CITY OF LONG BEACH

Department of Public Works
411 West Ocean Boulevard, 5th Floor Long Beach, CA 90802
(562) 570-6383

November 5, 2026

ADDENDUM NO. 3

PLANS AND SPECIFICATIONS NO. R-7259
PALO VERDE AVENUE PEDESTRIAN BRIDGE SIGN PROJECT
IN THE CITY OF LONG BEACH, CALIFORNIA

NOTICE TO HOLDERS OF PLANS AND SPECIFICATIONS

Please note the following changes, clarifications and additions:

The bid deadline is extended to November 16, 2026, at 10:00 AM, to provide bidders additional time to obtain subcontractor and trade pricing and prepare complete and competitive bids.

1. SPECIFICATIONS

DIVISION A NOTICE INVITING BIDS

RECEIPT OF BIDS: Bids will be accepted on behalf of the City, Owner of the work, until 10:00 am on November 16, 2026 for Palo Verde Avenue Pedestrian Bridge Sign Project via the City's online portal https://longbeachbuys.buyspeed.com/ keyword Project R-7259.

DIVISION C BID FORM

In accordance with the Notice Inviting Bids for this Work in the City of Long Beach, California, to be opened on **November 16, 2026 at 10:00 am.,** we offer to furnish all necessary labor, tools, materials, appliances and equipment for and perform all Work mentioned in the Notice Inviting Bids, in full compliance with Plans & Specifications No. R-7259 at the prices listed below.

DIVISION I TECHNICAL REQUIREMENTS

Add to section 78-4.03C(3):

Paint the surfaces such that they gradually transition between the two paint colors specified and closely resemble the two-color gradient of the referee sample.

Replace items 2 and 3 in the list in the 1st paragraph of section 78-4.06B with:

2. Be compatible with painted concrete surfaces
3. Have a clear satin finish when dry

78-6.01D(2) Mock-ups

Mock-up must be:

1. Full size representing one panel selected by the Engineer.
2. Available for viewing by the Engineer for a period of 5 days at the fabrication site~~. prior to delivery to project site.~~
3. ~~Furnished to the project site and installed at an authorized location on the bridge.~~
4. Furnished ~~and installed~~ using the personnel, materials, equipment, and methods to be used in the work.
5. Authorized before starting fabrication of final panels.

Notify the Engineer 10 days prior to the start of the viewing period at the fabrication site.
The Engineer may request that additional mock-ups be constructed until the desired results are attained.
The Engineer uses the authorized mock-up to determine the acceptability of the work.
The authorized mock-up may be incorporated into the final work.

78-6.03 CONSTRUCTION

Perform aluminum welding by the inert-gas-shielded arc welding process. Finish exposed aluminum welds to a neat surface.

Before painting, remove burrs and sharp edges, and chamfer all corners.
Blast clean surfaces to be painted under SSPC-SP 10.

Carefully handle the materials such that no parts are bent, broken, abraded, or otherwise damaged. Do not use manufacturing, handling, or installation methods that damage or distort the members or damage the painted surfaces.

Attaching panels by welding to bridge members is not permitted.

Panels must present a uniform appearance in their final position, conforming closely to the horizontal and vertical lines shown or ordered.

Apply anti-graffiti coating to the panels under section 78-4.06. Anti-graffiti coating for panels must be compatible with painted surfaces, and have a satin finish when dry.

78-7.01D(2) Mock-ups

Mock-up must be:

1. Full size representing the letters "G" and "B".
2. Include internal lighting components.
3. Available for viewing by the Engineer for a period of 5 days at the fabrication site. ~~prior to delivery to project site.~~
4. ~~Furnished to the project site and installed at an authorized location on the bridge.~~
5. Furnished ~~and installed~~ using the personnel, materials, equipment, and methods to be used in the work.
6. Authorized before starting fabrication of final letters.

Notify the Engineer 10 days prior to the start of the viewing period at the fabrication site.

The Engineer may request that additional mock-ups be constructed until the desired results are attained.

Mock-up letters must be temporarily powered for viewing both at the fabrication site and at the project site.

The Engineer uses the authorized mock-up to determine the acceptability of the work.

The authorized mock-ups may be incorporated into the final work.

2. CLARIFICATION TO BID RFI QUESTION:

QUESTION: Is a specific LED module required for the internally illuminated letters? Attachment 11 names a Lumenfacade fixture, while the plans state the RGB modules are "to be determined by fabricator." Ref Attachment 11; plan sheet AT-10.
RESPONSE: For internally illuminated signs, the maximum allowed lighting power shall not exceed the product of the illuminated sign area and 12 watts per square foot.
Light emitting diodes (LEDs) with a power supply having an efficiency of 80 percent or greater; or single voltage external power supplies that are designed to convert 120-volt AC input into lower voltage DC or AC output, and have a nameplate output power less than or equal to 250 watts, shall comply with the applicable requirements of the appliance efficiency regulations (Title 20).

CONTACT: Before the Bid opening, prospective Bidders shall direct any communications regarding this Work to:

City of Long Beach, Department of Public Works
Project Management Bureau
5th Floor, City Hall
411 W. Ocean Boulevard
Long Beach, CA 90802
Attention: **Kimvy Nguyen / Natalie Gonzalez**
E-mail: Kimvy.Nguyen@psomas.com /Natalie.Gonzalez@longbeach.gov

Communications may be written or oral, but the City is not bound by any oral interpretation of the Contract Documents made by any City employee, nor does the City guarantee the accurate transcription of oral questions.

PREPARED BY: Kimvy Nguyen

ACKNOWLEDGED BY: _____
Company Name

_____ _____
Print Name Title

_____ _____
Signature Date

DIVISION A

NOTICE INVITING BIDS
FOR
PALO VERDE AVENUE PEDESTRIAN BRIDGE SIGN PROJECT

RECEIPT OF BIDS: Bids will be accepted on behalf of the City, Owner of the work, until 10:00 am on November 16, 2026 for Palo Verde Avenue Pedestrian Bridge Sign Project via the City's online portal https://longbeachbuys.buyspeed.com/ keyword Project R-7259.

MANDATORY PRE-BID CONFERENCE AND JOB-SITE WALK-THROUGH: The City will conduct a mandatory pre-bid conference to review bidding processes, Project Labor Agreement (PLA), at 9:00am on October 20, 2026. Prospective Bidders must attend this meeting.

The pre-bid conference will be conducted via Microsoft Teams. Prospective Bidders must attend this meeting. The meeting can be accessed online via the following link or by phone:

Palo Verde Avenue Pedestrian Overcrossing Bridge R-7259 Pre Bid Virtual Teams Meeting

Meeting ID: 244 616 748 949 827
Passcode: Dc2gm3DF

Dial in by phone
+1 951-344-4988, 984456970# United States, Riverside
Phone conference ID: 984 456 970#

PREBID QUESTIONS AND RFIs: All questions, including requests for interpretation or correction, or comments regarding the Contract Documents, must be submitted no later than October 27, 2026 at 5:00 p.m. Questions received after the pre-Bid question deadline will not be accepted.

The job-site walk-through will be conducted on site on **Tuesday October 20, 2026 at 11:30 a.m**. We will be meeting at cul-de-sac at E 5th St near Channel View Park. Job-site walk-through is mandatory. Prospective Bidders must also attend this meeting.

DESCRIPTION OF WORK: The work to be done consists of fabrication and installation of a gateway sign signifying the entrance to the City via 7th Street. The sign will be mounted on the Long Beach Bridge over 7th Street near Channel View Park, and will include LED lighting to illuminate the façade of the Long Beach letters. Bids are required for the entire Work.

LONG BEACH SMALL BUSINESS ENTERPRISE (LBSBE) PROGRAM: Bidders are advised that this project is subject to the City's Small Business (SBE), Very Small

Business, (VSBE), and Local Small Business (LSBE) Enterprise Program ("LBSBE Program") established by City Ordinance no. ORD 11-0010. A 10% combined SBE/VSBE/LSBE goal has been assigned to this project. See Division C and E of the Specifications.

PROJECT LABOR AGREEMENT (PLA): This work is covered by a Citywide Project Labor Agreement (PLA) entered into by the City of Long Beach with the Los Angeles/Orange Counties Building and Construction Trades Council and the signatory Craft Unions. The PLA establishes the labor relations Policies and Procedures for the City, the Contractor and subcontractors awarded contracts for the work and for the craft persons employed by the Contractor or subcontractor while engaged in the work. See Division E of the Specifications for the applicable PLA.

CONTRACTOR'S LICENSE: The Contractor shall possess a valid California Class A Contractor license at the time of bid. The City may deem any Bidder who fails to possess the required license to be non-responsive at the time of bid opening.

MINIMUM QUALIFICATIONS: Please note that for this work, minimum qualifications Apply. Information concerning these requirements can be found in Division C of the specifications. Bidders are required to complete the Bidders Qualifications Form and submit as part of the Bid Package.

PLANS AND SPECIFICATIONS: Plans and specifications are posted on the City's website at the URL http://www.longbeach.gov/finance/business-info/purchasing-division/ on the "Bids/RFPs" tab and available for free download, however, you must be registered (registration is free and may be accomplished at the same URL) and logged in to view or download the documents.

BID SECURITY: Bidders must **scan and upload** with their bid documents, a certified check or bank draft payable to the City of Long Beach, drawn on a solvent bank in the United States of America, or a satisfactory bond in an amount not less than 10 percent of the bid. The **original** of the above instrument shall be submitted to the City Clerk in a sealed envelope and **must be received and time/date stamped by the City Clerk's Office no later than the time and date stated for receipt of bids.** The outside of the envelope shall clearly state "Bid Security for Specification R-7259 PALO VERDE AVENUE PEDESTRIAN BRIDGE SIGN PROJECT. DO NOT OPEN WITH REGULAR MAIL." The City Clerk's Office is located at 411 W. Ocean Blvd, 1st Floor, Long Beach, CA 90802. The bid security may be submitted through certified mail or in-person. Bidders may proceed directly to Window 12 without pulling a service ticket.

The bid security shall serve as a guarantee that the Bidder, if awarded the Contract, will execute, and deliver to the City, no later than 15 calendar days after the date shown on the "Notice of Award," the following items:

1. The Contract for doing the work, and

2. A corporate surety bond in favor of the City of Long Beach in an amount not less than 100 percent of the Contract price for the faithful performance of the Contract, and
3. A corporate surety bond in an amount not less than 100 percent of the Contract price for the payment of all labor and material claims, and
4. Evidence of required insurance coverage as written in Division H of the Bid Specifications.

Failure to submit the items noted above when specified may result in the City, in its sole discretion, declaring the bid security forfeited and depositing the same into the City Treasury.

