as defined in Section 25117 of the Health and Safety Code, which is required to be removed to a Class I, Class II, or Class III disposal site in accordance with existing law.

(2) Subsurface or latent physical conditions at the site differing from those indicated by all available information provided prior to the deadline for submission of bids.

(3) Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract.

AGENCY shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or involve hazardous waste, and cause a decrease or increase in CONTRACTOR's cost of, or the time required for, performance of any part of the work, AGENCY shall issue a change order under the procedures described in this AGREEMENT.

In the event that a dispute arises between AGENCY and CONTRACTOR whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in CONTRACTOR's cost of, or time required for, performance of any part of the work, CONTRACTOR shall not be excused from any scheduled completion date provided in the AGREEMENT but shall proceed with all work to be performed under the AGREEMENT. CONTRACTOR shall retain any and all

rights provided either by contract or by law which pertain to the resolution of disputes and protests between the contracting parties.

ARTICLE VI: Insurance

A. With respect to performance of work under this AGREEMENT, CONTRACTOR shall maintain, and shall require all of its subcontractors to maintain, insurance as required by Section E "Standard Specifications" of the Contract Documents.

B. This AGREEMENT is further subject to Workers' Compensation obligations, including, but not limited to, California Labor Code Sections 1860 and 1861 as follows:

CONTRACTOR shall take out and maintain, during the life of this contract, Worker's Compensation Insurance for all of CONTRACTOR's employees employed at the site of improvement; and, if any work is sublet, CONTRACTOR shall require the subcontractor similarly to provide Worker's Compensation Insurance for all of the latter's employees, unless such employees are covered by the protection afforded by CONTRACTOR. CONTRACTOR and any of CONTRACTOR's subcontractors shall be required to provide AGENCY with a written statement acknowledging its obligation to secure payment of Worker's Compensation Insurance as required by Labor Code § 1861; to wit: 'I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.' If any class of employees engaged in work under this AGREEMENT at the site of the Project is not protected under any Worker's Compensation law, CONTRACTOR shall provide and shall cause each subcontractor to provide adequate insurance for the protection of employees not otherwise protected. CONTRACTOR shall indemnify and hold harmless AGENCY for any damage resulting from failure of either CONTRACTOR or any subcontractor to take out or maintain such insurance.

Any available insurance proceeds broader than or in excess of the specified minimum insurance coverage requirements or limits shall be available to AGENCY as additional insured. Further, the requirements for coverage and limits shall be the greater of (1) the maximum coverage and limits specified in this Agreement, or (2) the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the named insured. Insurance provided by CONTRACTOR under this Contract shall not replace or substitute for CONTRACTOR's indemnification obligations in Article VII.

CONTRACTOR's insurance, including all endorsements, shall be primary to any coverage available to AGENCY. Any insurance or self-insurance maintained by AGENCY and/or its officers, employees, agents, or volunteers, shall be excess of CONTRACTOR's insurance and shall not contribute with it.

ARTICLE VII: Indemnification

To the fullest extent permitted by law, CONTRACTOR shall, at its sole cost and expense, fully defend, indemnify and hold harmless AGENCY, its authorized representatives and their respective

subsidiaries, affiliates, members, directors, officers, subcontractors (including governmental agencies), suppliers, employees and agents (collectively, the "Indemnitees") from and against any and all claims, actions, demands, costs, judgments, liens, penalties, liabilities, damages, losses, and expenses, including but not limited to any fees of accountants, attorneys or other professionals (collectively "Liabilities"), arising out of, in connection with, resulting from or related to, any act, omission, fault or negligence of CONTRACTOR, CONTRACTOR's Representative, or any of its officers, agents, employees, Subcontractors or Suppliers, or any person or organization directly or indirectly employed by any of them (Collectively, the "Indemnitors"), in connection with or relating to or claimed to be in connection with or relating to the work performed under this AGREEMENT. Indemnification includes, but is not limited to, all claims, actions, demands, costs, judgments, liens, penalties, liabilities, damages, losses, and expenses arising out of, in connection with, resulting from or related to changes to the natural environment or environmental harms caused in whole or in part by work performed under this AGREEMENT.

If CONTRACTOR is a joint venture or partnership, each venturer or partner shall be jointly and severally liable for any and all of the duties and obligations of CONTRACTOR that are assumed under or arise out of this AGREEMENT. Each of such venturers or partners waives notice of the breach or non-performance of any undertaking or obligation of CONTRACTOR contained in, resulting from, or assumed under this AGREEMENT, and the failure to give any such notice shall not affect or impair such venturer's or partner's joint and several liability hereunder.

AGENCY may request a deposit for defense costs from CONTRACTOR with respect to a claim. If AGENCY requests a defense deposit, CONTRACTOR shall provide it within 15 days of the request.

ARTICLE VIII: Binding Effect

AGENCY and CONTRACTOR each bind itself, its partners, successors, assigns, and legal representatives to the other party hereto and to its partners, successors, assigns, and legal representatives in respect of all covenants, agreements, and obligations contained in the Contract Documents. This AGREEMENT is not assignable nor the performance of either party's duties delegable without the prior written consent of the other party. Any attempted or purported

assignment or delegation of any of the rights of obligations of either party without the prior written consent of the other shall be void and of no force and effect.

ARTICLE IX: Dispute Resolution

A. All disputes arising out of this AGREEMENT are subject to a mandatory step-by-step claims submission and evaluation process as a precondition to legal action in accordance with Public Contracts Code § 9204.

B. Any court action arising out of this AGREEMENT shall be filed in the Los Angeles County Superior Court. Any alternative dispute resolution proceeding arising out of this AGREEMENT shall be heard in the County of Los Angeles.

C. AGENCY shall have full authority to compromise or otherwise settle any claim relating to this AGREEMENT or any part hereof at any time. AGENCY shall provide timely notification to CONTRACTOR of the receipt of any third-party claim relating to this AGREEMENT. AGENCY shall be entitled to recover its reasonable costs incurred in providing the notification required by this section.

D. This AGREEMENT is further subject to the provisions of Article 1.5 (commencing at Section 20104) of Division 2, Part 3 of the Public Contract Code regarding the resolution of public works claims of less than $375,000. Article 1.5 mandates certain procedures for the filing of claims and supporting documentation by CONTRACTOR, for the response to such claims by the AGENCY, for a mandatory meet and confer conference upon the request of CONTRACTOR, for mandatory nonbinding mediation in the event litigation is commenced, and for mandatory judicial arbitration upon the parties' failure to resolve the dispute through mediation. This AGREEMENT hereby incorporates the provisions of Article 1.5 as though fully set forth herein.

ARTICLE X: Independent CONTRACTOR

CONTRACTOR is and shall at all times remain as to AGENCY, a wholly independent CONTRACTOR. Neither AGENCY nor any of its agents shall have control of the conduct of CONTRACTOR or any of CONTRACTOR's employees, except as herein set forth. CONTRACTOR shall not at any time or in any manner represent that it or any of its agents or employees are in any manner agents or employees of AGENCY.

ARTICLE XI: Taxes

CONTRACTOR is responsible for paying all retail, sales and use, transportation, export, import, special or other taxes and duties applicable to, and assessable against any work, materials, equipment, services, processes, and operations incidental to or involved in this AGREEMENT. The CONTRACTOR is responsible for ascertaining and arranging to pay such taxes and duties. The prices established in this AGREEMENT shall include compensation for any taxes the CONTRACTOR is required to pay by laws and regulations in effect as of the execution of this AGREEMENT.

ARTICLE XII: Notices

All notices and communications shall be sent in writing to the parties at the addresses listed on the Contract Agreement.

ARTICLE XIII: Entire Agreement

This AGREEMENT supersedes any and all other agreements, either oral or written, between the parties and contains all of the covenants and agreements between the parties pertaining to the work of improvements described herein. Each party to this AGREEMENT acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein, and that any other agreement, statement or promise not contained in this AGREEMENT shall not be valid or binding. Any modification of this AGREEMENT will be effective only if signed by the party to be charged.

The benefits and obligations of this AGREEMENT shall inure to and be binding upon the representatives, agents, partners, heirs, successors and assigns of the parties hereto. This AGREEMENT shall be construed pursuant to the laws of the State of California.

ARTICLE XIV: Authority to Contract

The signatories hereto represent that they are authorized to sign on behalf of the respective parties they represent and are competent to do so, and each of the parties hereto hereby irrevocably waives any and all rights to challenge signatures on these bases.

ARTICLE XV: General Provisions

A. All reports, documents, or other written material ("written products" herein) developed by CONTRACTOR in the performance of this Agreement shall be and remain the property of AGENCY without restriction or limitation upon its use or dissemination by AGENCY. CONTRACTOR may take and retain copies of such written products as desired, but no such written products shall be the subject of a copyright application by CONTRACTOR.

B. In the performance of this Agreement, CONTRACTOR shall not discriminate against any employee, subcontractor, or applicant for employment because of race, color, creed, religion, sex, marital status, sexual orientation, national origin, ancestry, age, physical or mental disability, medical condition, or any other unlawful basis.

C. The captions appearing at the commencement of the sections hereof, and in any paragraph thereof, are descriptive only and for convenience in reference to this Agreement. Should there be any conflict between such heading, and the section or paragraph at the head of which it appears, the section or paragraph hereof, as the case may be, and not such heading, shall control and govern in the construction of this Agreement. Masculine or feminine pronouns shall be substituted for the neuter form and vice versa, and the plural shall be substituted for the singular form and vice versa, in any place or places herein in which the context requires such substitution(s).

D. The waiver by AGENCY or CONTRACTOR of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant, or condition or of any subsequent breach of the same or any other term, covenant or condition herein contained. No term,

covenant or condition of this Agreement shall be deemed to have been waived by AGENCY or CONTRACTOR unless in writing.

E. Each right, power and remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise shall be cumulative and shall be in addition to every other right, power, or remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise. The exercise, the commencement of the exercise, or the forbearance of the exercise by any party of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by such party of any of all of such other rights, powers, or remedies.

F. CONTRACTOR shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services or expenditures and disbursements charged to AGENCY under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to CONTRACTOR under this Agreement. All such documents shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of AGENCY. In addition, pursuant to Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars, all such documents and this Agreement shall be subject to the examination and audit of the State Auditor, at the request of AGENCY or as part of any audit of AGENCY, for a period of three (3) years after final payment under the Agreement.

BUY AMERICA REQUIREMENTS

§ 635.410B
(a) The provisions of this section shall prevail and be given precedence over any requirements of this subpart which are contrary to this section. However, nothing in this section shall be construed to be contrary to the requirements of § 635.409(a) of this subpart.

(b) No Federal-aid highway construction project is to be authorized for advertisement or otherwise authorized to proceed unless at least one of the following requirements is met:
(1) The project either: (i) Includes no permanently incorporated steel or iron materials, or (ii) if steel or iron materials are to be used, all manufacturing processes, including application of a coating, for these materials must occur in the United States. Coating includes all processes which protect or enhance the value of the material to which the coating is applied.
(2) The State has standard contract provisions that require the use of domestic materials and products, including steel and iron materials, to the same or greater extent as the provisions set forth in this section.
(3) The State elects to include alternate bid provisions for foreign and domestic steel and iron materials which comply with the following requirements. Any procedure for obtaining alternate bids based on furnishing foreign steel and iron materials which is acceptable to the Division Administrator may be used. The contract provisions must (i) require all bidders to submit a bid based on furnishing domestic steel and iron materials, and (ii) clearly state that the contract will be awarded to the bidder who submits the lowest total bid based on furnishing domestic steel and iron materials unless such total bid exceeds the lowest total bid based on furnishing foreign steel and iron materials by more than 25 percent.
(4) When steel and iron materials are used in a project, the requirements of this section do not prevent a minimal use of foreign steel and iron materials, if the cost of such materials used does not exceed one-tenth of one percent (0.1 percent) of the total contract cost or $2,500, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the steel and iron products as they are delivered to the project.

(c)(1) A State may request a waiver of the provisions of this section if;
(i) The application of those provisions would be inconsistent with the public interest; or
(ii) Steel and iron materials/products are not produced in the United States in sufficient and reasonably available quantities which are of a satisfactory quality.
(2) A request for waiver, accompanied by supporting information, must be submitted in writing to the Regional Federal Highway Administrator (RFHWA) through the FHWA Division Administrator. A request must be submitted sufficiently in advance of the need for the waiver in order to allow time for proper review and action on the request. The RFHWA will have approval authority on the request.
(3) Requests for waivers may be made for specific projects, or for certain materials or products in specific geographic areas, or for combinations of both, depending on the circumstances.
(4) The denial of the request by the RFHWA may be appealed by the State to the Federal Highway Administrator (Administrator), whose action on the request shall be considered administratively final.
(5) A request for a waiver which involves nationwide public interest or availability issues or more than one FHWA region may be submitted by the RFHWA to the Administrator for action.

(6) A request for waiver and an appeal from a denial of a request must include facts and justification to support the granting of the waiver. The FHWA response to a request or appeal will be in writing and made available to the public upon request. Any request for a nationwide waiver and FHWA's action on such a request may be published in the Federal Register for public comment.
(7) In determining whether the waivers described in paragraph (c)(1) of this section will be granted, the FHWA will consider all appropriate factors including, but not limited to, cost, administrative burden, and delay that would be imposed if the provision were not waived.

(d) Standard State and Federal-aid contract procedures may be used to assure compliance with the requirements of this section.

FEDERAL-AID CONSTRUCTION CONTRACTS (OTHER THAN APPALACHIAN CONTRACTS)AUTHORITY: 23 U.S.C. 114 and 315; 49 CFR 1.48.

Source:52 FR 36920, Oct. 2, 1987, unless otherwise noted.

§ 633.101Purpose. To prescribe for Federal-aid highway proposals and construction contracts the method for inclusion of required contract provisions of existing regulations which cover employment, nonsegregated facilities, record of materials and supplies, subletting or assigning the contract, safety, false statements concerning highway projects, termination of a contract, and implementation of the Clean Air Act and the Federal Water Pollution Control Act, and other provisions as shall from time-to-time be required by law and regulation as conditions of Federal assistance.

§ 633.102 Applicability.(a) The required contract provisions and the required proposal notices apply to all Federal-aid construction contracts other than Appalachian construction contracts.(b) Form FHWA-1273, "Required Contract Provisions, Federal-aid Construction Contracts," contains required contract provisions and required proposal notices that are required by regulations promulgated by the FHWA or other Federal agencies. The required contract provisions of Form FHWA-1273 shall be physically incorporated in each Federal-aid highway construction contract other than Appalachian construction contracts (see § 633.104 for availability of form).(c) [Reserved](d) The required contract provisions contained in Form FHWA-1273 shall apply to all work performed on the contract by the contractor's own organization and to all work performed on the contract by piecework, station work, or by subcontract.(e) The contractor shall insert in each subcontract, except as excluded by law or regulation, the required contract provisions contained in Form FHWA-1273 and further require their inclusion in any lower tier subcontract that may in turn be made. The required contract provisions of Form FHWA-1273 shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the requirements contained in the provisions of Form FHWA-1273.(f) The State highway agency (SHA) shall include the notices concerning certification of nonsegregated facilities and implementation of the Clean Air Act and Federal Water Pollution Control Act, pursuant to 40 CFR part 15, in all bidding proposals for Federal-aid highway construction projects. As the notices are reproduced in Form FHWA-1273, the SHA may include Form FHWA-1273 in its entirety to meet this requirement.

[52 FR 36920, Oct. 2, 1987, as amended at 69 FR 7118, Feb. 13, 2004]

§ 633.103 Regulatory authority. All required contract provisions contained in Form FHWA-1273 are requirements of regulations promulgated by the FHWA or other Federal agencies. The authority for each provision will be cited in the text of Form FHWA-1273.

§ 633.104 Availability.(a) Form FHWA-1273 will be maintained by the FHWA and as regulatory revisions occur, the form will be updated.(b) Current copies of Form FHWA-1273, Required Contract Provisions, will be made available to the SHAs by the FHWA.

EQUAL OPPORTUNITY CLAUSE

§ 60-1.4

(a) Government contracts. Except as otherwise provided, each contracting agency shall include the following equal opportunity clause contained in section 202 of the order in each of its Government contracts (and modifications thereof if not included in the original contract): During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's non-compliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) the contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation

with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

(b) Federally assisted construction contracts. (1) Except as otherwise provided, each administering agency shall require the inclusion of the following language as a condition of any grant, contract, loan, insurance, or guarantee involving federally assisted construction which is not exempt from the requirements of the equal opportunity clause: The applicant hereby agrees that it will incorporate or cause to be incorporated into any contract for construction work, or modification thereof, as defined in the regulations of the Secretary of Labor at 41 CFR Chapter 60, which is paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to a grant, contract, loan insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, the following equal opportunity clause: During the performance of this contract, the contractor agrees as follows:
(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
(4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
(5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, That if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

(c) Subcontracts. Each nonexempt prime contractor or subcontractor shall include the equal opportunity clause in each of its nonexempt subcontracts.

(d) Incorporation by reference. The equal opportunity clause may be incorporated by reference in all Government contracts and subcontracts, including Government bills of lading, transportation requests, contracts for deposit of Government funds, and contracts for issuing and paying U.S. savings bonds and notes, and such other contracts and subcontracts as the Deputy Assistant Secretary may designate.

(e) Incorporation by operation of the order. By operation of the order, the equal opportunity clause shall be considered to be a part of every contract and subcontract required by the order and the regulations in this part to include such a clause whether or not it is physically incorporated in such contracts and whether or not the contract between the agency and the contractor is written.
(f) Adaptation of language. Such necessary changes in language may be made in the equal opportunity clause as shall be appropriate to identify properly the parties and their undertakings.

AFFIRMATIVE ACTION REQUIREMENTS

Refer to Code of Federal Regulations, Title 41 – Public Contracts ad Property Management, Chapter 60 – Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor, Part 60-4 Construction Contractors – Affirmative Action Requirements

FEDERAL GRANTS AND AGREEMENTS

REFER TO Title 2 - Grants and Agreements. Subtitle A - Office of Management and Budget Guidance for Grants and Agreements. CHAPTER II - OFFICE OF MANAGEMENT AND BUDGET GUIDANCE. - Reserved. PART 200 - UNIFORM ADMINISTRATIVE REQUIREMENTS, COST PRINCIPLES, AND AUDIT REQUIREMENTS FOR FEDERAL AWARDS.

Pt. 200, App. II

Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards

In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable.

(A) Contracts for more than the simplified acquisition threshold currently set at $150,000, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.

(B) All contracts in excess of $10,000 must address termination for cause and for convenience by the non-Federal entity including the manner by which it will be effected and the basis for settlement.

(C) Equal Employment Opportunity. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

(D) Davis-Bacon Act, as amended (40 U.S.C. 3141-3148). When required by Federal program legislation, all prime construction contracts in excess of $2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the

Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

(E) Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708). Where applicable, all contracts awarded by the non-Federal entity in excess of $100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

(F) Rights to Inventions Made Under a Contract or Agreement. If the Federal award meets the definition of "funding agreement" under 37 CFR § 401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

(G) Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended—Contracts and subgrants of amounts in excess of $150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

(H) Mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. 6201).

(I) Debarment and Suspension (Executive Orders 12549 and 12689)—A contract award (see 2 CFR 180.220) must not be made to parties listed on the governmentwide Excluded Parties List System in the System for Award Management (SAM), in accordance with the OMB guidelines at

2 CFR 180 that implement Executive Orders 12549 (3 CFR Part 1986 Comp., p. 189) and 12689 (3 CFR Part 1989 Comp., p. 235), "Debarment and Suspension." The Excluded Parties List System in SAM contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

(J) Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)—Contractors that apply or bid for an award of $100,000 or more must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

(K) See § 200.322 Procurement of recovered materials.

(End of Attachment A)

(ATTACH TO EXECUTED CONTRACT AGREEMENT)

PAYMENT BOND

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

WHEREAS, the City of South Pasadena, as AGENCY has awarded to _____, as CONTRACTOR, a contract for the above-stated project;

AND WHEREAS, CONTRACTOR is required to furnish a bond in connection with the contract, to secure the payment of claims of laborers, mechanics, material persons, and other persons as provided by law;

NOW THEREFORE, we, the undersigned CONTRACTOR and SURETY, are held and firmly bound unto AGENCY in the sum of _____, ($_____.____) Dollars, which is one hundred percent (100%) of the total contract amount for the above-stated project, for which payment well and truly to be made we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION IS SUCH that if CONTRACTOR, its heirs, executors, administrators, successors, assigns or subcontractors, shall fail to pay any of the persons named in Civil Code Section 9100, or amounts due under the Unemployment Insurance Code with respect to work or labor withheld, and to pay over to the Employment Development Department from the wages of employees of the CONTRACTOR and its subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such work and labor, that the surety or sureties herein will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, SURETY will pay reasonable attorneys' fees to the plaintiffs and AGENCY in an amount to be fixed by the court.

This bond shall inure to the benefit to any of the persons named in Civil Code Section 9100 as to give a right of action to such persons or their assigns in any suit brought upon this bond.

The SURETY hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or the specifications accompanying it shall in any manner affect SURETY's obligations on this bond. The SURETY hereby waives notice of any such change, extension, alteration or addition and hereby waives the requirements of Section 2845 of the Civil Code as a condition precedent to any remedies AGENCY may have.

Upon expiration of the time within which the California Labor Commissioner may serve a civil wage and penalty assessment against the principal, any of its subcontractors, or both the principal and its subcontractors pursuant to Labor Code Section 1741, and upon expiration of the time within which a joint labor management committee may commence an action against the principal, any of its subcontractors, or both the principal and its subcontractors pursuant to Labor Code Section 1771.2, if the condition of this Bond be fully performed, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

(Continued on Next Page)

IN WITNESS WHEREOF the parties hereto have set their names, titles, hands, and seals as of the dates set forth below:

CONTRACTOR*	CONTRACTOR's Signer's Name, Title	_____
	CONTRACTOR's Business Name	_____
	Mailing Street Address	_____
	City, State, Zip Code	_____
	Telephone #	_____
	Date:	_____
Surety*	Surety Signer's Name / Title	_____
	Surety's Business Name	_____
	Mailing Street Address	_____
	City, State, Zip Code	_____
	Telephone #	_____
	Date:	_____

*Provide CONTRACTOR and Surety name, address and telephone number and the name, title, address and telephone number for the respective authorized representatives. Power of Attorney and Notary Acknowledgement must be attached. Seals and dates of signing must also be included.

(EXECUTE IN DUPLICATE)

CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of _____

On _____ before me, _____,
(insert name and title of the officer)
personally appeared _____
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature_____ (SEAL)

FAITHFUL PERFORMANCE BOND

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

KNOW ALL PERSONS BY THESE PRESENTS That _____, hereinafter referred to as "CONTRACTOR" as PRINCIPAL, and _____, a corporation duly organized and doing business under and by virtue of the laws of the State of California and duly licensed for the purpose of making, guaranteeing, or becoming sole surety upon bonds or undertakings as Surety, are held and firmly bound unto the CITY OF SOUTH PASADENA, CALIFORNIA, hereinafter referred to as the "AGENCY" in the sum of _____, ($_____.____) Dollars, which is one hundred percent (100%) of the total contract amount for the above stated project; lawful money of the United States of America for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators, assigns and successors, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that whereas CONTRACTOR has been awarded and is about to enter into a Contract with AGENCY to perform all work required pursuant to the contract documents for the project entitled: NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT NO. 2020-02, CONTRACT which Contract is by this reference incorporated herein, and is required by AGENCY to give this Bond in connection with the execution of the Contract;

NOW, THEREFORE, if CONTRACTOR and his or her Subcontractors shall well and truly do and perform all the covenants and obligations of the Contract on his or her part to be done and performed at the times and in the manner specified herein including compliance with all Contract specifications and quality requirements, then this obligation shall be null and void, otherwise it shall be and remain in full force and effect;

PROVIDED, that any alterations in the work to be done, or in the material to be furnished, which may be made pursuant to the terms of the Contract, shall not in any way release CONTRACTOR or the Surety thereunder, nor shall any extensions of time granted under the provisions of the Contract release either CONTRACTOR or said Surety, and notice of such alterations of extensions of the Contract is hereby waived by said Surety.

In the event suit is brought upon this Bond by AGENCY and judgment is recovered, said Surety shall pay all costs incurred by AGENCY in such suit, including a reasonable attorney's fee to be fixed by the Court.

(Continued on Next Page)

IN WITNESS WHEREOF the parties hereto have set their names, titles, hands, and seals as of the dates set forth below:

CONTRACTOR*	CONTRACTOR's Signer's Name, Title	_____
	CONTRACTOR's Business Name	_____
	Mailing Street Address	_____
	City, State, Zip Code	_____
	Telephone #	_____
	Date:	_____
Surety*	Surety Signer's Name / Title	_____
	Surety's Business Name	_____
	Mailing Street Address	_____
	City, State, Zip Code	_____
	Telephone #	_____
	Date:	_____

*Provide CONTRACTOR and Surety name, address and telephone number and the name, title, address and telephone number for the respective authorized representatives. Power of Attorney and Notary Acknowledgement must be attached. Seals and dates of signing must also be included.

(EXECUTE IN DUPLICATE)

CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of _____

On _____ before me, _____,
(insert name and title of the officer)
personally appeared _____
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature_____ (SEAL)

MAINTENANCE BOND

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

KNOW ALL PERSONS BY THESE PRESENTS THAT WHEREAS, the City of South Pasadena, as AGENCY has awarded to _____, as CONTRACTOR, a contract for the above-stated project.

AND WHEREAS, CONTRACTOR is required to furnish a bond in connection with the contract guaranteeing maintenance thereof;

NOW, THEREFORE, we, the undersigned CONTRACTOR and SURETY, are held firmly bound unto AGENCY in the sum of _____, ($_____.____) Dollars, which is fifty percent (50%) of the total contract amount for the above-stated project to be paid to AGENCY, its successors and assigns, for which payment well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that if CONTRACTOR shall remedy without cost to AGENCY any defects which may develop during a period of one (1) year from the date of recordation of the Notice of Completion of the work performed under the contract, provided such defects are caused by defective or inferior materials or work, then this obligation shall be void; otherwise, it shall be and remain in full force and effect. In case suit is brought upon this bond, SURETY will pay reasonable attorneys' fees to the AGENCY in an amount to be fixed by the court.

IN WITNESS WHEREOF the parties hereto have set their names, titles, hands, and seals as of the dates set forth below:

CONTRACTOR*	CONTRACTOR's Signer's Name, Title	_____
	CONTRACTOR's Business Name	_____
	Mailing Street Address	_____
	City, State, Zip Code	_____
	Telephone #	_____
	Date:	_____
Surety*	Surety Signer's Name / Title	_____
	Surety's Business Name	_____
	Mailing Street Address	_____
	City, State, Zip Code	_____
	Telephone #	_____
	Date:	_____

*Provide CONTRACTOR and Surety name, address and telephone number and the name, title, address and telephone number for the respective authorized representatives. Power of Attorney and Notary Acknowledgement must be attached. Seals and dates of signing must also be included.

(EXECUTE IN DUPLICATE)

CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of _____

On _____ before me, _____,
(insert name and title of the officer)
personally appeared _____ who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature_____ (SEAL)

WORKERS' COMPENSATION INSURANCE CERTIFICATE

The CONTRACTOR shall execute the following form as required by the California Labor Code, Sections 1860 and 1861:

> I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

Date: _____

_____
CONTRACTOR's Business Name

By:_____
(Signature)

_____
(Title)

Attest:

By:_____
(Signature)

_____
(Title)

NOTE: See Section 5.4 Insurance of the Standard Specifications for insurance carrier rating requirements.

ENDORSEMENTS TO INSURANCE POLICY

Name of Insurance Company:_____

Policy Number:_____

Effective Date:_____

The following endorsements are hereby incorporated by reference into the attached Certificate of Insurance as though fully set forth thereon:

1. The naming of an additional insured as herein provided shall not affect any recovery to which such additional insured would be entitled under this policy if not named as such additional insured, and
2. The additional insured named herein shall not be held liable for any premium or expense of any nature on this policy or any extensions thereof, and
3. The additional insured named herein shall not by reason of being so named be considered a member of any mutual insurance company for any purpose whatsoever, and
4. The provisions of the policy will not be changed, suspended, canceled or otherwise terminated as to the interest of the additional insured named herein without first giving such additional insured twenty (20) days' written notice.
5. Any other insurance held by the additional insured shall not be required to contribute anything toward any loss or expense covered by the insurance, which is referred to by this certificate.
6. **The company provided insurance for this certificate is a company licensed to do business in the State of California with rating of "A" or higher and a Financial Class VII or higher as established by A.M. Best, or higher rating established by Moody's or Standard & Poor's.**

It is agreed that the City of South Pasadena, its officers and employees, are included as Additional Insureds under the contracts of insurance for which the Certificate of Insurance is given.

_____
Authorized Insurance Agent

Date:_____

SECTION E – STANDARD SPECIFICATIONS

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

STANDARD SPECIFICATIONS

INCORPORATION OF GREENBOOK. The 2024 edition of the Standard Specifications for Public Works Construction ("SSPWC" or "Greenbook") shall be incorporated by reference into these Standard Specifications as if fully replicated herein. These Standard Specification shall be supplemented, amended, or replaced by the Special Provision contained in Section F and G herein below. To the extent that anything in the Special Provisions conflicts with the terms or requirements of the SSPWC, the Special Provisions shall control.

SECTION F – SPECIAL PROVISIONS

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

SPECIAL PROVISIONS – PART 1. The following provisions supplement, amend, or replaced the requirements of the Standard Specifications for Public Works Construction ("SSPWC" or "Greenbook"). To the extent that anything in these Special Provisions conflicts with the terms or requirements of the SSPWC, these Special Provisions shall control.

SECTION 1 - GENERAL

1-1 GENERAL. Unless otherwise stated, the words *directed, required, permitted, ordered, instructed, designated, considered necessary, prescribed, approved, acceptable, satisfactory*, or words of like meaning, refer to actions, expressions, and prerogatives of the Engineer.

1-2 TERMS AND DEFINITIONS

Acceptance – The AGENCY's formal written acceptance of a project that has been completed in all respects in accordance with the plans and specifications and any modifications thereof.

AGENCY – The City of South Pasadena.

Agent – Shall include persons and companies, other than the CONTRACTOR, retained by the City to perform design and construction services in relation to the Work.

Board – The City Council of the City of South Pasadena.

City – The City of South Pasadena, California, as the AGENCY and Owner.

City Council – City Council of the City of South Pasadena, California.

Construction Manager – Persons and/or company retained by the City to perform construction management services.

Contract Documents – Including, but not limited to: the Contract, any Addendum and Memorandum (which pertain to the contract documents), Notice Inviting Bids, Instructions to Bidders; Bid (including documentation accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Contract, the Bonds, the general conditions, permits from other agencies, the Special Provisions, the Plans, Standard Plans, Standard Specifications, Reference Specifications, and all Modifications issued after the execution of the Contract.

Days – Days shall mean consecutive calendar's days unless otherwise specified.

Design Engineer – Persons and/or company retained by the City to perform engineering design services.

Due Notice – A written notification, provided in due time, of a proposed action, where the contract requires such notification within a specified time (usually 48 hours or two working days) prior to the commencement of the contemplated action.

Engineer – The City Engineer of the City of South Pasadena, or his/her authorized representative.

Geotechnical Engineer – Person licensed to practice Soils Engineering or Geotechnical Engineering pursuant to the laws of the State of California and retained by the AGENCY during construction.

Geotextile – Synthetic fiber used in civil engineering applications, serving the primary functions of separation and filtration.

House Sewer – A sewer, wholly within private property, proposed to connect any building to a house connection sewer.

Luminaire Arm – The structural member, bracket, or mast arm, which, mounted on the standard, supports the luminaire.

Owner – City of South Pasadena, California.

Prompt – The briefest interval of time required for a considered reply, including time required for approval by a governing body.

Proposal – See Bid.

Reference Specifications – Those bulletins, standards, rules, methods of analysis or test, codes, and specifications of other agencies, engineering societies, or industrial associations referred to in the Contract Documents. These refer to the latest edition, including amendments in effect and published at the time of advertising the project or issuing the permit, unless specifically referred to by edition, volume, or date.

Standard Plans – "Standard Plans for Public Works Construction" or "SSPWC" – Latest edition of the Southern California Chapter of the American Public Works Association.

State Standard Specifications ("SSS") – Standard Specifications prepared by the State of California, Business and Transportation Agency, Department of Transportation.

State Standard Plans ("SSP") – Standard Plans prepared by State of California, Business and Transportation Agency, Department of Transportation.

Storm Drain – Any conduit and appurtenances intended for the reception and transfer of storm water.

Tonne – Also referred to as "metric ton" — Represents a unit of measure in the International System of Units equal to 1,000 kilograms.

Work – That which is proposed to be constructed or done under the Contract or permit, including the furnishing of all labor, materials, equipment, and services.

Working Days – Any days, except: (1) Sundays, legal holidays on which South Pasadena City Hall is closed for business; (2) days when work is suspended by the Engineer for reasons unrelated to the performance of the CONTRACTOR and provided in Subsection 6-6.1; and (3) days determined to be non-working in accordance with Section 6-3 "Time of Completion."

1-3 ABBREVIATIONS

1-3.3 Institutions. *Add the following:*
These Standard Specifications incorporate by reference the list of commonly used institution terms in the edition of the "Standard Plans for Public Works Construction" (aka the Greenbook) with the following additions:

AGCA	Associated General CONTRACTORs of America
APWA	American Public Works Association
CRSI	Concrete Reinforcing Steel Institute
CSI	Construction Specifications Institute
NFPA	National Fire Protection Association
SSS	State of California Standard Specifications, latest edition, Department of Transportation
SSP	State of California Standard Plans, latest edition, Department of Transportation.
SSPWC	Standard Specifications for Public Works Construction

1-4 UNITS OF MEASURE

1-4.1 General. *Add the following:*

When U.S. Standard Measures are not included in parenthesis, then the SI units shall control.

1-7 AWARD AND EXECUTION OF CONTRACT. *Add the following:*

1-7.0 Investigation of Site Conditions. Prior to submittal of the bid, Bidders must visit the site of work and complete their own investigations to satisfy themselves as to the existing conditions affecting the work to be done under these specifications. If the bidder chooses not to visit the site or conduct investigations, he will, nevertheless, be charged with the knowledge of conditions which reasonable inspection and investigation would have disclosed.

After the project is awarded, the CONTRACTOR shall carefully study and compare the Contract Documents with each other and with information available to the CONTRACTOR and furnished by the Owner and shall immediately notify the Engineer of errors, inconsistencies or omissions discovered. If the CONTRACTOR performs any construction activity knowing it involves a recognized error, inconsistency or omission in the Contract Documents without such notice to the Engineer, the CONTRACTOR shall assume appropriate responsibility for such performance and may assume responsibility for the full costs for correction.

The CONTRACTOR shall make field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to the CONTRACTOR with the Contract Documents before commencing activities. Errors, inconsistencies, or omissions discovered shall be reported to the Engineer immediately.

When existing conditions are encountered which, in the opinion of the Engineer, require temporary suspension of work for design modifications or for other determinations to be made, the CONTRACTOR shall move to other areas of work until such determinations are made at no cost to the City. No additional compensation will be allowed by reason of such temporary suspension of work, or modifications to work, except as noted in Section 3 of these Standard Specifications ("Changes in Work") for specific items of work not included in the bid. Appropriate extension of item for completion may be allowed where justification in the opinion of the Engineer.

1-7.1 General. *Add the following:*

The City reserves the right to reject any or all proposals.

The Contract will be awarded, if at all, to the lowest responsible and responsive Bidder determined as provided on the Proposal Form, whose proposal complies with all the requirements prescribed. Such award, if made, will be made within the number of days stated in the proposal form. Refusal or failure to deliver the executed contract, bonds, or insurance in the form provided in the Contract and approved by the AGENCY's attorney within the time provided herein shall be cause, at the AGENCY's option, for the annulment of the award and forfeiture of the bid security. In such event, the AGENCY may successively award the Contract to the next lowest responsible and responsive Bidder until a properly executed Contract, bonds, and insurance is obtained, or it may at any time reject all remaining bids and proceed as provided by law. The refusal or failure of a successive lowest responsible and responsive Bidder to execute the Contract may, at the AGENCY's option, result in an annulment of the award to that Bidder and the forfeiture of that Bidder's bid security. The periods of time specified above within which the award of the Contract may be made shall be subject to extension for such further period as may be agreed upon in writing between the AGENCY and the concerned Bidder.

The AGENCY reserves the right to waive any irregularities.

Within ten (10) calendar days after the date of the Notice of Award, the CONTRACTOR shall execute and return the following contract documents to the AGENCY:

Contract Agreement (in duplicate)
Faithful Performance Bond (in duplicate)
Maintenance Bond (in duplicate)
Payment Bond (in duplicate)
Public Liability and Property Damage Insurance Certificate (two originals)
Additionally Insured Endorsement
Workers' Compensation Insurance Certificate (two originals)

A corporation to which an award is made may be required, before the Contract agreement is executed by the AGENCY, to furnish evidence of its corporate existence, of its right to enter into contracts in the State of California, and that the officers signing the contract and bonds for the corporation have the authority to do so.

1-7.2 Contract Bonds. *Add the following:*

The PAYMENT BOND shall remain in force until thirty-five (35) calendar days after the date of recordation of the Notice of Completion. The FAITHFUL PERFORMANCE BOND shall remain

in force until the date of recordation of the Notice of Completion. The MAINTENANCE BOND shall remain in force until one (1) year after the date of recordation of the Notice of Completion.

All bonds must be accompanied by a Power of Attorney.

SECTION 2 - SCOPE OF THE WORK

2-1 WORK TO BE DONE. *Add the following:*

Any plan or method of work suggested by the AGENCY or the Engineer to the CONTRACTOR but not specified or required, if adopted or followed by the CONTRACTOR in whole or in part, shall be used at the risk and responsibility of the CONTRACTOR; and the AGENCY and the Engineer shall assume no responsibility therefore and in no way be held liable for any defects in the work which may result from or be caused by use of such plan or method of work.

2-3 RIGHT-OF-WAY. *Substitute the following:*

Rights-of-way, easements, or rights-of-entry for the Work will be provided by the AGENCY. Unless otherwise provided, the CONTRACTOR shall make arrangements, pay for, and assume all responsibility for acquiring, using, and disposing of additional work areas and facilities temporarily required. The CONTRACTOR shall fully defend, indemnify and hold harmless AGENCY, its authorized representatives and their representative subsidiaries, affiliates, members, director, officer, employees and agents, including parties that AGENCY contracts with (including other governmental agencies such as the California Department of Transportation) (collectively, the "Indemnitees") from and against any and all claims, actions, demands, costs, judgments, liens, penalties, liabilities, damages, losses, and expenses, including but not limited to any fees of accountants, attorneys or other professionals (collectively "Liabilities"), arising out of, in connection with these actions.

When the CONTRACTOR arranges for additional work areas and facilities temporarily required by him/her, he/she shall provide the AGENCY with proof that the additional work areas and/or facilities have been left in a condition satisfactory to the owner(s) of said work areas and/or facilities prior to acceptance of the work.

2-5 CONTRACTOR'S EQUIPMENT AND FACILITIES.

2-5.1 General. *Add the following:*

The CONTRACTOR shall furnish and maintain in good condition all equipment and facilities as required for the proper execution and inspection of the Work. Such equipment and facilities shall meet all requirements of applicable ordinances and laws.

A noise level limit of 85 dba at a distance of fifty (50) feet shall apply to all construction equipment on or related to the job, whether owned by the CONTRACTOR or not. The use of excessively loud warning signals shall be avoided except in those cases where required for the protection of personnel.

The CONTRACTOR shall arrange and maintain a secure storage site for all equipment and materials. All equipment and unused materials shall be returned to this site at the end of each workday. At no time will the contractor store equipment or material on the public right of way outside of working hours.

SECTION 3 - CONTROL OF THE WORK

3-3 SUBCONTRACTORS. *Add the following:*

3-3.1 General. Each Bidder shall comply with the Public Contract Code including Sections 4100 through 4113. The following excerpts or summaries of some of the requirements of this Chapter are included below for information:

The Bidder shall set for the in the Bid, as provided in 4104:

> "(a) The name, and location of the place of business, the California contractor license number, and public works contractor registration number issued pursuant to Section 1725.5 of the Labor Code of each subcontractor who will perform work or labor or render service to the prime CONTRACTOR in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime CONTRACTOR, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime CONTRACTOR's total bid, or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime CONTRACTOR's total bid or ten thousand dollars ($10,000), whichever is greater."
>
> "(b) The portion of the work which will be done by each such subcontractor under this act. The prime CONTRACTOR shall list only one subcontractor for each such portion as is defined by the prime CONTRACTOR in his bid."

Subcontracting of more than one-half of one percent of the work for which no Subcontractor was designated in the original Bid will be allowed only in cases of public emergency or necessity and only after the Engineer makes a written finding of circumstances constituting public emergency or necessity.

The CONTRACTOR must obtain written consent of the City to substitute a Subcontractor designated in the original Bid, to permit any subcontract to be assigned or transferred, or to otherwise allow a subcontract to be performed by anyone other than the originally designated Subcontractor.

A violation of any of the above provisions will be considered a violation of the Contract, and the City may cancel the Contract and collect appropriate damages or assess the CONTRACTOR a penalty of not more than ten (10) percent of the subcontract involved.

If subcontracted work is not being performed in a satisfactory manner, the City will notify the CONTRACTOR of the need to take corrective action and the Engineer may report the facts to the City Council. Upon order by City Council and the CONTRACTOR's receipt of written instructions from the Engineer, the Subcontractor shall immediately be removed from the Work and may not again be employed on the Work.

3-3.2 Additional Responsibility. The CONTRACTOR shall perform, with its own organization, Contract work amounting to at least 50 percent of the Contract Price except that any designated "Specialty Items" may be performed by subcontract and the amount of any such "Specialty Items" so performed may be deducted from the Contract Price before computing the amount required to be performed by the CONTRACTOR with its own organization. "Specialty Items" will be identified by the AGENCY in the Bid or Proposal. Where an entire item is subcontracted, the value

of work subcontracted will be based on the Contract Unit Price. When a portion of an item is subcontracted, the value of work subcontracted will be based on the estimated percentage of the Contract Unit Price. This will be determined from information submitted by the CONTRACTOR, and subject to approval by the Engineer.

3-3.3 Status of Subcontractors. All persons engaged in the Work, including Subcontractors and their employees, will be considered employees of the CONTRACTOR. The CONTRACTOR will be held responsible for their work. The AGENCY will deal directly and solely with the CONTRACTOR and make all payments to the CONTRACTOR.

3-4 AUTHORITY OF BOARD AND THE ENGINEER. *Substitute the following:*

The Board has the final authority in all matters affecting the Work. Within the scope of the Contract, the Engineer has the authority to enforce compliance with the Plans and Specifications. The CONTRACTOR shall promptly comply with instructions from the Engineer or an authorized representative.

The decision of the Engineer is final and binding on all questions relating to: quantities; acceptability of materials, equipment, or work; execution, progress or sequence of work; and interpretation of the Plans, Specifications, or other drawings. This shall be precedent to any payment under the Contract, unless otherwise ordered by the Board.

3-7 CONTRACT DOCUMENTS.

3-7.1 General. *Add the following:*

The CONTRACTOR shall ascertain the existence of any conditions affecting the cost of the Work through a reasonable examination of the Work site prior to submitting the Bid.

Existing improvements visible at the Work site, for which no specific disposition is made on the Plans, but which interfere with the completion of the Work, shall be removed and disposed of by the CONTRACTOR.

The CONTRACTOR shall, upon discovering any error or omission in the Plans or Specifications, immediately call it to the attention of the Engineer.

All final locations determined in the field, and any deviations from the Plans and Specification, shall be marked in red on the documents to show the as-built conditions. CONTRACTOR shall maintain a complete and accurate record of all changes of construction from that shown in these plans and specifications for the purpose of providing a basis for construction record drawings. No changes shall be made without prior written approval of the Engineer. Upon completion of the Project, CONTRACTOR shall deliver this record of all construction changes to the Engineer along with a letter which declares that other than these noted changes "the Project was constructed in conformance with the Contract Documents." Final payment will not be made until this requirement is met.

As the figured dimensions shown on the drawings and in the specifications of the Contract may not in every case agree with scaled dimensions, the figured dimensions shall be followed in preference to the scaled dimensions, and drawings to a large scale shall be followed in preference to the drawings to a small scale. Should it appear that the work to be performed, or any related matter, are not sufficiently detailed or explained in the Contract documents, the CONTRACTOR shall apply to the Engineer for such further explanations as necessary, and shall conform to such

further explanations provided by the Engineer as part of the Contract to the extent that it is consistent with the terms of the Contract.

Caution: The engineer preparing these plans will not be responsible or liable for unauthorized changes to or uses of these plans. All changes to the plans must be approved in writing by the Engineer.

(a) Records of Construction Changes / As-Builts. CONTRACTOR shall maintain a complete and accurate record of all changes of construction from that shown in these Plans and Specifications for the purpose of providing a basis for construction record drawings. No changes shall be made without prior written approval of the City Engineer.

Upon completion of the Project, CONTRACTOR shall deliver this record of all construction changes to the Engineer along with a letter which declares that other than these noted changes that Project was constructed in conformance with the Contract Documents.

Caution: The engineer preparing these Plans will not be responsible for, or liable for, unauthorized changes to or uses of these Plans. All changes to the Plans must be approved in writing by City Engineer.

3-7.2 Precedence of Contract Documents. *Substitute the following:*

If there is a conflict between any of the Contract Documents, the document highest in precedence shall control. The order of precedence, from highest to lowest, shall be as follows:

1) Permits issued by jurisdictional regulatory agencies.

2) Change Orders and/or Supplemental Agreements; whichever occurs last.

3) Contract/Agreement

4) Addenda.

5) Bid/Proposal.

6) Special Provisions.

7) Plans.

8) Notice Inviting Bids

9) Instructions to Bidders

10) Standard Plans.

11) Standard Specifications.

12) Reference Specifications.

3-8 SUBMITTALS. *Substitute the following:*

3-8.1 General. *Add the following:*

Within 10 working days of the execution of the contract, the CONTRACTOR shall provide submittals for all new traffic signal poles as identified on the project design plans. After City approval of the traffic signal pole submittals, the CONTRACTOR shall place the traffic signal pole order with the manufacturer within 5 working days.

3-10 SURVEYING. *Substitute the following:*

3-10.1 General. The CONTRACTOR will provide all necessary construction surveying, staking or markings for locating the limits of construction and shall comply with the provisions of 2-9 of these Standard Specifications. The CONTRACTOR shall bear all costs for restaking or marking.

Construction surveys shall be done only under the direction of the Engineer by a Registered (licensed) Land Surveyor or a Registered Civil Engineer authorized to practice land surveying within the state. The AGENCY will provide available record map information. The CONTRACTOR is responsible for obtaining all necessary record maps, centerline ties and survey notes from Los Angeles County.

The CONTRACTOR and his surveyor shall provide the Engineer with a copy of the constructing staking field notes used to construct the improvements. In addition the CONTRACTOR shall also prove a plot of the improvements to be constructed based on the surveyor's construction staking and markings prior to the installation of the improvements. The plot shall be the same scale as the improvement plans.

3-10.2 Permanent Survey Markers. The CONTRACTOR shall notify the Engineer, or the owner on a Private Contract, at least 7 days before starting work to allow for the preservation of survey monuments, lot stakes (tagged), and bench marks.

The CONTRACTOR shall protect existing survey monuments, if any exist within the work limits, during the entire project. Asphalt overlaying of existing survey monuments in the roadway will not be permitted. In the event a surveyed monument lies within an area to be cold planed, removed or reconstructed, the CONTRACTOR shall immediately notify the AGENCY's representative and protect said monument until the monument is relocated.

The CONTRACTOR shall reestablish destroyed survey monuments at the CONTRACTOR's expense.

The CONTRACTOR shall file a Corner Record Form referencing survey monuments subject to disturbance in the Office of the County Surveyor prior to the start of construction and also prior to the completion of construction for the replacement of survey monuments. The CONTRACTOR shall not disturb survey monuments, lot stakes (tagged), or benchmarks without the consent of the Engineer or the owner on Private Contracts. The CONTRACTOR shall bear the expense of replacing any that may be disturbed without permission. Replacement shall be done only under the direction of the Engineer by Registered (licensed) Licensed Land Surveyor or a Registered Civil Engineer authorized to practice land surveying within the state.

When a change is made in the finished elevation of the pavement of any roadway in which a permanent survey monument is located, the CONTRACTOR shall adjust the monument cover to the new grade within 7 days of finished paving unless otherwise specified.

3-10.3 Line and Grade. The CONTRACTOR shall be responsible for all survey and layout of work.

The line and grades for construction will be parallel to and offset from the position of the work. From the established lines and grades, the CONTRACTOR shall extend the necessary lines and grades for construction of the work and shall be responsible for the correctness of same.

All work shall conform to the lines, elevations, and grades shown on the Plans.

Three consecutive points set on the same slope shall be used together so that any variation from a straight grade can be detected. Any such variation shall be reported to the Engineer. In the absence

of such report, the CONTRACTOR shall be responsible for any error in the grade of the finished work.

Grades for underground conduits will be set at the surface of the ground. The CONTRACTOR shall transfer them to the bottom of the trench.

3-10.4 Survey Service. The Engineer will oversee surveying adequate for construction. The CONTRACTOR shall preserve construction survey stakes and marks for the duration of their usefulness. If any construction survey stakes are lost or disturbed and need to be replaced, such replacement shall be by the CONTRACTOR at his expense.

The CONTRACTOR shall notify the Engineer in writing at least 2 working days before survey services take place for the laying out of any portion of the Work. The CONTRACTOR shall dig all holes necessary for line and grade stakes.

Unless otherwise specified, stakes will be set and stationed by the CONTRACTOR for curbs, headers, sewers, storm drains, structures, and rough grade. A corresponding cut or fill to finished grade (or flowline) will be indicated on a grade sheet.

3-10.5 Payment. Payment for **CONSTRUCTION SURVEYING** shall be at the contract LUMP SUM (LS) price bid, and shall include full compensation for all labor, materials, tools, equipment and incidentals necessary to do all the work involved thereof, complete, in place, and accepted. Payment for construction surveying, construction staking, resetting of survey tags and monuments, professional services, office calculations, preparation and filing of corner records before and after construction, county fees, monuments, swing ties, certification letters, furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved shall be considered as included in the contract LUMP SUM (LS) price bid for Construction Surveying, and no additional compensation will be allowed.

3-12 WORK SITE MAINTENANCE

3-12.1 General. *Add the following:*

The CONTRACTOR shall also abate dust nuisance by cleaning, sweeping and sprinkling with water, or other means as necessary. The use of water resulting in mud on public streets will not be permitted as a substitute for sweeping or other methods.

Materials and equipment shall be removed from the site as soon as they are no longer necessary. Before the final inspection, the site shall be cleared of equipment, unused materials, and rubbish so as to present a satisfactory clean and neat appearance. All cleanup costs shall be included in the CONTRACTOR's Bid.

Excess excavated material from catch basins or similar structures shall be removed from the site immediately. Sufficient material may remain for use as backfill if permitted by the Specifications. Forms and form lumber shall be removed from the site as soon as practicable after stripping.

3-12.1.1 Vermin Control. *Add the following:*

At the time of acceptance, structures entirely constructed under the Contract shall be free of rodents, insects, vermin, and pests. Necessary extermination work shall be arranged and paid for by the CONTRACTOR as part of the Work within the Contract time, and shall be performed by a licensed exterminator in accordance with requirements of governing authorities. The

CONTRACTOR shall be liable for injury to persons or property and responsible for the elimination of offensive odors resulting from extermination operations.

3-12.3 Noise Control. *Add the following:*

CONTRACTOR shall adhere to City noise restrictions at all times. Pursuant to Chapter 19 of the South Pasadena Municipal Code, construction activity is prohibited within a residential zone or within 500 feet thereof on Monday through Friday before 8:00 a.m. and after 7:00 p.m., Saturday before 9:00 a.m. and after 7:00 p.m., and on Sundays and City recognized holidays before 10:00 a.m. and after 6:00 p.m. Night work is exempt from the noise control requirements with approval of the City Engineer during the night work request.

3-12.6.3 Storm Water Pollution Prevention Plan (SWPPP). *Add the following:*

CONTRACTOR shall submit to the engineer a completed and signed SWPPP one week prior to the preconstruction meeting. The plan may utilize the practices recommended in the latest edition of the *California Storm Water Best Management Practices Handbook*, available from California Stormwater Quality Association (CSQA), and online at http://www.cabmphandbooks.net/ . The plan shall be consistent with the construction General Permit, issued by the State Water Resources, Control Board, through submittal of the Notice of Intent (NOI).

If construction will occur between October 15 and April 15 (considered as the rainy season per the City of South Pasadena), a wet weather erosion control plan must be submitted. Additionally, Best Management Practices (BMPs) implemented during the AGENCY's rainy season shall include but not be limited to those appropriate for wet weather conditions.

The prepared SWPPP must be submitted by the contractor to Caltrans and approved prior to construction initiation.

(a) Storm Water Pollution Prevention Measures. All storm water pollution prevention measures shall be in accordance with the submitted SWPPP. In the event circumstances during the course of construction require changes to the original SWPPP, a revised plan shall be promptly submitted to the AGENCY's representative in each instance. No responsibility shall accrue to the AGENCY as a result of the plan or as a result of knowledge of the plan. All work installed by the CONTRACTOR in connection with the SWPPP but not specified to become a permanent part of the project shall be removed and the site restored in so far as practical to its original condition prior to completion of construction or when directed by the AGENCY's representative.

(b) Storm Water Pollution Prevention – Measurement And Payment. Payment for **STORM WATER POLLUTION PREVENTION PLAN** shall be at the contract LUMP SUM (LS) price bid, and shall include full compensation for all labor, documentation, materials, tools, equipment and incidentals necessary to do all the work involved thereof, complete, in place, and accepted.

CONTRACTOR shall be responsible for all permitting and submittals as well as monitoring and reporting for the SWPPP.

Payment for the installation, maintenance and removal of any necessary BMPs for SWPPP purposes throughout the duration of the project shall be considered as included in the contract LUMP SUM (LS) price bid for Storm Water Pollution Prevention Plan.

Add the following: **3-12.7 Temporary Traffic Control Plans**

The contractor shall be responsible for producing and providing project specific temporary traffic control plans inclusive of pedestrian management and detours. Each stage of traffic control shall be provided for City review two weeks prior to the pre-construction meeting. Temporary traffic control plans with equipment within the Caltrans right-of-way shall be produced first, submitted separately to the City and to be included with any Caltrans rider permit application.

Add the following: **3-12.7.1 Payment**

Temporary traffic control plans Payment for **Temporary Traffic Control Plans** shall be paid at the contract price as **per intersection each (EA)** and shall include full compensation and include but not limited to furnishing all labor, materials, submittals and incidentals for producing the plans.

3-13 COMPLETION, ACCEPTANCE, AND WARRANTY

3-13.1 Completion. *Add the following:*

The Work will be inspected by the Engineer for acceptance upon receipt of the CONTRACTOR's written assertion that the Work has been completed.

3-13.3 Warranty. *Add the following:*

All work shall be warranted by the CONTRACTOR against defective workmanship and materials for a period of 1 year from the date the Work was completed. The CONTRACTOR shall replace or repair any such defective work in a manner satisfactory to the Engineer, after notice to do so from the Engineer, and within the time specified in the notice. If the CONTRACTOR fails to make such replacement or repairs within the time specified in the notice, the AGENCY may perform this work and the CONTRACTOR's sureties shall be liable for the cost thereof.

SECTION 4 - CONTROL OF MATERIALS

4-1 GENERAL. *Add the following:*

Used or secondhand materials, parts, and equipment may be used only if permitted by the Specifications.

The CONTRACTOR and all subcontractors, suppliers, and vendors shall guarantee that the entire Work will meet all requirements of this Contract as to the quality of materials, equipment, and workmanship. The CONTRACTOR, at no cost to the AGENCY, shall make any repairs or replacements made necessary by defects in materials, equipment, or workmanship that become evident within one year after the date of recordation of the Notice of Completion. Within this one-year period, the CONTRACTOR shall also restore to full compliance with the requirements of this Contract any portion of the Work which is found not to meet those requirements. The CONTRACTOR shall defend, indemnify, and hold the AGENCY, its officers, agents, and employees harmless from claims of any kind due to injuries or damages arising, directly or indirectly, from said defects or noncompliance.

The CONTRACTOR shall make all repairs, replacements, and restorations within thirty-five (35) days after the date of the Engineers' written notice.

If, in the opinion of the Engineer, the defective work is not of sufficient magnitude or importance to make the work dangerous or undesirable, or if, in the opinion of the Engineer, the removal of such work is impractical or will create conditions which are dangerous or undesirable, the AGENCY shall have the right and authority to retain such work instead of requiring it to be removed and reconstructed, but will make such deductions thereof in the payments due or to become due to the CONTRACTOR as the AGENCY may deem just and reasonable.

4-2 PROTECTION. *Add the following:*

The CONTRACTOR shall be responsible for the protection of public and private property adjacent to the Work and shall exercise due caution to avoid damage to such property.

The CONTRACTOR shall relocate, repair, replace or reestablish all existing improvements within the project limits (e.g., curbs, sidewalks, catch basins, catch basin screens, driveways, fences, walls, sprinkler systems, signs, utility installations, pavements, structures, survey monuments, landscaping, etc.) that are damaged or removed as a result of the CONTRACTOR's operations or as required by the plans and specifications.

All existing improvements, either within the right-of-way or not, including irrigation lines that are damaged by actions of the CONTRACTOR, shall be restored by the CONTRACTOR to their original or better condition at the CONTRACTOR's expense.

The CONTRACTOR shall mark, as approved by the Engineer, all survey monuments, manholes, valves, substructures, or other items that are visible on the surface and will be covered by his operations. This shall be completed prior to the start of that operation and approved by the Engineer.

Existing traffic striping, pavement markings, and curb markings shall also be considered as existing improvements and the CONTRACTOR shall repaint or replace, at the CONTRACTOR's expense, such striping or markings (except for traffic striping and pavement markings within the limits of the Work) if damaged or if their reflectivity is reduced due to construction operations.

All restoration of existing improvements must occur within the construction completion date, unless directed otherwise by the City Engineer.

Maintenance of street and traffic signal systems that are damaged, temporarily removed or relocated shall be done in conformance with the Contract Documents.

Trees, lawns, and shrubbery that are not to be removed shall be protected from damage or injury. If damaged or removed due to CONTRACTOR's operations, they shall be restored or replaced in as nearly the original condition and location as is reasonably possible. Lawns shall be reseeded and covered with suitable mulch.

The CONTRACTOR shall give reasonable notice to occupants or owners of adjacent property to permit them to salvage or relocate plants, trees, fences, sprinklers, and other improvements, within the right-of-way which are designated for removal and would be destroyed because of the Work.

All costs to the CONTRACTOR for protecting, removing, restoring, relocating, repairing, replacing, or reestablishing existing improvements shall be the responsibility of the CONTRACTOR.

4-6 TRADE NAMES. *Add the following:*

Along with information supplied by the CONTRACTOR regarding equivalency of the proposed item, the CONTRACTOR shall clearly identify all deviations from the specified item. Deviations discovered by the Engineer after acceptance of an "or equal" item which were not identified by the CONTRACTOR with his/her submittal shall be cause for rejection of the "or equal" item. CONTRACTOR shall be due no additional compensation in time or money for acceptance or rejection of a proposed "or equal" item and subsequent replacement with the item specified. CONTRACTOR shall pay cost to AGENCY for items requiring more than two submittals and analysis of any shop drawing which requires more than a general review of an "or equal" item.

Add the following Section 4-9:

4-9 CONSTRUCTION MATERIALS DISPUTE RESOLUTION (Soils, Rock Materials, Concrete, Mortar and Related Materials, Masonry Materials, Bituminous Materials, Rock Products, and Modified Asphalts). In the interest of safety and public value, whenever credible evidence arises to contradict the test values of materials, the AGENCY and the CONTRACTOR will initiate, an immediate and cooperative investigation. Test values of materials are results of the materials' tests, as defined by these Specifications or by the special provisions, required to accept the Work. Credible evidence is process observations or test values gathered using industry accepted practices. A contradiction exists whenever work acceptance or performance becomes suspect. The investigation shall allow access to all test results, procedures, and facilities relevant to the disputed work and consider all available information and, when necessary, gather new and additional information to determine the validity, the cause, and if necessary, the remedy to the contradiction. If the cooperative investigation reaches any resolution mechanism acceptable to both the AGENCY and the CONTRACTOR, the contradiction shall be considered resolved and the cooperative investigation concluded.

Whenever the cooperative investigation is unable to reach resolution, the investigation may then either conclude without resolution or continue by written notification of one party to the other requesting the implementation of a resolution process by committee. The continuance of the investigation shall be contingent upon recipient's agreement and acknowledged in writing within 3 calendar days after receiving a request. Without acknowledgement, the investigation shall conclude without resolution. The committee shall consist of three State of California Registered Civil Engineers. Within 7 calendar days after the written request notification, the AGENCY and the CONTRACTOR will each select one engineer. Within 14 calendar days of the written request notification, the two selected engineers will select a third engineer. The goal in selection of the third member is to complement the professional experience of the first two engineers. Should the two engineers fail to select the third engineer, the AGENCY and the CONTRACTOR shall each propose 2 engineers to be the third member within 21 calendar days after the written request notification. The first two engineers previously selected shall then select one of the court proposed engineers in a blind draw.

The committee shall be a continuance of the cooperative investigation and will re-consider all available information and if necessary, gather new and additional information to determine the validity, the cause, and if necessary, the remedy to the contradiction. The committee will focus upon the performance adequacy of the material(s) using standard engineering principles and practices and to ensure public value, the committee may provide engineering recommendations as necessary. Unless otherwise agreed, the committee will have 30 calendar days from its formation to complete their review and submit their findings. The final resolution of the committee shall be

by majority opinion, in writing, stamped and signed. Should the final resolution not be unanimous, the dissenter may attach a written, stamped, and signed minority opinion.

Once started, the resolution process by committee shall continue to full conclusion unless:

1. Within 7 days of the formation of the committee, the AGENCY and the CONTRACTOR reach an acceptable resolution mechanism; or
2. Within 14 days of the formation of the committee, the initiating party withdraws its written notification and agrees to bear all investigative related costs thus far incurred; or
3. At any point by the mutual agreement of the AGENCY and the CONTRACTOR.

Unless otherwise agreed, the CONTRACTOR shall bear and maintain a record for all the investigative costs until resolution. Should the investigation discover assignable causes for the contradiction, the assignable party, the AGENCY or the CONTRACTOR, shall bear all costs associated with the investigation. Should assignable causes for the contradiction extended to both parties, the investigation will assign costs cooperatively with each party or when necessary, equally. Should the investigation substantiate a contradiction without assignable cause, the investigation will assign costs cooperatively with each party or when necessary, equally. Should the investigation be unable to substantiate a contradiction, the initiator of the investigation shall bear all investigative costs. All claim notification requirements of the contract pertaining to the contradiction shall be suspended until the investigation is concluded.

SECTION 5 - LEGAL RELATIONS AND RESPONSIBILITIES

5-2 SPECIAL NOTICES. *Add the following:*

5-2.1 Mandatory Notification Prior To Excavation. The CONTRACTOR's attention is direct to Section 4215.5 through 4217 of the Government Code of the State of California. This requires that two (2) working days prior to commencing any excavation "Underground Service Alert of Southern California" (USA) ("Digalert") shall be notified by phone, toll free 1-800-422-4133, or 811, for the assignment of an Inquiry Identification Number.

CONTRACTOR shall contact all utility companies at least five (5) working days prior to commencing work and shall verify the location of any known utilities and determine whether or not a representative of each company will be present during excavation.

The known public utilities contacts are:

1.	City of South Pasadena, Public Works Inspection	(626) 403-7240
2.	AT&T	(626) 365-5733
3.	Southern California Edison	(714) 796-9932
4.	Southern California Gas Company	(800) 427-2000
5.	South Pasadena Water Department	(626) 403-7370
6.	Spectrum	(833) 267-6094
7.	South Pasadena Sewer Department	(626) 403-7370
8.	Athens Services	(888) 336-6100

The CONTRACTOR shall coordinate construction with public utility relocation activities.

The existing subsurface utilities shown have been indicated, based on the best available record information. However, to avoid or resolve any interference problems between these existing utilities and the proposed work, the CONTRACTOR shall field verify the vertical and horizontal locations of all utilities, such as water lines and water services, electronic conduits, telephone and television cable, storm drain facilities, and all other facilities and obstructions prior to beginning any excavations. If conflicts exist, revised grades and/or alignments may be established, if required. **Such field verification shall require exposing these utilities prior to the start of construction**.

Special reference is hereby made to Section 4-2, "Protection," of the Standard Specifications with respect to the protection, repair, and replacement of existing subsurface utilities.

Additionally, the CONTRACTOR shall also notify the following local entities of his/her schedule fourteen (14) days prior to commencing work, including local refuse collectors, street sweepers, the Post Office, Public Schools, and Bus Companies:

City of South Pasadena Attn: Julian Lee, Public Works Director	(626) 403-7240
City of South Pasadena Attn: Anteneh Tesfaye, Deputy Director of Public Works	(626) 403-7378
City of South Pasadena, Public Works Engineering Division Attn: Michael Vartanians, City Engineer	(626) 403-7245
City of South Pasadena, Public Works Water Division Attn: Victor Magana, Water Operations Manager	(626) 403-7396
City of South Pasadena, Public Works Operation Division Attn: Catrina Peguero, Operations Manager	(626) 403-7376
City of South Pasadena Attn: Eddie Munoz, Streets Supervisor	(626) 403-7375
Metropolitan Water District	(213) 217-7663
AT&T Communications	(626) 570-5454
Los Angeles County Sanitation Districts Attn: Doug Walton	(310) 638-1161
Los Angeles County Public Works Department Construction Division Attn: Regina Quan	(626) 458-3109
Los Angeles County Public Works Department Traffic & Lighting Division Attn: April Angeles Atten: Jasmine De Luna	 (626) 458-5905 (626) 458-3122
SBC	(626) 373-5960
Southern California Edison	(626) 303-8405
Southern California Gas Company	(800) 427-2000
Spectrum	(833) 267-6094
Underground Service Alert (Dig Alert)	(800) 422-4133

No excavation shall commence unless the CONTRACTOR has obtained the USA Inquiry Identification Number.

5-1.2 Accuracy of Utilities Information. The locations of known existing major utilities, whether above ground or underground, are indicated on the plans. Information and data reflected in the Contract Documents with respect to underground and above ground utilities at or contiguous to the site is based upon information and data furnished to the City and the Engineer by the owners of such utilities, and the City does not assume responsibility for the accuracy or completeness thereof. The CONTRACTOR shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be necessary.

The CONTRACTOR shall be responsible for determining the location and depth of all underground facilities, including service connections, which may affect or be affected by his/her operations, and he/she shall include the cost to pothole all utilities within the limits of work in his/her bid. If an existing utility line, which has been marked by Underground Service Alert or is shown on the plans, is damaged by the CONTRACTOR, the CONTRACTOR shall repair the line and bear the cost thereof.

CONTRACTOR shall be aware that electrical conduits between street and traffic lights may exist beneath pavement and/or sidewalk in areas where such lights are in place and that said conduits are not shown on these plans.

In the event that the CONTRACTOR damages any existing utility lines that are not shown, shown incorrectly or the locations of which are not made known to the CONTRACTOR prior to excavation, a telephone call and written report shall be made immediately to the Utility owner, the Engineer, and to the City. If directed by the City, the CONTRACTOR shall make repairs under the provisions for changes and extra work contained in **2-7 CHANGES INITIATED BY THE AGENCY** of the Standard Specifications.

5-4 INSURANCE.

5-4.1 General. *Add The following:*

CONTRACTOR and AGENCY agree that AGENCY, its employees, agents and officials should, to the extent permitted by law, be fully protected from any loss, injury, damage, claim, lawsuit, cost, expense, attorneys fees, litigation costs, defense costs, court costs or any other cost arising out of or in any way related to the performance of this Agreement, which includes but is not limited to, contracts with other governmental agencies such as the California Department of Transportation, which are necessary for the AGENCY to enact this Agreement or from contracts with other parties or governmental agencies, which are necessary for the AGENCY to enact this Agreement.

CONTRACTOR acknowledges that its obligation pursuant to this section extends to liability attributable to AGENCY, if that liability is less than the sole fault of AGENCY. CONTRACTOR has no obligation under this Agreement for liability proven in a court of competent jurisdiction or by written agreement between the parties to be the sole fault of AGENCY.

The obligations of CONTRACTOR under this or any other provision of this Agreement will not be limited by the provisions of any workers compensation act or similar act. CONTRACTOR expressly waives its statutory immunity under such statutes or laws as to AGENCY, its employees, agents and officials.

CONTRACTOR agrees to obtain executed indemnity agreements with provisions identical to those as set forth here in this section from each and every subcontractor, sub-tier CONTRACTOR

or any other person or entity involved by, for, with or on behalf of CONTRACTOR in the performance or subject matter of this Agreement. In the event CONTRACTOR fails to obtain such indemnity obligations from others as required here, CONTRACTOR agrees to be fully responsible according to the terms of this section.

Failure of AGENCY to monitor compliance with these requirements imposes no additional obligations on AGENCY and will in no way act as a waiver of any rights hereunder. This obligation to indemnify and defend AGENCY as set forth herein is binding on the successors, assigns or heirs of CONTRACTOR and shall survive the termination of this Agreement or this section.

CONTRACTOR shall procure and maintain for the duration of the contract, and for five (5) years thereafter, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by CONTRACTOR, its agents, representatives, employees, or subcontractors. The cost of such insurance shall be borne by CONTRACTOR.

MINIMUM SCOPE AND LIMIT OF INSURANCE

Coverage shall be at least as broad as:

1. **Commercial General Liability (CGL):** Insurance Services Office (ISO) Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than $5,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit. The policy shall include broad form contractual liability coverage and shall not contain an Explosion, Collapse, or Underground Hazard (X,C,U) exclusion.

2. **Automobile Liability:** ISO Form CA 0001 covering Code 1 (any auto), with limits no less than $5,000,000 per accident for bodily injury and property damage.

3. **Workers' Compensation:** insurance as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with a limit of no less than $1,000,000 per accident for bodily injury or disease.

4. **Builder's Risk (Course of Construction):** insurance utilizing an "All Risk" (Special Perils) coverage form, with limits equal to the completed value of the project and no coinsurance penalty provisions.

5. **Professional Liability (if Design/Build):** insurance with limit no less than $2,000,000 per occurrence or claim and $2,000,000 in the aggregate per policy period of one year.

6. **Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors & Omissions:** (if project involves environmental hazards) with limits no less than $1,000,000 per occurrence or claim and $2,000,000 in the aggregate per policy period of one year. Coverage must be included for bodily injury and property damage, including coverage for loss of use and/or diminution in property value, and for clean-up costs arising out of, pertaining to, or in any way related to the actual of alleged discharge, dispersal, seepage, migration, release or escape of contaminants or pollutants, arising out of or pertaining to the services provided by Contractor under this Agreement, including the transportation of hazardous materials or contaminants.

If Contractor maintains broader coverage and/or higher limits than the minimums shown above, City requires and shall be entitled to the broader coverage and/or the higher limits maintained by Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage required, which are applicable to any given loss, shall be available to City.

The insurance to be provided by Contractor under this agreement shall not include any endorsement limiting coverage available to City that is otherwise required herein; and any policy or endorsement language that (i) negates coverage to City for City's own negligence; (ii) limits the duty to defend City under the policy; (iii) provides coverage to City only if Contractor is negligent, or (iv) permits the recovery of defense costs from any additional insured. The insurance provided under this agreement shall not contain any restrictions or limitations which are inconsistent with City's rights under this agreement.

Self-Insured Retentions

Self-insured retentions must be declared to and approved by City. City may require Contractor to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention.

Other Insurance Provisions

The insurance policies are to contain, or be endorsed to contain, the following provisions:

Additional Insured Status

The City of South Pasadena, its City Council, its officers, officials, employees, agents, and volunteers are to be covered as additional insureds on Contractor's liability policies with respect to liability arising out of work or operations performed by or on behalf of Contractor including materials, parts, or equipment furnished in connection with such work or operations and automobiles owned, leased, hired, or borrowed by or on behalf of Contractor.. General liability additional insured coverage shall be provided in the form of an endorsement to Contractor's insurance at least as broad as ISO Form CG 20 10 (ongoing operations) and CG 20 37 (completed operations).

Severability of Interests (Cross-Liability).

A severability of interest provision must apply for all the additional insureds, ensuring that Contractor's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the insurer's limits of liability.

Primary Coverage

For any claims related to this project, Contractor's insurance coverage shall be primary insurance coverage at least as broad as ISO CG 20 01 04 13 as respects City, its City Council, its officers, officials, employees, agents, and volunteers. Any insurance or self-insurance maintained by City, its City Council, its officers, officials, employees, agents, or volunteers shall be excess of Contractor's insurance and shall not contribute with it.

Notice of Cancellation/Change in Coverage

Each insurance policy required above shall state that coverage shall not be suspended, voided, canceled, reduced in coverage or in limits, non-renewed, or materially changed except after thirty (30) days' prior written notice has been given to City, except that ten (10) days' prior written notice shall apply in the event of cancellation for non-payment of premium. Prior written notice shall be sent to City pursuant to the Notices/Ship To provisions of this agreement.

Builder's Risk (Course of Construction) Insurance

Contractor may submit evidence of Builder's Risk insurance in the form of Course of Construction coverage. Such coverage shall name City as a loss payee as their interest may appear.

If the project does not involve new or major reconstruction, at the option of City, an Installation Floater may be acceptable. For such projects, a Property Installation Floater shall be obtained that provides for the improvement, remodel, modification, alteration, conversion or adjustment to existing buildings, structures, processes, machinery and equipment. The Property Installation Floater shall provide property damage coverage for any building, structure, machinery or equipment damaged, impaired, broken, or destroyed during the performance of the Work, including during transit, installation, and testing at City's site.

Acceptability of Insurers

Insurance is to be placed with insurers authorized to conduct business in the state of California with a current A.M. Best's rating of no less than A:VII. The current A.M. Best rating for each insurer shall be noted on the Certificate(s) of Insurance.

Waiver of Subrogation

Contractor hereby grants to City a waiver of any right to subrogation which any insurer of Contractor may acquire against City, its City Council, its officers, officials, employees, agents, and volunteers from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation but this provision applies regardless of whether or not City has received a waiver of subrogation endorsement from the insurer.

The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of City for all work performed by Contractor, its employees, agents, and subcontractors.

Certificate Holder

Certificate Holder on each insurance certificate shall be addressed pursuant to the Notices/Ship To provisions of this agreement.

Verification of Coverage

Contractor shall furnish City with original certificates and all required amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause before work begins. A statement on an insurance certificate will not be accepted in lieu of the actual endorsements required herein. Each insurance certificate shall include project description, Request for Proposal number, and contract/purchase order number when issued. All certificates and endorsements are to be received and approved by City before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive Contractor's obligation to provide them. City reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

Subcontractors

Contractor shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that City is an additional insured on insurance required from subcontractors. For CGL coverage, subcontractors shall provide coverage with a form at least as broad as CG 20 38 04 13.

Failure to Maintain Insurance Coverage

If Contractor, for any reason, fails to maintain insurance coverage which is required pursuant to this contract, the same shall be deemed a material breach of contract. City, at its sole option, may terminate this contract and obtain damages from Contractor resulting from said breach. Alternatively, City may purchase such coverage (but has no special obligation to do so), and without further notice to Contractor, the City may deduct from sums due to Contractor any premium costs advanced by City for such insurance.

Special Risks or Circumstances

City reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

SECTION 6 - PROSECUTION AND PROGRESS OF THE WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK.

6.1.1 Construction Schedule. *Add the following:*

The contractor shall provide a 3 week look ahead construction schedule to the City at the beginning of each week.

Foundation clearance and utility relocation dependencies and delays shall be discussed and approved by the City to extend the project schedule.

6.1.2 Commencement of Work. *Replace entire subsection with the following*

The contract will be executed with a 2-step Notice to Proceed (NTP) approach labeled NTP-1 and NTP-2. NTP-1 shall consist generally of initial engineering, scheduling, permitting, plan and document development, equipment submittals, potholing, and long-lead item orders (eg. traffic signal poles). CONTRACTOR shall gather supplier delivery commitments for traffic signal poles, cabinets, and ITS equipment at the time of the submittal approval and order placements.

NTP-2 will establish the start of the scheduled 196 working days and shall consist generally of mobilization and construction of the design plans. Specifics of tasks to be included in each NTP shall be discussed and negotiated between the CONTRACTOR and the City after bid selection. The City reserves the right to revoke the bid selection and select another contractor if an agreement of tasks for NTP-1 and NTP-2 cannot be completed.

NTP-2 will not be issued until all tasks of NTP-1 have been completed, or otherwise approved by the City as partially completed.

6-1.3 Pre-Construction Meeting and Submittal. A pre-construction meeting will be conducted by the City prior to commencement of construction at a time and place designated by the City. Those attending the meeting shall include, but not be limited to, the following:

a. The CONTRACTORs representative(s)

b. Sub-CONTRACTORs representative(s), if needed

c. City of South Pasadena Director of Public Works

d. The Design Engineers

e. The Construction Engineers

f. The affected utility companies' representatives

g. City of South Pasadena Public Works Inspectors

h. Caltrans' inspector and/or representative(s)

Two weeks prior to this meeting the CONTRACTOR shall submit the following:

1. Construction Schedule
2. Traffic Control Plan
3. Emergency Contact List
4. List of Subcontractors
5. Storm Water Pollution Prevention Plan (SWPPP)

6-1.4 Emergency Contact List. The CONTRACTOR shall provide the following information in writing and submit it with the signed contract, contract bonds and certificates of insurance. Failure to comply may result in delays in the processing of the contract documents.