The City will retain the bid security accompanying all bids until it awards the Contract. The City will retain the bid security submitted with the bid of the Bidder to whom an award of Contract is made, and the bid security of the next higher bid, until the Contract between the Bidder to whom award of the Contract is made and the City has been executed.

RETENTION: In the event the contract to be awarded hereunder, including Bid Specifications and other documents incorporated therein by reference, provides for the withholding of monies by the City to ensure performance of such contract, the Contractor may: a) deposit with the City as a substitute for said monies, securities listed in Section 16430 of the California Government Code or bank or savings and loan certificates of deposit, or both, equivalent to the amount withheld; or, b) request payment of retentions earned directly to the escrow agent at the expense of the Contractor, provided Contractor requests, in writing, to make such substitution within five (5) days of the date of the Notice of Award of the Contract and bears all expenses in connection therewith. Either option shall be in accordance with Public Contract Code Section 22300.

CALIFORNIA WAGE RATE REQUIREMENTS: This project is a public work under Labor Code § 1720 et seq. Pursuant to Division 2, Part 7, Chapter 1 of the Labor Code of the State of California, the Director of Public Works of the City by and on behalf of the City Council has obtained from the Director of the Department of Industrial Relations of the State of California the general prevailing rate of per diem wages, and the general prevailing rate of holiday and overtime work in the locality in which the public work is to be performed for each craft, classification or type of workers needed to perform the work. Copies of the prevailing rate of per diem wages are on file in the office of the City Engineer, 5th Floor, City Hall, 411 West Ocean Boulevard, Long Beach, California 90802. The Contractor to whom the Contract is awarded, and its subcontractors, shall pay to all workers in the performance of the work not less than the prevailing rate of wages needed to execute the contract. Copies of schedules of prevailing wage rates may be obtained on the California Department of Industrial Relations website http://www.dir.ca.gov/dlsr. This project will be subject to the 2026-2 prevailing wage rate, as determined by the Director of the Department of Industrial Relations for the State of California. Bidders are directed to Section 7-2, “Labor,” of the Standard Specifications, and to Division H, Subsection 7-2.2, “Prevailing Wages,” for requirements concerning payment of prevailing wages, payroll records, and hours of labor.

DEPARTMENT OF INDUSTRIAL RELATIONS (DIR) COMPLIANCE: This project is subject to the following: No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)]. No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractors are further cautioned that certified payrolls shall be submitted electronically directly to the Department of Industrial Relations.

CERTIFIED PAYROLL SUBMISSION TO THE CITY OF LONG BEACH: Pursuant to the provisions of Labor Code Section 1776, Contractor shall keep and shall cause each subcontractor performing any portion of the work under this Contract to keep an accurate payroll record, 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 Contractor or subcontractor in connection with the work. Such payroll records for Contractor and all subcontractors shall be certified and shall be available for inspection at all reasonable hours at the principal office of Contractor pursuant to the provisions of Section 1776 of the Labor Code. Contractor's failure to furnish such records to City or City's authorized Labor Compliance representative in the manner provided herein for notices shall entitle City to withhold the penalty prescribed by law from progress payments due to Contractor.

Each contractor and every subcontractor and supplier shall be required to submit certified payrolls and labor compliance documentation electronically at the discretion of and the manner specified by the City of Long Beach. Electronic submittal will be a web-based system, accessed on the World Wide Web by a web browser. Each contractor and subcontractor will be given a Log On identification and password to access the City of Long Beach reporting system. The foregoing is in addition to, and not in lieu of, any other requirements or obligations established and imposed by any department of the City with regard to submission and retention of certified payroll records for Contractor and subcontractors.

APPRENTICESHIP EMPLOYMENT (CONTRACTS OVER $30,000 ONLY): The Contractor shall comply with Section 1777.5 of the Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under the Contractor and, by submitting a Bid and executing the Contract, the Contractor stipulates that it shall so comply. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

PENALTIES: Contractor and subcontractors are subject to penalties, including, but not limited to, under Labor Code §§ 1775, 1776, 1777.7 and 1813, for failure to comply with Labor Code § 1720 et seq. The Awarded Contractor expressly agrees to comply with the penalty provisions of California Labor Code section 1776.

(SEAL)

/s/ MONIQUE DE LA GARZA
CITY CLERK, CITY OF LONG BEACH, CALIFORNIA

_____
DATE

/s/ THOMAS B. MODICA
CITY MANAGER

End of Division A – Notice Inviting Bids

BIDDER'S NAME: _____

BID TO THE CITY OF LONG BEACH
PALO VERDE PEDESTRIAN OVERCROSSING SIGN PROJECT

In accordance with the Notice Inviting Bids for this Work in the City of Long Beach, California, to be opened on **November 16, 2026 at 10:00 am.,** we offer to furnish all necessary labor, tools, materials, appliances and equipment for and perform all Work mentioned in the Notice Inviting Bids, in full compliance with Plans & Specifications No. R-7259 at the prices listed below.

We certify that we have examined the site and that the Bid is complete. By signing the Bid, we certify that the Contractor will not submit a claim based on failure to examine the site thoroughly.

The base bid total shall be used for determining the lowest bidder.

BASE BID –

ITEM NO.	CALTRANS ITEM CODE	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE (IN FIGURES)	ITEM TOTAL (IN FIGURES)
1.	070030	LEAD COMPLIANCE PLAN	1	LS		
2.	120090	CONSTRUCTION AREA SIGNS	1	LS		
3.	120100	TRAFFIC CONTROL SYSTEM	1	LS		
4.	120101	TRAFFIC CONTROL SUPERVISOR	54	DAY		
5.	120110	FLASHING ARROW SIGN	4	EA		
6.	120116	TYPE II BARRICADE	30	EA		
7.	120182	PORTABLE DELINEATOR	263	EA		
8.	128651	PORTABLE CHANGEABLE MESSAGE SIGN (EA)	8	EA		
9.	130100	JOB SITE MANAGEMENT	1	LS		
10.	141110	WORK AREA MONITORING (BRIDGE)	1	LS		
11.	510501A	MINOR CONCRETE (NONSHRINK GROUT)	55	CF		
12.	550102	STRUCTURAL STEEL (BRIDGE)	5,300	LB		
13.	600002A	GRAFFITI REMOVAL	111	SQFT		
14.	750501	MISCELLANEOUS METAL (BRIDGE)	207	LB		
15.	770300A	LIGHTING SYSTEM (CITY)	1	LS		

ITEM NO.	CALTRANS ITEM CODE	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE (IN FIGURES)	ITEM TOTAL (IN FIGURES)
16.	770200A	MODIFYING ELECTRICAL SYSTEM (CITY)	1	LS		
17.	780401A	COMMUNITY IDENTIFICATION (PANELS)	1	LS		
18.	780402A	COMMUNITY IDENTIFICATION (LETTERS)	1	LS		
19.	780436A	PREPARE AND PAINT CONCRETE BRIDGE PIER	2	EA		
20.	780460	ANTI-GRAFFITI COATING	1,200	SQFT		
21.	999990	MOBILIZATION 5% MAX	1	LS		

BASE BID TOTAL _____

We understand that these quantities are estimates only and are given solely for the purpose of facilitating the comparison of Bids, and that the Contractor's compensation will be computed on the basis of the actual quantities in the completed Work.

DO NOT SUBMIT THIS FORM AS YOUR BID. BIDS ARE TO BE SUBMITTED ELECTRONICALLY AS DESCRIBED IN DIVISION B.

(Continued on Next Page)

BIDDER INFORMATION / SIGNATURE

Signature**	Legal Name of Company
	Print Name / Title
	Names of Other General Partners
State of Incorporation	Names of Other Partners
State Where Registered as LLC	City of Long Beach Business License Number
Business Address (Actual Address -Not A Post Office Box)	City of Long Beach Business License Expiration Date
Telephone Number / Fax Number	Address on City Business License
Email Address of Individual to Contact	
Contractor's License Number	DIR Registration Number

bi

**

_____ If Bidder is an individual, set forth his/her signature.

_____ If Bidder is a joint venture, set forth the name of the joint venture with the signature of an authorized representative of each venture.

_____ If Bidder is a general partnership, set forth the signature of the general partner.

_____ If Bidder is a limited partnership, provide names of other partners.

_____ If Bidder is a limited liability company, set forth legal name of company with signature of a member or manager authorized to bind the company

_____ If the Bidder is a corporation, set forth the legal name of the corporation with the signature of an officer of the corporation.

(Continued on Next Page)

The following information will be used for statistical analysis only.

Is the Bidder a Disadvantaged Business (DBE)?___ If yes, certification No. _____
Is the Bidder a Minority-Owned Business? _____ Which racial minority? _____
Is the Bidder a Women-Owned Business? _____
Is the Bidder a certified Small Business?_____ If yes, certification No._____

Where did your company first hear about this City of Long Beach Public Works project?

_____

_____

DIVISION I
TECHNICAL REQUIREMENTS

STANDARD SPECIFICATIONS
(PART 2)

The following provisions are modifications of the California Department of Transportation (Caltrans) 2025 Standard Specifications. The use of Caltrans Standards is required for work within State right of way to ensure compliance with Caltrans requirements.

Copies of Caltrans 2025 Standard Plans and Specifications are available at https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications

Notes:

1. For Bid Item List See Bid Form in Contract Documents Division C.

2. The term "Department" is the City where referencing contract administration activities including approvals, acceptance, payment, and submittals. For all other instances, Department is Department of Transportation as defined in St & Hwy Code § 20 and authorized in St & Hwy Code § 90; its authorized representatives.

SPECIAL PROVISIONS

FOR CONSTRUCTION ON STATE HIGHWAY
IN LOS ANGELES COUNTY
IN LONG BEACH
AT PALO VERDE AVENUE PEDESTRIAN OVERCROSSING
In District 07 On Route 22

Under

Standard Specifications **dated 2025**

Standard Plans **dated 2025**

Identified by

City of Long Beach Community ID Gateway Signature Sign
07-LA-22
PM 1.08 / PM 1.08

City of Long Beach Community ID
Palo Verde Ave POC Gateway Sign

The special provisions contained herein have been prepared by or under the direction of the following Registered Persons.