1. Name of authorized representative at the job site.
2. Address and telephone number where the above person can be reached 24 hours a day.

3. Address of the nearest office of the CONTRACTOR, if any, and the name and telephone number of a person at that office who is familiar with the project.

4. Address and telephone number of the CONTRACTOR's main office and the name and telephone number of the person at that office familiar with the project

6-1.5 Payment. Payment for **Schedule** bid items shall be at the contract bid item price per lump sum (LS) and shall include all items noted in Section 6-1 and these special provisions. Payment shall be payable as a percentage of project progress for each payment upon approval of the Public Works Director/City Engineer.

6-2 PROSECUTION OF WORK. *Add the following:*

As soon as possible under the provisions of the Specifications, the CONTRACTOR shall backfill all excavations and restore to usefulness all improvements existing prior to the start of the Work.

The CONTRACTOR shall submit monthly progress reports to the Engineer by the tenth day of each month. The report shall include an updated construction schedule. Any deviations from the original schedule shall be explained.

6-2.1 Traffic and Access. The CONTRACTOR's operations shall cause no unnecessary inconvenience. The access rights of the public shall be considered at all times. Unless otherwise authorized, traffic shall be permitted to pass through the Work, or an approved detour shall be provided.

Safe and adequate pedestrian and vehicular access shall be provided and maintained to: fire hydrants; commercial and industrial establishments; churches, schools and parking lots; service stations and motels; hospitals; police and fire stations; and establishments of similar nature. Access to these facilities shall be continuous and unobstructed unless otherwise approved by the Engineer.

The CONTRACTOR shall pay special attention to the South Pasadena Middle School located along the east side of Fair Oaks Avenue between Oak Street and Bank Street. The CONTRACTOR shall not perform construction adjacent to the school during drop off and pick up times. Drop off times are identified from 7:30am to 8:15am. Pick up times are identified from 2:00pm to 2:45pm.

Safe and adequate pedestrian zones and public transportation stops, as well as pedestrian crossings of the Work at intervals not exceeding 90 m (300 feet), shall be maintained unless otherwise approved by the Engineer.

Vehicular access to residential driveways shall be maintained to the property lien except when necessary construction precludes such access for reasonable periods of time. If backfill has been completed to the extent that safe access may be provided, and the street is opened to local traffic, the CONTRACTOR shall immediately clear the street and driveways and provide and maintain access.

The CONTRACTOR shall cooperate with the various parties involved in the delivery of mail and the collection and removal of trash and garbage to maintain existing schedules for these services.

Grading operations, roadway excavation and fill construction shall be conducted by the CONTRACTOR in a manner to provide a reasonably satisfactory surface for traffic. When rough

grading is completed, the roadbed surface shall be brought to a smooth, even condition satisfactory for traffic.

Unless otherwise authorized, work shall be performed in only one-half of the roadway at one time. One half shall be kept open and unobstructed until the opposite side is ready for use. If one-half a street only is being improved, the other half shall be conditioned and maintained as a detour.

The CONTRACTOR will be required to maintain at least one lane of traffic in each direction through the project area at all times in a manner satisfactory to the Engineer in the form of an engineered traffic control plan. The engineered traffic control plans must be signed by a California registered civil and/or traffic engineer. The plan is a required submittal for review two weeks prior to the pre-construction meeting.

If traffic control on the project shall be implemented by a sub-contractor, such subcontractor must specialize in Traffic Control and be approved by the City Engineer.

The CONTRACTOR shall include in its Bid all costs for the above requirements.

6-2.1.1 Notification to the Public. Affected properties will be determined by the CONTRACTOR for approval by City Engineer and are, in general, those properties that fall within 500 feet of the limits of the work. CONTRACTOR shall remain aware of all adjacent property owners and take all steps necessary to minimize construction impacts and disturbances to all affected property owners. The CONTRACTOR shall submit a sample of a public notice for review and approval by the Engineer. The CONTRACTOR shall provide changes as directed by the City representative and submit final draft for approval.

The CONTRACTOR is required to distribute the approved public notice to property owners two weeks prior to construction. CONTRACTOR shall be responsible for all costs associated with these tasks and responsibilities in the various contract bid items.

The CONTRACTOR is required to notify the City by e-mail that public notices have been distributed. The e-mail shall be addressed to the City representative(s) designated during the pre-construction meeting. The e-mail shall be sent to the City no later than 8 a.m. on the day following distribution of the notices. The e-mail notification to the City shall contain a map showing the limits of distribution and the dates and times distributed. A separate e-mail shall be sent for each distribution. The City will use the information on the e-mails to verify that the distribution has been performed. If the distribution is not verified by the City, the City will e-mail to the CONTRACTOR's representative the locations which must be redistributed with the new information. The CONTRACTOR shall not perform work in the distribution area without e-mail notification of verification by the City of the distribution.

The CONTRACTOR shall provide changeable message signs (CMS) for one (1) month in advance of field construction and continued throughout the duration of the project. CMS placement and advanced notifications to the public of the project shall be included nearing the end of NTP-1 to allow for the appropriate duration of the signs and notifications prior to mobilization and construction. One sign shall be located along Fair Oaks Avenue, 500 feet north of the start of the project facing southbound vehicles. One sign shall be located just north of the intersection of Fair Oaks Avenue and Huntington Drive. Two signs shall be located 500 feet east and west of the intersection of Fair Oaks Avenue and Mission Street. Two signs shall be located 500 feet east and west of the intersection of Fair Oaks Avenue and Monterey Road. The sign message shall include

the work type, area, and duration. The proposed sign message shall be provided by the CONTRACTOR for approval by the City prior to the installation of the CMS.

The CONTRACTOR shall provide orange-colored construction area signs at the beginning of each end of the project along Fair Oaks Avenue. The signs shall be fabricated per requirements set forth in the CA MUTCD and include appropriate sizing and font. The information shall include the project name, dates, "Local Businesses Open During Construction", a QR code (to be supplied by the City) and other City contact information. This sign shall be approved by the City during the material submittals process.

The CONTRACTOR shall furnish and place "No Parking" signs, 12"x18" minimum size, approved by the Engineer, along the street in front of every residence and/or business affected by the work, two (2) working days in advance of any work. In rural areas, the signs shall be placed at a spacing not exceeding 400 feet. The signs shall include the day and time during which parking is prohibited. Parking restrictions shall be limited to the intervals between 8 a.m. to 5 p.m. to allow parking during the night, unless otherwise approved by the City Engineer for night work. The CONTRACTOR shall remove these signs immediately when they are no longer needed.

If the work is delayed or rescheduled for any reason after placement of "No Parking" signs, the CONTRACTOR shall re-date the signs affected and re-notify the residents and businesses of the change via a new "door-knob" notice. If the work is delayed more than five days, the CONTRACTOR shall remove the signs and place re-dated signs two (2) days in advance of the work.

6-2.1.2 Notification to the Public Agencies. The CONTRACTOR shall notify the following Agencies 48 hours prior to working in the area within the City of Pasadena unless otherwise noted:

City of South Pasadena Attn: Julian Lee, Public Works Director	(626) 403-7240
City of South Pasadena Attn: Anteneh Tesfaye, Deputy Public Works Director	(626) 460-6393
City of South Pasadena, Public Works Water Division Attn: Victor Magana, Water Operations Manager	(213) 440-3543
City of South Pasadena, Public Works Operation Division Attn: Catrina Peguero, Operations Manager	(626) 403-7376
City of South Pasadena Attn: Eddie Munoz, Streets Supervisor	(626) 403-7375
Metropolitan Water District	(213) 217-7663
AT&T Communications	(626) 570-5454
Los Angeles County Sanitation Districts Attn: Doug Walton	(310) 638-1161
Los Angeles County Public Works Department Construction Division Attn: Regina Quan	(626) 458-3109
Los Angeles County Public Works Department Traffic & Lighting Division Attn: April Angeles Atten: Jasmine De Luna	 (626) 458-5905 (626) 458-3122
SBC	(626) 373-5960
Southern California Edison Attn: Kim Gurule	(714) 796-9932
Southern California Gas Company	(800) 427-2000
Spectrum	(833) 267-6094
Underground Service Alert (Dig Alert)	(800) 422-4133

6-2.1.3 Parking Restrictions and Posting for Tow Away. No Parking signs, posted by the CONTRACTOR, shall be of heavy card stock and not less than 1.75 square feet of surface area on

the face. Background color shall be white and letters shall be printed in red water resistant ink except day, date, and time of restriction may be printed in black water resistant ink. The signs shall be printed with the words "Tow Away" and "No Parking" with a character height of not less than 2.75 inches and a stroke width of not less than 0.5 inches. The day, dated, and time of the particular restriction shall be printed or attached below the above-mentioned wording in characters of not less than 2.0 inches in height and 0.4 inches in stroke width. The day of the week shall be written out or properly abbreviated with three to four letters; date or dates or restriction shall be listed completely; the beginning and ending times shall be clearly listed on the sign.

Signs shall be mounted such that the wording "No Parking" are at an elevation at least three feet above the adjacent flowline. Signs may be tied with string to trees and power poles, taped to existing sign poles, or mounted to stakes or barricades as provided by the CONTRACTOR. The signs shall be placed as needed to control the parking of cars within the construction zone; signs shall be placed at intervals of 75 feet or less along each side of the roadway.

Signs shall be posted and maintained by the CONTRACTOR for a period of 72 hours prior to the restrictions becoming effective. The CONTRACTOR may only post parking restrictions that are effective for the duration of the Work. Upon completion of the Work, the CONTRACTOR shall promptly and completely remove and dispose all signs, stakes, and barricades. The CONTRACTOR shall promptly reset or replace all damaged or defective signs.

The CONTRACTOR shall be fully responsible for the adequate removal of all parked cars. The CONTRACTOR shall coordinate the removal of all vehicles with the Sheriff Department. The CONTRACTOR shall notify the Sheriff Communications Center upon posting of the parking restrictions for a particular street. For removal of parked vehicles, the CONTRACTOR shall notify the Sheriff Communications Center not less than two hours prior to the needed removal, stating the address nearest the parked vehicle, make, model, color and license number. The City shall not be responsible for any delay or additional costs associated with the removal of parked cars that obstruct the construction operation.

If a vehicle owner successfully contests a towing citation in court, and their citation is dismissed for causes related to the CONTRACTOR's failure to perform the requirements of this section, the CONTRACTOR shall reimburse the City for the cost of any claims associated with the towing citation.

DEVIATIONS FROM THE REQUIREMENTS OF THIS SUBSECTION WILL BE PERMITTED ONLY ON PRIOR CONSENT OF THE ENGINEER.

6-2.1.4 Storage of Equipment and Materials in Public Streets. Construction materials shall not be stored in streets, roads, or highways any time after working hours. All materials, traffic control devices, and equipment not installed or used in construction within the construction working hours after unloading shall be stored elsewhere by the CONTRACTOR at its expense unless authorized additional storage time. Any storage of materials, traffic control devices, or equipment shall not impede any vehicular lanes or pedestrian pathways outside of identified construction hours.

Construction equipment shall not be stored at the Work site before its actual use on the Work and shall be removed from the construction site after working hours each day. Time necessary for repair or assembly of equipment may be authorized by the Engineer.

Excavated material, except that which is to be used as backfill in the adjacent trench, shall not be stored in public streets unless otherwise permitted. After placing backfill, all excess material shall be removed immediately from the site.

6-2.1.5 Street Closures, Detours, Barricades. The CONTRACTOR shall comply with all applicable State, County and City requirements for closure of streets. The CONTRACTOR shall identify standard traffic control layouts per the CA MUTCD or provide unique traffic control plans to the City two weeks prior to the pre-construction meeting for approval.

The CONTRACTOR shall provide barriers, guards, lights, signs, temporary bridges, flag persons, and watchpersons and any other traffic control devices necessary to provide the appropriate traffic control layout per location. The CONTRACTOR shall be responsible for compliance with additional public safety requirements which may arise. The CONTRACTOR shall furnish and install signs and warning devices and promptly remove them upon completion of the Work.

At least 10 days in advance of closing, partially closing or reopening, any street, alley, or other public thoroughfare, the CONTRACTOR shall notify the Police, Fire, Traffic and Engineering Departments, and comply with their requirements. Deviations must first be approved in writing by the Engineer.

The CONTRACTOR shall secure approval, in advance, from authorities concerned for the use of any bridges proposed by it for public use. Temporary bridges shall be clearly posted as to load limit, with signs and posting conforming to current requirements covering "signs" as set forth in the Traffic Manual published by the California Department of Transportation. This manual shall also apply to the street closures, barricades, detours, lights, and other safety devices required.

All traffic control barricades, signs and devices used by the CONTRACTOR shall, as a minimum, conform to the latest edition of the "California Manual on Uniform Traffic Controls Devices" ("MUTCD"). Channelization devices shall be spaced no greater than fifty (50) feet apart. The CONTRACTOR shall take additional precautions as he/she may find necessary under the circumstances.

Should the CONTRACTOR fail to provide adequate traffic control or safety barricades, and in the event a responsible individual cannot be located or refuses to perform, the AGENCY will at its option place needed devices or engage a private firm to place and maintain said barricades, which will be charged to the CONTRACTOR directly.

Vehicular and bicycle lane closures shall only occur during construction hours identified as 9 AM-3 PM, Monday through Saturday. Only one vehicular lane shall be closed at a time during the 9 AM-3 PM construction hours. Overnight work will be allowed with 48 hours advanced notice from the CONTRACTOR to the City. During the overnight work, the CONTRACTOR can close up to two vehicular lanes along Fair Oaks Avenue to perform the evening construction. The CONTRACTOR shall ensure that the at least one vehicular lane in each direction is available at all times. Overnight construction hours are identified as 9 PM – 5 AM, Monday through Friday.

All costs involved in the CONTRACTOR'S prosecution of the Work shall be included in the Bid.

6-2.2 Daily Reports. The CONTRACTOR shall complete a Daily Report indicating manpower, work performed, major equipment used and on standby (itemized separately), subcontractors, and similar items involved in the performance of the Work. The Daily Report shall be completed on forms prepared by the CONTRACTOR and acceptable to the Engineer and shall be submitted to the City Inspector weekly.

6-3 TIME OF COMPLETION

6-3.1 General. *Add the following:*

The CONTRACTOR shall complete the Work within the time specified in B1.03 CONTRACT PERIOD/CONSTRUCTION COMPLETION DATE, or as modified by Change Order or agreement, after the Notice to Proceed.

Add the following:

6-3.3 Working Day. A working day is any day within the period between the start of the Contract time as defined in 6-1.2 and the date provided for completion, or upon field acceptance by the Engineer for all work provided for in the Contract, whichever occurs first, other than:

1. Sunday,
2. any day designated as a holiday by the AGENCY,
3. any other day designated as a holiday in a Master Labor Agreement entered into by the CONTRACTOR or on behalf of the CONTRACTOR as an eligible member of a CONTRACTOR association,
4. any day the CONTRACTOR is prevented from working at the beginning of the workday for cause as defined in 6-4.1,
5. any day the CONTRACTOR is prevented from working during the first 5 hours with at least 60 percent of the normal work force for cause as defined in 6-4.1.

Restrictions 1 through 5 shall not count against the overall construction day schedule.

The CONTRACTOR's activities involving work which requires street closure, detours, and barricades shall be confined to the hours between 9:00 a.m. and 3:00 p.m. Monday through Saturday or between 9 PM and 5 AM for overnight construction, pending City approval. As night work requires approval, it cannot be assumed in the CONTACTOR's overall schedule to meet the City's deadline. In addition, the CONTRACTOR shall not perform any Work on Sunday, or on AGENCY-designated holidays. AGENCY-designated holidays are listed in **TABLE 1 – AGENCY-DESIGNATED HOLIDAYS** below.

Deviations from these hours will not be permitted without the prior consent of the Engineer, except in emergencies involving immediate hazard to persons or property. In the event of either a requested or emergency deviation, inspection service fees will be charged against the CONTRACTOR. Service fees will be calculated at overtime rates including benefits, overhead, and travel time; and will be deducted from the amounts due the CONTRACTOR.

Failure of the CONTRACTOR to adhere to working day requirements will result in damages being sustained by the City. Such damages are, and will continue to be, impracticable and extremely difficult to determine.

TABLE 1 – AGENCY-DESIGNATED HOLIDAYS

New Year's Day (January 1*)

Martin Luther King, Jr. Day (3rd Monday in January)

President's Day (3rd Monday in February)

Memorial Day (Last Monday in May)

Juneteenth (June 19*)

Independence Day (July 4*)

Labor Day (1st Monday in September)

Veteran's Day (November 11*)

Thanksgiving Day (4th Thursday in November)

Day after Thanksgiving (Friday after Thanksgiving Day)

Christmas Eve (December 24*)

Christmas Day (December 25*)

**If a holiday falls on a Saturday, the previous Friday shall be deemed the holiday. If a Holiday falls on a Sunday, the following Monday shall be deemed the holiday. The City shall close each year from December 25 to January 1 and no construction will be allowed during this period and on the day of the Rose Parade.*

For the contractor's awareness, the following website provides them with the Holiday Moritorium Map for the City of Pasadena that must be adhered to during construction at the intersection of Fair Oaks Avenue and Columbia Street.

https://www.cityofpasadena.net/public-works/wp-content/uploads/sites/29/Holiday-Moratorium-Map.pdf [cityofpasadena.net]

6-3.4 Restrictions on closure of traffic lanes:

No contractual work shall be performed in the public Right-of-Way during the first week of school unless approved by the City Engineer.

A. All traffic lanes shall be open for public use on the days and at the times specified below, unless approved otherwise by the City Engineer:

   1. Sundays and AGENCY designated holidays: from 12:01 a.m. to 11:59 p.m.
   2. Fridays and any days preceding an AGENCY designated holiday: from 3:00 p.m. to 9:00 p.m.
   3. Non-construction hours: all hours when the CONTRACTOR's employees are not physically present at the construction site actively performing contract work.

B. On those days and hours when closure of traffic lanes is not prohibited under the provisions of the preceding subparagraph A, no more than one travel lane may be closed at any time during daytime (9:00 AM to 3:00 PM) construction hours. An exception to close two traffic lanes during construction can be requested 48 hours in advance by the CONTRACTOR prior to any overnight work identified by the

hours 9:00 PM to 5:00 AM City approval of the overnight work request is required prior to commencement. During any lane closure, flashing arrow boards shall be used in accordance with the current version of the California MUTCD.

C. Traffic signals shall not be placed in flash operation during the hours that traffic lanes must be kept open as defined in Paragraph A. Under no circumstances shall traffic signal be placed in flash operation without prior approval from the Project Engineer. Traffic signal will be only placed in flash operation by City personnel. CONTRACTOR shall contact the Project Engineer at least two (2) working days in advance to coordinate traffic signal service.

6-4 DELAYS AND EXTENSIONS OF TIME.

6-4.4 Written Notice and Report. *Add the following:*

Whenever the CONTRACTOR foresees any delay in the prosecution of the work, and in any event immediately upon the occurrence of any delay which the CONTRACTOR regards as unavoidable, he/she shall notify the Engineer in writing of the probability of the occurrence of such delay and its cause so that the Engineer may take immediate steps to prevent, if possible, the occurrence or continuance of the delay, or, if prevention is not possible, may determine whether the delay is to be considered avoidable or unavoidable, how long it continues, and to what extent it will delay the prosecution and completion of the work. It will be concluded that any and all delays which have occurred in the prosecution and completion of the work have been avoidable delays, except such delays as shall have been called to the attention of the Engineer at the time of their occurrence and found by him/her to have been unavoidable. The CONTRACTOR shall make no claims for any delay not called to the attention of the Engineer at the time of its occurrence as an unavoidable delay.

6-7 TERMINATION OF THE CONTRACT FOR DEFAULT.

6-7.1 General. *Add The following:*

If the CONTRACTOR fails to begin delivery of material and equipment, to commence the Work within the time specified, to maintain the rate of delivery of material, to execute the Work in the manner and at such locations as specified, or fails to maintain the Work schedule which will insure the AGENCY's interest, or, if the CONTRACTOR is not carrying out the intent of the Contract, the AGENCY may serve written notice upon the CONTRACTOR and the Surety on its Faithful Performance Bond demanding satisfactory compliance with the Contract.

6-9 LIQUIDATED DAMAGES. *Add the following:*

The CONTRACTOR agrees to forfeit and pay the AGENCY the amount of Nine Thousand Five-Hundred Dollars ($9,500.00) per day for each and every day of unauthorized delay beyond the completion date, which shall be deducted from any monies due the CONTRACTOR. This payment shall be considered liquidated damages. CONTRACTOR agrees that such liquidated damages are reasonable under the circumstances existing at the time of execution of the contract, that such liquidated damages are to compensate AGENCY for losses that are difficult to measure and that such damages are not a penalty.

The AGENCY's agreement to waive a specific time provision or to extend the time for performance shall not constitute a waiver of any other time provision contained in the Contract Documents.

Failure of the CONTRACTOR to complete performance promptly within the additional time authorized in a waiver or extension of time agreement shall constitute a material breach of this Contract entitling the AGENCY to terminate this agreement.

SECTION 7 - MEASUREMENT AND PAYMENT

7-1 MEASUREMENT OF QUANTITIES FOR UNIT PRICE WORK.

7-1.1 General. *Add the following:*

The planimeter shall be considered an instrument of precision adapted to measurement of all areas.

7-3 PAYMENT

7-3.1 General. *Add the following:*

The quantities listed in the Bid schedule will not govern final payment. Payment to the CONTRACTOR will be made only for actual quantities of Contract items constructed in accordance with the Plans and Specifications. Upon completion of construction, if the actual quantities show either an increase or decrease from the quantities given the Bid schedule, the Contract Unit Prices will prevail subject to the provisions of 7-3.5.1.

At the expiration of 35 calendar days from the date of acceptance of the Work by the board, or as prescribed by law, the amount deducted from the final estimate and retained by the AGENCY will be paid to the CONTRACTOR except such amounts as are required by law to be withheld by properly executed and filed notices to stop payment, or as may be authorized by the Contract to be further retained.

7-3.2 Partial and Final Payment. *Add the following:*

From each progress estimate, 5 percent will be deducted and retained by the AGENCY, and the remainder less the amount of all previous payments will be paid. After 50 percent of the Work has been completed and if progress on the Work is satisfactory, the deduction to be made from remaining progress estimates and from the final estimate may be limited to $500 or 10 percent of the first half of total Contract amount, whichever is greater.

The closure date for period progress payments will be the twenty-fifth day of each month. Authorization to pay is commonly received on the second Wednesday of the following month. The AGENCY requires four to six weeks to review all progress payments, issue payment checks, present progress payment to Council for approval, and release payment to CONTRACTOR. However, payments will be withheld pending receipt of any outstanding reports required by the Contract Documents. In addition, the final progress payment will not be released until the CONTRACTOR returns the control set of plans and specifications showing the as-built conditions.

The full five (5) percent retention will be deducted from all payments. The final retention will be authorized for payment thirty-five (35) days after the date of recordation of the Notice of Completion.

7-3.4 Mobilization. *Add the following:*

Mobilization shall conform to the provisions of Sections 7-3.4 of the Standard Specifications. This item shall also include any and all costs associated with demobilization at the time of project

completion. The maximum price for this bid item **shall not exceed 5 percent** of the total contract price at the time of award.

PAYMENT

Payment for **MOBILIZATION** bid items shall be at the contract bid item price per lump sum (LS) and shall be payable as follows for each payment upon approval of the Public Works Director/City Engineer.

a) Payment of up to 50 percent of the contract lump sum bid price for mobilization at the first progress payment.
b) Payment to 75 percent of the contract lump sum bid price for mobilization when the monthly partial payment estimate of the total amount earned to date, not including the amount earned for mobilization, is 30 percent or more of the original contract amount.
c) Payment to 100 percent of the contract lump sum bid price for mobilization when the monthly partial payment estimate of the total amount earned to date, not including the amount earned for mobilization, is 50 percent or more of the original contract amount.

7-3.6 Stipulated Unit Prices. *Add the following:*

Stipulated Unit Prices are unit prices established by the AGENCY in the Contract Documents.

7-4 PAYMENT FOR EXTRA WORK.

7-4.1 General. *Add The following:*

New or unforeseen work will be classified as "extra work" when the Engineer determines that it is not covered by the Contract Unit Prices or stipulated unit prices.

7-4.2 Basis for Establishing Costs.

7.4.2.4 Other Items. *Add the following:*

Invoices covering all such items in detail shall be submitted with the request for payment.

7-4.3 Mark-Ups.

7.4.3.2 Work by a Subcontractor. *Replace the second sentence with the following:*

The markup allowance for the Contractor's overhead and profit shall not exceed 5% of the Subcontractor's costs and markup and shall constitute the markup for all overhead and profit for the Contractor on Extra Work done by the Subcontractor.

7-5 PAYMENT FOR CHANGES REQUESTED BY THE CONTRACTOR. *Add the following:*

Changes in the Plans and Specifications, requested in writing by the CONTRACTOR, which do not materially affect the Work, and which are not detrimental to the Work or to the interests of the AGENCY, may be granted by the Engineer. Nothing herein shall be construed as granting a right to the CONTRACTOR to demand acceptance of such changes.

SECTION 8 - FACILITIES FOR AGENCY PERSONNEL

8-6 BASIS OF PAYMENT. *Substitute the following:*

All costs incurred in furnishing, maintaining, servicing, and removing field officers, laboratories, or bathhouse facilities required at the project site shall be included in the bid item for furnishing such facilities. If such facilities are required by the Plans or Specifications and no bid item is provided in the proposal, the costs shall in included in other items for which bids are entered. Such costs incurred in connection with offices and laboratories at plants shall be borne by the plant owners.

The first progress payment will not be approved until all facilities are in place and fully comply with the Contract Documents.

(End of Section)

APPENDIX I

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

Technical Provisions for North-South Corridor Intelligent Transportation System Deployment Project

The following Technical Provisions describe materials, methods of construction, and measurement and payment for items of work that are unique to the project. These provisions supplement, amend, or replaced the requirements of the Standard Specifications for Public Works Construction ("SSPWC" or "Greenbook"). To the extent that anything in these Special Provisions conflicts with the terms or requirements of the SSPWC, these Special Provisions shall control.

The Greenbook Specifications shall be edited as follows:

PART 2 - CONSTRUCTION MATERIALS
SECTION 201 - CONCRETE, MORTAR, AND RELATED MATERIALS

201-1 PORTLAND CEMENT CONCRETE

201-1.1 Requirements
201-1.1.1 General.
Add the following:

The same brand, type, and source of cement and aggregate shall be used for all portland cement concrete.

Fly ash shall not be used.

201-1.2 Materials.
201-1.2.4 Chemical Admixtures.
Add the following:

1. Retarding Densifier. The material shall be of the hydroxylated carboxylic acid type in liquid form and shall not entrain air or cause foaming. The retarding densifier shall be used in strict compliance with the printed recommendations of the manufacturer. There shall be no reduction in the cement content of the concrete mix because of the addition of the retarding densifier.

The admixture shall be such that its addition to the concrete mix will:

a. Decrease drying shrinkage;
b. Increase compressive strength for all concrete strength for all concrete ages from 3 days to 1 year;
c. Increase flexural strengths, modulus of elasticity and abrasion resistance;
d. Increase the slump and placement workability;
e. Retard the initial set and increase the density; and
f. Shall contain no calcium or tri-ethanolamine.

At the discretion of the Engineer, the Contractor may be required to submit proof that the admixture he proposed to use meets the foregoing requirements. Such proof shall be in the form of comparative tests of plain and admixture containing mixes performed by an acceptable local laboratory with testing based on use of the project materials and in accordance with the requirements of ASTM C 157. An approved admixture conforming to these requirements is plastiment retarding densifier in liquid form.

201-3 EXPANSION JOINT FILLER AND JOINT SEALANTS
201-3.1 General.
Add the following:

Contractor shall submit materials to Engineer for approval.

Add the following section:

201-3.10 Liquid Joint Sealant

Silicone liquid joint sealant shall conform to Section 41-5 Joint Seals of the Caltrans Standard Specification.

201-4 CONCRETE CURING MATERIALS
201-4.1 Membrane Curing Compounds
201-4.1.1 General.
Add the following:

Concrete curing compound shall be Type 2.

<u>SECTION 203 - BITUMINOUS MATERIALS</u>
203-6 ASPHALT CONCRETE
203-6.1 General.
Add the following:

Asphalt concrete material used for remove and replace repairs within the roadway shall be Class and Grade B-PG 64-10. Asphalt concrete mix of C2 gradation may be used for leveling layer.

203-11 ASPHALT-RUBBER HOT MIX (ARHM)

Subsection 203-11 ASPHALT RUBBER HOT MIX is amended by adding thereto the following paragraphs:

203-11.2 Materials.
Add the following:

Contractor shall maintain a minimum quality control plans as follows:

a) Perform sieve analysis test Caltrans Test 202 on a sample taken immediately after 300 tons of production and every 500 tons thereafter.

b) Perform binder content test Caltrans Test 382 on a sample taken immediately after 300 tons production and every 1,000 tons thereafter.

Tests shall be performed and completed without interruption directly after samples are procured at the production plant laboratory.

A copy of test results shall be provided to the Engineer immediately upon completion of each test or upon request thereafter if Engineer is not present at time of the test. Adjustments shall be made immediately if test results indicate a need for adjustment.

203-11.2.3 Crumb Rubber Modifier (CRM).
Replace the first paragraph with the following:

The material shall consist of a combination of scrap tire CRM and high natural CRM meeting the requirements of this subsection. Scrap tire CRM shall consist of ground or granulated rubber derived from any combination of automobile tires, truck tires or tire buffing. Whole scrap tire rubber shall be derived from scrap tires generated entirely within the State of California, and the certification of compliance shall so certify.

The high natural rubber shall be a single source material and not a blend of more than one source.

The high natural CRM and CRM rubber components shall not be pre-mixed prior to mixing with paving asphalt.

The percentage of high natural CRM shall be equal to 1000 divided by the percentage of natural rubber in the high natural CRM (using whole number percentages), e.g., 1000/40% equals 25 percent. The remainder of CRM shall be scrap tires.

The maximum value for Natural Rubber Content in Table 203-11.2.3.1(B) is hereby deleted.

Delete the sixth (last) paragraph of Subsection 203-11.2.3.1.

203-11.2.4 Aggregate.
Replace this section with the following:

The aggregate for ARHM shall conform to the "quality requirements" for asphalt concrete Type A as specified in Caltrans Standard Specifications.

All aggregate used for ARHM shall be crushed aggregate.

Any change in source of aggregate supply requires 2 weeks advance notice in writing to the Engineer, and submittals and testing in conformance with specifications for a new mix design. No single bin shall receive aggregate from more than one source. Contractor shall provide a copy of aggregate delivery tickets for aggregate delivered for use on the project.

203-11.3 Composition and Grading.
Add the following:

Asphalt-rubber hot-mix shall be type and class ARHM-GG-C.

Optimum binder content shall be based on Caltrans 367 procedure without modification using air voids of 4%. Once full compliance with specifications is established at 4% air voids, the binder content shall thereafter be increased to provide 3.5% voids to conform to the traffic in the project, all other factors being within specification.

Variations of percent air voids below the minimum specified will be cause to terminate paving operations until changes to conform to the specified percent air voids are demonstrated and approved by the Engineer.

The gradation ranges shown in Table 203-11.3, including the ¾" sieve range added herein, shall be considered the Contract Compliance Range. The Operating Range for the ½" sieve shall be 94% to 99%. The Operating Range for all other sieves, except the 200 sieve, shall be 2 percentage points inside the Contract Compliance Range. If gradation test results do not meet the Operating Range requirements but meet the Contract Compliance Range, placement of ARHM may be continued for the remainder of the day. However, another day's work shall not be started until tests, or other information, indicate to the satisfaction of the Engineer that the next material to be used in the work will comply with the requirements specified for Operating Range.

203-11.4 Mixing Asphalt and CRM.
Add the following:

The required mixing/reaction time is hereby modified to 75 minutes minimum. The minimum reaction period shall be the time from complete incorporation of materials into the mix to the time that the asphalt-rubber meets all specifications for reacted material. Reaction shall be considered complete only after the second of two viscosity readings taken 15 minutes apart is less than the first. The Engineer's decision shall be final for determination of the minimum reaction period.

All material shall be tested for viscosity and verified as to completer reaction prior to transfer to any storage tank or use of the reaction tank for feet to the hot mix plant. Material reacted lower than specified temperature, but above 185 degrees C (365 F), or transferred to a storage tank prior to completion of reaction as specified, shall be reacted for a total period of 3 hours prior to use. Any such transfer shall be described in the comments column of the Asphalt Rubber Batch Log.

Each batch of binder shall be tested for viscosity after the minimum reaction time has passed and the following information shall be recorded:

-Temperature of stored asphalt cement material at time of loading
-Time at which the reaction tank is fully loaded
-Tons of asphalt rubber added to the tank for the batch
-Total asphalt rubber in the tank after loading
-The beginning time of reaction (Fully loaded and above 375° F)
-Binder temperature at time of sampling
-Temperature of tested material
-Viscosity reading
-Time of viscosity test (All test results must be completed prior to use.)

A copy of the Asphalt Rubber Batch Log shall be provided to the Engineer upon request. A copy of the batch log sheet and all circle charts for the day shall be faxed to the Engineer within 12 hours of ending production of ARHM for the day.

(A log sheet form will be provided at the preconstruction meeting.)

Construction shall be considered unauthorized until Contractor has faxed the log to the Engineer as arranged at the preconstruction meeting and has in his possession a fax confirmation sheet with a time and date conforming to specification. Under any circumstances, Engineer must be contacted for clearance to pave.

203-11.5 Equipment for production of Asphalt-Rubber.
Add the following to Item C) of 203-11.5:

Reaction Tank. The asphalt-rubber material shall be held in a reaction tank separate from the storage tank feeding the ARHM plant, until the reaction is complete. The reaction tank shall have agitation sufficient to increase the viscosity of the mixture to a peak viscosity reading at least 20 percent higher than the viscosity reading of the material measured at a time that the material otherwise meets specifications for reacted material. The time of reaction may be extended as needed to produce this result. It shall be the responsibility of the Contractor to demonstrate to the Engineer through viscosity readings at appropriate times that the equipment conforms to these requirements. If this cannot be demonstrated, the reaction time shall be 3 hours. Once established, the reaction time shall be the minimum time for reaction

unless there are changes in materials or equipment, in which case a new reaction time shall be established per specifications. The Engineer's decision shall be final.

The reaction tank shall have a functioning paper circle chart thermometer device, which shall record tank temperatures whenever asphalt rubber is in any stage of production. Seven days before production of asphalt rubber starts, the Contractor shall provide the Engineer approximately double the number of charts estimated to be needed to produce the necessary binder quantity. These charts will be numbered and signed by the Engineer and returned to the Contractor prior to start of production. These signed and numbered charts shall be used throughout production of the asphalt rubber binder. Charts shall be used in the consecutive order as numbered by the Engineer beginning with number one, and shall be returned weekly after use to the Engineer. Charts will be identified with the date they were used by the Contractor at time of installing on the equipment, and shall be identified as to the tank to which they were attached. Production of asphalt rubber shall be terminated if this procedure is not followed and will not be restarted until Contractor demonstrates to the Engineer that it is capable of complying with this requirement.

At the start of each production day, the paper chart shall be replaced with a new signed, dated and numbered sheet, the lead scribe shall be sharpened or ink well filled, and the circle chart shall be calibrated against a sample of material drawn early from the first batch of the day. Any calibration adjustments shall be recorded in the appropriate space provided on the batch log sheet. A spare functional circle chart device shall be at the plant at all times for immediate installation should failure occur on a circle chart device being used. Calibration shall be performed as part of such installation. The lack of a functional circle chart device on the reaction tank shall be cause to terminate production of asphalt rubber binder. A blunt lead scribe or low ink, or a paper chart used on a prior day will be considered to render the device non-functional.

Storage Tank. After a complete reaction is verified by viscosity readings acceptable to the Engineer, the material shall be held in a storage tank that is fully isolated from material that is not fully reacted. This tank shall be the only tank feeding the ARHM plant. No material shall be transferred to the storage tank feeding the plant until reaction is complete in the reaction tank.

SECTION 211 - MATERIAL TESTS

211-1 COMPACTION TESTS.

211-1.1 Laboratory Maximum Density.

Add the following:

Laboratory maximum density tests shall be performed in accordance with Test Method No. Calif. 216G, Part II. The correction for oversized material as stated in Test Method No. Calif. 216 shall be replaced with Note 2 of ASTM D1557.

211-1.2 Field Density.

Add the following:

Field density tests will be made by the Engineer during the course of construction at the expense of the CITY. If field density tests indicate that any portion of the compacted subgrade has density lower than that specified, the Contractor shall rework that portion until the specified density is obtained. Retest of areas which have failed compaction will be performed by the Engineer at the Contractor's expense.

PART 3 - CONSTRUCTION METHODS

SECTION 300 - EARTHWORK

300-1 CLEARING AND GRUBBING

300-1.2 Root Pruning and Tree Trimming.

Add the following:

Tree branches which hang within 13.5 feet above finished roadway grade or within 9 feet above finished sidewalk or parkway grade shall be removed to the branch collar in accordance with the current pruning standards of the International Society of Arboriculture (ISA). The Contractor shall remove additional tree branches, under the direction of the Engineer, in such a manner that the tree will present a balanced appearance. No paint or tree sealant shall be applied to the resulting scars. All pruning shall be done under the supervision of an ISA Certified Arborist in the Contractor's employ.

All the root pruning required to place or replace walks, or other permanent facilities shall be limited to the minimum amount necessary to set forms.

All roots 2 inches and larger shall be cut with sharp tool such as axe or chainsaw. No roots shall be broken off by trenching or other heavy equipment.

No root shall be removed within five (5) diameters of the tree trunk measured at 4 feet, 9 inches above grade without the express written permission of the City. Any such root removed without the City's written permission may create a hazardous condition for which the Contractor shall be liable.

Should the Contractor create a hazardous condition in the sole judgment of the Engineer the Contractor shall remove the tree and replace it with a specimen of the same species and value at the Contractor's expense.

All significant root pruning (3-inch diameter and larger) shall be performed under the direct supervision of an ISA Certified Arborist in the Contractor's employ.

All trees noted on the drawings for tree pruning shall have crown reduction and crown thinning performed in accordance with standards published by the Western Chapter of the International Society of Arboriculture (ISA). All pruning shall be performed by ISA certified tree workers under direct supervision of an ISA certified arborist. The Contractor shall furnish such credentials to the Engineer prior to commencement of any tree work.

Add the following Subsection 300-1.2.1:

300-1.2.1 Protection of Existing Trees to Remain.

All trees to remain in place within the limits of work shall be protected from damage by workmen, equipment, and operations. Insofar as prosecution of the work allows, following removal of surrounding pavements, etc., the root area beneath the tree drip line shall be protected from damage, including compaction. Protection shall include temporary fencing, barricades, etc. Warning tape will not be considered sufficient.

300-1.4 Payment.
Add the following:

Payment for **Root Pruning** shall be paid at the contract price per **EACH (EA)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, hauling, disposing, and incidentals for root pruning and no additional compensation will be made therefor.

300-2 UNCLASSIFIED EXCAVATION
300-2.1 General.
Replace the first paragraph with the following:

Unclassified excavation shall consist of all excavation, including roadways, bituminous pavement, concrete pavement, curb, walk, gutters, cross gutters, driveways, and access ramps. Removals shall be in accordance with Section 401 Removals.

300-2.9 Payment.

Replace the first sentence with the following:

Payment for **Demolition and Excavation** shall be paid at the contract price per **cubic yard (CY)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, hauling, disposal, sawcutting, and incidentals for demolition and excavation and no additional compensation will be made therefor.

300-4 UNCLASSIFIED FILL

300-4.1 General.
Add the following:

The site shall be graded to the limit lines and elevations shown on the drawings with such allowances as may be required for the construction of walks, and other site improvements. Tolerance for rough grading is 1/10th of a foot (30mm), plus or minus, at drainage swales, building pads, and paved areas. At other areas, appearance shall be the governing factor.

Finish grades shall slope to drain without water pockets or irregularities and shall conform to the intent of all plans and sections, after thorough settlement, and compaction of the soil. Finished grades shall meet all existing or established controls of sidewalks, curbs, and walls and shall be of uniform slope and grade between points of fixed elevations or elevation controls from such point to established grades. Tolerance for finish grading is ¼ inch, plus or minus.

Make-up fill material in landscaped areas shall be Class A topsoil for the upper 12 inches of fill.

300-4.10 Payment.

Replace this subsection with the following:

Full compensation for furnishing all labor, materials, tools and equipment, and doing all the work involved in unclassified fill construction shall be considered as included in the price paid for "construct" bid item and shall include full compensation for the cost of all grading, shaping, compacting or consolidating and extra fill, if required, or other work that is required under this subsection. No additional payment will be made for unclassified fill.

SECTION 301 – SUBGRADE PREPARATION, TREATED MATERIALS, AND PLACEMENT OF BASE MATERIALS

301-2 UNTREATED BASE

Add the following:

Crushed miscellaneous base material shall conform to Section 200-2.4, and placement and compaction shall conform to Section 301-2 of the Standard Specifications. Thickness and limits shall be as shown on the Plans.

301-2.4 Measurement and Payment.

Add the following:

Payment for **Construct Crushed Miscellaneous Base** shall be paid at the contract price per **cubic yard (CY)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, placing, compacting, subgrade preparation, and incidentals for the construction of aggregate and no additional compensation will be made therefor.

SECTION 302 -ROADWAY SURFACING

302-5 ASPHALT CONCRETE PAVEMENT

Asphalt concrete pavement shall be according to Section 302-5 of the Standard Specifications for Public Works Construction.

302-5.2.3 Tack Coat
Add the following:

This item shall consist of a Bituminous Surface Pavement Tack Coat composed of a blend of elastic Polymer modified asphalts, thermoplastic resins and digested whole tire rubber. The Material is applied at 325 to 425 degrees F with a distributor truck at typical application rates of 0.08 to 0.15 gal/square yard. The exact application rate will be determined by surface conditions at time of application.

Paving asphalt (also referred to as tack coat) shall be Thermoplastic Polymer Modified No Track Tack, for ARHM and AC overlay and SS 1h otherwise. The Thermoplastic Polymer Modified No Track Tack shall meet the following criteria:

Test	**Method**	**Typical Properties**	**Specification**
Digested whole tire rubber		2	1-3
Softening Point Degree F	D36	165	160 Min
Penetration @ 77 Deg. F 100g, 5 sec, Dmm	D-5	16	10 Min
Brookfield Viscosity @ 275 Deg. F cPs*	D4402	975	3000 Max
Brookfield Viscosity @ 350 Deg. F cPs*	D4402	185	300 Max

*BKF LV II, spdl #21 @ 20 RPM

The tack coat shall be applied to the existing pavement on the areas to receive the ARHM or AC. The Engineer shall approve the exact rate and number of applications. Two heavy coats of SS 1h shall be applied to vertical joints for patching. All contact surfaces with new asphalt shall be painted tack coat immediately before the asphalt concrete is placed.

The tack coat shall be applied as specified in Subsection 302-5.8 of the Standard specifications and these special Provisions. Thermoplastic Polymer Modified No Track Tack shall be applied only when the existing surface is dry and the atmospheric temperature is 50 deg. F and rising. NO material shall be applied when rain is imminent.

Paving of overlay shall not proceed until the tack coat has stiffened sufficiently to not stick to truck tires. Upon occurrence of tracking of tack coat, paving shall cease, except remaining material in the hopper shall be used, and the tack shall be allowed time to setup.

The Thermoplastic Polymer Modified No Track Tack shall be heated slowly to 325-425 degrees F. At no time shall the product be heated above 450 degrees F. The product shall be applied through a distributor truck equipped with a heating unit and shall maintain tack coat at or above 325 degrees F. It shall be equipped with a full circulating spreader bar and pumping system capable of applying the Thermoplastic Polymer Modified No Track Tack

material within + 0.01 gallons per square yard tolerance of specified application rate and give uniform covering of the surface to be treated. The distributor shall also include a tachometer, pressure gauge, and volume measuring device and thermometer. The application rates shall be 0.15 gallons per square yard for all ARHM or AC overlay or as otherwise directed by the Engineer. If the pavement temperature reaches over 130 degrees F, the application rate will be reduced to minimum 0.08 gallons per square yard on overlay applications.

Paving asphalt shall not be applied until the preparation of the existing surface has been completed and thoroughly cleaned, and then only so far in advance of placing the asphalt concrete overlay as permitted by the Engineer. The Thermoplastic Polymer Modified No Track Tack shall not be left exposed overnight. Immediately in advance of placing the overlay, additional tack coat shall be applied as directed by the Engineer, to areas where the tack coat has been destroyed or otherwise rendered ineffective, and no additional compensation will be allowed for such work.

Existing concrete curb faces and all concrete not to be overlaid shall be protected against disfigurement from the asphalt tack coat. Residue of the material shall be removed from concrete surfaces to return the concrete to its original condition unless otherwise directed by the Engineer.

Excessive tracking of tack coat onto adjacent pavements will require immediate clean-up. If significant amounts of asphalt tack coat are tracked onto existing adjacent pavements, the contractor shall be required to clean it off to the satisfaction of the Engineer or provide a slurry seal to restore the pavement at their own expense. This shall apply to the entirety of asphalt haul routes to and from the project sites.

On all vertical joins of AC patching, apply SS-1H tack coat uniformly in two coats of .20 gallons per square yard each with full "break" in between, or .20 gallons per square yard PG 64-10 uniformly in one coat. Tack coat shall not be applied when the temperature of the surface to be tacked is below 40º F in the shade. A tack coat shall be applied at the following:

1. Pavement joins;
2. Areas where new pavement meets existing pavements;
3. Areas where lift sections from pavement placed on different days meet;
4. Trenches;
5. Areas where existing striping has been sandblasted; and
6. Raised valves and manhole covers.

302-5.9 Placement.

302-5.9.1 General.
Add the following:

Contractor shall provide 20-foot long automatic screed control on both sides of the paving machine for all paving with paving machine, as directed by Engineer.

Each paving machine used will require a paving foreman for each machine along with a full set of rollers as specified and two rakers and one shoveler laborer at a minimum.

302-5.9.2 Joints.
Add the following:

Join lines between successive runs shall be within 6 inches of lane lines or center of street or a minimum of 14 feet outside of the outer most lane line or center of street, or 5 to 6 feet from a lane line or center of street and within a lane. The joint pattern for all pavement layers shall be submitted in writing to the Engineer for review and approval 2 weeks in advance of the first lift of pavement to be placed. No exceptions to the specified requirements for joints shall be anticipated, and the Engineer's decision shall be final.

302-5.10 Rolling.
Add the following:

Rolling along a joint shall be such that the widest part of the roller is on the hot side of the joint.

Rubber tire rollers shall be used on any leveling course.

Three rollers shall be provided for installation of AC greater than 200 tons per hour, regardless of thickness.

302-5.14 Payment.

302-5.14.4 Tack Coat.
Replace this section with the following:

Full compensation for furnishing and applying tack coat shall be considered as included in the contract price paid per ton of Asphalt Concrete Paving and no separate payment will be made therefor.

302-5.14.5 Asphalt Concrete.
Add the following:

Compensation to provide all of the equipment to the site and operated as specified, including all rollers specified regardless of rolling pattern elected by Contractor, shall be considered included in the bid item price for AC material.

Payment for **Construct AC Pavement (depth per plan and bid schedule)** shall be paid at the contract price per **Ton (TN)** and include full compensation for all labor, materials, tools,

equipment and incidentals required to construct full depth AC pavement. This bid item will include furnishing the material, placement, compaction, prime coat, tack coat, asphaltic emulsion coating on vertical surfaces to abut the new pavement, grading and compaction of subgrade, and all other work required to result in an asphalt pavement meeting the requirements of the specifications.

302-6 PORTLAND CEMENT CONCRETE PAVEMENT
302-6.8 Measurement and Payment.
Add the following:

Payment for **Construct PCC Pavement (depth per plan and bid schedule)** shall be paid at the contract price per **square foot (SF)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, tie bars, dowels, and incidentals, for the construction of PCC pavement per applicable standard plans and no additional compensation will be made therefor.
Payment for **Install Tie Bars and Dowels** shall be considered as included in the payment for Construct PCC Pavement no additional compensation will be made therefor.

302-9 ASPHALT RUBBER HOT MIX (ARHM)
302-9.1 General.

Contractor's attention is directed to Subsection 302-5.8, Manholes, for requirements for patching manholes and miscellaneous, frames and covers in ARHM pavements.

All PCC surfaces, to be crossed by trucks used to haul ARHM, that are within 500 feet of the work limits shall be covered with sand or other durable covering prior to applying tack coat.

Contractor shall have sufficient power brooms on site during all periods of distribution and spreading to provide for cleanup of haul routes and work areas. Power broom shall provide miscellaneous cleanup of ARHM spoils as directed by the Engineer.

Power brooms used ahead of paving operations after acceptance of cold milling shall only sweep areas that are accepted as completed for cold milling. Power brooms shall not be operated more than 80 percent full of sweepings. Power brooms that have swept areas not accepted as completed for cold milling shall not enter into areas that are accepted as completed for cold milling.

Proportioning shall be performed using an automatic batching system, and the proportioning device shall be automatic to the extent that the only manual operation required for proportioning all materials shall be a single operation of a switch or starter.

For drum plants, the system shall run fully automatic with the only input to the AC plant computer being information transmitted automatically from a Corealis mass flow meter on

the line of the asphalt-rubber feed to the AC plant. All automatic shutdown features of the AC plant shall be fully functional.

The ARHM as delivered shall be deposited directly into the hopper of the spreading and finishing machine. Truck transfer and bottom-dump truck are not allowed except as authorized by the City Engineer.

The temperature of ARHM shall be high enough upon delivery that pavement temperature after two passes with the breakdown roller exceeds 240 degrees Fahrenheit.

To avoid picking up loose rock in the overlay area, the tires of all trucks must be lightly oiled with linseed oil or soybean oil or approved equal. Diesel fuel will not be allowed on the project at all for oil down of any equipment.

Raking of ARHM shall be eliminated as much as possible. ARHM material shall not be cast across the mat under any circumstance. Raking shall be just enough to set up edges for uniform joins without casting material. Screed controls shall be the predominant means of controlling material at joins. In areas where paving machines cannot be used due to space constraints, material shall not be thrown by shovels. Material shall be removed directly from the paving machine hopper and shall be placed directly in its final location, to be distributed with minimal raking. Material may be dumped directly from a truck, but further material distribution shall be by shovel directly to its final location with minimal raking. A small rubber tire tractor with a screed type attachment may be used to spread a pile dumped from a truck, but raking shall be minimized after spreading.

The paving machine screed shall not be pulled across an area already paved with ARHM, even adjacent to narrow areas to be paved. Such narrow areas shall have ARHM distributed by methods specified by shovel or rubber tire tractor, unless the adjacent area has hardened enough and will not be significantly marred by passing the screed over it. Even if hardened adequately, Contractor shall spread rock dust by hand tools to avoid cohesion of the ARHM in the screed to the existing surface of such areas of freshly cured ARHM.

Contractor shall maintain a functioning infrared heat measurement device in close proximity to each paving machine at all times. The infrared device shall be correlated by thermometer to the actual mat temperature prior to use. The correlation difference shall be applied to all readings thereafter. Contractor shall provide a pavement temperature reading, with an infrared heat measurement instrument, when requested by the Engineer. Inaccessibility of a heat measurement shall be cause for termination of paving operations.

Transverse cold joints shall be provided such that longitudinal joints are not left exposed at the end of the workday.

302-9.4 Rolling.
Add the following:

Initial breakdown rolling shall be vibratory. Rolling in vibratory mode shall not be performed after ARHM material temperature falls below 240 degrees F, due to disturbance of the bonds beginning to set up in the binder at lower temperatures.

An intermediate roller of the same or greater width than the breakdown roller shall be rolling directly behind the breakdown roller at all times, and paving shall cease if intermediate rolling is terminated for any reason. Additional intermediate rollers may be necessary depending on production rates.

Once a rolling pattern is elected by Contractor, the rolling pattern shall remain consistent, unless conditions change and/or a modified rolling pattern is needed to conform to specification.

All finish rolling shall be performed by a separate finish roller.

To ensure optimum quality control, the use of more than one paver will require notification 3 days in advance to the Engineer, and will generally require one foreman, one sweeper, and a full complement of rollers per Subsection 302-5 of the Standard Specifications and this Subsection 302-9.5 for each paving machine.

An extra breakdown roller shall be on site at all times, free of defects.

302-9.4.1 Density and Smoothness.
Density and smoothness shall conform to Subsection 302-5.6.2, except the second and third paragraph of Subsection 302-5.6.2 shall not apply to ARHM.

The compaction after rolling shall be 95 percent of density obtained with the California Kneading Compactor, California Test 304 as modified and measured in conformance to this Subsection 302-9.5.1.

The field density of compacted ARHM shall be determined by:

1) A nuclear asphalt testing device, calibrated in conformance with California Test 375, except as modified in this Subsection 302-9.5.1, in the field designed to measure the density of pavement of the thickness being constructed; or

2) Core with density determined as follows:

a) Saw the ARHM lift of pavement from the top of the core approximately perpendicular to the axis of the core, just above any underlying pavement or as necessary to obtain a clean flat surface at the bottom of the sample.

b) Clean and dry the sample as described in ASTM 1188.

c) Perform California DOT Test 308 Method A step a.

d) Prior to proceeding to steps 308A b., 308A c., 308A d. and 308A e., place the core, top surface down, firmly into a flat pan of hot liquid paraffin approximately 1/4 inches deep. Allow the sample and paraffin to cool to firm solid state and remove the sample from the pan by cutting around the perimeter. Trim the edges of paraffin parallel to the side of the sample cylinder, and weigh the cylinder to obtain:

G = Mass in grams of level sealed paraffin-treated specimen in air.

e) Perform 308A b., 308A c., and 308A d on the sample from D) above.

f) Complete the remainder of Test 308A, except replace the formula in 308A e. with the following: Bulk Specific Gravity

$$= \frac{A}{(D - E) - (D - G) / F}$$

In case of dispute, 1) shall be used, except Contractor may elect to use 2), but all costs for such procedures shall be borne by the Contractor to provide the full set of coring, tests and documentation in conformance with the Standard Specifications, except all test methods shall be modified as specified in these Special Provisions. Also, Contractor shall notify the Engineer at least 3 days in advance of coring operations, and immediately after core testing is complete Contractor shall deliver cores to the Agency for verification.

Nuclear test procedures, including correlation with core densities, shall be in conformance with California Test 375, except as follows:

If a test section is placed and compacted for that purpose, rolling shall be provided as follows: 1) 2 passes with a vibratory breakdown roller above 240 degrees F; and 2) 4 passes with a static roller above 200 degrees F. Core locations for correlation with cores shall be selected based on appearance of relatively tight surface texture, and the test strip shall be selected on this basis. If a test location is determined to have a significantly open texture relative to other areas within the test strip, the location shall not be used. This selection criteria is not to be considered significant to the outcome of, but only as a guideline towards obtaining samples that are relatively well compacted to yield results with minimum standard deviation. The locations shall be well clear of grade breaks and joints. One core centered on the gauge will be used instead of two at each location. Use method 2) in this Subsection 302-9.5.1 to determine density of cores. Surface voids shall not be filled with sand.

Contractor will be notified in writing at least 5 days in advance of such correlation testing and will be invited to have a nuclear gauge onsite to correlate a second gauge. If not independently calibrating at that time, Contractor shall bear the full expense of performing correlation for his nuclear gauge under the specified procedures, but shall notify the City 5

days in advance of such correlation testing, such that the City can correlate with the Contractor's gauge, if Contractor disagrees with City's test results.

TABLE 302-9.5.1A REDUCED COMPENSATION FACTORS			
Relative Compaction (Percent)	Reduced Compensation Factor	Relative Compaction (Percent)	Reduced Compensation Factor
95.0	0.000	93.4	0.062
94.9	0.002	93.3	0.068
94.8	0.004	93.2	0.075
94.7	0.006	93.1	0.082
94.6	0.009	93.0	0.090
94.5	0.012	92.9	0.098
94.4	0.015	92.8	0.108
94.3	0.018	92.7	0.118
94.2	0.022	92.6	0.129
94.1	0.026	92.5	0.142
94.0	0.030	92.4	0.157
93.9	0.034	92.3	0.175
93.8	0.039	92.2	0.196
93.7	0.044	92.1	0.225
93.6	0.050	92.0	0.300
93.5	0.056		

302-9.4.2 Compaction Payment Reductions. Based on laboratory tests on AC pavements revealing a highly significant loss of life span for each 1 percent reduction of compaction, and the well-known catastrophic effect of oxidation and stripping of asphalt products due to interconnected voids that develop below 95 percent compaction, and the extreme expense of removing and replacing pavement not compacted to the specified minimum, a nominal deduction of payment will be applied for under-compacted ARHM pavement. The bidder in submitting a bid fully accepts the provisions in this Subsection 302-9.5.2 and agrees that the nominal payment deduction is acceptable and reasonable for these purposes.

Payment reductions will be applied to ARHM compacted less than 95 percent of maximum density, the specified minimum, and greater than 91.9 percent of the maximum density based on nuclear testing with Part 3 Test Site Selection of California Test 375 modified as follows:

A lot will be one day's production or other lesser area of paving as determined by the Agency to be deficient in terms of compaction, and a pull will be the width between joints or edge of pavement as the lot is placed.

Test site selection will conform to California Test 375 Part 3, except the number of tests shall be the area of the lot in square feet divided by 400 and any test site within .5m of a grade

break or pavement joint shall be relocated laterally towards the center of the pull to .5m from such joint or grade break.

The mathematical mean average of percent of maximum density represented by all these tests shall be calculated, except any test results outside of this mean plus two standard deviations based on all tests, shall be rejected. The mean average shall be calculated directly from the remaining values. A compensation reduction in conformance with Table 302-9.5.1A will be applied to the contract unit price for ARHM for material within any lot determined to be below minimum relative compaction, except any lot with tests indicating compaction 91.9 percent or less shall be removed and replaced at Contractor's expense.

302-9.7 Rock Dust Blotter.

Add the following:

Lack of uniformity of application of rock dust shall be cause to terminate paving operations. Rock dust blotter shall not be applied until intermediate rolling is complete, except as approved by the Engineer based on a fine uniform layer of rock dust, or at major intersections and access points.

302-9.9 Payment.
Add the following:

Payment for **Construct asphalt rubber hot mix (ARHM)** shall be paid at the contract unit price per **Ton (TN)** and shall include, but not limited to, full compensation for furnishing all labor, materials, tools, equipment, transportation, tack coat, and other incidentals for doing all work, complete, and in place, involved in constructing asphalt-rubber hot mix cap pave as indicated in the contract documents and no additional compensation will be allowed therefor.

SECTION 303 - CONCRETE AND MASONRY CONSTRUCTION
303-1 CONCRETE STRUCTURES
Add the following:

Work shall conform to Sections 401-1 and 401-3.3 of the Standard Specifications and these Special Provisions. Catch basins shown on the Plans shall be removed in their entirety, including frame, grate, local depression, and any connecting pipe. Where connecting pipe remains in service, it shall be capped and plugged. Excavations shall be backfilled with aggregate base compacted to 95 percent relative compaction.

Work shall conform to Sections 401-1, 401-3.2 and 401-5 of the Standard Specifications. Curb drains, including the curb sleeve and the sidewalk drain portion shall be removed and disposed. Curb, gutter and sidewalk removed with the drain shall be saw cut per 401-3.2.

303-1.12 Payment.
Delete the 5th, 6th, and 7th paragraphs.

Add the following:

Payment for **Construct 4'-1"x1'-4" Concrete Sidewalk Drainage Box** shall be paid at the contract price per **each (EA)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, reinforcing steel, and incidentals for construction of the sidewalk drainage box and no additional compensation will be made therefor.

Payment for **Modify Top of Existing Catch Basin** shall be paid at the contract price per **each (EA)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, reinforcing steel, and incidentals for construction the catch basin top and no additional compensation will be made therefor.

Payment for **Construct Parkway Drain per SPPWC Std Plan 151-3** shall be paid at the contract price per **each (EA)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, reinforcing steel, and incidentals for construction parkway drain and no additional compensation will be made therefor.

Payment for **Remove Catch Basin and Local Depression** shall be paid at the contract price per **each (EA)** and shall include full compensation and include but not limited to sawcutting, removal, hauling and disposal, plugging or capping pipes, surface restoration, backfill and compaction, and all incidentals and no additional compensation will be made therefor.

Payment for **Remove and Dispose of Existing Curb Drain** shall be paid at the contract price per **each (EA)** and shall include full compensation and include but not limited to sawcutting, removal, hauling, disposal, and replacement curb, gutter, and sidewalk and no additional compensation will be made therefor.

303-5 CONCRETE CURBS, WALKS, GUTTERS, CROSS GUTTERS, ALLEY INTERSECTIONS, ACCESS RAMPS, AND DRIVEWAYS

303-5.1 Requirements.

303-5.1.1 General.

Replace the second paragraph with the following:

Concrete areas behind sidewalks, driveways and right-of-way shall be considered as walks. The Contractor shall protect all new concrete installations from damage by others (subcontractors or the general public such as, blemishes, water stains, stress cracks, graffiti markings, etc.). The removal and replacement of damaged concrete work shall be performed and no additional cost to the Agency (City). Concrete sidewalk shall be a minimum 4” thick over 4” thick crushed miscellaneous base over native soil compacted to a minimum of 95 % relative compaction. Driveways are commercial driveways and shall be 6” thick PCC over 4” thick crushed miscellaneous base.

Sawcutting shall be accomplished by the use of a power driven saw. The depth of the cut shall be deep enough to provide a clean, straight break without loosening, cracking, or damaging adjoining asphalt or concrete. A clean sawcut edge shall be maintained until new concrete sidewalk is constructed. The exact location of sidewalk removal shall be approved by the City Engineer in the field. Generally, sawcuts shall be on existing joints or score mark.

All necessary sawcutting of existing concrete sidewalks shall be to the lines as required by the City Engineer. Sawcutting shall be included in the unit price and no further compensation shall be made.

Sawcutting shall conform to Sections 401-2, 401-3.1 and 401-3.2 of the Standard Specifications. Asphalt concrete shall be saw cut as shown on the plans along removal limits that abut pavement to remain. Concrete pavement shall be saw cut to a minimum depth of 1-1/2 inches (401-3.1). Concrete curb, walk, gutter, cross gutter, driveway and curb ramp shall be saw cut through the entire thickness (401-3.2). Saw cuts shall be neat and straight. Sawcutting is not required where the limit of removal is cold milled.

All excavated materials shall be immediately removed from the site and disposed of at the Contractor's expense at a legal dumpsite.

Where existing sidewalk is damaged due to tree roots, the Contractor shall coordinate with the City's arborist for the pruning or planing of the tree roots that are damaging the sidewalk. The Contractor shall remove the damaged sidewalk and expose the tree roots. After the tree roots are pruned or planed by the Contractor, the Contractor shall then compact the subgrade and construct the new sidewalk. All landscaping areas (trees, bushes, stone works, river rocks, irrigation system, etc.) shall be protected in place and in case of any damage contractor is responsible for repair or replacement.

It is Contractor's responsibility to protect all existing adjacent features such as landscaping, irrigation system, property's fence/wall/gates, curb and gutter, pull boxes, utility boxes, and etc. in place per Section 400. Contractor shall contact property owners to identify any landscaping or improvements that the property owners wish to save, salvage such improvements, and reinstall on the property. All damages to these items shall be fixed to the satisfaction of City Engineer without any additional compensation.

Concrete sidewalk shall be constructed to the line, grades and designs shown on the plans or as ordered by the City Engineer. Existing surfaces to be joined shall be sawcut on a neat, straight line at the join location. The Contractor shall remove and replace any new concrete work with graffiti markings and blemishes at no additional cost to the City.

The Contractor shall construct new curbs and gutters at a straight grade between join points. The Contractor shall notify the City Engineer immediately if a minimum positive gutter slope of 0.30 percent cannot be achieved. No gutters shall be constructed at a slope of less than 0.30 percent without prior approval from the City Engineer.

Subgrade preparation shall conform to Section 301-1 of the Standard Specifications. The subgrade material shall be moisture conditioned and compacted to a relative compaction of 95 percent to a depth of 6 inches below the surface of the subgrade, as determined by California Test Method No. 231 A. All joins shall match existing adjacent grades to the satisfaction of the City Engineer. Contractor shall construct 4-inch thick crush miscellaneous base (CMB) below proposed curb ramps, sidewalk, curbs, and gutters.

The Contractor shall saw cut and remove existing PCC and asphalt concrete improvements for the construction of the new curb ramps. Where curb ramps are to be constructed adjacent to existing PCC gutter spandrels, the spandrel shall be neatly sawcut 4 inches from the flow line and the existing PCC curb and portion of spandrel removed. The Contractor shall dowel new concrete curb ramp to existing concrete cross gutter sections using #4 rebar at 12 inches on center maximum. The rebar dowels shall be drilled and epoxied into the existing concrete with a minimum of 6 inches embedment and shall extend a minimum of 6 inches into the new concrete sections.

Payment of detectable warning surface for new ramps shall be included in the unit price bid for removal and construction of new curb ramps per SPPWC Std Plan 111-5. Detectable warning surface (truncated domes) for curb ramps shall be Cast-in-Place System per Armor Tile Part No. ADA-C-3648 or approved equal. Color shall be red to match existing detectable warning surface in the intersection of Fair Oaks Avenue and El Centro, or City select.

Drilling holes in existing adjacent concrete gutter or spandrel and placing rebar or placing deep lift asphalt concrete pavement adjacent to the curb ramp improvements shall be included in the unit cost of each curb ramp.

The optional dowels shown in SPPWC Std Plan 122-3 are required to be installed. Contractor shall install tie bars and dowels for cross gutters and cross gutter spandrels.

303-5.9 Measurement and Payment.
Add the following:

Payment for **Construct 4-Inch Thick PCC Sidewalk** and **Construct 4-inch Thick PCC at Medians** shall be paid at the contract price per **square foot (SF)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, and incidentals for the construction of 4-inch thick PCC sidewalk and no additional compensation will be made therefor.

Payment for **Construct PCC Curb and Gutter (type per plan and bid schedule)** shall be paid at the contract price per **linear foot (LF)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, saw cutting, hauling, disposing, restoring landscape and irrigation, and incidentals, for the removal of existing curb and gutter and construction of curb and gutter per applicable standard plans and no additional compensation will be made therefor.

Payment for **Construct PCC Curb (type per plan and bid schedule)** shall be paid at the contract price per **linear foot (LF)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, saw cutting, hauling, disposing, restoring landscape and irrigation, and incidentals, for the removal of existing curb and gutter and construction of curb and gutter per applicable standard plans and no additional compensation will be made therefor.

Payment for **Construct PCC Retaining Curb (type per plan and bid schedule)** shall be paid at the contract price per **linear foot (LF)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, saw cutting, hauling, disposing, restoring landscape and irrigation, and incidentals, for the removal of existing curb and gutter and construction of curb and gutter per applicable standard plans and no additional compensation will be made therefor.

Payment for **Construct Curb Ramp (case and type per plan and bid schedule)**shall be paid at the contract price per **each (EA)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, detectable warning surface, equipment, curb, gutter, and incidentals for the construction of curb ramps per applicable standard plans and no additional compensation will be made therefor.

Payment for **Construct PCC Cross Gutter or Spandrel** shall be paid at the contract price per **square foot (SF)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, dowels, tie bars, equipment, and incidentals for the construction of cross gutter per SPPWC Std Plan 122-3 and no additional compensation will be made therefor.'

Payment for install tie bars and dowels shall be considered as included in the payment for Construct PCC Cross Gutter no additional compensation will be made therefor.

Payment for **Construct PCC Driveway or Partial Driveway (type per plan and bid schedule)** shall be paid at the contract price per **square foot (SF)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, and incidentals for the construction of driveway per SPPWC Std Plan 110-2 and no additional compensation will be made therefor.

Payment for **Sawcut Existing Pavement Surface** shall be paid at the contract price per **linear foot (LF)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, hauling, disposing, and incidentals for the saw cutting of existing pavement surface and no additional compensation will be made therefor.

SECTION 304 – METAL FABRICATION AND CONSTRUCTION

304-2 METAL HAND RAILINGS

304-2.4 Measurement and Payment.

Add the following:

Payment for **Install Metal Hand Rails per SPPWC Std. Plan 606-5** shall be paid at the contract price per **linear foot (LF)** and shall include full compensation and include but not

limited to furnishing all labor, materials, tools, equipment, and incidentals, for the construction of metal hand rails and no additional compensation will be made therefor.

PART 4 – EXISTING IMPROVEMENTS

400 PROTECTION AND RESTORATION

400-1 GENERAL

Replace the second paragraph with the following:

The Contractor shall relocate, repair, replace or reestablish all existing improvements within the project limits (e.g., curbs, sidewalks, driveways, fences, walls, sprinkler systems, signs, utility installations, pavements, structures, survey monuments, landscaping, etc.) which are damaged or removed as a result of the Contractor's operations or as required by the plans and specifications. When a portion of a sprinkler system within the right-of-way must be removed, the remaining lines shall be capped. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension.

The Contractor shall mark, as approved by the Engineer, all survey monuments, manholes, valves, substructures, or other items that are visible on the surface and will be covered by its operations. This shall be completed prior to the start of that operation and approved by the Engineer.

Existing traffic striping, pavement markings, and curb markings shall also be considered as existing improvements and the Contractor shall repaint or replace, at the Contractor's expense, such striping or markings (except for traffic striping and pavement markings within the limits of the Work) if damaged or if their reflectivity is reduced due to construction operations.

400-3 PAYMENT

Replace this section with the following:

No Separate or additional payment will be made for 1) protection of existing improvements, and 2) restoration of existing improvements, unless otherwise specified.

Contractor shall restore permanent survey markers. The cost to restore permanent survey markers shall be considered as included in other items of work and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, and incidentals for and no additional compensation will be made therefor

Payment for **Remove and Reinstall Trash Can** shall be paid at the contract price per **each (EA)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, hauling, storing, and incidentals, for the removal, storage, and reinstallation of trash can and no additional compensation will be made therefor.

Payment for **Remove and Reinstall Bus Bench** shall be paid at the contract price per **each (EA)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, hauling, storing, and incidentals, for the removal, storage, and reinstallation of bus bench and no additional compensation will be made therefor.

SECTION 401 – REMOVAL

401-1 GENERAL
Add the following:

All fences, trees and obstructions of any nature to the execution of the work shall be removed by Contractor and be disposed of, reused or delivered to the City Yard as required. This work is to be included in the cost of other items bid on, if there is no item covering same. All such obstructions privately owned which are removed by Contractor shall be replaced or compensated for to the satisfaction of the City Engineer at the Contractor's sole expense.

401-2 ASPHALT CONCRETE PAVEMENT
Add the following:

Bituminous pavement shall be removed to neatly sawed edges. Saw cuts shall be to a minimum depth of 3 inches. Where only the surface of existing bituminous pavement is to be removed, the method of removal shall be approved by the Engineer, and a minimum laying depth of 1 inch of new pavement material shall be provided at the join line. Where bituminous pavement adjoins a trench, the edges adjacent to the trench shall be saw cut to neat straight lines before resurfacing to ensure that all areas to be resurfaced are accessible to the rollers used to compact the subgrade or paving materials.

Bituminous pavement on curb and gutter, sidewalk or drive approaches shall be removed by heating with a torch to soften the pavement without creating smoke. Softening shall be performed until the bituminous material can be easily scraped away down to the underlying PCC surface. The blade used for scraping shall be maintained straight along its edge and clean. Bituminous material shall be scraped in this manner until it is completely removed.

401-3 CONCRETE AND MASONRY IMPROVEMENTS.

401-3.1 Concrete Pavement.
Replace this subsection with the following:

Concrete pavement shall be removed to neatly sawed edges. Saw cuts shall be made to a minimum depth of 3 inches. If a saw cut in concrete pavement falls within 3 feet of a construction joint, cold joint, expansion joint or edge, the concrete shall be removed to the joint or edge. The edges of existing concrete pavement adjacent to trenches, where damaged subsequent to saw cutting of the pavement, shall again be saw cut to neat straight lines for the purpose of removing the damaged pavement areas.

401-3.2 Concrete Curb, Walk, Gutters, Cross Gutters, Curb Ramps, Driveway, and Alley Intersections.
Replace this subsection with the following:

Concrete shall be removed to neatly sawed edges with saw cuts made to a minimum depth of 1½-inches. Concrete sidewalk, or driveway to be removed shall be neatly sawed in straight lines either parallel to the curb or at right angles to the alignment of the sidewalk. No section to be replaced shall be smaller than 30 inches in either length or width. If the saw cut in sidewalk, access ramp, or driveway would fall within 30 inches of a construction joint, expansion joint, or edge, the concrete shall be removed to the joint or edge, except that where the saw cut would fall within 12 inches of a score mark, the saw cut shall be made in and along the score mark. Curb and gutter shall be sawed to a depth of 1½-inches on a neat line at right angles to the curb face.

Residual from any saw-cutting shall be removed by vacuum. The downstream drain inlet shall be protected. In no case shall the residual be allowed to enter the storm drain system.

401-7 Payment.
Add the following:

Payment for removals shall be considered as included in other items of work and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, and incidentals for the removal of existing improvements and no additional compensation will be made therefor.

402 UTILITIES

402-1.1 General
Add the following paragraph after the fourth paragraph:
The contractor shall pothole all traffic signal pole foundation of more than 24 inches in depth prior to installation. The work shall consist of locating and exposing existing underground utilities at the traffic signal pole locations shown on the plans or as directed by the Engineer. Potholing shall be performed to verify the horizontal and vertical clearance of existing utilities prior to excavation, construction, installation of improvements, or utility conflict resolution. Each pothole shall be the depth of the proposed foundation.

Add the following Subsections:

402-1.1.1 MANDATORY NOTIFICATION PRIOR TO EXCAVATION

The Contractor's attention is direct to Section 4215.5 through 4217 of the Government Code of the State of California. This requires that two (2) working days prior to commencing any excavation "Underground Service Alert of Southern California" (USA) shall be notified by phone, toll free 1-800-227-2600, for the assignment of an Inquiry Identification Number.

Construction Contractor shall contact all utility companies (e.g. gas company, electric company, telephone company, cable company, water company, and refuse collectors) at least five (5) working days prior to commencing work and shall verify the location of any known utilities and determine whether or not a representative of each company will be present during excavation:

Additionally, the Contractor shall also notify local entities of his/her schedule fourteen (14) days prior to commencing work, including, local law enforcement agencies, the Post Office, Public Schools, and Bus Companies.

No excavation shall commence unless the Contractor has obtained the USA Inquiry Identification Number.

402-1.1.2 ACCURACY OF UTILITIES INFORMATION

The locations of known existing major utilities, whether above ground or underground, are indicated on the plans. Information and data reflected in the Contract Documents with respect to underground and above ground utilities at or contiguous to the site is based upon information and data furnished to the City and the Engineer by the owners of such utilities, and the City does not assume responsibility for the accuracy or completeness thereof. The Contractor shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be necessary.

The Contractor shall be responsible for determining the location and depth of all underground facilities, including service connections, which may affect or be affected by his/her operations and he/she shall include the cost to pothole all utilities within the limits of work in his/her bid. If an existing utility line, which has been marked by Underground Service Alert or is shown on the plans, is damaged by the Contractor, the Contractor shall repair the line and bear the cost thereof.

Contractor shall be aware that electrical conduits between street and traffic lights may exist beneath pavement and/or sidewalk in areas where such lights are in place and that said conduits are not shown on these plans.

In the event that the Contractor damages any existing utility lines that are not shown, shown incorrectly or the locations of which are not made known to the Contractor prior to excavation, a telephone call and written report shall be made immediately to the Utility owner, the Engineer, and to the City. If directed by the City, the Contractor shall make repairs under the provisions for changes and extra work contained in **SECTION 3 – CONTROL OF THE WORK** of the SSPWC Standard Specification.

402-1.2 Payment

Delete the first sentence. Add the following:

Payment for **Potholing** shall be paid at the contract price per **each (EA).** Potholing shall include the exploration of existing utilities within the vicinity of the installation of the traffic signal poles with foundations deeper than 24 inches and shall include all materials and labor to identify and report on any utilities encountered during the process and backfill in accordance with this specification.

402-2 PROTECTION

Delete the following text from the last sentence of the fourth paragraph of Section 402-2:

"if located in accordance with 402-1".

402-4 RELOCATION
Replace the second sentence of the fourth paragraph with the following:

When not otherwise required by the plans and specifications and when directed by the Engineer, the Contractor shall arrange for the relocation of service connections as necessary between the meter and property line, or between the meter and limits of construction.

Add the following:

Work shall conform to Sections 402-2 and 402-4 of the Standard Specifications. Under 402-4, the utility owner relocates service connections within the limits of Work, and the Contractor arranges the relocation between the meter and the property line when directed by the Engineer. The Contractor shall coordinate with the City Water Department, provide at least ten (10) working days notice, and restore all existing improvements affected. The Contractor shall furnish the meter, box, fittings, and all materials to be complete in-place and functioning.

402-4.1 Measurement and Payment
Add the following section:

Payment for **Relocate Pullbox** shall be paid at the contract price per **each (EA)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, and incidentals, for relocating pullboxes and no additional compensation will be made therefor.

Payment for **Relocate Water Meter** shall be paid at the contract price per **each (EA)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, coordination, excavation, backfill, restoration of improvements, and incidentals, for relocating water meters and no additional compensation will be made therefor.

402-5 DELAYS DUE TO UTILITY CONFLICTS
Delete the last paragraph of this section.

SECTION 403 – MANHOLE ADJUSTMENT AND RECONSTRUCTION
Add the following:

Work shall conform to Section 402 of the Standard Specifications and Standards Plans and the requirements of the City Water Department. The Contractor shall contact the utility before work to determine whether the utility will lower and raise its valve covers or the Contractor will do so. If the utility performs the work, the Contractor will not be paid for this item. Valve covers that can be lowered shall be lowered before cold milling or removal. Valves shall be maintained readily accessible for emergency shutoff (402-2). After paving, the cover shall be set flush with the finished surface, within 1/4 inch. The Contractor shall furnish all slip cans, sleeves and covers needed for the adjustment.

Work shall conform to Section 402 of the Standard Specifications and the plans. The electric pullbox and cover shall be raised or lowered to finished grade, with conduit and conductors protected and the box reset. The Contractor shall coordinate with the owner before work, and the pullbox shall remain accessible per 402-2. The cover shall be flush with the finished surface. Work shall conform to Section 801-5.4 of the Standard Specifications, which requires valve boxes to be set to finish grade, and these Special Provisions. The irrigation valve box shall be raised or lowered to finished grade and the surrounding area restored. The Contractor shall keep the irrigation system operational and shall test the valve after adjustment. Damaged pipe, wire or fittings shall be repaired at the Contractor's expense.

Work shall conform to Section 402 of the Standard Specifications and Standard Plans. Water meters shall remain readily accessible for emergency shutoff (402-2). The Contractor shall coordinate with the City Water Department to determine who will adjust the meter box. If the utility performs the work, the Contractor will not be paid for this item. The meter box and lid shall be set flush with the finished surface.

403-5 PAYMENT

Replace this section with the following:

Payment for **Adjust Manhole Frame and Cover to Grade (type per plan and bid schedule)** shall be paid at the contract price per **each (EA)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, and incidentals, for adjusting manholes to grade and no additional compensation will be made therefor.

Payment for **Adjust Vault to Grade** shall be paid at the contract price per **each (EA)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, and incidentals, for adjusting vault to grade and no additional compensation will be made therefor.

Payment for **Adjust Water Valve Frame and Cover to Grade** shall be paid at the contract price per **each (EA)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, and incidentals, for adjusting water valve and no additional compensation will be made therefor.

Payment for **Adjust Water Meter Cover to Grade** shall be paid at the contract price per **each (EA)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, sawcutting, restoration, and incidentals, for adjusting water meter to grade and no additional compensation will be made therefor.

Payment for **Adjust Street Light Pullbox to Grade** shall be paid at the contract price per **each (EA)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, and incidentals, for adjusting streetlight pullboxes and no additional compensation will be made therefor.

Payment for **Adjust Electric Pullbox to Grade** shall be paid at the contract price per **each (EA)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, and incidentals, for adjusting electric pullboxes to grade and no additional compensation will be made therefor.

Payment for **Adjust Irrigation Control Valve to Grade** shall be paid at the contract price per **each (EA)** and shall include full compensation and include but not limited to furnishing all labor, materials, tools, equipment, and incidentals, for adjusting irrigation control valves to grade and no additional compensation will be made therefor.

Signing and striping work shall conform to the provisions in Sections 214 "Traffic Striping, Curb and Pavement Markings, and Pavement Markers and 82 "Signs and Markers," 84-1 "General," and 84-2 "Traffic Stripes and Pavement Markings" of the Caltrans Standard Specifications and Sections 214 and 314 of the Standard Specifications for Public Works Construction (SSPWC), except as modified or supplemented herein. If there is a conflict between the Caltrans Standard Specifications and the SSPWC, the Caltrans Standard Specifications shall have precedence.

SECTION 82: SIGNS AND MARKERS

Section 82, "Signs and Markers"
Add the following:
All signing shown on the Plans shall be standard size, unless otherwise indicated, and be installed, relocated, or removed by the Contractor at their own cost.

Signs – All new regulatory and warning roadway signs shall be 0.08 inch aluminum and shall have 3M diamond (DG3) grade prismatic retro-reflective sheeting 3930-series with 1160-series protective graffiti film, unless otherwise specified, shall conform to the latest California MUTCD standards, and mounted on metal posts.

As applicable, fluorescent yellow-green warning signs shall be 0.08 inch aluminum and 3M diamond grade, 4083-series retro-reflective sheeting with 1160-series protective graffiti film, or approved equal.

As applicable, fluorescent yellow warning signs shall be 0.08 inch aluminum and 3M diamond grade, 4081-series retro-reflective sheeting with 1160-series protective graffiti film, or approved equal.

Posts – All metal posts shall be 12-gauge galvanized square (quick-punch) poles; and anchor shall be Anchormate 2-1/4" sq. x 30"/2-1/2"sq x 12".

Sign Location – The actual location of all roadway signs shall be approved by the City Engineer, or their designated representative, prior to installation.

Section 82-2.02I Internally Illuminated Street Name Sign
The internally illuminated street name signs (IISNS) shall contain a layout in the following format:

The contractor shall receive the official City logo from the City along with the appropriate colors for each element.

Signs shall be 6 or 8 feet in length depending on the street name text.

A detailed submittal drawing of each projected sign is required for approval prior to the contractor purchase. Details on the drawing shall include colors, font type, font size, and dimensions.

SECTION 84: MARKINGS

Add the following to Section 84, "Markings" of the Caltrans Standard Specifications. This work shall consist of installing traffic stripes (traffic lines) and applicable pavement markings at the specified locations and in accordance with the details shown on the Plans or designated by the City Engineer and as specified in these Specifications and Technical Provisions.

All new striping and markings shall be cat-tracked and approved by the City Engineer, or his designated representative, prior to final installation.

All traffic lane striping, crosswalks, limit lines, and pavement legends shall be thermoplastic unless otherwise noted on the plans. Crosswalks shall be painted where noted on plans. Crosswalk color shall be white or yellow as noted on plans.

For all thermoplastic applications, Contractor shall seal pavement cracks to ensure adherence to pavement. Application temperature shall match those noted in Caltrans Standard Specifications. Stripes and pavement legends shall be reflectorized.

Any removal of existing traffic stripes and markings shall be accomplished by the wet sandblasting method or waterblasting method, and includes removal of raised pavement markers. The machine used for this purpose shall meet all requirements of the air pollution control district having jurisdiction in the project area. All sand used in wet sandblasting shall be removed without delay.

All contrast striping border must be a black, nonreflective, film bonded on each side of the traffic striping. Each black border must be a minimum of 2 inches wide and the width of the tape must be at least 4 inches wider than the traffic stripe width.

MEASUREMENT AND PAYMENT

The contract unit price paid per each (EA) shall include full compensation for furnishing all labor, materials, tools, equipment, transportation, and incidentals, and for doing all work involved in “REMOVE SIGN,” “REMOVE SIGN POST,” “INSTALL SIGN,” “INSTALL SIGN POST,” “RELOCATE SIGN AND SIGN POST” and “INSTALL CONSTRUCTION SIGNS” as shown on the Plan; all in accordance with the Contract Documents and no additional compensation will be allowed therefor.

The contract unit price paid per square foot (SF) shall include full compensation for furnishing all labor, materials, tools, equipment, transportation, and incidentals, and for doing all work involved in “INSTALL LADDER CROSSWALK,” “PAVEMENT MARKINGS (THERMOPLASTIC),” and “GREEN PAVEMENT MARKINGS” as shown on the Plan; all in accordance with the Contract Documents and no additional compensation will be allowed therefor.

The contract unit price paid per linear foot (LF) shall include full compensation for furnishing all labor, materials, tools, equipment, transportation, and incidentals, and for doing all work involved in “INSTALL STRIPING,” “12” STRIPING (THERMOPLASTIC LIMIT LINE),” and “REMOVE EXISTING CURB PAINT AND INSTALL NEW CURB PAINT” as shown on the Plan; all in accordance with the Contract Documents and no additional compensation will be allowed therefor.

The contract unit price paid per lump sum (LS) shall include full compensation for furnishing all labor, materials, tools, equipment, transportation, and incidentals, and for doing all work involved in “REMOVE STRIPING AND PAVEMENT MARKINGS” and “INSTALL STRIPING,” as shown on the Plan; all in accordance with the Contract Documents and no additional compensation will be allowed therefor. “INSTALL STRIPING” bid item shall include

all 6” and 8” striping details and subsequent pavement markers not already accounted for in another bid item.

Replace Part 7 – Street Lighting and Traffic Signal Systems of the SSPWC with Sections 86 and 87 of the 2025 Caltrans Standard Specifications

For all work related to traffic signal removal, installation, and/or modification and communications the contractor shall comply with the provisions set forth in Sections 86 “General” and 87 “Electrical Systems,” of the 2025 Caltrans Standards Plan and Specifications (include any revised Plans & Specification) and these special provisions.

Section 86-1.02F(2) – Conductors
Add the following:

Circuit conductors shall be THW type.

Section 86-1.02C(2)(c) – Traffic Pull Boxes
Add the following:

Pull boxes shall be pre-cast reinforced concrete. Grout-in bottom of pull boxes will not be required.

Electrical pull boxes, unless noted otherwise on the Plans, shall be No. 6 and shall have plastic lined lids.

Section 86-1.02F(3)(c) – Reserved
Replace with the following:

Section 86-1.02F(3)(c) – Fiber Optic Cable

Fiber optic cable installed shall be single mode fiber of the size as specified on the plans and shall be all-dielectric gel-free fiber optic cable, or approved equal.

Fiber optic cables shall be supplied in the configurations shown on the plans and specified in these Technical Provisions.

There shall be two (2) principal cable types as well as incidental cabling procured under this specification. They are identified using a naming convention as follows:

Mainline cable which shall contain one hundred, forty-four (144) strand single-mode optical fibers.
Drop cable which shall contain twelve (12) single-mode optical fibers.

Each fiber optic cable shall be suitable for underground duct placement. The length of fiber optic cable to be installed within City Buildings does not require the fiber optic cable to be plenum and fire rated.

Additionally, there will be ancillary connecting (patching) optical fiber cables furnished and installed by Contractor under this Contract and this Supplemental, which are more precisely described elsewhere in this document.

All materials furnished, assembled, fabricated or installed under this item shall be new, corrosion resistant and in strict accordance with the details shown on the plans and in these Special Provisions. All fibers in the cables shall be usable fibers and free of surface imperfections and occlusions, in order to meet or exceed all of the optical, mechanical, and environmental requirements contained in this Supplemental.

All cables shall be free of material or manufacturing defects and dimensional non- uniformity that would:

- Interfere with the cable installation employing accepted cable installation practices.
- Degrade the transmission performance and environmental resistance after installation.
- Inhibit proper connection to interfacing elements.
- Otherwise yield an inferior product.
- Each fiber optic outside plant cable for this project shall be all-dielectric, dry water-blocking material, duct type, with loose buffer tubes, and shall conform to these Special Provisions.

The Contractor shall furnish, install, splice and test all the required fiber optic cable. All splicing kits, fiber optic cable caps, moisture/water sealants, terminators, splice trays, patch cords, connectors, pig tails and accessories to complete the fiber optic network shall be provided as incidentals. All equipment for installation, splicing and testing shall be provided by the Contractor per manufacturer's specifications and as in these specifications.

All fiber optic glass/cable on this project shall be from the same manufacturer and who is regularly engaged in the production of optical fiber material.

The cable shall be qualified as compliant with Chapter XVII, of Title 7, Part 1755.900 of the Code of Federal Regulations, and "REA Specification for Filled Fiber Optic Cables".

PACKAGING

1. The completed cable shall be packaged for shipment on non-returnable wooden reels. Required cable lengths shall be stated in the purchase order.
2. Top and bottom ends of the cable on spools shall be available for testing.
3. Both ends of the cable shall be sealed to prevent the ingress of moisture.
4. Each reel shall have a weather resistant reel tag attached identifying the reel and cable.

CABLE MARKING

1. The optical fiber cable outer jacket shall be marked with manufacturer's name, the month and year of manufacture, the words "Optical Cable," telecommunications handset symbol

as required by Section 350G of the National Electrical Safety Code“(NESC*), fiber count, fiber type, and sequential feet marks.

2. The markings shall be repeated every two (2) feet.
3. The actual length of the cable shall be within +1% of the length marking.
4. The marking shall be in a contrasting color to the cable jacket.
5. The marking shall be approximately 2mm in height regardless of the cable diameter.
6. The cable shall be tagged in each pull box with size and direction.

QUALITY CONTROL

The manufacture(s) of supplied optical cable, optical cable assemblies, and hardware shall be TL 9000 and/or ISO 9001 registered. All cabled optical fibers shall be 100% attenuation tested. The attenuation of each fiber shall be provided with each cable reel.

FIBER CHARACTERISTICS

One hundred percent (100%) of the optical fibers shall meet or exceed the requirements contained in this specification.

The cable shall be tested in accordance with TIA/EIA-455-3A (FOTP-3), "Procedure to Measure Temperature Cycling Effects on Optical Fiber, Optical Cable, and Other Passive Fiber Optic Components." The average change in attenuation at extreme operational temperatures (-40°C to +70°C) will not exceed 0.05 dB/km at 1550 nm. The magnitude of the maximum attenuation change of each individual fiber will not be greater than 0.15 dB/km at 1550 nm. This figure includes an allowance of up to 0.05 dB/km for measurement repeatability.

The cable shall meet the requirements of ITU-T G.652.D and shall be a low water peak fiber. All fibers within the finished cable shall be composed primarily of silica and shall have a matched clad index of refraction profile as well as the physical and performance characteristics that shall meet the requirements in the following table:

Parameters	Value
Mode	Single
Type	Corning Altos or approved equivalent
Core diameter	8.3 pm (nominal)
Cladding diameter	125 pm + 1.0 pm
Core to Cladding Offset	0.7 pm
Coating Diameter	240 pm +0.5 pm
Cladding Non-circularity defined as: [1- (min. cladding dia + max. cladding dia.)]x100	1.0'/o
Proof/Tensile Test	100 kpsi, min.
Attenuation: @ 1310 nm @ 1385 nm @ 1550 nm	0.35 dB/km 0.31 dB/km 0.25 dB/km

Attenuation Uniformity	No point discontinuity greater than 0.1 dB at either 1300 nm or 1550 nm
Attenuation at the Water Peak	2.1 dB/km @ 1383 +3nm
Attenuation At Extreme Operational Temperatures	+0.05 dB @ 1310 nm or 1550 nm
Chromatic Dispersion: Zero Dispersion Wavelength (to) Zero Dispersion Slope	1302 go 1322 nm 0.092 ps/(nm2.km)
Maximum Dispersion	3.5 ps/(nm.km) for 1285 - 1330 nm 18 ps/(nm.km) for 1550 nm
Cut-Off Wavelength	<1260 nm
Mode Field Diameter (Petermann II)	9.2 + 0.4 pm at 1310 nm 10.5 + 0.5 pm at 1550 nm
Cable Outer Diameter	0.30” (7.6 mm)
Buffer Tube Size	0.08” (2.0 mm)

COLOR CODING

Optical fibers shall be distinguishable from others in the same buffer tube by means of color-coding according to the following:

1. Blue (BL)	7. Red (RD)
2. Orange (OR)	8. Black (BK)
3. Green (GR)	9. Yellow (YL)
4. Brown (BR)	10. Violet (VI)
5. Slate (SL)	11. Rose (RS)
6. White (WT)	12. Aqua (AQ)

The colors shall be targeted in accordance with the Munsell color shades and shall meet TIA/EIA-598B "Color Coding of Fiber Optic Cables" and RUS 7 CFR 1755.900.

The color formulation shall be compatible with the fiber coating and the buffer tube filling compound and be heat stable. It shall not fade or smear or be susceptible to migration, it shall not affect the transmission characteristics of the optical fibers and shall not cause fibers to stick together.

GENERAL CABLE PERFORMANCE

The fiber optic cable shall withstand water penetration when tested with a one-meter static head or equivalent continuous pressure applied at one end of a one meter length of filled cable for one hour, no water shall leak through the open cable end. Testing shall be done in accordance with TIA/EIA-455-82 (FOTP-82), "Fluid Penetration Test For Fluid-Blocked Fiber Optic Cable."

The cable shall exhibit no flow (drip or leak) for 24 hours at 80° C. The weight of any compound that drips from the sample shall be less than 0.05 grams (0.002 ounce). A representative sample of cable shall be tested in accordance with TIA/EIA-455-81B (FOTP- 81), "Compound Flow [Drip] Test for Filled Fiber Optic Cable". The test sample shall be prepared in accordance with method A.

Crush resistance of the finished fiber optic cables shall be 220 N/cm applied uniformly over the length of the cable without showing evidence of cracking or splitting when tested in accordance with TIA/EIA-455-41 (FOTP-41), "Compressive Loading Resistance of Fiber Optic Cables." The 220 N/cm (125 Ibf/in) load shall be applied at a rate of 2.5 mm (0.1 in) per minute. The load shall be maintained for a period of 1 minute. The load shall then be decreased to 110 N/cm (63 Ibf/in). Alternatively, it is acceptable to remove the 220 N/cm (125 Ibf/in) load entirely and apply the 110 N/cm (63 Ibf/in) load within five minutes at a rate of 2.5 mm (0.1 in) per minute. The 110 N/cm (63 Ibf/in) load shall be maintained for a period of 10 minutes. Attenuation measurements shall be performed before release of the 110 N/cm (63 Ibf/in) load. The change in attenuation shall not exceed 0.4 dB during loading at 1550 nm for single-mode fibers and 1.0 dB during loading at 1300 nm for multimode fiber. The repeatability of the measurement system is typically 0.05 dB or less. No fibers shall exhibit a measurable change in attenuation after load removal.

The cable shall withstand 25 cycles of mechanical flexing at a rate of 30+1 cycles/minute with a sheave diameter not greater than 20 times the cable diameter. The cable shall be tested in accordance with Test Conditions I and III of TIA/EIA-455-104A (FOTP-104), “Fiber Optic Cable Cyclic Flexing Test." The magnitude of the attenuation change will be within the repeatability of the measurement system for 90% of the test fibers. The remaining 10% of the fibers will not experience an attenuation change greater than 0.1 dB at 1550 nm. The repeatability of the measurement system is typically + 0.05 dB or less. The cable jacket will exhibit no cracking or splitting when observed under 5X magnification.

Impact testing shall be conducted in accordance with TIA/EIA-455-25B (FOTP-25) "Repeated Impact Testing of Fiber Optic Cables and Cable Assemblies." The cable shall withstand 20 impact cycles. The magnitude of the attenuation change will be within the repeatability of the measurement system for 90% of the test fibers. The remaining 10% of the fibers will not experience an attenuation change greater than 0.1 dB at 1550 nm. The repeatability of the measurement system is typically + 0.05 dB or less. The cable jacket will not exhibit evidence of cracking or splitting at the completion of the test.

Using a maximum mandrel and sheave diameter of 560 mm, the finished cable shall withstand a longitudinal tensile load of 1330 N (300 lbs.) applied for one hour (using "Test Condition II" of the test plan). The test shall be conducted in accordance with TIA/EIA- 455- 33 (FOTP-33), "Fiber Optic Cable Tensile Loading and Bending Test." The measured fiber tensile strain shall be < 60% of the fiber proof strain. The cable will not experience a measurable increase in attenuation when subjected to the rated residual tensile load, 400 N (90 Ibf). The repeatability of the measurement system is typically +0.05 dB or less.

The cable shall be capable of withstanding a bending radius of fifteen (15) times the cable diameter under tensile loading and ten (10) times the cable diameter under a no-load condition.

Arrival On Site
The cable and reel shall be physically inspected by the Contractor on delivery and 100 percent of the fibers shall be tested with the OTDR for attenuation to confirm that the cable meets requirements. Test results shall be recorded, dated, compared and filed with the copy accompanying the shipping reel in a weather proof envelope. Attenuation deviations from the shipping records greater than 5 percent shall be brought to the attention of the Engineer in writing. The cable shall not be installed until completion of this test sequence and written approval by the Engineer is received. Copies of traces and test results shall be submitted to the Engineer. If the OTDR test results are unsatisfactory, the reel of fiber optic cable shall be considered unacceptable and all records corresponding to that reel of cable shall be marked accordingly. The unsatisfactory reels of cable shall be replaced with new reels of cable at the Contractor's expense. The new reels of cable shall then be tested to demonstrate acceptability. Copies of the test results shall be submitted to the Engineer for approval.

After Cable Installation
After the fiber optic cable has been pulled but before breakout and termination, 100 percent of all the fibers shall be tested for continuity. Test results shall be recorded and dated. Any segment of cable that does not meet specifications shall be replaced with a new segment, without additional splices, at the Contractor's expense. The new segment of cable shall then be tested to demonstrate acceptability. Copies of the test results shall be submitted to the Engineer for approval.

DROP CABLE
As may be required, the Contractor shall provide a single-mode optical fiber cable between each mid-span splice location and each traffic control equipment cabinet, which shall contain twelve (12) optical fibers. The drop cable shall have four (4) fiber strand(s) spliced into the appropriate fiber strand in the mainline cable as prescribed elsewhere in the Plans and/or these Special Provisions. The drop cable shall have the six optic fibers terminated at its other end with connector as described elsewhere in this specification.

Optical fiber cable used for a drop cable shall comply with all other aspects of the specifications as set forth in the Special Provisions for optical fiber cable. The drop cable shall have sufficient length to extend from the fiber splice location to the optical interface of the associated communications equipment, allowing for routing and securing with nylon ties plus fifty (50) feet of slack at all splice points and fifteen (15) of slack inside the cabinet, unless otherwise specified in the Plans or these Special Provisions or directed by the Engineer.

The drop cable shall be sufficiently de-sheathed within the traffic control cabinet to allow adequate slack fiber to afford ease of routing of the active fiber to the communications equipment

Fiber Patch Cords
The fiber optic cable patch cords, assemblies and components shall be compatible components, designed for the purpose intended, and manufactured by a company regularly engaged in the production of material for the fiber optic industry. All components or assemblies shall be best quality, non-corroding, with a design life of at least twenty (20) years. All patch cords, components or assemblies of the same type shall be from the same manufacturer.

The Contractor shall furnish and install Patch cords, which are fiber optic cables with connectors on both ends. Patch cords are used to connect fiber optic transmission equipment to connector panel modules. The patch panel shall interface to patch cords with approved connectors.

Patch cords shall have 900JAm single fiber single mode cable with approved connectors. The patch cords shall be at least six (6) feet in length and shall be pre-sized in the factory to the required lengths. The attenuation of the cable shall be between 1.0 and .75 dB. All patch cords shall be installed without exceeding the manufacturer specified bending radius.

Acceptable equipment shall be from Corning Cable System or approved equal.

FIBER OPTIC FAN-OUT KITS
If required, fan-out kit connects the fiber optic jumper cable to the fiber optic transmission equipment located in the cabinet. The fan-out shall be equipped to terminate 250pm fiber (loose tube cable) and shall provide protection for the bare fibers. The fan-out kit shall have two (2) 6- or one (1) 12-fiber fan-out insert and 2-meter lengths of fan-out tubing with twelve (12) single mode fibers that are ready for field installable connectors. The fan-out cable kit shall also meet the following specifications.

Housing	
Length	132 mm (5.2 in)
Diameter	31 mm (1.22 in)
Fan Out Tubing	
Length	2 m (78.8 in)
Diameter	2.9 mm (0.11 in)
Environmental	-40°C to 70°C

The fan-out kit, when installed in the existing traffic cabinets or proposed fiber optic terminal cabinet attached to the existing traffic cabinet, shall be securely anchored to the side wall of the cabinet by suitable ties.

Acceptable Fan-Out Kit shall be from Corning Cable System or approved equal.

FIBER OPTIC CONNECTORS
The Contractor shall furnish and install fiber optic pre-manufactured connectors that are single mode LC type connectors that meet the requirements for outdoor installation with Gigabit

Ethernet communications. LC type connectors will be used for all outdoor and indoor installations. The LC connectors shall meet the following specifications.

Interconnection Compatibility	The Connectors shall be compliant with EIA/TIA and JIS specifications for LC compatible connectors.
Insertion Loss	0.4 dB (typical)
Reflectance	< -40 dB between a temperature range of -40° C to 75° C
Durability	0.3 dB change, 200 rematings.
Tensile Strength	< 0.2 dB change, 10 lb.
Temperature Cycling	<0.3 dB change, -40° C to 75° C
Nominal Fiber OD	125ym
Materials	Ferrule: Ceramic Housing: Composite

Accepted equipment shall be SC and LC Compatible Single Mode, as required, from Corning Cable System or approved equal.

Section 86-1.02K(2) - Roadway Luminaires
Add the following:

Poles
Poles for pedestrian lighting shall be Valmont #R-080040404S4-P2-DBL light pole, 14' pole height, with tenon top and Dart Square-2T base cover or City approved equal.

Poles for roadway lighting shall be Ameron #6B129 light pole, 29' 1" pole height, with 6' Ameron 1AZ6 Aladdin Arm, or City approved equal.

Light Emitting Diode (LED) Lamp Ballast - Luminaires
Roadway luminaires and traffic signal luminaires shall be Leotek 250W LED #GCL1-80J-MV-30K-2R-GY-185, 3000K color temperature, or City approved equal. Post-top mounted luminaires shall be RAB Lighting 52W LED #ALED-5T-52-N-K, 4000K color temperature or City approved equal.

The fixture wattage shall be high enough to yield Illumination Engineering Society (IES) compliance within the defined project area, as determined by the Engineer or recommended by the City. Unit shall be provided with an external wattage label per ANSI C136.15.

Each roadway and traffic signal luminaire shall be installed with 7 pin NEMA shorting cap. If the luminaire housing is provided with a hole for the receptacle, the hole shall be closed in a weatherproof manner.

Section 86-1.02L - Reserved
Replace with the following:

Section 86-1.02L FIBER OPTIC EQUIPMENT

FIBER PATCH PANEL/WALL INTERCONNECT UNIT

GENERAL
Fiber Patch Panel (also called Wall Interconnect Center (WIC)) shall be furnished and installed at the locations shown on the Plans. The section includes material and installation for fiber patch panel.

DESCRIPTION
A fiber patch panel shall be furnished and installed at the locations as shown on the Plans and shall consist of two parts: a splice tray compartment and an optical fiber termination panel.

The splice compartment shall house and protect fusion splices of cable fibers to optical fiber pigtails with two (2) meters of slack for each pigtail.

The optical fiber termination panel shall house and protect the terminations required to terminate all fibers dropped at each location (up to 144 fibers) as shown on the Plans, as well as splices for each pigtail and slack for optical fiber patch cords.

The splice tray compartment and optical fiber termination panel shall be labeled with the corresponding fiber optic cable and “to and from” connection description for each fiber optic cable.

The fiber pigtail slack shall be neatly coiled and secured in a manner that does not allow the minimum operational bending radius of 2-inch bend diameter to be exceeded.

The LC-UPC optical connectors on the end of each pigtail shall connect into a corresponding coupler securely mounted to a panel within the enclosure. The maximum optical loss across the connection shall not exceed 0.5 dB.

Simplex LC Ultra-PC -type connectors shall be used for single mode connections. The fiber distribution unit shall be capable of housing single mode couplers grouped in connector panel. The magnitude of density of coupler groupings will be dependent upon the maximum quantity of terminations to be accommodated in the fiber distribution panel.

The fiber distribution unit shall be rack mountable in a standard EIA 19 inch equipment rack for installation in Type 332, 334, and 336 cabinets with a maximum height of 1.75”. The housing shall have fiber optic cable entrances with cable sheath strain relief.

The termination panels shall include a designation strip or flip card for the identification of the optical couplers.

The fiber distribution unit shall function as the demarcation point between the optical fiber cable and the terminal equipment.

The Fiber Distribution Unit shall be Corning Cable System or approved equal. Rack mounted fiber patch panel shall be Corning CCS-01U.

Prior to ordering any fiber distribution unit enclosure, and associated components, the Contractor shall provide to the Engineer a detailed engineering drawing in accordance with 2-5.3 containing plan, profile, and three dimensional views or a physical sample of the exact equipment proposed to be installed in each type of existing traffic controller cabinets or any proposed traffic signal controller cabinets.

At each Fiber Distribution Unit, the Contractor shall terminate the optical fibers of the fiber optic cable that are specified in the plans to the optical fiber termination panel couplers via the corresponding single-mode fiber pigtail assemblies. The optical fibers shall be spliced to the single-mode optical fiber pigtail assemblies within the splice tray(s). Terminate the optical fibers of the fiber optic cables that are designated as spare to the optical bulkhead adapters via the corresponding single-mode fiber pigtail assemblies. The optical fibers shall be of appropriate lengths to allow for future splicing within the splice drawer and shall be appropriately identified (tagged). All splices shall be fusion type and shall be arranged within the splice trays of the Fiber Patch Panels in accordance with the organizational design of the splice trays. Appropriate heat-shrink splice protectors shall be applied to all fusion splices.

Section 86-1.02T – Accessible Pedestrian Signals
Add the following:

The Accessible Pedestrian Signal shall be Polara iDS 2-wire or City approved equal.

Section 86-1.02 MATERIALS
Add the following:

Section 86-1.02AA Video/Radar Detection System

Section 86-1.02AA(1) General
The contractor shall furnish and install Iteris Apex hybrid video/radar detection systems at the project intersections or approved equal for the purpose of detecting vehicles and bicyclists on a roadway in programmed designated zones. The Video/Radar detection system shall consist of video/radar assembly, mounting, cables, conductors, and wires. Contractor shall run detector unit

cable through new or existing conduit to controller cabinet and shall connect to video/radar detection processor.

Section 86-1.02AA(2) Detector Unit
The units shall meet the following criteria:

Imager: 1080p at 30 frames per second or better
Lens: 12x Optical Zoom
Ingress Protection: IP 67
Power: 110VAC
Radar Sensor Tracked Objects: Up to 64

Section 86-1.02AA(3) Mounting
The mounting hardware shall be recommended by the video/radar detection unit manufacturer. The Contractor may request approval for alternate mounting details by submitting a shop drawing signed by a registered Engineer. Any alternative mounting shall be approved by the Engineer and accepted by the manufacturer. Any alternative mounting shall not affect the detector unit warranty.

Section 86-1.02AA(4) Cables
The Contractor shall furnish and install manufacturer recommended Outdoor CAT-5E/6 Ethernet cable with IP66-rated connectors and incidental hardware from the camera to an Ethernet switch in the cabinet to establish circuit continuity. The cable to connect the video/radar detection unit to the processor in the controller cabinet shall be a Cat5E or Cat6 Ethernet cable with an IP66 rating. Any alternative cable shall be approved by the manufacturer.

Section 86-1.02AA(5) Detection Processor
The processor shall be compatible with the video/radar detection units and approved by the manufacturer with the capabilities to transmit detection data from the processor to the traffic signal controller.

Section 86-1.02AA(6) Warranty
The Contractor shall provide a warranty for all equipment installed or modified under these projects for the extended warranty period provided by the manufacturer. The warranty shall be 12 months from the time the Agency accepts the Project. The warranty on all parts and equipment used on these projects shall be provided by the manufacturer or agent of the equipment. The Contractor shall provide, at no cost to the Agency, all labor, materials, testing, and equipment required restoring the system to its fully operational condition. Following this warranty period, the Contractor shall assign to the Agency the balance of the manufacturer's warrantees or guarantees on all electrical and mechanical equipment of the system.

Section 86-1.02AB Closed Circuit Television (CCTV) Camera

Section 86-1.02AB(1) General
The Contractor shall furnish and install Bosch MIC Inteox 7100i – 8MP OC CCTV Camera system (or approved equal) per manufacturer's recommendation at locations indicated on the

plans, including testing and networking configuration. The CCTV system shall consist of camera/pan-tilt assembly, mounting, cables, conductors, and wires. Contractor shall run CCTV camera cable through new or existing conduit to controller cabinet and shall connect to switch and integrate into existing central monitoring system.

Section 86-1.02AB(2) CCTV Camera
The CCTV camera shall meet the following requirements:
Imager: 1 inch, Exmor R CMOS sensor
Digital Zoom: 12x
Pre-positions: 256
Interoperability: ONVIF Profiles S, G, and M

Section 86-1.02AB(3) Mounting
The mounting hardware for the CCTV camera shall be procured from the same manufacturer as the camera. The Contractor may request approval for alternate mounting details by submitting a shop drawing signed by a registered Engineer. Any alternate mounting must be approved by the City and accepted by the manufacturer. Any alternative mounting shall not affect the detector unit warranty.

Section 86-1.02AB(4) Camera Cable
The Contractor shall furnish and install manufacturer recommended Outdoor CAT-5E/6 Ethernet cable with IP66-rated connectors and incidental hardware from the camera to an Ethernet switch in the cabinet to establish circuit continuity. The cable shall be installed without damaging the conductors, dielectric or jacket. The cable assembly shall not be kinked or bent tighter than the Manufacturer's recommended bending radius.

Section 86-1.02 AB(5) Video Management System (VMS)
The contractor shall furnish and install manufacturer recommended BVMS Lite 12.3 (or City approved equal) video management system application at the City Public Works building. The management system shall support up to 42 cameras, 5 workstations, and include 1 CCTV keyboard. All appurtenant equipment shall be included to provide a functional system for viewing, manipulating and managing the field CCTV cameras.

Section 86-1.02AB(6) Warranty
The Contractor shall provide a warranty for all equipment installed or modified under these projects for the extended warranty period provided by the manufacturer. The warranty shall be 12 months from the time the Agency accepts the Project. The warranty on all parts and equipment used on these projects shall be provided by the manufacturer or agent of the equipment. The Contractor shall provide, at no cost to the Agency, all labor, materials, testing, and equipment required restoring the system to its fully operational condition. Following this warranty period, the Contractor shall assign to the Agency the balance of the manufacturer's warrantees or guarantees on all electrical and mechanical equipment of the system.

Section 86-1.02AC Bluetooth Detector System

Section 86-1.02AC(1) General

The Contractor shall furnish and install Bluetoad Spectra Bluetooth detector system (or approved equal) per manufacturer's recommendation at locations indicated on the plans, including testing and networking configuration. The Bluetooth detector system shall consist of Bluetooth radio receiver, mounting, cables, conductors, and wires. Contractor shall run Bluetooth detector cable through new or existing conduit to controller cabinet and shall connect to switch and integrate into existing central monitoring system.

Section 86-1.02AC(2) Bluetooth Receiver
The Bluetooth receiver shall meet the following requirements:
Power Specifications: Power over Ethernet
Bluetooth: Non-Discoverable 2.4 GHz
Operating Temperature Range: -40*C to +85*C

Section 86-1.02AC(3) Mounting
The mounting hardware for the Bluetooth detector shall be procured from the same manufacturer as the detector. The Contractor may request approval for alternate mounting details by submitting a shop drawing signed by a registered Engineer. Any alternate mounting must be approved by the City and accepted by the manufacturer. Any alternative mounting shall not affect the detector unit warranty.

Section 86-1.02AC(4) Bluetooth Detector Cable
The Contractor shall furnish and install manufacturer recommended Outdoor CAT-5E/6 Ethernet cable with IP66-rated connectors and incidental hardware from the camera to an Ethernet switch in the cabinet to establish circuit continuity. The cable shall be installed without damaging the conductors, dielectric or jacket. The cable assembly shall not be kinked or bent tighter than the Manufacturer's recommended bending radius.

Section 86-1.02AC(5) Performance Software
The Contractor shall provide the manufacturer recommended BlueARGUS travel-time based performance software or City approved equal.

Section 86-1.02AC(6) Warranty
The Contractor shall provide a warranty for all equipment installed or modified under these projects for the extended warranty period provided by the manufacturer. The warranty shall be 12 months from the time the Agency accepts the Project. The warranty on all parts and equipment used on these projects shall be provided by the manufacturer or agent of the equipment. The Contractor shall provide, at no cost to the Agency, all labor, materials, testing, and equipment required restoring the system to its fully operational condition. Following this warranty period, the Contractor shall assign to the Agency the balance of the manufacturer's warrantees or guarantees on all electrical and mechanical equipment of the system.

Section 86-1.02AD Emergency Vehicle Preemption System

Section 86-1.02AD(1) General
The Contractor shall furnish and install Opticom Emergency Vehicle preemption (EVP) system (or approved equal) per manufacturer's recommendation at locations indicated on the plans,

including testing and networking configuration. The EVP system shall consist of EVP GPS receiver, phase selector, mounting, cables, conductors, and wires. Contractor shall run EVP cable through new or existing conduit to controller cabinet and shall connect to switch and integrate into existing central monitoring system.

Section 86-1.02AD(2) EVP Receiver
The EVP receiver shall meet the following requirements:
Radio Range: 2,500 feet
High and low-priority programmable
Historical log of most recent 10,000 events

Section 86-1.02AD(3) Mounting
The mounting hardware for the EVP receiver shall be procured from the same manufacturer as the detector. The Contractor may request approval for alternate mounting details by submitting a shop drawing signed by a registered Engineer. Any alternate mounting must be approved by the City and accepted by the manufacturer. Any alternative mounting shall not affect the detector unit warranty.

Section 86-1.02AD(4) EVP Cable
The Contractor shall furnish and install manufacturer recommended Opticom 1070 GPS cable with ten (5-pair) of color-coded twisted conductors and incidental hardware from the EVP receiver to the EVP Model 764 phase selector in the cabinet. The cable shall be installed without damaging the conductors or jacket. The cable assembly shall not be kinked or bent tighter than the Manufacturer's recommended bending radius.

Section 86-1.02AD(5) EVP Phase Selector
The phase selector shall be Opticom 764 Multimode Phase Selector or approved equal and shall be compatible with the EVP receiver and approved by the manufacturer with the capabilities to transmit receiver data (outputs) from the processor to the traffic signal controller (EVP inputs).

Section 86-1.02AC(6) Warranty
The Contractor shall provide a warranty for all equipment installed or modified under these projects for the extended warranty period provided by the manufacturer. The warranty shall be 12 months from the time the Agency accepts the Project. The warranty on all parts and equipment used on these projects shall be provided by the manufacturer or agent of the equipment. The Contractor shall provide, at no cost to the Agency, all labor, materials, testing, and equipment required restoring the system to its fully operational condition. Following this warranty period, the Contractor shall assign to the Agency the balance of the manufacturer's warrantees or guarantees on all electrical and mechanical equipment of the system.

Section 86-1.02AE Ethernet Switch System

Section 86-1.02AE (1) General

The Contractor shall furnish and install an Ethernet Switch at intersection locations indicated on the plans. Ethernet Switches shall be compatible with any existing or proposed traffic

network and fiber uplinks shall operate on single mode fiber, supporting 10/100/1000 Duplex Ethernet ports, and providing long haul laser capacity.

All Ethernet Switches shall be managed and support advanced features including:

a. Port based VLAN segmentation.
b. IGMP snooping
c. MAC address filtering, Enable/Disable ports, ACLs
d. SSH (Telnet and CLI) and SSL+HTTPS for web access security
e. Static routing, RIP v1/v2, and VRRP
f. NTP (Network Time Protocol) synchronization
g. Quality of Service (QOS)
h. SNMP v1/v2c/v3, LLDP (Link Layer Discovery Protocol)
i. Remote Management
j. Din-Rail mounting
k. 12 GigE – (8 or 12) 10/100/1000BASE-T(X) ports with (4) Dual Rate GigE SFP ports
l. USB configuration port
m. RJ45 console port
n. Digitial input/output switches

Section 86-1.02AE(2) Edge Ethernet Switch

Local Edge Switches (located at intersections) shall be Etherwan EX78924H, or approved equal, and meet the following requirements:

a. Shall be environmentally hardened (Wide operating temperature range -40 to 75°C (-40 to 167°F) NEMA TS-2 rated. Fanless operation.
b. The fiber uplink ports shall be LC type connectors. Connectors shall be compatible with Gigabit speed or higher.
c. Power supply shall support 120 VAC and/or 24 VDC. Power supply shall be NEMA-TS2 rated.
d. The switch shall support standard controller rack mount, DIN rail or 19" rack mountable.
e. GigE SFPs to be provided (min 2 per switch) for switches shall be environmentally hardened SFPs (Operating Temperature: -40 to 85°C/-40 to 185°F).
f. The switch shall have 8-port 10/100/1000BASE-T(X) PoE + 4-port 100/1000BASE SFP

Section 86-1.02AE(3) Hub Ethernet Switch

Hub Ethernet switches shall be Etherwan IG5-00244FTR, or approved equal, and meet the following requirements:

a. Shall be environmentally hardened (Wide operating temperature range -40 to 75°C (-40 to 167°F) NEMA TS-2 rated. Fanless operation.
b. Provide a minimum of 28 total ports with 24-port 100/1000M base SFP 4-port 1G/10G SFP+ ports
c. The SFP fiber transceivers shall support LC type connectors. Transceivers shall be compatible with switch ports (16) Gigabit speed + (4) 1/10G Dual Rate SFP+ (20 total per switch) and shall be environmentally hardened SFPs (Operating Temperature: -40 to 85°C/-40 to 185°F).
d. Power supply shall support 120 VAC and/or 24 VDC with redundant power input capability.
e. Multicast Routing (PIM-DM, SM, SSM support)

f. Support Full Layer 2 Functionality
g. The switch shall support standard controller rack mount, DIN rail or 19” rack mountable.
h. Shall support network redundancy protocols such as RSTP or equivalent and include watchdog and auto-recovery features.

Section 86-1.02AE(4) Aggregation Ethernet Switch
Aggregation Ethernet switches shall be Etherwan EG97244, or approved equal, and meet the following requirements:

a. Shall be environmentally hardened (Wide operating temperature range -40 to 75°C (-40 to 167°F) NEMA TS-2 rated. Fanless operation.
b. Provide a minimum of 28 total ports with (16) x 100/1000M dual-rate SFP ports for multiple fiber connections, (4) x 1/10G dual-rate SFP+ ports for connections into the hub/core, and (8) x 10/100/1000BASE-T RJ45 ports.
c. The SFP fiber transceivers shall support LC type connectors. Transceivers shall be compatible with switch ports (16) Gigabit speed + (4) 1/10G Dual Rate SFP+ (20 total per switch) and shall be environmentally hardened SFPs (Operating Temperature: -40 to 85°C/-40 to 185°F).
d. Power supply shall support 120 VAC and/or 24 VDC with redundant power input capability.
e. Multicast Routing (PIM-DM, SM, SSM support)
f. Support Full Layer 3 Functionality
g. The switch shall support standard controller rack mount, DIN rail or 19” rack mountable.
h. Shall support network redundancy protocols such as RSTP or equivalent and include watchdog and auto-recovery features.

Section 86-1.02AF Advance Traffic Management System (ATMS) Server
The ATMS server shall meet the following minimum requirements:

Operating System: Ubuntu Server 22.04.x LTS
Network Speed: 1 Gb minimum
Minimum CPU: 8 CPU cores
Minimum RAM: 32 GB
Internal Storage: 4 TB

The server shall have the Kinetic ATMS application by Q-Free for centrally managing signals. The contractor shall coordinate with the ATMS provider’s representative and City’s IT department to ensure proper installation, integration, and access to the field devices. Workstation location shall be coordinated with and approved by the City prior to testing. Full accessibility and management functionality to all project intersections shall be confirmed prior to acceptance by the City.

Section 86-1.02AF Traffic Systems Software Server
The traffic systems software servers shall contain access to the Video Management System (VMS) viewing application and the travel-time Bluetooth data application.

The server shall meet the following minimum requirements:

Operating System: Windows Server 2022
Network Speed: 1 Gb minimum
CPU: Intel i3-8100
Minimum RAM: 8 GB
Minimum Internal Storage: 500 GB

The server shall have Bosch VMS for viewing and manipulating CCTV cameras. The contractor shall coordinate with the VMS provider's representative and City's IT department to ensure proper installation, integration, and access to the field cameras. Workstation location shall be coordinated with and approved by the City prior to testing. Full pan, tilt, and zoom capabilities of the CCTV cameras shall be confirmed prior to acceptance by the City.

The server shall have the Bluetoad BlueARGUS data analysis software application for viewing and analyzing traffic data. The contractor shall coordinate with the software provider's representative and City's IT department to ensure proper installation, integration, and access to the field devices and data. Workstation location shall be coordinated with and approved by the City prior to testing. Full connectivity and capabilities of the Bluetooth device shall be confirmed prior to acceptance by the City.

Section 87 ELECTRICAL SYSTEMS

Section 87-1.03X Reserved
Replace with the following:

Section 87-1.03X Video/Radar Detection Installation and Testing
The Contractor shall verify the mounting requirements of the integrated camera/position unit, and the suitability of the approach depicted in these plans. The Contractor shall mount the integrated camera/position unit on existing traffic signal pole as shown on plans and per manufacturer's recommendation.

The Contractor shall test and document the installation and operation of all material, equipment, cables and connectors for continuity, shorts or grounds. The Contractor shall also carry out system integration testing to ensure that the video interface and camera wiring performs to the specified standards when used in operation with all other devices installed under the contract.

Section 87-1.03Z Reserved
Replace with the following:

Section 87-1.03Z CCTV Camera Installation and Testing
The Contractor shall verify the mounting requirements and suitability of the integrated camera/position unit identified on the plans. The Contractor shall mount the integrated camera/position unit on traffic signal pole as shown on plans and per manufacturer's recommendation.

The Contractor shall test and document the installation and operation of all material, equipment, cables and connectors for continuity, shorts or grounds. The Contractor shall also carry out system integration testing to ensure that the video interface and camera wiring performs to the specified standards when used in operation with all other devices installed under the contract.

Section 87-1.03
Add the following:

Section 87-1.03AA Emergency Vehicle Preemption Installation and Testing
The Contractor shall verify the mounting requirements and suitability of the emergency vehicle preemption unit identified on the plans. The Contractor shall mount the integrated camera/position unit on existing traffic signal pole as shown on plans and per manufacturer's recommendation.

The Contractor shall test and document the installation and operation of all material, equipment, cables and connectors for continuity, shorts or grounds. The Contractor shall also carry out system integration testing to ensure that the video interface and camera wiring performs to the specified standards when used in operation with all other devices installed under the contract.

Section 87-1.03AB Bluetooth Detector Installation and Testing
The Contractor shall verify the mounting requirements and suitability of the Bluetooth detector unit identified on the plans. The Contractor shall mount the integrated unit on traffic signal pole as shown on plans and per manufacturer's recommendation.

The Contractor shall test and document the installation and operation of all material, equipment, cables and connectors for continuity, shorts or grounds. The Contractor shall also carry out system integration testing to ensure that the Bluetooth wiring performs to the specified standards when used in operation with all other devices installed under the contract.

Section 87-1.03AC Wireless Communication Radio Installation and Testing
The wireless communication radio shall be relocated from the existing to the new pole standards. The wireless cabinet equipment shall be relocated to the new controller cabinet. Cabling shall be replaced from the new installation location to the new controller cabinet and connected appropriately.

The Contractor shall test and document the installation and operation of all material, equipment, cables and connectors for continuity, shorts or grounds. The Contractor shall also carry out system integration testing to ensure that the wireless communication wiring and system performs to the specified standards when used in operation with all other devices installed under the contract.

Section 87-1.03AD Ethernet Installation and Testing

Section 87-1.03AD(1) General
Contractor shall install Ethernet switches inside the proposed/existing cabinets as shown on plans. The Ethernet switches shall be connected to existing/proposed fiber optic patch panels

via fiber optic jumper cables and traffic signal controllers via manufacturers' recommended cables. Transceiver connectors shall be LC type and fiber patch cables shall match per the manufacturer's requirements. The Contractor or his/her assigned representative shall make the final connections within the traffic signal controller cabinet.

The Ethernet switch must provide the Ethernet interconnections that are necessary for all dedicated Ethernet segments, shared workgroup Ethernet segments, and Ethernet segments virtually extended from the field locations to within the TMC. The Ethernet access switch also provides the mechanism for distributing IP-encoded video to workstations and IP-decoders. The TMC Ethernet switch must be fully integrated with the Ethernet access switches and the Hub Ethernet switches with all system functions as required by these requirements.

Section 87-1.03AD(2) Testing

The Contractor shall verify the Ethernet switches are tested prior to installation and after installation in order to provide complete communication between the TMC and the field elements. The Engineer or his/her assigned representative shall be notified two working days prior to all field tests. The Contractor shall provide the Ethernet switches shop drawings/product specifications for the Engineer or his/her assigned representative's written approval prior to ordering the equipment. The Contractor shall coordinate with the City's IT Department for network system integration in order to provide complete communication between the TMC and the field elements.

Section 87-1.03AD(3) Warranty

The Contractor shall supply any support contracts required by the manufacturer for technical support and service, transferable to the City at expiration. All switches shall provide a minimum 2-year warranty on parts and 1 year "live" technical support (either in person or over the phone) during business hours (either in person or over the phone) during business hours (Pacific time) 9AM to 5PM Monday through Friday, from the date of installation Warranty parts replacement shall be within three business days. A warranty certificate meeting these requirements shall be provided on the date of installation.

Section 87-4.01 General

Edit the following:

8. ~~Department-furnished~~ Controller assembly

Add the following:

20. Video/Radar Detection System
21. CCTV Camera System
22. Emergency Vehicle Preemption System
23. Bluetooth Detection System
24. Wireless Communication System
25. Ethernet Switch

Section 87-4.02 MATERIALS

Add the following:

Section 87-4.02C 2070 Controller

The Contractor shall furnish and install Q-Free 2070LDX Controller (or approved equal) per manufacturer's recommendation at locations indicated on the plans, including testing and networking configuration. The 2070 Controller shall consist of a traffic signal controller assembly, mounting, cables, conductors, wires and a 2070-1C CPU card.

The contractor shall procure a Q-Free Maxtime license on behalf of the City for the intersection at which the controller is installed, Fair Oaks Avenue at Columbia Street. The controller shall be programmed with traffic signal timing parameters and to function as indicated on the plan set. The City will provide a traffic signal timing plan prior to turn-on.

Section 87-4.03 CONSTRUCTION
Section 87-4.03A General
Add the following:

Following the relocation of the traffic signal controller from the existing to the new traffic signal cabinet. The contractor shall ensure the accessibility and functionality of the existing Q-Free MAXTIME traffic signal controller software and interface. Licenses for MAXTIME at the project intersections are already owned by the City and no additional procurement is required.

It is the CONTRACTOR's responsibility to provide an all-inclusive service for the installation of the traffic signal standard poles and foundations. The construction of these items shall include clearing of any unsuitable soil, obstructions and impediments within the foundation bore hole that is not otherwise identified as an active utility in need of relocation.

Section 87-13 RESERVED
Replace with the following:

Section 87-13 RECTANGULAR RAPID FLASHING BEACON SYSTEM
Section 87-13.01 General

Section 87-13 including specifications for constructing a rectangular rapid flashing beacon (RRFB) system.

RRFB system includes:

1. Foundations
2. Pull boxes
3. Conduit
4. Conductors and cables
5. Standards
6. RRFB flashing beacon
7. LED sign

8. Solar panel
9. Batteries
10. Pedestrian push buttons and signs

The components of an RRFB system are shown on the project plans.

87-13.02 Materials
Materials shall be consistent with the project plans and the requirements for providing a fully functional RRFB system per Carmanah MX 200 Series or City approved equal.

87-13.03 Construction
RRFB system shall be constructed per Caltrans standard plans, construction standards, these special provisions, and requirements set forth by the RRFB manufacturer's representative to provide a fully functioning RRFB system.

MEASUREMENT AND PAYMENT

The contract unit price paid per each (EA) for "FURNISH PEDESTRIAN PUSH BUTTON POST, FURNISH TYPE 1-A SIGNAL POLE, FURNISH TYPE 15TS SIGNAL POLE, FURNISH TYPE 16 SIGNAL POLE, FURNISH TYPE 17 SIGNAL POLE, FURNISH TYPE 19 SIGNAL POLE, FURNISH TYPE 24 SIGNAL POLE, FURNISH TYPE 26 SIGNAL POLE, FURNISH TYPE 27 SIGNAL POLE, FURNISH TYPE 29 SIGNAL POLE, FURNISH TYPE 61 SIGNAL POLE, FURNISH LUMINAIRE MAST ARM must be in accordance with the specifications, plans, and these Special Provisions, and shall constitute full compensation to furnish all transportation, labor, materials, equipment, incidentals, and all other work necessary to furnish bid items listed in this paragraph. This item is to supply and store the equipment only. No separate payment and measurement will be made for any other work covered by this section. The cost of any other work shall be considered incidental.

The contract unit price paid per lump sum (LS) for "MODIFY FAIR OAKS AT COLUMBIA TRAFFIC SIGNAL COMPLETE, MODIFY FAIR OAKS AT STATE/GREVELIA TRAFFIC SIGNAL COMPLETE, MODIFY FAIR OAKS AT HOPE TRAFFIC SIGNAL COMPLETE, MODIFY FAIR OAKS AT MISSION TRAFFIC SIGNAL COMPLETE, MODIFY FAIR OAKS AT EL CENTRO TRAFFIC SIGNAL COMPLETE, MODIFY FAIR OAKS AT OXLEY TRAFFIC SIGNAL COMPLETE, MODIFY FAIR OAKS AT MONTEREY TRAFFIC SIGNAL COMPLETE, MODIFY FAIR OAKS AT BANK TRAFFIC SIGNAL COMPLETE, MODIFY FAIR OAKS AT ROLLIN TRAFFIC SIGNAL COMPLETE, MODIFY FAIR OAKS AT OAK TRAFFIC SIGNAL COMPLETE, INSTALL FAIR OAKS AT SPRUCE STREET and MODIFY FAIR OAKS AT HUNTINGTON TRAFFIC SIGNAL COMPLETE must be in accordance with the specifications, plans, and these Special Provisions, and shall constitute full compensation to furnish all transportation, labor, materials, equipment, incidentals, and all other work necessary to furnish and install bid items listed in this paragraph including traffic signal intersection conduits and traffic signal pull box adjustments. No separate payment and measurement will be made for any other work covered by this section. This cost excludes the cost of supplying the traffic signal poles quantified in separate bid items. The cost of any other work shall be considered incidental.

The contract unit price paid per linear feet (LF) for “INSTALL 4" CONDUIT (SCH 80 PVC), INSTALL 144 SINGLE-MODE FIBER OPTIC (SMFO) cable, and 12 SMFO cable,” must be in accordance with the specifications, plans, and these Special Provisions, and shall constitute full compensation to furnish all transportation, labor, materials, equipment, incidentals, and all other work necessary to furnish and install bid items listed in this paragraph. All cable measurements shall include appropriate slack. No separate payment and measurement will be made for any other work covered by this section. The cost of any other work shall be considered incidental.

The contract unit price paid per each (EA) for “INSTALL #6 PULLBOX, INSTALL SPLICE ENCLOSURE, INSTALL FIBER DISTRIBUTION UNIT, INSTALL SERVER RACK, INSTALL HUB SWITCH, INSTALL LAYER 3 AGGREGATION SWITCH, INSTALL SERVER, and INSTALL APC UPS,” must be in accordance with the specifications, plans, and these Special Provisions, and shall constitute full compensation to furnish all transportation, labor, materials, equipment, incidentals, terminations, SFPs, testing, software/configuration, acceptance, and all other work necessary to furnish and install bid items listed in this paragraph. No separate payment and measurement will be made for any other work covered by this section. The cost of any other work shall be considered incidental.

PART 6 – TEMPORARY TRAFFIC CONTROL

SECTION 601 TEMPORARY TRAFFIC CONTROL FOR CONSTRUCTION AND MAINTENANCE WORK ZONES

601-1 GENERAL

Add the following:

The contractor shall be responsible for preparing temporary traffic control plans. The contractor shall submit the traffic control plans to the City for approval prior to implementing each stage in the field during construction.

PART 8 – LANDSCAPING AND IRRIATION

Add the following:

ROCK BLANKET

GENERAL

SUMMARY

The work covered by this section includes furnishing all labor materials and equipment required to furnish, place and set rock blanket as shown on the drawings and/or specified herein.
Rock blanket shall be placed at edges between pavement and planting area.
Where shown on drawing, a filter blanket course of crushed rock, or sand and gravel, or an approved filter fabric shall be placed under the riprap.

RELATED SECTIONS

Division 1 - Temporary Environmental Controls

Division 2 - Excavation and Fill
Division 2 - Erosion and Sedimentation Controls
Division 2 - Riprap, Boulders, Soil Riprap and Bedding

REFERENCES
ASTM International (ASTM):
C39, Standard Test Method for Compressive Cylindrical Concrete Specimens.
C150, Standard Specification for Portland Cement.
D698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft3 (600 kN-m/m3)).

SUBMITTALS
CONTRACTOR shall submit a mix design in writing to ENGINEER for approval prior to placement of any grout.
CONTRACTOR shall cooperate with ENGINEER in obtaining and providing samples of all specified materials.
CONTRACTOR shall submit certified laboratory test certificates for all items required in this section.

QUALITY ASSURANCE
Mock-up:
Prior to the construction of any grouted riprap rock, CONTRACTOR or SUBCONTRACTOR who is constructing the grouted riprap rock for CONTRACTOR shall show ENGINEER an example of similar grouted riprap rock that they had constructed previously.

After acceptance of this previous WORK, CONTRACTOR or SUBCONTRACTOR shall construct approximately one hundred (100) square feet of grouted riprap rock as shown on the DRAWINGS for approval by ENGINEER.

If the construction is approved, CONTRACTOR or SUBCONTRACTOR shall construct the rest of the grouted riprap rock. If the construction is not approved, CONTRACTOR shall make any changes required by OWNER and ENGINEER to obtain approval and construct the remainder of the wall as approved.

HANDLING
Procedure: In accordance with Division 1.

Protection: Protect rock blanket rock from contamination with foreign materials. Isolate stockpiles to prevent mixing of different aggregate grades. Prevent contamination with organic materials.

PROJECT/SITE CONDITIONS
Do not install rock blanket during rain, while sub-base is wet from rain, or at temperatures below 40° F and falling. Do not apply soil sterilant when winds exceed 10 mph or during or after rain.
Do not install work under this Section prior to acceptance of subgrade preparation.
Coordinate with other trades to insure the following.

Warranty
Contractor shall provide warranty for performance of product. Contractor shall warranty installation of product for the time of (1) one year from substantial completion.
Contractor shall provide, for a period of (90) ninety days, unconditional maintenance and repairs as required upon substantial completion.

PRODUCTS
ROCK blanket material
Rock blanket material shall consist of fragments of sound, durable stone or crushed rock, free from disintegrated stone, alkali, salt, vegetable matter, or adherent coating. Aggregate shall be free from thin or elongated pieces.
Type: to match existing, Malibu Cobble or other
Size: 2" Diameter
Source:
Malibu Cobble; Southwest Boulder and Stone. 2418 Cypress Way, Fullerton, CA 92831. (714)-882-1010; www.southwestboulder.com
Or Approved Equal
Perform gradation in accordance with ASTM C 136

GROUT
Grout for grouted rock blanket shall be sand cement grout composed of one-part Cement to four parts sand, measured by volume, mixed thoroughly with sufficient water to make a grout of such consistency that it will flow into and completely fill the voids.

Cement shall be Type I Portland Cement conforming to ASTM C 150.

Sand shall be cleaned, hard, natural siliceous sand conforming to the requirements of ASTM C 33 and the section entitled "Cast-In-Place Concrete" of these Specifications.

Water shall be fresh, clean, portable water free from injurious amounts of oil, acid, and alkali.

EXECUTION
Equipment
All equipment necessary for the satisfactory performance of the work shall be on hand and approved by the landscape architect before construction will be permitted to begin.

The equipment shall include wooden or metal tamps of sufficient weight and number to properly compact the slopes on which the riprap or slope pavement is to be placed.

Wooden hand tamps, having a tamping face not greater than 1 square foot, and of sufficient weight and number to properly tamp the riprap, shall be furnished when sacked sand-cement is used.

Equipment for mixing cement grout or sand cement shall include a mechanical mixer or, if the landscape architect approves hand mixing for cement grout, a watertight mixing platform or mixing box of adequate size.

PREPARATION
Immediately prior to the construction of riprap, the slopes or ground surface shall be trimmed within reasonably close conformity to the lines and grades indicated on the Drawings or as directed by the landscape architect and shall be thoroughly compacted by the use of hand or mechanical tamps.

INSTALLATION
Grouted Rock Blanket:
Grouted rock blanket shall constructed upon the prepared foundation using hand placement and the stone shall be set or placed are close together as is practicable in order to reduce the voids to a minimum.

FIELD QUALITY CONTROL
Immediately repair damage to the work or defective work as the result of weather or traffic conditions at no additional cost to the Owner. Repair to match adjacent undisturbed work.

Protect rock blanket against damage during subsequent construction operations until substantial completion.

PLANTING

GENERAL

SUMMARY
Section includes:
Landscape planting including plant materials, soil preparation materials and planting materials support systems.
This Section includes the following:
Trees.
Shrubs.
Ground covers.
Contract growing (only necessary if specified plant materials are not available).
Topsoil and soil amendments.
Fertilizers and mulches.
Guys.
Tree stakes.
Root Control Barrier city
Metal Edge Restraint
Related Sections: The following sections contain requirements that relate to this section:
Division 2 – Irrigation System
Division 2 – Landscape Maintenance and Plant Establishment
Division 2 – Decomposed Granite

Division 2 – Soil Preparation Testing
Division 2 – Crushed Stone Surfacing

SUBMITTALS
Submit for approval in accordance with Division 1 – Submittal Procedures.

Provide written evidence that the landscape irrigation systems have been inspected and approved prior to the start of any Work of this section.

Product certificates signed by manufacturers certifying that their products comply with specified requirements.

Manufacturer's certified analysis for standard products.

Analysis for other materials by a recognized laboratory made according to methods established by the Association of Official Analytical Chemists, where applicable.

Label data substantiating that plants, trees, shrubs, and planting materials comply with specified requirements.

Three (3) samples of mulch in labeled 1 gal. plastic bags.

Qualification data for firms and persons specified in the "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and address of Owner's Representatives and Agencies, and other information specified.

Soil Report

Imported topsoil: Prior to delivery of the soil on Site, Contractor shall obtain an agronomical soils report(s) for imported topsoil and submit for the Owner's Representative's approval. If import topsoil is obtained from more than one source/Site, Contractor shall submit a soils test report for each sample from each Site.

Existing Site Soil: If existing Site soil is used for the project, the Contractor shall submit an agronomical soils report for the existing soil after the completion of grading operations and prior to soil preparations.

Contractor shall, at his expense, obtain a soils test report from an approved professional agronomic soil testing laboratory. Contractor shall submit the name, address, and phone number of the consulting soil laboratory to Owner's Representative for approval prior to obtaining services.

The approved soil testing laboratory report shall indicate soil analysis for fertility, plant growth suitability and appraisal, including permeability rate, percentages of organic matter, inorganic matter (silt, clay, and sand), deleterious material, pH, and mineral and plant nutrient content of

existing on-site grade and/or import topsoil and recommendations for soil preparation in all areas and soil mix for backfill of planter container material.

The recommendations of the agronomic soils report shall take precedence over the quantities of soil amendments and material mix specified in the backfill mix; and only when those Specifications exceed the minimum requirements specified herein.

Contractor shall submit three (3) copies of the agronomic soils report to the Owner's Representative, and shall not begin any landscape planting Work until the report has been evaluated and approved by the Owner's Representative.

Contract price adjustments if required due to the above shall be made by unit price or change order.

Certificates

Prior to construction, written certifications shall be submitted to the Owner's Representative for the following:

Quantity of commercial or organic fertilizer.
Quantity of fumigant.
Quantity of wood shavings.
Quantity of herbicide.
Quantity of chemical to control lawn moth.
Quantity of soil conditioner – fertilizer type.
Quantity of agricultural gypsum.
Quantity of soil sulfur.
Quantity of activated charcoal ("Gro-Safe".)

Planting Schedule indicating anticipated dates and locations for each type of planting.
Contractor will submit color photos of shrubs and groundcover masses for review by the Owner's Representative prior to delivery to the Site.

Maintenance instructions recommending procedures to be established by owner for maintenance of landscaping during a (120) one hundred and twenty-day period. Submit before expiration of required maintenance period.

Sample of guying apparatus and guying process for Owner's Representative approval.
Root Control Barrier: Manufacturer's literature along with 12 inch x 12 inch sample of root barrier material.

Sample of Metal Edge Restraint: Manufacturer's literature along with 12 inches length of metal edging and one stake in specified color and finish.

Sample of Paver Restraint Edging: Manufacturer's literature along with 12 inches length of metal edging and anchoring device in specified color and finish.

Landscape Boulder: Photographs representative of size and color, with person in photo for scale for review by landscape architect prior to purchase and installation.

Irregular Stepping Stones: Photographs representative of size and color, with person in photo for scale for review by landscape architect prior to purchase and installation.

QUALITY ASSURANCE

Installer Qualifications: Engage an experienced installer/hydroseed applicator who has completed landscaping Work similar in material, design, and extent to that indicated for this Project and with a record of successful landscape establishment. Utilize a licensed pest control advisor/applicator. Installer must have a C-27 license and be insured and bonded.
Quality Control: The Contractor shall submit Specifications of any item being used on Site upon the request of the Owner's Representative

Installer's Field Supervision: Require Installer to maintain an experienced full time supervisor on the Project Site during times that landscaping is in progress.

Testing Agency Qualifications: To qualify for acceptance, an independent testing agency must demonstrate to Owner's Representative's satisfaction, based on evaluation of agency submitted criteria conforming to ASTM E 699, that it has the experience and capability to satisfactorily conduct the testing indicated without delaying the Work.

Provide quality, size, genus, species, and variety of trees and shrubs indicated, complying with applicable requirements of ANSI Z60.1 "American Standard for Nursery Stock."
Ensure sufficient stock of specified materials will be available for selection and installation. Provide for contract grown material if needed.

Selection of all trees and specimen shrubs will be made by Landscape Architect, who will tag stock at their place of growth before they are prepared for transplanting. Contractor shall provide all plant material suppliers' locations prior to breaking ground.

Owner's Representative may reject any dead, damaged, or insufficiently sized plant material prior to, during or after installation.

At the time of installation, provide nursery receipts and/or documentation showing the correct genus and species types were delivered to the project site.

Measurements: Measure trees and shrubs according to ANSI Z60.1 with branches and trunks or canes in their normal position. Do not prune to obtain required sizes. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip to tip.

Pre-installation Conference: Conduct conference at Project Site with Owner's Representative to review and confirm compliance with Specifications and Drawings. Provide 72 hour notification.

DELIVERY, STORAGE, AND HANDLING

Packaged Materials: Deliver packaged materials in original containers showing weight, analysis, and name of manufacturer. Protect materials from deterioration during delivery and while stored at Site.

Delivery: Deliver fertilizer to Site in original unopened containers bearing manufacturer's guaranteed chemical analysis, name, trademark, and conformance to state law.

Deliver container trees, shrubs, ground covers, and plants after preparations for planting have been completed and install as soon as possible. If planting is delayed more than 6 hours after delivery, set planting materials in storage area with shade material, protect from weather and mechanical damage, and water containers periodically to keep plants in a healthy and vigorous condition.

Furnish the Owner's Representative with copies of receipts for all amendments, and materials as amended by the required soils report specified herein upon the request of the City.

Deliver all plants with legible identification labels.

Notify the Owner's Representative seven (7) days in advance of delivery of all plant materials, and submit an itemized list generated by the nursery supplier of the plants in each delivery.

Store Root Control Barrier vertically and out of direct sunlight.

Delivery of Metal Edge Restraint can be coordinated directly with manufacturer or authorized distributor of Sure-loc Edging. Material should be ordered and accepted in original shipping cartons of standard size and stored in a flat area. Due to product weight, unloading equipment is required.

Deliver boulders to site free from chipping or scarring using reasonable and acceptable standards for shipment. Protect against staining or discoloration. Use straps and not chains to move boulder. Do not chip or scar boulder during handling or placement.

PROJECT CONDITIONS
Determine location of above grade and underground utilities and perform Work in a manner, which will avoid damage. Hand excavate, as required. Maintain grade stakes until removal is mutually agreed upon by parties concerned.

When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify Owner's Representative before planting.

COORDINATION, PERFORMANCE AND SCHEDULING
Perform actual planting only when weather and soil conditions are suitable in accordance with locally accepted practice.

WARRANTY
See Section 02935 – Landscape Maintenance & Plant Establishment.

PRODUCTS
MATERIALS

The following organic, soil amendments and fertilizer are to be used for bid price basis only. Specific amendments and fertilizer specification will be made after rough grading operations are complete and soil samples are tested by Contractor.

All materials shall be of standard, approved and first-grade quality and shall be in prime condition when installed and accepted. Any commercially processed or packaged material shall be delivered to the Site in the original unopened container bearing the manufacturer's guaranteed analysis.

Top Soil:
Where imported top soil is required, provide Class A Topsoil which is cleaned, screend, sandy loam, fertile, friable, natural topsoil, free from decay, subsoil, rocks, sticks, and other foreign materials. Do not take from areas in which noxious weeds, including without limitation, Ipomoea tricolor (Morning Glory), Oxalis corniculata (Oxalis), Cynodon dactylon (Bermuda Grass), or Cyperus hydra (Nut Grass) are found. Soil shall be free of deleterious and harmful factors.

"Unclassified" Top Soil:
Soil found in the designated landscape area, including soil compacted in place as part of the earthwork specified for the project. Test samples of on-Site soils shall be taken under the supervision of, and as direct by, the Owner's Representative. Soil amendments shall be added in accordance to the soils testing laboratory's recommendation upon approval of the Owner's Representative.

In all planting beds, cultivate the top soil to a minimum depth of 12 inches and Work into planting condition eliminating all foreign material prior to any planting.

At least thirty (30) days prior to delivery and installation of top soil, retain and pay for soils testing by Soil and Plant Laboratories, or Wallace Laboratories or equal. The laboratory shall submit written reports to the Owner's Representative on top soil findings/analysis/recommendations. Provide soil-testing laboratory with a duplicate copy of this specification section and section 02935 – Landscape Maintenance & Plant Establishment. If top soil is found to be unsuitable by laboratory and Owner's Representative, the Contractor shall provide new topsoil suitable to testing lab requirements at no extra cost. The Contractor shall comply with all recommendations of the soil testing laboratory and add any additional soil amendments necessary to achieve proper nutrient levels to support healthy plant growth at no additional cost to the City.

Organic Amendment: Nitrogen fortified compost derived from 100% recycled bio solid materials.

Nitrogen Stabilized: 0.56 to 0.84% N based on dry weight for wood residual.

Particle Size:
95% - 100% passing 6.35 mm standard sieve.
80% - 100% passing 2.33 mm standard sieve.
Salinity: The saturation extract conductivity shall not exceed 3.5 millimhos/cm at 25 deg. C as determined by saturation extract method.

Iron Content: Minimum 0.08% dilute acid soluble Fe on dry weight basis.

Ash: 0-6.0% (dry weight)

Available from the following:
Artesia Sawdust Products (909) 947-5983
Kellogg Supply Company (310) 830-2200
Or equal

Backfill Mix:
All planting pits shall be backfilled per cubic yard of mix as follows:
3 parts rock-free native soil
4 CY nitrolized shavings
2 parts Kellog's amendment
2 lbs. 7-7-7 fertilizer
2 lbs. agricultural grade gypsum

Soil Amendment:
Soil sulfur: Agricultural grade sulfur containing a minimum of 99% sulfur (expressed as elemental).
Iron sulfate: 20% Iron (expressed as metallic iron), derived from ferric and ferrous sulphate, 10% sulfur (expressed as elemental).
Calcium Carbonate: 95% lime as derived from oyster shells.
Gypsum: Agricultural grade product containing 98% minimum calcium sulphate.
Amend: Available from Kellogg Supply Company or equal.
Activated Charcoal. "Gro-Safe" as manufactured by ICI United States, Inc. Specialty Chemical Division or equal.

Fertilizer:
Planting fertilizer: Pelleted or granular form shall consist of the following percents by weight and shall be mixed by commercial fertilizer supplier:
6% nitrogen
20% phosphoric acid
20% potash

Planting Tablets:
Humus based slow-released type with potential acidity of not more than 5% by weight containing the following percentages of nutrients by weight:
20% nitrogen
10% phosphoric acid

5% potash
2.6% combined calcium
1.6% combined sulfur
0.35% iron (elemental) from ferrous sulfate
7 gram tablets as manufactured by Gro-Power or approved equal, applied per manufacturer's instructions.

Plant Material:
Plants shall be in accordance with the California State Department of Agriculture's regulation for nursery inspections, rules and rating and ANSI Z60.1. All plants shall have a normal habit of growth and shall be sound, healthy, vigorous and free of insect infestations, plant diseases, sun-scalds, fresh abrasions of the bark, excessive abrasions, or other objectionable disfigurements. The Owner's Representative shall be the sole judge as to acceptability.

The size of the plants will correspond with the correct container size and which is normally expected for species and variety of commercially available nursery stock or as specified on drawings.

Plants not conforming to the requirements herein specified, shall be considered defective and such plants, whether in place or not, shall be marked as rejected and immediately removed from the Site of the Work and replaced with new plants at the Contractor's expense. Under no conditions will there be any substitutions of plants or sizes listed on the accompanying Plans, except with the express consent of the Owner's Representative.

All trees 36 in. box size and smaller shall be container grown.

At no time shall trees or plant materials be pruned, trimmed or topped prior to delivery and any alternation of their shape shall be conducted only with the approval and as directed by the Owner's Representative.
Plant material shall be true to botanical and common name and variety as specified in "Annotated Checklist of Woody Ornamental Plants in California, Oregon and Washington", published by the University of California School of Agriculture (1979).

Substituted plant material will not be permitted unless specifically approved in writing by the Owner's Representative.

Tree Paint: Morrison Tree Seal, Cabot Tree paint, or approved equal.

Water: Transport as required.

Top Dressing/Mulch: Shredded bark as produced by Artesia Sawdust Products (909) 947-5983, Kellogg Supply Company (310) 830-2200 or approved equal. Place mulch on to soil to a depth of 3 in. Min. Submit samples to the Owner's Representative for approval prior to purchase.

Root Control Barrier for Trees adjacent to paving: See details for locating root barriers. High impact polystyrene UB 24-2. The number of barrier panels required per tree shall be in

accordance with the manufacturer's Specifications for the specified diameters, or as noted on the Drawings. Root Control Barrier by Deep Root Corp. or equal.
Drainage Material (crushed lava rock): 3/8 in. crushed lava rock, 95-100% passing through a 3/8 in. screen.
0-5% passing through a 3/8 in, mesh.
80-100%/cu. yd.

Staking Materials:
Galvanized metal tree stakes, 1 inch diameter x 10'-6" long.

Ties:
"Wonder Tree Ties" or approved equal. Install per manufacturer's Specifications. Wonder tree ties, 780 s. Van Buren Street, Suite G, Placentia, CA 92870 1 (800) 910-2810.

Guying Hardware:
"Duck Bill" anchoring system as manufactured by Foresight Products LLC, Commerce City, CO 80022, (303) 286-8955 or approved equal.
For trees up to 3" (75 mm) caliper use: Model 40 Duckbill Anchors with 12 feet (3.6 m) of cable attached to each anchor, 3 tree collars, and 3-1/16" (1.6 mm) cable clamps - all pre-assembled. Each anchor holds 300# (135 kg).
For trees up to 6" (150 mm) caliper use: Model 68 Duckbill Anchors with 13 feet (4.0 m) of cable attached to each anchor with a turnbuckle in line, 3 tree collars, and 6-1/8" (3.2 mm) cable clamps - all pre-assembled. Each anchor holds 1,100# (500 kg).
For trees up to 11" (280 mm) caliper use: Model 88 Duckbill Anchors with 15 feet (4.5 m) of cable attached to each anchor with a turnbuckle in line, 3 tree collars, and 6-3/16" (4.8 mm) cable clamps - all pre-assembled. Each anchor holds 3,000# (1,360 kg)
Planter Root Control Barrier

Components:
Product: HDPE-40 Protective Root Barrier: A 40-mil sheet that prohibits aggressive growing roots from affecting the performance characteristics of a waterproofing membrane in planters as manufactured by Tremco 800-321-7906 or approved equal.

Metal Edge Restraint:
Components:
Product: Planting bed edging to be 1/8"x4"x16' Steel Landscape Edging as manufactured by Sur-loc Edging 800-787-3562 or approved equal.
Edging strips: Edging to be manufactured from steel with interlocking system and stake punch outs fabricated in each strip.
Locking System: Sections to lock together without offset or double thickness at the joints and secured with two 12" stakes at every joint
Size: 1/8" thickness to allow flowing curves as shown on landscape plan.
Stakes: Minimum 12" long
Finish: Steel edging to be powder coated, baked on enamel. Color to be black.

Bench

Furnish and install benches per manufacturers installation instructions, in locations indicated on landscape plan. Color and size shall be per Site Furnishing Schedule on landscape plans.

Trash Receptacle
Furnish and install trash receptacles per manufacturers installation instructions, in locations indicated on landscape plan. Color and size shall be per Site Furnishing Schedule on landscape plans.

EXECUTION

EXAMINATION
Examine areas to receive landscaping for compliance with requirements and for conditions affecting performance of Work of this section. Do not proceed with installation until unsatisfactory conditions have been corrected.
Obtain certification that final grades to +0.10 ft have been established prior to commencing planting operations. Provide for inclusion of all amendments, settling, etc. Contractor shall be responsible for shaping all planting areas as indicated on Plans or as directed by the Owner's Representative.