GENERAL AND INCIDENTAL CONSTRUCTION



Georgia Medina — 3/10/2026

REGISTERED CIVIL ENGINEER — DATE

TEMPORARY TRAFFIC CONTROL



3/10/2026

REGISTERED CIVIL ENGINEER — DATE

STRUCTURES



3/10/2026

REGISTERED CIVIL ENGINEER — DATE

ELECTRICAL



3/10/2026

REGISTERED ELECTRICAL ENGINEER — DATE

DIVISION I
TECHNICAL REQUIREMENTS

STANDARD PLANS LIST 5
CANCELED STANDARD PLANS LIST 6
BID ITEM LIST 6
ORGANIZATION 7
DIVISION I GENERAL PROVISIONS 7
1 General 7
2 Bidding 7
5 Control of Work 8
7 Legal Relations And Responsibility To The Public 9
DIVISION II GENERAL CONSTRUCTION 10
12 Temporary Traffic Control 10
14 Environmental Stewardship 26
DIVISION III EARTHWORK AND LANDSCAPE 29
19 Earthwork 29
20 Landscape 29
DIVISION VI STRUCTURES 29
55 Steel Structures 29
60 Existing Structures 30
DIVISION VIII MISCELLANEOUS CONSTRUCTION 31
75 Miscellaneous Metal 31
77 Local Infrastructure 32
78 Incidental Construction 37
DIVISION XI MATERIALS 41
91 Paint 41

STANDARD PLANS LIST

The standard plan sheets applicable to this Contract include those listed below. When applicable, revised standard plans (RSPs) listed below are included in the project plans.

	ABBREVIATIONS, LINES, SYMBOLS, AND LEGEND
A3A	**Abbreviations (Sheet 1 of 3)**
A3B	**Abbreviations (Sheet 2 of 3)**
A3C	**Abbreviations (Sheet 3 of 3)**
A10A	**Legend - Lines and Symbols (Sheet 1 of 5)**
A10B	**Legend - Lines and Symbols (Sheet 2 of 5)**
A10C	**Legend - Lines and Symbols (Sheet 3 of 5)**
A10D	**Legend - Lines and Symbols (Sheet 4 of 5)**
A10E	**Legend - Lines and Symbols (Sheet 5 of 5)**
	TEMPORARY CRASH CUSHIONS, RAILING AND TRAFFIC SCREEN
T1A	**Temporary Crash Cushion - Sand Filled (Unidirectional)**
T1A1	**Temporary Crash Cushion - Sand Filled (Unidirectional)**
T1B	**Temporary Crash Cushion - Sand Filled (Bidirectional)**
T2	**Temporary Crash Cushion - Sand Filled (Shoulder Installations)**
T3A	**Temporary Railing (Type K)**
T3B	**Temporary Railing (Type K)**
T3C	**Temporary Barrier System (Cross Bolt)**
T3D	**Temporary Barrier System (Cross Bolt)**
T3E	**Temporary Barrier System (Cross Bolt)**
T3F	**Temporary Barrier System (Cal F-23)**
T3F2	**Temporary Barrier System (Cal F-23)**
T3G	**Temporary Barrier System (Staking or Anchoring)**
T3G2	**Temporary Barrier System (Staking or Anchoring)**
	TEMPORARY TRAFFIC CONTROL SYSTEMS
T9	**Traffic Control System Tables for Lane and Ramp Closures**
T10	**Traffic Control System for Lane Closure on Freeways and Expressways**
T11	**Traffic Control System for Lane Closure on Multilane Conventional Highways**
T11A	**Traffic Control System for Changeable Lane Closure on Multilane Conventional Highways and Expressways**
T14	**Traffic Control System for Ramp Closure**
T19	**Traffic Control System - Construction Work Zone Speed Limit Reduction on Conventional Highways**
	ROADSIDE SIGNS
RS1	**Roadside Signs - Typical Installation Details No. 1**
RS2	**Roadside Signs - Wood Post - Typical Installation Details No. 2**
RS4	**Roadside Signs - Typical Installation Details No. 4**
	ELECTRICAL SYSTEMS - LEGEND AND ABBREVIATIONS
ES-1A	**Electrical Systems (Legend)**
ES-1B	**Electrical Systems (Legend)**
ES-1C	**Electrical Systems (Legend)**
	ELECTRICAL SYSTEMS - PULL BOX
ES-8A	**Electrical Systems (Non-Traffic Pull Box)**

CANCELED STANDARD PLANS LIST

The standard plan sheets listed below are canceled and not applicable to this contract.

Plan No.	Date Canceled	Plan No.	Date Canceled	Plan No.	Date Canceled

No Canceled Standard Plans

BID ITEM LIST

See Bid Form in Division C of Contract Documents

ORGANIZATION

Special provisions are under headings that correspond with the main-section headings of the *Standard Specifications*. A main-section heading is a heading shown in the table of contents of the *Standard Specifications*.

Each special provision begins with a revision clause that describes or introduces a revision to the *Standard Specifications*.

Any paragraph added or deleted by a revision clause does not change the paragraph numbering of the *Standard Specifications* for any other reference to a paragraph of the *Standard Specifications*.

^^

DIVISION I GENERAL PROVISIONS

1 GENERAL

The Caltrans Standard Special Provision (SSP) below is incorporated in the Contract Section noted.

Caltrans SSP	Description	Contract Section
1-1.01	Bid Items and Applicable Sections	Division H, Section 1-1

Add to section 1-1.01:

Bid Items and Applicable Sections

Item code	Item description	Applicable section
510501A	MINOR CONCRETE (NONSHRINK GROUT)	51
600002A	GRAFFITI REMOVAL	60
770300A	LIGHTING SYSTEM (CITY)	77
770200A	MODIFYING ELECTRICAL SYSTEMS (CITY)	77
780401A	COMMUNITY IDENTIFICATION (PANELS)	78
780402A	COMMUNITY IDENTIFICATION (LETTERS)	78
780436A	PREPARE AND PAINT CONCRETE BRIDGE PIER	78

^^

2 BIDDING

The Caltrans Standard Special Provision (SSP) below is incorporated in the Contract Section noted.

Caltrans SSP	Description	Contract Section
2-1.06B	Supplemental Project Information	Division F

Add between the 1st and 2nd paragraphs of section 2-1.06B:

The City makes the following supplemental project information available:

Supplemental Project Information

Means	Description
Included in the *Information Handout*	1. Right of Way Maps 2a. 1981 As-built Drawings (7th St Pedestrian Bridge) 2b. 1995 As-built Drawings (Earthquake Retrofit) 3. Signature Gateway East Concept 4a. Lighting Fixture Specification Sheet 4b. Lighting Fixture Wiring Specification Sheet 5a. Pharos DMX Controller Specification Sheet 5b. Pharos DMX Controller O&M 6. Cradlepoint IBR900 Series Router Specification Sheet 7. Matthews Primer Product Information 8. Matthews Paint Product Information 9. Matthews Clear Product Information 10. Caltrans Encroachment Permit Issued to City 11. Caltrans Encroachment Permit Special Provisions
Available for inspection at: 411 W. Ocean Blvd. Long Beach, CA 90802 Telephone no.: (562)570-5000	Referee Paint Samples

^^

5 CONTROL OF WORK

The Caltrans Standard Special Provision (SSP) below is incorporated in the Contract Section noted.

Caltrans SSP	Description	Contract Section
5-1.326C(2)	Nonhighway Facility Protection	Division H, Section 1-1

Replace section 5-1.36C(2) with:

5-1.36C(2) Nonhighway Facility Protection

The utilities shown in the following table may interfere with the work and must be exposed or protected in place. Make arrangements with the utility owner (1) to conduct or witness all exposures or (2) to request temporary deactivation of the utility.

Utilities to Be Exposed and/or Protected in Place During Construction

Utility	Location
30" Water Line, Long Beach Water District	Between Pier # 10 and Pier #11
1" Lighting Conduit, City Light and Power	Channel View Park Along Sidewalk

Utility location activities must be concurrent with construction activities. Contractor is responsible to identify and locate any existing utilities that may be in conflict prior to construction and if conflicts exist coordinate with the utility owner to mitigate conflicts.

^^

7 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

The Caltrans Standard Special Provisions (SSPs) below are incorporated in the Contract Section noted.

Caltrans SSP	Description	Contract Section
7-1.02K(6)(e)	Scaffolding	Division H, Section 1-1
7-1.02K(6)(j)(iii)	Unregulated Earth Material Containing Lead	Division H, Section 1-1

Replace section 7-1.02K(6)(e) with:

7-1.02K(6)(e) Scaffolding

7-1.02K(6)(e)(i) General

Section 7-1.02K(6)(e) applies to scaffolding constructed:

1. Over traffic
2. On or suspended from a bridge
3. Within a distance equal to the scaffolding height plus 6 feet from the edge of a traveled way open to traffic

Section 7-1.02K(6)(e) does not apply to scaffolding at sound walls, retaining walls, and buildings.

Submit 6 copies of scaffolding shop drawings and 1 copy of scaffolding calculations.

The shop drawings and calculations must be sealed and signed by:

1. Engineer who is registered as a civil engineer
2. Independent checker who is:
   2.1. Registered as a civil engineer in the State
   2.2. Not employed by the same entity that prepared the drawings or calculations

The shop drawings must include:

1. Descriptions, calculations, and values for loads anticipated during scaffolding erection, use, and removal.
2. Methods and equipment for erecting, moving, and removing scaffolding.
3. Design details, including bolt layouts, welding details, and connections to existing structures.
4. Stress sheets showing summary of computed stresses in the scaffolding and in the connections between the scaffolding and existing structures. The computed stresses must include the effects of erection, movement, and removal of the scaffolding.
5. If manufactured scaffolding is used, include the manufacturer's:
   5.1. Name, address, and telephone number
   5.2. Written design load capacities for the scaffolding

Welding must comply with AWS D1.1 for steel and AWS D1.2 for aluminum.

Replace Section 7-1.02K(6)(j)(iii) with:

7-1.02K(6)(j)(iii) Unregulated Earth Material Containing Lead

Section 7-1.02K(6)(j)(iii) includes specifications for handling, removing, and disposing of unregulated earth material containing lead. Management of this material exposes workers to health hazards that must be addressed in your lead compliance plan. This material contains average lead concentrations below 80 mg/kg total lead and below 5 mg/L soluble lead and is not regulated by DTSC as a hazardous substance or a hazardous waste. This material does not require disposal at a permitted landfill or solid waste disposal facility. The RWQCB has jurisdiction over reuse of this material at locations outside the job site

limits.

Manage regulated earth material containing lead under sections 14-11.09.

Unregulated earth material containing lead may be present on the job site at the following locations:

Location	Element of work	
Sheet U-1 Excavation Location	trenching for electrical conduit installation	

Unregulated earth material containing lead has been detectedwithin 600 feet of the job site. East of the Los Cerritos Channel levels of lead found range from 4.32 to 236 mg/kg total lead as analyzed by EPA test method 6010 or EPA test method 7000 series and based upon a 95 percent upper confidence limit. The excavation location is on property owned City of Long Beach and is more than 50 feet away from the EB SR-22 edge of shoulder. Levels of lead at the excavation location are expected to be within the threshold for unregulated earth material containing lead.

Handle the material under all applicable laws, rules, and regulations, including those of the following agencies:

1. Cal/OSHA
2. CA RWQCB, Region 4 Los Angeles

If unregulated material is disposed of:

1. Submit at least 15 days before disposal, the form titled "Agreement between a Contractor Working on State Facilities and a Real Property Owner for Disposing Construction-related Material Suitable for Use on Residential Zoned Property" which discloses the lead concentration of the material to the receiving property owner and obtains authorization for disposal on the property. Give a copy of the signed form to the property owner.
2. You are responsible for any additional sampling and analysis required by the receiving property owner.

If you choose to dispose of unregulated material at a commercial landfill:

1. Transport it to a Class III or Class II landfill appropriately permitted to receive the material
2. You are responsible for identifying the appropriately permitted landfill to receive the material and for all associated trucking and disposal costs, including any additional sampling and analysis required by the receiving landfill

^^

DIVISION II GENERAL CONSTRUCTION

12 TEMPORARY TRAFFIC CONTROL

Add to the beginning of section 12-3.32C:

Place PCMSs at the locations shown and in advance of the 1st warning sign for each:

1. Stationary lane closure.

   When WB Route 22 is reduced to a single lane:

Place PCMS on NB Route 405 on the right shoulder, 0.75 mile south of Seal Beach off-ramp with the message: "1 LANE / ONLY ON / WB 22 - EXPECT / DELAYS".

Place a 2nd PCMS on SB Route 605 on the right shoulder south of Willow St on-ramp with the message: "1 LANE / ONLY ON / WB 22 - EXPECT / DELAYS".

Place a 3rd PCMS on SB Route 405 on the right shoulder south of Los Coyotes Diagonal UC with the message: "1 LANE / ONLY ON / WB 22 - EXPECT / DELAYS".

When EB Route 22 is reduced to a single lane:

Place 2 PCMS on EB 7th St on the striped median island at 850 feet west of Ximeno Ave and 500 feet west of Santiago Ave with the message: "SINGLE / LANE / ONLY - AT / STUD- / BAKER - EXPECT / DELAYS".

Place a 3rd PCMS on SB Route 1 (PCH) on the striped median island at 500 feet north of Santiago Ave with the message: "SINGLE / LANE / ONLY - ON / EB 7TH / STREET - EXPECT / DELAYS".

Place a 4th PCMS on SB Bellflower Blvd on the striped median island at 450 feet north of E State University Dr with the message: "SINGLE / LANE / ONLY - ON / EB 7TH / STREET - EXPECT / DELAYS".

Place a 5th PCMS on NB Route 1 (PCH) on the striped median island at 1,000 feet south of Channel Dr with the message: "SINGLE / LANE / ONLY - ON / EB 7TH / STREET - EXPECT / DELAYS".

2. WB Route 22 On-ramp from Studebaker. Detour traffic and place PCMS as shown on Motorist Information Sheet MI-1.

3. EB Route 22 full closure.
   Detour traffic and place PCMS as shown on Motorist Information Sheet MI-2.

Add between the 9th and 10th paragraphs of section 12-3.32C:

Start displaying the message on the sign 5 minutes before closing the lane or shoulder or when directed by the Engineer.

Add to section 12-4.02A(2):

special days: Martin Luther King Jr Day and Columbus Day

Add between the 1st and 2nd paragraphs of section 12-4.02A(3)(c):

Submit a contingency plan for each of the following activities:

1. Activity requiring a full roadway closure

Add to the end of the 1st paragraph of section 12-4.02C(1):

except for work shown on the stage construction and traffic handling plans

Add between the 3rd and 4th paragraphs of section 12-4.02C(1):

Except as otherwise shown on chart no. J1, you may close a ramp if the adjacent lane is allowed to be closed as shown on chart no. K1 and K2. If a ramp is closed and a ramp lane requirement chart is not included, detour traffic to the next available ramp downstream of the closed ramp in the direction of travel.

Add to the end of section 12-4.02C(1):

Keep the full width of the ramp traveled way open for use by traffic on designated holidays and special day.

For each 10-minute interval or fraction thereof past the time specified to open the closure, the amount for liquidated damages per interval shown in the table below is deducted. Liquidated damages are limited to 5 percent of the total bid per occurrence. Liquidated damages are not assessed if the Engineer orders the closure to remain in place beyond the scheduled pickup time.

Type of facility	Route	Direction or segment	Period	Liquidated damages/interval
Mainline	22	WESTBOUND	1st half hour 2nd half hour 2nd hour and beyond	$1,000/10 minutes $1,000/10 minutes $1,000/10 minutes
Mainline	22	EASTBOUND	1st half hour 2nd half hour 2nd hour and beyond	$1,000/10 minutes $1,000/10 minutes $1,000/10 minutes

Add to the end of section 12-4.02C(3)(a):

If work vehicles or equipment is parked on the shoulder within 6 feet of a traffic lane of a freeway or expressway, close the shoulder area as shown.

Personal vehicles of your employees must not be parked within the highway.

Replace section 12-4.02C(3)(b) with:

12-4.02C(3)(b) Complete Freeway or Expressway Closure Requirements

You may close Route EB Route 22 between Pepper Tree Lane and Studebaker Rd On-Ramp as shown on chart no L1.

A complete freeway or expressway closure is allowed for the following activities:

1. Cleaning of existing structure over EB Route 22
2. Spot blast cleaning locations over EB Route 22
3. Erection of Community ID Panels over EB Route 22
4. Installation of Panel Lighting over EB Route 22

Replace section 12-4.02C(3)(d) with:

12-4.02C(3)(d) City Street Closure Requirements

Place 1 PCMS at least before the date of the first planned lane closure in the maintenance vehicle pullout area on EB Route 22 (7th Street) east of Silvera Ave and a 2nd PCMS in the right shoulder of WB Route 22 just east of San Gabriel River Bridge. PCMS must remain until completion of work at each location of construction.

Display the following message:

"ROAD / WORK – MM-DD / TO / MM-DD – EXPECT / DELAYS"

Note:

"/" separates each line of text on the PCMS display.

"–" denotes where the PCMS display flashes the next line of text.

Replace section 12-4.02C(3)(e) with:

12-4.02C(3)(e) Closure Restrictions for Special Events and Venues

Do not work from 1800 on Halloween to 0600 the following day.

No work or highway closures are allowed along the Games Route Network from June 1, 2028 to September 1, 2028. Plan all work shown on the stage construction and traffic handling plans to comply with this requirement. The Games Route Network is shown in the following table:

Olympic and Paralympic Games Route Network

Affected routes	Route limits
2	Route 101 to Route 134
10	Route 405 to Route 110
10	Route 101 to Fairplex Dr
47	Route 110 to Harbor Blvd
57	Routes 10/57/71 interchange to Via Verde
91	Vermont Ave to Orange County Line
101	Route 10 to Alvarado St
101	Route 134 to Hayvenhurst Ave
105	Route 405 to Route 110
110	Route 47 to Stadium Way
134	Route 101 to Route 210
164	Route 60 to Route 10
210	Mountain St to Baldwin Ave
405	Orange County Line to Victory Blvd

No work or highway closures within the traveled way are allowed along non-Games Route Network routes from July 11, 2028 to July 31, 2028 and from August 14, 2028 to August 28, 2028. Plan all work shown on the stage construction and traffic handling plans to comply with this requirement. Work outside of the traveled way may be allowed if authorized by the Engineer.

From 3 hours before to 2 hours after special events or events at the venues shown in the table titled "Special Events and Venues," do not perform work that encroaches onto the conventional highway traveled way.

At the LA28 venues shown in the table titled "Special Events and Venues," do not perform work from June 1, 2028 to September 1, 2028 that encroaches onto the conventional highway traveled way.

The special events and venues that could impact closures are shown in the following table:

Special Events and Venues

Special event or venue	Affected routes	Route limits
Academy Awards ceremony	101	Route 110 to Routes 101/134/170 interchange
Antelope Valley Fair	14	Avenue S to Avenue D
Auto Club/California Speedway	EB 10	Route 605 to San Bernardino County line
	NB 57	Orange County line to Routes 10/57/71 interchange
	EB 60	Route 605 to San Bernardino County line
	210	Route 605 to San Bernardino County Line
California State University, Long Beach, graduation ceremonies	22	Routes 22/405/605 interchange to Route 1
California State University, Los Angeles, graduation ceremonies	10	Route 5 to Rosemead Blvd
	710	Route 60 to Valley Blvd
California State University, Pomona, graduation ceremonies	10	Route 605 to San Bernardino County line
	57	Route 60 to Route 210
Cinco De Mayo at Whittier Narrows Recreation Area	60	Paramount Blvd to Route 605
Cinco De Mayo parades or festivals in downtown Los Angeles	5	Routes 5/10/60/101 interchange to Broadway
	NB 101	Routes 5/10/60/101 interchange to Route 110
	SB 101	Vermont Ave to Broadway
	110	Route 10 to Route 101
Crypto.com Arena/Los Angeles Convention Center	10	Routes 5/10/60/101 interchange to Crenshaw Blvd
	110	Route 105 to Route 101
Crypto.com Arena/Los Angeles Convention Center/Peacock Theater/LA28	10	Routes 5/10/60/101 interchange to Crenshaw Blvd
	110	Route 105 to Route 5
Dignity Health Sports Park	91	Route 110 to Central Ave
Dignity Health Sports Park/LA28	91	Route 110 to Route 710
	110	Route 1 to Route 105
	405	Route 710 to Route 105
	710	Route 1 to Route 105
Dodger Stadium	2	Glendale Blvd to Route 5
	5	Route 10 to Route 134
	101	Routes 5/10/60/101 interchange to Vermont Ave
	110	Route 10 to Route 5
Dodger Stadium/LA28	2	Glendale Blvd to Route 5
	5	Route 10 to Route 134
	101	Routes 5/10/60/101 interchange to Vermont Ave
	110	Route 10 to Route 5
Grand Park & LA City Hall/LA28	5	Routes 5/10/60/101 interchange to Broadway
	NB 101	Routes 5/10/60/101 interchange to Route 110
	SB 101	Vermont Ave to Broadway