PRE-PLANT WEED CONTROL
The Contractor is responsible for the elimination of the grass/weeds present in all areas to be planted. Spray with a non-selective systemic contact herbicide, as recommended and applied by an approved licensed landscape pest control advisor and applicator. Leave sprayed plants intact for at least fifteen (15) days to allow systemic kill.

Clear and remove these existing grasses/weeds by mowing or grubbing off all plant parts at least 2 in. below the surface of the soil over the entire area to be planted.

Apply water for five (5) to ten (10) days or as needed, to achieve grass/weed germination. Apply contact herbicides and upon die-off of weeds, clear and remove for a second time. A minimum of two kills will be required. Repeat if deemed necessary by the Owner's Representative.

Consult herbicide manufacturer's recommendations for recommended wait time prior to planting.

Maintain Site weed-free until final acceptance by Owner's Representative using mechanical, manual and/or chemical treatment.

PLANTING SOIL PREPARATION
At time of planting, the top six to eight inches of all areas to be planted shall be free of stones, stumps, or other deleterious matter 1 in. in diameter or larger, and shall be free from all wire, plaster, or similar objects that would be a hindrance to planting or maintenance.

The following amendment treatment is to be used for bidding purposes only. Final specification per recommendation of soils report. Broadcast uniformly and incorporate thoroughly to a depth of 6-8" in native soil.

Amendments/1000 square feet:
4 cubic yards nitrolized shavings
10 lbs. soil sulfur
30 lbs. agricultural gypsum

Final Grades:
Minor modifications to grade may be required to establish the final grade. Remove all soil generated by excavations to an approved off-site location unless said soil can be utilized to obtain desired grade.

Finish grading shall ensure proper drainage of the Site as determined by the Owner's Representative.

Areas shall be graded so that the final grades will be 1/2" in. below adjacent paved areas, sidewalks, valve boxes, headers, clean-outs, drains, manholes, etc. or as indicated on the drawings.

Eliminate erosion scars prior to commencing maintenance period.

Dispose of unacceptable or excess soil at an approved off-site location.

PLANTING PREPARATION AND LAYOUT
Inspect trees, shrubs and liner stock plant material for injury, insect infestation and trees and shrubs for improper pruning.

Lay out individual tree and shrub locations and areas for massed plantings per Plans. Stake locations, outline areas, and secure the Owner's Representative's acceptance before the start of planting Work. Make minor adjustments as may be required.

Locations for plants and outlines of areas to be planted shall be marked on the ground and/or by the actual placement of the plant with associated container/box by the Contractor before any plant pits are dug. All such locations shall be approved by the Owner's Representative. Contractor shall be responsible for relocating materials for which approval of location/placement had not been obtained and shall bear all associated relocation costs/expenses.

If underground construction or utility lines are encountered in the excavation of planting areas, other locations for planting may be selected by the Owner's Representative. Layout shall be accomplished with flagged grade stakes indicating plant names and specified container size on each stake. It shall be the Contractor's responsibility to confirm with the Owner's Representative's superintendent and governing agencies the location and depth of all underground utilities and obstructions.

In addition, it is the responsibility of the Contractor to review the Civil Owner's Representative's Plans, such as grading and utility Plans, prior to beginning construction, in order to avoid

installation conflicts, etc. Any such conflicts/questions shall be brought to the attention of the Owner's Representative prior to commencing Work.

EXCAVATION FOR TREES AND SHRUBS
Planter Pits: Excavated holes shall have vertical sides with roughened surfaces and shall be of a size that is twice the diameter and equal to the depth of the root ball for all trees and shrubs.
Obstructions: Notify Owner's Representative if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavations.

Drainage:
Notify the Owner's Representative if subsoil conditions evidence unexpected water seepage or retention in tree or shrub pits.
Fill excavations with water and allow to percolate out, before placing setting layer and positioning trees and shrubs.

PLANTING TREES AND SHRUBS

Protect all areas from excessive compaction when trucking plants or other material to the planting site.

Center plant in pit or trench.

Set plant plumb and hold rigidly in position until soil has been tamped firmly around ball or roots.

Plants which settle deeper than the surrounding grade shall be raised to the correct level.
Remove boxes and cans without damage to root ball and remove bottom of boxes before setting in holes/pits.

Plant Tablets:
After the water has completely drained, and the backfill top soil mix has been placed and filled to 6 in. above the bottom of the root ball, then place and equally space the planting tablets around the root ball in the quantities as indicated below:
3 tablet per one-gallon container
9 tablets per five-gallon container
15 tablets per 15-gallon container
18 tablets per 24 in. box
20 tablets per 36 in. box
24 tablets per 48 in. and those box sizes which are larger

Planting tablets shall be set with each plant on the top of the root ball while the plants are still in their containers so the required number of tablets to be used in each hole can be easily verified by the Owner's Representative.

Backfill:
The remainder of the hole shall then be backfilled and tamped firm.

An earthen basin shall be constructed around each plant. Each basin shall be of a depth sufficient to hold at least two (2) inches of water. The basins shall be constructed of amended backfill materials. Remove basin in all turf areas after initial watering.

TREE STAKING
Staking of trees as indicated on Drawings and in Specifications shall be completed immediately after planting. Staking methods shall be reviewed and approved by Owner's Representative prior to planting of boxed trees.

PLANTING GROUND COVER
Groundcover shall be planted in straight rows and evenly spaced, unless otherwise noted, and at intervals called out in the drawings. Triangular spacing shall be used unless otherwise noted on the drawings.

Each rooted plant shall be planted with its proportionate amount of flat soil. Plantings shall be immediately watered after planting until the entire area is soaked to the full depth of each hole.

Care shall be exercised at all times to protect the plants after planting. Any damage to plants by trampling or other operations of this contract shall be repaired immediately at no additional cost to the Owner.

Dig holes large enough to allow spreading of roots, and backfill with planting soil. Work soil around roots to eliminate air pockets and leave a slight saucer indentation around plants to hold water. Water thoroughly after planting, taking care not to cover plant crowns with wet soil.

MULCHING
Ground cover and shrub beds shall be dressed with a minimum layer of top dressing mulch per drawings.

Keep all mulches within designated area on drawings. Remove any mulch from adjacent planting and hardscape areas.

ROOT CONTROL BARRIER
For tree adjacent to paving applications:
Excavate for trees as noted on Drawings and elsewhere in Specification.
Install linear root control barrier to maximum amount of amended backfill between root barrier and panel and root ball. If installed in sidewalk, install so top of barrier is 1/2 inch below sidewalk finish grade.

Backfill around outside of Barrier with backfill mix. Do not use pea gravel.
Raised ribs of barrier must face inward. Lock with locking strips provided by manufacturer.

METAL EDGE RESTRAINT
Follow edging manufacturer's instructions and the following:
Define the area to be edged using string, garden hose, or paint.
Dig installation trench 1 inch deeper than the edging being set.

Set the edging into the landscape trench with the top ½ inch above what will be the finish grade.

Start at the beginning of the bed area and begin driving the 12 inches stakes. Minimum 5 stakes per section are to be used with each section of edging.
Snap down the adjacent sections.

At the end of the bed area, cut the section to the desired length and stake down. Begin next bed area with the remaining portion of the cut section.
Back fill on both sides of edging during installation leaving no more than two sections unsupported at one time. Compact back fill along edging ensuring that top edge is no more than 1/2" above finish grade

Landscape Boulder
Clean boulder before setting by thoroughly scrubbing them with fiber brushes. Follow with a thorough drenching with clean water. Use only mild cleaning compounds containing no caustic or harsh fillers or abrasives. Remove frost, dirt and other contaminants.
Do not install boulder that have chips, cracks, holes, spalls, patches, scratches, stains or other defects that would be visible in the finished work.
After installation has been completed, carefully clean all boulder of dirt, excess mortar, stains and other defacements.

CLEANUP AND PROTECTION
During landscaping, keep pavements clean and Work area in an orderly condition.
Protect all landscaping, including plants and all other materials, from damage due to landscape operations, operations by other contractors and trades, and trespassers. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged landscape Work as directed.

DISPOSAL OF SURPLUS AND WASTE MATERIALS
Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of it off the City's property.

OBSERVATION SCHEDULE
The contractor shall be responsible for notifying the Owner's Representative 72 hours in advance for the following Site visits:
Pre-job conference.
Soil/import delivery testing and placement.
Final grade review.
Plant material review.
Plant layout review.
Soil preparation and planting operations. One tree with each type of specified staking shall be approved prior to planting of trees.
Pre-maintenance.
Final walk-through.
No Site visits shall commence without all items noted in the previous observation reports either completed or remedied unless such compliance has been waived by the City. Failure to

accomplish punch list tasks or prepare adequately for desired observations shall make the Contractor responsible for reimbursing the party designated authorized to conduct the Site observation process of review, comment, and recommendation at their current billing rates per hour (plus transportation costs). No further observations shall be scheduled until this charge has been paid and received.
Coordinate Site visits with Irrigation reviews.

SOIL PREPARATION TESTING

GENERAL
SUMMARY
Section includes:
Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this section.

This Section includes the following:
Soil Testing
Compost amendment

Related Sections: The following sections contain requirements that relate to this section:
Division 2 - Landscape Maintenance and Plant Establishment
Division 2 – Landscape Planting

SUBMITTALS
Product Data: For each type of product.
Include recommendations for application and use.
Include test data substantiating that products comply with requirements.
Include sieve analyses for aggregate materials.

Material Certificates: for each type of imported soil and soil amendment and fertilizer:
Manufacturer's qualified testing agency's certified analysis of standard products.
Analysis of fertilizers, by a qualified testing agency, made according to AAPFCO methods for testing and labeling and according to AAPPFCO's SUIP #25.
Analysis of non-standard materials, by a qualified testing agency, made according to SSSA methods, where applicable.

Samples: for each bulk-shipped material, 1-quart volume of each in sealed containers labeled with content, source, and date obtained. Each Sample shall be typical of the lot of material to be furnished; provide an accurate representation of composition, color and texture.

INFORMATIONAL SUBMITTALS
Qualification Data: For each testing agency.

Preconstruction Test Reports: For preconstruction soil analyses specified in "Preconstruction Testing" Article.

Field quality-control reports.

QUALITY ASSURANCE
Testing Agency Qualifications: An independent, state-operated or university-operated laboratory; experienced in soil science, soil testing and plant nutrition; with the experience and capability to conduct the testing indicated; and that specializes in types of tests to be performed.

Laboratories: Subject to compliance with requirements, provide testing by the following: Wallace Laboratories; 365 Coral Circle, El Segundo, CA 90245, phone (310) 615-0116 or approved equal.

PRECONSTRUCTION TESTING
Preconstruction Testing Service: Engage a qualified testing agency to perform preconstruction soil analyses on existing, on-site soil.

Notify Landscape Architect seven days in advance of the dates and times when laboratory samples will be taken.

Preconstruction Soil Analyses: for each unamended soil type, perform testing on soil samples and furnish soil analysis and a written report containing soil-amendment and fertilizer recommendations by a qualified testing agency performing and testing according to "Soil Sampling Requirements" and "Testing Requirements" articles.

Imported topsoil: Prior to delivery of the soil on Site, Contractor shall obtain an agronomical soils report(s) for imported Class A Topsoil and submit for the Owner's Representative's approval. If import topsoil is obtained from more than one source/Site, Contractor shall submit a soils test report for each sample from each Site.

Existing Site Soil: If existing Site soil is used for the project, the Contractor shall submit an agronomical soils report for the existing soil after the completion of grading operations and prior to soil preparations.

Contractor shall, at his expense, obtain a soils test report from an approved professional agronomic soils testing laboratory. Contractor shall submit the name, address, and phone number of the consulting soil laboratory to Owner's Representative for approval prior to obtaining services.

The approved soil testing laboratory report shall indicate soil analysis for fertility, plant growth suitability and appraisal, including permeability rate, percentages of organic matter, inorganic matter (silt, clay, and sand), deleterious material, pH, and mineral and plant nutrient content of existing on-site grade and/or import topsoil and recommendations for soil preparation in all areas and soil mix for backfill of planter container material.

The recommendations of the agronomic soils report shall take precedence over the quantities of soil amendments and material mix specified in the backfill mix; and only when those Specifications exceed the minimum requirements specified herein.

Contractor shall submit three (3) copies of the agronomic soils report to the Owner's Representative, and shall not begin any landscape planting Work until the report has been evaluated and approved by the Owner's Representative.

SOIL-SAMPLING REQUIREMENTS
General: Extract soil samples according to requirements in this article.
Sample Collection and Labeling: Have samples taken and labeled by Contractor in presence of Landscape Architect or state-certified, -licensed or registered soil scientist under the direction of the testing agency.

Number and Location of Samples: Minimum of six representative soil samples from varied locations where directed by Architect.

Procedures and Depth of Samples: According to USDA-NRCS's "Field Book for Describing and Sampling Soils."

Division of Samples: Split each sample into two, equal parts. Send half to the testing agency and half to Owner for its records.

Labeling: Label each sample with the date, location keyed to a site plan or other location system, visible soil condition, and sampling depth.

TESTING REQUIREMENT
General: Perform tests on soil samples according to requirements in this article.

Physical Testing:
Soil Texture: Soil-particle, size-distribution analysis by one of the following methods according to SSSA's "Methods of Soil Analysis - Part 1-Physical and Mineralogical Methods":

Sieving Method: Report sand-gradation percentages for very coarse, coarse, medium, fine, and very fine sand; and fragment-gradation (gravel) percentages for fine, medium, and coarse fragments; according to USDA sand and fragment sizes.

Hydrometer Method: Report percentages of sand, silt, and clay.

Total Porosity: Calculate using particle density and bulk density according to SSSA's "Methods of Soil Analysis - Part 1-Physical and Mineralogical Methods."

Water Retention: According to SSSA's "Methods of Soil Analysis- Part 1-Physical and Mineralogical Methods."

Saturated Hydraulic Conductivity: According to SSSA's "Methods of Soil Analysis - Part 1-Physical and Mineralogical Methods"; at 85% compaction according to ASTM D 698 (Standard Proctor)

Chemical Testing:

CEC: Analysis by sodium saturation at pH 7 according to SSSA's "Methods of Soil Analysis- Part 3- Chemical Methods."

Clay Mineralogy: Analysis and estimated percentage of expandable clay minerals using CEC by ammonium saturation at pH 7 according to SSSA's "Methods of Soil Analysis - Part 1- Physical and Mineralogical Methods."

Metals Hazardous to Human Health: Test for presence and quantities of RCRA metals including aluminum, arsenic, barium, copper, cadmium, chromium, cobalt, lead, lithium, and vanadium. If RCRA metals are present, include recommendations for corrective action.

Phytotoxicity: Test for plant-available concentrations of phytotoxic minerals including aluminum, arsenic, barium, cadmium, chlorides, chromium, cobalt, copper, lead, lithium, mercury, nickel, selenium, silver, sodium, strontium, tin, titanium, vanadium, and zinc.

Fertility Testing: Soil-fertility analysis according to standard laboratory protocol of SSSA NAPT SERA-6, including the following:

Percentage of organic matter.
CEC, calcium percent of CEC, and magnesium percent of CEC.
Soil reaction (acidity/alkalinity pH value).
Buffered acidity or alkalinity.
Nitrogen ppm.
Phosphorous ppm.
Potassium ppm.
Manganese ppm.
Manganese-availability ppm.
Zinc ppm.
Zinc availability ppm.
Copper ppm.
Sodium ppm.
Soluble-salts ppm.

Presence and quantities of problem materials including salts and metals cited in the Standard protocol. If such problem materials are present, provide additional recommendations for corrective action.

Other deleterious materials, including their characteristics and content of each.
Organic-Matter Content: Analysis using loss-by-ignition method according to SSSA's "Methods of Soil Analysis - Part 3- Chemical Methods."

Recommendations: Based on the test results, state recommendations for soil treatments and soil amendments to be incorporated to produce satisfactory planting soil suitable for healthy, viable plants indicated. Include, at a minimum, recommendations for nitrogen, phosphorous, and potassium fertilization, and for micronutrients.

Fertilizers and Soil Amendment Rates: State recommendations in weight per 1000 sq. ft. for 6-inch depth of soil.

Soil Reaction: State the recommended liming rates for raising pH or sulfur for lowering pH according to the buffered acidity or buffered alkalinity in weight per 1000 sq. ft. for 6-inch depth of soil.

DELIVERY, STORAGE AND HANDLING
Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and compliance with state and Federal laws if applicable.

Bulk Materials:
Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
Do not move or handle materials when they are wet or frozen.
Accompany each delivery of bulk fertilizers and soil amendments with appropriate certificates.

PRODUCTS
MATERIALS
Regional Materials: shall be manufactured within 500 miles of Project site from materials that have been extracted, harvested, or recovered, as well as manufactured, within 500 miles of Project site.

EXECUTION
GENERAL
Place planting soil and fertilizers according to requirements in other Specification Sections.
Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound or acid has been deposited in planting soil.
Proceed with placement only after unsatisfactory conditions have been corrected.

PREPARATION OF UNAMENDED, ON-SITE SOIL BEFORE AMENDING
Unacceptable Materials: Clean soil of concrete slurry, concrete layers or chunks, cement, plaster, building debris, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, acid, and other extraneous materials that are harmful to plant growth.

BLENDING PLANTING SOIL IN PLACE
General: Mix amendments with in-place, unamended soil to produce required planting soil. Do not apply materials or till if existing soil or subgrade is frozen, muddy, or excessively wet.

Preparation: Till unamended, existing soil in planting areas to a minimum depth of 4 inches. Remove stones larger than 1-1/2 inches in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.

Mixing: Apply amendments evenly on surface, and mix thoroughly into full depth of unamended, in-place soil to produce planting soil.

Compaction: Compact blended planting soil to 75 to 82 percent of maximum Standard Proctor density according to ASTM D 698 except where a different compaction value is indicated on Drawings.

PROTECTION
Protection Zone: Identify protection zones if required
Protect areas of in-place soil from additional compaction, disturbance and contamination.

Prohibit the following practices within these areas except as required to perform planting operations:
Storage of construction materials, debris, or excavated material.
Parking vehicles or equipment.
Vehicle traffic.
Foot traffic.
Erection of sheds or structures.
Impoundment of water.
Excavation or other digging unless otherwise indicated.
If planting soil or subgrade is over compacted, disturbed, or contaminated by foreign or deleterious materials or liquids, remove the planting soil and contamination; restore the subgrade as directed by Owner and replace contaminated planting soil with new planting soil.

CLEANING
Protect areas adjacent to plating-soil preparation and placement areas from contamination. Keep adjacent paving and construction clean and work area in an orderly condition.
Remove surplus soil and waste material including excess subsoil, unsuitable materials, trash and debris and legally dispose of them off Owner’s property unless otherwise indicated.
Dispose of excess subsoil and unsuitable materials on-site where directed by Owner.

PLANT PROTECTION AND PRUNING

GENERAL
DESCRIPTION OF WORK
Protect existing plant material specified on the drawings during the duration of the construction period in a healthful state, free from damage or harm as the result of any work performed.

JOB CONDITIONS
Prior to construction of any nature on the site, Contractor shall call for a site meeting with the General Manager. The purpose of the meeting shall be to establish the conditions of all existing plant material to be preserved upon receipt of the site by the Contractor. Failure to call for said

meeting implies acceptance by the Contractor of plant material to be preserved in its existing condition.

An irrigation system and/or quick coupler valve will be fully operational so that plant material can be regularly watered.

Coordinate and cooperate with other work to enable the work to proceed as rapidly and efficiently as possible.

WORK INCLUDED
The work of this section includes all labor, materials, equipment, transportation and services necessary to complete the work in this section as shown on the drawings and as specified herein, including but not necessarily limited to, the following:

Protection and welfare of all existing plant material within the Contract Limits which is noted to remain, including trimming, cabling, and repair of such plant material as necessary and all labor, materials and equipment necessary.
Perform all pruning operations.
Submit plant material maintenance plan before commencing landscape work for review by the General Manager.

RELATED WORK
Clearing and Grubbing: Section 02210
Landscape Irrigation: Section 02810
Landscape: Section 02900
Maintenance: Section 02930

DEFINITIONS
"Injury" is defined, without limitation, as any bruising, scarring, tearing, or breaking of roots, branches, or trunk.
"Dripline" for shrubs is defined as the outermost limits of the shrub canopy.
"Dripline" for trees is defined as three times the diameter of the tree trunk, measured from the outside edge of the tree trunk.
"Certified Arborist" is a consulting arborist certified by the International Society of Arboriculture.

QUALITY ASSURANCE
Reference Standards:
International Society of Arboriculture (ISA) "Guide for Plant Appraisal" prepared by the Council of Tree and Landscape Appraisers (CTLA).
"Cabling, Bracing and Guying Standards for Shade Trees", as published by the National Arborist Association (NAA), 174 TR 101, Bedford, New Hampshire.
Qualification of Workman:
Trimming and pruning of trees shall be performed only under the direction of a certified Arborist or Landscape Architect.

SUBMITTALS
Pruning materials
Fencing materials.
Maintenance plan.

GUARANTEE
During the Guarantee to Repair Period specified in the General Conditions the Contractor shall be liable for damages to all trees covered by the provisions of this Section. Compensation to the Owner shall be as outlined in section 3.04.
Contractor will not be held responsible for damages due to vandalism or freak acts of nature during the guarantee period. Immediately report such conditions to the General Manager.

PRODUCTS
FENCING MATERIALS
Fencing-11 gauge galvanized 6' high chain-link fence with galvanized steel posts at 10' o.c. minimum.

PRUNING MATERIALS
Pruning materials shall be in accordance with current horticultural practices.
Pruning sterilant shall be Physan 20 Fertilome Type A, or diluted bleach.

EXECUTION
FENCING
Fencing a continuous 6' high temporary chain-link fence will be erected around trees with a caliper of 4” or larger at the dripline, in order to prevent soil compaction within the root zone, limb damage, or the accidental introduction of toxic materials into the root zone. Fence can be erected around groups of adjacent trees where possible. Otherwise, fence to be erected around individual tree.
The fence will be removed only at the end of construction, as approved by the General Manager.

PLANT MATERIAL PROTECTION
Provide protection for all plant materials designated to be retained. Contractor is responsible for replacing damaged plant life with approved equivalent.
New and existing plant materials shall not be allowed to deteriorate and shall be maintained in a healthy and vigorous condition during the course of construction and maintenance period.

During the course of construction, the Contractor shall take all necessary precautions, as outlined herein, to protect existing plant materials to be preserved from injury and death. Protection shall be given to the roots, trunk, and foliage.
The Contractor shall conduct operations continually to completion, unless weather conditions are prohibitive.

Provide ample water supply of potable quality and sufficient quantity for all operations required under this Section.

Trees subject to the provisions of this Section, which have been injured, shall be repaired immediately by a certified Arborist. Repairs shall include removal of rough edges, sprung bark and severely injured branches as directed by the Arborist.

Necessary measures shall be taken to maintain healthy living conditions for existing plant materials to be preserved. Such measures shall include monthly washing of leaves for the removal of dust, regular irrigation, root feeding, etc.

Tree protection fencing shall be installed for the protection of existing trees to be preserved, as shown on plan. No construction, demolition, or work of any nature will be allowed within the fenced area without prior written approval by the General Manager.

Approval by the General Manager for work within the fenced area shall not release the Contractor from any of the provisions specified herein for the protection of existing trees to be preserved.

During the course of construction of approved work within the fence area, no roots shall be cut without prior written approval by the General Manager.

During construction, the existing site surface drainage patterns shall not be altered within the area of the drip line of existing plant materials.

Contractor shall not alter the existing water table within the area of the drip line of existing plant materials.

Do not permit the following within the drip line of any existing tree or shrub to be preserved: Storage or parking of automobiles or other vehicles.

Stockpiling of building materials, refuse or excavated materials.

Skinning or bruising of bark.

Use of trees as support posts, power poles, or signposts; anchorage for ropes, guy wires, or power lines; or other similar functions.

Dumping of poisonous materials on or around plant materials and roots. Such materials include but are not limited to paint, petroleum products, dirty water, or other deleterious materials.

Cutting roots by utility trenching, foundation digging; placement of curbs and trenches, and other miscellaneous excavation without prior written approval by the General Manager.

Damage to the trunk, limbs, or foliage caused by maneuvering vehicles or stacking material or equipment to close to the plant.

Compaction of the root area by movement of trucks or grading machines; storage of equipment, gravel, earth fill, or construction supplies; etc.

Excessive water or heat from equipment, utility line construction, or burning of trash under or near shrubs or trees.

Damage to root system from flooding, erosion, and excessive wetting and drying resulting from watering and other operations.

TREE MATERIAL PROTECTION
No equipment is to be operated or parked under a tree, nor are any materials to be stored within the dripline of a tree or leaned against a tree trunk. Do not pile or compact soil within a dripline.

Fence the tree with a six (6) foot high chain link fence to prevent wound to the tree and soil compaction within the root zone. Post fence with sign stating: "Tree Protection Zone — Keep Out."

In areas of construction, protect soil surface from traffic compaction with three (3) inches of mulch or overlapping ¾" plywood sheets.

All work shall be in accordance with the City Tree Protection Guidelines.

No chemical herbicides are to be used within one hundred (100) feet of a tree's dripline.

Do not nail grade stakes or anything else to trees.

Encroachment from paving or structures within the dripline of a tree shall be permitted only with written authorization from the Department's Arborist. No encroachment within ten (10) feet of a tree trunk will be permitted under any circumstances.

The extent of all work affecting any trees shall be staked by field survey and reviewed per City requirements prior to construction.

During construction the impacted trees should be closely monitored to further mitigate shock symptoms if they occur. The contractor should be prepared to provide temporary water to irrigate and wash the dust from the foliage if needed. Contact a City Arborist if a decline in tree condition is noted.

Excavation Around Trees
Excavation within the drip lines of trees shall be done only where absolutely necessary, under the direction of a Certified Arborist and with prior approval from the General Manager.
Where trenching for utilities is required within driplines, tunneling under and around roots shall be by hand digging. Main lateral roots and taproots shall not be cut. Smaller roots that interfere with installation of new work may be cut with prior approval from certified Arborist.

Where excavation of new construction is required within drip line of trees, hand excavation shall be employed to minimize damage to root system. Roots shall be relocated in backfill areas wherever possible. If large, main lateral roots are encountered, they shall be exposed beyond

excavation limits as required to bend, and relocate without breaking. If encountered immediately adjacent to location of new construction and relocation is not practical, roots shall be cut approximately 6 inches back from new construction under the direction of a certified Arborist.

Exposed roots shall not be allowed to dry out before permanent backfill is placed. Temporary earth cover shall be provided, or roots shall be packed with wet peat moss or four layers of wet, untreated burlap and temporarily supported and protected from damage until permanently relocated and covered with backfill. The cover over the roots shall be wetted to the point of runoff daily.

Branching structure shall be thinned in accordance with National Arborists Association "Pruning Standards and Principles" to balance loss of root system caused by damage or cutting of root system. Thinning shall not exceed 30 percent of existing branching structure.
Do not strip topsoil around trees. Any vegetation to be removed should be removed by cutting at ground level rather than pulling out by equipment.

Use pneumatic drill to excavate under woody roots larger than two (2) inches in diameter. Do not cut any root larger than two (2) inches in diameter. If roots must be severed, cuts are to be made per City Arborist and soil backfilled immediately.

Hand dig vertical trench at the final cut line to final grade and cleanly cut any roots that are encountered before sealing with approved tree seal. This procedure is to protect the root system from unnecessary damage by excavation equipment.

No further work within the root zone shall be done beyond that which is approved without obtaining written approval from the City Arborist prior to proceeding.
All work within a tree's root zone shall be observed by the City Arborist.

TREE TRIMMING
Any approved pruning of trees shall be done per City requirements prior to the start of construction.

Certified Arborist, shall be engaged to direct removal of branches from trees if necessary, to protect the health of the tree or if required to clear for construction.

In company with the General Manager, Owner and a certified Arborist, ascertain the limbs and roots which are to be trimmed. Clearly mark them to designate the approved point of cutting.

Dead and damaged trees that are determined by the Certified Arborist to be incapable of restoration to normal growth pattern shall be removed.

Cut evenly, using proper tools and skilled workmen, to achieve neat severance with the least possible damage to the tree.

Prune only those roots necessary to accommodate approved construction activities. Root pruning shall be completed before excavation extends through the root system. Cleanly cut exposed roots

using sharp pruning saws, loppers, or other approved arboricultural tools. Roots shall be cut perpendicular to their axis to produce smooth surfaces without tearing, splitting, or crushing. Do not break, pull, rip, or sever roots using excavation equipment.

Unless otherwise approved by the Project Arborist:

1. Roots less than 2 inches in diameter may be cut as required.
2. Roots 2 to 4 inches in diameter shall be reviewed by the Project Arborist prior to pruning.
3. Roots greater than 4 inches in diameter shall not be cut without written authorization from the Project Arborist.

Root pruning shall be limited to the minimum amount necessary to accomplish the work. Trenching within the Tree Protection Zone shall utilize root pruning methods identified by the Project Arborist to reduce damage to retained roots.

In the case of root pruning, apply wet burlap or other protection, approved as noted herein, to prevent drying out, and maintain in a wet condition as long as necessary for temporary protection.

REPAIR COMPENSATION

Damage:

Damage to existing tree crowns or roots over 1" in diameter shall be immediately reported to the General Manager.

A Certified Arborist shall direct all repairs to trees. Repairs shall be made promptly after damage occurs to prevent progressive deterioration of damaged trees. Repairs shall be at the Contractor's expense.

Irreparable Damage: Any tree to be protected which is irreparably damaged owing to the Contractor's negligence or failure to provide adequate protection shall be compensated for in accordance with the following schedule of values using the "tree caliper" method (greatest trunk diameter, measured 18 inches above the ground):

For trees with diameters up to and including 6 inches, compensation shall be the actual cost of replacement with item similar in species, size, and shape, including:

a. Actual cost of item boxed out of the ground.

Transportation or delivery of boxed item to site.
Planting and staking.
Maintenance, including watering, fertilizing, pruning, pest control, and other care to bring replacement to same general condition of original item.
For trunks up to:

7".....$ 1,200
8"..... 1,700
9"..... 2,200
10"..... 2,600
11"..... 3,100
12"..... 3,600

13”..... 4,100
14”..... 4,600
15”..... 5,000
16”..... 5,500
17”..... 6,000
18” and over, add for each caliper inch.... $600

120 DAY MAINTENANCE PERIOD
Plant material will be maintained throughout the duration of the construction period in a healthful manner. Plant material identified which requires special pruning, insect control, fertilization or other remedial health action will be treated during this period. Methods and rates of pesticide and fertilizer application will be reviewed by the General Manager prior to approval.

Watering: Plant materials will be watered on a regular basis, at a rate consistent with their particular requirements. Verification of the proposed watering schedule shall be reviewed by the General Manager prior to commencement of the maintenance.

The maintenance of the plant materials shall comply with standard horticultural practice for the correct watering, fertilizing, pruning and spraying of the specimen boxed trees.

The maintenance and quality of the plant materials shall be subject to monthly checks. The dates of these checks shall be outlined in the General Manager field notification relating to the establishment of the plant maintenance period. Additional checks shall be scheduled as determined by the General Manager.

Contractor shall be responsible for performing periodic inspections of existing plant materials to be protected and relocated throughout the construction period, and submit written proposals to the General Manager for additional maintenance work as may be required to ensure the health and general well-being of the plant material. Contractor shall retain, at the direction of the General Manager additional specialists as may be required to perform this work.

Contractor shall keep plant material free from weeds and debris at all times.

FIELD QUALITY CONTROL
General: The Contractor guarantees the protection of all plant material included as part of this work, in a healthful manner during the duration of the construction period. Destruction of, or significant damage to, any or all of the plant materials to be protected, as determined by the General Manager, will result in compensation by the Contractor of 3-36" box trees, installed on the site, for each existing tree damaged.

Payment
The contract unit price paid per lump sum (LS) for “LANDSCAPE AREA AND IRRIGATION,” must be in accordance with the specifications, plans, and these Special Provisions, and shall constitute full compensation to furnish all transportation, labor, materials, equipment, incidentals, and all other work necessary to furnish and install bid items listed in this

paragraph. No separate payment and measurement will be made for any other work covered by this section. The cost of any other work shall be considered incidental.

MEASUREMENT AND PAYMENT
Measurement and Payment for Landscaped Area and Irrigation shall be paid at the contract price per lump sum (LS) and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved to install irrigation, including trenching, excavation, backfill, and surface repairs, piping and fittings, controller installation, controller communication setup, concrete pads for irrigation equipment, flow sensor and master valve assembly, valves, emitters, and all other equipment necessary to provide a complete and functioning irrigation system, complete in place, as specified in the State Standard Specifications, these Technical Specifications, as shown on the Plans, and include but not limited to furnishing all labor, materials, tools, equipment, and incidentals, and no additional compensation will be made therefor.

Measurement and Payment for FURNISH AND INSTALL TRASH RECEPTACLE AT UNIT PRICE OF EACH (EA), AND FURNISH AND INSTALL BENCH AT UNIT PRICE OF EACH (EA).

Payment for the various Landscape items list above shall be made at the unit price listed in the bid schedule and shall constitute full compensation for completion of the landscaping components complete and fully installed, as specified and as indicated on the Plans, and shall include full compensation for providing, furnishing, installing, and all other appurtenant work related to complete the landscape.

IRRIGATION

Irrigation shall conform to the provisions in Section 20-2, "Irrigation" of the State Standard Specifications dated 2025, and these Technical Specifications.

Irrigation shall be installed such that there is overspray on sidewalks, paths, and pavement areas.

REPLACE **Section 20-2.01B(7) "Valve Boxes and Covers"** item "1)" of the Standard Specifications with the following:

Covers must be:
1) Plastic, unless located within a sidewalk or other paving area.

REMOVE **Section 20-2.01C(3) "Pull Boxes"** item "4" of the Standard Specifications

REMOVE **Section 20-2.01C(5) "Recycled Water Warning Signs"** of the Standard Specifications

INSERT the following to **Section 20-2.06C, "Construction,"** of the Standard Specifications before the last paragraph:

Verify power sources as shown on the drawings.

A. Connections to the controller shall be made within the automatic controller enclosure. The Contractor shall be responsible for making 110 volt electrical connections to the automatic controller, and for connecting remote control valves to the controller. All electrical work shall be in accordance with local codes and/or ordinances.

B. Control wires shall be installed with three (3) feet of excess wire (coiled) at the end of each wire run, and at 100 foot intervals for runs over 100 feet. All wires shall follow the pressure main.

C. Controller shall have a master switch. It shall be possible to operate each valve manually independent of the clock or any other valve. Control system shall be programmed to operate one system at a time. System enclosure shall be equipped with a rain shut off device.

D. Run one extra pilot (hot) wire and one common wire to the end of each circuit.

E. No splices are allowed on runs of less than 500'. On runs of greater than 500' splices are to be made with an approved splice unit and are to be installed in a valve box.

F. Install control wires within PVC SCH 40 electrical conduit from the controller to all remote control valves. Control wire conduit shall be routed with the irrigation mainline piping in common trenches unless approved by the Engineer. When not routed with mainline install control wire conduits at least 17" below grade.

G. Prior to trench backfill, test all wiring for continuity. Test for leak to ground with a mega ohm meter after each circuit has been made and connected. No circuit checking lower than 1 mega ohm will be acceptable.

H. All sensing devices shall be located and/or arranged approximately as indicated on the Plans and shall be subject to field approval by the Engineer. In general, the locations shall be:

    1. Flow sensing – located downstream of the master control valve on common mainline section.
    2. Rain sensing – located to provide a clear view of the sky and where it will not be affected by spray from an irrigation system.
    3. Moisture sensing – located in representative hydrozone within rooted soil profile.
    4. Installed per manufacturer's instructions.

The Contractor shall install all portions of the electrical installation with materials and methods conforming to the requirements of the latest edition of the National Electrical Code. The Contractor shall provide no less than one control wire and one common ground wire to service each valve in system.

All new controllers, flow sensors and receiver/ transmitter shall be per plan (or approved equal) with a 5-year warranty, and a 5 year silver plan cellular service.

Control wiring shall be installed in conduit.

The Contractor shall install two (2) extra control wires per run of wires.

The location of controllers shall be approved by the Engineer prior to installation. Controllers shall be installed outside of irrigated areas.

All control wiring shall be color coded and labeled at the controller, junction boxes, and RCV boxes, to correspond with the appropriate station at the controller. All wire shall be mega ohm tested. Nothing less than 1 mega ohm will be accepted.

The Contractor shall submit the following a minimum of 10 working days prior to the pre-maintenance period walk through:

A. Letter of Certification stating that the controller assembly has been installed pursuant to its specifications.

B. Controller two (2) timing maps with sequence of valves during operation and flow charts for all meters based on approved watering windows.

The maps shall be color coded showing all valves and mainline. The maps shall match the operation schedule and Plans. Individual maps shall be provided for each controller. The map shall consist of a Plan sheet, reduced as necessary, legible in all details, and hermetically sealed in plastic, that will fit in the space provided in the controller cabinet.

ADD the following to the end of **Section 20-2.08C(1), "General,"** of the Standard Specifications:

The Contractor shall repair any leaks and replace all defective pipe or fittings until lines meet test requirements. The Contractor shall not cover any lines until they have been inspected and approved by the Engineer for tightness, quality of workmanship, and materials. The Contractor shall not backfill trenches until all required tests and observations are performed. Observations include sprinkler heads, all fittings, lateral and mainline pipe, valves, and direct burial wire.

Continuous metallic backed warning marking tape marked with "irrigation" shall be placed above all reclaimed, potable, and electrical piping conduit and wiring in addition to irrigation sleeves. Continuous ten (10) gauge tracer wire shall be installed with all mainline.

Irrigation mainlines shall be installed within 12-inches to 18-inches of all planter edges and toe of slopes. Mainlines are not permitted at tops of slopes.

The Contractor shall store all pipe and fittings under cover until used, and all pipe and fittings shall be transported in a vehicle with a bed long enough to allow the length of pipe to lay flat so as not to be subjected to undue bending or concentrated external load at any point. Pipe ends and fittings shall be wiped with MEK, or equal, before welding solvent is applied. Welded joints shall be given a minimum of 15 minutes to set before moving or handling. All field cuts shall be beveled to remove burrs and excess before fitting and gluing together. The Contractor shall center load pipe with small amount of backfill to prevent arching and slipping under pressure. Joints shall be exposed for inspection during testing. Plastic-to-plastic joints shall be solvent-welded, using only solvent recommended by pipe manufacturer.

The Contractor shall cut brass piping by power hacksaw, circular cutting machine using an abrasive wheel, or hand hacksaw. No piping shall be cut with metallic wheel cutter of any description. The Contractor shall ream and remove rough edges or burrs on all pipes so that smooth and unobstructed flow is obtained, place Teflon tape, Teflon dope, or approved equal on male threads only, and tighten to prevent any leakage. The Contractor shall tighten screwed joints with tongs or wrenches. Caulking is not permitted.

ADD the following to the end of **Section 20-2.10C(1), "General"** of the Standard Specifications:

Master valves shall be installed at each meter.

The Contractor shall install each control valve in a separate valve box with a minimum of 12-inch separation between valves and 6-inches from any fixed object or structure. For all valve boxes, install rodent deterrent galvanized steel ¼" mesh and black landscape fabric.

The Contractor shall install no more than one valve per box.

All valve box lids shall be marked with 2-inch letters/numbers by "branding" method identifying the type of valve and the controller station number.

The Contractor shall install backflow preventer assembly in accordance with manufacturer's specifications and as directed on drawings. Exact location and positioning shall be verified on the site by the Engineer.

Backflow preventer assemblies shall be housed in a heavy duty, stainless steel, and lockable enclosure. Backflow devices shall be equipped with "high range" pressure regulators and wye strainers.

Work shall conform to Sections 401-5, 402-2 and 402-3 of the Standard Specifications and these Special Provisions. The Contractor shall coordinate with the City Water Department at least fifteen (15) working days before removal. Water service shall not be interrupted without written authorization from the utility owner. The assembly shall be the City Yard at 416 Garfield Ave, South Pasadena, CA 91030. The supply line shall be capped and per City requirements.

Work shall conform to Section 401-5 of the Standard Specifications. The enclosure, concrete pad, footings**,** anchors, fasteners, and items complete shall be removed. Disturbed areas shall be restored as shown on the Plans.

MEASUREMENT AND PAYMENT

Measurement and Payment for Landscaped Area and Irrigation shall be paid at the contract price per lump sum (LS) and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved to install irrigation, including trenching, excavation, backfill, and surface repairs, piping and fittings, controller installation, controller communication setup, concrete pads for irrigation equipment, flow sensor and master valve assembly, valves, emitters, and all other equipment necessary to provide a complete and functioning irrigation system, complete in place, as specified in the State Standard Specifications, these Technical Specifications, as shown on the Plans, and include but not limited to furnishing all labor, materials, tools, equipment, and incidentals, and no additional compensation will be made therefor.

The Contract **UNIT** price paid per each (EA) for Remove Backflow Preventer Assembly shall include full compensation for coordination, shutoff and restoration of service, removal, capping, hauling or delivery, and furnishing all labor, materials, tools, equipment, and for doing all the work involved to remove the backflow preventer assembly.

The Contract **UNIT** price paid per each (EA) for Remove Backflow Preventer Enclosure shall include full compensation for removal of the pad and anchors, hauling and disposal or delivery, and furnishing all labor, materials, tools, equipment, and for doing all the work involved to remove the backflow preventer assembly.

END OF SECTION

APPENDIX II

NORTH-SOUTH CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM DEPLOYMENT PROJECT
FAIR OAKS AVENUE (HUNTINGTON DRIVE TO COLUMBIA STREET)
PROJECT SPECIFICATION NO. 2020-02
IN THE CITY OF SOUTH PASADENA, CALIFORNIA

Standard Plans for Public Works Construction (SPPWC) Standards

Approved for use on June 7, 2023
294856.v3

APPENDIX III

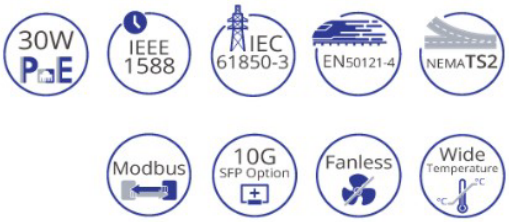
Geotechnical Report

APPENDIX IV

Ethernet Switches

IG5 SV Series

IEC 61850-3/IEEE 1613 Hardened Managed 24-port Gigabit (Optional 8 x PoE) and 4-port 1G/10G SFP+ Ethernet PoE Switch



Overview

EtherWAN's IG5 SV switches offer enhanced performance with versatile port combinations, including 8 PoE ports delivering up to 30W each. The compact, front-facing design with a shorter depth ensures easy access and installation in tight cabinet spaces, while PoE capabilities reduce the need for extra switches.

With 10G bandwidth, these switches support 24 1G ports and 4 10G ports, offering high bandwidth and full duplex capabilities. Rich Layer 2 and Layer 3 management functionalities, along with digital I/O and relay control ports, support diverse network applications.

The rugged IP40 casing and extreme hardened grade, operating up to 85°C for 16 hours, make them ideal for outdoor installations. These switches meet IEC and IEEE standards for network time synchronization, ensuring rapid response and high reliability. The IG5 SV is ideal for critical applications like urban infrastructure, intelligent transportation, industrial IoT, and smart energy networks.

EtherWAN — "When Connectivity is Crucial."

Highlights

High Bandwidth and Versatility

24 full gigabit port with multiple configurations

4 1G/10G SFP+ uplink ports

Sufficient switching capacity at 128Gbp

DnA solutions for Digital I/O & Relay control

PoE Features

8-port IEEE 802.3 af/at PSE with 90W total power budget

PoE watchdog monitors status of connected PD devices

Reduces the need for extra switches in traffic cabinets, leading to cost savings

Layer 3 Functionality

Static routing, RIP v1/v2, and OSPF

Redundancy with VRRPv2

Flexible Installation

Compact design with shortened depth ideal for tight cabinet spaces

Concise communication status display

Front facing design allows for easy access and simple installation

Substation communication and time synchronization

Complies with IEC61850-90-4 GOOSE and multicast message transmission

IEEE 1588v2 Available in all ports

Support One-Step and Two-Step delay measurement mechanism

Operation as transparent clock

Designed for Crucial Environments

Wide Operation Temperature range from -40 to 75°C(-40 to 167°F)

Thermal shock and electrical noise resistance

Extreme Hardened Grade, operating up to 85°C (185°F) for 16 hours, making it ideal for outdoor installations

Approved for use on June 7, 2023
294856.v3

Features

Interface

CLI, Telnet, Web GUI

Management

Firmware Upgrade
Configuration Backup
DHCP Server/Client
RMON (Remote Monitoring)
Port Mirroring
NTP (Network Time Protocol) Synchronization
LLDP (Link Layer Discovery Protocol)
IPv4/IPv6
SNMP v1/v2c/v3
Modbus

Security

MAC Address Filtering
Enable/Disable Port
Storm Control
System Logging
IEEE 802.1x LAN Access Control
Remote Authentication through RADIUS and TACACS+
Complex Password Support
Multi-user Login and Privileged Access Management
SSH for CLI and Telnet Security
SSL and HTTPS for Web Security
ACL (Access Control List, up to 4096 Entries)
IPSG (IP Source guard)
DAI (Dynamic ARP Inspection)
DHCP Snooping

Layer 2 Features

Auto-negotiation for Port Speed and Duplex
Flow Control
IEEE 802.3x full duplex mode
Back-pressure half duplex mode

Redundant Protocols
IEEE 802.1D STP
IEEE 802.1w RSTP
IEEE 802.1s MSTP
EtherWAN's Alpha-Ring network fault recovery

VLANs
IEEE 802.1Q Tag VLANs
GVRP
GMRP

Link Aggregation
Static Trunk (4 groups)
IEEE 802.3ad LACP

IGMP Snooping v1/v2/v3

Layer 3 Features

IP Packet Routing
Maximum number of routes in hardware: 512 entries
Static Routing
RIP v1/v2
OSPF v2

Routing Redundancy
VRRPv2

Approved for use on June 7, 2023
294856.v3

Quality of Service (QoS)

Priority Queues: 8 Queues Per Port

Traffic Classification Based on IEEE 802.1p CoS (Cost of Service), DSCP (Differentiated Services Code Point), WRR (Weighted Round Robin), and Strict Mode

Rate Limiting (Ingress/Egress)

Software Properties and Performance

Switching Fabric

128Gbps

Forwarding Rate

95.23Mpps

Max VLANs

256 (4096 VID)

Jumbo Frame Size

9KB

MAC Table Size

16K

Packet Buffer Memory

12M bits

Specifications

Interface

Ethernet

10/100/1000BASE-T(X) PoE: 8 ports (PoE models)

10/100/1000BASE-T(X): 0, 8, 16 or 24 ports

100/1000BASE SFP: 0, 8, 16 or 24 ports

1G/10G SFP+: 4 ports

Console

1 x RJ45

Config Backup

1 x USB (Type A Connector)

Digital Input

2 x Digital Input

Wet Contact: 0-3V for State 0; 13-30V for State 1; Max input current: 8mA

Dry Contact: Logic Level 1–Close to GND; Logic Level 0-Open

Alarm Contact

2 x Relay output, current capacity 0.5A/48VDC

LED Indicators

Per Unit: Power 1, Power 2 (Green)

Link/Activity (Green)

Per Port:Alarm (Red)

PoE Port: PoE Status (Green)

Physical

Casing Material

Metal

IP Rating

IP40

Dimensions

442 x 267 x 44mm (W x D x H)
17.4" x 10.5" x 1.73"

Weight

4.6kg (10.14lbs) / 4.0kg (8.82lbs)

Installation Type

Rack mounting

Environmental

Operating Temp.

-40 to 75°C (-40 to 167°F)
(-40°C to 85°C for IEC 60068-2-2 Environmental 16 hours)

Storage Temp.

-45 to 85°C (-49 to 185°F)

Relative Humidity

5% to 95% (non-condensing)

MTBF

790,907 hours

Technology

Standards

IEEE 802.3 10BASE-T
IEEE 802.3u 100BASE-TX/100BASE-FX
IEEE 802.3ab 1000BASE-T
IEEE 802.3ae 10Gigabit Ethernet
IEEE 802.3ad link aggregation control
IEEE 802.3z 1000BASE-SX/1000BASE-LX
IEEE 802.1D STP
IEEE 802.1p QoS
IEEE 802.1Q Tag VLANs
IEEE 802.1s MSTP
IEEE 802.1w RSTP
IEEE 802.1x PNAC
IEEE 802.1ab LLDP

Forward/Filtering Rate

14,880pps for 10Mbps
148,810pps for 100Mbps
1,488,100pps for 1000Mbps
14,881,000pps for 10Gbps

Processing Type

Store-and-forward
Auto-negotiation
Half-duplex back-pressure and full-duplex flow control
Auto MDI/MDIX

System Memory

2Gb DDR3 SDRAM

Flash Storage

1Gb

Regulatory

ISO

Manufactured in ISO-9001 facility

EMI

FCC Part 15B Class A
VCCI Class A
EN 61000-6-4
EN 61000-3-2
EN 61000-3-3
EN 55032
BSMI

EMS

EN 61000-6-2
EN 61000-4-2 (ESD)
EN 61000-4-3 (Radiated RFI)
EN 61000-4-4 (Burst)
EN 61000-4-5 (Surge)
EN 61000-4-6 (Induced RFI)
EN 61000-4-8 (Magnetic field)

Safety

UL 62368-1

Vibration

IEC 60068-2-6

Shock

IEC 60068-2-27

Free Fall

IEC 60068-2-31

Traffic

NEMA TS2

Railway

EN 50121-4

Power Substation

IEC 61850-3/IEEE 1613/IEC 60255-27
IEC 61850-90-4

Power

Input

24VDC to 48VDC (Nominal)

18 - 60VDC (Operational)

Redundant Power Inputs (Terminal Block)

Power Consumption

50W max. (Without PoE)

Protection

Reverse Polarity Protection

Overload Current Protection

PoE (Available for PoE models)

PoE Modes
- 802.3af/at Mode A: Pins 1/2(-), 3/6(+)

Power Output
- Ports 1-8: 15W Up to 30W/port
- Total Power Budget: 90W

Complience
- IEEE 802.3af type 1, ≤15.4W PD devices
- IEEE 802.3at type 2, 30W PD devices.

Warranty

Length

Limited Lifetime

Details

www.etherwan.com/support/warranty-policy

What's Included

Device

Ethernet Switch

Cables

1 Console Cable

Installation

Mounting brackets, screws

MPN

IG5-00244FTE

1828864

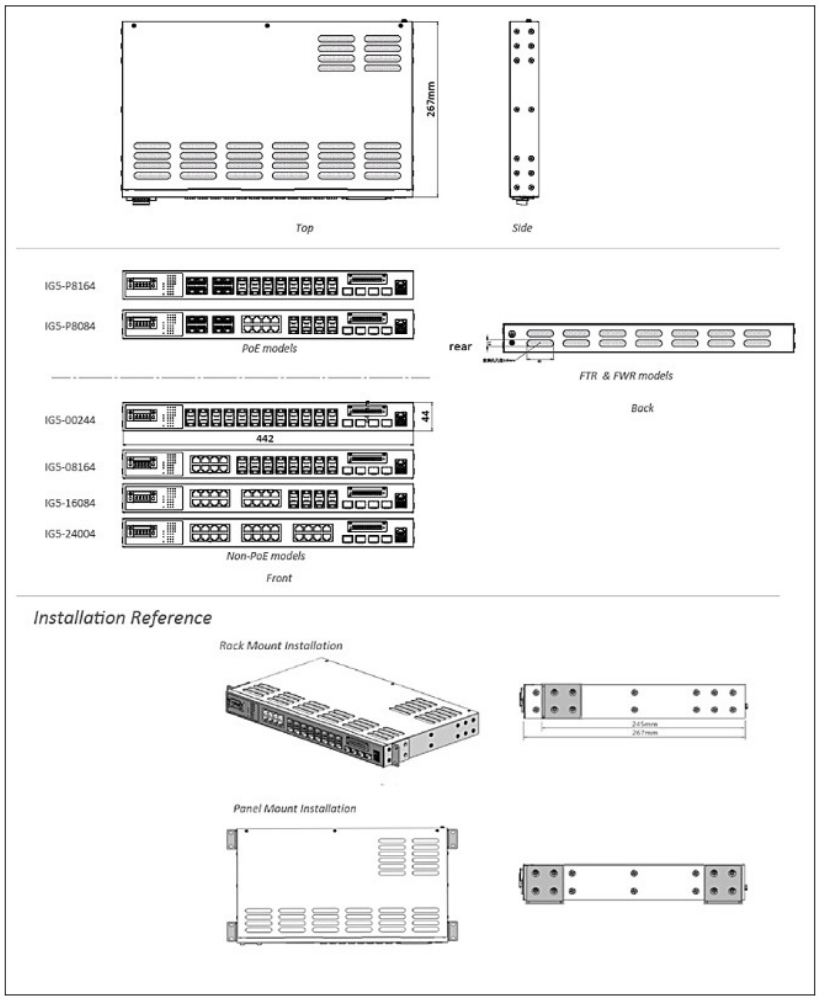
IG5-08164FTE

1828865

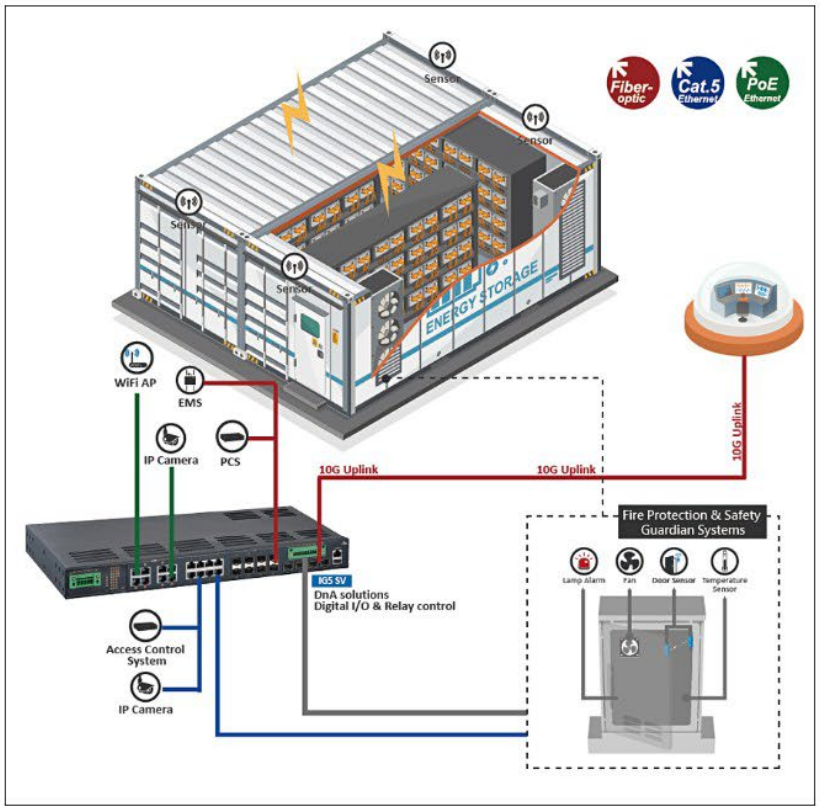
IG5-P8164FTE

1828863

Dimensions


267mm
Top
Side
IG5-P8164
IG5-P8084
PoE models
rear
FTR & FWR models
Back
IG5-00244
442
44
IG5-08164
IG5-16084
IG5-24004
Non-PoE models
Front
Installation Reference
Rack Mount Installation
Panel Mount Installation

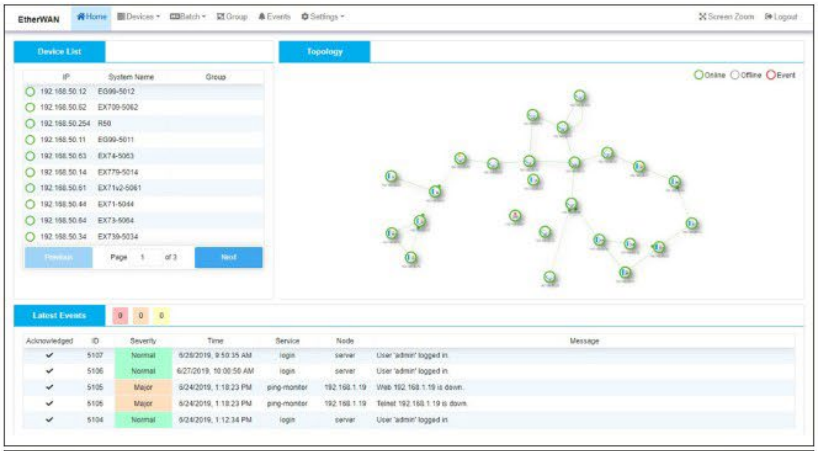
Application

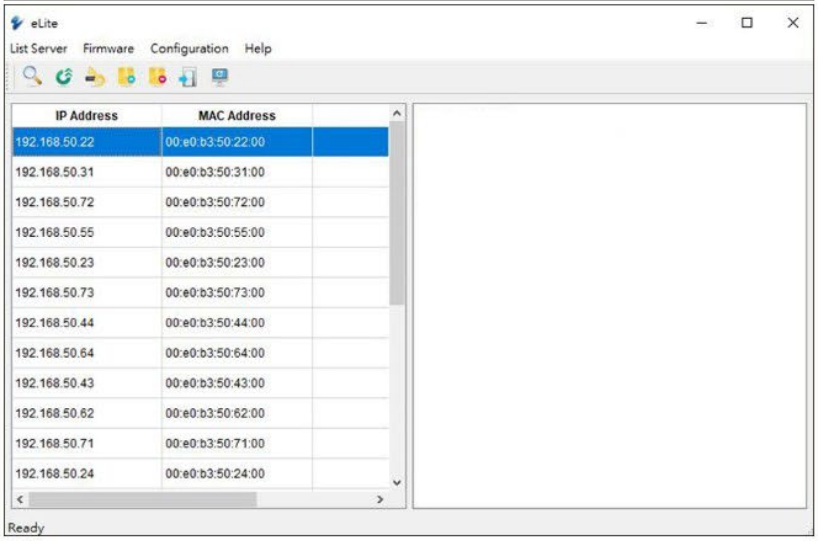


Approved for use on June 7, 2023
294856.v3

Software

Network Management	eVue™ Network Configuration and Monitoring Tool
Network Discovery	eLite™ Network Discovery and IP Configuration Tool





Ordering Info

PoE Models

IG5-P8084FTE	8-port 10/100/1000BASE-T(X) PoE + 8-port 10/100/1000BASE-T(X) + 8-port 100/1000BASE SFP + 4-port 1G/10G SFP+ Managed Ethernet Switch
IG5-P8164FTE	8-port 10/100/1000BASE-T(X) PoE + 16-port 100/1000BASE SFP + 4-port 1G/10G SFP+ Managed Ethernet Switch

Non-PoE Models

IG5-24004FTE	24-port 10/100/1000BASE-T(X) + 4-port 1G/10G SFP+ Managed Ethernet Switch
IG5-16084FTE	16-port 10/100/1000BASE-T(X) + 8-port 100/1000BASE SFP + 4-port 1G/10G SFP+ Managed Ethernet Switch
IG5-08164FTE	8-port 10/100/1000BASE-T(X) + 16-port 100/1000BASE SFP + 4-port 1G/10G SFP+ Managed Ethernet Switch
IG5-00244FTE	24-port 100/1000BASE SFP + 4-port 1G/10G SFP+ Managed Ethernet Switch

Accessories

Part Number	Speed Info	Mode	Distance	Operating Temperature	Wavelength	DDM
EX-0155NSP-MB2L-A	100Mbps	Multi	2km	-40 to 85°C	1310nm	-
SFPMIS20M	100Mbps	Single	20km	-40 to 85°C	1310nm	✔
SFPGIM5AM	1000Mbps	Multi	275m/550m	-40 to 85°C	850nm	✔
SFPGIM02M	1000Mbps	Multi	2km	-40 to 85°C	1310nm	✔
SFPGIS10M	1000Mbps	Single	10km	-40 to 85°C	1310nm	✔
SFPTIM3AM	10Gbps	Multi	300m	-40 to 85°C	850nm	✔
SFPTIS10M	10Gbps	Single	10km	-40 to 85°C	1310nm	✔

For more SFP, please visit website:

Hardened 100BASE SFP Modules	www.etherwan.com/us/products/sfp-fiber-transceiver
Hardened Gigabit SFP Modules	www.etherwan.com/us/products/sfp-fiber-transceiver
Hardened 10G SFP+ Modules	www.etherwan.com/us/products/sfp-fiber-transceiver

Power Supplies

EPOW-24-60	Power Supply, Hardened (-40°C - +75°C) External 100-277 VAC Input; NEMA-TS2 rated; 60W, 24VDC, 0-11.1A with Open Wire (US Plug) - No Deration at High Temps
EPOW-54-240	Power Supply, Hardened (-40°C - +75°C) External 100-277 VAC Input; NEMA-TS2 rated; 240W, 54VDC, 0-11.1A with Open Wire (US Plug) - No Deration at High Temps
EPOW-54-400	Hardened Power Supply, 100-277 VAC Input; NEMA-TS2 Rated; 54VDC, 400W/7.4A, with Open Wire (US Plug) - No Deration at High Temps
EPOW-54-600	Power Supply, Hardened (-40°C - +75°C) External 100-277 VAC Input; NEMA-TS2 rated; 600W, 54VDC, 0-11.1A with Open Wire (US Plug) - No Deration at High Temps
EPHX-24-60	60W/2.5A DIN-Rail 24VDC Industrial Power Supply - No Deration at High Temps
EPHX-48-240	240W/5A DIN-Rail 48VDC (42-56VDC Adjustable) Industrial Power Supply - No Deration at High Temps
EPHX-48-480	480W/10A DIN-Rail 48VDC (36-55VDC Adjustable) Industrial Power Supply - No Deration at High Temps

© EtherWAN Systems, Inc. All rights reserved. 20260123
EtherWAN is constantly developing and improving products. Specifications are subject to change without notice and without incurring any obligation.

EG97244 Series

24-port Gigabit and 4-port 1G/10G SFP+ Hardened Managed Layer 3 Switch

Overview

When should you use an Industrial Layer 3 switch?

EtherWAN's EG97244 is a hardened layer 3 switch/router, which allow for connecting networks. With multiple gigabit SFP connections for fiber along with a 10-gigabit backbone, the EG97244 provides flexibility, speed, and reliability to support networks for urban infrastructure, transportation, security, and other areas where connectivity is crucial.

EtherWAN — "When Connectivity is Crucial."

Highlights

High Bandwidth and Highly Flexible Ports

16 x 100/1000M dual-rate SFP ports for multiple fiber connections

4 x 1/10G dual-rate SFP+ ports for connections into the hub/core

8 x 10/100/1000BASE-T RJ45 ports

Compliant Products

TAA Compliant for government projects

NEMA TS2 rated

UL certified for safety

Hardened-Grade for Non-Ventilated & Harsh Environments

Wide operating temperature range -40 to 75°C (-40 to 167°F)

Fan-less operation

High impact, thermal shock, and electrical noise resistance

Management/Security Features

Port control

Storm detection and control

Configure and monitor with eVue™ and eLite™

Full Layer 3 Functionality

Optimized routing at hardware level

Improved fault isolation

Layer 3 capability connects networks together

Lifetime Warranty

Complimentary Technical Support

Free Firmware Upgrades

Includes ECN and EOL notices

Features

Interface

CLI, Telnet, Web GUI

Management

Firmware upgrade
Configuration backup
DHCP Server/Client
RMON (Remote Monitoring)
Port Mirroring
NTP (Network Time Protocol) synchronization
LLDP (Link Layer Discovery Protocol)
IPv4/IPv6
SNMP v1/v2c/v3

Security

MAC Address filtering
Enable/Disable port
Storm control
System logging
Remote authentication through RADIUS and TACACS+
Complex password support
Multi-user login and privileged access management
SSH for CLI and Telnet security
SSL and HTTPS for web security
ACL (Access Control List, up to 4096 entries)

Layer 3 Features IPv4

Unicast Routing
Static Routing (1K)
RIP v1/v2
OSPF v2

Multicast Routing
PIM-DM
PIM-SM
PIM-SSM

Routing Redundancy
VRRP

Layer 3 Features IPv6

IPv6 Unicast Routing
RIPng
OSPF v3

IPv6 Multicast Routing
PIM6-DM
PIM6-SM

IPv6 Routing Redundancy
VRRP v3

Quality of Service (QoS)

Priority Queues: 8 queues per port

Traffic classification based on IEEE 802.1p CoS (Cost of Service), DSCP (Differentiated Services Code Point), WRR (Weighted Round Robin), and strict mode

Rate Limiting (Ingress/Egress)

Layer 2 Features

Auto-negotiation for port speed and duplex

Flow Control

IEEE 802.3x full duplex mode

Back-pressure half duplex mode

Redundant Protocols

IEEE 802.1D STP

IEEE 802.1w RSTP

IEEE 802.1s MSTP

VLANs

IEEE 802.1Q Tag VLANs

GVRP

GMRP

Link Aggregation

Static Trunk

IEEE 802.3ad LACP

IGMP Snooping v1/v2/v3

Software Properties and Performance

Switch IC Capability

320Gbps

Forwarding Rate

238.08Mpps

Total VLAN Entries

256 (4096 VID)

Jumbo Frame Size

12KB

MAC Table Size

24K

Packet Buffer Memory

32M bits

L2 Routes

Up to 24,000 unicast and 1,000 multicast routes

L3 IPv4 Routes

Up to 8,000 unicast and 8,000 multicast routes

L3 IPv6 routes

Up to 2,000 unicast routes

Specifications

Interface

Ethernet
8 x 10/100/1000BASE-T
16 x 100/1000BASE SFP
4 x 1G/10G SFP+

Console
1 x RJ45

Config Backup
1 x USB (Type A Connector)

Alarm Contact
Relay output, current capacity 0.6A/30VDC

LED Indicators
Per Unit: Power 1, Power 2, Alarm
Per Port: Link/Activity

Power

Input
VTR: ±48VDC Redundant (Terminal block)
VWR: 100-240VAC Redundant (Terminal block)
VCR: 100-240VAC Redundant (AC Inlet)

Power Consumption
75W Max

Physical

Casing Material
Aluminum

Dimensions
442 x 325 x 44mm (W x D x H)
17.4" x 12.8" x 1.73"

Weight
5.6kg (12.3lbs)

Installation Type
Rack mounting

IP Rating
IP30

Environmental

Operating Temp.
-40 to 75°C (-40 to 167°F)

Storage Temp.
-45 to 85°C (-49 to 185°F)

Relative Humidity
5% to 95% (non-condensing)

MTBF
1,143,890 hours

Warranty

Length
Limited Lifetime

Details
www.etherwan.com/support/warranty-policy

What's Included

Device
Ethernet Switch

Cables
1 Console Cable

Power
1 AC Power Cord

Installation
Mounting brackets, screws

Documentation
Quick install guide

Technology

Standards

IEEE 802.3 10BASE-T

IEEE 802.3u 100BASE-TX/100BASE-FX

IEEE 802.3ab 1000BASE-T

IEEE 802.3ad link aggregation control

IEEE 802.3z 1000BASE-SX/1000BASE-LX

IEEE 802.3x full duplex and flow control

IEEE 802.1D STP

IEEE 802.1p QoS

IEEE 802.1Q Tag VLANs

IEEE 802.1s MSTP

IEEE 802.1w RSTP

IEEE 802.1x PNAC

IEEE 802.1ab LLDP

Forward/Filtering Rate

14,880pps for 10Mbps

148,810pps for 100Mbps

1,488,100pps for 1000Mbps

14,881,000pps for 10Gbps

Processing Type

Store-and-forward

Auto-negotiation

Half-duplex back-pressure and full-duplex flow control

Auto MDI/MDIX

System Memory

4Gb DDR3 SDRAM

Flash Storage

2GB

Regulatory

ISO

Manufactured in ISO-9001 facility

EMC

EN 55032

EMI

FCC Part 15B Class A

VCCI Class A

EN 61000-6-4

EMS

EN 61000-4-2 (ESD)

EN 61000-4-3 (Radiated RFI)

EN 61000-4-4 (Burst)

EN 61000-4-5 (Surge)

EN 61000-4-6 (Induced RFI)

EN 61000-4-8 (Magnetic field)

Safety

UL 62368

Traffic

NEMA TS2

Rail

EN 50121-4

Vibration

IEC 60068-2-6

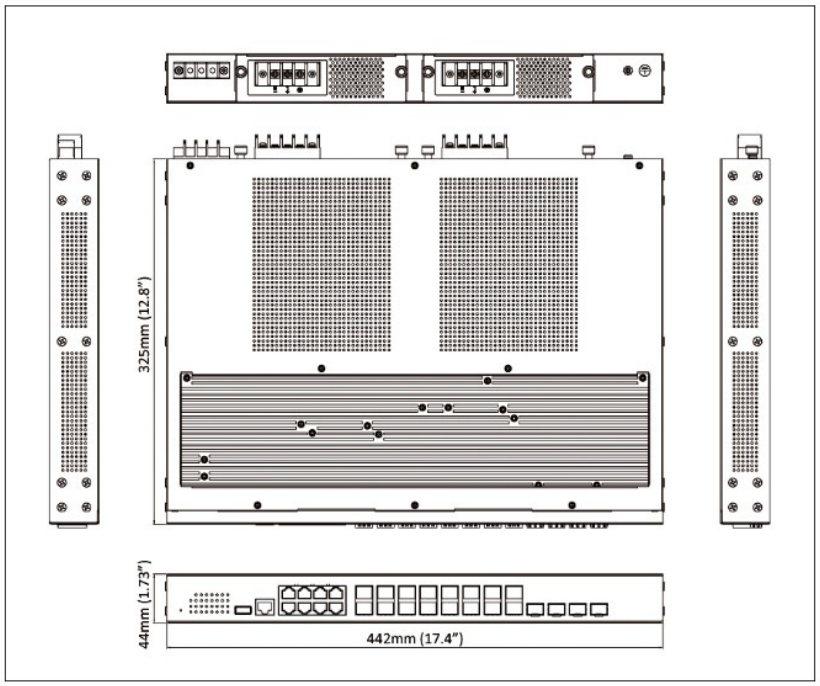
Shock

IEC 60068-2-27

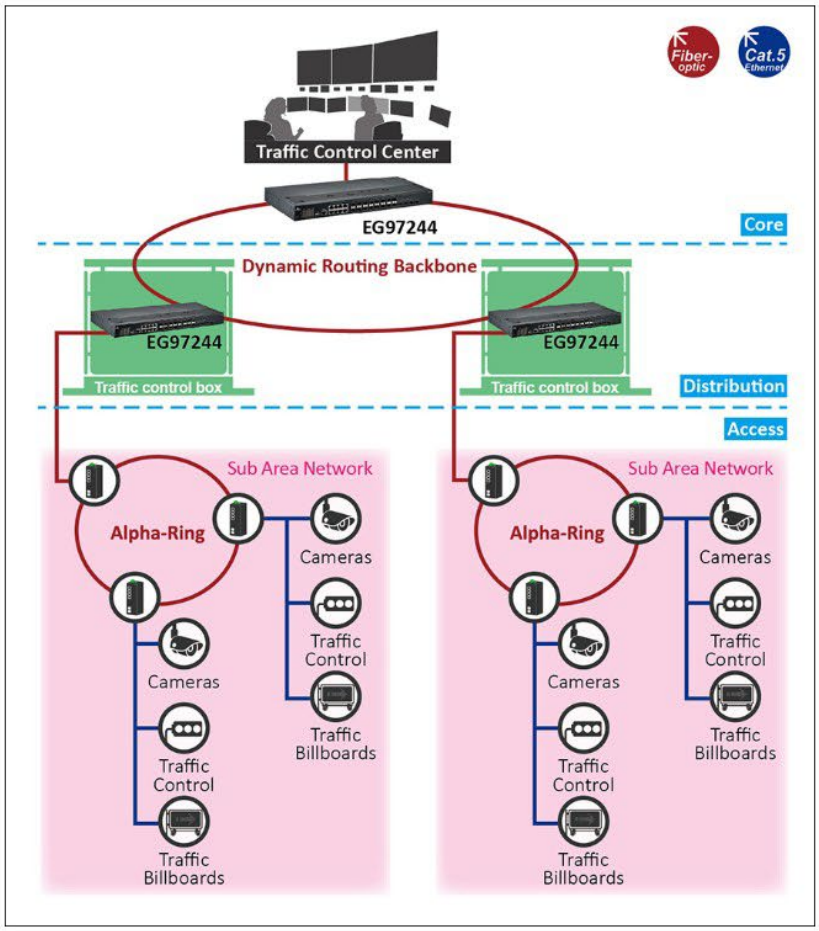
Free Fall

FED STD 101C Method 5007.1

Dimensions

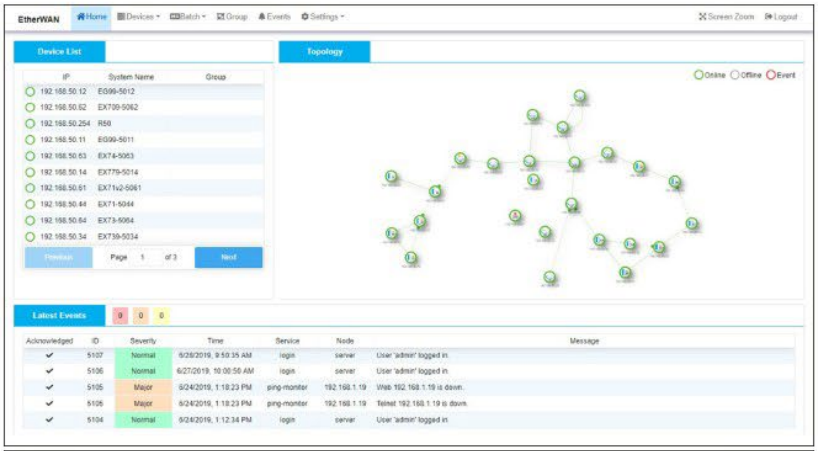


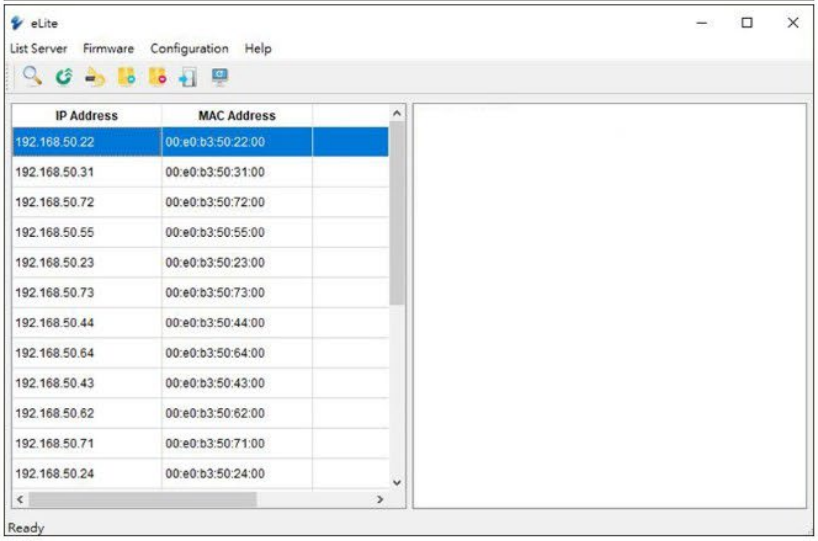
Application



Software

Network Management	eVue™ Network Configuration and Monitoring Tool
Network Discovery	eLite™ Network Discovery and IP Configuration Tool





Ordering Info

Model

EG97244-4VZ	8-port 10/100/1000BASE-T + 16-port 100/1000BASE SFP + 4-port 1/10G SFP+ Hardened Managed Layer 3 Ethernet Switch

Power Input Interface (Z)

TR	±48VDC Redundant (Terminal Block)
WR	100-240VAC Redundant (Terminal Block)
CR	100-240VAC Redundant (AC Inlet)

Accessories

Hardened 100BASE SFP Modules	www.etherwan.com/products/sfp-fiber-transceiver
Hardened Gigabit SFP Modules	www.etherwan.com/products/sfp-fiber-transceiver
EX41-2750A240	Power Module for EG97244 series, 100-240VAC PSU (75W), AC Inlet

Power Supplies

EPOW-54-240	Power Supply, Hardened (-40°C - +75°C) External 100-277 VAC Input; NEMA-TS2 rated; 240W, 54VDC, 0-11.1A with Open Wire (US Plug) - No Deration at High Temps
EPOW-54-400	Hardened Power Supply, 100-277 VAC Input; NEMA-TS2 Rated; 54VDC, 400W/7.4A, with Open Wire (US Plug) - No Deration at High Temps
EPOW-54-600	Power Supply, Hardened (-40°C - +75°C) External 100-277 VAC Input; NEMA-TS2 rated; 600W, 54VDC, 0-11.1A with Open Wire (US Plug) - No Deration at High Temps
EPHX-48-240	240W/5A DIN-Rail 48VDC (42-56VDC Adjustable) Industrial Power Supply - No Deration at High Temps
EPHX-48-480	480W/10A DIN-Rail 48VDC (36-55VDC Adjustable) Industrial Power Supply - No Deration at High Temps

© EtherWAN Systems, Inc. All rights reserved. 20251121
EtherWAN is constantly developing and improving products. Specifications are subject to change without notice and without incurring any obligation.

EX78900H Series

Hardened Managed 12-Port Gigabit PoE and 4-Port 1G SFP Ethernet Switch

Overview

EtherWAN's EX78900H series is a hardened DIN-rail mounted managed PoE Ethernet switch platform. Equipped with up to 12 gigabit PoE ports along with 90W power and IEEE 802.3.bt protocol support and 4 dual-rate gigabit SFP ports, the EX78900H series provides flexibility, speed, and reliability for networks in urban infrastructure, transportation, security, and other areas where connectivity is crucial.

EtherWAN — "When Connectivity is Crucial."

Highlights

High Bandwidth and Versatility

8 or 12 10/100/1000BASE-T(X) ports for high bandwidth connections
Up to 4 Dual-rate 100/1000BASE SFP uplink ports for fiber connections
Full capacity switching running at full duplex

Hardened-Grade for Non-Ventilated & Harsh Environments

Wide operating temperature range -40 to 75°C (-40 to 167°F)
Fanless operation
High impact, thermal shock, and electrical noise resistance

Lite Layer 3 Functionality

Static routing, RIP v1/v2, and OSPF
Redundancy with VRRP
Reduces amount of broadcast traffic

PoE Features

IEEE 802.3bt with up to 90W per port; 360W total power budget
PoE watchdog monitors status of connected PoE devices

Management/Security Features

Port control, SFTP
802.1x port-based network access control and remote authentication through RADIUS
Configure and monitor with eVue™ and eLite™

Support

Complimentary technical support
Free firmware upgrades and notifications
Limited lifetime warranty

Features

+ Interface

CLI, Telnet, Web GUI

+ Management

SFTP (Secured FTP) support

Configuration backup / restore

DHCP Server/Client

RMON (Remote Monitoring)

Port Mirroring

NTP (Network Time Protocol) synchronization

PoE Watchdog

LLDP (Link Layer Discovery Protocol)

IPv4/IPv6

SNMP v1/v2c/v3

Modbus TCP

+ Security

MAC Address filtering

Enable/Disable port

Storm Control and Detection

DoS (Denial of Service) Attack

Port Security

IEEE 802.1x LAN Access Control

Remote authentication through RADIUS and TACACS+

Complex password support

Multi-user login and privileged access management

SSH for CLI and Telnet security

TLS and HTTPS for web security

ACL (Access Control List, up to 4096 entries)

Quality of Service (QoS)

Priority Queues: 8 queues per port

Traffic classification based on IEEE 802.1p CoS (Cost of Service), DSCP (Differentiated Services Code Point), WRR (Weighted Round Robin), and strict mode

Rate Limiting (Ingress/Egress)

Layer 2 Features

Auto-negotiation for port speed and duplex
Flow Control
IEEE 802.3x full duplex mode
Back-pressure half duplex mode

Redundant Protocols
IEEE 802.1D STP
IEEE 802.1w RSTP
IEEE 802.1s MSTP
EtherWAN's Alpha-Ring network fault recovery

VLANs
IEEE 802.1Q Tag VLANs
GVRP
GMRP

Link Aggregation
Static Trunk (4 groups)
IEEE 802.3ad LACP

IGMP Snooping v1/v2/v3

Layer 3 Features

IP Packet Routing
Maximum number of routes in hardware: 64 entries
Static Routing
RIP v1/v2
OSPF v2

Routing Redundancy
VRRP

Software Properties and Performance

Switching Fabric
32Gbps

Forwarding Rate

23.5Mpps

Max VLANs

256 (4096 VID)

Jumbo Frame Size

9KB

MAC Table Size

16K

Packet Buffer Memory

12M bits

Specifications

Interface

Ethernet

8 or 12 x 10/100/1000BASE-T(X)

2 or 4 x 100/1000BASE SFP

Console

1 x RJ45

Config Backup

1 x USB (Type A Connector)

Digital Input

2 x Digital Input

Wet Contact: 0-3V for State 0; 13-30V for State 1; Max Input Current: 8mA

Dry Contact: Logic Level 1–Close to GND; Logic Level 0-Open

Alarm Contact

2 x Relay output, current capacity 0.5A/48VDC

LED Indicators

Per Unit: Power 1, Power 2

Per Port: Link/Activity (Green)

Per PoE Port: PoE Status (Orange)

Environmental

Operating Temp.

-40 to 75°C (-40 to 167°F)

Storage Temp.

-45 to 85°C (-49 to 185°F)

Relative Humidity

5% to 95% (non-condensing)

MTBF

1,399,701 hours

Technology

Standards

IEEE 802.3 10BASE-T
IEEE 802.3u 100BASE-TX/100BASE-FX
IEEE 802.3ab 1000BASE-T
IEEE 802.3ad link aggregation control
IEEE 802.3z 1000BASE-SX/1000BASE-LX
IEEE 802.3x full duplex and flow control
IEEE 802.1D STP
IEEE 802.1p QoS
IEEE 802.1Q Tag VLANs
IEEE 802.1s MSTP
IEEE 802.1w RSTP
IEEE 802.1x PNAC
IEEE 802.1ab LLDP
IEEE 802.3az EEE
IEEE 802.3bt Power over Ethernet
IEEE 1588v2 PTP

Forward/Filtering Rate

14,880pps for 10Mbps

148,810pps for 100Mbps

1,488,100pps for 1000Mbps

Processing Type

Store-and-forward

Auto-negotiation

Half-duplex back-pressure and full-duplex flow control

Auto MDI/MDIX

System Memory

2Gb DDR3 SDRAM

Flash Storage

1Gb

Approved for use on June 7, 2023
294856.v3

Power

Input

46-57VDC Redundant (Terminal block)**
** 46-57VDC for IEEE 802.3af type 1, ≤15.4W PD devices.
52-57VDC for IEEE 802.3at/bt type 2/3, 30W, 60W PD devices.
54-57VDC for IEEE 802.3bt, type 4, 90W PD devices

Power Consumption

20W Max (without PoE)

PoE Power Output

Ports 1-12: Up to 90W/port
Power Budget: 360W

Protection

Reverse Polarity Protection

Physical

Casing Material

Aluminum

IP Rating

IP30

Dimensions

72 x 140 x 170mm (W x D x H)
2.8" x 5.5" x 6.7"

Weight

1.5kg (3.3lbs)

Installation Type

DIN-rail mounting

What's Included

Device

Ethernet Switch

Cables

1 Console Cable

Installation

Mounting brackets, screws

Regulatory

ISO

Manufactured in ISO-9001 facility

EMI

FCC Part 15B Class A
VCCI Class A
EN 61000-6-4
EN 61000-3-2
EN 61000-3-3

EMS

EN 61000-6-2
EN 61000-4-2 (ESD)
EN 61000-4-3 (Radiated RFI)
EN 61000-4-4 (Burst)
EN 61000-4-5 (Surge)
PoE Ports: line to earth 6kV Surge
EN 61000-4-6 (Induced RFI)
EN 61000-4-8 (Magnetic field)

Safety

UL 61010

Traffic

NEMA TS2

Railway

EN 50121-4

Vibration

IEC 60068-2-6

Shock

IEC 60068-2-27

Free Fall

FED STD 101C Method 5007.1

Warranty

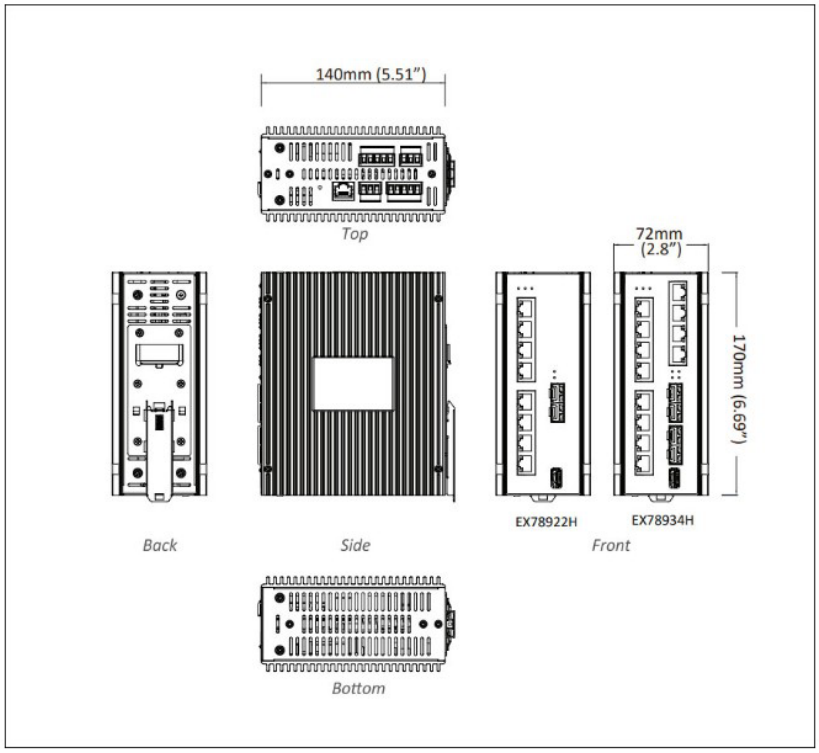
Length

Limited Lifetime

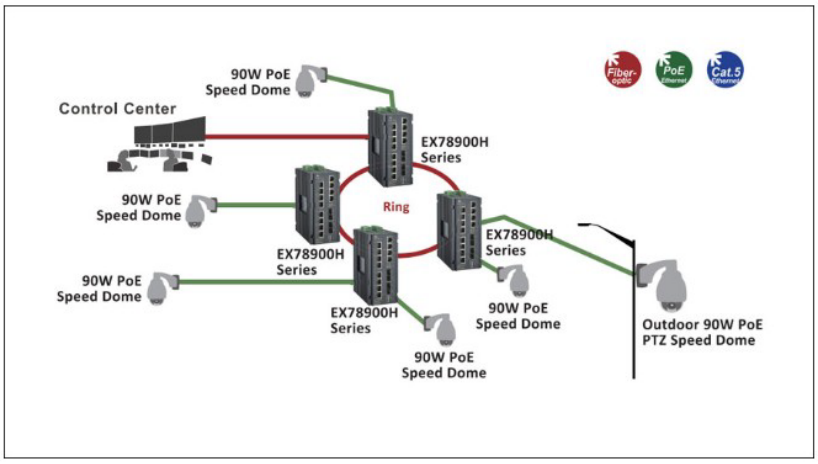
Details

www.etherwan.com/support/warranty-policy

Dimensions

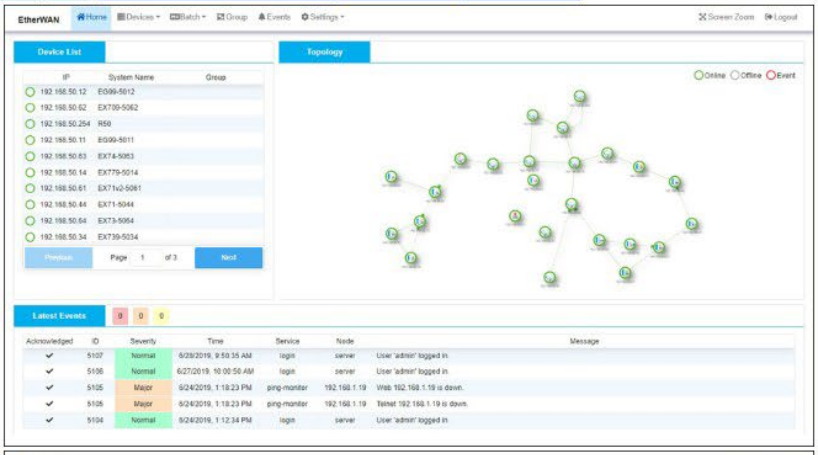

140mm (5.51")
Top
72mm
(2.8")
170mm (6.69")
EX78922H
EX78934H
Back
Side
Front
Bottom

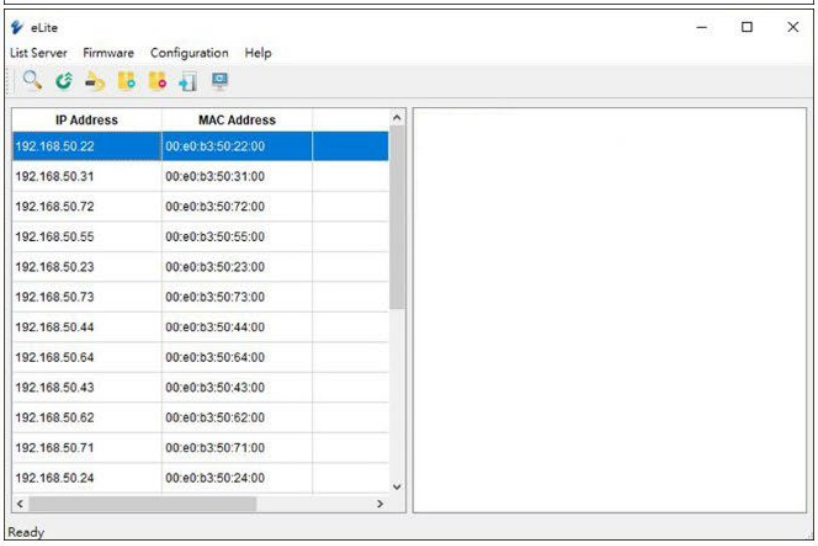
Application



Software

Network Management	eVue™ Network Configuration and Monitoring Tool
Network Discovery	eLite™ Network Discovery and IP Configuration Tool





Ordering Info

Model

EX78934H-0VB	12-port 10/100/1000BASE-T(X) PoE + 4-port 100/1000BASE SFP
EX78924H-0VB	8-port 10/100/1000BASE-T(X) PoE + 4-port 100/1000BASE SFP
EX78922H-0VB	8-port 10/100/1000BASE-T(X) PoE + 2-port 100/1000BASE SFP

Accessories

Hardened 100BASE SFP Modules	www.etherwan.com/products/sfp-fiber-transceiver
Hardened Gigabit SFP Modules	www.etherwan.com/products/sfp-fiber-transceiver

Power Supplies

EPOW-54-240	Power Supply, Hardened (-40°C - +75°C) External 100-277 VAC Input; NEMA-TS2 rated; 240W, 54VDC, 0-11.1A with Open Wire (US Plug) - No Deration at High Temps
EPOW-54-400	Hardened Power Supply, 100-277 VAC Input; NEMA-TS2 Rated; 54VDC, 400W/7.4A, with Open Wire (US Plug) - No Deration at High Temps
EPOW-54-600	Power Supply, Hardened (-40°C - +75°C) External 100-277 VAC Input; NEMA-TS2 rated; 600W, 54VDC, 0-11.1A with Open Wire (US Plug) - No Deration at High Temps
EPHX-48-240	240W/5A DIN-Rail 48VDC (42-56VDC Adjustable) Industrial Power Supply - No Deration at High Temps
EPHX-48-480	480W/10A DIN-Rail 48VDC (36-55VDC Adjustable) Industrial Power Supply - No Deration at High Temps

© EtherWAN Systems, Inc. All rights reserved. 20260123
EtherWAN is constantly developing and improving products. Specifications are subject to change without notice and without incurring any obligation.

Approved for use on June 7, 2023
294856.v3

APPENDIX V

Small Form-Factor Pluggable Transceivers

SFP Fiber Transceiver

SFP Fiber Transceiver Series Specifications

Specifications

Regulatory Compliance

Compliant with Multi-Sourcing Agreement (MSA) Small Form Factor Pluggable (SFP)
Eye Safety: Compliant with Class 1 laser safety requirements EN 60825-1
Environmental: RoHS compliant, lead-free

Warranty

Go to Warranty policy for more details

Power Supply Voltage

Single +3.3V

Operating Temperature

Hardened: -40 to 85°C (-40 to 185°F)
Non-Hardened: 0 to 70°C (32 to 158°F)

Fast Ethernet

Non-Hardened (Operating Temperature: 0 to 70°C/32 to 158°F)

RJ-45	Distance	Cable Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
SFPMXT1AC	100m	Cat. 5 or better	-	-	-	-

Non-Hardened (Operating Temperature: 0 to 70°C/32 to 158°F)

Single LC	Distance	Cable Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
EX-LM38-A3S-TC-N-B3	2Km	62.5/125µm/50/125µm, MM	TX: 1310nm RX: 1550nm	18dBm	-10 to 0dBm	-28dBm
EX-LM48-A3S-TC-N-B5	2Km	62.5/125µm/50/125µm, MM	TX: 1550nm RX: 1310nm	18dBm	-10 to 0dBm	-28dBm
EX-0155TBP-MB5L	20Km	9/125µm, SM	TX: 1310nm RX: 1550nm	18dBm	-14 to -8dBm	-32dBm
EX-0155TBP-LB5L	20Km	9/125µm, SM	TX: 1550nm RX: 1310nm	18dBm	-14 to -8dBm	-32dBm

Non-Hardened (Operating Temperature: 0 to 70°C/32 to 158°F)

Duplex LC	Distance	Cable Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
SFPMIM02C (DDM)	2Km	62.5/125µm/50/125µm, MM	1310nm	12dBm	-19 to -12dBm	-31dBm
SFPMSS15C	15Km	9/125µm, SM	1310nm	19dBm	-15 to -8dBm	-34dBm
EX-0155TSP-MB6L	40Km	9/125µm, SM	1310nm	30dBm	-5 to 0dBm	-35dBm

Hardened (Operating Temperature: -40 to 85°C/-40 to 185°F)

Single LC	Distance	Cable Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
EX-LM38-A3S-TI-N-B3	2Km	62.5/125µm/50/125µm, MM	TX: 1310nm RX: 1550nm	18dBm	-10 to 0dBm	-28dBm
EX-LM48-A3S-TI-N-B5	2Km	62.5/125µm/50/125µm, MM	TX: 1550nm RX: 1310nm	18dBm	-10 to 0dBm	-28dBm
SFPMYS20M (DDM)	20Km	9/125µm, SM	TX: 1310nm RX: 1550nm	18dBm	-14 to -8dBm	-32dBm

SFPMZS20M (DDM)	20Km	9/125µm, SM	TX: 1550nm RX: 1310nm	18dBm	-14 to -8dBm	-32dBm
EX-0155TBP-MB6L-A	40Km	9/125µm, SM	TX: 1310nm RX: 1550nm	26dBm	-8 to -3dBm	-34dBm
EX-0155TBP-KB6L-A	40Km	9/125µm, SM	TX: 1550nm RX: 1310nm	26dBm	-8 to -3dBm	-34dBm

+ Hardened (Operating Temperature: -40 to 85°C/-40 to 185°F)

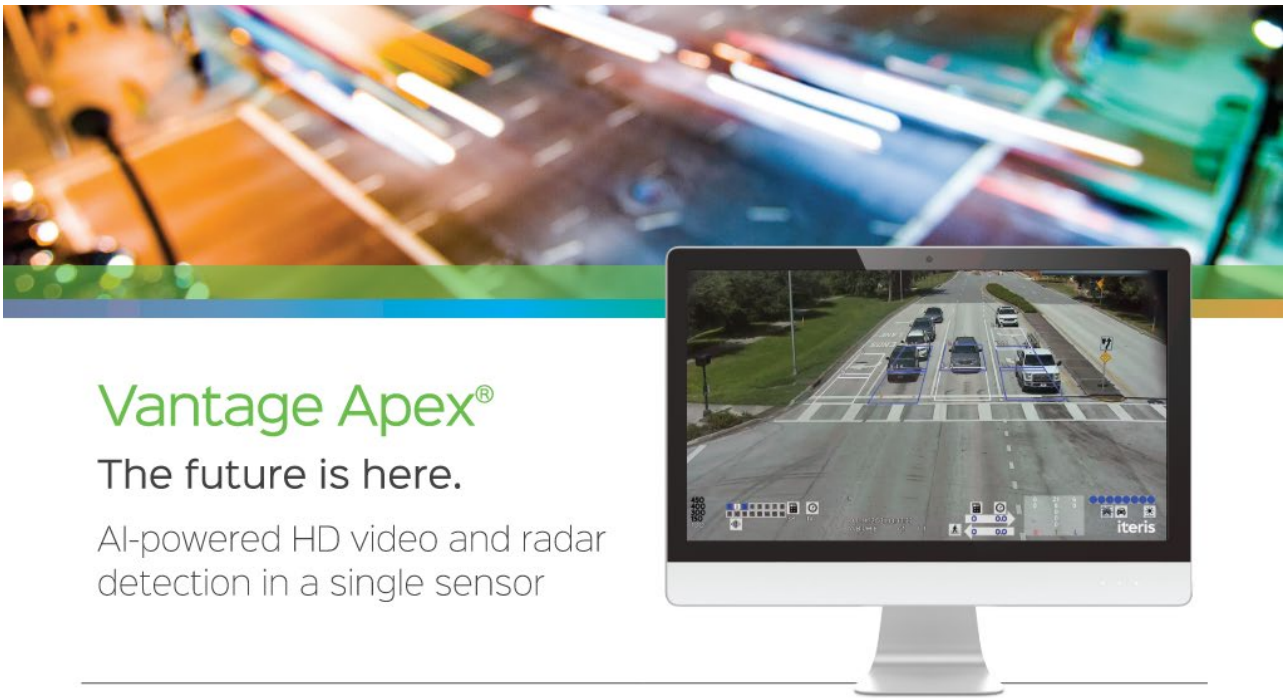
Duplex LC	Distance	Cable Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
SFPMIM02M (DDM)	2Km	62.5/125µm/50/125µm, MM	1310nm	13dBm	-19 to -14dBm	-32dBm
SFPMIS20M (DDM)	20Km	9/125µm, SM	1310nm	19dBm	-15 to -8dBm	-32dBm
EX-0155TSP-MB6L-A	40Km	9/125µm, SM	1310nm	29dBm	-5 to 0dBm	-35dBm

*** More SFP options upon the request.**
**** Link Budget data is based on pair of the same SFP modules.**

© EtherWAN Systems, Inc. All rights reserved. 20260416
EtherWAN is constantly developing and improving products. Specifications are subject to change without notice and without incurring any obligation.

APPENDIX VI

Vehicle Detection System



Vantage Apex®

The future is here.

AI-powered HD video and radar detection in a single sensor

Industry-leading detection and tracking, powered by the latest artificial intelligence (AI) algorithms

1080p high-definition (HD) video for brilliant display at the traffic management center

Video-radar fusion provides comprehensive data for ITS applications

Vantage Apex® is a full-featured multimodal detection system that combines 1080p HD video and 4D/HD radar hybrid sensor technology with sensor fusion and AI, setting it apart from anything else on the market.

Unique AI Algorithms for Detailed Vehicle Detection and Object Classification

Built on the leading AI compute platform, Iteris' AI video analytics identifies objects based on machine learning using Iteris' extensive image library and high performing neural network algorithms. This enables incredible precision and detailed classification of many different vehicle types and vulnerable road users such as pedestrians and cyclists.

High-Definition Video for Unmatched Clarity

Full HD video streaming using 1080p cameras results in ultra-crisp-vision with unmatched depth and clarity of traffic at your intersections. Gain crystal-clear viewing in your traffic management center or remotely on mobile devices via the Iteris Video Viewer app.

Complete Multimodal Detection in a Single System

Using forward-fire radar technology, to virtually eliminate occlusion, this hybrid sensor uses industry-leading 4D/HD radar technology with a field of view exceeding 600 feet.

The Vantage Apex sensor enables decision-zone safety functions, collision avoidance and advanced lane-by-lane detection that delivers precise traffic detection and data.

iteris®
ALMAVIVA GROUP

Approved for use on June 7, 2023
294856.v3

The Ideal Sensor for Advanced Traffic Applications

Vantage Apex improves efficiency and responsiveness by providing real-time, accurate and robust detection data streams that feed into any adaptive control system.

Additional Benefits

- Connected vehicle ready – provide safety alerts to vehicles with Iteris' Vantage CV™ platform.
- Includes SmartCycle® and PedTrax® for bicycle and pedestrian detection and counting.
- Embedded 'mouse and monitor' setup in addition to Laptop or remote setup.
- Easy installation – a simple three-wire cable and shelf-mount cabinet control units make installation quick and cost-effective.
- Comprehensive on-screen display includes many features for instant monitoring of system.
- Flexibility – choose from either a hybrid video and radar sensor option or a video-only sensor option.
- VantageCare™ eligible – compatible with the VantageCare detection health monitoring service.
- Fully compatible with Iteris' ClearGuide® Signals and VantageLive!®, as well as other third-party web and mobile-based traffic measurement applications.

Specifications

SYSTEM - GENERAL

Environmental	
Temperature	-35°F to +165°F (-34°C to +74°C)
Humidity	0% to 95% non-condensing
Vibration	0.5G, 3 axes, 5-30Hz
Shock	10G in all 3 axes
Ingress Protection	IP 67
Regulatory	NEMA TS-2
	FCC Part15, Class A
Warranty	3 Years limited warranty

SENSOR HEAD - GENERAL

Connections	Terminal Block
Communications	Ethernet over Power line
Power	Voltage – 110VAC
	Consumption: Camera Only - 15W (Max) Hybrid - 25W (Max)
Dimensions (Excluding Mounting Bracket)	Camera Only – 16" (406mm) D x 6.25" (159mm) W x 7" (178mm) H Hybrid – Physical 17" (432mm) D x 15" (381mm) W x 14" (356mm) H
Weight	Camera Only – 5lbs (2.3kg) Hybrid – 10lbs (4.55kg)

SENSOR HEAD - CAMERA

Imager	1080P 30FPS
	0.003 to 10,000 Lux
	3D-DNR Noise Reduction
Lens	Lens 12x Optical Zoom
	Focal Length 5.4° tele to 50.7° wide
	Dynamic Range > 100dB
Heater	Indium Tin Oxide

SENSOR HEAD - RADAR

Frequency	24GHz (K-Band)
Accuracy	Speed 0 to 150mph ±1mph (0 to 240kph ±1.5kph)
Tracked Objects	Up to 64

NEMA SHELF MOUNT CABINET EQUIPMENT

Configuration	Up to 4 sensors
Communications	Ethernet
	USB x4
	SDLC
	EMBUS
Cabinet Interface (CI) Dimensions	10" (254mm) D x 4" (101.6mm) W x 10" (254mm) H
CI Weight	10.1lbs (4.6kg)
Power Injector (PI) Dimensions	10" (254mm) D x 4" (101.6mm) W x 10" (254mm) H
PI Weight	9.1lbs (4.1kg)

ISO 9001:2015 certified.

Copyright © 2024 Iteris, Inc. All rights reserved.
NOTICE: Iteris, Inc. reserves the right to change product specifications without notice. Information furnished is for informational purposes only. This information may not be complete or the latest revision. For the most up-to- date information, please contact Iteris, Inc.

iteris.com

iteris® ALMAVIVA GROUP

July 2025 Rev 7

APPENDIX VII

CCTV Camera and System

BVMS Lite 12.3

- Embedded resilience - keep operations up and running even when multiple system components fail.
- Bosch video at its best - the best user-experience combining Bosch cameras with BVMS.
- Integration - integrate third-party cameras, storage and further systems into BVMS.
- IT environments and data security - benefit from full IT compatibility from installation to day-to-day management in a secure way.
- Free of charge up to 8 cameras - load the license, and off you go.

BVMS Lite is a unique IP video security solution that provides seamless management of digital video, audio, and data across any IP network. It provides the best video management system to go with Bosch video surveillance devices, leveraging the unique capabilities of Bosch cameras and recording solutions. It nevertheless offers interfaces and standards to integrate other systems and manufacturers.

The software is provided as an e-license via e-mail.

Regulatory information

General Data Protection Regulation
The General Data Protection Regulation (GDPR) is enforced on the 25th of May 2018. As a regulation it will be directly applicable to all EU member states without the need for national implementing legislation. As information captured, processed and stored by video surveillance systems is classified as "sensitive" the GDPR will cause significant impact on the video surveillance installations throughout Europe.
BVMS includes the required functionality to ensure an organization can be GDPR compliant.

Installation/configuration notes

Disclaimer
This software is not designed, intended, or authorized for use in any type of system or application in which the failure of the software could lead to a risk to health and safety. The user is responsible to verify that the software and its specified functionalities are suitable for the intended application, in particular with respect to accuracy, safety, and security.

The BVMS system design guide is published on the following website:
Bosch Building Technologies Knowledge Base.
The system design guide summarizes the BVMS design details, and serves as a guide to planning a BVMS system with Bosch cameras and storage. It focuses on BVMS combined with the VRM.

To get started, read the following article on the Bosch Security & Safety community website:
BVMS - Quick start overview

BVMS Enterprise
Multiple BVMS Lite, Plus, Professional or DIVAR IP systems can be combined into one BVMS Enterprise System.

Cameras within system context	200000
Cameras per operator	10000
Sub-systems	Between 10 sub-systems with 1000 cameras per system or 100 sub-systems with 100 cameras per system.

Software assurance
The complexity of security systems has increased significantly over the last couple of years. At the same time, you are still relying on your system to mitigate security risks. With Bosch Software Assurance, you can relax knowing you can always approach us for help to ensure your system keeps on running. You can find the terms and conditions of Bosch Software Assurance on the following website:
About Bosch Software Assurance
Note: BVMS Lite is not covered with Assurance GO . In order to receive professional support, please order Assurance PRO separately.

Technical specifications

The release notes give a detailed overview on the changes that are implemented, compared to the previous BVMS version.
The architects and engineering specifications specify in detail what the system is capable of.
Both documents can be found on the following web page:
Bosch Building Technologies Knowledge Base

System limits

Notice

The system limits are based on the hardware recommendations.

Maximum number of workstations	5
Maximum number of cameras	42
Maximum number of intrusion panels	5
Maximum number of DVRs	10
Maximum number of VRMs	2
Maximum number of sustained events (logbook) / sec	500
Maximum number of sustained events (without logbook) / sec	2500
Maximum peak event load / sec (within 60 minutes)	5000
Maximum number of events / sec from ONVIF cameras	500
Logbook size	4GB

Notice

The logbook size can be increased by upgrading the Microsoft SQL Server Express edition included in the BVMS installation package.

Languages

Component	Languages
Quick installation guide	English, French, German, Simplified Chinese and Spanish
Configuration manual	English, German, Dutch, Italian, Portuguese, Finnish, French, Spanish, Simplified Chinese, Traditional Chinese, Russian, Czech, Greek, Polish, Swedish, Latvian, Lithuanian, Turkish and Korean
Operation manual	English, German, Dutch, Italian, Portuguese, Finnish, French, Spanish, Simplified Chinese, Traditional Chinese, Russian, Czech, Greek, Polish, Swedish, Latvian, Lithuanian, Turkish and Korean
Software	English, German, Dutch, Italian, Portuguese, French, Spanish, Simplified Chinese, Traditional Chinese, Russian, Hungarian, Japanese, Czech, Danish, Finnish, Greek, Norwegian, Polish, Swedish, Thai, Turkish, Korean, Arabic, Ukrainian and Vietnamese

Hardware recommendations

Cameras
All Bosch cameras can be used under the device compatibility concept, which you can find on the Bosch Security and Safety Community in the following article:
How-to: BVMS - Device compatibility

BVMS is an ONVIF Profile S certified video management system.

Management Server, Video Streaming Gateway, Video Recording Manager
It is recommended to run the Video Recording Manager and the BVMS Management Server on the same computer.

The recommended specifications for BVMS Lite are based on the Bosch DIVAR IP AiO 5000.

Item	Description
Operating System	Windows Server 2016 (64-bit) Windows Server 2019 (64-bit) Windows Server 2022 (64-bit) Windows 10 Professional (64-bit) (22H2)* Windows 10 Enterprise LTSC 2021* Windows 11 Pro (64-bit) (23H2)*
CPU	Intel i3-8100
RAM	8GB
Free disk space	30GB (+ 15% of the hard-drive after installation)
Network	1 Gigabit/s network interface card

* Windows 10 and Windows 11 are not supported for the Video Recording Manager.

Operator Client

Item	Description
Operating System	Windows 10 Professional (64-bit) (22H2) Windows 10 Enterprise LTSC 2021 Windows 11 Pro (64-bit) (23H2)
CPU	Intel Xeon W-2123 (3.6 GHz)
RAM	8GB
Free disk space	Minimum 10GB for Single Site Systems Minimum 15GB for Enterprise Systems
Network	1 Gigabit/s network interface card
Display resolution	Minimum: 1280 x 1024 Maximum: 3840 x 2160
Graphic card	Nvidia Quadro P620 Nvidia Quadro P2000 Nvidia Quadro P4000 Nvidia Quadro RTX A2000 Nvidia Quadro RTX 4000 Nvidia Quadro P2200 Nvidia Quadro T600 Nvidia Quadro T1000 Intel HD Graphics 630

Network

To achieve the performance listed in the table below, a 1 Gigabit/s network is a minimum requirement between the Operator Client and Management Server.

(Unicast) Maximum number of workstations simultaneously viewing the same camera	5
(Multicast) Maximum number of workstations simultaneously viewing the same camera	100
Event response time (assuming sufficient network performance considering bandwidth and delay)	< 1 second
Alarm visibility time (assuming sufficient network performance considering bandwidth and delay), including 1 live image pane, 1 instant playback image page, and 1 map image pane.	< 2 seconds

Notice

When the system does not have enough network resources, or is experiencing a temporary decrease in network performance, the event response time and alarm visibility time may increase.

Notice

The list of communication channels and required network ports can be found in the BVMS Configuration manual.

Storage devices

The storage quick selection guide, which also includes non-Bosch storage devices, can be found on:
http://www.boschsecurity.com/bvms

Device	Series
Bosch DIVAR IP	2000, 3000, 5000, 6000, 7000
Bosch DIVAR IP AiO	4000, 5000, 6000, 7000
Bosch DSA E-Series	2300, 2400, 2500, 2600, 2700, 2800
Bosch DIVAR AN	3000, 5000
Bosch DIVAR network	2000, 3000, 5000
Bosch DIVAR hybrid	3000, 5000

Other hardware

Type	Device	Remarks
Decoder	Bosch VIDEOJET decoder 3000	n/a

Type	Device	Remarks
Decoder	Bosch VIDEOJET decoder 7000	n/a
Decoder	Bosch VIDEOJET decoder 8000	Supports displaying of 4K cameras
Decoder	Bosch VIDEOJET decoder 7513	n/a
Decoder	Bosch VIDEOJET decoder 7523	n/a
Decoder	Bosch VIDEOJET decoder 7533	n/a
Foyer card reader	MINITER 485	n/a
Serial input	Werner Electronic DTP3N	n/a
Intrusion panel	Bosch G-series B9512G 3.03.14, Bosch B5812G 3.03.14, Bosch B5512 3.03.14, Bosch B4512 3.03.14, Bosch B3512 3.03.14, Bosch B6512 3.03.14	Automation Device in the intrusion panels must be configured as Mode 2
Intrusion panel	Bosch D9412GV4 2.03.018, Bosch D7412GV4 2.03.018	Microsoft Windows Patch 3155464 should not be installed
Monitor wall	Barco Transform N series	RCPPlus agent 0.9.5.0
Analog matrix switch	Bosch Allegiant Series	Firmware 8.75 or later, Master control software 2.94
ATM/POS Bridge	Bosch ATM/POS Bridge	Version 1.10.00.12
Keyboard	Bosch KBD-Universal XF	USB
Keyboard	Bosch Intuikey	Serial, firmware 1.96
Digital I/O	Advantech ADAM-6050, Advantech ADAM-6052, Advantech ADAM-6060, Advantech ADAM-6066	n/a
USB to serial	Belkin serial adapter F5U103VEA	n/a
Ethernet to serial	Comtrol DeviceMaster RTS 4-port	n/a
LPR camera	Tattile Vega Basic	n/a
	Tattile Vega Smart Tattile Vega1 Tattile Vega 11 Tattile Vega 33	

Ordering information

MBV-BLIT License Lite base
Includes 8 camera/decoder expansions, 2 workstation expansions, 8 failover recording channels, 8 dual-recording channels, 2 keyboard expansions, 1 DVR, and ATM/POS, allegiant and OPC functionality.
Order number **MBV-BLIT**

MBV-XCHANLIT License Camera/decoder expansion
Expansion license for 1 encoder/decoder channel. Order the exact number required.
Order number **MBV-XCHANLIT**

MBV-XWSTLIT License Workstation expansion
Expansion license for 1 workstation (each extra workstation requires 1 license).
Order number **MBV-XWSTLIT**

MBV-FMAPLIT License online map functionality
Expansion license for online map functionality.
Order number **MBV-FMAPLIT**

MBV-FOBJLIT License Map-based tracking assistant
Expansion license for Map-based tracking assistant.
Order number **MBV-FOBJLIT**

MBV-XDURLIT License Camera dual recording expansion
Expansion license for 1 encoder channel used for dual recording.
Order number **MBV-XDURLIT**

MBV-XDVRLIT License DVR expansion
Expansion license for 1 DVR. Order the exact number required.
Order number **MBV-XDVRLIT**

MBV-XFOVLIT License VRM Failover channel expansion
Expansion license for 1 encoder channel used with a Failover VRM.
Order number **MBV-XFOVLIT**

MBV-XINTLIT License Intrusion panel expansion
Expansion license to integrate intrusion panels.
Order number **MBV-XINTLIT**

MBV-XKBDLIT License Keyboard expansion
Expansion license for 1 CCTV keyboard. Order the exact number required.
Order number **MBV-XKBDLIT**

MBV-XLPRLIT License LPR camera expansion
Expansion license for 1 (Tattile) LPR camera. Order the exact number required.
Order number **MBV-XLPRLIT**

MBV-FPRILIT License Privacy overlay
Expansion license for Privacy overlay.
Order number **MBV-FPRILIT**

Software Options

MBV-MLIT SMA license for MBV-BLIT, 1 year
One year of maintenance cover for the BVMS Lite base license.
Order number **MBV-MLIT**

MBV-MCHANLIT SMA license for MBV-XCHANLIT, 1 year
One year of maintenance cover for the BVMS Lite camera/decoder channel expansion license.
Order number **MBV-MCHANLIT**

MBV-MWSTLIT SMA license for MBV-XWSTLIT, 1 year
One year of maintenance cover for a BVMS Lite Workstation expansion license.
Order number **MBV-MWSTLIT**

MBV-MMAPLIT SMA license for MBV-FMAPLIT, 1 year
One year of maintenance cover for an online map functionality license.
Order number **MBV-MMAPLIT**

MBV-MOBJLIT SMA license for MBV-FOBJLIT, 1 year
One year of maintenance cover for the Map-based tracking assistant license.
Order number **MBV-MOBJLIT**

MBV-MLIT-DIP SMA license for MBV-BLIT-DIP, 1 year
One year of maintenance cover for the BVMS license for DIVAR IP all-in-one 4000 / DIVAR IP all-in-one 5000.
Order number **MBV-MLIT-DIP**

MBV-MFOVLIT SMA license for MBV-XFOVLIT, 1 year
One year of maintenance cover for a BVMS Lite Failover VRM expansion license.
Order number **MBV-MFOVLIT**

MBV-MINTLIT SMA license for MBV-XINTLIT, 1 year
One year of maintenance cover for a BVMS Lite intrusion panel expansion license.
Order number **MBV-MINTLIT**

MBV-MKBDLIT SMA license for MBV-XKBDLIT, 1 year
One year of maintenance cover for a BVMS Lite CCTV keyboard expansion license.
Order number **MBV-MKBDLIT**

MBV-MLPRLIT SMA license for MBV-XLPRLIT, 1 year
1 year of maintenance cover for the (Tattile) LPR camera expansion license.
Order number **MBV-MLPRLIT**

MBV-MDVRLIT SMA license for MBV-XDVRLIT, 1 year
One year of maintenance cover for the BVMS Lite DVR expansion license.
Order number **MBV-MDVRLIT**

MBV-MDURLIT SMA license for MBV-XDURLIT, 1 year
One year of maintenance cover for a BVMS Lite Dual Recording VRM expansion license.
Order number **MBV-MDURLIT**

MBV-MPRILIT SMA license for MBV-FPRILIT, 1 year
One year of maintenance cover for a Privacy overlay license.
Order number **MBV-MPRILIT**

https://www.boschsecurity.com

© Bosch Security Systems 2024

MIC inteox 7100i - 8MP OC

- UHD "4K" resolution (3840 x 2160 pixels) @ 30fps, 12x zoom with Optical Image Stabilization (OIS)
- AI-based traffic detection for traffic monitoring (no camera calibration required)
- Open platform that allows third-party apps from the Application store from Security & Safety Things
- Flexible streaming capabilities powering three independent streams
- Exceptional strength and ruggedness for any outdoor application including traffic monitoring (bridges, tunnels, or highways), perimeter protection, city surveillance, and mining

The MIC inteox 7100i camera is an advanced PTZ surveillance platform based on an open operating system, driven by OSSA, from Security and Safety Things. With starlight imaging technology and excellent low-light sensitivity, the camera is the perfect solution for robust and high-quality imaging needs for mission-critical applications.
The camera's ruggedized design meets customer expectations in demanding environments that exceed the capabilities of conventional IP cameras. Even in installations subject to harsh shock/vibration conditions and/or extreme weather, the camera provides high-quality video images.
The camera is the ideal choice for:

- Transportation: highways, bridges/tunnels, and ports
- Critical infrastructure: power generation/ transmission, refineries/pipelines, and mining
- High-security: government facilities and data centers
- Mission-critical applications involving harsh environments that require high-resolution imaging
- Complex scenes with many details under any lighting condition
- Installations where downtime is undesired because of high service costs

Intelligent open, flexible, and extendable camera platform
The camera has a powerful, embedded processor with dedicated hardware to support advanced machine learning and neural-network-based Video Analytics. All cameras with this platform have high image quality, built-in Video Analytics, intelligent bitrate management, and the highest levels of data security. The platform also gives you the flexibility to customize your camera to your specific requirements.
The camera platform integrates with the cloud infrastructure of Security and Safety Things for app management across devices. Also, Bosch offers advanced device management and services through the Bosch Remote Portal (https://remote.boschsecurity.com/). From the Bosch Remote Portal you can (remotely):

- Complete initial configuration of your online and connected Bosch devices.
- Update firmware for single or multiple devices.
- Manage certificates through Configuration Manager or the web interface of your camera.

- Monitor the health of and receive alerts for your connected Bosch devices.
- Connect your Bosch devices to the Security and Safety Things portal for app management.

Functions

AI-based traffic detection for traffic monitoring
The camera includes an AI-based traffic detector to detect and track cars in front of traffic lights, on intersections, roads, highways, and in tunnels. Even in dense traffic such as vehicles stopped at traffic lights and in traffic jams, the AI-based traffic detector reliably separates the different cars for accurate counting results.
The traffic detector can run alone or in parallel to the core Intelligent Video Analytics. It uses the same interfaces, alarm and counting rules* and metadata format as Intelligent Video Analytics, so no extra integration effort is required. The traffic detector is also fully ONVIF-compliant and integrated into Bosch Video Management System (BVMS) and third-party video management systems from Genetec, Milestone, and others.
*Some IVA rules not available. Refer to the Video content analysis section of the Technical specifications.

Intelligent Video Analytics on the edge
The camera includes the latest release of Intelligent Video Analytics application for use on pre-positions.
Designed for mission-critical applications, the video analytics can reliably detect, track, and analyze moving objects while suppressing unwanted alarms from spurious sources in the image, even in harsh weather conditions.
Advanced tasks like multiple line crossing, loitering, idle / removed object detection, crowd density estimation, occupancy and people counting are available for live alarming and forensic search. Object filters based on size, speed, direction, aspect ratio, and color can be defined.
A simplified calibration mode reduces installation time significantly, because you only need to enter the installation height once for each camera, independent of pre-positions.
After the camera is calibrated, the analytics engine can automatically classify objects as upright person, car, bike, or truck.

Support for specific use cases
Intelligent Video Analytics 8.10 offers easy setup by providing optimal default values for several applications. Calibrate the camera, then simply select the desired use case and adapt the offered alarm fields and lines to your field of view. This is available for the following scenarios:

- Intrusion detection (smaller area, single alarm field)
- Intrusion detection (long distance, 2 alarm fields must trigger)
- People counting
- Traffic monitoring (automatic incident detection with wrong way detection, pedestrian detection, slow vehicles, stopped vehicles and dropped objects)
- Traffic monitoring (wrong way detection)

With a future-proof design, the camera can tackle new use cases by delivering more reliable detections, more detailed classifications, and thus more insights on what is happening in a scene. Based on the open platform principle, these capabilities are leveraged by Intelligent Video Analytics by Bosch as well as by third-party apps from the Application store from Security and Safety Things.

Video Analytics while camera is moving
Outside of pre-positions and even while the PTZ camera is moving, whether on guard tours or manually, the Intelligent Video Analytics application can detect and start alarms when objects are in alarm fields. These alarm fields are defined once across all PTZ camera views. The camera can automatically trigger an alarm if any part of a field within the camera's view becomes active while on a guard tour sweeping across the monitored areas.

Ruggedized design for extreme applications
The camera is designed to last in surveillance applications that are beyond the mechanical capabilities of conventional positioning systems. The entire metal body is anodized and has been engineered to withstand high-impact, low-frequency vibration. The camera models comply to IK10 rating for impact resistance and to the IEC 60068 standards applicable to vibration and shock.
The camera has a closed-loop positioning system. The system allows the camera to maintain its position under continuous vibration or after an extreme shock event, even without homing or pre-position calibration.
The camera benefits from Bosch domain knowledge in material engineering and coatings. As a result, the superior metallurgy and the finish of the camera provide unprecedented protection against corrosion. The camera has been tested to and meets the ISO 12944:6 standard C5-M - very high (marine) on Aluminum Housing Components.

Defroster on the viewing window
For installations in environments where ice build-up or condensation is a possibility, the camera has an automatic defrosting function. The inside of the camera window has a transparent coating that puts heat directly on the glass. The heat on the glass helps to decrease and to prevent a build-up of ice as well as condensation on the camera window.
Based on the same technology used to de-ice aircraft windscreens, the defroster can melt 1 cm (0.4 in.) of accumulated ice in five minutes in environments as cold as -25 °C (-13 °F). The defroster starts automatically at <= 5 °C (41 °F). Even in very cold

environments, where other cameras suffer from frosted windows, the enhanced MIC models let you see more and see better.
Both the defroster and the IP67 kit, correctly installed on the connectors in the camera base, help to decrease condensation on the camera window.

Robust design rated to an industry-leading IP68, Type 6P, IK10
Subjected and certified to rigorous dust and immersion tests (IP68, Type 6P) and impact test (IK10), MIC cameras are perfectly suited for installation in even the most unforgiving environments. Anodized aluminum housing and robust, powder coat paint give unequalled corrosion protection to each MIC camera. Reliable O-ring seals completely protect the internal components from the external environment, meaning that there is no need to pressurize the camera. To guarantee unit integrity, the factory tests each MIC camera for leaks before shipping.

Pan and tilt drive mechanism
The pan and tilt mechanisms use ruggedized, all-metal intermeshing gears, which are more resistant to shock and to vibration. Cameras with all-metal gears have a longer operational life than cameras with plastic gears and drive belt systems of rubber. High-efficiency motors with brushless positioning control the pan and tilt movement directly to support continuous operation without significant wear and tear.
Innovative dual spring-loaded gears on the pan and tilt stage reduce backlash and further improve positional accuracy. The spring-loaded gears provide a more stable image compared to belt-driven cameras.

Dual-mode Illumination
The MIC illuminator accessory (sold separately) has IR LEDs and White light LEDs. The illuminator is field-installable.
Note: The cameras in this product family are compatible with MIC-IL*x*-400 models only. The distances and the performance depend on the environmental light conditions.
The following table identifies the application for each type of LED.

Application	Type of illuminator
Close-range illumination	940 nm IR LEDs
Long-range detection	850 nm IR LEDs
Identification and deterrent	White light LEDs

The MIC camera can steer the IR beam dynamically to match the illumination intensity with the camera's field of view according to the zoom level.
Beam intensity is controlled automatically or manually, depending on user preference. Decreasing intensity reduces overexposure.

The patented, integrated Constant Light technology supplies a consistent level of illumination during the life of the product, even in changing temperatures. White light mode allows operators to capture full scene details in color or use the light as a deterrent effect.

H.265 high-efficiency video encoding
The camera is designed on the most efficient and powerful H.264 and H.265/HEVC encoding platform. The camera is capable of delivering high-quality and high-resolution video with very low network load. With a doubling of encoding efficiency, H.265 is the compression standard of choice for IP video surveillance systems.

More flexibility in streaming capabilities
The camera has three independent encoder streams. Users can configure each stream individually to change the video resolution and the frame rate. Users have two options:

1. Let the camera deliver what is possible based on its encoding performance across the streams equally.
2. Select one of the three streams to be prioritized, for example, to guarantee "quality of service" for the recording stream.

Users can select the coding standard (H.264/H.265) for each stream.
Each stream also has its own set of 8 encoder profiles that users can configure.

Recording and storage management
Control recording management with the Bosch Video Recording Manager application.

Optical Image stabilization
The camera incorporates a built-in, optical Image stabilization feature which prevents pixel loss and outperforms electronic Image stabilization.
If it detects vibration, the camera dynamically corrects the shaky video in both the vertical and horizontal axis, resulting in exceptional image clarity and a stable field of view on the monitor.

Auto Exposure (AE) region and Focus region
With the Auto Exposure (AE) function, the camera computes the lighting condition of the entire scene. Then the camera determines the optimum level of iris, gain, and shutter speed.
In AE region mode, users can designate a specified area of the scene, based on pre-positions. The camera computes the lighting condition of the specified area. Then the camera determines the optimum level of iris, gain, and shutter speed to get an image.

Snap to zoom
Drawing a box in the image will trigger the camera to zoom to the correct position.

Simple set-up
The camera has a very intuitive user interface that allows fast and easy configuration. Configurable scene modes are provided with the best settings for a variety of applications.

- **Standard**
This mode is optimized for most standard scenes both indoor and outdoor.
- **Sensitivity boost**
This mode provides maximum sensitivity in low light scenes by using longer exposure times, resulting in bright images even in extreme low light.
- **Fast movement**
This mode is used for monitoring fast moving objects like cars in traffic scenes. Motion artifacts are minimized and the image is optimized for a sharp and detailed picture in color and monochrome.
- Vibrant
This mode provides a more vivid image with increased contrast, sharpness, and saturation.
- **Color Only (Traffic)**
In this mode, the camera does not switch to monochrome mode at low light levels. The mode is optimized to minimize motion artifacts and to capture the color of vehicles/pedestrians and traffic lights, even at night, for scenarios such as city surveillance and traffic monitoring.
- Illuminator
This mode gives optimized performance when using the MIC illuminator accessory.

Focus region mode, unlike normal auto focus mode, allows users to focus on a specified area of the scene.

Data security
Special measures are necessary to ensure the highest level of security for device access and data transport. On initial setup, the camera is only accessible over secure channels. A three-level password protection with security recommendations lets users customize device access. Unsecure ports are disabled. Firmware updates are only possible with Bosch-signed firmware files. The Embedded Login Firewall improves robustness against Denial of Service (DoS) attacks. The software sealing functionality can detect changes in a configuration. HTTPS or other secure protocols prevent access to the web browser and the viewing client. With the feature of secure and verified boot, you can trust all executed code in the device.
TPM functionality is provided by "Secure Element" (dedicated AES/DES/PKI crypto co-processor) that:

- Is independently certified with Assurance Level (EAL) 6+ based on Common Criteria for Information Technology Security Evaluation [out of 7 levels according to ISO/IEC 15408]
- Has cryptography with a maximum of 4096 bit RSA keys for TLS (maximum version 1.3) and device identity (Future-proof until 2031 and beyond) [according to NIST Special Publication 800-57, part 1, page 56]

The advanced certificate handling offers:

- Self-signed, unique certificates automatically created when required
- Client and server certificates for authentication
- Client certificates for proof of authenticity
- Certificates with encrypted private keys

Only trusted and authenticated third-party apps can be uploaded. A safe sandbox environment enables the secure execution of trusted third-party software. There is full transparency on individual app requirements to access system resources (listed in the Application store from Security and Safety Things).

Software sealing
After camera configuration is set and should not be changed, system administrators can enable software protection that seals the camera configuration. Any change of the sealing status and any change to static configuration, accidentally or intentional, will break the seal. The camera then sends an alarm message that the video management system can use to start an appropriate alarm scenario. The camera creates a separate log file of all changes that have an effect on the sealing status.

System integration and ONVIF conformance
The camera conforms to the specifications for ONVIF Profile S, ONVIF Profile G, and ONVIF Profile M. (ONVIF is the acronym for Open Network Video Interface Forum.) For H.265 configuration, the camera also supports Media Service 2, which is part of ONVIF Profile T. Compliance with these standards guarantees interoperability between network video products, regardless of manufacturer. Third-party integrators can easily access the internal feature set of the camera for integration into large projects. For more information, see the Bosch Integration Partner Program (IPP) website (ipp.boschsecurity.com). Cameras with this platform are intended to be backwards compatible with existing VMS integrations. Compatibility of the app feature set that is available in the Application store is the responsibility of the app developer and of Security and Safety Things.

Ease of installation
The camera supports mounting in upright, inverted, or canted orientation. The on-site canting functionality lets installers tilt down the upper section of the camera at a 35° angle. At this angle, operators can see the scene directly below the camera.
The camera has been designed for quick and easy installation, a key feature from Bosch IP video security products.

Power options
The camera can be powered by a network compliant to High Power-over-Ethernet using a Bosch model of High PoE Midspan (sold separately). With this

configuration, only a single cable connection (Cat5e/Cat6 Shielded Twisted Pair (STP)) is needed to view, to power, and to control the camera.
For maximum reliability, the camera can operate with a redundant power system of a High PoE Midspan and a separate 24 VAC power source connected simultaneously. If either the High PoE or 24 VAC power source fails, the camera seamlessly transitions to the remaining power source.
The 60 W midspan can supply power to models without an illuminator accessory. The 95 W midspans can supply power to all models of MIC IP ultra 7100i, including models with the illuminator accessory.
The camera can also accept a standard 24 VAC power source if a High PoE network interface will not be used. User-supplied wiring must be in compliance with electrical codes (Class 2 power levels).

Camera Diagnostics
The camera has several built-in sensors / advanced diagnostics that display warnings on the camera's OSD about the health of the camera. The diagnostics log records the events such as:

- Low voltage - a drop in incoming power below the level where the camera becomes non-functional
- High temperature - the internal temperature exceeds specifications
- Low temperature - the internal temperature exceeds minimum levels
- High humidity - the internal humidity exceeds 70%
- High vibration - the acceptable level of acceleration forces was exceeded
- Total hours of camera operation
- Illuminator aging history

Certain events also appear on the camera's OSD. These diagnostic records are available for the installation or service technician to review.

Unsurpassed reliability
As with all Bosch products, the camera is designed using the industry's best design process and is subjected to the most stringent testing standards such as HALT (highly accelerated life testing), which pushes the limits of products to ensure reliability throughout their lifetime.

Project Assistant
Project Assistant by Bosch is the market's most easy-to-use app for initial installation and basic configuration of IP cameras. Off-site and without connection to the camera, basic configurations can be created and then shared with colleagues. On-site, these pre-configurations can be pushed onto the camera, making the installation procedure easier and less time-consuming. Cameras previously configured can be integrated as well. The app allows easy viewing and adjustment of the camera's field of view. The app automatically generates a comprehensive report of the commissioned cameras.

Certifications and approvals

For a full list of all related certifications/standards, refer to the Product Tests Report, available on the online catalog, on the Documents tab of the product page for your device. If the document is unavailable on the product page, contact your sales representative.

Electromagnetic Compatibility (EMC)	Complies with FCC 47 CFR Part 15, ICES-003, and CE regulations, including latest versions of: EN 50130-4 EN 50121-4 (Railway applications) EN 55032 CISPR 32
Product Safety	Complies with UL, CE, CSA, EN, and IEC Standards including: UL 62368-1 UL 60950-1, Ed. 2 CAN/CSA-C22.2 No. E60950-1-07 EN 62368-1 EN 60950-1 EN 60950-22 CAN/CSA-C22.2 No. 62368-1-14 IEC 62368-1 Ed.2* IEC 60950-1 Ed.2** IEC 60950-22 Ed.2
Marks	UL, CE, WEEE, EAC, FCC, RoHS, RCM

* Except the Steady-state test (6.2.2.2) for Australia
** Except the Steady-state test (5.4.10.2.3) for Australia

Installation/configuration notes

In the table below, an "X" identifies the power source options for MIC IP camera models.

Camera models	60 W midspan	95 W midspan	24 VAC PSU*
Models with illuminator		X	X
Models without illuminator	X	X	X

* recommended: 24V at 100VA, 4A with a slow blow fuse

Mounting Bracket Options
Bosch designed MIC IP 7100i cameras for use in outdoor applications. In an enclosed installation area (for example, in a foundry, near a furnace, etc.), temperatures outside of the camera might exceed +65 °C (+149 °F). If you install a camera in an enclosed area, make sure that the operating temperature of the camera is a maximum of +60 °C (+140 °F). Make sure that air circulates around the camera to supply cooling.

The following figure identifies the optional mounting brackets for MIC cameras. Refer to the datasheets of each bracket for details. Some brackets may not be available in all regions.

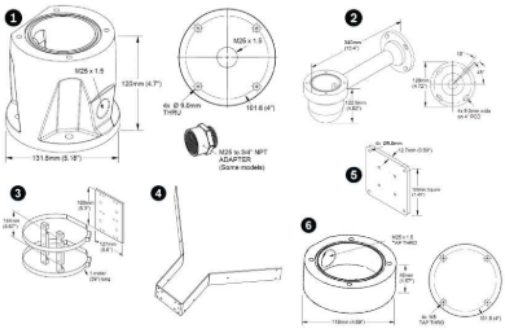


Fig. 1: Optional Mounts, MIC IP 7100i series

1 Deep conduit adapter
2 Wall mount bracket
3 Pole mount bracket
4 Corner mount bracket
5 Wall mount spreader plate
6 Shallow conduit adapter

For more options, refer to the MIC IP cameras Accessory Quick Selection Guide (https://media.boschsecurity.com/fs/media/pb/media/support_1/tools/mic_ip_cameras_accessory_quick_selection_guide.pdf).

Dimensional Drawings

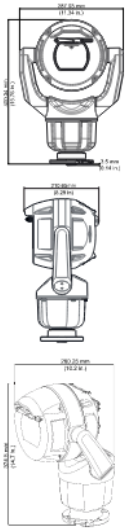


Fig. 2: Canted

Technical specifications

Imager	1 in. Exmor R CMOS Sensor
Effective Picture Elements (Pixels)	5544 x 3694 (20.47 MP)
Lens	12x motorized Zoom; 9.3 mm to 111.6 mm; F2.8 to F4.5
Field of view (FOV) (with optic image stabilizer ON)	6.1° to 64.6° (6.1° to 64.5°)
Focus	Automatic with manual override, Region per pre-position
Iris	Automatic with manual override
Digital zoom	12x Note: Super resolution zoom is always on when digital zoom is <1.5X. This feature is not available at higher zoom values.

Video performance - Sensitivity

(3100K, reflectivity 89%, 1/30, F1.6, 30 IRE)

Color	0.292 lx
Monochrome	0.0110 lx

Video performance - Dynamic range

High dynamic range (measured according to IEC 62676 Part 5)	62 dB

Firmware

Common Product Platform	CPP13

DORI	Distance	To	Object
	WIDE 1X	**TELE 12X**	**Scene width**
Detection 25 pixels/m (8 pixels/ft)	121 m (397 ft)	1441 m (4728 ft)	154 m (505 ft)
Observation 63 pixels/m (19 pixels/ft)	48 m (157 ft)	572 m (1877 ft)	61 m (200 ft)
Recognition 125 pixels/m (38 pixels/ft)	24 m (79 ft)	288 m (945 ft)	31 m (102 ft)
Identification 250 pixels/m (76 pixels/ft)	12 m (39 ft)	144 m (472 ft)	15 m (49 ft)

Additional Camera Settings

Modes for viewing the video area of pre-position settings	Automatic exposure, either full-screen or defined to a specific area Focus
Gain control	AGC, Fixed, Region per pre-position
Aperture Correction	Horizontal and vertical
Electronic Shutter Speed (AES)	1/1 sec to 1/10000 sec (22 steps)
Signal-to-Noise Ratio (SNR)	>55 dB
Backlight compensation (BLC)	On / Off / Intelligent Auto Exposure (IAE)
White balance	2000 K to 10,000 K ATW, AWB Hold, Extended ATW, Manual, Sodium Lamp Auto, Sodium Lamp
Day/Night	Monochrome, Color, Auto
Defog mode feature	Improves visibility when viewing foggy or other low-contrast scenes.
Noise Reduction	Intelligent Dynamic Noise Reduction
Sectors	4, 6, 8, 9, 12, or 16 user-selectable, independent Sectors, each with 20 characters per Title
Privacy Masks	32 individually configurable Privacy Masks; maximum 8 per Pre-position; programmable with 3, 4 or 5 corners; select your own color from the color palette. With the "Auto" option, the camera selects the most prevalent of the three colors in the background scene as the pattern color. With the "Mosaic" option, the movements behind a Privacy Mask will remain visible.
Virtual Masks	24 individually configurable Virtual Masks to hide parts of the scene (background motion such as moving trees, pulsating lights, busy roads, etc.)
Pre-positions	256 Pre-positions, each with 20 characters per Title
Guard Tours	Custom Recorded Tours - two (2), total duration 30 minutes: Pre-position tour - one (1), consisting of up to 256 scenes consecutively, and one (1) customized with up to 256 user-defined scenes
Supported Languages	English, Czech, Dutch, French, German, Italian, Polish, Portuguese, Russian, Spanish, Japanese, Chinese
Alarm control	Rules-based logic supports basic and complex pre-defined user-specified commands In its most basic form, a "rule" could define which input(s) should activate which output(s).
Camera status monitoring	Integrated sensors monitor operational status such as internal temperature, humidity level, incoming voltage level, vibration, and shock events.
Diagnostics	Various status conditions are tracked in the internal diagnostic log. Critical fault conditions will also be displayed on screen.

Video content analysis

Analysis type	Intelligent Video Analytics
Configurations	Off / Global VCA / Profiles 1 - 16
Calibration	Automatic self-calibrating when height is set
Alarm rules (combinable)	Any object, Object in field, Crossing line, Entering field, Leaving field, Loitering, Following route, Idle object, Removed object, Counter, Occupancy, Crowd detection, Condition change, Similarity search, Tampering
Object filters	Duration, Size, Aspect ratio v/h, Speed, Direction, Object classes (Upright persons, Bikes, Cars, Trucks), Color
AI detectors	Traffic monitoring

Network

Standard/Video compression	H.265, H.264 (ISO/IEC 14496), M-JPEG, JPEG
Streaming	3 fully configurable streams, with the option to activate or deactivate VCA overlays on each stream

Resolution (H x V)	Pixels
4K UHD	3840 x 2160
1080p HD	1920 x 1080
720p HD	1280 x 720
432p SD	768 x 432

Resolution (H x V)	Pixels
288p SD	512 x 288

Protocols	IPv4, IPv6, UDP, TCP, HTTP, HTTPS, RTP/RTCP, IGMP V2/V3, ICMP, ICMPv6, RTSP, FTP, ARP, DHCP, APIPA (Auto-IP, link local address), NTP (SNTP), SNMP (V1, V3, MIB-II), 802.1x, DNS, DNSv6, DDNS (DynDNS.org, selfHOST.de, no-ip.com), SMTP, iSCSI, UPnP (SSDP), DiffServ (QoS), LLDP, SOAP, Dropbox™, CHAP, digest authentication

Note: Dropbox is a trademark of Dropbox, Inc.

Ethernet	100BASE-TX/1000 Base-T, auto-sensing, half/full duplex, Auto-MDI-X
Encryption	TLS 1.0, TLS 1.1, TLS 1.2, AES128, AES256
Ethernet connector	RJ45
GOP structure	IP, IBP, IBBP
Camera internal delay	8MP models: 30 fps: 410 ms (typical) 2MP models: 30 fps: 233 ms (typical)
Interoperability	ONVIF Profile S , ONVIF Profile G , ONVIF Profile T , GB/T 28181

The table that follows shows the average typical optimized bitrate, in kbits/s, for different frame rates:

FPS	H.264	H.265
30	2740	2060
15	1690	1260
2	420	310
1	260	190

The average is for the highest resolution of the camera.
Actual bitrate may vary depending on the scene, picture settings, and encoder profile settings.

Mechanical

Drive Unit	Brushless, integral pan/tilt motor drive
Supported mounting orientation	Upright, Inverted, Canted
Pan Range	360° continuous rotation
Tilt Angle	290° (with or without illuminator)
Tilt Range	(With or without illuminator) Upright: -55° to +90°; Inverted: -95° to +55°; Canted: -80° to +65°
Variable Pan Speed	0.2°/second - 120°/second
Variable Tilt Speed	0.2°/second - 90°/second
Speed of Pre-positions	120°/second
Pre-position Accuracy	+/-0.05°
Proportional Pan / Tilt to Zoom	Yes
Audible Noise	<65 dB

Electrical

Input voltage	21-30 VAC, 50/60 Hz; High Power over Ethernet 56VDC nominal
Power Consumption (typical), without illuminator	40 W
Power Consumption (typical), with illuminator	70 W
Current consumption, 24 VAC	~3.15A
Current consumption, High PoE	~1.5A
Redundant configuration	Connect both a High PoE Midspan and a separate 24 VAC power source. If either power source fails, the camera automatically switches to the other power source.
Surge protection	Built-in surge protection for power, data, and network interfaces (Refer to the A&E Specifications for details.)

Communications / Software Control

Camera Setup/Control	Via web browser [Refer to the Release Letter of your camera's firmware for specific requirements.], Bosch Configuration Manager, Bosch Video Management System (BVMS), Video Security Client (VSC), Project Assistant, or support for third party software
Software Update	Network firmware upload

User Connections

Chassis ground	Ground wire with connector lug
Input voltage, without illuminator	RJ45 connector to 60 W High PoE Midspan (NPD-6001B) or 95 W High PoE Midspan (NPD-9501A or NPD-9501-E), or 21-30 VAC, 50/60 Hz; Female-to-female RJ45 coupler included
Input voltage, with illuminator	RJ45 connector to 95 W High PoE Midspan (NPD-9501A or NPD-9501-E)* or 21-30 VAC, 50/60 Hz; Female-to-female RJ45 coupler included
Power, Camera	24 VAC (power supply)
Video and Control	RJ45 100BASE-TX Ethernet

* Must purchase NPD-9501A or NPD-9501-E in order to use the High PoE solution.

Audio

Compression	G.711, AAC, and L16 (live and recording)
Signal-to-Noise Ratio (SNR)	Audio in: 47 dBA Audio out: 50 dBA
Mode	Two-way, full duplex audio communication
User connections	Line in: 130k ohm typical / 1.0Vrms, max Line out: 0.8Vrms at 2.4 ohm, typical

Environmental

The customer is responsible for making sure that the installation complies with the specified stresses that follow.
Note: Unit includes internal heater and fan.

Ingress Protection Rating/Standard	IEC 60529 IP66 / IP68 / Type 6P (dust and immersion) when installed on a MIC-DCA, or on a MIC wall mount with a MIC-SCA. IP67 (moisture and dust) with the IP67 Connector Kit (MIC-9K-IP67-5PK) on the connectors in the camera base. This kit is also required when using non-Bosch mounts.
External Mechanical Impact (IK Code / Impact rating)	IEC 62262 IK10 (excluding glass window)
Operating temperature	-40 °C to +65 °C (-40 °F to +149 °F)
NEMA TS 2-2003 (R2008), para 2.1.5.1 using fig. 2.1 test profile	-34 ºC to +74 ºC (-30 ºF to +165 ºF) for 15 hours
Cold Start-up Temperature	-40 °C (-40 °F) (Requires 60-minute warm-up prior to PTZ operations.)
Storage temperature	-45 °C to +70 °C (-49 °F to +158 °F)
Humidity	0-100%
Wind Load	Sustained winds up to 161 kph (100 mph) An upright camera or an inverted camera with an illuminator will hold its position in gusts up to 241 kph (150 mph). A canted camera with an illuminator will hold its position in gusts up to 257 km/h (160 mph).
Effective Projected Area (EPA)	Camera + DCA: 0.0725 m^2 (0.78 ft^2) Camera + DCA + illuminator: 0.0854 m^2 (0.92 ft^2)
Vibration	IEC 60068-2-6: 10-150 Hz, 1.0G (0.5G on canted unit), 10m/s^2, 20 Sweeps NEMA TS-2 Section 2.2.8: 5-30 Hz, 0.5G MIL-STD-167-1A
Shock	IEC 60068-2-27, Test Ea: Shock, half sine impulse, 11 ms, 45 G (20G on canted unit), non-repetitive shocks (three shocks in each axis and in each direction) NEMA TS 2 Section 2.2.9 Shock (Impact) Test Half sine wave 11 ms, 10G
Power Service Transients	NEMA TS2 Section 2.2.7.2
Power Interruption	NEMA TS2 Section 2.2.10
MIL-STD-810 Military Standard Test Methods	MIL-STD-810-G, 501.5 High Temperature; MIL-STD-810-G, 502.5 Low Temperature; MIL-STD-810-G, 503.5 Temperature Shock; MIL-

	STD-810-G, 505.5 Solar Radiation; MIL-STD-810-G, 506.5 Rain; MIL-STD-810-G, 509.5 Salt Fog; MIL-STD-810-G, 510.5 Sand and Dust
Salt Mist Spray (Corrosion Test)	ISO 12944-6: C5-M (High); Aluminum Housing Components

Construction

Dimensions (W x H x D)	Without illuminator accessory or sunshield: *Upright, Inverted*: 287.93 mm x 400.34 mm x 210.65 mm (11.34 in. x 15.76 in. x 8.29 in.) *Canted*: 260.25 mm (10.2 in.) x 374.5 mm (14.7 in.)
Weight	8.7 Kg (19.2 lb)
Window	Flat glass with defroster Defroster starts automatically at <= 5 °C (41 °F).
Construction Material	Anodized cast aluminum
Window Wiper	Integrated, long-life silicone wiper
Sunshield (to prevent sun load in hot climates)	Optional (sold separately)
Canting	On-site canting functionality
Color	Black (RAL 9005)
Color	Grey (RAL 7001)
Color	White (RAL 9010)
Standard Finish	Corrosion-resistant, powder coat paint, sand finish

Ordering information

MIC-7604-Z12BR-OC PTZ 8MP 12x enhanced black OC
Ruggedized PTZ camera; 4K UHD, 12x, optical image stabilization, defroster, SD card slot.
open camera platform
AI-based traffic detection for traffic monitoring
Black (RAL 9005). Sand finish.
Available in specific regions only.
Note: Products with numbers that have F.01U.400- at the start are for North America (NAM).
Order number **MIC-7604-Z12BR-OC | F.01U.382.400 F.01U.400.433**

MIC-7604-Z12WR-OC PTZ 8MP 12x enhanced white OC
Ruggedized PTZ camera; 4K UHD, 12x, optical image stabilization, defroster, SD card slot.
open camera platform
AI-based traffic detection for traffic monitoring
White (RAL 9010). Sand finish.
Available in specific regions only.
Note: Products with numbers that have F.01U.400- at the start are for North America (NAM).
Order number **MIC-7604-Z12WR-OC | F.01U.382.401 F.01U.400.434**

MIC-7604-Z12GR-OC PTZ 8MP 12x enhanced gray OC
Ruggedized PTZ camera; 4K UHD, 12x, optical image stabilization, defroster, SD card slot.
open camera platform
AI-based traffic detection for traffic monitoring
Grey (RAL 7001) color. Sand finish.
Available in specific regions only.
Note: Products with numbers that have F.01U.400- at the start are for North America (NAM).
Order number **MIC-7604-Z12GR-OC | F.01U.382.402 F.01U.400.435**

Accessories

MIC-ILB-400 Illuminator, white-IR light, black
Illuminator accessory for certain MIC IP cameras, IR Light (850 nm/940 nm) + White light LEDs
Black (RAL 9005). Sand finish.
Order number **MIC-ILB-400 | F.01U.370.191**

MIC-ILW-400 Illuminator, white-IR light, white
Illuminator accessory for certain MIC IP cameras, IR Light (850 nm/940 nm) + White light LEDs
White (RAL 9010). Sand finish.
Order number **MIC-ILW-400 | F.01U.370.192**

MIC-ILG-400 Illuminator, white-IR light, gray
Illuminator accessory for certain MIC IP cameras, IR Light (850 nm/940 nm) + White light LEDs
Grey (RAL 7001) color. Sand finish.
Order number **MIC-ILG-400 | F.01U.370.193**

NPD-6001B Midspan, 60W, single port, AC in
60 W indoor midspan for cameras without illuminators
Order number **NPD-6001B | F.01U.347.358 F.01U.392.458**

NPD-9501A Midspan, 95W, single port, AC in
95 W indoor midspan for AUTODOME 7000 and MIC IP cameras with or without illuminators
Order number **NPD-9501A | F.01U.286.250 F.01U.392.336**

NPD-9501-E Midspan 95W 1 port outdoor
95 W outdoor midspan for AUTODOME 7000 and MIC IP cameras with or without illuminators
Order number **NPD-9501-E | F.01U.365.279**

VG4-A-PSU1 PSU, 120VAC, for AUTODOME, MIC7000
Power supply for AUTODOME 7000, MIC IP cameras without illuminators.
120VAC in, 24VAC out
Order number **VG4-A-PSU1 | F.01U.009.667 F.01U.081.593 F.01U.261.377**

VG4-A-PSU2 Power supply, 230VAC, AUTODOME, MIC7000
Power supply for AUTODOME 7000, MIC IP cameras without illuminators.
230VAC in, 24VAC out
Order number **VG4-A-PSU2 | F.01U.009.668 F.01U.096.639 F.01U.097.433 F.01U.081.604 F.01U.261.378**

MIC-DCA-HB Deep conduit mount, M25 holes, black
DCA mount for MIC7000 family and MIC IP fusion 9000i cameras. Aluminum. Two M25 holes for conduit/cable glands.
Black (RAL 9005) color.
Order number **MIC-DCA-HB | F.01U.286.244**

MIC-DCA-HBA Deep conduit mount, M25 holes, black
DCA mount for MIC7000 and MIC IP fusion 9000i cameras. Aluminum. Two M25 holes for conduit/cable glands. Includes an conduit adapter (male M25 to female 3/4" NPT). Available in specific regions only.
Black (RAL 9005) color.
Order number **MIC-DCA-HBA | F.01U.303.166**

MIC-DCA-HW Deep conduit mount, two M25 holes, white
DCA mount for MIC7000 family and MIC IP fusion 9000i cameras. Aluminum. Two M25 holes for conduit/cable glands.
White (RAL 9010) color.
Order number **MIC-DCA-HW | F.01U.286.245**

MIC-DCA-HWA Deep conduit mount, M25 holes,white
DCA mount for MIC7000 and MIC IP fusion 9000i cameras. Aluminum. Two M25 holes for conduit/cable glands. Includes an conduit adapter (male M25 to female 3/4" NPT). Available in specific regions only.
White (RAL 9010) color.
Order number **MIC-DCA-HWA | F.01U.303.167**

MIC-DCA-HG Deep conduit mount, two M25 holes, grey
DCA mount for MIC7000 family and MIC IP fusion 9000i cameras. Aluminum. Two M25 holes for conduit/cable glands.
Grey (RAL 7001) color.
Order number **MIC-DCA-HG | F.01U.286.246**

MIC-DCA-HGA Deep conduit mount, M25 holes,grey
DCA mount for MIC7000 and MIC IP fusion 9000i cameras. Aluminum. Two M25 holes for conduit/cable glands. Includes an conduit adapter (male M25 to female 3/4" NPT). Available in specific regions only.
Grey (RAL 7001) color.
Order number **MIC-DCA-HGA | F.01U.303.168**

MIC-WMB-BD Wall mount bracket , black
Wall mount bracket, black sand finish (RAL9005)
Order number **MIC-WMB-BD | F.01U.143.155**

MIC-WMB-WD Wall mount bracket, white
Wall mount bracket, white sand finish (RAL9010)
Order number **MIC-WMB-WD | F.01U.143.156**

MIC-WMB-MG Wall mount for rugged PTZ camera, grey
Wall Mount Bracket.
Grey (RAL 7001) color. Sand finish.
Order number **MIC-WMB-MG | F.01U.296.299**

MIC-SCA-BD Shallow conduit adapter, black sand
Shallow conduit adapter for a MIC-WMB, a MIC-PMB, or a MIC-SPR, black sand finish (RAL9005)
Order number **MIC-SCA-BD | F.01U.143.153**

MIC-SCA-WD Shallow conduit adapter, white sand
Shallow conduit adapter for a MIC-WMB, a MIC-PMB, or a MIC-SPR mount, white sand finish (RAL9010)
Order number **MIC-SCA-WD | F.01U.143.154**

MIC-SCA-MG Conduit adapter, shallow, grey sand
Shallow conduit adapter for a MIC-WMB, a MIC-PMB, or a MIC-SPR.
Grey (RAL 7001) color. Sand finish.
Order number **MIC-SCA-MG | F.01U.296.297**

MIC-PMB Pole mount bracket
Pole mount bracket (includes 2 x 455 mm stainless steel banding straps for pole diameters 75 to 145 mm)
Order number **MIC-PMB | F.01U.087.283**

MIC-CMB-BD Corner mount bracket, black
Corner mount bracket, black sand finish (RAL9005)
Order number **MIC-CMB-BD | F.01U.143.158**

MIC-CMB-WD Corner mount bracket, white
Corner mount bracket, white sand finish (RAL9010)
Order number **MIC-CMB-WD | F.01U.143.159**

MIC-CMB-MG Corner mount bracket, grey sand
Corner mount bracket.
Grey (RAL 7001) color. Sand finish.
Order number **MIC-CMB-MG | F.01U.296.296**

MIC-SPR-BD Wall mount spreader plate, black sand
Aluminum spreader plate suitable for brickwork surface mounting, black sand finish (RAL9005)
Order number **MIC-SPR-BD | F.01U.143.164**

MIC-SPR-WD Wall mount spreader plate, white sand
Aluminum spreader plate suitable for brickwork surface mounting, white sand finish (RAL9010)
Order number **MIC-SPR-WD | F.01U.143.163**

MIC-SPR-MG Wall mount spreader plate, grey sand
Aluminum spreader plate suitable for brickwork surface mounting.
Grey (RAL 7001) color. Sand finish.
Order number **MIC-SPR-MG | F.01U.296.298**

MIC-IP67-5PK Connector kit, IP67, 5pcs
5-pack weather protection kit for MIC7000 cameras. Provides an IP67-rated barrier against dust or moisture. Recommended when MIC camera is mounted directly to installation surface (instead of onto a MIC-DCA or MIC wall mount).
Order number **MIC-IP67-5PK | F.01U.294.750**

MIC-7100I-SNSHLD-W Sunshield for MIC 7100i white
Sunshield for MIC IP ultra 7100i camera models
Order number **MIC-7100I-SNSHLD-W | F.01U.353.591**

MIC-M25XNPT34 Adapter, M25 to 3/4"NPT, stainless steel
Stainless Steel M25 to ¾" NPT thread adapter
Order number **MIC-M25XNPT34 | F.01U.301.975**

Services

EWE-MIC7IF-IW 12 mths full wrty ext MIC IP 7000i
12 months warranty extension
Order number **EWE-MIC7IF-IW | F.01U.382.951**

Represented by:

Europe, Middle East, Africa:
Bosch Security Systems B.V.
P.O. Box 80002
5600 JB Eindhoven, The Netherlands
Phone: + 31 40 2577 284
emea.securitysystems@bosch.com
emea.boschsecurity.com

Germany:
Bosch Sicherheitssysteme GmbH
Robert-Bosch-Ring 5
85630 Grasbrunn
Germany
www.boschsecurity.com

North America:
Bosch Security Systems, LLC
130 Perinton Parkway
Fairport, New York, 14450, USA
Phone: +1 800 289 0096
Fax: +1 585 223 9180
onlinehelp@us.bosch.com
www.boschsecurity.us

Asia-Pacific:
Robert Bosch (SEA) Pte Ltd, Security Systems
11 Bishan Street 21
Singapore 573943
Phone: +65 6571 2808
Fax: +65 6571 2699
apr.securitysystems@bosch.com
www.boschsecurity.asia

Data subject to change without notice | 202109222134 | V6 | September 22, 2021

© Bosch Security Systems 2021

APPENDIX VIII

Remote Traffic Monitoring and Maintenance Device

BlueTOAD® Spectra

The most advanced traffic-monitoring system on the market

Combines discoverable and non-discoverable bluetooth to deliver the most most advanced travel-time system

300%

Up to 3Xs more matches when compared to WI-FI

Combines interactive, real time speed and congestion maps with automated Performance Measurement reports

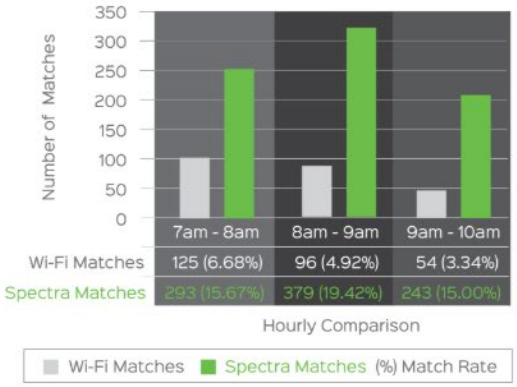
BlueTOAD® is the most advanced traffic-monitoring system on the market, directly measuring travel times using cost-effective, non-intrusive roadside technology.