Special event or venue	Affected routes	Route limits
	110	Route 10 to Route 101
Fairplex/LA28	10	Route 605 to San Bernardino County line
	57	Route 60 to Route 210
	71	Route 60 to Routes 10/57/71 interchange
	210	Grand Ave to San Bernardino County line
Frank G. Bonelli Park/LA28	10	Azusa Ave to Central Ave
	57	Route 60 to Route 210
	71	Route 60 to Routes 10/57/71 interchange
Griffith Park Light Show	5	Route 2 to Route 134
	134	Forest Lawn Dr to San Fernando Rd
Hollywood Bowl	101	Vermont Ave to Route 170
Hollywood Christmas Parade	101	Route 10 to Route 170
Kaleidoscope Festival	22	Routes 22/405/605 interchange to Route 1
LA Clays Shooting Sports Park/Whittier Narrows Recreation Area/LA28	60	Paramount Blvd to Route 605
	164	Route 60 to Route 10
Long Beach Grand Prix	47	Route 110 to Route 710
	405	Route 605 to Route 110
	710	Route 47 to Route 91
Long Beach Arena/Long Beach Convention Center/Long Beach Waterfront/Belmont Shore/Alamitos Beach/Marine Stadium/Port of Los Angeles/LA28	1	Orange County Line to Route 110
	47	Route 110 to Route 710
	110	Route 47 to Route 91
	405	Route 605 to Route 110
	710	Route 47 to Route 91
Los Angeles Coliseum/BMO Stadium	10	Crenshaw Blvd to Routes 5/10/60/101 interchange
	110	Route 105 to Route 101
Los Angeles Coliseum/BMO Stadium/University of Southern California/LA28	10	Crenshaw Blvd to Routes 5/10/60/101 interchange
	110	Route 105 to Route 5
Los Angeles County Fair	10	Route 605 to San Bernardino County line
	57	Route 60 to Route 210
	71	Mission Blvd to Routes 57/60/71 interchange
	210	Grand Ave to San Bernardino County line
Los Angeles Marathon	5	Route 10 to Route 134
	NB 101	Route 10 to Highland Ave
	SB 101	Routes 101/134/170 interchange to Route 10
	NB 110	Route 10 to Route 5
	NB 405	Route 90 to Santa Monica Blvd
	SB 405	Sunset Blvd to Santa Monica Blvd

Special event or venue	Affected routes	Route limits
Los Angeles Music Center	101	Route 10 to Glendale Blvd
	110	Route 10 to Route 5
Mexican independence celebration at Whittier Narrows Recreation Area	60	Paramount Blvd to Route 605
Olvera Street festivals	101	Route 10 to Vermont Ave
Rose Bowl Stadium events	2	Colorado Blvd to Route 210
	110	Route 101 to Glenarm St
	134	Route 5 to Route 210
	210	Route 2 to Route 605
	710	Del Mar Blvd to Route 210
Rose Bowl Stadium/LA28	2	Colorado Blvd to Route 210
	110	Route 101 to Glenarm St
	134	Route 5 to Route 210
	210	Route 2 to Route 605
	710	Del Mar Blvd to Route 210
Rose Parade float viewing	EB 210	Route 134 to Rosemead Blvd
	WB 210	Route 605 to Allen Ave
Santa Anita Race Track	EB 210	Lake Ave to Huntington Dr
	WB 210	Route 605 to Baldwin Ave
Santa Anita Park/LA28	EB 210	Lake Ave to Huntington Dr
	WB 210	Route 605 to Baldwin Ave
Sepulveda Basin Recreation Area/LA28	101	Route 27 to Route 134
	405	Route 10 to Route 118
SoFi Stadium/Kia Forum/Intuit Dome	105	Route 1 to Route 110
	110	Route 105 to Slauson Ave
	405	El Segundo Blvd to Route 90
SoFi Stadium/Kia Forum/Intuit Dome/LA28	105	Route 1 to Route 110
	110	Route 91 to Route 10
	405	Route 110 to Route 10
South Gate Holiday Christmas Parade	710	Imperial Hwy to Route 5
Point Mugu Air Show	1	Las Posas Rd to Rose Ave
	101	Route 23 to Route 126
Universal Studios/International Broadcast Center (IBC)/LA28	101	Route 2 to Route 405
	134	Routes 101/134/170 interchange to Route 5
	170	Routes 101/134/170 interchange to Victory Blvd
University of California, Los Angeles/Riviera Country Club/Venice Beach/LA28	1	Route 90 to Route 27
	10	Route 1 to Venice Blvd
	90	Route 1 to Route 405
	405	Route 90 to Route 101
Ventura County Fair	33	Ventura Ave to Route 101
	101	Route 1 to Route 33
Ventura Strawberry Festival	1	Las Posas Rd to Rose Ave
	101	Route 23 to Route 126

Replace section 12-4.02C(3)(f) with:

12-4.02C(3)(f) Closure Restrictions for Designated Holidays and Special Days

Closure restrictions for designated holidays and special days are shown in the following table:

Lane Closure Restrictions for Designated Holidays and Special Days											
Thu	Fri	Sat	Sun	Mon	Tues	Wed	Thu	Fri	Sat	Sun	Mon
x	**H** xx	xx	xx								
x	xx	**H** xx	xx								
	x	xx	xx	**H** xx							
	x			**SD** xx							
	x	xx	xx	xx	**H** xx						
					x	**H** xx					
						x	**H** xx	xx	xx	xx	
	x	xx	xx	xx	xx	xx	**TH** xx	xx	xx	xx	

Legend:

	Refer to chart nos. K1 & K2.
x	The full width of the traveled way must be open for use by traffic by 0600.
xx	The full width of the traveled way must be open for use by traffic.
H	Designated holiday
TH	Thanksgiving Day
SD	Special day

Replace section 12-4.02C(3)(j) with:

12-4.02C(3)(j) Complete Ramp Closure Hour Chart

Comply with the requirements for the complete ramp closure shown in the following chart:

Chart No. J1
Complete Ramp Closure Hours

County: LA	Route/Direction: 22/WB	

Closure limits: On-ramp from Studebaker Rd

Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
Mon–Thu	C	C	C	C	C	C	S	S	S	C	C	C	C	C	C	C	C	S	S	S	S	C	C	C	C
Fri	C	C	C	C	C	C	S	S	S	C	C	C	C	C	C	C	C	S	S	S	S	C	C	C	C
Sat	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Sun	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

Legend:

C Ramp may be closed completely.

S Shoulder closure is allowed (right/left).

REMARKS:
The full width of the traveled way must be open for use by traffic when construction activities are not actively in progress.

Replace section 12-4.02C(3)(k) with:

12-4.02C(3)(k) Conventional Highway Lane Requirement Charts

Comply with the requirements for the conventional highway lane closures shown in the following charts:

Chart No. K1
Conventional Highway Lane Requirements

County: LA	Route/Direction: 22/EB	

Closure limits: At Los Cerritos Channel

Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mon–Thu	1	1	1	1	1	1	N	N	N	1	1	1	1	1	1	1	N	N	N	N	1	1	1	1	1
Fri	1	1	1	1	1	1	N	N	N	1	1	1	1	1	1	1	N	N	N	N	N	1	1	1	1
Sat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	S	S	S	S	S	1	
Sun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	S	S	S	S	1	1	

Legend:

1 Provide at least 1 through traffic lane open in the direction of travel.

S Shoulder closure is allowed. (right/left)

N No work is allowed.

REMARKS: The number of through traffic lanes in each direction of travel is 2.

Chart No. K2
Conventional Highway Lane Requirements and Hours of Work

County: LA	Route/Direction: 22/WB	

Closure limits: At Los Cerritos Channel

Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mon–Thu	1	1	1	1	1	1	N	N	N	1	1	1	1	1	1	1	N	N	N	N	2	2	2	1	1
Fri	1	1	1	1	1	1	N	N	N	1	1	1	1	1	1	1	N	N	N	N	2	2	2	2	1
Sat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	S	S	S	S	S	1
Sun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	S	S	S	S	1	1

Legend:

1	Provide at least 1 through traffic lane open in the direction of travel.
2	Provide at least 2 adjacent through traffic lanes open in the direction of travel.
S	Shoulder closure is allowed. (right/left)
N	No work is allowed.

REMARKS: The number of through traffic lanes in each direction of travel is 3.

Replace section 12-4.02C(3)(l) with:

12-4.02C(3)(l) Complete Conventional Highway Closure Hour Chart

Comply with the requirements for the complete closure on a conventional highway shown in the following chart:

Chart No. L1
Complete Conventional Highway Closure Hours

County: LA	Route/Direction: 22/EB	

Closure limits: Pepper Tree Lane to Studebaker Rd On-Ramp

Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mon–Thu	C	C	C	C	C	C																	C	C	C
Fri	C	C	C	C	C	C																		C	C
Sat	C	C	C	C	C	C	C																		C
Sun	C	C	C	C	C	C	C	C																C	C

Legend:

C — Conventional highway may be closed completely.

(blank) — No complete conventional highway closure is allowed.

REMARKS:

Replace item 2 in the list in the 2nd paragraph of section 12-4.02C(4) with:

2. Installation, maintenance, or removal of Category 1 and Category 2 traffic control devices and when using impact attenuator vehicles

DTM(07)**

-Work utilizing man-lift or similar equipment to access bridge

Replace 3rd paragraph of section 12-4.02C(4) with:

For time periods at the beginning or end of work when the lane requirement charts do not allow the closure of the adjacent traffic lane, the following construction activities are allowed without a buffer lane:

1. Parking, positioning, loading, unloading vehicles, or storing equipment or materials necessary for the work being performed.
2. Placing, removing or maintaining paving marking or pavement markers.
3. Operations not performed by workers on foot such as planing, sweeping, applying a tack coat, or operating a crane.
4. Operations where workers on foot are protected, at each work location, within the same closure by an impact attenuator vehicle in the lane adjacent to live traffic.

For multilane freeway or expressway lane closures, do not place the 2L tangent section shown along lane lines between the lane closure tapers.

If traffic control is performed for a stationary closure where median shoulders are less than 8 feet, the closure must comply with the plan sheet titled "Traffic Control System for Median Shoulders Less Than 8 Feet" or "Traffic Control System for High Occupancy Vehicle Lanes with Median Shoulders Less Than 8 Feet."

Before using a shoulder as a traffic lane for the duration of a work shift closure, sweep and clear the shoulder of debris before traffic use.

Replace the paragraphs of section 12-4.02C(8)(b) with:

If a ramp closure is allowed, post a special advance notice publicity sign, SP-1, at an authorized location at least 7 days before the ramp closure.

If an off-ramp is allowed to be closed, install an SP-5 sign for the exit ramp closure. Place the sign on the right shoulder of the freeway upstream of the preceding off-ramp.

Replace section 12-4.02C(12) with:

12-4.02C(12) Construction Work Zone Speed Limit Reduction

12-4.02C(12)(a) General

Section 12-4.02C(12) includes specifications for providing, installing, maintaining, and removing traffic control devices for reducing the speed limit for the construction work zones.

Speed limit reduction is limited to 10 mph from the posted speed limit in construction work zones unless a greater speed limit reduction is specified. Construction work zone speed limit reduction is required when construction activities are active in a closure as a temporary condition.

Temporary construction work zone speed limit reduction is required for lane closures when construction activities require workers to be present within the lane closures. Construction work zone speed limit reduction is not required for short duration closures of 1 hour or less or when the length of lane closure is 1/2 mile or less.

12-4.02C(12)(b) Materials

For temporary construction work zone speed limit reduction, signs must comply with the requirements for portable signs in section 12-3.11.

The PCMS must comply with section 12-3.32.

Radar feedback sign LED displays must have LED:

1. Character of at least 18 inches in height for freeways and expressways
2. Character of at least 14 inches in height for conventional highways
3. Character's width-to-height ratio from 0.7 to 1.0
4. Character's stroke width-to-height ratio of 0.2

Portable radar speed feedback sign must comply with section 12-3.37.

Portable radar speed feedback sign trailers must have a minimum of 9 cones placed on a taper in advance of the device and along the edge of shoulder or edge of the traveled way at 25-foot intervals to a point not less than 25 feet past the device.

Temporary radar speed feedback sign system must comply with the specifications for:

1. Temporary electrical system in section 87-20
2. Radar speed feedback sign system in section 87-14 except the LED character display must remain blank when no vehicles are detected or when the detected vehicle speed is 10 miles or less than the pre-set speed

12-4.02C(12)(c) Construction

Advise motorists of construction work zone speed limit reductions starting 14 days in advance of implementing the speed limit reduction using a PCMS displaying the alternating messages *Reduced Speed* and *Starting XX/XX/XX (Date).*

When construction work zone speed limit reduction is in effect, the PCMS message must be *XX ZONE AHEAD* and *WILL BE ENFORCED*. Mount a 48-by-48-inch W3-5 XX "SPEED LIMIT" ahead symbol sign on the PCMS trailer.

Cover all existing speed limit signs while the construction work zone speed limit reduction is in effect. Remove covers when construction work zone speed limit reduction is no longer in effect.

For temporary construction work zone speed limit reduction for lane closures, install portable radar speed feedback system as shown. In addition to the portable radar speed feedback system shown, place a portable radar speed feedback system 400 feet upstream of active work areas. The portable radar speed feedback system must include a R2-1 sign with G20-5aP "WORK ZONE" plaque.

For on-ramps within the limits of a construction work zone speed limit reduction, place R2-1 signs with G20-5aP "WORK ZONE" plaque within 500 feet of entrance ramps. You may use the strap and saddle method for mounting these sign panels on the entrance ramp lighting standard at the merge point.

For expressways, place a R2-1 sign with G20-5aP "WORK ZONE" plaque approximately 500 feet downstream from intersections within the limits of a construction work zone speed limit reduction.

For conventional highways, place a R2-1 sign with G20-5aP "WORK ZONE" plaque approximately 500 feet downstream from major intersections within the limits of a construction work zone speed limit reduction.

Within the limits of a construction work zone speed limit reduction, place intermediate R2-1 signs with G20-5aP "WORK ZONE" plaque at intervals not exceeding three miles.

You may use variable speed limit signs where R2-1 signs are described.

For chip seal projects, place construction work zone speed limit reduction signs and devices as shown except place additional intermediate signs, W8-7 "LOOSE GRAVEL" sign, and a W13-1 (35) plaque every 2000 feet.

12-4.02C(12)(d) Payment

For construction work zone speed limit reduction only during lane closures, signs are included in the bid item for traffic control system, PCMS is paid for as traffic control system, and portable radar speed feedback sign is paid for as portable radar speed feedback sign systems. Covering and uncovering existing speed limit signs for each lane closure are included in the price paid for traffic control system.

Replace section 12-4.02C(13) with:

12-4.02C(13) Traffic Control Supervisors

12-4.02C(13)(a) General

12-4.02C(13)(a)(i) Summary

Section 12-4.02C(13) includes specifications for training, certification, and responsibilities for traffic control supervisors.

The traffic control supervisor:

1. Must be knowledgeable about:
   1.1. Section 7-1.03 “Public Convenience"
   1.2. Section 7-1.04 “Public Safety”

1.3. Section 12 “Temporary Traffic Control”
1.4. Traffic control system Standard Plans
1.5. Traffic handling plans and detour plans
2. Must coordinate the implementation and operation of temporary traffic control, including those of subcontractors, suppliers and any adjacent construction or maintenance operations

The traffic control supervisor must:

1. Be exclusively dedicated to the responsibilities and duties required for traffic control
2. Be on site when active coordination of temporary traffic control, including those of subcontractors, suppliers, and any adjacent construction or maintenance operations is required
3. Be available after work hours, on site within 2 hours of being contacted
4. Perform weekly reviews of the project when no active coordination of temporary traffic control is required.

12-4.02C(13)(a)(ii) Definitions

Not Used

12-4.02C(13)(a)(iii) Submittals

12-4.02C(13)(a)(iii)(A) General

Every Monday by noon, submit traffic control weekly report for the previous week as an informational submittal.

12-4.02C(13)(a)(iii)(B) Quality Assurance Submittals

Submit as informational submittals:

1. Traffic control supervisor certification, traffic control technician and flagger certification, and each alternate traffic control supervisor. The certification must include:
   1.1. Name of the individual receiving certification.
   1.2. Name of entity providing certification.
   1.3. Date of certification.
   1.4. Certification expiration date.
2. Contact information for each traffic control supervisor and each alternate traffic control supervisor. The submittal must include the name, phone number and email address.
3. Traffic control weekly reports. The traffic control weekly report must include:
   3.1. Date.
   3.2. Name of traffic control supervisor.
   3.3. Location of traffic control. Provide description, County, Route, Postmile or Station and Direction.
   3.4. Reference to traffic control standard plan or project plan sheet.
   3.5. Documentation of:
      3.5.1. Verification that closure is in compliance with the Contract requirements.
      3.5.2. Modifications to the traffic control including, a description of the change, the reason for the change, time when the change is implemented.
      3.5.3. Traffic control system monitoring, including time of inspection and observations.
      3.5.4. Incidents that occur while the traffic control system is in place.
      3.5.5. Weekly reviews including any deficiencies found and when corrections were implemented.
   3.6. Record of workdays used by the traffic control supervisor to coordinate traffic control systems and traffic handling plans before construction, monitor active work zone traffic activities and operations, perform weekly nighttime inspections, and perform weekly reviews when there are no active traffic activities. Include:
      3.6.1. Date.
      3.6.2. Start and end time.
      3.6.3. Location of traffic control.
      3.6.4. Description of work performed.

12-4.02C(13)(a)(iv) Quality Assurance

12-4.02C(13)(a)(iv)(A) General

The traffic control supervisor must coordinate with the Engineer the implementation of traffic control systems and traffic handling plans before construction and before major changes in traffic control.

12-4.02C(13)(a)(iv)(B) Training and Certifications

A traffic control supervisor must be certified as a flagger, traffic control technician and as a traffic control supervisor. Department authorized training providers list is available at:

https://dot.ca.gov/programs/construction/safety-traffic/safety-training-courses

12-4.02C(13)(a)(iv)(C) Quality Control

The traffic control supervisor must:

1. Ensure safe, convenient, and effective passage of motorists, bicyclists, pedestrians, workers, and first responders, through or around the construction work zone.
2. Inspect the condition of traffic control devices on a regular basis for compliance with the quality requirements in the American Traffic Safety Services Association Publication *Quality Guidelines for Temporary Traffic Control Devices and Features*.
3. Ensure the labor, equipment, and materials are available to immediately correct deficiencies in the traffic control system.
4. Ensure that employees have flagger certificate and traffic control technician certification when performing those activities.
5. Ensure the status of closures is reported using the LCS Mobile web page.
6. Verify that all closures comply with the Contract requirements and that traffic control devices, including PCMS, arrow boards and radar speed feedback signs, are functioning after traffic control installation.
7. Review and verify that temporary traffic control daily report form is completed for every closure.
8. Review project temporary traffic control weekly to ensure that all traffic control devices and pavement delineation are effective and comply with the construction area sign plans, traffic handling plans, and detour plans. At least weekly, perform a nighttime review of the temporary traffic control devices and temporary pavement delineation to ensure compliance.

12-4.02C(13)(b) Materials

Not Used

12-4.02C(13)(c) Construction

The traffic control supervisor is responsible and has full authority to act on behalf of the Contractor for administering temporary traffic control.

Notify the Engineer before an alternate traffic control supervisor assumes the duties of the assigned traffic control supervisor.

Traffic control supervisor must have:

1. Cellular telephone
2. Two-way radio
3. Mobile internet access

The traffic control supervisor must monitor work zone traffic activities and operations, including detours, to ensure the traffic control is functioning properly.

Monitor work zone traffic control, if an imminent danger is identified, take immediate corrective action and notify the Engineer. Notify the Engineer of modifications needed to the traffic control system plans if the traffic control is not functioning as required due to changes in traffic site conditions. Do not implement

any changes to the traffic control system plans or traffic handling plans until the proposed revisions are authorized.

12-4.02C(13)(d) Payment

The traffic control supervisor is paid for each workday:

1. Coordinating the implementation of traffic control systems and traffic handling plans before construction
2. Monitoring active work zone traffic activities and operations during construction
3. Performing weekly nighttime inspections
4. Conducting weekly reviews when there are no active work zone traffic activities and operations

Workdays are days the traffic control supervisor is at the job site performing traffic control supervisor's duties based on the traffic control weekly reports, with each workday counting as 1 measurement unit.

Replace section 12-4.03C(1) with:

12-4.03C(1) General

At each location where falsework is constructed over a street or route provide openings through the bridge falsework. The Engineer determines the exact location of the openings. The type, minimum width, height, and number of openings at each location, and the location and maximum spacing of the falsework lighting if required for each opening, must comply with the requirements shown in the following table:

Palo Verde Ave POC Bridge No.53-2713

Route 22, Westbound	Number	Width (feet)	Height (feet)
Vehicle openings[b]	1	52	15
Pedestrian openings	1	4	7

Route 22, Eastbound	Number	Width (feet)	Height (feet)
Vehicle openings[b]	1	40	15

NOTE:
R = Right side of traffic
L = Left side of traffic
C = Centered overhead
[a]Spacing is the maximum distance from center to center between fixtures.
[b]Width of vehicular openings is the clear width between temporary barrier system or other protective work.

2. Use only for special roadways (e.g., fire utility access, quasi-public roads) with very light traffic. Falsework lighting is required, and no temporary barrier system is provided in falsework openings. Add the location and spacing of falsework pavement lighting from the table below.

Add between the 1st and 2nd paragraphs of section 12-4.04C:

A pedestrian facility closure on the same side of the highway is limited to no more than 1 block. When working on one side of the highway, the pedestrian facility on opposite side of the highway within the same block must be open.

Schedule operations such that all pedestrian facility closures do not exceed 1 work shift. At the end of each work shift, you must provide the walkway surface complying with the requirements of a temporary

pedestrian access route specified in section 12-4.04. For all activities requiring construction of a pedestrian facility, you must complete the work within 10 working days.