BlueTOAD Spectra Detector

Now, advancements have been developed to increase the number of Detects and Matches, introducing BlueTOAD Spectra, which enables detection of "Non-Discoverable" (Paired) segments of Bluetooth signals along side BlueTOAD's industry leading detection of "Discoverable" (unpaired) Bluetooth devices. With the combination of discoverable and non-discoverable Bluetooth detection, testing has shown significant increases in detection and matches.

When a phone pairs up to a vehicle it is rendered "undiscoverable" and undetectable by a standard Bluetooth detector. However, BlueTOAD Spectra is able to detect that paired device adding significantly to detection density. Spectra only detects 6 characters of the non-discoverable MAC address further enhancing privacy, not the usual 12 characters. With the number of States legislating use of "hands-free" mode, this new detector, coupled with the existing Bluetooth detector offers a greater amount of data, and significant increases in Origin/Destination metrics.

BlueTOAD Spectra vs. Wi-Fi- Matches (AM)



iteris®

Approved for use on June 7, 2023
294856.v3

BlueARGUS™ — BlueTOAD Travel-Time-Based Performance Software

BlueARGUS is the most comprehensive database manipulation software, now optimized for travel-time data and dashboard-based visualization with BlueTOAD Spectra. Get richer insight to changing traffic patterns and trends. BlueARGUS/Spectra combined is optimized for any agency's need- city traffic department, county, state, MPO or engineering service provider.

BlueARGUS provides:

- Interactive, Real Time Speed Maps & XML
- Real Time Signal, Phase and Timing (SPaT) and Connected Vehicle Data
- Report Scheduler
- Historical Data Reports including; Pair/Route Reports, Comparison Reports, Travel-Time Reliability Reports and Enhanced Origin & Destination Studies

Specifications

BLUETOAD SPECTRA ETHERNET

Power Specifications	Power over Ethernet (PoE) IEEE 802.3af standard
	PoE Voltage: 48 VDC 110/230 VAC supply to injector
DC Power	DC Supply Current: @ 12V - Typical 150 mA @ 12V - Maximum 250 mA
	DC Supply Voltage: Minimum - 9.5 voe Maximum - 50 voe
AC Power	100/230 VAC 50 Hz to 60 Hz
Operating Range	-40° C to +85° C
Processor	Real Time Microcontroller
	8GB Removable microSD Card
Connectivity	PoE - Ethernet 10 BASE-T / 100 BASE-T
	Static or DHCP IP Addressing
	(Only one Ethernet connection needed per unit)
Bluetooth	Non-Discoverable 2.4 GHz Demodulator
	Discoverable CSR Bluecore 4 Class 1
Bluetooth Radio (adjustable) Transmit	
Power Range	-90 dBm to +20 dBm
Antennae	Bluetooth: (2) - 2 dBi Omni
NEMA 4X Enclosure	10 in. x 3.0 in. x 3.0 in.
Weight	< 5 lbs.

BLUETOAD SPECTRA CELLULAR

Power Specifications	Solar Power SOW, 17.5 Vmp Solar: 33 in x 21 in x 2 in, Weight: 17.3 lbs.
	Solar Power 85 W, 17.9 Vmp Solar: 47 in x 21 in x 2 in, Weight: 17.6 lbs.
	Battery: 60/20 Ah Gel Sealed
DC Power	DC Supply Current: @ 12V - Typical 250 mA @ 12V - Maximum 500 mA
	DC Supply Voltage: Minimum - 9.5 VDC Maximum - 50 VDC
Power over Ethernet (PoE)	IEEE 802.3af standard
	PoE Voltage: 48 VDC
	110/230 VAC supply to injector
AC Power	100/230 VAC 50 Hz to 60 Hz
Operating Range	-40° C to +85° C
Processor	Real Time Microcontroller
	8GB Removable microSD Card
Connectivity	4G LTE CAT4
	Supports all legacy non-4G technologies
Bluetooth	Non-Discoverable 2.4 GHz Demodulator
	Discoverable CSR Bluecore 4 Class 1
Bluetooth Radio (adjustable) Transmit	
Power Range	-90 dBm to +20 dBm
	100% to 10% power attenuation settings in 10% decrements
Antennae	Bluetooth: (2) - 2 dBi Omni
	LTE: MIMO Receive Diversity
GPS	Passive Ceramic
NEMA 4X Enclosure	12.14 in x 10.26 in x 7.15 in
Weight	(with battery & mounting brackets): 48 lbs

Copyright © 2021 Iteris, Inc. All rights reserved.

NOTICE: Iteris, Inc. reserves the right to change product specifications without notice. Information furnished is for informational purposes only. This information may not be complete or the latest revision. For the most up-to-date information, please contact Iteris, Inc.

Jan 2023 Rev 2

iteris.com

iteris®

Approved for use on June 7, 2023

294856.v3

APPENDIX IX

Backplate with Reflective Borders

SWARCO

McCAIN BACKPLATE WITH REFLECTIVE BORDERS

The McCain Backplate with Reflective Borders provides visual contrast between signal heads and enhance signal visibility for the driver. The reflective borders, through the use of retroreflective tape, provide an aesthetically pleasing and functional look while increasing traffic safety at intersections. The Federal Highway Administration approved the use of retroreflective tape after a seven-year safety study showed that the use of retroreflective backplate borders reduced total crashes at intersections by 15% to 24%.

3-Section louvered backplate

KEY FEATURES AND BENEFITS

- Enhance signal visibility
- Boost driver awareness
- Command attention with retroreflective tape border
- Compatible with most standard signals

PRODUCT DESCRIPTION

The McCain Backplate with Reflective Borders is designed for standard traffic signals and fit both 8" and 12" signal heads. The backplate is fabricated from aluminum or polycarbonate, and have five-inch borders. The backplate accommodates retroreflective tape widths of one, two, or three inches.

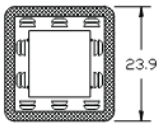
The McCain Backplate with Reflective Borders can be configured for one-section to five-section in-line, or five-section cluster signals. All in-line backplates are fabricated from one solid piece of aluminum or polycarbonate. The five-section cluster backplate is a three-piece design.

The retroreflective tape is designed by 3M for vertical mounting and is available in multiple options.

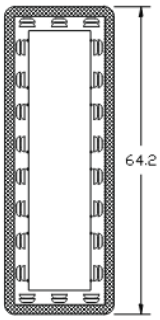
McCAIN BACKPLATE WITH REFLECTIVE BORDERS

BACKPLATES WITH 2" TAPE[1]

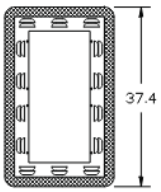
1-SECTION



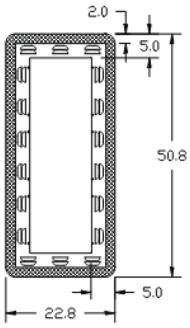
4-SECTION



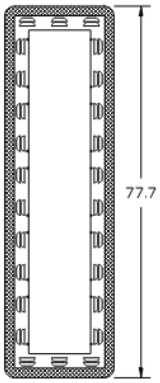
2-SECTION



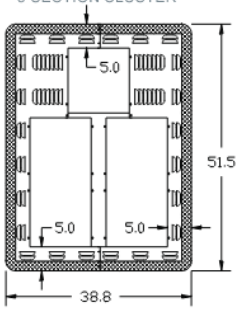
3-SECTION



5-SECTION IN-LINE



5-SECTION CLUSTER



STANDARD FEATURES

- 1", 2", or 3" reflective tape border
- 1-section through 5-section in-line, and 5-section cluster configurations
- Aluminum: louvered, non-louvered; Polycarbonate: non-louvered
- Fits 8" and 12" signals
- 5" overall width

GENERAL SPECIFICATIONS

Dimensions:	Varies based on signal configuration
Material:	Aluminum: 0.05" or 0.063" thick Polycarbonate: 0.10" thick
Finishes:	Aluminum: Powder coated Polycarbonate: Colored resin integral to housing
Colors:	Face: Flat black
Construction and Attachment:	Depends on style
Signal Mounting:	Elevator Plumbizer (MAS) and standard
Shipping Weight:	Varies based on signal configuration

RETROREFLECTIVE TAPE SPECIFICATIONS

Type:	Prismatic, Series 3930, 3990, 4081
Colors:	Yellow or white
Width:	1", 2", or 3"
Manufacturer:	3M
Options:	3930 Series: High Intensity Prismatic Reflective Sheeting 3990 Series: Diamond Grade VIP Reflective Sheeting 4081 Series: Diamond Grade VIP Reflective Sheeting

Reflective tape, with louvers

[1]Drawing dimensions rounded to the nearest 0.1"

www.swarco.com/mccain

SWARCO reserves the right to make changes at any time in order to supply the best product possible.
©SWARCO McCain, Inc. Updated 01/25/2023

Approved for use on June 7, 2023
294856.v3

APPENDIX X

Rectangular Rapid Flashing Beacon System

R920-MX

Connected Crosswalk Beacon or Sign with Crosswalk Lighting Fixture

Boost safety at unsignalized crossings with proven technology, actionable alerts, and street-level data.

- ✓ Every system ships with **3 years of free remote connectivity**
- ✓ Actionable email and text alerts
- ✓ Remote system access via MX Cloud™
- ✓ Quick setup and local access with MX Field App™ (iOS®/Android™)
- ✓ 'Smart module' design for simple installation and richer data
- ✓ Area/roadway-specific optic provides uniform illumination consistent with IES recommendations
- ✓ Solar Power Report (SPR) available for every location

Free out-of-the-box connectivity

R920-MX systems have connectivity embedded into their design, making installation easy. From the moment a system receives power, it connects both locally to the MX Field App and remotely to MX Cloud, providing easy remote access to system status, settings and data. RRFB systems come with default settings that meet MUTCD Standards, including wig-wag plus simultaneous (WW+S) flash pattern.

Timely and actionable alerts

Cities can enable email and text alerts so they can know the minute there's an issue, be it a knockdown, dead battery or something else. Detailed location and module information reduce downtime and boost site visit efficiency while providing optimal citizen safety.

Comprehensive asset visibility and data collection

All MX systems come with MX Cloud, a web-based application that lets users remotely access system locations, alerts, settings and data like daily activation counts. The GPS map not only gives cities better visibility, but enables streamlined, proactive asset management and future planning.

Long-lasting, reliable operation

Every MX module is built to last with durable, weatherproof aluminum construction and vandal-resistant wireless antennas. Solar-powered models are solar-sized to project locations, backed by a Solar Power Report (SPR) to prove year-round sustainability.

Meets MUTCD Standards

Buy America/ BABA compliant

3-year limited warranty

carmanah.com

carmanah®
MX Series

MX Series
Connective Capabilities

What's a Solar Power Report™?

No matter where you install your solar-powered system, your product should be carefully sized for its location to ensure it will be operational for the long-term.

Over the last 20+ years, our engineers have developed a field-proven software simulation that helps us replicate the real-life conditions of your project location—and determine the best solar-powered solution for your project.

Learn more about our process at **carmanah.com/spr**.

1-844-412-8395 | traffic@carmanah.com

Approved for use on June 7, 2023
294856.v3

R920-MX

Connected Crosswalk Beacon or Sign with Crosswalk Lighting Fixture

carmanah® MX Series

carmanah.com | traffic@carmanah.com | 1-844-412-8395

MX FLASHER MODULES

MX RRFB Module

MX Beacon Module

MX LED Sign Module

MX RRFB Module	Meets 11th Ed. MUTCD (Chapter 4L) and MUTCD (Canada) Standards
	Purpose-built optics exceed SAE J595 class I intensity by 2.5-3x when used as recommended; meet SAE J578 chromaticity
	3" (76 mm) x 7" (178 mm) clear, UV-rated polycarbonate lens with yellow LEDs and side-emitting pedestrian confirmation LEDs
	Stainless steel mounting brackets make back-to-back installation simple and enable in-field aiming for maximum effectiveness
	Yellow or black powder-coated light bar covers
	Light bar configuration: uni-directional or bi-directional
	RRFB backplate and mast arm mount available
	In-field aiming: rotate the light bar towards the incoming vehicle lane, independent of the wire hole location
MX Beacon Module	Configurable to MUTCD 11th Ed. (Chapter 4S) Standard
	12" (305 mm) or 8" (203 mm) diameter LED modules, yellow
	Yellow or black heads in UV-resistant polycarbonate or aluminum
	Side of pole arm and top of pole mount kits available
MX LED Sign Module	Meets MUTCD 11th Ed. (Chapter 2A.12) Standards
	3M High Intensity Prismatic or Diamond Grade retroreflective sheeting and components UV-resistant polycarbonate channels and waterproof housings protect wiring; include fully integrated junction box
	Standard 30" and 36" W11-2 and S1-1 sign sizes (others available) Standard yellow and fluorescent yellow-green sign colors available
	Standard banding, through bolt and U-bolt mount kits available
Options	Audible Information Device (AID) push button
	Passive pedestrian detection

CROSSWALK LIGHTING FIXTURE SPECIFICATIONS

LED Fixture	Full cutoff, high-efficiency compact LED roadway luminaire
Performance	2000, 3000 or 4500 lumens (typical) 20 lux average vertical illuminance (typical)
	70 CRI 4000K color temperature (CCT)
Optics	Type IV Wide (T4W) BUG rating: B1 U0 G1
Operation	Fixture operates in conjunction with crosswalk beacons
Mounting	Mounts on 1 5/8" (41.2mm) OD - 2 3/8" (60.3mm) OD horizontal tenon (minimum 4.9" [124.5mm] in length)
	Direct arm available for fixture mounting
Dimensions & Weight	15.75 x 7.25 x 4.5" (400.3 mm x 183.8 mm x 115.9 mm) 7 lb (3.18 kg)

INCLUDED WITH EVERY SYSTEM

MX Subscriptions	**3 years out-of-the-box remote connectivity with MX Lite** See all MX subscriptions
MX Cloud	MX Cloud for remote health status monitoring, email/SMS alerts, scheduling, asset management, programming and more
MX Field App	Bluetooth® mobile app for on-site setup, local access to default settings, system health status and more Download on the App Store · GET IT ON Google Play
Warranty	3-year limited warranty on MX system
	1-year limited warranty on batteries
Support	Carmanah's North American product support technologists available for solution building, solar sizing and troubleshooting
	24/7 access to Carmanah's online Product Support Center
Customize	**Build an R920-MX online**

MX POWER MODULES

Solar	12 VDC operation, solar sized to specific geographic location Includes 12-month Solar Power Report to ensure sustainability
	System designed for 5+ year battery life
	Replaceable, recyclable, sealed, maintenance-free AGM batteries offer the widest temperature range and longest life
AC (only MX 300/400)	100-240 VAC in standard configurations
Construction	Weatherproof, gasketed enclosure with vents for ambient air transfer (NEMA 3R)
	Lockable door Cabinet systems include Type II lock option (standard for MX 400)
	Corrosion-resistant aluminum with stainless steel hardware
	Raw aluminum finish or black powder-coated

	MX 100	MX 200	MX 300	MX 400
Type	Integrated solar + battery	Integrated solar + battery	Separate solar + cabinet	Separate solar + cabinet
Housing Dimensions & Weight (w/o batteries)	12.6 x 13.6 x 5.3" 320 x 345 x 135 mm 5 lb (2.3 kg)	30 W version: 18.3 x 15.7 x 5.8" 465 x 399 x 147 mm 11 lb (5.0 kg) 50 W version: 18.3 x 26.3 x 5.8" 465 x 668 x 147 mm 14 lb (6.4 kg)	16.7 x 11.3 x 7.0" 424 x 287 x 178 mm 10 lb (4.5 kg) AC version weight: 12 lb (5.4 kg)	21.9 x 16.1 x 8.3" 556 x 409 x 211 mm 19 lb (8.6 kg) AC version weight: 21 lb (9.5 kg)
Mount Kits	Top of Pole Mount	Side of Pole Mount	Top of Pole Mount	Side of Pole Mount
	Universal solar mounts: • 2-2.5" perforated square posts • 2.38-2.88" OD round poles • 3.5-4.5" OD round poles • Side of pole		Cabinet mounts: • Standard banding • Through bolts • U-bolts (MX 400 only) Universal solar mounts: • 3.5-4.5" OD round poles • Side of pole	
Batteries	1-2x 7 Ah	1-2x 18 Ah	1x 18, 35 or 55 Ah	1x 35, 55 or 100 Ah
Solar	15 W	30 or 50 W	50, 80 or 170 W	50, 80 or 170 W
Solar Dimensions & Weights	See housing dimensions above	See housing dimensions above	50 W: 26.3 x 21.2" (668 x 538 mm) 10 lb (4.5 kg)	
			80 W: 30.7 x 26.5" (780 x 672 mm) 13 lb (5.9 kg)	
			170 W: 59.1 x 26.3" (1500 x 668 mm) 25 lb (11.3 kg)	

WIRELESS COMMUNICATION AND DATA COLLECTION

Local	MX Field App (Bluetooth®)
System-To-System	Linked MX systems flash in sync up to 1,000 ft (305 m) away
Remote	MX Cloud (cellular)
Location & Time	GPS

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Carmanah Technologies is under license. Other trademarks and trade names are those of their respective owners. Android is a trademark of Google LLC.
Specifications subject to local environmental conditions, and may be subject to change.
All Carmanah products are manufactured in facilities that are certified to ISO quality standards.
"Carmanah" and Carmanah logo are trademarks of Carmanah Technologies Corp.
©2026, Carmanah Technologies Corp. Document: Carmanah_DATA_R920-MX_RevH

Approved for use on June 7, 2023

294856.v3

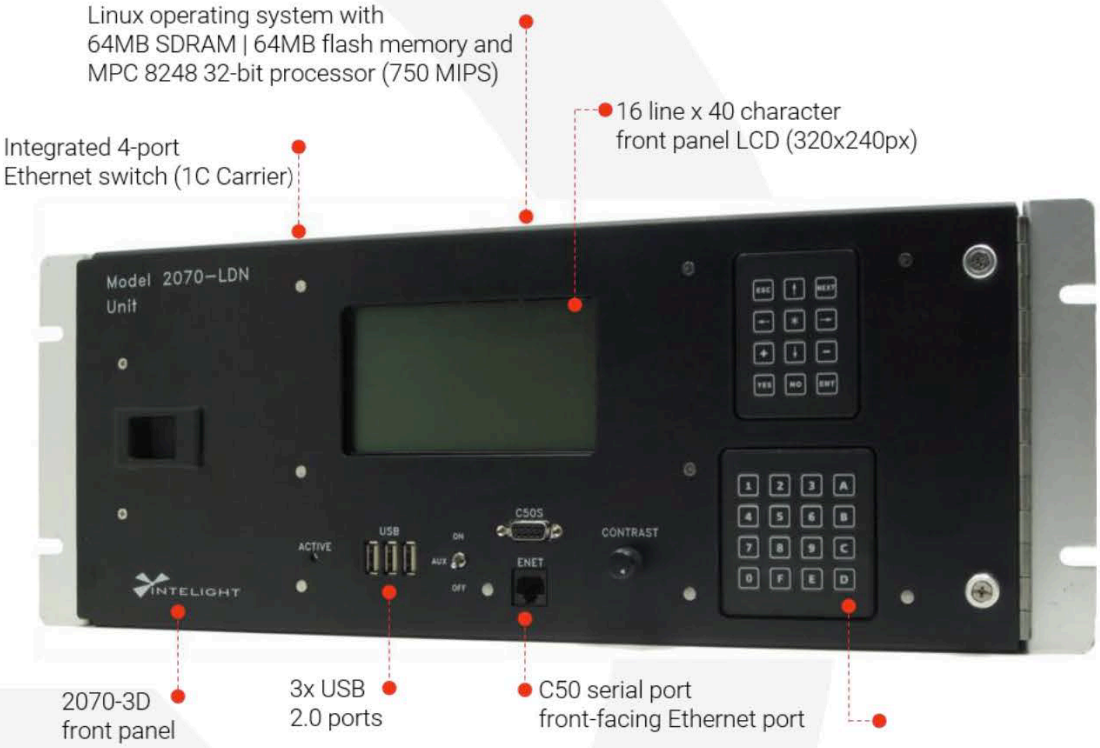
APPENDIX XI

Traffic Signal Controller and Software

PRODUCT SHEET

2070LDX CONTROLLER

35X/34X/33X/170 STYLE TRAFFIC SIGNAL CONTROLLER



OVERVIEW

The 2070LDX controller is one of the CalTrans/170/33X versions in Intelight's award winning "X-Series" controller line. The 2070LDX meets and exceeds the current ATC, CalTrans, and NTCIP standards providing agencies with a robust, industry-leading, true open architecture hardware platform. The LDX runs Linux on a PowerPC motherboard offering speed, performance and multi-thread capabilities for today and the future. The layout of the ports provides front-facing access of the Ethernet ports, USB and serial connections. The 2070LDX includes a large backlit 16x40 LCD screen.

HARDWARE CONFIGURATIONS

- 2070LDX includes 2070-2A/2E/2E field I/O module for parallel interface to 170/170E/2070 cabinets
- 2070LDX-2N includes a field I/O module for serial interface with ITS and NEMA TS-2 type 1 cabinets
- 2070LDX-N includes 2070-N1 extensions for TS-1 & TS-2 type 2 cabinets
- 2070LDX-B includes a field I/O module for interface to ITS cabinets and other RS-485 peripherals

Q FREE

PLATFORM

- Compliant with latest ATC 5.2b, ATC 6.25 and Caltrans 2009 TEES (2070-1C)
- Open Linux O/S architecture for hosting various 2070 software applications
- Includes ATC 5401 API as an option
- Runtime libraries per ATC5.2b (ATC 6.25)
- Full support for all required ATC 6.1 software drivers under the latest Linux kernel release v 3.2
- Heavy-duty model 2070-4A power supply
- Environmentally hardened (operating ambient temperature from -40C to +80 C)
- 2070-3D 16 line x 40 character LCD display

2070-1C CPU CARD

- 2070-1X slot carrier module with front panel support for:
  - 3.3v DataKey socket
  - 4x 10/100 RJ45 Ethernet ports w/activity and speed LEDs
  - TEES compliant D type 25 pin C13S port
  - Fully qualified to latest Caltrans TEES 2070 specifications
  - 1 USB port
- Engine board CPU module:
  - Fully 2070 hardware and software compliant with latest national ITE/NEMA/AASHTO ATC standard
  - Motorola (Freescale) MPC8248, 32-bit, 400 MHz, PowerPC Instruction
  - 64MB of DRAM (128MB option)
  - IMB SRAM (2MB option)
  - 64MB of flash memory
  - 7 serial ports (SP1-6, SP8)
  - RTC time reference

INTELIGHT MAXTIME

TRAFFIC SIGNAL CONTROL SOFTWARE - SMART MOBILITY BUILT IN.

Sample MAXTIME home screen which can be displayed on color front panel, tablet or smartphone (shown)

OVERVIEW

Intelight MAXTIME is a Linux-based local control software that goes beyond your standard signal timing tools, offering advanced tools and functionality for smart mobility and the future of connected and autonomous vehicles (CAV).

Execute standard signal timing with ease and master advanced functions without complex logic strings or modified controller operations using the system's intuitive user interface and menu structure.

Every MAXTIME purchase comes with the Intellight Device Manager and free access to the management information bases (MIBs) to reduce maintenance costs, and boost interoperability with third-party solutions.

HIGHLIGHTS

ADVANCED FUNCTIONALITY BUILT IN

Intuitive system provides expanded traffic control functionality based on leading industry standards.

REMOTE DEVICE MANAGEMENT

Web-based app for centrally scheduling software updates for all intersections without a TMS.

TRULY OPEN. TRULY STANDARD

Publicly available MIBs promote interoperability with third parties and smart city applications.

Sample MAXTIME termination report displayed on smartphone (no app required)

(833) 629-4357
www.intelight-its.com

600 FREE

UNIQUE FUNCTIONALITY

Just a few of the features that set us apart.

- Intuitive and advanced user logic programming
- On-board web server (no proprietary database editor)
- Monitor and modify timing directly from Windows and Apple-based computers, tablets, or smartphones without special software
- Store and switch between hundreds of timing databases
- Easy, automated software updates via network or USB flash drive (no need for terminal servers or proprietary installer programs)

ADVANCED CONFIGURATIONS

Perform a variety of advanced programming out of the box.

- Peer-to-peer (P2P) communications
- Single-point urban interchange (SPUI)
- Continuous flow intersections (CFI)
- Diverging diamond interchange (DDI)
- Compound intersections with multiple approaches
- Bus and light rail transit (TSP/LRT) applications
- Predictive arrival/departure adjustments
- HAWK/pedestrian hybrid beacons
- Preemption routing

BEYOND THE STANDARDS

At Q-Free, we don't simply build to standards, we believe in the greater goal of *why* they exist—to boost interoperability and reduce reliance on and the expense of single-vendor solutions.

So we made the management information bases (MIBs) that provide necessary information to work with Intelight MAXTIME software available to all; putting transportation agencies, cities, and MPOs back in the driver seat.

To download the MIBs for Intelight MAXTIME, simply visit our website.

Designed for ATC controllers, Intelight MAXTIME is built on a Linux platform based on a rich set of industry standards including NTCIP, NEMA, MUTCD, and FHWA.

MAINTAIN WITH EASE

Manage and update with the Intelight Device Manager, our web-based app to centrally track and schedule firmware updates.

- Schedule individual or bulk firmware updates
- Run updates without putting intersections in flash
- Schedule updates during low travel times & receive automatic notifications of issues
- Save hundreds of hours of time vs. manual updates
- Protect personnel through reduced time in the field
- No ATMS needed

STANDARD FEATURES & USABILITY

- Linux based
- 128 independently-programmable coordinated or free timing patterns
- Rapid transition times with user-override min/max limits using critical path transition algorithm
- Extended pedestrian features: delayed walk, delayed, green, and alternate walk/FDW timing, advanced handling to over-sized pedestrian times
- Multiple overlap types:
  - NTCIP: types 1 through 3
  - Flashing yellow arrow (FYA)
  - Flashing red arrow (FRA)
  - Protected/permissive Canadian operation
  - LRT bar indications
  - Pedestrian (normal and minus green/yellow)
  - Right-turn with conflicting pedestrian
- Master/slave closed-loop operation
- Advanced phase intervals:
  - Min green 2
  - Pre-green/walk
  - Delay green/walk
  - Pre-clearance
  - Alternate pedestrian times (extended push time)

(833) 629-4357
www.intelight-its.com

INTELIGHT IS A Q-FREE BRAND.
Product specifications may change at any time without notice and may not be available in all markets.

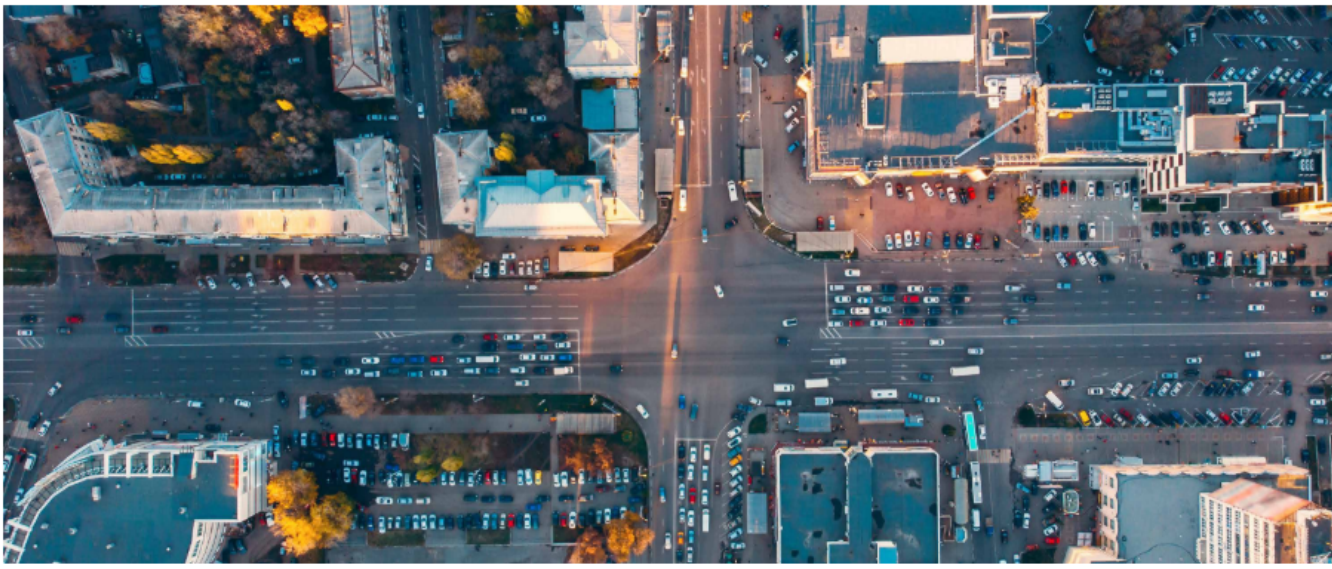
APPENDIX XII

ATMS

TRAFFIC MANAGEMENT SOLUTIONS

KINETIC® SIGNALS

CENTRALIZED TRAFFIC SIGNAL SYSTEM



OVERVIEW

Kinetic® Signals is the powerful and forward-thinking centralized traffic signal management module of Kinetic Mobility. It provides all the tools you need to monitor, update, and control your traffic signals as well as robust reporting features including a full suite of ATSPMs.

Reducing the need for multiple central systems, Kinetic Signals seamlessly integrates with Q-Free's MAXTIME controller software and other third-party ATC controllers using NTCIP protocol and/or custom integrations.

Our comprehensive intersection editor displays lane maneuvers, detectors, signals, and controllers on an intuitive map. Maps are easily replicated for applications like adaptive signal control or connected vehicles, boosting efficiency and saving time.

Flexible deployment options include on-premises or cloud-hosted systems. Available software as a service (SaaS) model reduces upfront costs, simplifies maintenance, and lets users pay only for what they need.

Beyond signals, Kinetic Mobility offers a suite of modules—including integrated corridor management, video and sign control, and event management—providing a comprehensive and unified transportation management experience.

BENEFITS

- Intuitively manage and monitor signalized intersections from a interactive system map
- Upload and download databases to controllers, edit drafts offline or send changes directly to live field devices
- Visualize real-time data and usage charts for trend analysis including ATSPMs and Time Space Diagram
- Retain and display system event history and hi-res data for monitoring, reporting, and troubleshooting
- Expand and maintain devices easily with in-app licensing
- Secure your system based on SOC 2 standards, including automated vulnerability scans and available intrusion detection/prevention

Based on industry-leading standards

Secure on-prem or cloud deployments

ATSPMs included at no additional cost

ADVANCED FEATURES

SIGNAL MANAGEMENT

- Schedule software updates to controllers running Q-Free MAXTIME ic
- Real-time split monitoring in coordination and free
- Real-time analysis tools and events monitoring

INTERSECTION CONFIGURATION

- Complete local geometry design
- Customizable signal indications
- Corridor design
- ATSPM configurations supported

INTERSECTION CONTROL

- Scheduler based command/control
- Manual control
- Actions sets

DATABASE EDITOR & MANAGEMENT

- Live database editor with tracking
- Comparison and cloning
- Draft and approved databases
- Storage for supporting documentation

ATMS PLATFORM

- Single sign-on (SSO) and federated authentication
- Configurable maps; no external programs necessary
- Expanded status displays and event monitoring
- Supports multiple browser windows

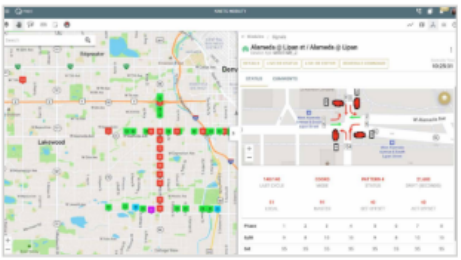
DASHBOARDS

- Create and configure custom workspaces
- Add any system menu or screen
- Save system-wide and personal views

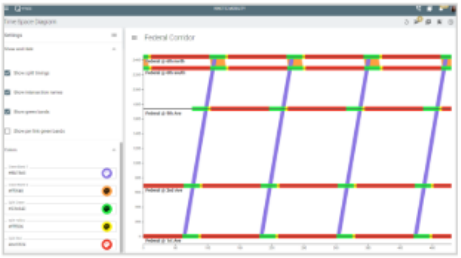
www.aicpa.org/soc4so

REPORTING

- High-resolution data collection and reporting
- Built-in ATSPM reporting capabilities
- Interactive Time Space Diagrams with offset editing
- Customized reporting using device event details, communications logs, and external reports
- Full support of NTCIP compliant alarms
- Alarm delivery supported via toast notifications, audio alerts, email, and text



Main map with intersection editor



Time space diagram

KINETIC®
MOBILITY

Unify your traffic management data, tools, and teams with Kinetic Mobility.

Built on our modular Kinetic Mobility platform, you can easily scale your Kinetic Signals system to include signs, video, and corridor management, or create a regional management system across freeways and arterials, eliminating the need for patchwork solutions.

Contact us to learn more.

Product specifications may change at any time without notice and may not be available in all markets.

KINETIC® SIGNALS SERVER REQUIREMENTS

OVERVIEW

Kinetic® Signals was designed for the cloud. Dubbed by tech experts and leaders as superior to on-premises ("on-prem") solutions, cloud-based solutions provide increased flexibility, reliability, and security. It also eliminates the headache of maintaining servers, backing up and restoring data.

Recognizing that not all agencies are ready or able to migrate to a cloud-hosted system, Q-Free will continue to offer Kinetic Signals as an on-prem solution in the near term. Agencies are able to migrate to a cloud-hosted system down the road with minimal disruption to operations at an additional cost.

If selecting an on-prem deployment, Kinetic Signals and related modules must be configured in accordance with the following specifications. Substitutions or alterations to these specifications may not be used without written consent from Q-Free. Q-Free shall not be liable for the proper operation of Kinetic Signals under any environment that deviates from these specifications.

If your agency is unable to meet the system requirements below, you may wish to consider cloud hosting. Hosting options are available through Q-Free, the agency, or third parties. Q-Free will be happy meet with your agency to discuss how cloud hosting can meet your needs at a comparable cost.

SERVER REQUIREMENTS

Hardware

- Physical or virtual machine
- See Single Server Requirements on back

Operating System

- Ubuntu Server 22.04.x LTS or Ubuntu Server 20.04.x LTS

Kubernetes Cluster

- See our latest compatibility matrix on our support website

Storage

- Minimum 300GB
- See Historical Data Storage Requirements on back

Network

- 1 Gb Ethernet
- See Networking Requirements for additional details
- The network must allow server-initiated connections over ports 80, 443, and 25
- Kinetic Signals is built around a modern open-source framework. As such, it accesses secure, open-source repositories from organizations such as Google, Git-Hub, and Docker. These third-party IP addresses change frequently. As such, firewall filters or proxy whitelists may not be used with the system.

NOTE: Single Server Requirements and Cluster Server Requirements for CPU and RAM requirements are based on your implementation.

SINGLE SERVER REQUIREMENTS

System Size (devices)	Minimum CPU	RAM
SMALL <150 devices	8 CPU cores	32 GB
MEDIUM 151-300 devices	12 CPU cores	64 GB
LARGE 301-1,000 devices	18+ CPU cores	128 GB

Please contact us if your system is larger than 1,000 devices to discuss your server requirements.

HISTORICAL DATA STORAGE REQUIREMENTS

To calculate storage requirements for historical data, use the following formula:

(C × 30 × HR × HD) + (C × 30 × AR × AD) / 1,048,576

Where:

- C = Total number of controllers
- 30 = Avg days/month (converting the HR/HD/AR/AD from MB/day to MB/month)
- HR = Total number of months to store high resolution data
- HD = Average hi- res data collected per day in MB (typically 30 MB)
- AR = Total number of months to store aggregate data
- AD = Average aggregate data collected per day in MB (typically 6 MB)
- 1,048,576 = Conversion from MB to TB

NETWORKING REQUIREMENTS

- Network that supports ARP (Address Resolution Protocol).
- Internet access, so the installer can download packages from HTTP and HTTPS sources.
- At least two IP addresses — one for each server and one for the load balancing software. The IP address for the load balancing software must be able to reach the controller network. The IP addresses should be on the same subnet.
- If a domain name is desired, the agency is responsible for acquiring, installing, and maintaining the SSL certification for that domain, and the name must resolve to the cluster IP address.
- If Azure Entra ID is used as the authentication provider the application will required a valid SSL Certificate using DNS.

Product specifications may change at any time without notice and may not be available in all markets.

APPENDIX XIII

ACCESSIBLE PEDESTRIAN SIGNAL SYSTEM

SCAN
FOR
INFO

iNS • accessible pedestrian signal

Save time and installation expense with the APS that can run on your existing button wires.

Flexible installation	With a controller in the cabinet or in the signal head, the iNS is uniquely flexible to fit any intersection.
Wireless programming	Configure the iNS wirelessly with the Polara Field Service App from the comfort of your vehicle.
Remote firmware updates	The free Polara Updater software can remotely push firmware updates to iNS2 and iDS2 units, manually or on user-set schedule.
Touchless activation	iDS units (pictured) offer touchless activation with iDetect® radar motion sensor, with adjustable range and sensitivity.

ada COMPLIANT · meets MUTCD standards · BUILD AMERICA BUY AMERICA · PROWAG

POLARA

polara.com | sales@polara.com | 903-366-0300

A SynapseITS™ company

Approved for use on June 7, 2023
294856.v3

iNS Specifications

Operating Specifications

Parameter	Rating
Operating Temp. Range	-34° C to +74° C (-30° F to +165° F)†
Storage Temp. Range	-45° C to +85° C (-50° F to +185° F)
Operating Force	3.0 lbs max, option of 3 adjustable programmed forces
Switch Operating Life	Greater than 20 million operations
Max. Volume	100 dB @ 1 meter

Design Compliance

Type	Compliance
Functional Standard	MUTCD 11th Edition
Temperature and Humidity	NEMA TS2
Mechanical Shock and Vibration	NEMA TS2
Transient Voltage Protection	NEMA TS2
Transient Suppression	NEMA TS2
Electrical Reliability	NEMA TS2
iNS PBS Enclosure	NEMA 250 Type 4X

Notes: Lab tested to applicable sections of referenced standards. All specifications are typical unless otherwise specified and subject to change without notice.

†iDetect touchless actuation will work as specified in the range of -20° C to +60° C (-4° F to +140° F). Detection could fluctuate and be reduced/less responsive outside of the specified range. All normal PBS functions will work through the extended NEMA temperature ranges. iDetect is an additional feature/supplement to the PBS.

An iNS2 button will automatically function as an iNS3 button when connected to an iPHCU3S. iNS3 will not operate as a 2-wire unit.

▲*Integrated signs available in more than 16 designs and four sizes: 5x7.75 in, 9x12 in, 9x15 in, and 9x18 in. Powder-coated aluminum or high-intensity retro-reflective coating options. Button casing available in yellow, black, or green, with custom colors possible.*

▲ *iCCU-S2 box-type controller*

▲ *iCCU-C2 card-type controller*

▲ *iPHCU3S signal head controller*

iNS Controller Options

The iNS requires a control unit; three models are available:

- iCCU-S2 mounts to a shelf or the frame of the traffic cabinet. Full range of features for actuated or pre-timed intersections. Communicates with iNS through 2-conductor button call wires.
- iCCU-C2 card-type controller for Cal-Trans or 300-series cabinets. All features available except preemption. Communicates with iNS through 2-conductor button call wires.
- iPHCU3S signal head-mounted controller for pre-timed intersections and phases without call wires.

iCCU-S2 Cabinet APS Controller Box

Operating Specifications

Parameter	Rating
Ped Walk/ Don't Walk Inputs:	Optically isolated 80-150 Volts AC/DC, 5 mA max.
Ped Call Outputs:	Optically isolated 36 Volts AC/DC peak 300 mA Solid State Fused Contact Closure
PBS Power Output:	Nominal 24 VDC, Short Circuit Protected Auto Recovering
General Purpose Inputs:	10-36 Volt AC/DC peak, 10 mA max, Optically Isolated
Environmental:	Operating: -34° C (-30° F) to +74° C (+165° F) LCD temperature range is limited to -20° C to +70° C Storage: -45° C (-50° F) to +85° C (+185° F)
Regulatory:	The iCCU-S2 uses a UL 62368-1 certified power supply, Certificate Number: UL-US-2135910-0
Warranty:	3 year limited

iCCU-C2 Cabinet APS Controller Card

Operating Specifications

Parameter	Rating
Ped Walk/ Don't Walk Inputs:	0-24 VDC (active low)
Ped Call Outputs:	Optically isolated 36 Volts AC/DC peak 300 mA Solid State Fused Contact Closure
PBS Power Output:	Up to 16 buttons can be driven under default conditions.
Environmental:	Operating: -34° C (-30° F) to +74° C (+165° F) LCD temperature range is limited to -20° C to +70° C Storage: -45° C (-50° F) to +85° C (+185° F)
Warranty:	3 year limited

Notes: The iCCU-C2 is compatible with Cal-Trans TEES and 300 series cabinets with a standard C4 connection to the output file. Preemption messaging through the APS system is not available on this unit.

iPHCU3S Signal Head APS Controller

Operating Specifications

Parameter	Rating
Ped Walk/ Don't Walk Inputs:	120 VAC ±5%
ABS Power Output:	Each iPHCU3S can power a single iNS APS button
Environmental:	Operating: -34° C (-30° F) to +74° C (+165° F) Storage: -45° C (-50° F) to +85° C (+185° F)
Warranty:	3 years

Approved for use on June 7, 2023
294856.v3

iNS Model Feature Comparison

Feature comparison

Feature	iNS2	iNS3	iDS2	iDS3
Compatible with Polara's Wireless Ped System - retrofit APS without trenching, wires, or foundations	●	●	●	●
4 Locate Tone selectable options	●	●	●	●
13 Walk Sound selectable options, including 3 custom options	●	●	●	●
7 Clearance Sound selectable options	●	●	●	●
Walk, Clearance, and Don't Walk sounds automatically adjust to ambient noise level	●	●	●	●
Separate ambient response settings for Locate Tone	●	●	●	●
Independently set maximum and minimum volume on most sounds	●	●	●	●
Button push confirmed by latching LED, tactile bounce, and audible "wait"	●	●	●	●
Ultra-durable Hall-effect button rated to 20 million+ operations, with field adjustable directional arrow; vibrates during Walk	●	●	●	●
Extended Push: optional volume boost for next Walk and Clearance, optional direction of travel message	●	●	●	●
Extended Push: activation adjustable 0-6 seconds, 0.5 second increments	●	●	●	●
PedApp®: free iOS® and Android mobility app allows touch-free activation via Bluetooth™, provides intersection information.	●	●	●	●
Wireless programming, custom audio, and firmware updates with the free Polara Field Service App, available for iOS® and Android devices	●	●	●	●
Built in health/event logging feature, up to 1000 events	●	●	●	●
External speaker option at time of order	●	●	●	●
Beaconing and Ping Pong features available	●	●	●	●
External button input for bike lanes, horses, etc.	●	●	●	●
Warranty: 3 year limited	●	●	●	●
iDetect® radar switch detects movement within 1-20 in, adjustable; 1-4 in default.			●	●
iDetect® inconspicuous and vandal resistant; unimpeded by fog, ice, paint, paper, smoke			●	●
iDetect® wave time sensitivity adjustment - 0 ms, 50 ms, 250 ms, 500 ms			●	●
Remote firmware updates with Polara Updater software for PC	●		●	
Operates over a single pair of wires - uses existing button wires to connect to control unit in the traffic cabinet (iCCU-S2 or iCCU-C2)	●		●	
All PBS wired in parallel, individually assignable to any phase	●		●	
16 buttons can operate on a single iCCU (dependent on power requirements and wire runs)	●		●	
Central & Remote Communication via Ethernet or Wireless (Wi-Fi & Bluetooth). SNMP (email alerts) & SNTP	●		●	
Preemption message broadcasting	●		●	
All sounds are synchronized	●		●	
Extended Push Priority can mute all but selected crosswalk	●		●	
False walk detection: four independent checks	●		●	
3 wires connect to iPHCU3S in the signal head. Two wires to traffic cabinet may be used to place calls at actuated intersections.		●		●
Stand-alone system - nothing in cabinet.		●		●
Wireless ped call actuation available.		●		●
Wireless button-to-button sync via Bluetooth for sound synchronization.		●		●
Pilot Light Recall: turns on pilot light and keeps it on during Clearance & Don't Walk Cycles		●		●

iDetect® is a registered trademark owned by Polara Enterprises, LLC. The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Polara Enterprises, LLC is under license. iOS® is a registered trademark owned by Cisco Systems, Inc. licensed to Apple Inc. Android is a trademark owned by Google LLC. Other trademarks and trade names are those of their respective owners.

Copyright © 2024 Synapse, LLC. All rights reserved.

POLARA polara.com | sales@polara.com | 903-366-0300 A SynapseITS™ company

APPENDIX XIV

"General Decision Number: CA20260022 08/06/2026

State: California

Construction Types: Building, Heavy and Highway

Counties: California Counties of
Los Angeles

Building Construction Projects
Dredging Projects-Includes Dredging Projects (does not include hopper dredge work)
Heavy Construction Projects (excludes water well drilling)
Highway Construction Projects

Modification Number	Publication Date
2	01/30/2026
3	05/18/2026
4	07/14/2026
5	08/06/2026

ASBE0005-002 07/01/2024

	Rates	Fringes
ASBESTOS WORKERS/INSULATOR (INCLUDES THE APPLICATION OF ALL INSULATING MATERIALS, PROTECTIVE COVERINGS, COATINGS, AND FINISHES TO ALL TYPES OF MECHANICAL SYSTEMS)	$ 56.32	26.52

ASBE0005-002 09/01/2024

	Rates	Fringes
FIRE STOP TECHNICIAN (APPLICATION OF FIRESTOPPING MATERIALS FOR WALL OPENINGS AND PENETRATIONS IN WALLS, FLOORS, CEILINGS AND CURTAIN WALLS)	$ 39.94	20.65

ASBE0005-004 07/04/2022

	Rates	Fringes
ASBESTOS REMOVAL WORKER/HAZARDOUS MATERIAL HANDLER (INCLUDES PREPARATION, WETTING, STRIPPING, REMOVAL, SCRAPPING, VACUUMING, BAGGING AND DISPOSING OF ALL INSULATION MATERIALS FROM MECHANICAL SYSTEMS, WHETHER THEY CONTAIN ASBESTOS OR NOT)	$ 23.52	13.37

BOIL0092-003 01/01/2024

	Rates	Fringes
BOILERMAKER	$ 51.98	42.11

BRCA0004-007 05/01/2024

	Rates	Fringes
BRICKLAYER; MARBLE SETTER *THE WAGE SCALE FOR PREVAILING WAGE PROJECTS PERFORMED IN BLYTHE, CHINA LAKE, DEATH VALLEY, FORT IRWIN, TWENTY-NINE PALMS,		

NEEDLES AND 1-15 CORRIDOR (BARSTOW TO THE NEVADA
STATE LINE) WILL BE THREE DOLLARS ($3.00) ABOVE THE
STANDARD SAN BERNARDINO/RIVERSIDE COUNTY HOURLY
WAGE RATE.....$ 45.53 20.29

BRCA0018-004 06/01/2024

	Rates	Fringes
MARBLE FINISHER	$ 43.38	15.36
TILE FINISHER	$ 37.96	13.77
TILE LAYER	$ 51.82	19.32

BRCA0018-010 09/01/2024

	Rates	Fringes
TERRAZZO FINISHER	$ 42.11	14.67
TERRAZZO WORKER/SETTER	$ 49.62	15.26

CARP0213-001 07/01/2025

	Rates	Fringes
CARPENTER: (1) CARPENTER, CABINET INSTALLER, INSULATION INSTALLER, HARDWOOD FLOOR WORKER AND ACOUSTICAL INSTALLER FOOTNOTE: WORK OF FORMING IN THE CONSTRUCTION OF OPEN CUT SEWERS OR STORM DRAINS, ON OPERATIONS IN WHICH HORIZONTAL LAGGING IS USED IN CONJUNCTION WITH STEEL H-BEAMS DRIVEN OR PLACED IN PRE- DRILLED HOLES, FOR THAT PORTION OF A LAGGED TRENCH AGAINST WHICH CONCRETE IS POURED, NAMELY, AS A SUBSTITUTE FOR BACK FORMS (WHICH WORK IS PERFORMED BY PILEDRIVERS): $0.13 PER HOUR ADDITIONAL	$ 52.24	26.18
CARPENTER: (2) MILLWRIGHT FOOTNOTE: WORK OF FORMING IN THE CONSTRUCTION OF OPEN CUT SEWERS OR STORM DRAINS, ON OPERATIONS IN WHICH HORIZONTAL LAGGING IS USED IN CONJUNCTION WITH STEEL H-BEAMS DRIVEN OR PLACED IN PRE- DRILLED HOLES, FOR THAT PORTION OF A LAGGED TRENCH AGAINST WHICH CONCRETE IS POURED, NAMELY, AS A SUBSTITUTE FOR BACK FORMS (WHICH WORK IS PERFORMED BY PILEDRIVERS): $0.13 PER HOUR ADDITIONAL	$ 52.24	26.68
CARPENTER: (3) PILEDRIVERMEN/DERRICK BARGEMAN, BRIDGE OR DOCK CARPENTER, HEAVY FRAMER, ROCK BARGEMAN OR SCOWMAN, ROCKSLINGER, SHINGLER (COMMERCIAL) FOOTNOTE: WORK OF FORMING IN THE CONSTRUCTION OF OPEN CUT SEWERS OR STORM DRAINS, ON OPERATIONS IN WHICH HORIZONTAL LAGGING IS USED IN CONJUNCTION WITH STEEL H-BEAMS DRIVEN OR PLACED IN PRE- DRILLED HOLES, FOR THAT PORTION OF A LAGGED TRENCH AGAINST WHICH CONCRETE IS POURED, NAMELY, AS A SUBSTITUTE FOR BACK FORMS (WHICH WORK IS PERFORMED BY PILEDRIVERS): $0.13 PER HOUR ADDITIONAL.	$ 52.37	26.18
CARPENTER: (4) PNEUMATIC NAILER, POWER STAPLER FOOTNOTE: WORK OF FORMING IN THE CONSTRUCTION OF OPEN CUT SEWERS OR STORM DRAINS, ON OPERATIONS IN WHICH HORIZONTAL LAGGING IS USED IN CONJUNCTION WITH STEEL H-BEAMS DRIVEN OR PLACED IN PRE- DRILLED HOLES, FOR THAT PORTION OF A LAGGED TRENCH AGAINST WHICH CONCRETE IS POURED, NAMELY, AS A SUBSTITUTE FOR BACK FORMS (WHICH WORK IS PERFORMED BY PILEDRIVERS): $0.13 PER HOUR ADDITIONAL	$ 52.37	26.18
CARPENTER: (5) SAWFILER FOOTNOTE: WORK OF FORMING IN THE CONSTRUCTION OF OPEN CUT SEWERS OR STORM DRAINS, ON OPERATIONS IN WHICH HORIZONTAL		

LAGGING IS USED IN CONJUNCTION WITH STEEL H-BEAMS
DRIVEN OR PLACED IN PRE- DRILLED HOLES, FOR THAT
PORTION OF A LAGGED TRENCH AGAINST WHICH CONCRETE
IS POURED, NAMELY, AS A SUBSTITUTE FOR BACK FORMS
(WHICH WORK IS PERFORMED BY PILEDRIVERS): $0.13 PER
HOUR ADDITIONAL.....$ 52.34 26.18
CARPENTER: (6) SCAFFOLD BUILDER FOOTNOTE: WORK
OF FORMING IN THE CONSTRUCTION OF OPEN CUT SEWERS
OR STORM DRAINS, ON OPERATIONS IN WHICH HORIZONTAL
LAGGING IS USED IN CONJUNCTION WITH STEEL H-BEAMS
DRIVEN OR PLACED IN PRE- DRILLED HOLES, FOR THAT
PORTION OF A LAGGED TRENCH AGAINST WHICH CONCRETE
IS POURED, NAMELY, AS A SUBSTITUTE FOR BACK FORMS
(WHICH WORK IS PERFORMED BY PILEDRIVERS): $0.13 PER
HOUR ADDITIONAL.....$ 45.37 25.43
CARPENTER: (7) TABLE POWER SAW OPERATOR
FOOTNOTE: WORK OF FORMING IN THE CONSTRUCTION OF
OPEN CUT SEWERS OR STORM DRAINS, ON OPERATIONS IN
WHICH HORIZONTAL LAGGING IS USED IN CONJUNCTION
WITH STEEL H-BEAMS DRIVEN OR PLACED IN PRE- DRILLED
HOLES, FOR THAT PORTION OF A LAGGED TRENCH AGAINST
WHICH CONCRETE IS POURED, NAMELY, AS A SUBSTITUTE
FOR BACK FORMS (WHICH WORK IS PERFORMED BY
PILEDRIVERS): $0.13 PER HOUR ADDITIONAL.....$ 52.34 26.18

CARP0213-002 07/01/2025

	Rates	Fringes
DIVER: (1) WET AMOUNTS IN ""RATES' COLUMN ARE PER DAY	$ 901.92	26.18
DIVER: (2) STANDBY AMOUNTS IN ""RATES' COLUMN ARE PER DAY	$ 450.96	26.18
DIVER: (3) TENDER AMOUNTS IN ""RATES' COLUMN ARE PER DAY	$ 442.96	26.18
DIVER: (4) ASSISTANT TENDER AMOUNTS IN ""RATES' COLUMN ARE PER DAY	$ 418.96	26.18

CARP0213-004 07/01/2025

	Rates	Fringes
DRYWALL (DRYWALL INSTALLER/LATHER)	$ 52.24	26.18
DRYWALL (STOCKER/SCRAPPER)	$ 21.45	11.27

CARP0721-001 07/01/2025

	Rates	Fringes
MODULAR FURNITURE INSTALLER	$ 25.00	13.06

ELEC0011-004 06/30/2023

	Rates	Fringes
ELECTRICIAN: INSIDE ELECTRICAL WORK: JOURNEYMAN ELECTRICIAN FOOT NOTE: CABLE SPLICER & INSTRUMENT PERSON: RECIEVE 5% ADDITIONAL PER HOUR ABOVE JOURNEYMAN ELECTRICIAN BASIC HOURLY RATE. TUNNEL WORK: 10% ADDITIONAL PER HOUR	$ 60.80	31.59

ELECTRICIAN: INTELLIGENT TRANSPORTATION SYSTEMS
STREET LIGHTING, TRAFFIC SIGNALS, CCTV ,AND
UNDERGROUND SYSTEMS: JOURNEYMAN TRANSPORTATION
ELECTRICIAN FOOT NOTE: CABLE SPLICER &
INSTRUMENT PERSON: RECIEVE 5% ADDITIONAL PER HOUR
ABOVE JOURNEYMAN ELECTRICIAN BASIC HOURLY RATE.
TUNNEL WORK: 10% ADDITIONAL PER HOUR. SCOPE OF
WORK - TRANSPORTATION SYSTEMS ELECTRICIAN:
INSTALLATION OF STREET LIGHTS AND TRAFFIC

SIGNALS,INCLUDING ELECTRICAL CIRCUITRY,
PROGRAMMABLE CONTROLLERS, PEDESTAL-MOUNTED
ELECTRICAL METER ENCLOSURES AND LAYING OF
PRE-ASSEMBLED MULTI-CONDUCTOR CABLE IN DUCTS,
LAYOUT OF ELECTRICAL SYSTEMS AND COMMUNICATION
INSTALLATION, INCLUDING PROPER POSITION OF TRENCH
DEPTHS AND RADIUS AT DUCT BANKS, LOCATION FOR MAN
HOLES, PULL BOXES, STREET LIGHTS AND TRAFFIC
SIGNALS. INSTALLATION OF UNDERGROUND DUCTS FOR
ELECTRICAL,TELEPHONE, CABLE TELEVISION AND
COMMUNICATION SYSTEMS. PULLING,TERMINATION AND
SPLICING OF TRAFFIC SIGNAL AND STREET LIGHTING
CONDUCTORS AND ELECTRICAL SYSTEMS INCLUDING
INTERCONNECT,DETECTOR LOOP, FIBER OPTIC CABLE AND
VIDEO/CABLE. .....$ 60.80 31.59
ELECTRICIAN: INTELLIGENT TRANSPORTATION SYSTEMS
STREET LIGHTING, TRAFFIC SIGNALS, CCTV, AND
UNDERGROUND SYSTEMS: TECHNICIAN FOOT NOTE:
CABLE SPLICER & INSTRUMENT PERSON: RECIEVE 5%
ADDITIONAL PER HOUR ABOVE JOURNEYMAN ELECTRICIAN
BASIC HOURLY RATE. TUNNEL WORK: 10% ADDITIONAL
PER HOUR. SCOPE OF WORK - TRANSPORTATION
SYSTEMS TECHNICIAN: DISTRIBUTION OF MATERIAL AT
JOB SITE, MANUAL EXCAVATION AND BACKFILL,
INSTALLATION OF SYSTEM CONDUITS AND RACEWAYS FOR
ELECTRICAL, TELEPHONE, CABLE TELEVISION AND
COMMUNICATION SYSTEMS. PULLING, TERMINATING AND
SPLICING OF TRAFFIC SIGNAL AND STREET LIGHTING
CONDUCTORS AND ELECTRICAL SYSTEMS INCLUDING
INTERCONNECT, DETECTOR LOOP, FIBER OPTIC CABLE AND
VIDEO/DATA.....$ 45.60 31.14

ELEC0011-007 01/01/2024

	Rates	Fringes
COMMUNICATIONS SYSTEM: INSTALLER COMMUNICATIONS & SYSTEMS WORK (EXCLUDES ANY WORK ON INTELLIGENT TRANSPORTATION SYSTEMS OR CCTV HIGHWAY SYSTEMS) SCOPE OF WORK THE WORK COVERED SHALL INCLUDE THE INSTALLATION, TESTING, SERVICE AND MAINTENANCE, OF THE FOLLOWING SYSTEMS THAT UTILIZE THE TRANSMISSION AND/OR TRANSFERENCE OF VOICE, SOUND, VISION AND DIGITAL FOR COMMERCIAL, EDUCATION, SECURITY AND ENTERTAINMENT PURPOSES FOR TV MONITORING AND SURVEILLANCE, BACKGROUND FOREGROUND MUSIC, INTERCOM AND TELEPHONE INTERCONNECT, INVENTORY CONTROL SYSTEMS, MICROWAVE TRANSMISSION, MULTI-MEDIA, MULTIPLEX, NURSE CALL SYSTEM, RADIO PAGE, SCHOOL INTERCOM AND SOUND, BURGLAR ALARMS AND LOW VOLTAGE MASTER CLOCK SYSTEMS. A. COMMUNICATION SYSTEMS THAT TRANSMIT OR RECEIVE INFORMATION AND/OR CONTROL SYSTEMS THAT ARE INTRINSIC TO THE ABOVE LISTED SYSTEMS SCADA (SUPERVISORY CONTROL/DATA ACQUISITION PCM (PULSE CODE MODULATION) INVENTORY CONTROL SYSTEMS DIGITAL DATA SYSTEMS BROADBAND & BASEBAND AND CARRIERS POINT OF SALE SYSTEMS VSAT DATA SYSTEMS DATA COMMUNICATION SYSTEMS RF AND REMOTE CONTROL SYSTEMS FIBER OPTIC DATA SYSTEMS B. SOUND AND VOICE TRANSMISSION/TRANSFERENCE SYSTEMS BACKGROUND-FOREGROUND MUSIC INTERCOM AND TELEPHONE INTERCONNECT SYSTEMS SOUND AND MUSICAL ENTERTAINMENT SYSTEMS NURSE CALL SYSTEMS RADIO PAGE SYSTEMS SCHOOL INTERCOM AND SOUND SYSTEMS BURGLAR ALARM SYSTEMS LOW-VOLTAGE MASTER CLOCK SYSTEMS MULTI-MEDIA/MULTIPLEX SYSTEMS TELEPHONE SYSTEMS RF		

SYSTEMS AND ANTENNAS AND WAVE GUIDE C. *FIRE ALARM SYSTEMS-INSTALLATION, WIRE PULLING AND TESTING. D. TELEVISION AND VIDEO SYSTEMS TELEVISION MONITORING AND SURVEILLANCE SYSTEMS VIDEO SECURITY SYSTEMS VIDEO ENTERTAINMENT SYSTEMS VIDEO EDUCATIONAL SYSTEMS CATV AND CCTV E. SECURITY SYSTEMS, PERIMETER SECURITY SYSTEMS, VIBRATION SENSOR SYSTEMS SONAR/INFRARED MONITORING EQUIPMENT, ACCESS CONTROL SYSTEMS, CARD ACCESS SYSTEMS *FIRE ALARM SYSTEMS 1. FIRE ALARMS-IN RACEWAYS: WIRE AND CABLE PULLING IN RACEWAYS PERFORMED BY ELECTRICIAN (INSIDE ELECTRICAL WORK) 2. FIRE ALARMS-OPEN WIRE SYSTEMS: INSTALLED BY THE COMMUNICATIONS SYSTEM INSTALLER....$ 46.47 18.47

ELEC1245-001 01/01/2025

	Rates	Fringes
LINE CONSTRUCTION: (1) LINEMAN; CABLE SPLICER HOLIDAYS: NEW YEAR'S DAY, M.L. KING DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, VETERANS DAY, THANKSGIVING DAY AND DAY AFTER THANKSGIVING, CHRISTMAS DAY.....	$ 70.16	24.71
LINE CONSTRUCTION: (2) EQUIPMENT SPECIALIST (OPERATES CRAWLER TRACTORS, COMMERCIAL MOTOR VEHICLES, BACKHOES, TRENCHERS, CRANES (50 TONS AND BELOW), OVERHEAD & UNDERGROUND DISTRIBUTION LINE EQUIPMENT) HOLIDAYS: NEW YEAR'S DAY, M.L. KING DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, VETERANS DAY, THANKSGIVING DAY AND DAY AFTER THANKSGIVING, CHRISTMAS DAY.....	$ 53.30	22.26
LINE CONSTRUCTION: (3) GROUNDMAN HOLIDAYS: NEW YEAR'S DAY, M.L. KING DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, VETERANS DAY, THANKSGIVING DAY AND DAY AFTER THANKSGIVING, CHRISTMAS DAY.....	$ 40.76	21.76

ELEV0018-001 01/01/2025

	Rates	Fringes
ELEVATOR MECHANIC FOOTNOTE: A. PAID VACATION: EMPLOYER CONTRIBUTES 8% OF REGULAR HOURLY RATE AS VACATION PAY CREDIT FOR EMPLOYEES WITH MORE THAN 5 YEARS OF SERVICE, AND 6% FOR 6 MONTHS TO 5 YEARS OF SERVICE. B. PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, VETERANS' DAY, THANKSGIVING DAY, FRIDAY AFTER THANKSGIVING, AND CHRISTMAS DAY.....	$ 69.43	38.44

ENGI0012-004 08/01/2025

	Rates	Fringes
OPERATOR, POWER EQUIPMENT: (1) LEVERMAN (DREDGING)..	$ 67.90	40.95
OPERATOR, POWER EQUIPMENT: (2) DREDGE DOZER (DREDGING).....	$ 61.93	40.95
OPERATOR, POWER EQUIPMENT: (3) DECKMATE (DREDGING)..	$ 61.82	40.95
OPERATOR, POWER EQUIPMENT: (4) WINCH OPERATOR (STERN WINCH ON DREDGE) (DREDGING).....	$ 61.27	40.95
OPERATOR, POWER EQUIPMENT: (5) FIREMAN-OILER, DECKHAND, BARGEMAN, LEVEEHAND (DREDGING).....	$ 60.73	40.95
OPERATOR, POWER EQUIPMENT: (6) BARGE MATE (DREDGING).....	$ 61.34	40.95

ENGI0012-024 07/01/2025

	Rates	Fringes
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 1- BARGEMAN; BRAKEMAN; COMPRESSOR OPERATOR; DITCH WITCH, WITH SEAT OR SIMILAR TYPE EQUIPMENT; ELEVATOR OPERATOR-INSIDE; ENGINEER OILER; FORKLIFT OPERATOR (INCLUDES LOED, LULL OR SIMILAR TYPES UNDER 5 TONS; GENERATOR OPERATOR; GENERATOR, PUMP OR COMPRESSOR PLANT OPERATOR; PUMP OPERATOR; SIGNALMAN; SWITCHMAN PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....	$ 63.40	33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 2- ASPHALT-RUBBER PLANT OPERATOR (NURSE TANK OPERATOR);COIL TUBING RIG OPERATOR, CONCRETE MIXER OPERATOR-SKIP TYPE; CONVEYOR OPERATOR; FIREMAN; FORKLIFT OPERATOR (INCLUDES LOED, LULL OR SIMILAR TYPES OVER 5 TONS; HYDROSTATIC PUMP OPERATOR; OILER CRUSHER (ASPHALT OR CONCRETE PLANT); PETROMAT LAYDOWN MACHINE; PJU SIDE DUM JACK; SCREENING AND CONVEYOR MACHINE OPERATOR (OR SIMILAR TYPES); SKIPLOADER (WHEEL TYPE UP TO 3/4 YD. WITHOUT ATTACHMENT); TAR POT FIREMAN; TEMPORARY HEATING PLANT OPERATOR; TRENCHING MACHINE OILER PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....	$ 64.18	33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 3- ASPHALT-RUBBER BLEND OPERATOR; BOBCAT OR SIMILAR TYPE (SKID STEER); EQUIPMENT GREASER (RACK); FORD FERGUSON (WITH DRAGTYPE ATTACHMENTS); HELICOPTER RADIOMAN (GROUND); STATIONARY PIPE WRAPPING AND CLEANING MACHINE OPERATOR PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....	$ 64.67	33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 4- ASPHALT PLANT FIREMAN; BACKHOE OPERATOR (MINI-MAX OR SIMILAR TYPE); BORING MACHINE OPERATOR; BOXMAN OR MIXERMAN (ASPHALT OR CONCRETE); CHIP SPREADING MACHINE OPERATOR; CONCRETE CLEANING		

DECONTAMINATION MACHINE OPERATOR; CONCRETE PUMP
OPERATOR (SMALL PORTABLE);DIRECT PUSH OPERATOR
(GEOPROBE OR SIMILAR TYPES) DRILLING MACHINE
OPERATOR, SMALL AUGER TYPES (TEXOMA SUPER
ECONOMATIC OR SIMILAR TYPES - HUGHES 100 OR 200 OR
SIMILAR TYPES - DRILLING DEPTH OF 30' MAXIMUM);
EQUIPMENT GREASER (GREASE TRUCK); GUARD RAIL POST
DRIVER OPERATOR; HIGHLINE CABLEWAY SIGNALMAN;
HYDRA-HAMMER-AERO STOMPER; MICRO TUNNELING (ABOVE
GROUND TUNNEL); POWER CONCRETE CURING MACHINE
OPERATOR; POWER CONCRETE SAW OPERATOR; POWER-DRIVEN
JUMBO FORM SETTER OPERATOR; POWER SWEEPER OPERATOR;
ROCK WHEEL SAW/TRENCHER; ROLLER OPERATOR
(COMPACTING); SCREED OPERATOR (ASPHALT OR
CONCRETE); TRENCHING MACHINE OPERATOR (UP TO 6
FT.); VACUUM OR MUCH TRUCK PREMIUM PAY: $10.00
PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT
OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA
LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO,
SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE
BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS
AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON
WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS
MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL.
COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE
WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER
OPERATOR.....$ 65.96 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP
6- ARTICULATING MATERIAL HAULER; ASPHALT PLANT
ENGINEER; BATCH PLANT OPERATOR; BIT SHARPENER;
CONCRETE JOINT MACHINE OPERATOR (CANAL AND SIMILAR
TYPE); CONCRETE PLANER OPERATOR; DANDY DIGGER; DECK
ENGINE OPERATOR; DERRICKMAN (OILFIELD TYPE);
DRILLING MACHINE OPERATOR, BUCKET OR AUGER TYPES
(CALWELD 100 BUCKET OR SIMILAR TYPES - WATSON 1000
AUGER OR SIMILAR TYPES - TEXOMA 330, 500 OR 600
AUGER OR SIMILAR TYPES - DRILLING DEPTH OF 45'
MAXIMUM); DRILLING MACHINE OPERATOR; HYDROGRAPHIC
SEEDER MACHINE OPERATOR (STRAW, PULP OR SEED),
JACKSON TRACK MAINTAINER, OR SIMILAR TYPE;
KALAMAZOO SWITCH TAMPER, OR SIMILAR TYPE; MACHINE
TOOL OPERATOR; MAGINNIS INTERNAL FULL SLAB
VIBRATOR, MECHANICAL BERM, CURB OR GUTTER(CONCRETE
OR ASPHALT); MECHANICAL FINISHER OPERATOR
(CONCRETE, CLARY-JOHNSON-BIDWELL OR SIMILAR); MICRO
TUNNEL SYSTEM (BELOW GROUND); PAVEMENT BREAKER
OPERATOR (TRUCK MOUNTED); ROAD OIL MIXING MACHINE
OPERATOR; ROLLER OPERATOR (ASPHALT OR FINISH),
RUBBER-TIRED EARTH MOVING EQUIPMENT (SINGLE ENGINE,
UP TO AND INCLUDING 25 YDS. STRUCK); SELF-PROPELLED
TAR PIPELINING MACHINE OPERATOR; SKIPLOADER
OPERATOR (CRAWLER AND WHEEL TYPE, OVER 3/4 YD. AND
UP TO AND INCLUDING 1-1/2 YDS.); SLIP FORM PUMP
OPERATOR (POWER DRIVEN HYDRAULIC LIFTING DEVICE FOR
CONCRETE FORMS); TRACTOR OPERATOR-BULLDOZER,
TAMPER-SCRAPER (SINGLE ENGINE, UP TO 100 H.P.
FLYWHEEL AND SIMILAR TYPES, UP TO AND INCLUDING D-5
AND SIMILAR TYPES); TUGGER HOIST OPERATOR (1 DRUM);
ULTRA HIGH PRESSURE WATERJET CUTTING TOOL SYSTEM
OPERATOR; VACUUM BLASTING MACHINE OPERATOR PREMIUM
PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER
EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY
BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB,
POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO
ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE

YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.18 33.20

OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 8- ASPHALT OR CONCRETE SPREADING OPERATOR (TAMPING OR FINISHING); ASPHALT PAVING MACHINE OPERATOR (BARBER GREENE OR SIMILAR TYPE); ASPHALT-RUBBER DISTRIBUTION OPERATOR; BACKHOE OPERATOR (UP TO AND INCLUDING 3/4 YD.), SMALL FORD, CASE OR SIMILAR TYPES; CABLE BUNDLING MACHINE OPERATOR (EXCLUDING HANDHELD); CABLE TRENCHING MACHINE OPERATOR (SPIDER PLOW OR SIMILAR TYPES) CAST-IN-PLACE PIPE LAYING MACHINE OPERATOR; COMBINATION MIXER AND COMPRESSOR OPERATOR (GUNITE WORK); COMPACTOR OPERATOR (SELF-PROPELLED); CONCRETE MIXER OPERATOR (PAVING); CRUSHING PLANT OPERATOR; DRILL DOCTOR; DRILLING MACHINE OPERATOR, BUCKET OR AUGER TYPES (CALWELD 150 BUCKET OR SIMILAR TYPES - WATSON 1500, 2000 2500 AUGER OR SIMILAR TYPES - TEXOMA 700, 800 AUGER OR SIMILAR TYPES - DRILLING DEPTH OF 60' MAXIMUM); ELEVATING GRADER OPERATOR; GRADE CHECKER; GRADALL OPERATOR; GROUTING MACHINE OPERATOR; HEAVY-DUTY REPAIRMAN; HEAVY EQUIPMENT ROBOTICS OPERATOR; KALAMAZOO BALLISTE REGULATOR OR SIMILAR TYPE; KOLMAN BELT LOADER AND SIMILAR TYPE; LE TOURNEAU BLOB COMPACTOR OR SIMILAR TYPE; LOADER OPERATOR (ATHEY, EUCLID, SIERRA AND SIMILAR TYPES); MOBARK CHIPPER OR SIMILAR; OZZIE PADDER OR SIMILAR TYPES; P.C. SLOT SAW; PNEUMATIC CONCRETE PLACING MACHINE OPERATOR (HACKLEY-PRESSWELL OR SIMILAR TYPE); PUMPCRETE GUN OPERATOR; RCM CEMENTING UNIT OPERATOR, RAIL/SWITCH GRINDER OPERATOR (HARSCO OR SIMILAR TYPES) ROCK DRILL OR SIMILAR TYPES; ROTARY DRILL OPERATOR (EXCLUDING CAISSON TYPE); RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR (SINGLE ENGINE, CATERPILLAR, EUCLID, ATHEY WAGON AND SIMILAR TYPES WITH ANY AND ALL ATTACHMENTS OVER 25 YDS. UP TO AND INCLUDING 50 CU. YDS. STRUCK); RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR (MULTIPLE ENGINE UP TO AND INCLUDING 25 YDS. STRUCK); RUBBER-TIRED SCRAPER OPERATOR (SELF-LOADING PADDLE WHEEL TYPE-JOHN DEERE, 1040 AND SIMILAR SINGLE UNIT); SELF- PROPELLED CURB AND GUTTER MACHINE OPERATOR; SHUTTLE BUGGY; SKIPLOADER OPERATOR (CRAWLER AND WHEEL TYPE OVER 1-1/2 YDS. UP TO AND INCLUDING 6-1/2 YDS.); SOIL REMEDIATION PLANT OPERATOR; SURFACE HEATERS AND PLANER OPERATOR; TRACTOR COMPRESSOR DRILL COMBINATION OPERATOR; TRACTOR OPERATOR (ANY TYPE LARGER THAN D-5 - 100 FLYWHEEL H.P. AND OVER, OR SIMILAR-BULLDOZER, TAMPER, SCRAPER AND PUSH TRACTOR SINGLE ENGINE); TRACTOR OPERATOR (BOOM ATTACHMENTS), TRAVELING PIPE WRAPPING, CLEANING AND BENDNG MACHINE OPERATOR; TRENCHING MACHINE OPERATOR (OVER 6 FT. DEPTH CAPACITY, MANUFACTURER'S RATING); TRENCHING MACHINE WITH ROAD MINER ATTACHMENT (OVER 6 FT DEPTH CAPACITY): ULTRA HIGH PRESSURE WATERJET CUTTING TOOL SYSTEM MECHANIC; WATER PULL (COMPACTION) OPERATOR PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO,

SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE
BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS
AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON
WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS
MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL.
COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE
WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER
OPERATOR.....$ 66.29 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP
10- DRILLING MACHINE OPERATOR, BUCKET OR AUGER
TYPES (CALWELD 200 B BUCKET OR SIMILAR TYPES-WATSON
3000 OR 5000 AUGER OR SIMILAR TYPES-TEXOMA 900
AUGER OR SIMILAR TYPES-DRILLING DEPTH OF 105'
MAXIMUM); DUAL DRUM MIXER, DYNAMIC COMPACTOR LDC350
(OR SIMILAR TYPES); MONORAIL LOCOMOTIVE OPERATOR
(DIESEL, GAS OR ELECTRIC); MOTOR PATROL-BLADE
OPERATOR (SINGLE ENGINE); MULTIPLE ENGINE TRACTOR
OPERATOR (EUCLID AND SIMILAR TYPE-EXCEPT QUAD 9
CAT.); RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR
(SINGLE ENGINE, OVER 50 YDS. STRUCK); PNEUMATIC
PIPE RAMMING TOOL AND SIMILAR TYPES; PRESTRESSED
WRAPPING MACHINE OPERATOR; RUBBER-TIRED
EARTH-MOVING EQUIPMENT OPERATOR (SINGLE ENGINE,
OVER 50 YDS. STRUCK); RUBBER TIRED EARTH MOVING
EQUIPMENT OPERATOR (MULTIPLE ENGINE, EUCLID,
CATERPILLAR AND SIMILAR OVER 25 YDS. AND UP TO 50
YDS. STRUCK), TOWER CRANE REPAIRMAN; TRACTOR LOADER
OPERATOR (CRAWLER AND WHEEL TYPE OVER 6-1/2 YDS.);
WOODS MIXER OPERATOR (AND SIMILAR PUGMILL
EQUIPMENT) PREMIUM PAY: $10.00 PER HOUR SHALL BE
PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE
FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND
COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE
CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.41 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP
12- AUTO GRADER OPERATOR; AUTOMATIC SLIP FORM
OPERATOR; DRILLING MACHINE OPERATOR, BUCKET OR
AUGER TYPES (CALWELD, AUGER 200 CA OR SIMILAR TYPES
- WATSON, AUGER 6000 OR SIMILAR TYPES - HUGHES
SUPER DUTY, AUGER 200 OR SIMILAR TYPES - DRILLING
DEPTH OF 175' MAXIMUM); HOE RAM OR SIMILAR WITH
COMPRESSOR; MASS EXCAVATOR OPERATOR LESS THA 750
CU. YARDS; MECHANICAL FINISHING MACHINE OPERATOR;
MOBILE FORM TRAVELER OPERATOR; MOTOR PATROL
OPERATOR (MULTI-ENGINE); PIPE MOBILE MACHINE
OPERATOR; RUBBER-TIRED EARTH- MOVING EQUIPMENT
OPERATOR (MULTIPLE ENGINE, EUCLID, CATERPILLAR AND
SIMILAR TYPE, OVER 50 CU. YDS. STRUCK);
RUBBER-TIRED SELF- LOADING SCRAPER OPERATOR
(PADDLE-WHEEL-AUGER TYPE SELF-LOADING - TWO (2) OR
MORE UNITS) PREMIUM PAY: $10.00 PER HOUR SHALL BE
PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE
FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND

COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE
CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.58 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP
13- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR
OPERATING EQUIPMENT WITH PUSH-PULL SYSTEM (SINGLE
ENGINE, UP TO AND INCLUDING 25 YDS. STRUCK)
PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL
POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG
MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND
COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE
CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.68 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP
14- CANAL LINER OPERATOR; CANAL TRIMMER OPERATOR;
REMOTE- CONTROL EARTH-MOVING EQUIPMENT OPERATOR
(OPERATING A SECOND PIECE OF EQUIPMENT: $1.00 PER
HOUR ADDITIONAL); WHEEL EXCAVATOR OPERATOR (OVER
750 CU. YDS.) PREMIUM PAY: $10.00 PER HOUR SHALL
BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE
FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND
COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE
CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.71 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP
15- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR,
OPERATING EQUIPMENT WITH PUSH-PULL SYSTEM (SINGLE
ENGINE, CATERPILLAR, EUCLID, ATHEY WAGON AND
SIMILAR TYPES WITH ANY AND ALL ATTACHMENTS OVER 25
YDS. AND UP TO AND INCLUDING 50 YDS. STRUCK);
RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR,
OPERATING EQUIPMENT WITH PUSH-PULL SYSTEM (MULTIPLE
ENGINE-UP TO AND INCLUDING 25 YDS. STRUCK) PREMIUM
PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER
EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY
BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB,
POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO
ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE
YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP
PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK
IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR
ADDITIONAL. COMBINATION MIXER AND COMPRESSOR
OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A
CONCRETE MOBILE MIXER OPERATOR.....$ 66.79 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP
16- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR,
OPERATING EQUIPMENT WITH PUSH-PULL SYSTEM (SINGLE
ENGINE, OVER 50 YDS. STRUCK); RUBBER-TIRED
EARTH-MOVING EQUIPMENT OPERATOR, OPERATING
EQUIPMENT WITH PUSH-PULL SYSTEM (MULTIPLE ENGINE,
EUCLID, CATERPILLAR AND SIMILAR, OVER 25 YDS. AND
UP TO 50 YDS. STRUCK) PREMIUM PAY: $10.00 PER
HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR
WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE
NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO,
SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE

BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS
AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON
WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS
MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL.
COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE
WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER
OPERATOR.....$ 66.91 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP
17- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR,
OPERATING EQUIPMENT WITH PUSH-PULL SYSTEM (MULTIPLE
ENGINE, EUCLID, CATERPILLAR AND SIMILAR, OVER 50
CU. YDS. STRUCK); TANDEM TRACTOR OPERATOR
(OPERATING CRAWLER TYPE TRACTORS IN TANDEM - QUAD 9
AND SIMILAR TYPE) PREMIUM PAY: $10.00 PER HOUR
SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK
ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL
RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY
NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE,
MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29
PALMS MARINE BASE AND CAMP PENDLETON WORKERS
REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS
MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL.
COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE
WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER
OPERATOR.....$ 67.08 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP
18- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR,
OPERATING IN TANDEM (SCRAPERS, BELLY DUMPS AND
SIMILAR TYPES IN ANY COMBINATION, EXCLUDING
COMPACTION UNITS - SINGLE ENGINE, UP TO AND
INCLUDING 25 YDS. STRUCK) PREMIUM PAY: $10.00 PER
HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR
WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE
NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO,
SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE
BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS
AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON
WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS
MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL.
COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE
WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER
OPERATOR.....$ 67.18 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP
19- ROTEX CONCRETE BELT OPERATOR (OR SIMILAR
TYPES); RUBBER-TIRED EARTH-MOVING EQUIPMENT
OPERATOR, OPERATING IN TANDEM (SCRAPERS, BELLY
DUMPS AND SIMILAR TYPES IN ANY COMBINATION,
EXCLUDING COMPACTION UNITS - SINGLE ENGINE,
CATERPILLAR, EUCLID, ATHEY WAGON AND SIMILAR TYPES
WITH ANY AND ALL ATTACHMENTS OVER 25 YDS.AND UP TO
AND INCLUDING 50 CU. YDS. STRUCK); RUBBER-TIRED
EARTH-MOVING EQUIPMENT OPERATOR, OPERATING IN
TANDEM (SCRAPERS, BELLY DUMPS AND SIMILAR TYPES IN
ANY COMBINATION, EXCLUDING COMPACTION UNITS -
MULTIPLE ENGINE, UP TO AND INCLUDING 25 YDS.
STRUCK) PREMIUM PAY: $10.00 PER HOUR SHALL BE
PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE
FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND
COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE

CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 67.29 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP
2-0 RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR,
OPERATING IN TANDEM (SCRAPERS, BELLY DUMPS AND
SIMILAR TYPES IN ANY COMBINATION, EXCLUDING
COMPACTION UNITS - SINGLE ENGINE, OVER 50 YDS.
STRUCK); RUBBER-TIRED EARTH-MOVING EQUIPMENT
OPERATOR, OPERATING IN TANDEM (SCRAPERS, BELLY
DUMPS, AND SIMILAR TYPES IN ANY COMBINATION,
EXCLUDING COMPACTION UNITS - MULTIPLE ENGINE,
EUCLID, CATERPILLAR AND SIMILAR, OVER 25 YDS. AND
UP TO 50 YDS. STRUCK) PREMIUM PAY: $10.00 PER
HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR
WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE
NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO,
SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE
BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS
AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON
WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS
MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL.
COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE
WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER
OPERATOR.....$ 67.41 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP
21- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR,
OPERATING IN TANDEM (SCRAPERS, BELLY DUMPS AND
SIMILAR TYPES IN ANY COMBINATION, EXCLUDING
COMPACTION UNITS - MULTIPLE ENGINE, EUCLID,
CATERPILLAR AND SIMILAR TYPE, OVER 50 CU. YDS.
STRUCK) PREMIUM PAY: $10.00 PER HOUR SHALL BE
PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE
FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND
COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE
CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 67.58 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP
22- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR,
OPERATING EQUIPMENT WITH THE TANDEM PUSH-PULL
SYSTEM (SINGLE ENGINE, UP TO AND INCLUDING 25 YDS.
STRUCK) PREMIUM PAY: $10.00 PER HOUR SHALL BE
PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE
FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND
COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE
CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 67.68 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP
23- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR,
OPERATING EQUIPMENT WITH THE TANDEM PUSH-PULL
SYSTEM (SINGLE ENGINE, CATERPILLAR, EUCLID, ATHEY
WAGON AND SIMILAR TYPES WITH ANY AND ALL
ATTACHMENTS OVER 25 YDS. AND UP TO AND INCLUDING 50
YDS. STRUCK); RUBBER-TIRED EARTH-MOVING EQUIPMENT
OPERATOR, OPERATING WITH THE TANDEM PUSH-PULL
SYSTEM (MULTIPLE ENGINE, UP TO AND INCLUDING 25
YDS. STRUCK) PREMIUM PAY: $10.00 PER HOUR SHALL

BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE
FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND
COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE
CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 67.79 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP
24- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR,
OPERATING EQUIPMENT WITH THE TANDEM PUSH-PULL
SYSTEM (SINGLE ENGINE, OVER 50 YDS. STRUCK);
RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR,
OPERATING EQUIPMENT WITH THE TANDEM PUSH-PULL
SYSTEM (MULTIPLE ENGINE, EUCLID, CATERPILLAR AND
SIMILAR, OVER 25 YDS. AND UP TO 50 YDS. STRUCK)
PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL
POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG
MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND
COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE
CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 67.91 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP
25- CONCRETE PUMP OPERATOR-TRUCK MOUNTED;
RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR,
OPERATING EQUIPMENT WITH THE TANDEM PUSH-PULL
SYSTEM (MULTIPLE ENGINE, EUCLID, CATERPILLAR AND
SIMILAR TYPE, OVER 50 CU. YDS. STRUCK); SPYDER
EXCAVATOR OPERATOR, WITH ALL ATTACHMENTS
PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL
POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG
MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND
COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE
CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR. $ 68.08 33.20
OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING &
HOISTING: GROUP 1- Engineer oiler; Fork lift
operator (includes loed, lull or similar types)
PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL
POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG
MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND
COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE
CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.
.....$ 64.75 33.20
OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING &
HOISTING: GROUP 2- Truck crane oiler PREMIUM PAY:
$10.00 PER HOUR SHALL BE PAID ON ALL POWER

EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY
BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB,
POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO
ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE
YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP
PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK
IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR
ADDITIONAL. COMBINATION MIXER AND COMPRESSOR
OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A
CONCRETE MOBILE MIXER OPERATOR.....$ 65.53 33.20
OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING &
HOISTING: GROUP 3- A-frame or winch truck
operator; Ross carrier operator (jobsite)
PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL
POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG
MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND
COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE
CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 65.82 33.20
OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING &
HOISTING: GROUP 4- Bridge-type unloader and
turntable operator; Helicopter hoist operator
PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL
POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG
MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND
COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE
CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 65.96 33.20
OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING &
HOISTING: GROUP 5 HYDRAULIC BOOM TRUCK; STINGER
CRANE (AUSTIN-WESTERN OR SIMILAR TYPE); TUGGER
HOIST OPERATOR (1 DRUM) PREMIUM PAY: $10.00 PER
HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR
WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE
NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO,
SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE
BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS
AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON
WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS
MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL.
COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE
WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER
OPERATOR.....$ 66.18 33.20
OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING &
HOISTING: GROUP 6 Bridge crane operator; Cretor
crane operator; Hoist operator (Chicago boom and
similar type); Lift mobile operator; Lift slab
machine operator (Vagtborg and similar types);
Material hoist and/or manlift operator; Polar
gantry crane operator; Self Climbing scaffold (or
similar type); Shovel, backhoe, dragline, clamshell
operator (over 3/4 yd. and up to 5 cu. yds. mrc);
Tugger hoist operator PREMIUM PAY: $10.00 PER
HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR
WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE

NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO,
SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE
BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS
AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON
WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS
MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL.
COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE
WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER
OPERATOR.....$ 66.29 33.20
OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING &
HOISTING: GROUP 7 PEDESTAL CRANE OPERATOR; SHOVEL,
BACKHOE, DRAGLINE, CLAMSHELL OPERATOR (OVER 5 CU.
YDS. MRC); TOWER CRANE REPAIR; TUGGER HOIST
OPERATOR (3 DRUM) PREMIUM PAY: $10.00 PER HOUR
SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK
ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL
RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY
NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE,
MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29
PALMS MARINE BASE AND CAMP PENDLETON WORKERS
REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS
MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL.
COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE
WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER
OPERATOR.....$ 66.41 33.20
OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING &
HOISTING: GROUP 8 Crane operator (up to and
including 25 ton capacity); Crawler transporter
operator; Derrick barge operator (up to and
including 25 ton capacity); Hoist operator, stiff
legs, Guy derrick or similar type (up to and
including 25 ton capacity); Shovel, backhoe,
dragline, clamshell operator (over 7 cu. yds.,
M.R.C.) PREMIUM PAY: $10.00 PER HOUR SHALL BE
PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE
FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND
COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE
CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.58 33.20
OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING &
HOISTING: GROUP 9 Crane operator (over 25 tons and
up to and including 50 tons mrc); Derrick barge
operator (over 25 tons up to and including 50 tons
mrc); Highline cableway operator; Hoist operator,
stiff legs, Guy derrick or similar type (over 25
tons up to and including 50 tons mrc); K-crane
operator; Polar crane operator; Self erecting tower
crane operator maximum lifting capacity ten tons
PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL
POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG
MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND
COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE
CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.75 33.20
OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING &

HOISTING: GROUP 10- Crane operator (over 50 tons
and up to and including 100 tons mrc); Derrick
barge operator (over 50 tons up to and including
100 tons mrc); Hoist operator, stiff legs, Guy
derrick or similar type (over 50 tons up to and
including 100 tons mrc), Mobile tower crane
operator (over 50 tons, up to and including 100
tons M.R.C.) PREMIUM PAY: $10.00 PER HOUR SHALL
BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE
FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON   WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND
COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE
CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 67.75 33.20
OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING &
HOISTING: GROUP 11- Crane operator (over 100 tons
and up to and including 200 tons mrc); Derrick
barge operator (over 100 tons up to and including
200 tons mrc); Hoist operator, stiff legs, Guy
derrick or similar type (over 100 tons up to and
including 200 tons mrc); Mobile tower crane
operator (over 100 tons up to and including 200
tons mrc) ; Tower crane operator and tower gantry
 PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL
POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG
MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON   WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND
COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE
CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 68.75 33.20
OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING &
HOISTING: GROUP 12- Crane operator (over 200 tons
up to and including 300 tons mrc); Derrick barge
operator (over 200 tons up to and including 300
tons mrc); Hoist operator, stiff legs, Guy derrick
or similar type (over 200 tons, up to and including
300 tons mrc); Mobile tower crane operator (over
200 tons, up to and including 300 tons mrc)
PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL
POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG
MILITARY BASES: CHINA LAKE NAVAL RESERVE,
VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE,
FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP
LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE
BASE AND CAMP PENDLETON   WORKERS REQUIRED TO SUIT
UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT:
$2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND
COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE
CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 69.75 33.20
OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING &
HOISTING: GROUP 13 Crane operator (over 300 tons);
Derrick barge operator (over 300 tons); Helicopter
pilot; Hoist operator, stiff legs, Guy derrick or
similar type (over 300 tons); Mobile tower crane
operator (over 300 tons).....$ 70.75 33.20
OPERATOR: POWER EQUIPMENT, TUNNEL WORK: GROUP 1-
Skiploader (wheel type up to 3/4 yd. without

attachment) PREMIUM PAY: $10.00 per hour shall be paid on all Power Equipment Operator work on the followng Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton Workers required to suit up and work in a hazardous material environment: $2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.....$ 65.25 33.20

OPERATOR: POWER EQUIPMENT, TUNNEL WORK: GROUP 2- Power-driven jumbo form setter operator PREMIUM PAY: $10.00 per hour shall be paid on all Power Equipment Operator work on the followng Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton Workers required to suit up and work in a hazardous material environment: $2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.....$ 66.03 33.20

OPERATOR: POWER EQUIPMENT, TUNNEL WORK: GROUP 3- Dinkey locomotive or motorperson (up to and including 10 tons) PREMIUM PAY: $10.00 per hour shall be paid on all Power Equipment Operator work on the followng Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton Workers required to suit up and work in a hazardous material environment: $2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.....$ 66.32 33.20

OPERATOR: POWER EQUIPMENT, TUNNEL WORK: GROUP 4- Bit sharpener; Equipment greaser (grease truck); Slip form pump operator (power-driven hydraulic lifting device for concrete forms); Tugger hoist operator (1 drum); Tunnel locomotive operator (over 10 and up to and including 30 tons) PREMIUM PAY: $10.00 per hour shall be paid on all Power Equipment Operator work on the followng Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton Workers required to suit up and work in a hazardous material environment: $2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.....$ 66.46 33.20

OPERATOR: POWER EQUIPMENT, TUNNEL WORK: GROUP 5- Backhoe operator (up to and including 3/4 yd.); Small Ford, Case or similar; Drill doctor; Grouting machine operator; Heading shield operator; Heavy-duty repairperson; Loader operator (Athey, Euclid, Sierra and similar types); Mucking machine operator (1/4 yd., rubber-tired, rail or track type); Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pneumatic heading shield (tunnel); Pumpcrete gun operator;

Tractor compressor drill combination operator; Tugger hoist operator (2 drum); Tunnel locomotive operator (over 30 tons) PREMIUM PAY: $10.00 per hour shall be paid on all Power Equipment Operator work on the followng Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton Workers required to suit up and work in a hazardous material environment: $2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.....$ 66.68 33.20

OPERATOR: POWER EQUIPMENT, TUNNEL WORK: GROUP 6- Heavy Duty Repairman PREMIUM PAY: $10.00 per hour shall be paid on all Power Equipment Operator work on the followng Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton Workers required to suit up and work in a hazardous material environment: $2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.....$ 66.79 33.20

OPERATOR: POWER EQUIPMENT, TUNNEL WORK: GROUP 7- Tunnel mole boring machine operator PREMIUM PAY: $10.00 per hour shall be paid on all Power Equipment Operator work on the followng Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton Workers required to suit up and work in a hazardous material environment: $2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.....$ 66.91 33.20

IRON0433-006 01/01/2025

	Rates	Fringes
IRONWORKER (FENCE ERECTOR)	$ 45.78	26.51
IRONWORKER (ORNAMENTAL, REINFORCING AND STRUCTURAL)	$ 50.70	35.15

LABO0300-001 11/01/2025

	Rates	Fringes
BRICK TENDER	$ 42.60	22.13

LABO0300-003 07/01/2025

	Rates	Fringes

LABORER GROUP 1: CLEANING AND HANDLING OF PANEL FORMS; CONCRETE SCREEDING FOR ROUGH STRIKE-OFF; CONCRETE, WATER CURING; DEMOLITION LABORER, THE CLEANING OF BRICK IF PERFORMED BY A WORKER PERFORMING ANY OTHER PHASE OF DEMOLITION WORK, AND THE CLEANING OF LUMBER; FIRE WATCHER, LIMBER, BRUSH LOADER, PILER AND DEBRIS HANDLER; FLAG PERSON; GAS, OIL AND/OR WATER PIPELINE LABORER; LABORER, ASPHALT-RUBBER MATERIAL LOADER; LABORER, GENERAL OR CONSTRUCTION; LABORER, GENERAL CLEAN-UP; LABORER,

LANDSCAPING; LABORER, JETTING; LABORER, TEMPORARY
WATER AND AIR LINES; MATERIAL HOSE OPERATOR (WALLS,
SLABS, FLOORS AND DECKS); PLUGGING, FILLING OF SHEE
BOLT HOLES; DRY PACKING OF CONCRETE; RAILROAD
MAINTENANCE, REPAIR TRACK PERSON AND ROAD BEDS;
STREETCAR AND RAILROAD CONSTRUCTION TRACK LABORERS;
RIGGING AND SIGNALING; SCALER; SLIP FORM RAISER;
TAR AND MORTAR; TOOL CRIB OR TOOL HOUSE LABORER;
TRAFFIC CONTROL BY ANY METHOD; WINDOW CLEANER; WIRE
MESH PULLING - ALL CONCRETE POURING OPERATIONS.....$ 46.48 25.95
LABORER GROUP 2: ASPHALT SHOVELER; CEMENT DUMPER
(ON 1 YD. OR LARGER MIXER AND HANDLING BULK
CEMENT); CESSPOOL DIGGER AND INSTALLER;
CHUCKTENDER; CHUTE HANDLER, POURING CONCRETE, THE
HANDLING OF THE CHUTE FROM READYMIX TRUCKS, SUCH AS
WALLS, SLABS, DECKS, FLOORS, FOUNDATION, FOOTINGS,
CURBS, GUTTERS AND SIDEWALKS; CONCRETE CURER,
IMPERVIOUS MEMBRANE AND FORM OILER; CUTTING TORCH
OPERATOR (DEMOLITION); FINE GRADER, HIGHWAYS AND
STREET PAVING, AIRPORT, RUNWAYS AND SIMILAR TYPE
HEAVY CONSTRUCTION; GAS, OIL AND/OR WATER PIPELINE
WRAPPER - POT TENDER AND FORM PERSON; GUINEA
CHASER; HEADERBOARD PERSON - ASPHALT; LABORER,
PACKING ROD STEEL AND PANS; MEMBRANE VAPOR BARRIER
INSTALLER; POWER BROOM SWEEPER (SMALL); RIPRAP
STONEPAVER, PLACING STONE OR WET SACKED CONCRETE;
ROTO SCRAPER AND TILLER; SANDBLASTER (POT TENDER);
SEPTIC TANK DIGGER AND INSTALLER(LEAD); TANK SCALER
AND CLEANER; TREE CLIMBER, FALLER, CHAIN SAW
OPERATOR, PITTSBURGH CHIPPER AND SIMILAR TYPE BRUSH
SHREDDER; UNDERGROUND LABORER, INCLUDING CAISSON
BELLOWER.....$ 47.03 25.95
LABORER GROUP 3: BUGGYMOBILE PERSON; CONCRETE
CUTTING TORCH; CONCRETE PILE CUTTER; DRILLER,
JACKHAMMER, 2-1/2 FT. DRILL STEEL OR LONGER;
DRI-PAK-IT MACHINE; GAS, OIL AND/OR WATER PIPELINE
WRAPPER, 6-IN. PIPE AND OVER, BY ANY METHOD, INSIDE
AND OUT; HIGH SCALER (INCLUDING DRILLING OF SAME);
HYDRO SEEDER AND SIMILAR TYPE; IMPACT WRENCH
MULTI-PLATE; KETTLE PERSON, POT PERSON AND WORKERS
APPLYING ASPHALT, LAY-KOLD, CREOSOTE, LIME CAUSTIC
AND SIMILAR TYPE MATERIALS (""APPLYING"" MEANS
APPLYING, DIPPING, BRUSHING OR HANDLING OF SUCH
MATERIALS FOR PIPE WRAPPING AND WATERPROOFING);
OPERATOR OF PNEUMATIC, GAS, ELECTRIC TOOLS,
VIBRATING MACHINE, PAVEMENT BREAKER, AIR BLASTING,
COME-ALONGS, AND SIMILAR MECHANICAL TOOLS NOT
SEPARATELY CLASSIFIED HEREIN; PIPELAYER'S BACKUP
PERSON, COATING, GROUTING, MAKING OF JOINTS,
SEALING, CAULKING, DIAPERING AND INCLUDING RUBBER
GASKET JOINTS, POINTING AND ANY AND ALL OTHER
SERVICES; ROCK SLINGER; ROTARY SCARIFIER OR
MULTIPLE HEAD CONCRETE CHIPPING SCARIFIER; STEEL
HEADERBOARD AND GUIDELINE SETTER; TAMPER, BARKO,
WACKER AND SIMILAR TYPE; TRENCHING MACHINE,
HAND-PROPELLED.....$ 47.58 25.95
LABORER GROUP 4: ASPHALT RAKER, LUTE PERSON,
IRONER, ASPHALT DUMP PERSON, AND ASPHALT SPREADER
BOXES (ALL TYPES); CONCRETE CORE CUTTER (WALLS,
FLOORS OR CEILINGS), GRINDER OR SANDER; CONCRETE
SAW PERSON, CUTTING WALLS OR FLAT WORK, SCORING OLD
OR NEW CONCRETE; CRIBBER, SHORER, LAGGING, SHEETING
AND TRENCH BRACING, HAND-GUIDED LAGGING HAMMER;
HEAD ROCK SLINGER; LABORER, ASPHALT- RUBBER
DISTRIBUTOR BOOT PERSON; LASER BEAM IN CONNECTION

WITH LABORERS' WORK; OVERSIZE CONCRETE VIBRATOR
OPERATOR, 70 LBS. AND OVER; PIPELAYER PERFORMING
ALL SERVICES IN THE LAYING AND INSTALLATION OF PIPE
FROM THE POINT OF RECEIVING PIPE IN THE DITCH UNTIL
COMPLETION OF OPERATION, INCLUDING ANY AND ALL
FORMS OF TUBULAR MATERIAL, WHETHER PIPE, METALLIC
OR NON-METALLIC, CONDUIT AND ANY OTHER STATIONARY
TYPE OF TUBULAR DEVICE USED FOR THE CONVEYING OF
ANY SUBSTANCE OR ELEMENT, WHETHER WATER, SEWAGE,
SOLID GAS, AIR, OR OTHER PRODUCT WHATSOEVER AND
WITHOUT REGARD TO THE NATURE OF MATERIAL FROM WHICH
THE TUBULAR MATERIAL IS FABRICATED; NO-JOINT PIPE
AND STRIPPING OF SAME; PREFABRICATED MANHOLE
INSTALLER; SANDBLASTER (NOZZLE PERSON), WATER
BLASTING, PORTA SHOT-BLAST.....$ 49.13 25.95
LABORER GROUP 5: BLASTER POWDER, ALL WORK OF
LOADING HOLES, PLACING AND BLASTING OF ALL POWDER
AND EXPLOSIVES OF WHATEVER TYPE, REGARDLESS OF
METHOD USED FOR SUCH LOADING AND PLACING; DRILLER:
ALL POWER DRILLS, EXCLUDING JACKHAMMER, WHETHER
CORE, DIAMOND, WAGON, TRACK, MULTIPLE UNIT, AND ANY
AND ALL OTHER TYPES OF MECHANICAL DRILLS WITHOUT
REGARD TO THE FORM OF MOTIVE POWER; TOXIC WASTE
REMOVAL .....$ 49.48 25.95
LABORER, TUNNEL: GROUP 1: BATCH PLANT LABORER;
CHANGEHOUSE PERSON; DUMP PERSON; DUMP PERSON
(OUTSIDE); SWAMPER (BRAKE PERSON AND SWITCH PERSON
ON TUNNEL WORK); TUNNEL MATERIALS HANDLING PERSON;
NIPPER; POT TENDER, USING MASTIC OR OTHER MATERIALS
(FOR EXAMPLE, BUT NOT BY WAY OF LIMITATION,
SHOTCRETE, ETC.) .....$ 53.60 25.74
LABORER, TUNNEL: GROUP 2: CHUCKTENDER, CABLETENDER;
LOADING AND UNLOADING AGITATOR CARS;; VIBRATOR
PERSON, JACK HAMMER, PNEUMATIC TOOLS (EXCEPT
DRILLER); BULL GANG MUCKER, TRACK PERSON; CONCRETE
CREW, INCLUDING RODDER AND SPREADER .....$ 53.92 25.74
LABORER, TUNNEL: GROUP 3: BLASTER, DRILLER, POWDER
PERSON; CHEMICAL GROUT JET PERSON; CHERRY PICKER
PERSON; GROUT GUN PERSON; GROUT MIXER PERSON; GROUT
PUMP PERSON; JACKLEG MINER; JUMBO PERSON; KEMPER
AND OTHER PNEUMATIC CONCRETE PLACER OPERATOR;
MINER, TUNNEL (HAND OR MACHINE); NOZZLE PERSON;
OPERATING OF TROWELING AND/OR GROUTING MACHINES;
POWDER PERSON (PRIMER HOUSE); PRIMER PERSON;
SANDBLASTER; SHOTCRETE PERSON; STEEL FORM RAISER
AND SETTER; TIMBER PERSON, RETIMBER PERSON, WOOD OR
STEEL; TUNNEL CONCRETE FINISHER .....$ 54.38 25.74
LABORER, TUNNEL: GROUP 4: DIAMOND DRILLER;
SANDBLASTER; SHAFT AND RAISE WORK.....$ 55.07 25.74

LABO0300-005 07/01/2025

Rates Fringes

ASBESTOS REMOVAL LABORER SCOPE OF WORK: INCLUDES
SITE MOBILIZATION, INITIAL SITE CLEANUP, SITE
PREPARATION, REMOVAL OF ASBESTOS-CONTAINING
MATERIAL AND TOXIC WASTE, ENCAPSULATION, ENCLOSURE
AND DISPOSAL OF ASBESTOS- CONTAINING MATERIALS AND
TOXIC WASTE BY HAND OR WITH EQUIPMENT OR MACHINERY;
SCAFFOLDING, FABRICATION OF TEMPORARY WOODEN
BARRIERS AND ASSEMBLY OF DECONTAMINATION STATIONS...$ 46.48 25.93

LABO0345-001 07/01/2025

Rates Fringes

LABORER, GUNITE: GROUP 1 RODMEN, NOZZLEMEN
FOOTNOTE: GUNITE PREMIUM PAY: WORKERS WORKING FROM A BOSN'N'S CHAIR OR SUSPENDED FROM A ROPE OR CABLE SHALL RECEIVE 40 CENTS PER HOUR ABOVE THE FOREGOING APPLICABLE CLASSIFICATION RATES. WORKERS DOING GUNITE AND/OR SHOTCRETE WORK IN A TUNNEL SHALL RECEIVE 35 CENTS PER HOUR ABOVE THE FOREGOING APPLICABLE CLASSIFICATION RATES, PAID ON A PORTAL-TO-PORTAL BASIS. ANY WORK PERFORMED ON, IN OR ABOVE ANY SMOKE STACK, SILO, STORAGE ELEVATOR OR SIMILAR TYPE OF STRUCTURE, WHEN SUCH STRUCTURE IS IN EXCESS OF 75'-0"" ABOVE BASE LEVEL AND WHICH WORK MUST BE PERFORMED IN WHOLE OR IN PART MORE THAN 75'-0"" ABOVE BASE LEVEL, THAT WORK PERFORMED ABOVE THE 75'-0"" LEVEL SHALL BE COMPENSATED FOR AT 35 CENTS PER HOUR ABOVE THE APPLICABLE
CLASSIFICATION WAGE RATE.....$ 55.88 23.77
LABORER, GUNITE: GROUP 2 GUNMEN FOOTNOTE: GUNITE PREMIUM PAY: WORKERS WORKING FROM A BOSN'N'S CHAIR OR SUSPENDED FROM A ROPE OR CABLE SHALL RECEIVE 40 CENTS PER HOUR ABOVE THE FOREGOING APPLICABLE CLASSIFICATION RATES. WORKERS DOING GUNITE AND/OR SHOTCRETE WORK IN A TUNNEL SHALL RECEIVE 35 CENTS PER HOUR ABOVE THE FOREGOING APPLICABLE CLASSIFICATION RATES, PAID ON A PORTAL-TO-PORTAL BASIS. ANY WORK PERFORMED ON, IN OR ABOVE ANY SMOKE STACK, SILO, STORAGE ELEVATOR OR SIMILAR TYPE OF STRUCTURE, WHEN SUCH STRUCTURE IS IN EXCESS OF 75'-0"" ABOVE BASE LEVEL AND WHICH WORK MUST BE PERFORMED IN WHOLE OR IN PART MORE THAN 75'-0"" ABOVE BASE LEVEL, THAT WORK PERFORMED ABOVE THE 75'-0"" LEVEL SHALL BE COMPENSATED FOR AT 35 CENTS PER HOUR ABOVE THE APPLICABLE CLASSIFICATION
WAGE RATE.....$ 54.93 23.77
LABORER, GUNITE: GROUP 3 REBOUNDMEN FOOTNOTE: GUNITE PREMIUM PAY: WORKERS WORKING FROM A BOSN'N'S CHAIR OR SUSPENDED FROM A ROPE OR CABLE SHALL RECEIVE 40 CENTS PER HOUR ABOVE THE FOREGOING APPLICABLE CLASSIFICATION RATES. WORKERS DOING GUNITE AND/OR SHOTCRETE WORK IN A TUNNEL SHALL RECEIVE 35 CENTS PER HOUR ABOVE THE FOREGOING APPLICABLE CLASSIFICATION RATES, PAID ON A PORTAL-TO-PORTAL BASIS. ANY WORK PERFORMED ON, IN OR ABOVE ANY SMOKE STACK, SILO, STORAGE ELEVATOR OR SIMILAR TYPE OF STRUCTURE, WHEN SUCH STRUCTURE IS IN EXCESS OF 75'-0"" ABOVE BASE LEVEL AND WHICH WORK MUST BE PERFORMED IN WHOLE OR IN PART MORE THAN 75'-0"" ABOVE BASE LEVEL, THAT WORK PERFORMED ABOVE THE 75'-0"" LEVEL SHALL BE COMPENSATED FOR AT 35 CENTS PER HOUR ABOVE THE APPLICABLE CLASSIFICATION
WAGE RATE.....$ 51.39 23.77

LABO1184-001 07/01/2025

	Rates	Fringes
LABORERS: HORIZONTAL DIRECTIONAL DRILLING: (1) DRILLING CREW LABORER	$ 47.94	20.86
LABORERS: HORIZONTAL DIRECTIONAL DRILLING: (2) VEHICLE OPERATOR/HAULER	$ 48.11	20.86
LABORERS: HORIZONTAL DIRECTIONAL DRILLING: (3) HORIZONTAL DIRECTIONAL DRILL OPERATOR	$ 49.96	20.86
LABORERS: HORIZONTAL DIRECTIONAL DRILLING: (4) ELECTRONIC TRACKING LOCATOR	$ 51.96	20.86

LABORERS:, STRIPING/SLURRY SEAL: GROUP 1 PROTECTIVE COATING, PAVEMENT SEALING, INCLUDING REPAIR AND

FILLING OF CRACKS BY ANY METHOD ON ANY SURFACE IN
PARKING LOTS, GAME COURTS AND PLAYGROUNDS;
CARSTOPS; OPERATION OF ALL RELATED MACHINERY AND
EQUIPMENT; EQUIPMENT REPAIR TECHNICIAN.....$ 49.30 23.97
LABORERS:, STRIPING/SLURRY SEAL: GROUP 2 TRAFFIC
SURFACE ABRASIVE BLASTER; POT TENDER - REMOVAL OF
ALL TRAFFIC LINES AND MARKINGS BY ANY METHOD
(SANDBLASTING, WATERBLASTING, GRINDING, ETC.) AND
PREPARATION OF SURFACE FOR COATINGS. TRAFFIC
CONTROL PERSON: CONTROLLING AND DIRECTING TRAFFIC
THROUGH BOTH CONVENTIONAL AND MOVING LANE CLOSURES;
OPERATION OF ALL RELATED MACHINERY AND EQUIPMENT....$ 50.60 23.97
LABORERS:, STRIPING/SLURRY SEAL: GROUP 3 TRAFFIC
DELINEATING DEVICE APPLICATOR: LAYOUT AND
APPLICATION OF PAVEMENT MARKERS, DELINEATING SIGNS,
RUMBLE AND TRAFFIC BARS, ADHESIVES, GUIDE MARKERS,
OTHER TRAFFIC DELINEATING DEVICES INCLUDING TRAFFIC
CONTROL. THIS CATEGORY INCLUDES ALL TRAFFIC RELATED
SURFACE PREPARATION (SANDBLASTING, WATERBLASTING,
GRINDING) AS PART OF THE APPLICATION PROCESS.
TRAFFIC PROTECTIVE DELINEATING SYSTEM INSTALLER:
REMOVES, RELOCATES, INSTALLS, PERMANENTLY AFFIXED
ROADSIDE AND PARKING DELINEATION BARRICADES,
FENCING, CABLE ANCHOR, GUARD RAIL, REFERENCE SIGNS,
MONUMENT MARKERS; OPERATION OF ALL RELATED
MACHINERY AND EQUIPMENT; POWER BROOM SWEEPER.....$ 52.61 23.97
LABORERS:, STRIPING/SLURRY SEAL: GROUP 4 STRIPER:
LAYOUT AND APPLICATION OF TRAFFIC STRIPES AND
MARKINGS; HOT THERMO PLASTIC; TAPE TRAFFIC STRIPES
AND MARKINGS, INCLUDING TRAFFIC CONTROL; OPERATION
OF ALL RELATED MACHINERY AND EQUIPMENT.....$ 54.35 23.97

LABO1414-001 08/06/2025

	Rates	Fringes
LABORER: PLASTER CLEAN-UP LABORER WORK ON A SWING STAGE SCAFFOLD: $1.00 PER HOUR ADDITIONAL.....	$ 46.17	25.97
LABORER: PLASTER TENDER WORK ON A SWING STAGE SCAFFOLD: $1.00 PER HOUR ADDITIONAL.....	$ 48.72	25.97

PAIN0036-001 07/01/2023

	Rates	Fringes
PAINTERS: INCLUDING LEAD ABATEMENT: (2) ALL OTHER WORK	$ 38.52	18.64

PAIN0036-006 09/01/2024

	Rates	Fringes
DRYWALL FINISHER/TAPER (ANTELOPE VALLEY NORTH OF THE FOLLOWING BOUNDARY: KERN COUNTY LINE TO HWY. #5, SOUTH ON HWY. #5 TO HWY. N2, EAST ON N2 TO PALMDALE BLVD., TO HWY. #14, SOUTH TO HWY. #18, EAST TO HWY. #395).....	$ 45.20	26.82
DRYWALL FINISHER/TAPER (REMAINDER OF LOS ANGELES COUNTY).....	$ 49.33	26.82

PAIN0036-015 01/01/2025

	Rates	Fringes
GLAZIER FOOTNOTE: ADDITIONAL $1.25 PER HOUR FOR WORK IN A CONDOR, FROM THE THIRD (3RD) FLOOR AND UP ADDITIONAL $1.25 PER HOUR FOR WORK ON THE OUTSIDE OF THE BUILDING FROM A SWING STAGE OR ANY SUSPENDED CONTRIVANCE, FROM THE GROUND UP.....	$ 53.05	30.64

PAIN1247-002 01/01/2025

	Rates	Fringes
SOFT FLOOR LAYER	$ 45.15	19.43

PLAS0200-009 08/03/2022

	Rates	Fringes
PLASTERER	$ 47.37	19.64

PLAS0500-002 07/01/2025

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 47.70	27.07

PLUM0016-001 09/01/2025

	Rates	Fringes
PLUMBER/PIPEFITTER (WORK ONLY ON NEW ADDITIONS AND REMODELING OF BARS, RESTAURANT, STORES AND COMMERCIAL BUILDINGS NOT TO EXCEED 5,000 SQ. FT. OF FLOOR SPACE)	$ 59.85	25.83
PLUMBER/PIPEFITTER (ALL OTHER WORK EXCEPT WORK ON NEW ADDITIONS AND REMODELING OF BARS, RESTAURANT, STORES AND COMMERCIAL BUILDINGS NOT TO EXCEED 5,000 SQ. FT. OF FLOOR SPACE AND WORK ON STRIP MALLS, LIGHT COMMERCIAL, TENANT IMPROVEMENT AND REMODEL WORK)	$ 61.73	26.81
PLUMBER/PIPEFITTER (WORK ONLY ON STRIP MALLS, LIGHT COMMERCIAL, TENANT IMPROVEMENT AND REMODEL WORK)	$ 44.29	24.16

PLUM0345-001 09/01/2025

	Rates	Fringes
PLUMBER (LANDSCAPE/IRRIGATION FITTER)	$ 44.75	26.20
PLUMBER (SEWER & STORM DRAIN WORK)	$ 48.84	23.58

ROOF0036-002 08/01/2025

	Rates	Fringes
ROOFER FOOTNOTE: PITCH PREMIUM: WORK ON WHICH EMPLOYEES ARE EXPOSED TO PITCH FUMES OR REQUIRED TO HANDLE PITCH, PITCH BASE OR PITCH IMPREGNATED PRODUCTS, OR ANY MATERIAL CONTAINING COAL TAR PITCH, THE ENTIRE ROOFING CREW SHALL RECEIVE $1.75 PER HOUR ""PITCH PREMIUM"" PAY	$ 52.63	20.73

SFCA0669-013 01/01/2026

	Rates	Fringes
SPRINKLER FITTER (DOES NOT INCLUDE THE CITY OF POMONA, CATALINA ISLAND, AND THAT PART OF LOS ANGELES COUNTY WITHIN 25 MILES OF THE CITY LIMITS OF LOS ANGELES)	$ 50.79	29.80

SFCA0709-005 09/01/2025

	Rates	Fringes
SPRINKLER FITTER: FIRE (THE CITY OF POMOMA, CATALINA ISLAND, AND THAT PART OF LOS ANGELES COUNTY WITHIN 25 MILES OF THE CITY LIMITS OF LOS ANGELES)	$ 58.60	33.65

SHEE0105-002 01/01/2025

	Rates	Fringes
SHEET METAL WORKER: (1) LIGHT COMMERCIAL: WORK ON GENERAL SHEET METAL AND HEATING AND AC UP TO 4000 SQ FT. (LOS ANGELES (SOUTH OF A STRAIGHT LINE BETWEEN GORMAN AND BIG PINES INCLUDING CATALINA ISLAND))	$ 35.57	10.63

SHEE0105-003 01/01/2025

	Rates	Fringes
SHEET METAL WORKER: (1) COMMERCIAL - NEW CONSTRUCTION AND REMODEL WORK (LOS ANGELES (SOUTH OF A STRAIGHT LINE DRAWN BETWEEN GORMAN AND BIG PINES)AND CATALINA ISLAND, INYO, KERN (NORTHEAST PART, EAST OF HWY 395), MONO ORANGE, RIVERSIDE, AND SAN BERNARDINO COUNTIES)	$ 59.31	30.43

SHEE0105-004 07/01/2023

	Rates	Fringes
SHEET METAL WORKER (KERN (EXCLUDING PORTION EAST OF HWY 395) & LOS ANGELES (NORTH OF A STRAIGHT LINE DRAWN BETWEEN GORMAN AND BIG PINES INCLUDING CITIES OF LANCASTER AND PALMDALE) COUNTIES)	$ 45.98	29.24

TEAM0011-002 07/01/2025

	Rates	Fringes
TRUCK DRIVER GROUP 1 TRUCK DRIVER WORK ON ALL MILITARY BASES: PREMIUM PAY: $3.00 PER HOUR ADDITIONAL. [29 PALMS MARINE BASE, CAMP ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL FACILITY, FORT IRWIN, MARINE CORPS LOGISTICS BASE AT NEBO & YERMO, MOUNTAIN WARFARE TRAINING CENTER, BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION, VANDENBERG AFB]	$ 41.59	35.69
TRUCK DRIVER GROUP 2 DRIVER OF VEHICLE OR COMBINATION OF VEHICLES - 2 AXLES; TRAFFIC CONTROL PILOT CAR EXCLUDING MOVING HEAVY EQUIPMENT PERMIT LOAD; TRUCK MOUNTED BROOM WORK ON ALL MILITARY BASES: PREMIUM PAY: $3.00 PER HOUR ADDITIONAL. [29 PALMS MARINE BASE, CAMP ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL FACILITY, FORT IRWIN, MARINE CORPS LOGISTICS BASE AT NEBO & YERMO, MOUNTAIN WARFARE TRAINING CENTER, BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION, VANDENBERG AFB]	$ 41.74	35.69
TRUCK DRIVER GROUP 3 DRIVER OF VEHICLE OR COMBINATION OF VEHICLES - 3 AXLES; BOOT PERSON; CEMENT MASON DISTRIBUTION TRUCK; FUEL TRUCK DRIVER; WATER TRUCK - 2 AXLE; DUMP TRUCK, LESS THAN 16 YDS. WATER LEVEL; EROSION CONTROL DRIVER WORK ON ALL MILITARY BASES: PREMIUM PAY: $3.00 PER HOUR ADDITIONAL. [29 PALMS MARINE BASE, CAMP ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL FACILITY, FORT IRWIN, MARINE CORPS LOGISTICS BASE AT NEBO & YERMO, MOUNTAIN WARFARE TRAINING CENTER, BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION, VANDENBERG AFB]	$ 41.87	35.69
TRUCK DRIVER GROUP 4 DRIVER OF TRANSIT MIX TRUCK, UNDER 3 YDS.; DUMPCRETE TRUCK, LESS THAN 6-1/2 YDS. WATER LEVEL WORK ON ALL MILITARY BASES: PREMIUM PAY: $3.00 PER HOUR ADDITIONAL. [29 PALMS MARINE BASE, CAMP ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL FACILITY, FORT IRWIN, MARINE CORPS		

LOGISTICS BASE AT NEBO & YERMO, MOUNTAIN WARFARE
TRAINING CENTER, BRIDGEPORT, POINT ARGUELLO,
POINT CONCEPTION, VANDENBERG AFB].....$ 42.06 35.69
TRUCK DRIVER GROUP 5 WATER TRUCK, 3 OR MORE AXLES;
TRUCK GREASER AND TIRE PERSON ($0.50 ADDITIONAL FOR
TIRE PERSON); PIPELINE AND UTILITY WORKING TRUCK
DRIVER, INCLUDING WINCH TRUCK AND PLASTIC FUSION,
LIMITED TO PIPELINE AND UTILITY WORK; SLURRY TRUCK
DRIVER WORK ON ALL MILITARY BASES: PREMIUM PAY:
$3.00 PER HOUR ADDITIONAL. [29 PALMS MARINE BASE,
CAMP ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO
NAVAL FACILITY, FORT IRWIN, MARINE CORPS LOGISTICS
BASE AT NEBO & YERMO, MOUNTAIN WARFARE TRAINING
CENTER, BRIDGEPORT, POINT ARGUELLO, POINT
CONCEPTION, VANDENBERG AFB].....$ 42.09 35.69
TRUCK DRIVER GROUP 6 TRANSIT MIX TRUCK, 3 YDS. OR
MORE; DUMPCRETE TRUCK, 6-1/2 YDS. WATER LEVEL AND
OVER; VEHICLE OR COMBINATION OF VEHICLES - 4 OR
MORE AXLES; OIL SPREADER TRUCK; DUMP TRUCK, 16 YDS.
TO 25 YDS. WATER LEVEL WORK ON ALL MILITARY BASES:
 PREMIUM PAY: $3.00 PER HOUR ADDITIONAL. [29
PALMS MARINE BASE, CAMP ROBERTS, CHINA LAKE,
EDWARDS AFB, EL CENTRO NAVAL FACILITY, FORT IRWIN,
MARINE CORPS LOGISTICS BASE AT NEBO & YERMO,
MOUNTAIN WARFARE TRAINING CENTER, BRIDGEPORT,
POINT ARGUELLO, POINT CONCEPTION, VANDENBERG AFB]...$ 42.12 35.69
TRUCK DRIVER GROUP 7 A FRAME, SWEDISH CRANE OR
SIMILAR; FORKLIFT DRIVER; ROSS CARRIER DRIVER. WORK
ON ALL MILITARY BASES: PREMIUM PAY: $3.00 PER
HOUR ADDITIONAL. [29 PALMS MARINE BASE, CAMP
ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL
FACILITY, FORT IRWIN, MARINE CORPS LOGISTICS BASE
AT NEBO & YERMO, MOUNTAIN WARFARE TRAINING CENTER,
BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION,
VANDENBERG AFB] .....$ 42.37 35.69
TRUCK DRIVER GROUP 8 DUMP TRUCK, 25 YDS. TO 49
YDS. WATER LEVEL; TRUCK REPAIR PERSON; WATER PULL -
SINGLE ENGINE; WELDER WORK ON ALL MILITARY BASES:
PREMIUM PAY: $3.00 PER HOUR ADDITIONAL. [29 PALMS
MARINE BASE, CAMP ROBERTS, CHINA LAKE, EDWARDS AFB,
EL CENTRO NAVAL FACILITY, FORT IRWIN, MARINE CORPS
LOGISTICS BASE AT NEBO & YERMO, MOUNTAIN WARFARE
TRAINING CENTER, BRIDGEPORT, POINT ARGUELLO,
POINT CONCEPTION, VANDENBERG AFB].....$ 42.62 35.69
TRUCK DRIVER GROUP 9 TRUCK REPAIR PERSON/WELDER;
LOW BED DRIVER, 9 AXLES OR OVER WORK ON ALL
MILITARY BASES: PREMIUM PAY: $3.00 PER HOUR
ADDITIONAL. [29 PALMS MARINE BASE, CAMP ROBERTS,
CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL FACILITY,
FORT IRWIN, MARINE CORPS LOGISTICS BASE AT NEBO &
YERMO, MOUNTAIN WARFARE TRAINING CENTER,
BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION,
VANDENBERG AFB].....$ 42.82 35.69
TRUCK DRIVER GROUP 10 DUMP TRUCK - 50 YDS. OR MORE
WATER LEVEL; WATER PULL - SINGLE ENGINE WITH
ATTACHMENT WORK ON ALL MILITARY BASES: PREMIUM
PAY: $3.00 PER HOUR ADDITIONAL. [29 PALMS MARINE
BASE, CAMP ROBERTS, CHINA LAKE, EDWARDS AFB, EL
CENTRO NAVAL FACILITY, FORT IRWIN, MARINE CORPS
LOGISTICS BASE AT NEBO & YERMO, MOUNTAIN WARFARE
TRAINING CENTER, BRIDGEPORT, POINT ARGUELLO,
POINT CONCEPTION, VANDENBERG AFB].....$ 43.12 35.69
TRUCK DRIVER GROUP 11 WATER PULL - TWIN ENGINE;
WATER PULL - TWIN ENGINE WITH ATTACHMENTS; WINCH
TRUCK DRIVER - $1.25 ADDITIONAL WHEN OPERATING

WINCH OR SIMILAR SPECIAL ATTACHMENTS WORK ON ALL
MILITARY BASES: PREMIUM PAY: $3.00 PER HOUR
ADDITIONAL. [29 PALMS MARINE BASE, CAMP ROBERTS,
CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL FACILITY,
FORT IRWIN, MARINE CORPS LOGISTICS BASE AT NEBO &
YERMO, MOUNTAIN WARFARE TRAINING CENTER,
BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION,
VANDENBERG AFB].....$ 43.62 35.69
TRUCK DRIVER GROUP 12 BOOM TRUCK 17K AND ABOVE
WORK ON ALL MILITARY BASES: PREMIUM PAY: $3.00
PER HOUR ADDITIONAL. [29 PALMS MARINE BASE, CAMP
ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL
FACILITY, FORT IRWIN, MARINE CORPS LOGISTICS BASE
AT NEBO & YERMO, MOUNTAIN WARFARE TRAINING CENTER,
BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION,
VANDENBERG AFB].....$ 44.05 35.69

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.
==========
Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
for Federal Contractors applies to all contracts subject to the
Davis-Bacon Act for which the contract is awarded (and any
solicitation was issued) on or after January 1, 2017. If this
contract is covered by the EO, the contractor must provide
employees with 1 hour of paid sick leave for every 30 hours
they work, up to 56 hours of paid sick leave each year.
Employees must be permitted to use paid sick leave for their
own illness, injury or other health-related needs, including
preventive care; to assist a family member (or person who is
like family to the employee) who is ill, injured, or has other
health-related needs, including preventive care; or for reasons
resulting from, or to assist a family member (or person who is
like family to the employee) who is a victim of, domestic
violence, sexual assault, or stalking. Additional information
on contractor requirements and worker protections under the EO
is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject
to the Davis-Bacon Act that were awarded on or between January 1,
2015 and January 29, 2022, and that have not been renewed or
extended on or after January 30, 2022. Executive Order 13658 does
not apply to contracts subject only to the Davis-Bacon Related Acts
regardless of when they were awarded. If a contract is subject to
Executive Order 13658, the contractor must pay all covered workers
at least $13.65 per hour (or the applicable wage rate listed on this
wage determination, if it is higher) for all hours spent performing on
the contract from May 11, 2026, through December 31, 2026. The
applicable Executive Order minimum wage rate will be adjusted annually.
Additional information on contractor requirements and worker
protections under Executive Order 13658 is available at
www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications
and wage rates that have been found to be prevailing for the
type(s) of construction and geographic area covered by the wage
determination. The classifications are listed in alphabetical
order under rate identifiers indicating whether the particular

rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than SU, UAVG, SA, or SC denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The SU identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

SU wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The SA identifier indicates that the classifications and

prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the SA identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

==========

END OF GENERAL DECISION"

City Council
Agenda Report

ITEM NO. 13

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Julian Lee, Director of Public Works
Michael Vartanians, City Engineer

SUBJECT: **CONSIDERATION OF AUTHORIZATION TO SUBMIT A GRANT APPLICATION FOR THE HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP) CYCLE 13 FOR PEDESTRIAN CROSSING SAFETY IMPROVEMENTS FOR UP TO $360,000**

Recommendation

It is recommended that the City Council authorize the City Manager, or his designee, to prepare and submit a grant application to the California Department of Transportation (Caltrans) through the Highway Safety Improvement Program (HSIP) Cycle 13 for an amount up to $360,000 for pedestrian crossing safety improvements at Mission Street and Mound Avenue and Mission Street and Milan Avenue, and to execute and submit all necessary documents related to the grant application.

Executive Summary

The City of South Pasadena Public Works Department is seeking authorization to submit a grant application for up to $360,000 through the Highway Safety Improvement Program (HSIP) Cycle 13. The program provides federal funding to local agencies for transportation safety improvements.

Staff proposes to pursue funding for pedestrian crossing enhancements at two locations: Mission Street and Mound Avenue, adjacent to City Hall, and Mission Street and Milan Avenue, near Garfield Park. The proposed improvements would enhance pedestrian safety and accessibility to public facilities, parks, and surrounding neighborhoods, consistent with the City Council's infrastructure improvement and traffic safety priorities.

Background

The Highway Safety Improvement Program (HSIP) is a federally funded program administered by the California Department of Transportation (Caltrans) that provides financial assistance to local agencies for projects that improve roadway safety. The program focuses on reducing traffic-related fatalities and serious injuries through targeted safety improvements.

As part of Cycle 13, Caltrans is accepting applications for various transportation safety improvements, including projects under the Set-Aside Safety Countermeasure category. This category provides an opportunity for local agencies to pursue targeted safety improvements, including pedestrian crossing enhancements, with a maximum funding request of $360,000. The application deadline for Cycle 13 is November 2, 2026.

The City continues to evaluate opportunities to improve pedestrian safety throughout the community, particularly near public facilities, parks, and other areas with pedestrian activity. The proposed grant application supports the City Council's infrastructure improvement and traffic safety priorities by seeking outside funding to address pedestrian crossing safety at two locations identified by City staff.

Analysis

The HSIP Cycle 13 program provides funding for roadway safety improvements intended to reduce the potential for severe traffic collisions. Eligible projects have a maximum funding amount of $360,000 and include various transportation safety countermeasures addressing:

- pedestrian safety improvements;
- bicycle safety improvements;
- Intersection and roadway safety improvements.

Under the Set-Aside Safety Countermeasure category, staff recommends pursuing funding specifically for pedestrian crossing enhancements. Potential improvements may include high-visibility crosswalk markings, enhanced pedestrian crossing signage, and other eligible pedestrian safety treatments. The final improvements would be determined through further evaluation and preparation of the grant application.

Evaluation and Selection of Proposed Locations

In identifying potential locations for pedestrian crossing enhancements, staff evaluated existing and planned pedestrian safety improvement projects throughout the City to avoid duplicating improvements and identify locations that could benefit from additional funding.

Staff considered the City's existing Rectangular Rapid Flashing Beacon (RRFB) projects, including the Mission Street pedestrian crossing improvements at Diamond Avenue and Fairview Avenue. Staff also reviewed the Pedestrian Crossing Devices Project, which includes improvements at Grevelia Street and Park Avenue, El Centro Street and Cawston Avenue, and Meridian Avenue and Bank Street.

Additional locations near schools and the South Pasadena Public Library were evaluated. However, several of these locations have existing stop-controlled crossings, which are not appropriate for RRFB installations. Staff also considered intersections along the Huntington Drive and Fremont Avenue corridors. However, pedestrian safety improvements at these locations are already being addressed through the City's ongoing Huntington Drive and Fremont Avenue Corridor Improvement Project, which is currently in design.

The intersection of Mission Street and Pasadena Avenue was also considered. However, the City's ongoing intersection improvement project proposes to introduce stop control at this location, which would make it unsuitable for an RRFB installation.

Based on this evaluation, staff identified Mission Street and Mound Avenue and Mission Street and Milan Avenue as the preferred locations for the proposed HSIP grant application. Both locations provide opportunities to enhance pedestrian crossing safety near public facilities and community destinations without duplicating improvements already planned under other City projects.

Proposed Pedestrian Crossing Improvements

Mission Street and Mound Avenue
The intersection of Mission Street and Mound Avenue is located adjacent to City Hall and serves pedestrians accessing City facilities and nearby businesses. The proposed improvements would focus on enhancing pedestrian crossing visibility and safety at this intersection, providing safer access for residents, visitors, and other roadway users.

Mission Street and Milan Avenue
The intersection of Mission Street and Milan Avenue is located near Garfield Park and serves pedestrians traveling to and from the park and surrounding residential neighborhoods. The proposed improvements would focus on improving pedestrian crossing visibility and safety, particularly for residents and families accessing the park.

Staff recommends these locations because of their proximity to public facilities and community destinations and the opportunity to improve pedestrian crossing conditions. Both locations support the City's broader efforts to enhance pedestrian safety and accessibility.

The City intends to request up to $360,000, the maximum funding amount available under the pedestrian crossing enhancement category. If awarded, the funding would support implementation of the proposed safety improvements.

For these reasons, staff recommends that the City Council authorize the City Manager, or his designee, to submit the HSIP Cycle 13 grant application for pedestrian crossing safety improvements at the two proposed locations.

Fiscal Impact
There is no additional fiscal impact associated with the recommended action. The City currently has an agreement with Townsend to assist with identifying grant funding opportunities and preparing grant applications. Preparation and submission of the HSIP Cycle 13 grant application will be completed under the City's existing agreement with Townsend at no additional cost to the City.

If awarded, the City would receive up to $360,000 in grant funding and would be required to provide a local match of $40,000, resulting in a total project budget of $400,000. The required local matching funds would be identified and presented to the City Council for consideration prior to acceptance of the grant funding.

Key Performance Indicators and Strategic Plan
This item is related to infrastructure improvement and traffic mitigation and safety goals in the City Council's 2026 compilation of priorities.

Public Notification
The public was made aware that this item was to be considered this evening by virtue of its inclusion on the legally publicly noticed agenda, posting of the same agenda and reports on the City’s website.

City Council
Agenda Report

ITEM NO. 14

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Julian Lee, Director of Public Works
Michael Vartanians, City Engineer

SUBJECT: **RECEIVE AND FILE THE CAPITAL IMPROVEMENT PROGRAM QUARTERLY UPDATE**

Recommendation
It is recommended that the City Council receive and file the Capital Improvement Program Quarterly Update report.

Executive Summary
This report provides the City Council with the Public Works Department's quarterly update presentation on the City's Capital Improvement Program (CIP). The regular quarterly reports will improve transparency, support project tracking, and ensure timely communication on progress, challenges, and funding needs. This update outlines the status of active CIP projects, highlights recently completed improvements, and identifies key milestones and schedule or budget refinements.

Fiscal Impact
No fiscal impact is associated with receiving and filing this report. Any future budget adjustments will be brought to the City Council for consideration.

City Council
Agenda Report

ITEM NO. 15

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Nick Kimball, Assistant City Manager/CFO

SUBJECT: **DISCUSS A REQUEST FROM STAFF REGARDING A CITY COUNCIL AD HOC COMMITTEE RELATED TO THE CITY'S PREPARATION FOR THE 2028 OLYMPIC AND PARALYMPIC GAMES AND THE SCOPE OF THE COMMITTEE**

Recommendation
It is recommended that the City Council:

a. Discuss Staff's request to have a City Council ad hoc committee to develop recommendations for City Council consideration regarding the City's preparation for Olympic Games; and
b. Discuss the ad hoc committee's scope of work.

Executive Summary
The 2028 Olympic Games are scheduled for July 14 through July 30, 2028, and the 2028 Paralympic Games for August 15 through August 27, 2028. Regional planning for the Games is underway through LA28, the Southern California Association of Governments (SCAG), Metro, Caltrans, the City of Los Angeles, and other local cities hosting events. Decisions being made through those processes on transportation demand management, spectator routing, security perimeters, and community activations will affect South Pasadena streets, businesses, public safety services, and residents.

The City does not currently have a designated body to receive that information, set priorities, and return recommendations to the City Council. To facilitate Staff's work in preparing for the Olympic Games, Staff is requesting that two members of the City Council volunteer to be on an ad hoc committee to develop local activations and programming during the Games, identify the City's interests and obligations related to the Games, coordinate with regional partners, and develop and return recommendations for City Council consideration. Such an ad hoc committee would be a temporary advisory committee not subject to the Brown Act, and as set forth in this report, the ad hoc committee would sunset upon the commencement of the 2028 Olympic Games.

Background
In September 2017, the International Olympic Committee awarded the 2028 Olympic and Paralympic Games to Los Angeles. LA28, the private organizing committee, is responsible for delivering the Games, with venues located across Los Angeles County and other Southern California jurisdictions.

SCAG established the LA28 Games Mobility Program and convenes the Games Mobility Executives committee, which includes LA28, the Los Angeles Mayor's Office, Metro, the Los Angeles Department of Transportation, Caltrans, Metrolink, and other agencies.

SCAG is developing a community hub activation toolkit expected in early 2027. LA28 has convened quarterly working groups on community business and procurement, local hire and workforce development, and sustainability, and opened Games-time volunteer recruitment in 2026.

To date, the City of South Pasadena has participated in Games-related planning primarily through elected official and staff attendance at regional forums hosted by SCAG, LA28, and other regional planning bodies.

This item was originally on the October 7, 2026 City Council agenda, however, it was pulled at the request of staff and is being placed back on the agenda on October 21, 2026 for consideration.

Analysis

South Pasadena is strategically located within relatively close proximity to a number of Olympic venues, including Downtown Los Angeles, Rose Bowl Stadium, and Santa Anita Race Track. This provides an opportunity to leverage the Games and provide localized activations that benefit both residents and businesses. In an effort to begin planning for the impact of the Games and to maximize opportunities to participate, a City Council ad hoc committee could facilitate the planning process.

The proposed ad hoc committee is intended to provide a forum through which two members of the City Council alongside staff can review Games-related information as it is released, identify the City's interests, engage local and regional partners, and develop recommendations for City Council action in advance of the Games.

Staff has identified the following subject areas for the ad hoc committee's scope of work leading up to the Olympic Games, in no particular order:

- Transportation and traffic management.
- Public safety and emergency management.
- Community engagement and events.
- Economic and business activity.
- Regional coordination.
- Funding and fiscal considerations.

The ad hoc committee would meet on a schedule set by its members, with staff support coordinated through the City Manager's Office. Staff anticipates involvement from the Police Department, Fire Department, Public Works, Community Development, Community Services, and Finance, depending on the topic. The committee would provide periodic updates and action items to the City Council for consideration, as appropriate. The ad hoc committee would sunset upon the commencement of the 2028 Olympic Games.

The ad hoc committee would be temporary and solely advisory; all policy decisions, budget appropriations, and agreements would be presented to City Council for consideration.

Fiscal Impact

There is no direct fiscal impact associated with having an ad hoc committee. Staff support would be provided within existing FY 2026-27 work plan in the City Manager's Office, Management Intern, and affected departments. Any recommendations developed by the ad hoc committee that involve expenditures, staffing, grant applications, or agreements would be brought to the City Council for separate consideration and, if approved, incorporated in the budget.

City Council
Agenda Report

ITEM NO. 16

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Melissa Snyder, Community Services Director
Lucy Hakobian, Senior Management Analyst
Nathalie Wilcox, Community Services Supervisor

SUBJECT: **CONSIDERATION OF A COURT USE FRAMEWORK FOR TENNIS AND PICKLEBALL AT GARFIELD PARK AND ORANGE GROVE PARK AND DIRECTION REGARDING COURT HOURS, RESERVATIONS AND PERMITS, COURT STRIPING, AND A SIX-MONTH COURT USE PILOT PROGRAM**

Recommendation

It is recommended that the City Council:

1. Consider approval of public court hours of 7:00 a.m. to 9:00 p.m. at Garfield Park and Orange Grove Park for all court activities;
2. Consider approval of maintaining first-come, first-served access as the primary model for ordinary public use, while allowing limited optional reservations and requiring permits for organized and structured activities;
3. Consider approval of the Community Services Commission (Commission) recommendation to maintain the existing court striping configuration and resurface the courts on a like-for-like basis, with both Garfield Park courts remaining tennis-only and both Orange Grove Park courts retaining multi-purpose tennis/pickleball striping; and
4. Consider authorizing a six-month Court Use Pilot Program and Enforcement Model substantially in the form included as Attachment No. 1, direct staff to implement the City Council-approved court-use framework and temporary signage, subject to City Attorney review as appropriate, and direct staff to report back to the Commission and City Council following the six-month pilot.
5. Provide direction regarding the potential installation of sound-attenuation improvements at Orange Grove Park subject to final project pricing and availability of sufficient budget appropriations; and authorize the City Manager to execute any necessary agreements in accordance with applicable City purchasing requirements, subject to City Attorney review as appropriate.

Executive Summary

At its August 5, 2026 meeting, the City Council directed the Commission to review court operations at Garfield Park and Orange Grove Park, including hours of operation, a reservation and permit framework, and court striping. The matter is now before the City Council for final policy direction and authorization of the framework to be implemented during the proposed six-month pilot.

Staff recommends that the City Council establish uniform court hours of 7:00 a.m. to 9:00 p.m., maintain first-come, first-served access while allowing limited reservations and requiring permits for organized activities, approve the Commission's recommendation to maintain the existing like-for-like court striping configuration, and authorize a six-month pilot program to evaluate court utilization, community feedback, neighborhood impacts, and operational considerations. Following the pilot, staff will return to the Commission and City Council with findings and any recommended adjustments to the court-use framework.

The City Council is also being asked to provide direction regarding potential sound-attenuation improvements at Orange Grove Park. Staff has received preliminary pricing for sound-attenuation materials beginning at approximately $18,000, excluding installation. For planning purposes, staff has identified a potential expenditure of up to $30,000 for City Council consideration. Should the City Council support pursuing these improvements, implementation would be contingent upon final project pricing, identification of an appropriate funding source, and availability of sufficient budget appropriations.

Background

At its April 11, 2016 meeting, the Parks and Recreation Commission recommended adding pickleball lines to one of the two tennis courts at Orange Grove Park, which would have resulted in one tennis-only court and one multi-purpose tennis/pickleball court. City records indicate that a purchase order was subsequently issued in June 2016 for striping work on both Orange Grove Park courts, and both courts were ultimately striped for tennis and pickleball use.

On October 13, 2025, the Commission reviewed proposed amendments to the City's court-use regulations to address tennis, pickleball, and other paddle sports, including access, relinquishment, and other court-use provisions.

On November 10, 2025, the Commission voted 5-0 to recommend that staff prepare a proposed policy for City Council consideration that included court hours of 8:00 a.m. to 8:00 p.m., updated court-use postings, and additional research regarding sound-reduction measures for pickleball. The Commission subsequently requested that the item be returned for further discussion.

On August 5, 2026, the City Council authorized staff to proceed with court resurfacing and restriping and directed the Commission to provide recommendations regarding court reservations and striping at Garfield Park and Orange Grove Park. The Council also tentatively directed staff to evaluate adding pickleball striping at Garfield Park.

Following the City Council's direction, the Commission held a special meeting on September 3, 2026, to consider recommendations regarding court hours of operation, reservations and permits, and court striping at Garfield Park and Orange Grove Park.

Analysis

<u>Existing Court Conditions and City Framework</u>

Orange Grove Park has two lighted, full-size tennis courts with permanent multi-purposes tennis/pickleball striping. The City does not furnish pickleball nets; pickleball users bring, set up and remove their own portable nets. Garfield Park also has two lighted tennis-only courts and is included in the approved resurfacing project.

South Pasadena Municipal Code (SPMC) Section 21.22 currently establishes first-come, first-served tennis access, priority for City programs, time limits when others are waiting, prohibitions against holding courts, restrictions on unauthorized professional instruction, and permit requirements for tournaments and special events (Attachment No. 2).

These existing provisions provide an existing framework that can be adapted to address tennis and pickleball activity. Any new court-specific hours, reservation requirements, or enforcement provisions should be incorporated through the appropriate City Council action and reflected in posted court rules, with City Attorney review as appropriate.

Staff surveyed 22 comparison cities regarding court inventory, reservations, permits, fees, operating hours, tournaments, and priority of use (Attachment No. 3). Seventeen cities reported that public play is generally first-come, first-served; two cities, La Cañada Flintridge and Sierra Madre, reported online reservation systems; and three did not provide applicable reservation information.

1. Court Hours of Operation

The City Council is being asked to establish hours of operation for the public courts and determine whether the same hours should apply to tennis and pickleball or whether pickleball should have separate hours of play.

The municipal survey identified applicable court or facility hours for 19 of the 22 comparison cities. Because jurisdictions generally reported overall court or facility hours rather than consistently defined pickleball-only hours, the results are presented as a comparative reference.

Operating Hours Pattern	Result	Percentage
Opening at dawn/sunrise or by 7:00 a.m.	16 of 19 reporting cities	84%
Opening after 7:00 a.m.	3 of 19 reporting cities	16%
Closing at 10:00 p.m. or later	13 of 19 reporting cities	68.5%
Closing at 9:00 p.m.	2 of 19 reporting cities	10.5%
Closing at 8:00 p.m.	1 of 19 reporting cities	5.3%
Closing at dusk/sunset	3 of 19 reporting cities	15.8%

Most reporting jurisdictions open courts at dawn, sunrise, or by 7:00 a.m., while more than two-thirds reported closing at 10:00 p.m. or later. Pasadena and Whittier reported 9:00 p.m. closing times, and supplemental 2026 Sierra Madre materials identify pickleball court hours ending at 9:00 p.m. The survey indicates that a 7:00 a.m. opening falls within the range of practices used by comparison jurisdictions; however, operating hours vary based on local conditions, court inventory, lighting, surrounding land uses, and other community considerations.

South Pasadena public parks are generally open from 5:00 a.m. to 10:00 p.m. pursuant to SPMC Section 21.2. Establishing separate court hours would provide a defined operating period for court activity within the broader park hours.

Staff Recommendation for Hours of Operation

Staff recommends establishing uniform court hours of 7:00 a.m. to 9:00 p.m. for tennis and pickleball at Garfield Park and Orange Grove Park during the six-month pilot. The proposed

hours are within the range identified through the comparative survey, establish defined morning and evening operating times, and provide a one-hour buffer before the general park closure.

Applying the same hours to tennis and pickleball would provide a consistent set of rules for court users and a more straightforward administrative and enforcement framework during the pilot. Uniform hours would also allow the City to establish consistent court operating procedures, including posted hours and lighting controls, while evaluating compliance during the six-month pilot.

Court entrance signs would identify the 7:00 a.m. to 9:00 p.m. operating hours, and court lights would be programmed to turn off at 9:00 p.m. During regular Community Services staffing periods, compliance would be monitored as part of normal staff operations. Outside those periods, Recreation Leaders may be scheduled for targeted morning, evening, or weekend observations based on utilization, complaints, and recurring enforcement needs rather than continuous coverage.

The first 30 days of the pilot would emphasize education and voluntary compliance. Thereafter, staff would document complaints and violations and use progressive enforcement procedures consistent with applicable City policies and ordinances. Information collected during the pilot would assist the City in evaluating court utilization, neighborhood impacts, compliance, and enforcement needs.

2. Court Reservation and Permit Model

The City Council directed the Commission to consider potential reservation models for public court use, including how reservations or permits could be incorporated into the City's existing court-use framework.

The municipal survey indicates that first-come, first-served access is the predominant model among the jurisdictions surveyed. Of the 22 jurisdictions, 17 (77.3%) reported first-come, first-served access for ordinary public play, two (9.1%) reported online reservation systems, and three did not provide applicable reservation information.

To further evaluate reservation models, staff reviewed practices in La Cañada Flintridge and Sierra Madre.

La Cañada Flintridge

La Cañada Flintridge makes selected recreational facilities available for reservation through ActiveLCF while other facilities remain available on a first-come, first-served basis. Organized team play requires a permit.

Current recreation guidance establishes advance-notice requirements for one-time and recurring organized-use requests and distinguishes between resident and nonresident applicants. The current master fee schedule identifies recreational court rental and applicable insurance costs. The model combines walk-on access with a process for reserving or permitting organized and exclusive use.

Sierra Madre

Sierra Madre introduced eight dedicated pickleball courts in October 2025 using a hybrid model that includes both reservable and first-come, first-served courts. In a March 30, 2026

staff report, Sierra Madre reported 68 reservations since implementation, generating $3,998.49. The report also identified instances in which reservable courts remained unused while players waited for first-come, first-served courts.

Sierra Madre subsequently presented several access models for consideration, including maintaining the hybrid system, limiting reservations to selected days or periods, converting all courts to first-come, first-served use, or maintaining first-come, first-served access while permitting limited structured activities.

These examples illustrate the balance between providing users the ability to secure court time in advance and maintaining court availability for walk-on use. Court inventory is an additional consideration in South Pasadena because Garfield Park and Orange Grove Park each contain two full-size tennis courts. Reserving one full-size court would make 50% of the court capacity at that location unavailable for walk-on use during the reservation period.

Staff Recommendation for Reservations and Permits
Staff recommends maintaining first-come, first-served access as the primary model for ordinary recreational play while establishing limited reservations and permits during the six-month pilot.

Individuals and informal groups would not be required to make a reservation for ordinary recreational play. Users could, however, elect to reserve court space in advance for one-time recreational use, subject to established duration, frequency, and availability limits.

Permits would be required for organized or structured activities, including:
- Groups of 25 or more participants;
- Leagues and tournaments;
- Instruction or clinics;
- Recurring organized activities;
- Commercial activities;
- Special events; and
- Other activities requiring dedicated or exclusive court space.

City-sponsored programs would receive scheduling priority and would be reflected on the court-use calendar. Non-City organized activities would require a reservation or permit, as applicable.

The proposed pilot framework would include:
- A maximum reservation period of 60 minutes;
- Routine reservations are limited to one full-size court at each park;
- Use of both courts limited to approved tournaments, City programs, or special events;
- A no-show release period established before implementation;
- Electronic or printed proof of an approved reservation or permit;
- An online reservation schedule; and
- Advance-notice requirements for reservations and organized-use requests.

One-time requests would be submitted at least 72 hours in advance, while recurring reservations or organized-use requests would be submitted at least 30 business days in advance. The same advance-notice requirements would apply regardless of applicant residency because applicable grant requirements do not permit the City to distinguish between

resident and nonresident applicants.