Add to the end of section 12-4.05C:

You may occupy one 5-foot width of the bridge pedestrian path adjacentto the curb during cleaning and painting activities. Occupy only 1 side of the bridge at a time.

^^

14 ENVIRONMENTAL STEWARDSHIP

Replace section 14-11.09 with:

14-11.09 MINIMAL DISTURBANCE OF REGULATED MATERIAL CONTAINING AERIALLY DEPOSITED LEAD

14-11.09A General

Section 14-11.09 includes specifications for handling and managing regulated material containing ADL when there is a minimal disturbance. Regulated material containing ADL has average ADL concentrations over 80 mg/kg total lead or equal to or greater than 5 mg/L soluble lead tested using the California Waste Extraction Test or equal to or greater than 5 mg/L soluble lead tested using the toxicity characteristic leaching procedure.

Compliance with 22 CA Code of Regs is not required where there is minimal disturbance of regulated material containing ADL.

Management of regulated material containing ADL exposes workers to health hazards that must be addressed in your lead compliance plan under section 7-1.02K(6)(j)(ii).

Handle regulated material containing ADL under the rules and regulations of the following agencies:

1. Cal/OSHA
2. RWQCB, Region 4 — Los Angeles
3. South Coast Air Quality Management District

Regulated material containing ADL is typically found within the top 2 feet of material in ADL-impacted areas of the job site.Minimal disturbance of regulated material containing ADL occurs where the following work activities are conducted:

1. temporary construction signs

14-11.09B Material Management

Handling of regulated material containing ADL must result in no visible dust migration. Use dust control measures. A means of controlling dust must be available at all times.

Separate material from vegetation. The resulting soil must remain on the job site.

Surplus material from the areas with regulated material containing ADL must remain in the area of disturbance. Do not dispose of surplus material outside the highway.

Add to the 1st paragraph in section 14-11.13A:

The existing paint system and patina on bridge no. 53-2713 will be disturbed as part of the work activities. The paint system and/or patina may contain heavy metals such as lead, zinc, or chromium.

Replace section 14-11.13B(3) with:

14-11.13B(3) Air Monitoring Reports

Air monitoring reports, including test results for samples taken after corrective action, must be prepared by the CIH and submitted:

1. Orally within 48 hours after sampling
2. As an informational submittal within business 5 days after sampling

Air monitoring reports must include:

1. Date and location of sample collection, sample number, Contract number, bridge number, name of the structure, and District-County-Route-Post Mile
2. Name and address of the certified laboratory that performed the analyses
3. Chain of custody documentation
4. List of emission control measures in place when air samples were taken
5. Air sample results compared to the appropriate permissible exposure limit (PEL)
6. Corrective action recommended by the CIH to ensure exposure to airborne metals outside containment systems and work areas is within specified limits
7. Signature of the CIH who reviewed the data and made recommendations

Replace section 14-11.13B(4) with:

14-11.13B(4) Soil Sampling Results for Debris Containment Verification

Submit test results of soil analyses verifying debris containment, including results for soil samples taken after corrective action:

1. Orally within 48 hours after sampling
2. Within 5 days after sampling

Soil sampling results must include:

1. Date and location of sample collection, sample number, Contract number, bridge number, name of the structure, and District-County-Route-Post Mile
2. Concentrations of heavy metals expressed in mg/kg and mg/L
3. Name and address of the certified laboratory that performed the analyses
4. Chain-of-custody documentation

Replace section 14-11.13D with:

14-11.13D Work Area Monitoring

14-11.13D(1) General

Monitor the ambient air and soil in and around the work area to verify the effectiveness of the containment system. Work area monitoring includes:

1. Collecting, analyzing, and reporting air and soil test results
2. Recommending corrective action whenever specified air or soil concentrations are exceeded

Collect air and soil samples at locations designated by the Engineer.

14-11.13D(2) Air Monitoring

Air monitoring must be performed under the direction of a CIH.

Collect and analyze air samples to detect lead under the NIOSH Method 7082 using a detection limit of at least 0.05 $\mu g/m^3$. Collect and analyze air samples to detect other metals under NIOSH Method 7300 using a detection limit of at least 1 percent of the appropriate PEL specified by Cal/OSHA. You may use alternative methods of sampling and analysis with equivalent detection limits.

Concentrations of airborne metals outside containment systems and work areas must not exceed any of the following:

1. Average of 1.5 µg/m^3 of air per day and 0.15 µg/m^3 per day on a rolling 90-day basis. Calculate the average daily concentrations based on accumulated monitoring data and projections based on monitoring trends for the next 90 days or to the end of the work subject to the lead compliance plan if less than the specified averaging period.
2. 10 percent of the action level specified for lead by 8 CA Code of Regs §1532.1.
3. 10 percent of the appropriate PELs specified for other metals by Cal/OSHA.

Collect air samples daily during work activities that disturb the existing paint system. Air samples must be analyzed within 48 hours by a facility accredited by the Environmental Lead Laboratory Accreditation Program of the American Industrial Hygiene Association. If concentrations of airborne metals exceed allowable levels, modify the containment system or work activities to prevent further release of metals. If the CIH recommends corrective action, collect and analyze additional samples after implementing the corrective action unless ordered otherwise.

14-11.13D(3) Soil Sampling for Debris Containment

Collect 4 soil samples before starting work and collect 4 soil samples within 36 hours after cleaning existing steel. A soil sample consists of 5 plugs, each 3/4 inch in diameter and 1/2 inch deep, taken at each corner and center of a 1 sq yd area. Analyze soil samples for:

1. Total lead, zinc, and chromium by US EPA Method 6010B or US EPA Method 7000 series
2. Soluble lead, zinc, and chromium by California Waste Extraction Test (CA WET)

The laboratory that analyzes the samples must be certified by the SWRCB's ELAP for all analyses to be performed.

Concentrations of heavy metals in the work area's soil must not increase when the existing paint system is disturbed. If soil sampling shows an increase in the concentrations of heavy metals after completing the work:

1. Clean the affected area
2. Resample until soil sampling and testing shows concentrations of heavy metals less than or equal to the concentrations collected before the start of work

Add to the end of the 1st paragraph of section 14-11.13F:

This waste characterization testing must include:

1. Total lead, zinc, and chromium by US EPA Method 6010B
2. Soluble lead, zinc, and chromium by California Waste Extraction Test (CA WET)
3. Soluble lead, zinc, and chromium by Toxicity Characteristic Leaching Procedure (TCLP)

Add to the beginning of section 14-11.13G(2):

After the Engineer accepts the waste characterization test results, dispose of the debris:

1. Within 30 days after accumulating 220 lb of debris
2. At a DTSC-permitted Class I facility located in California

Make all arrangements with the operator of the disposal facility.

If less than 220 lb of hazardous waste is generated in total, dispose of it within 30 days after the start of the accumulation of the debris.

^^

DIVISION III EARTHWORK AND LANDSCAPE

19 EARTHWORK

Add to the end of section 19-3.02E:

Slurry cement backfill may contain returned plastic concrete.

Slurry cement backfill containing returned plastic concrete must comply with the specifications for concrete containing returned plastic concrete.

^^

20 LANDSCAPE

Add between the 7th and 8th paragraphs of section 20-2.01C(2):

Apply 1 application of a preemergent pesticide to trenched areas in existing ground cover areas and to trenched areas adjacent to fences, curbs, dikes, and shoulders. The Engineer determines when the preemergent pesticide must be applied.

Replace item 2.1 in the list in the 9th paragraph of section 20-2.01C(2) with:

2.1. Do not remove a width of more than 12 inches. Keep removed turf cool and moist.

Replace item 2.2 in the list in the 9th paragraph of section 20-2.01C(2) with:

2.2. Replace with the removed turf under section 20-3.02C(3)(e).

^^

DIVISION VI STRUCTURES

55 STEEL STRUCTURES

Add to section 55-1.01A:

Structural steel consists of:

1. Pier cap brackets and seat extenders
2. High strength rods, nuts, and washers

Add to section 55-1.01D(1):

High strength rods must conform to the requirements of ASTM Designations: A722 for uncoated, including all supplementary requirements. Nuts for high strength rods must be from the same manufacturer and be capable of developing the full capacity of the rod.

Add to section 55-1.02E(6):

55-1.02E(6)(d) Thread Locking Compound for High Strength Rods

Provide an approved thread locking system for high strength rods, consisting of a cleaner, primer and anaerobic thread-locking adhesive. Thread locking system used must be on the Authorized Material List.

Lubricants and foreign materials must be removed from the threaded areas of the rod and nut using an approved cleaner and small wire brush. Apply primer to the threaded areas of both parts. Apply anaerobic adhesive to fill the threads on the rod in the area of the final position of the nut.

Install the nut. If shown, install the nut to the torque shown on the plans.

Apply an additional fillet of anaerobic adhesive completely around the exposed junctions of the nut and exposed threads.

^^

60 EXISTING STRUCTURES

60-6 GRAFFITI REMOVAL

60-6.01 GENERAL

60-6.01A Summary

Section 60-6 includes specifications for the graffiti removal through cleaning and treatment procedures on weathering steel surfaces where shown.

60-6.01B Definitions

patina: Protective corrosion-resistant layer that forms over time on weathering steel through an oxidation process.

weathering steel: Weather resistant high-strength low-alloy steel that develops a protective layer of patina over time.

60-6.01C Submittals

Submit a work plan on the methods, procedures, and materials used for graffiti removal. Include the containment system, and procedures to protect adjacent surfaces from staining during the work.

Submit a certificate of compliance and SDS for cleaning materials.

60-6.01D Quality Assurance

60-6.01D(1) General

Not Used

60-6.01D(2) Demonstration Panel

Prepare demonstration panel on existing weathering steel surface prior to starting graffiti removal work.

Demonstration panel must be:

1. At an authorized location on the bridge representing the variety of the graffiti removal work to be performed.
2. Prepared using the personnel, materials, equipment, and methods to be used in the work.

The Engineer may request that additional demonstration panels until the desired results are attained.

Obtain authorization of the demonstration panels before starting graffiti removal work.

The Engineer uses the authorized demonstration panels to determine the acceptability of the graffiti removal work.

If authorized, demonstration panels, or portions thereof, may be incorporated into the graffiti removal work.

60-6.02 MATERIALS

Do not use acids for cleaning.

Use dry-ice pellets as the abrasive media for blast cleaning weathering steel. Abrasive media comprised of metal particles is not allowed.

60-6.03 CONSTRUCTION

60-6.03A General

Protect adjacent surfaces from staining during the cleaning and treating processes.

60-6.03B Containment System

Construct containment system. The containment system must contain all water, resulting debris, and visible dust produced during graffiti removal.

Properly maintain the containment system while work is in progress and do not change the containment system unless authorized.