Reservation and permit fees, insurance requirements, and other applicable charges would be established through the City's Master Fee Schedule (Attachment No. 4).

Reservation and Permit Administration
During an approved reservation or permit period, the holder would have priority use of the court space identified in the approval and would be required to retain proof of the reservation or permit for staff verification.

At all other times, courts would remain first-come, first-served, and users would continue to follow the relinquishment and no-holding provisions.

Routine non-City reservations would be limited to one full-size court at each park at any given time, preserving at least one court for walk-on use. A no-show provision would release an unclaimed reservation after a specified grace period established before implementation.

During the pilot, staff would track reservation volume and utilization, no-shows, conflicts between reserved and walk-on users, unpermitted organized activity, administrative workload, and enforcement issues. The results would inform whether the reservation and permit model should be continued, modified, expanded, or discontinued following the pilot.

3. Court Striping Configuration
As part of its August 5, 2026 action, the City Council requested a recommendation from the Commission regarding the court striping configuration at Garfield Park and Orange Grove Park and directed staff to evaluate the addition of pickleball striping at Garfield Park. The City Council is now being asked to determine the final striping configuration before resurfacing work begins.

Orange Grove Park currently has two courts with multi-purpose tennis and pickleball striping, while Garfield Park has two tennis-only courts. The resurfacing project was originally scoped as a like-for-like replacement, retaining the existing configuration at each park.

The Commission recommends retaining the existing configuration, with two tennis-only courts at Garfield Park and two multi-purpose tennis/pickleball courts at Orange Grove Park.

The following configurations are presented for City Council consideration:

Option	Garfield Park	Orange Grove Park	Effect
Option 1 – Like-for-Like	Two tennis-only courts	Two multi-purpose tennis/pickleball courts	Maintains the existing distribution of court uses and the original resurfacing scope.
Option 2 – Mixed Configuration at Orange Grove Park	Two tennis-only courts	One tennis-only court and one multi-purpose tennis/pickleball court	Reduces multi-purpose striping at Orange Grove Park from two courts to one and increases tennis-only court availability.

Option 3 – Multi-Purpose Courts at Both Parks	Two multi-purpose tennis/pickleball courts	Two multi-purpose tennis/pickleball courts	Provides multi-purpose striping on all four courts; no courts would retain tennis-only striping.
Option 4 – Tennis-Only Courts at Both Parks	Two tennis-only courts	Two tennis-only courts	Provides tennis-only striping on all four courts and removes the existing pickleball striping at Orange Grove Park.
Option 5 – Alternative Configuration	As directed by City Council	As directed by City Council	Allows the City Council to select another striping configuration or combination of the options presented.

For purposes of these options, multi-purpose striping refers to a tennis court that also includes pickleball playing lines and accommodates pickleball using portable nets. None of the options would convert an existing tennis court into a dedicated pickleball court. Dedicated pickleball courts would require additional improvements, including permanent net infrastructure and potentially other site modifications, and would require separate evaluation, funding, and City Council authorization.

Considerations in selecting a striping configuration include the distribution of tennis and pickleball opportunities between the two parks, preservation of tennis-only court space, court utilization and user demand, potential conflicts between activities, visual impacts associated with multiple playing lines, neighborhood considerations, and the ability to modify the configuration in the future.

Community Services Commission and Staff Recommendation on Court Restriping
The Commission and staff recommended Option 1, maintaining the existing court configuration and resurfacing the courts on a like-for-like basis. Under this option, both Garfield Park courts would remain tennis-only, while both Orange Grove Park courts would retain multi-purpose tennis/pickleball striping.

Maintaining the existing configuration would allow the City to evaluate court utilization, user demand, conflicts between activities, neighborhood impacts, and other information collected during the six-month pilot before considering additional changes to court striping. Future modifications to the striping configuration could be considered separately based on the results of the pilot.

No dedicated pickleball courts or permanent pickleball net infrastructure are proposed as part of the current resurfacing project.

4. Noise and Neighborhood Impacts
Court activity may generate sound that is audible to surrounding properties. As part of the City's review of court-use policies, staff has been evaluating neighborhood impacts and potential approaches to monitoring and mitigating sound associated with court activity.

Code Enforcement conducted sound-level measurements near the Orange Grove Park courts to provide site-specific information regarding existing conditions. Community Development identified the equivalent continuous sound level (LAeq), which represents the average sound energy over a specified measurement period, as the primary metric for evaluating the readings.

Community Development evaluated the data using two approaches: all recorded measurements and a subset of longer-duration measurements generally consistent with the 10-minute measurement interval outlined in the City's draft noise ordinance. The findings are summarized below:

Measurement	All Readings	Longer-Duration Readings
Minimum recorded LAeq	51.7 dBA	58.3 dBA
Maximum recorded LAeq	72.4 dBA	72.4 dBA
Average recorded LAeq	61.9 dBA	63.7 dBA

Community Development also provided sound-level measurements collected at other City park locations, including Garfield Park and South Pawsadena Dog Park. These measurements provide additional context regarding sound levels associated with various recreational activities.

Park Location/Activity	Average Recorded LAeq
Arroyo Park	61.9 dBA
Dr. Beatriz Solis Memorial Park	49.9 dBA
Eddie Park	50.9 dBA
Garfield Park	54.7 dBA
Garfield Park – Concert-related activity	72.7 dBA
Grevelia Pocket Park	62.9 dBA
Orange Grove Park	61.4 dBA
South Pawsadena Dog Park	61.9 dBA

The six-month pilot would provide an opportunity to supplement these measurements and The measurements indicate that recorded sound levels varied across park locations and recreational activities. However, the readings were collected under differing conditions, including variations in activity type, measurement location, time of day, and monitoring duration. Accordingly, these comparisons are intended to provide general context rather than establish a direct comparison of neighborhood impacts or determine compliance with applicable noise regulations.

The proposed six-month pilot would provide an opportunity to supplement these measurements with additional site-specific observations and community feedback. Staff would evaluate complaints and observations in relation to factors such as time of day, type and level of court activity, court utilization, and available sound-level data.

Sound-Attenuation Improvements

In addition to evaluating operational measures, staff has researched potential sound-attenuation improvements to reduce noise impacts associated with pickleball activity at Orange Grove Park. This research has included discussions with the City of Laguna Beach regarding measures implemented at Lang Park's pickleball courts, as well as preliminary

discussions with vendors specializing in outdoor acoustic barriers.

Staff is currently evaluating two types of sound-attenuation barriers that may be installed along existing court fencing:

- Sound-Blocking Barriers: Flexible, weather-resistant materials designed to reduce the transmission of sound beyond the court area. These barriers can be attached to existing chain-link fencing and are intended to help limit noise traveling toward surrounding properties.
- Sound-Absorbing Barriers: Multi-layered acoustic panels designed to both block and absorb sound generated by court activity. These barriers incorporate sound-absorbing materials intended to help reduce noise traveling beyond the courts.

Both options are designed for outdoor recreational facilities and may provide opportunities to reduce noise impacts on surrounding residential properties. However, their effectiveness would depend on site-specific conditions, including barrier placement, height, coverage, and proximity to neighboring properties.

Staff has received preliminary vendor pricing beginning at approximately $18,000 for sound-attenuation materials, excluding installation. The total project cost has not yet been determined and would depend on the type of barrier selected, extent of coverage, installation requirements, and site conditions. For planning purposes, staff has identified a potential expenditure of up to $30,000 for City Council consideration.

Prior to implementation, staff would coordinate with Public Works and prospective vendors to evaluate installation feasibility, including the ability of existing fencing to support the materials, potential wind-related impacts, maintenance requirements, and overall project costs.

City Council Policy Consideration

Staff is seeking City Council direction regarding whether to pursue sound-attenuation improvements at Orange Grove Park during the proposed six-month Court Use Pilot Program.

Should the City Council support pursuing these improvements, staff would obtain final pricing, identify an appropriate funding source, and proceed in accordance with applicable City purchasing requirements, provided sufficient budget appropriations are available. The City Manager would be authorized to execute any necessary agreements within the approved expenditure limit, subject to City Attorney review as appropriate.

If implemented, staff would evaluate the effectiveness of the improvements through additional sound-level measurements, community feedback, and observations of neighborhood impacts during the pilot.

Alternatively, the City Council may direct staff to proceed with the proposed operational measures and evaluate the need for additional sound-mitigation improvements following the six-month pilot.

As of September 22, 2026, Code Enforcement reported no formal noise-related complaints regarding court activity at Orange Grove Park during 2026, while the Police Department identified one related call or complaint during the same period. Community Services received one resident complaint regarding court noise in 2025 and has followed up with the resident regarding information previously provided to the City Council.

The sound-level measurements, complaint history, community feedback, and information collected during the six-month pilot will help inform staff's evaluation of neighborhood impacts and any potential recommendations for additional mitigation measures.

5. Pilot Program, Utilization Assessment, and Next Steps

Following City Council direction, staff would prepare an implementation and enforcement plan and initiate the six-month pilot program. The pilot would incorporate Council-approved court hours, reservation and permit procedures, court-use rules, signage, lighting controls, portable-net requirements, enforcement procedures, and other operational measures, as applicable.

As part of the pilot, staff would conduct a court utilization assessment during representative periods. Scheduled observations would generally occur throughout the day from 7:30 a.m. to 6:00 p.m., Monday through Friday, with selected evening and weekend observations based on anticipated utilization and operational needs. The assessment would document tennis and pickleball activity, court occupancy, waiting users, portable-net use, peak-use periods, recurring conflicts, and, if reservations are implemented, reservation utilization and no-shows.

Staff would also consider public feedback, complaints, compliance with court-use rules, neighborhood impacts, and operational and enforcement issues throughout the pilot.

At the conclusion of the six-month pilot, staff will summarize the information collected and present the findings to the Commission and City Council. The results would be used to evaluate the effectiveness of the pilot and identify any recommended modifications to court hours, reservations and permits, court-use rules, enforcement procedures, or other operational measures.

Alternatives

The City Council may approve the recommended court-use framework as presented, approve the framework with modifications, or provide alternative direction to staff. Modifications may include changes to court hours, reservation and permit procedures, court striping, or implementation of the six-month pilot program. The City Council may also direct staff to pursue sound-attenuation improvements at Orange Grove Park, or defer consideration of physical sound-mitigation measures until additional information regarding court utilization and neighborhood impacts becomes available.

Staff recommends approval of the proposed framework, as it incorporates the Community Services Commission's recommendations and provides an opportunity to evaluate court utilization, neighborhood impacts, and operational considerations before determining whether additional changes are warranted.

Fiscal Impact

Implementation of the proposed court-use framework and six-month Court Use Pilot Program can be accommodated within the Community Services Department's existing Fiscal Year 2026–27 adopted budget appropriations. No additional appropriation is required or requested.

The reservation and permit component would be administered through CivicRec, the City's existing recreation management software, and is not anticipated to require additional software costs. General program administration, reservation processing, public education, complaint tracking, and oversight would be incorporated into existing departmental operations.

The pilot would also utilize existing budgeted part-time Recreation Leader resources to provide targeted monitoring during morning, evening, and weekend hours. Staff anticipates approximately 18 hours of Recreation Leader coverage per week during the six-month pilot, representing an estimated $11,700 in personnel expenditures based on the current top-step hourly rate of $25 per hour. Following the discontinuation of the Camp Med afterschool program for the 2026–27 school year, a portion of the Department's existing part-time staffing resources would be redirected to support the pilot. These expenditures are included within the Department's adopted personnel appropriations.

Implementation would also include approximately $400 for updated court-use signage and $500 for minor operational equipment, for a total of $900 in estimated direct implementation expenditures. These costs would be absorbed within existing departmental appropriations.

A summary of anticipated implementation costs and resources is provided below:

Implementation Component	Estimated Cost	Funding Source
CivicRec reservation configuration	No additional cost	Existing City software (Account No. 101-8030-8031-8062)
Recreation Leader monitoring coverage	$11,700	Existing part-time personnel appropriations (Account No. 101-8030-8032-7010)
Court-use signage	$400	Existing departmental appropriations (Account No. 101-8030-8032-8020)
Minor operational equipment	$500	Existing departmental appropriations (Account No. 101-8030-8032-8020)
Total Identified Pilot Expenditures	**$12,600**	**Existing appropriations**
Additional Appropriation Required - Baseline Pilot	**$0**	**None**

Potential Sound-Attenuation Improvements

In addition to the baseline pilot expenditures identified above, staff has evaluated potential sound-attenuation improvements at Orange Grove Park. Preliminary vendor pricing begins at approximately $18,000 for materials, excluding installation and other associated expenses. The total project cost has not yet been determined. For planning purposes, staff has identified a potential expenditure of up to $30,000 for City Council consideration.

Should the City Council authorize staff to pursue these improvements, total potential pilot expenditures would increase from $12,600 to a maximum of $42,600, inclusive of existing personnel and operational resources.

Implementation would be contingent upon final project pricing, identification of an eligible funding source, and availability of sufficient budget appropriations. If additional appropriations requiring City Council approval are necessary, staff would return with the appropriate budget

action.

The proposed baseline Court Use Pilot Program can be implemented within existing Fiscal Year 2026–27 adopted appropriations, and no additional appropriation is required for those operational measures. Sound-attenuation improvements would be pursued separately, subject to City Council direction and the funding requirements identified above.

Commission Review and Recommendation

At its September 3, 2026 special meeting, the Commission considered recommendations related to court hours, reservations and permits, court striping, and implementation of a six-month pilot program. The Commission took separate action on each component as follows:

1. **Court Hours:** By a vote of 5-1, the Commission recommended establishing uniform court hours of 7:00 a.m. to 9:00 p.m. for tennis and pickleball at Garfield Park and Orange Grove Park.
2. **Reservation and Permit Model:** By a vote of 6-0, the Commission recommended maintaining first-come, first-served access as the primary model for ordinary recreational play while establishing a limited reservation and permit process for organized, structured, and optional recreational use.
3. **Court Striping Configuration:** By a vote of 4-2, the Commission recommended maintaining the existing striping configuration, with two tennis-only courts at Garfield Park and two multi-purpose tennis/pickleball courts at Orange Grove Park.
4. **Six-Month Pilot Program:** By a vote of 5-1, the Commission recommended implementing a six-month pilot program to evaluate court utilization, compliance, neighborhood impacts, reservations and permits, enforcement needs, and other operational considerations.

The Commission's recommendations are incorporated into the options and staff recommendations presented in this report.

Public Notification

The public was made aware that this item was to be considered by the City Council by virtue of its inclusion on the legally publicly noticed agenda and posting of the agenda and staff report on the City's website.

Attachment:

Attachment No. 1 - Court Use Pilot and Enforcement Model
Attachment No. 2 - Comparative Municipal Research Summary
Attachment No. 3 - 21.22 Special Provisions Relative to Tennis Courts
Attachment No. 4 - Master Fee Schedule

Court Use Pilot Program and Enforcement Model

Garfield Park and Orange Grove Park

Purpose and Scope

This attachment establishes the proposed operational framework for a six-month pilot following City Council approval. It is intended to evaluate public access, court utilization, reservations and permits, neighborhood impacts, rule compliance, administrative workload, and potential future adjustments. Implementation is subject to applicable City Council action, City Attorney review as appropriate, and existing municipal requirements.

Pilot configuration: Garfield Park retains two tennis-only courts; Orange Grove Park retains two multi-purpose tennis/pickleball courts. All courts would operate from 7:00 a.m. to 9:00 p.m., with court lighting programmed to turn off at 9:00 p.m. Court locking is not proposed during this pilot.

1. Pilot Operating Framework

Topic	Pilot requirement / approach
Public access	First-come, first-served for ordinary play except during approved reservation or permitted use; City-sponsored programs receive scheduling priority.
Optional reservations	Individuals and informal groups may request a one-time court reservation for recreational use; no reservation is required for ordinary walk-on play.
Organized activities	Permit required for groups of 25 or more; leagues, tournaments, instruction/clinics, recurring organized activities, commercial activities, special events, and other activities seeking dedicated/exclusive use.
Duration and capacity	Routine reservations: maximum 60 minutes and no more than one full-size court at each park at a time, retaining at least one court for walk-on access. Both courts may be assigned for approved tournaments, City programs, or special events.
Advance notice	One-time reservation or organized-use requests: at least 72 hours. Recurring reservation or organized-use requests: at least 30 business days. Same submission timelines irrespective of residency.
Administration	Use CivicRec or approved City process; maintain online reservation schedule; approved users retain electronic or printed confirmation. Apply approved fees, insurance, and other requirements under the Master Fee Schedule.
No-shows	Establish and publish the specific grace period prior to launch. Unclaimed reservations are released for public walk-on use after that period.
Portable nets	At Orange Grove Park, users supply, safely place, and remove their own portable pickleball nets; no permanent pickleball net infrastructure is part of the pilot.

2. Implementation Schedule

Phase	Timing	Action
Pre-launch	Approximately 2–4 weeks before effective date	Complete any necessary Council/legal action; finalize unified pilot rules, no-show period, booking frequency limits and permit procedures; verify like-for-like striping; install temporary signs; program lighting; configure CivicRec; post website information; train staff.
Education	Days 1–30	Explain rules through signage, website notices and verbal reminders. Document issues and conduct selected observations, emphasizing voluntary compliance.
Active pilot	Days 31–180	Operate reservation/permit program; verify approved use; respond to complaints; use progressive enforcement where authorized; undertake targeted morning, evening and weekend observations.
Interim review	Around Day 60	Review utilization, reservations/no-shows, complaints, compliance, staffing and operating procedures. Make minor administrative adjustments without altering

		Council-approved substantive policy.
Final evaluation	End of six months	Report findings and any recommended policy or operational changes to the Community Services Commission and City Council.

3. Proposed Unified Court Rules During the Pilot

The following are proposed plain-language rules for temporary signage, website posting, and public education. They apply to tennis and pickleball on courts designated for those uses.

- Hours: Courts are open 7:00 a.m.–9:00 p.m. daily. Play must end by 9:00 p.m.; court lights shut off at that time.
- Permitted sports: Garfield Park courts are tennis-only. Orange Grove Park courts may be used for tennis or pickleball using existing playing lines and portable pickleball nets.
- Walk-on use: Courts are first-come, first-served unless reserved for approved use or scheduled for a City program. Courts may not be held by absent players.
- Time limits and turnover: When others are waiting, follow the posted playing limits and relinquishment rules. A proposed uniform one-hour limit for recreational groups should be implemented during pilot program.
- Reservations and permits: Approved reservations and permits take priority only for the court and time shown in the approval. Organizers of activities requiring a permit must obtain City authorization before use.
- Instruction: Private, commercial, or group instruction requires advance City authorization; unauthorized instruction is prohibited.
- Safe court use: Wear appropriate non-marking athletic footwear. No bicycles, skates, skateboards, scooters, wheeled toys, or pets on the courts.
- Equipment: Do not damage or alter nets, posts, fences, or court equipment. Portable pickleball nets must be removed immediately after use and may not obstruct adjacent play or walkways.
- Courtesy and safety: Be respectful of other players and neighbors. Keep spectators and waiting players outside active playing areas. Follow applicable City rules concerning amplified sound, smoking, alcohol, food, and glass containers.
- Questions and reporting: Refer to the posted City website/contact for reservations, maintenance concerns, complaints, and full rules.

4. Progressive Enforcement Model

The pilot is intended to rely primarily on visible signs, predictable lighting controls, reservation transparency, education, and targeted staff presence rather than continuous staffing. The first 30 days emphasize education. Citations or other penalties may be used only where authorized by City ordinance and applicable enforcement protocols.

Issue	Initial response	Persistent issue / record
After-hours play	Advise users of posted hours and request conclusion of play.	Document time, park, observed activity, contact and outcome; arrange targeted follow-up and applicable referral.
Holding / failure to relinquish	Explain applicable existing turnover provisions and request voluntary compliance.	Record occupancy, waiting parties, staff interaction and response; escalate only under authorized rules.
Unpermitted organized use	Explain permit requirements and direct organizer to Community Services.	Record activity/group and previous contacts; require cessation of unauthorized exclusive use as appropriate.
Reservation conflicts / no-shows	Verify scheduled court, approved time and reservation/permit proof; identify other walk-on space.	Document conflict and resolution; revise communications and administrative practices within approved policy.
Portable equipment / unsafe conduct	Request safe repositioning/removal and compliance with applicable posted rules.	Record equipment issue and any safety impact; follow applicable facility enforcement steps.

Escalation for Repeated Noncompliance

- **Initial Contact:** Staff explain the applicable rule or permit condition, request voluntary compliance, and document the interaction as appropriate.
- **Repeated Violations:** If violations continue following prior staff contact, staff may provide a written warning, direct the user or group to cease the noncompliant activity, and document the outcome.
- **Permit Holder:** Continued failure to comply with posted court rules, permit conditions, or staff direction may result in suspension or revocation of the current permit and restrictions on or denial of future court-use permits, consistent with applicable City policy, authorization procedures, and any required notice or review.

- **Police Department Referral:** When users continue to disregard staff direction after prior contacts, or when conduct presents an immediate safety concern, staff may notify South Pasadena Police Department for assistance, as appropriate. Staff will document the referral and resolution.

5. Observation, Staffing and Data Collection

Existing Community Services staff will monitor the courts during normal operations. Approximately 18 budgeted Recreation Leader hours per week may be directed to targeted morning, evening and weekend observations during the six-month pilot, subject to operational needs and existing FY 2026–27 appropriations. Continuous on-site monitoring is not proposed. Observations should represent both parks, sports, weekdays, evenings and weekends.

Data category	What to record
Court utilization	Park, date/time, tennis or pickleball, courts occupied, approximate players, peak demand and unused capacity.
Waiting / turnover	Waiting parties, approximate wait times, court-holding or turnover conflicts, applicable time-limit compliance.
Reservations / permits	Booking type, duration, one-time vs. recurring, no-shows, cancellations, exclusive-use requests, user conflicts and staff processing time.
Hours / compliance	Early or late use, lighting shutoff, rule contacts, patterns of noncompliance and resolution.
Equipment / shared use	Portable net use and removal, tennis/pickleball interactions at Orange Grove, conflicts and demand for court types.
Neighborhood impacts	Complaint type, time, park, recurrence, activity/conditions, staff response and any available sound measurements.
Staffing / expenditures	Regular staff effort, targeted Recreation Leader hours, administrative burden, signage/equipment expenditures and enforcement contacts.

6. Public Communication

- Install concise temporary signs at court entrances identifying hours, applicable sports, first-come access, reservation/permit priority, turnover rules, permit triggers, portable-net expectations and contact information.
- Publish full pilot rules, effective dates, reservation/permit instructions, no-show grace period, applicable charges and a feedback contact on the City website.
- Where practical, include a QR code or short link on posted signs. Maintain an education-first approach during the first 30 days.

7. Interim Review and Final Report Back

At approximately Day 60, staff will review implementation data and make minor administrative adjustments where permissible. At the end of six months, staff will report to the Commission and City Council on utilization by park and sport, demand for tennis-only and multi-purpose courts, waiting and turnover, hours compliance, reservations and no-shows, neighborhood impacts and complaints, staffing and operating expenditures, and recommended adjustments. Any future sound attenuation, court-locking systems, permanent pickleball improvements, or revised striping would be evaluated separately with associated fiscal impacts and appropriate authorization.

Example of Temporary Signage for Pilot Program

CITY OF SOUTH PASADENA
GARFIELD PARK & ORANGE GROVE PARK
COURT RULES – PILOT PROGRAM

Court Hours: 7:00 a.m. – 9:00 p.m.
Courts are closed outside of posted hours.

General Court Use
- Courts are for tennis, pickleball, and other City-approved racket/paddle sports only.
- Courts are open for first-come, first-served use unless a valid reservation, permit, or City program is in effect.
- City programs and permitted activities have priority over other use.
- Users with a reservation or permit must be prepared to show proof upon request.

Time Limits
- When others are waiting, use is limited to one hour per group.
- Players must relinquish the court promptly at the end of their turn.
- Courts may not be held or saved for later use.

Reservations and Permits
- Optional reservations may be available for one-time recreational use, subject to City rules and availability.
- A permit is required for organized or structured activities, including groups of 25 or more, instruction or clinics, leagues or tournaments, recurring organized activities, commercial activities, and special events.

Court Conduct
- Please use good sportsmanship and respectful behavior at all times.
- Spectators and waiting players must remain off the playing surface.
- Appropriate athletic footwear is required.
- Portable pickleball nets must be set up and removed safely and may not damage the court surface.
- Players must follow all posted park and facility rules.

Prohibited
- No alcohol, smoking, glass containers, or amplified sound.
- No bicycles, scooters, skateboards, roller skates/blades, or similar wheeled equipment on the courts.
- No pets on the courts.
- No defacing or damaging nets, fencing, or court equipment.

Questions / Concerns
City of South Pasadena – Community Services Department
[Phone Number]
[Email / Website / QR Code]

SCAN FOR MORE INFORMATION

Comparative Municipal Research Summary

Tennis and Pickleball Court Access, Reservations, Hours, and Permits

Purpose: This attachment summarizes comparative research conducted by City staff regarding public tennis and pickleball court operations in 22 nearby jurisdictions. The survey addressed court inventory, reservation practices, special events and tournaments, fees, operating hours, and related policies. The survey is a point-in-time comparison; supplemental official materials were reviewed for La Cañada Flintridge and Sierra Madre to better understand their reservation models and recent operating experience.

Survey Snapshot

Jurisdictions Surveyed	First-Come, First-Served	Online Reservation System	No Pickleball Courts	Operating Hours Reported
22	**17 (77.3%)**	**2 (9.1%)**	**3 (13.6%)**	**19 (86.4%)**

Reservation finding: The survey found that public play is generally first-come, first-served in 17 of 22 jurisdictions. La Cañada Flintridge and Sierra Madre were the two jurisdictions reporting online reservation systems, and three jurisdictions did not provide applicable reservation information.

Operating Hours - Survey Summary

Of the 19 jurisdictions that reported applicable operating hours, the survey responses grouped as follows. Percentages are based on those 19 jurisdictions and reflect the original survey responses.

Reported Closing Time / Condition	Cities	Count	Percentage
10:00 p.m. or later	Alhambra, Arcadia, Azusa, Diamond Bar, Duarte, El Monte, Glendora, Monrovia, Monterey Park, Rosemead, San Gabriel, Sierra Madre, South El Monte	13	68.5%
9:00 p.m.	Pasadena, Whittier	2	10.5%
8:00 p.m.	Montebello	1	5.3%
Dusk / sunset	La Cañada Flintridge, Temple City, Walnut	3	15.8%

Updated Sierra Madre note. The original survey listed Sierra Madre hours as 6:00 a.m.-10:00 p.m. A March 30, 2026 Sierra Madre staff report states that current pickleball court hours are 6:00 a.m.-9:00 p.m. The city-by-city table below preserves the original survey response and the supplemental case study identifies the later official information.

City-by-City Survey Results

Abbreviations: “dedicated” = pickleball-specific court; “combo” = multi-use court striped for pickleball and another court sport. Information has been condensed for readability while retaining the substance of the staff survey.

City	Court Inventory	General Public Access / Reservations	Reported Hours	Special Event, Tournament & Fee Notes
Alhambra	3 dedicated; no combo	First-come, first-served	5:00 a.m.-10:30 p.m.	No special-event or tournament reservations. Historical reservation rate noted: $20/hr resident; $25/hr nonresident; $50 refundable deposit.
Arcadia	4 dedicated; 8 combo	First-come, first-served	7:00 a.m.-10:00 p.m.	No special-event or tournament reservations reported.
Azusa	4 dedicated; 5 combo	First-come, first-served	6:00 a.m.-10:00 p.m.	Special events and tournaments allowed with special event permit.
Diamond Bar	4 dedicated; no combo	First-come, first-served	Sunrise-10:00 p.m.	No special-event or tournament reservations reported.
Duarte	2 dedicated; 1 combo	First-come, first-served	Sunrise-10:00 p.m.	Special events/tournaments allowed. Survey notes $40/hr/court; resident $25/hr/court; nonprofit free; $100 refundable deposit.
El Monte	2 dedicated; no combo	First-come, first-served	7:30 a.m.-10:00 p.m.	No special-event or tournament reservations reported.
Glendora	8 dedicated; no combo	First-come, first-served	7:00 a.m.-9:00 p.m.	No special-event or tournament reservations reported.
La Cañada Flintridge	3 dedicated (joint-use); 1 combo	Online permit/reservation system (ActiveLCF); otherwise first-come, first-served	9:30 a.m.-dusk	Special events and large-scale tournaments may require permits. Survey notes $10/hr/court plus insurance.
Monrovia	No dedicated; 4 combo	First-come, first-served	Sunrise-10:00 p.m.	No special-event or tournament reservations reported.
Montebello	4 dedicated	First-come, first-served	8:00 a.m.-8:00 p.m.	No special-event or tournament reservations reported.
Monterey Park	7 dedicated	First-come, first-served	6:00 a.m.-10:30 p.m.	Special events and tournaments allowed with special event permit.
Pasadena	2 dedicated; multiple combo courts	First-come, first-served	Sunrise-9:00 p.m.	No special-event or tournament reservations reported.
Rosemead	No dedicated; 8 combo	First-come, first-served; City places nets on a designated schedule	7:00 a.m.-10:00 p.m.	Pickleball schedule: Mon/Wed/Fri/Sun 5:00-9:30 p.m.; Tue/Thu/Sat 8:00 a.m.-1:00 p.m.
San Dimas	No dedicated; pickleball conversion project noted	N/A	N/A	No applicable reservation information reported.
San Gabriel	8 dedicated; 1 combo	First-come, first-served; combo court has designated tennis/pickleball priority schedule	7:00 a.m.-10:00 p.m.	No special-event or tournament reservations reported.
San Marino	No pickleball courts	N/A	N/A	No applicable reservation information reported.
Sierra Madre	Survey: 2 combo; 4 dedicated under construction	Online reservation system (ActiveNet)	6:00 a.m.-10:00 p.m. (survey)	Special events/tournaments allowed. Survey rate: $21/hr/court. Supplemental 2026 materials provide updated operating information; see case study below.
South El Monte	2 combo	First-come, first-served	7:00 a.m.-11:00 p.m.	Special events allowed with special event permit; tournaments not reported.
Temple City	8 dedicated	First-come, first-served	Sunrise-sunset	No special-event or tournament reservations reported.
Walnut	2 dedicated	First-come, first-served	Dawn-dusk	No special-event or tournament reservations reported.
West Covina	No pickleball courts	N/A	N/A	No applicable reservation information reported.
Whittier	4 dedicated	First-come, first-served	Dawn-9:00 p.m.	Special events allowed with special event permit; tournaments not reported.

Supplemental Reservation-System Review

La Cañada Flintridge

General model. La Cañada Flintridge makes selected facilities reservable through ActiveLCF while otherwise maintaining first-come, first-served access. Its municipal code requires permits for organized team play and establishes a process for exclusive reservations. Permitted use receives priority during the approved period.

Hours and fees. The City currently posts Cornishon Pickleball Court hours of 9:30 a.m. to dusk Monday-Friday and 7:00 a.m. to dusk Saturday-Sunday, with summer weekday hours beginning at 8:00 a.m. The current master fee schedule lists tennis/basketball court rentals at $10 per hour.

Sierra Madre

Hybrid model and operating experience. Sierra Madre introduced dedicated pickleball courts in October 2025 using a hybrid model with both reservable and first-come, first-served courts. In a March 30, 2026 staff report, Sierra Madre reported 68 reservations totaling $3,998.49 in revenue. The same report noted that reservable courts could remain underutilized while users waited for first-come, first-served courts.

Options considered. The March staff report presented four access models: maintain the hybrid model; modify the hybrid model by limiting reservations to selected/off-peak periods; make all courts first-come, first-served; or use first-come, first-served access with optional permits for limited structured activities such as instruction, clinics, or programs.

Commission discussion. Minutes included in the May 18, 2026 agenda packet reflect Commission discussion favoring no reservations for routine social play, while allowing permits for instructors, schools, birthday parties, special events, and similar structured uses, particularly outside peak periods.

Hours and event pricing. The March 2026 staff report states that current pickleball court hours are 6:00 a.m.-9:00 p.m. A June 2026 tournament staff report calculated facility charges using eight courts at $21 per court per hour and a $288 special event permit fee for an event exceeding 100 participants.

Sources and Research Notes

Primary survey source: City of South Pasadena staff, “Pickleball Reservations Research” workbook, 22-jurisdiction comparative survey. The city-by-city matrix and survey percentages above are derived from this source.

- La Cañada Flintridge - Recreation & Facilities (court hours and first-come/first-served facility information)
- La Cañada Flintridge - ActiveLCF (online permit system)
- La Cañada Flintridge Municipal Code, Chapter 5.24 (organized team play permits and reservation procedures)
- La Cañada Flintridge - Master Fee Schedule ($10/hour tennis/basketball court rental)
- Sierra Madre - Community Services Commission agendas and packets
- Sierra Madre - March 30, 2026 Special Community Services Commission Agenda Packet, Pickleball Courts Review Report
- Sierra Madre - May 18, 2026 Community Services Commission Agenda Packet (includes March 30 Commission minutes and reservation discussion)
- Sierra Madre - June 2026 Community Services Commission Agenda Packet, Pickleball Civic Leaders Tournament fee analysis

21.22 Special Provisions Relative to Tennis Courts

21.22 Special provisions relative to tennis courts.
It is unlawful for any person to violate any of hereinafter specified rules for the use of tennis courts in any park:

(a) City of South Pasadena sponsored tennis programs and events have priority over any other use.

(b) Tennis shoes are required to play upon any tennis court.

(c) The use of roller skates, roller blades, skateboards, bikes, roller/hockey, or any other wheel toys prohibited on the tennis courts.

(d) Unauthorized professional instruction is prohibited unless authorization is obtained from the community services director and posted at tennis courts. South Pasadena public tennis courts may not be used for private tennis lessons without authorization.

(e) Tennis courts are available on first-come, first-served basis, at all times regardless of age of participants.

(f) Pets are not allowed on the tennis courts.

(g) It is unlawful to cut, break, deface or disturb nets, fencing or any park related equipment.

(h) When all courts are occupied and there are individuals who are waiting to use the courts, the following rules apply for relinquishment of the courts:

(1) An individual using the backboard, serving alone, or using a ball machine may play for one half hour.

(2) Singles or doubles may play for one hour or one set, whichever is the shortest time.

(3) Warm-up before a set shall not exceed five minutes.

(4) A court cannot be held.

(i) Use for Special Events. To use any tennis court for tennis tournaments or other special events of any kind, a permit must first be obtained from the community services director. (Ord. No. 2206, § 2, 2010.)

City of South Pasadena
Schedule of Fees - Fiscal Year 2026-2027

Note: This fee schedule was adopted on May 6, 2026, Resolution No. 8000. Effective July 6, 2026

#	DESCRIPTION	FY 2026 ADOPTED FEE ($)
CITY CLERK		
1	Duplication - FPPC Regulations	0.10
2	Digital Records Duplication (Formerly: Duplication - CD/DVD)	17.00
3	Duplication - Photocopy	0.10
4	Filing Fees - Candidates Nominations (Per CA Election Code Section 10228)	25.00
5	Filing Fees - Initiative Petition (Per CA Election Code 9103 (b))	200.00
6	Notary Services	15.00
COMMUNITY SERVICES		
	Camp Med Fees:	
7	Camp Med - Five Day Rate - 1st Child - Resident	180.00
8	Camp Med - Five Day Rate - Each Additional Child - Resident	170.00
9	Camp Med - Five Day Rate - 1st Child - Non-Resident	200.00
10	Camp Med - Five Day Rate - Each Additional Child - Non-Resident	190.00
11	Camp Med - Extended Care - 1st Child (AM & PM)	45.00
12	Camp Med - Extended Care - Each Additional Child (AM & PM)	40.00
13	Camp Med - One Day Rate - 1st Child - Resident	36.00
14	Camp Med - One Day Rate - Each Additional Child - Resident	34.00
15	Camp Med - One Day Rate - 1st Child - Non-Resident	40.00
16	Camp Med - One Day Rate - Each Additional Child - Non-Resident	38.00
17	Camp Med After School - Five Day Rate - 1st Child	106.00
18	Camp Med After School - Five Day Rate - Each Additional Child	101.00
19	Camp Med After School - One Day Rate - 1st Child	25.00
20	Camp Med After School - One Day Rate - Each Additional Child	24.00
21	Camp Med - Late Fee After First 5 Minutes - per minute	3.50
22	Camp Med - T-Shirt	10.00
	Field and Open Space Rental Fees:	
23	Sport Fields -- Non-Profit (per hr.)	55.00
24	Sport Fields - Resident (per hr.)	47.00
25	Sports Field - Non-Resident (per hr.)	62.00
26	Sports Field - Commercial	75.00
27	Sports Field - Lights (per hr.)	25.00
28	Gazebo Rental - Resident (4 hr. block)	95.00
29	Gazebo Rental - Non-Resident (4 hr. block)	140.00
30	Open Space - Groups < 50 Persons - Resident	25.00
31	Open Space - Groups < 50 Persons - Non-Resident	40.00
32	Arroyo Park Amphitheater	25.00
33	Multi-Use Courts - OG & Garfield Parks - Resident (per hr.)	30.00
34	Multi-Use Courts - OG & Garfield Parks - Non-Resident (per hr.)	38.00
35	Multi-Use Courts - OG & Garfield Parks - Non-Profit (per hr.)	34.00
36	Multi-Use Courts - OG & Garfield Parks - Commercial (per hr.)	45.00
37	Multi-Use Courts - Tournament Fee	150.00
	OG Rec Center Rental Fees:	

Note: This fee schedule was adopted on May 6, 2026, Resolution No. 8000. Effective July 6, 2026

#	DESCRIPTION	FY 2026 ADOPTED FEE ($)
38	Security Deposit	300.00
39	Non-Profit (per hr.)	35.00
40	Resident (per hr.)	35.00
41	Non-Resident (per hr.)	50.00
42	Girl & Boy Scouts - local (up to 2 hrs.)	15.00
	Eddie Park House Rental Fees:	
43	Security Deposit	300.00
44	Non-Profit (per hr.)	110.00
45	Resident (per hr.)	100.00
46	Non-Resident (per hr.)	120.00
47	Girl & Boy Scouts - local (up to 2 hrs.)	15.00
	Garfield Youth House Rental Fees:	
48	Security Deposit	300.00
49	Non-Profit (per hr.)	85.00
50	Resident (per hr.)	75.00
51	Non-Resident (per hr.)	120.00
52	Event (4 hr. block) Resident Only	200.00
53	Girl & Boy Scouts - local (up to 2 hrs.)	15.00
	War Memorial Rental Fees:	
54	Security Deposit	600.00
55	War Memorial - Non-Profits	210.00
56	War Memorial - Resident / Local Business (per hr.)	195.00
57	War Memorial - Non-Resident (per hr.)	235.00
58	War Memorial - Lower Floor - Non-Profits (per hr.)	100.00
59	War Memorial - Lower Floor - Resident (per hr.)	90.00
60	War Memorial - Lower Floor - Non-Resident (per hr.)	120.00
61	War Memorial - Kitchen Use (per event / use)	180.00
62	War Memorial - AV/Sound System (per event / use)	150.00
	Senior Center Rental Fees:	
63	Security Deposit	300.00
64	Main Room - Non-Profits (per hr.)	110.00
65	Main Room - Resident (per hr.)	100.00
66	Main Room - Non-Resident (per hr.)	120.00
67	Activity Room - Non- Profits (per hr.)	35.00
68	Activity Room - Resident / Local Business (per hr.)	35.00
69	Activity Room - Non-Resident (per hr.)	50.00
70	Patio (per event / use)	35.00
71	Kitchen Use (per event / use)	60.00
72	AV/Sound System (per event / use)	50.00
	Senior Center Programs:	
73	Hot Meals - Senior 55 & Over / Disabled Persons	3.00
74	Hot Meals - Persons Under 55	5.00
75	Home Delivered Meals - Senior 55 & Over / Disabled Persons	3.50
76	Senior Center Membership - Single Person Over 55	25.00
77	Senior Center Membership - Couples Over 55	35.00

Note: This fee schedule was adopted on May 6, 2026, Resolution No. 8000. Effective July 6, 2026

#	DESCRIPTION	FY 2026 ADOPTED FEE ($)
78	Computer Lab Printing (Black Ink)	0.25
79	Computer Lab Printing (Color Ink)	0.50
80	Leisure Classes - Seniors	Varies
81	Coffee	0.50
82	Excursions	Varies
	Dial-A-Ride Fees:	
83	Senior Resident (Registered) 55>	0.50
84	Disabled Resident (Registered)	0.50
85	Caregiver	-
	Miscellaneous Fees:	
86	Breakfast with Santa Event	25.00
87	Spring Family Event - Presale	10.00
88	Spring Family Event - Day of Event	15.00
89	Fourth of July Sky Show - Pre Sale	15.00
90	Fourth of July Sky Show - Day Of Event	20.00
91	Booth Rental - All Facilities - per booth	59.00
92	Event -Vendor/Catering Booth - per vendor/ booth	118.00
93	Leisure Classes	Varies
94	Refund Processing Fee	22.00
95	Special Events Applications	250.00
96	Facility/Event Staff (Supervision)	50.00
97	Facility/Event Staff (Alcohol)	50.00
	Mission Meridian Village Parking Fees	
98	Mission Meridian Village Parking	5.00
99	Mission Meridian Village Parking (Monthly)	70.00
100	Mission Meridian Village Parking (Monthly Senior)	16.00
COMMUNITY DEVELOPMENT		
	Building Fees:	
101	Building Permit & Plan Check	See LA County Fee Schedule
	Use Permits:	
102	Administrative Use Permit	6,467.00
103	Conditional Use Permit	15,051.00
104	CUP Modification	9,462.00
105	Parking Use Permit	9,635.00
106	Temporary Use Permit (non-profit)	1,000.00
107	Temporary Use Permit	1,500.00
108	Variance- First	9,470.50
109	Variance - Each Add	3,542.50
	Maps:	
110	Lot Line Adjustment / Parcel Merger / Certificate of Compliance	3,211.50
111	Tentative Parcel Map	13,670.00
112	Tentative Tract Map	16,804.00
	Design Review:	
113	ADU Review - Ministerial	633.00

Note: This fee schedule was adopted on May 6, 2026, Resolution No. 8000. Effective July 6, 2026

#	DESCRIPTION	FY 2026 ADOPTED FEE ($)
114	Director Design Review - Residential	735.50
115	PC Chair Design Review - Residential	965.50
116	Single Family Residence* (1-2 units)	5,879.50
117	Director Sign Permit	500.00
118	Sign Program	2,000.00
	Multi Family:	
119	3-8 Units	9,272.50
120	9-16 Units	10,316.50
121	17-50 Units	11,407.50
122	51-100 Units	12,411.00
123	101 Units or More	19,993.00
	Commercial:	
124	PC Chair - Commercial	1,437.00
125	2,001 - 10,000 sq ft	11,134.00
126	10,000 + sq ft	13,494.00
	Cultural Heritage Commission Fees:	
127	Chair Review - Residential	1,267.50
128	Cultural Hert. Comm. - Landmark Review	8,153.50
	C.H.C. Cert. of Approp. (incl. Demo)	
129	Single-Family* (1-2 units)	5,587.50
	Multi-Family:	
130	3-8 Units	9,784.50
131	9-16 Units	10,829.50
132	17-50 Units	12,805.00
133	51-100 Units	14,103.50
134	101 Units or More	15,932.00
	Commercial:	
135	less than 2,000 sq ft	5,373.00
136	2,001 - 10,000 sq ft	11,799.00
137	10,000 + sq ft	13,097.00
138	CHC Chair Review	5,282.00
	Hilldside Permit Fees:	
139	Hillside Development Review	8,704.50
	Environmental Analysis Fees: **Flat Fees:**	
140	Negative Declaration Filing	2,468.00
141	Negative Declaration (including Mitigated Neg. Dec)- contractor	Actual Cost
142	Environmental Impact Fee - city admin fee	15% of consultant cost
143	Mitigation Monitoring Inspection & Administrative Fee	Actual Cost
144	Categorical Exemption (CEQA) - Filing	536.00
145	Class 32 Exemption - city admin fee	3,882.00
146	Class 32 Exemption- contractor	Actual Cost
	Deposit-Based Fees:	
147	Initial Environmental Study	5,894.00

Note: This fee schedule was adopted on May 6, 2026, Resolution No. 8000. Effective July 6, 2026

#	DESCRIPTION	FY 2026 ADOPTED FEE ($)
148	EIR	29,471.00
	Appeals:	
149	Appeal	2,500.00
	Deposits:	
150	Zoning Text & Map Amendments	17,390.00
151	Specific Plan Application	18,650.00
152	General Plan Amendment	23,937.00
153	Specific Plan Amendment	18,614.00
154	Development Agreement Review	31,061.00
155	Planned Development	30,239.00
	Other Planning Applications:	
156	Zoning Code Admin Modification	1,953.00
157	Zoning Code Interpretation	2,500.00
158	Zoning Verification Letter	800.00
159	Zoning Clearance for Business License Review	74.00
160	Discretionary Time Extension Request	2,000.00
161	Covenants	922.00
162	Mills Act Contract	5,877.50
163	Changes / Modifications to Approved Plans (initiated by Applicant) - Administrative	1,271.50
164	Changes / Modifications to Approved Plans (initiated by Applicant) - Public Hearing	3,579.00
165	Temporary Banners - Per Banner, Per Permit	75.00
166	Garage/Yard Sale Permit	20.00
167	Historic Resource Evaluation	699.50
168	After-the-fact Filing	2 x app fee
169	Density Bonus & Affordable Agreement Review	7,425.00
170	Projects with Combined Applciations (except Administrative Applications)	Each @ 100% of the highest fee and 50% of additional fee
171	Preparation of Special/Technical Studies - admin fee	15% of consultant cost
172	Preparation of Special/Technical Studies - contractor	Actual cost
173	Fee for Service Contract Planner	consultant + 15%
174	Pre-application fee	2,500.00
175	Mills Act - Annual Review	500.00
176	Zoning Clearance	250.00
177	Landscape Plan Check	750.00
178	Landscape Inspection	300.00
179	Special Research by Planning Division Staff - in excess of 1 hour	200.00
180	Major (new multi-family or mixed use)	648.00
181	Major (new non-residential)	384.00
182	Moderate (new single-family, non residential additions/alteration)	303.00
183	Minor (single-family additions, accessory dwelling units, non-residential TI)	222.00
	Miscellaneous Fees:	
184	Public Noticing Fee (Does Not Include Material / Mailing Costs)	537.00

Note: This fee schedule was adopted on May 6, 2026, Resolution No. 8000. Effective July 6, 2026

#	DESCRIPTION	FY 2026 ADOPTED FEE ($)
185	Newspaper Publishing Fee	Actual Cost
186	Re-Review - Per hour	313.00
187	Planning Inspection Per Hour	161.00
188	City Architect Review Fee - New Single Family	484.00
189	City Architect Review Fee - Multi-family	1,939.00
190	Administrative Citation 1st Violation (per Ordinance #2383)	100.00
191	Administrative Citation 2nd Violation (per Ordinance #2383)	200.00
192	Administrative Citation 3rd Violation (per Ordinance #2383)	500.00
193	Strong Motion Instrumentation Program - SMIP (California Public Resources Code)	Varies
194	Amplified sound permit requirement	80.00
	Surcharges:	
195	Technology Surcharge (percentage applied to fire, building, engineering, and planning permits)	0.10
196	General Plan Update Surcharge Fee	0.15
	Growth Requirement Capital Fees:	
197	Growth Mgmt.: Residential Development (SP Ordinance #1985)	$1.64 per Sq Ft
198	Growth Mgmt.: Commercial/Industrial Development (SP Ordinance #1985)	$1.07 per Sq Ft
199	Growth Mgmt.: Park Impact Fee - Residential NEW (Resolution # 7466)	$7.65 per Sq Ft
200	Growth Mgmt.: Park Impact Fee - Residential REMODEL (Resolution # 7466)	$7.65 per Sq Ft >250 sq ft
201	Growth Mgmt.: Park Impact Fee - Residential SENIOR HOUSING (Resolution # 7466)	$2.95 per Sq Ft
	Public Art:	
202	Public Art Development Fee - On Site	1% of Total Building Valuation
203	Public Art Development Fee - In Lieu	1.5% of Total Building Valuation
CITY MANAGER		
	Film Permit Fees:	
204	Still photography - Per Day	166.00
205	Motion Picture Photography - Per Day	667.00
206	Student Films/ Public Service Announcements/ Educational Films - Per Day	24.00
207	Handheld Video Crew with less than 20 people - Per Day	166.00
	Location / Hourly Fees:	
208	Still Photography / Handheld Video Crew - On Public Right-Of-Way - Per Hour	93.00
209	Student Filming On Public Right-of-way - per hour	18.00
210	Street or Lane Closure - Per Hour	186.00
211	Streets/Sidewalks/Alleys as Principal Site - Per Hour	186.00
212	City Parking Lots - Per Hour	186.00
213	City Building (Four Hour Minimum)/City Park - Per Hour	218.00
214	Police (Eight Hour Minimum) - per hour	110.00
215	Police Vehicles - per hour	25.00
216	Fire (Eight Hour Minimum) - per hour	110.00
217	Traffic Control Plan Review - per review	138.00
218	Cancellation Fee	123.00
219	Film Liaison Monitoring	70.00
FINANCE		

Note: This fee schedule was adopted on May 6, 2026, Resolution No. 8000. Effective July 6, 2026

#	DESCRIPTION	FY 2026 ADOPTED FEE ($)
	Miscellaneous Fees:	
220	NSF Check Fee (CA Civil Code Section 1719)	30.00
221	Credit Card Transaction Fee (Percentage of Transaction Cost)	3%
222	Check Reissuance Fee	35.00
FIRE		
	Emergency Medical Services	
223	BLS Flat Rate	4,673.00
224	ALS Flat Rate	5,002.00
225	No Transport Assessment Fee	600.00
226	Paramedic Subscription Fee (Residential)	100.00
227	Paramedic Subscription Fee (Commercial)	115.00
	Fire Hazard Severity Zone	
228	New / Remodel Site Map Review	170.00
229	Annual Defensible Space Inspection	227.50
230	Abatement Enforcement Administrative Fee	750.00
	Noncompliance after Second Inspection	
231	Other EMS Fees	LA County Fee
	Building Plan Review	
232	Residential, one and two-family	170.00
	Multifamily residential	
233	3-10 units	687.00
234	> 10 units	1,520.00
235	Photovoltaic residential	456.00
236	Photovoltaic commercial	456.00
237	Commerical (B,S,F,M)	456.00
238	Assembly Occupancy	600.00
239	Educational / Insitutional Occupancy	1,582.00
240	Hazardous Occupancy	600.00
241	Mid-Rise Building 30-74 feet in height	2,564.00
242	High-Rise Building over 75 feet in height	3,137.00
243	Smoke-control rational analysis	1,412.00
244	High-Piled Combustible Storage	313.00
245	Site Plan Review - water and access	313.00
	Sprinkler Plan Check **Residential**	
246	NFPA 13D fire sprinkler one or two-family dwelling	250.00
247	NFPA 13R fire sprinkler system multifamily dwellings	456.00
248	Remodel	313.00
	Commercial **New:**	
249	0 - 10,000 sq ft.	456.00
250	10,000 - 25,000 sq ft.	743.00
251	25,000 - 50,000 sq ft.	1,458.00
252	50,000+ sq ft.	1,745.00
	Remodel/T.I.:	

Note: This fee schedule was adopted on May 6, 2026, Resolution No. 8000. Effective July 6, 2026

#	DESCRIPTION	FY 2026 ADOPTED FEE ($)
253	0 - 5,000 sq ft.	456.00
254	5,000 - 10,000 sq ft.	743.00
255	10,000 - 25,000 sq ft.	1,172.00
256	25,000+ sq ft.	1,458.00
257	Sprinkler - Extra Plan Check/ Site Visit - per check / visit	138.00
	Additional Fire Protection Systems	
258	Standpipe System (Class I, II, III)	600.00
259	Water Storage Tank	600.00
260	Special Hazard Extinguishing System	600.00
261	Fire Pump	743.00
	Fire Alarms: **New: (# of Devices) - Commercial**	
262	1 - 25 Devices	313.00
263	26-50 Devices	600.00
264	51-100 Devices	743.00
265	100+ Devices	1,172.00
	Remodel/ T.I.: Commercial	
266	1-5 Systems	313.00
267	6-15 Systems	456.00
268	16-50 Systems	600.00
	Miscellaneous Plan Review	
269	Alternative materials, design, and methods of construction and equipment	553.00
270	Additional Plan review after initial review and one resubmittal	156.00
271	Expedited review	282.00
272	Pre-submittal meeting	282.00
273	Aboveground propane/butane tank installation (125-499 gallons)	565.00
274	Commerical kitchen hood systems (UL300)	293.00
275	Paint Spray Booth	293.00
276	Medical gas storage system	390.00
277	Fuel Cell power system	424.00
278	Underground Storage Tank Removal	553.00
279	Clean Up, 1st Responder	Actual Cost
280	Extra Plan Check/Site Visits	170.00
281	Hydrostatic Test and Alarm Test	170.00
282	Any Plan Check Not listed	170.00
	Hazmat Fees:	
283	Hazmat Disclosure Level I	LA County Fee
284	Hazmat Disclosure Level II	LA County Fee
285	Hazmat Disclosure Level III	LA County Fee
286	Hazmat Placard Start Up Cost	LA County Fee
287	Hazmat Placard Updates	LA County Fee
	False Alarm Fees:	
288	False Alarm - 1st Response	-
289	False Alarm - 2nd and 3rd responses	178.00
290	False Alarm - 4th and beyond	911.00

Note: This fee schedule was adopted on May 6, 2026, Resolution No. 8000. Effective July 6, 2026

#	DESCRIPTION	FY 2026 ADOPTED FEE ($)
	Inspections:	
291	Dwelling, one and two-family	313.00
292	Multifamily residence	456.00
293	Photovoltaic residential	170.00
294	Photovoltaic commercial	456.00
295	Commercial (B,S,F,M)	600.00
296	Assembly	600.00
297	Educational/Institutional Occupancy	600.00
298	Hazardous Occupancy	313.00
299	Mid-Rise 30-74 feet in height	600.00
300	High-rise over 75 feet in height	886.00
301	Smoke Control acceptance testing	1,029.00
302	High-piled combustible storage	600.00
303	Petroleum/Chemical Unit inspection	456.00
304	Above ground propane/butane storage tank (125-499 gallons)	170.00
305	Tank installation or removal	456.00
306	Any Other Inspection Not Listed	170.00
	Sprinkler Inspections **NFPA 13D**	
307	One or two-famiy dwelling	456.00
308	Tract model one or two-family dwelling	456.00
	NFPA 13R	
309	<100 heads per system	743.00
310	>100 heads per system	1,172.00
	Tenant Improvements to NFPA 13 system	
311	< 20 heads	385.00
312	> 20 heads and < 100 heads	600.00
313	> 100 heads per system	1,029.00
314	5 year sprinkler recertification	385.00
	Underground Fire Protection system	
315	1-4 connections for hydrants and/or risers	385.00
316	> 5 connections for hydrants and/or risers	743.00
317	Fire Flow Test witness/perform	313.00
318	Water storage tank	170.00
319	Fire pump acceptance test	673.00
	Fire Alarm Field Inspection	
320	< 10 devices and/or fire sprinkler monitoring system	385.00
321	11-50 devices	600.00
322	51-90 devices	743.00
323	91-130 devices	886.00
324	> 130 devices	1,172.00
	Special Systems Field Inspection	
325	Emergency responder communication Coverage	1,561.00
326	Two-way communication system	242.00
327	Commercial kitchen hood systems	456.00

Note: This fee schedule was adopted on May 6, 2026, Resolution No. 8000. Effective July 6, 2026

#	DESCRIPTION	FY 2026 ADOPTED FEE ($)
328	Special extinguishing systems CO2, foam, clean agent	456.00
329	Gas detection system	456.00
330	Medical gas storage system	242.00
331	Energy Storage system	390.00
332	Special/priority inspection (including after-hour, additional technical assistance, and other deemed necessary by the fire chief)	156.00
	Annual Inspection of Apartments	
333	3-8 Units	170.00
334	9-16 Units	242.00
335	17-50 Units	313.00
336	51-100 Units	385.00
337	101 Units or More	600.00
	Annual Inspection of Businesses	
338	less than 2,000 sq ft	134.00
339	2,001 - 10,000 sq ft	313.00
340	10,000 + sq ft	600.00
341	Additional Inspection (3rd Visit, 2nd Reinspection)	166.00
342	Inspection (4th Visit and Subsequent)	228.00
	New Business Fire Inspection	
343	less than 2,000 sq ft	134.00
344	2,001 - 10,000 sq ft	170.00
345	10,000 + sq ft	313.00
	Permits:	
346	Activities in High or Very High Fire Hazard Severity Zones	390.00
347	Additive Manufacturing	390.00
348	Aerosol Products	390.00
349	Amusement Buildings	390.00
350	Automobile Wrecking Yard	390.00
351	Bonfire	390.00
352	Carbon Dioxide Systems used in Beverage Dispensing Applications	390.00
353	Carnivals and Fairs	390.00
354	Cellulose Nitrate Film	390.00
355	Combustible Dust Producing Operations	390.00
356	Combustible Fibers	390.00
357	Commercial Rubbish-Handling Operation	390.00
358	Compressed Gases	390.00
359	Cryogenic Fluids	390.00
360	Cutting and Welding Permit	390.00
361	Dry Cleaning Plants	390.00
362	Energy Storage Systems	390.00
363	Exhibits and Trade Shows	390.00
364	Explosives	390.00
365	Fireworks Display	620.00
366	Flammable or Combustible Liquids	390.00
367	Floor Finishing	390.00

Note: This fee schedule was adopted on May 6, 2026, Resolution No. 8000. Effective July 6, 2026

#	DESCRIPTION	FY 2026 ADOPTED FEE ($)
368	Fumigation and Insecticidal Fogging	390.00
369	Hazardous Materials	390.00
370	Special Events	390.00
371	Spraying or Dipping	390.00
372	Storage of Scrap Tires and Tire By-Products	390.00
373	Temporary Sales Lots	390.00
374	Temporary Membrane Structures and Tents*	390.00
375	Tire Storage	390.00
376	Waste Handling	390.00
377	Wood Products	390.00
378	Permits - Any Other Required by Chief	390.00
	Film Production and Permit Fees	
379	Special Film Fueling Truck	390.00
380	Pyrotechnics and Special Effects	351.00
381	Filming	343.00
382	Fire Safety Officer	156.00
	Fire Reports:	
383	Redacted	53.00
384	Non-Redacted	9.00
	Miscellaneous Fees:	
385	Investigation Cost Recovery	Actual Cost
386	Witness Fees	178.00
387	Record Research: Intensive, Interpretive - Per Half Hour	53.00
388	Records: Duplication Per Page	0.11
LIBRARY		
	Library Services Fees:	
389	Replacement of Library Item	Actual Cost
390	Inter-Library Loan (Per Title)	5.00
391	Library Asset Recovery Service	Actual Cost
	Printing / Reproduction Fees:	
392	Black & White	0.15
393	Color Copies	0.50
	Community Room Rental Fees:	
394	Community Room - Non-Profit Groups (Min. 2 Hrs.)	195.00
395	Community Room - Resident / Local Business - (Min. 2 Hrs.)	180.00
396	Community Room -Non-Resident - (Min 2 Hrs.)	220.00
397	Community Room - Staff (Cleanup and Supervision)	50.00
398	Community Room - Staff (Alcohol)	50.00
399	Community Room - Security Deposit	300.00
	Equipment Rental Fees:	
400	Audio/Visual Equipment Rental	75.00
401	Equipment Rental - Baldwin Piano	75.00
POLICE		
	Penalties:	
402	Display Vehicle for Sale	90.00

Note: This fee schedule was adopted on May 6, 2026, Resolution No. 8000. Effective July 6, 2026

#	DESCRIPTION	FY 2026 ADOPTED FEE ($)
403	Parking in Red Zone	90.00
404	Parking in Yellow Zone	90.00
405	Parking in White Zone	90.00
406	Parking in Green Zone	90.00
407	Parked on Parkway	90.00
408	Parking Prohibited by Sign	90.00
409	1 HR, 2 HR, 4HR Time Limited Parking	90.00
410	Parking Outside Spaces	90.00
411	Parked Over 72 Hours	90.00
412	Parking Vehicle for Sale	90.00
413	Washing, Servicing or Repairing Vehicle	90.00
414	Selling from Motor Vehicle	90.00
415	Parking Left Side of Roadway	90.00
416	Parking Adjacent to Schools	90.00
417	Exceeding 3% Grade/ Wheels Not Curbed	90.00
418	Emergency No Parking	90.00
419	Alley Parking - Sign Posted	90.00
420	Parked on Private Property	90.00
421	Parking on Public Property	90.00
422	Parking on City Owned Off-street Facility	90.00
423	Oversized Vehicle	200.00
424	Unattended Trailer	90.00
425	PARKED IN A HANDICAPPED SPACE	400.00
426	BLOCKING DISABLED SPACE	400.00
427	Double Parking	90.00
428	Failure to Park Within 18" of Right Curb	90.00
429	Parked Next to Fire Hydrant-No Operator	90.00
430	Unattended Vehicle-Motor Running	90.00
431	Car Alarm Sounding in Excess of 20 Min.	90.00
432	Blocking Legally Parked Vehicle	90.00
433	Expired Registration	90.00
434	Foreign Registration	90.00
435	Displaying Wrong License Plate	90.00
436	Missing License Plate	108.00
437	No Current Registration Tab	108.00
438	Fire Lane	150.00
439	Parked on Crosswalk	90.00
440	All municipal code parking violations not listed	90.00
441	Parked on Crosshatched Lines	400.00
442	PARKED ON LINE 22507.8 C1 VC	400.00
443	PARKED IN FRONT OF DRIVEWAY	90.00
444	Overnight Parking	90.00
445	City Parking Lot (2 HR Limit)	90.00
446	PARKED ON SIDEWALK	90.00
447	22500(n)1- Parked Within 20' of Crosswalk-Prohibited	90.00

Note: This fee schedule was adopted on May 6, 2026, Resolution No. 8000. Effective July 6, 2026

#	DESCRIPTION	FY 2026 ADOPTED FEE ($)
	Parking Pass Fees:	
448	Parking 1 Year	165.00
449	Parking - Senior Citizens (65 Years old min.)	125.00
450	Parking - Alternate Fuel Vehicles	125.00
451	Parking - Monthly Pass	40.00
452	Parking - Replacement/ Transfer	25.00
453	Parking - Daily Pass	5.00
	All Police Reports:	
454	Redacted	105.00
455	Non-Redacted - Non-Resident	30.00
456	Non-Redacted - Resident	30.00
	False Alarm:	
457	False Alarm 1st	-
458	False Alarm 2nd - 3rd	176.00
459	False Alarm 4th and beyond	176.00
	Reproduction:	
460	Photo Reproduction - Per Photo	30.00
461	Video/Audio Reproduction	105.00
	Miscellaneous Fees:	
462	DUI Emergency Response	Actual Cost
463	Records Check/ Clearance Letter	50.00
464	Special Business Background Check	614.00
465	Impound Fee - Vehicle Release	200.00
466	Impound Fee - DUI Vehicle Release	400.00
467	Juvenile Recovery	Actual Cost
468	Firearms Storage & Release	60.00
469	Citation Corrections/ Inspection Service (resident)	25.00
470	Citation Corrections/ Inspection Service (non-resident)	50.00
471	Civil Subpoena	Fee set by Courts
472	Duces Tecum Subpoena (Per CA Evidence Code)	15.00
473	Tow Franchise Fee - per year	2,500.00
474	CCW Application Fee	317.00
475	CCW Clerical Fee	35.00
476	Psychological Evaluation	150.00
477	CCW Amendment Fee	20.00
478	Vehicle Boot -Release Fee	150.00
479	Fingerprint Services -Ink Rolled Per Card	30.00
PUBLIC WORKS		
	Water Fees:	
480	Water Turn Off (After Hours)	353.00
481	Water Turn On (After Hours)	353.00
482	Water 24 Hour Door Hanger Fee	90.50
483	Water Turn Off for Non-Payment***	110.00
484	Water - New/Change Account	144.00
485	Water - Discontinue Service	144.00

Note: This fee schedule was adopted on May 6, 2026, Resolution No. 8000. Effective July 6, 2026

#	DESCRIPTION	FY 2026 ADOPTED FEE ($)
486	Water - Discontinue for Non-Compliance	228.00
487	Water - Unauthorized Turn on	225.00
488	Fire Flow Testing	701.00
489	Temporary Meter Rental - Install	134.00
490	Temporary Meter Rental - Move	118.00
491	Temporary Meter Rental - Rental	119.50
492	Inspection of Backflow Prevention Device	331.00
493	Backflow Prevention Review	94.00
494	Backflow Prevention Program Penalty	353.00
495	Water Installation Inspection Fee	426.00
	Deposit-Based Fees:	
496	Water Service Installation	9,147.00
497	Water Meter installation	1,200.00
498	Temporary Meter Rental	3,000.00
	Sewer Fees:	
499	Sewer Connection/Inspection, Existing Lateral	510.00
500	Sewer Connection/Inspection, Existing WYE	510.00
501	Sewer Connection/Inspection, Saddle Connect	510.00
502	Capping of Sewer Lateral	510.00
503	Sewer Construction Fee - New Construction	859.00
504	Sewer Spill in Public ROW	Actual Cost
505	Fats, Oils, & Grease Permit Fee (annual)	577.00
506	Fats, Oils, & Grease Inspection Fee (annual)	Actual Cost
507	Fats, Oils, & Grease Mitigation Penalty (annual)	1,101.00
	PW Engineering:	
508	Excavate - Utility Trenches <= 100 l.f.	748.00
509	Excavations-Utility Trenches >= 100 l.f.	969.00
510	Excavations-Utility Trenches > 100 l.f. - per 100 l.f.	433.32
511	Excavation-Utility Patches	510.00
512	Concrete Sidewalk / Driveway Parkway / Permit	250.50
513	Concrete Sidewalk / Driveway / Parkway Inspection	354.50
514	Curb & Gutter Permit	250.50
515	Curb & Gutter Inspection Flat Fee	354.50
516	Curb Coring Base Permit	288.00
517	Curb Coring Inspection Flat Fee	324.50
518	Pavement Street & Alley	950.00
519	Pavement Street & Alley Inspections Flat Fee	838.50
520	Street/ROW Vacation/ Abandonment	12,808.00
521	Public Improvement Inspection (Per Day)	1,786.00
522	Public Works Plan Check Fee - Single Family*	1,160.00
523	Public Works Plan Check Fee - Multi Family*	1,730.00
524	Public Works Plan Check Fee - Mixed Use*	4,799.00
525	Public Works Plan Check Fee - Commercial*	6,901.00
526	Public Works Plan Check Fee - Other Uses**	4,148.50
527	Additional Plan Check/ Reviews Beyond 2	402.50

Note: This fee schedule was adopted on May 6, 2026, Resolution No. 8000. Effective July 6, 2026

#	DESCRIPTION	FY 2026 ADOPTED FEE ($)
528	Public Works Plan Check Fee - Traffic Control Plan	918.00
529	Final Parcel Map Review	5,159.00
530	Final Tract Map Review	5,159.00
531	Lot Line Adjustment/Lot Merger/ Parcel Split	4,000.00
532	Final Map Amendment - Administrative	569.50
533	Temp Encroachment - Dumpster	144.00
534	Temp Encroachment - Signs/Goods	182.00
535	Temp Encroachment - Southwest Hills	770.00
536	Temp Encroachment - All Other	597.50
	Deposits (Time and Material):	
537	Street Renaming Processing	9,345.00
	Miscellaneous Fees:	
538	Sidewalk Vendor Permit	450.00
539	House Number Change (SFR & ADU)	646.00
540	House Number Change (Other)	354.00
541	Oversized/Overloads Permits (Per Transportation Code)	16.00
542	Block Party Street Closure - Initial	322.00
543	Block Party Street Closure - Renewal	160.50
544	Blueprint/ Map Reproduction	Actual Cost
545	Banner Installation & Removal	1,044.00
546	Banner Installation - Initial	167.00
547	Parade/ Special Event Staffing	Hourly Rate
548	No Parking Signs (temporary)	312.00
	Trees:	
549	Tree Removal / Replacement Permit	284.00
550	Tree Removal/Replacement for Developments	672.00
551	Tree Trimming Permit	88.00
552	Inspection For Trimming or Removal	80.00
553	Inspection For Trimming or Removal (Development)	191.50
554	Private Tree Trimming in Public ROW	Actual Cost
555	Tree Replacement Deposit	462.00
556	Standard Tree Permit Appeal Fee	1,182.00

City Council
Agenda Report

ITEM NO. 17

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Nick Kimball, Assistant City Manager/CFO

SUBJECT: **CONSIDERATION TO ADOPT RESOLUTION NO. 8041 SUPPORTING VOTER APPROVAL OF MEASURE SOS, THE PROPOSED GENERAL OBLIGATION BOND TO FUND THE REHABILITATION AND RECONSTRUCTION OF STREETS, ROADS, ALLEYWAYS, SIDEWALKS, CURBS AND GUTTERS THROUGHOUT THE CITY ON NOVEMBER 3, 2026**

Recommendation
It is recommended that the City Council adopt Resolution No. 8041 supporting voter approval of Measure SOS on November 3, 2026, which is the proposed General Obligation Bond to fund the rehabilitation and reconstruction of streets, roads, alleyways, sidewalks, curbs, and gutters throughout the City.

Executive Summary
Measure SOS, a general obligation bond measure placed on the ballot by the City Council, will appear before South Pasadena voters on November 3, 2026. If approved by two-thirds of the voters voting on the measure, Measure SOS would authorize up to $80 million in bonded indebtedness to fund the rehabilitation and reconstruction of streets, roads, alleyways, sidewalks, curbs, and gutters throughout the City.

The attached resolution would formally state the City Council's position in support of Measure SOS. California law permits a legislative body to take a position on a ballot measure at a duly noticed public meeting.

Background
On February 4, 2026, City Council received a presentation on infrastructure conditions, long-term funding needs, and potential revenue options, and directed the City Manager to continue exploring a potential street improvement bond measure.

On May 18, 21, and 28, 2026, the City hosted Community meetings to present the City's budget and infrastructure financing needs.

On June 17, 2026, the City Council adopted Resolution No. 8016 by a two-thirds vote, determining the public interest and necessity to demand the issuance of general obligation bonds, and conducted the first reading of Ordinance No. 2416 by title only.

On July 7, 2026, the City Council adopted Ordinance No. 2416 on second reading, pending

voter approval, and approved Resolution No. 8016 placing Measure SOS on the November 3, 2026 general election.

Analysis

The City of South Pasadena faces a substantial and growing backlog of deferred street, roadway, alley, and sidewalk maintenance. The City's pavement network has been independently assessed at a preliminary Pavement Condition Index (PCI) of 54 on a scale of 0 to 100, a rating in the "poor-to-fair" range that places the City well below the regional average of its peer cities.

Despite receiving approximately $2.5 million per year in special funding dedicated to street repair, staff estimates that this falls approximately $7 – 8 million short, per year, of what is necessary to make any significant gain in the overall condition of the City's streets. Without a dedicated and controlled funding source, the City's infrastructure condition is projected to continue to decline.

Measure SOS asks voters to vote on a general obligation bond, in an amount not to exceed of $80,000,000, subject to two-thirds (2/3) voter approval, to fund street, roadway, alleyway, sidewalk, curb, gutter, and related infrastructure improvements.

Authority for Resolution

Under Fair Political Practices Commission (FPPC) Regulation 18420.1(e)(2), the announcement of an agency's position at a public meeting, or within the agenda or minutes prepared for that meeting, is not considered a contribution or an independent expenditure. Adoption of the resolution does not authorize the expenditure of City funds or the use of City resources for campaign activities.

Fiscal Impact

If the measure is ultimately approved by the voters, the bonds would be general obligations of the City repaid through an ad valorem tax levied on taxable property within the City. Based on the figures presented during community outreach, a bond program of this scale is estimated to cost property owners an average of approximately $33 per $100,000 of assessed valuation. Actual tax rates would depend on the timing, structure, and amount of each bond series, prevailing interest rates at the time of issuance, and assessed valuation within the City.

Attachment:

Attachment 1 - Resolution No. 8041_City Council Support for Measure SOS

CITY OF SOUTH PASADENA
RESOLUTION NO. 8041

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOUTH PASADENA SUPPORTING VOTER APPROVAL OF MEASURE SOS, THE PROPOSED GENERAL OBLIGATION BOND TO FUND THE REHABILITATION AND RECONSTRUCTION OF STREETS, ROADS, ALLEYWAYS, SIDEWALKS, CURBS AND GUTTERS THROUGHOUT THE CITY ON NOVEMBER 3, 2026.

WHEREAS, the City Council has placed a General Obligation Bond Measure on the November 2026 ballot, known as Measure SOS, for approval by the voters that will authorize up to $80 million in bonded indebtedness to fund the rehabilitation and reconstruction of streets, roads, alleyways, sidewalks, curbs and gutters throughout the City; and

WHEREAS, the City is responsible for maintaining a substantial public infrastructure footprint with 69 miles of street, more than 100 miles of sidewalk, 33 traffic signals, 454 fire hydrants, 60 miles of underground sewer lines, and more than 80 miles of water mains; and

WHEREAS, according to the City's Draft 2025 Citywide Engineering and Traffic Survey for Speed Limits updated on February 9, 2026, on average, more than 100,000 vehicles traverse South Pasadena streets and corridors each day; and

WHEREAS, since 2016, the City has received more than 200 liability and property damage claims, resulting in more than $7 million in claims costs, related to street and sidewalk conditions; and

WHEREAS, each year, on average, the City fills more than 1,000 potholes, costing tens of thousands in labor hours and contractor costs; and

WHEREAS, the City relies on its "local return" share of state and county special taxes that are specifically dedicated for street and transportation uses, which currently provides approximately $2.5 million per year, as well as one-time grant funding, when available, to maintain and repair streets, sidewalks, and make traffic safety improvements; and

WHEREAS, according to the City's most recent bid documents, simple repairs and maintenance, including slurry seal to extend the life of a street in good condition, costs approximately $50,000 per center-lane mile; rehabilitating a street in fair condition costs approximately $1,000,000 per center-lane mile; and reconstructing a street in poor condition costs approximately $2,500,000 per center-lane mile; and

WHEREAS, approximately every five (5) years, the City engages professional pavement engineers to physically inspect the City's street network and score each segment on a scale of zero to one hundred through a standard measure known as a Pavement Condition Index, or PCI. This data is compiled and used to prepare a Pavement Management Plan.

WHEREAS, the City's most recent Draft Pavement Management Plan provides an overall PCI score in the mid-50's for the City's street network. This means that many streets show significant cracking, rutting and surface deterioration. It is the streets that fall into the "poor" and "fair" categories that require extensive repair to improve this score and nearly 50% of the roads in South Pasadena fall into these "fair" or "poor" categories according to the PCI index; and

WHEREAS, the City estimates a total cost of $136 million to improve the City's PCI to excellent condition. Without additional investment, this score will continue to decline; and

WHEREAS, insufficient funding for streets, roads, alleys, and sidewalks for current and future demand will continue to deteriorate the City's infrastructure and therefore a significant investment for unfunded infrastructure improvements is needed; and

WHEREAS, investing $1.00 in road maintenance now prevents $6 to $10 dollars in future reconstruction costs; and

WHEREAS, on June 17, 2026, the City Council adopted, by a two-thirds vote of all its members, Resolution No. 8016 determining the necessity to incur a bonded indebtedness to finance municipal improvement projects of the City (the "Bonds") which requires two-thirds (2/3) of the voters in the City voting on the proposition to vote in favor.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of South Pasadena as follows:

SECTION 1. The City Council of the City of South Pasadena supports voter approval on the November 3, 2026 ballot of the proposed General Obligation Bond Measure on the November 2026 ballot, known as Measure SOS, that will authorize up to $80 million in bonded indebtedness to fund rehabilitation and reconstruction of streets, roads, alleyways, sidewalks, curbs and gutters throughout the City.

SECTION 2. The City Clerk shall certify the adoption of this resolution.

PASSED, APPROVED AND ADOPTED at a regular meeting of the City Council of the City of South Pasadena on October 21, 2026.

_____
Sheila Rossi, Mayor

APPROVED AS TO FORM:

_____
Roxanne Diaz, City Attorney

ATTEST:

_____
Nikima S. Newsome, Chief City Clerk

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) ss
CITY OF SOUTH PASADENA)

I, Nikima S. Newsome, Chief City Clerk of the City of South Pasadena, California, do hereby certify that Resolution No. _____ was passed and adopted by the City Council of the City of South Pasadena, California, at a regular meeting of said City Council held on the 15th day of July, 2026, and there after signed and approved by the Mayor and attested by the City Clerk, and that said resolution was adopted by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Nikima S. Newsome, Chief City Clerk

City Council
Agenda Report

ITEM NO. 18

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Nikima S. Newsome, Chief City Clerk

SUBJECT: **CONTINUED PUBLIC COMMENT - GENERAL**
This time is reserved for speakers in the Public Comment queue not heard during the first 30 minutes of Item No. 2. No new speakers will be accepted at this time.

City Council
Agenda Report

ITEM NO. 19

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Nikima S. Newsome, Chief City Clerk

SUBJECT: **COUNCILMEMBER COMMUNICATIONS**

City Council
Agenda Report

ITEM NO. 20

DATE: October 21, 2026

FROM: Todd Hileman, City Manager

PREPARED BY: Nikima S. Newsome, Chief City Clerk

SUBJECT: **CITY MANAGER COMMUNICATIONS**