The containment system must provide a vertical clearance of 6.67 feet and a horizontal clearance of 4 feet for the passage of pedestrian traffic. The containment system must provide a vertical clearance of 15 feet to vehicle traffic on Route 22.

60-6.03C Cleaning and Treating

Remove graffiti on weathering steel using one of the following cleaning methods:

1. SSPC-SP 1: Solvent Cleaning
2. SSPC-SP 2: Hand Tool Cleaning
3. SSPC-SP 3: Power Tool Cleaning
4. SSPC-SP 7: Brush-Off Blast Cleaning

Removal methods must avoid excessive removal of the oxide layer that forms on weathering steel.

Feather out graffiti removal areas into surrounding surfaces and avoid streaking of the patina.

Treat the cleaned surfaces to a series of wetting and drying cycles. Periodically wet the surfaces to help initiate the patina formation and to aid in achieving a more uniform finish. Provide between 5 and 10 wet/dry cycles until the desired results are achieved.

60-6.04 PAYMENT

Not Used

^^

DIVISION VIII MISCELLANEOUS CONSTRUCTION

75 MISCELLANEOUS METAL

Add to the list in the 2nd paragraph of section 75-3.01A:

6. Vertical Support Brackets, drilling holes in existing steel, and HS steel fastener assemblies
7. Horizontal Support Bracket, drilling holes in existing steel, and HS steel fastener assemblies

Add to section 75-3.01C(1):

Submit shop drawings and calculations for the Horizontal Support Brackets. The shop drawings and calculations must be sealed and signed by an engineer who is registered as a civil engineer in the State.

Design support brackets to resist all vertical and horizontal loads. Comply with the current *AASHTO LRFD Structural Supports for Highway Signs, Luminaires, and Traffic Signals*.

The shop drawings and calculations must include:

1. Complete details for the construction of the work, including methods of attachment, construction methods, sequence of shop and field assembly, installation procedures, and methods for adjustment to line and grade.
2. Welding sequences and procedures
3. Material specifications and grades
4. Material preparation and painting procedures
5. Design calculations that include stresses and deflections in all load carrying components.

Allow 30 days for the Department's review.

^^

77 LOCAL INFRASTRUCTURE

Replace section 77-1 with:

77-1 GENERAL

77-1.01 GENERAL

77-1.01A Summary

Section 77-1 includes general specifications for constructing local infrastructure.

The work includes:

1. Modifying the City’s existing electrical system
2. Installing Lighting System for Community Identification (Letters)
3. Installing Lighting System for Community Identification (Panels)

77-1.01B Definitions

Not Used

77-1.01C Submittals

Comply with section 86-1.01C(1) General.

Comply with section 87-1.01C Submittals.

77-1.01D Quality Assurance

Comply with section 86-1.01D(1).

77-1.01D(1) General

Not Used

77-1.01D(2) Preconstruction Meeting

Schedule a meeting with the Engineer and the City of Long Beach Inspection at (562) 570-5160, 5 business days before work begins.

77-1.01D(3) Warranty

LED luminaires must be warrantied against functional failure and physical or mechanical deterioration for 30 days from the date of purchase. The warranty must cover all expenses for parts, labor, and shipping. Provide replacement units within 5 business days of failure notification. The warrantee period must start on the project acceptance date.

77-1.02 MATERIALS

77-1.02A General

Electrical material and equipment must comply with section 86.

Materials must comply with:

1. FCC rules
2. ITE standards
3. NEC
4. California Electrical Code
5. Title 24, Part 3, CCR

77-1.02D Conduit

See the project plans for conduit requirements.

77-1.02F Pull Boxes

A lighting pull box must have the cover marking *CITY LIGHTING*.

See the project plans for pull box requirements.

77-1.03 CONSTRUCTION

77-1.03A General

Install electrical material and equipment under section 87.

77-1.03B Conductors and Wiring

Identify cables in controller cabinets with ½-by-2 inch plastic tag, stamped with the cable run identification characters in 1/4-inch letters, and secured to the cable with 2 nylon tie-wraps.

Label all conductors inside pull boxes.

Use the no. 8 AWG bare copper wire as the ground reference for testing when existing conduit is non-metallic.

77-1.03D Conduit

Verify horizontal and vertical alignments of existing utilities before installation of conduit. Install conduit of the same size and material throughout the run.

Install a separate no. 8 AWG ground wire and a pull tape in conduits at the time of installation. Splice ground wires together and connect them to the grounding electrode in service equipment enclosure.

Backfill trench with:

1. A minimum of 3 inches of sand bedding before installing the conduit
2. 18 inches of slurry concrete over the conduit

3. 6 inches of native material over the slurry cement

Use slurry concrete under section 19-3.02E except, the size of the aggregate must be 3/8 inch or smaller.

Place warning tape in the trench 6 inches below finished grade.

Grade the trench surface to match the existing grade.

77-1.03D City of Long Beach Electrical System

Obtain an underground service alert inquiry ID number by calling (800) 422-4133. Allow 2 business days after the ID number is obtained to notify utility owners before excavation or drilling work is started. The ID numbers will not be given more than 10 days before starting excavation work.

Notify the Engineer first and subsequently the Public Works Department of the City of Long 5 business days before starting construction in areas where excavation operations are to be performed.

77-1.04 PAYMENT

Not Used

77-2 MODIFYING EXISTING ELECTRICAL SYSTEM (CITY)

77-2.01 GENERAL

Section 77-2 includes specifications for modifying existing electrical systems (city) for the City of Long Beach.

Modifying existing electrical system (city) includes:

1. Conduit
2. Conductors and cables
3. Pull boxes
4. Circuit breakers

The components of modifying existing electrical system (city) are shown on the project plans.

77-2.02 MATERIALS

77-2.02A General

Refer to Supplemental Project Information for manufacturer specifications.77-2.02B Circuit breakers

See the project plans for circuit breaker requirements.

77-2.03 CONSTRUCTION

77-2.03A General

Refer to Supplemental Project Information for manufacturer installation requirements.

77-1.03B Installation of Pull Boxes

8See the project plans for installation of pull box requirements.

77-2.04 PAYMENT

Not Used

77-3 LIGHTING SYSTEMS (CITY)

77-3.01 GENERAL

77-3.01A Summary

Section 77-3 includes specifications for constructing lighting systems (city).

Lighting system includes:

1. Junction boxes
2. Conduit
3. Conductors and cables
4. LED for letters
5. Wall mounted luminaires
6. Panel Board
7. Pharos DMX Controller
8. Fuse splice connectors
9. Surface Mounted Enclosure
10. Cradlepoint IBR900 Router

77-3.01B Definitions

Not Used

77-3.01C Submittals

77-3.01C(1) General

The components of each lighting system below are shown on the project plans.

- Internal Illumination for Community Identification (Letters)
- Wall mounted lighting for Community Identification (Panels)

77-3.01C(2) Wall Mounted Luminaires

Submit for a luminaire:

1. Maximum power in watts
2. Maximum designed junction temperature
3. L70 in hours when extrapolated for the average nighttime operating temperature
4. Life expectancy based on the junction temperature
5. Manufacturer's data sheet for the power supply, including the rated life

77-3.01D Quality Assurance

Lighting systems must exceed Title 24 efficiency requirements by 10 percent.

77-3.02 MATERIALS

77-3.02A General

Not used

77-3.02B Junction boxes

Junction boxes shall be weatherproof, corrosion resistant, and rated at least NEMA 4X. Boxes shall be galvanized or stainless steel, equipped with gaskets and watertight fittings. The exterior color shall closely match the wall or surface on which the box is mounted. Junction box dimensions shall be determined in accordance with NEC 314.28 and based on the required space for conductor bending radius, splices, and conduit entries after all internal components and terminations have been specified.

77-3.02C LED for Letters

See the project plans for LED letter requirements.

77-3.02D Wall Mounted Luminaires

Wall mounted luminaires must:

1. Be Insight Lighting Medley Exterior Route (MER) color-changing LED linear luminaires.
2. Have a length of 48 inches.
3. Be lighting fixture catalog number is MER-LO-40K-U-1010-EAB-3-48-NO-TB-R-CW-JC-3.
4. Be weatherproof and corrosion resistant.

77-3.02E Panel Board

Provide a tamper-proof, NEMA 4X rated, 240V, 1-phase panelboard with a minimum 60A main, minimum 12 spaces, and a minimum 10 kAIC short-circuit rating. Panelboard shall include a main overcurrent protective device, branch circuit breakers, copper bus, grounding bar, and all required accessories for a complete installation. Enclosure shall be outdoor-rated, corrosion-resistant, and constructed to prevent unauthorized access. Provide equipment fully assembled, factory-tested, and compliant with applicable industry standards.

77-3.02F Pharos DMX Controller

See the project plans and manufacturer specifications for requirements.

77-3.02G Surface Mount Enclosure

Enclosures shall be weatherproof, corrosion resistant, and rated at least NEMA 4X. shall be galvanized or stainless steel, equipped with gaskets and watertight fittings. The exterior color shall closely match the wall or surface on which the enclosure is mounted. Enclosure dimensions shall be determined in accordance with NEC 314.28 and based on the required space for internal equipment, conductor bending radius, and conduit entries after all internal components have been specified.

See the project plans and manufacturer specifications for requirements.

Each enclosure shall include a hasp with a 7/16-inch diameter hole suitable for padlocking.

77-3.02G Cradlepoint Router

Provide a Cradlepoint IBR900 Series ruggedized cellular router or approved equal. The unit shall support LTE connectivity, dual SIMs, Wi-Fi access, and Ethernet ports for local network communication. Install the router in a NEMA 4X enclosure with proper power, grounding, and antenna connections. Configure for remote access through NetCloud Manager. See the project plans and manufacturer specifications for all installation and performance requirements.

77-3.03 CONSTRUCTION

77-3.03A General

Not Used

77-3.03D Wall Mounted Luminaires

Install two wall mounted luminaires below each panel per manufacturer's instructions and as shown.

Label the month and year of the installation inside the luminaire housing's door.

Perform the conductor and operational tests for the system.

For a wall-mounted luminaire, provide 4 external mounting taps on an existing structure.

Place the wall-mounted luminaires in operation as soon as practicable after the falsework has been removed from the structure.

If the Engineer orders wall-mounted luminaires to be activated before permanent power service is available, installing and removing the temporary power service is change order work.

77-3.04 PAYMENT

Not Used

^^

78 INCIDENTAL CONSTRUCTION

Replace 78-4.03A(4) with:

78-4.03A(4) Quality Assurance

78-4.03A(4)(a) Demonstration Panel

Use bridge pier 9 as the demonstration panel for Prepare and Paint Concrete Bridge Pier

The demonstration panel must be:
1. Painted using the same personnel, materials, equipment, and methods to be used in the work
2. The entirety of pier 9 must be painted to the limits shown.

If ordered, prepare and paint additional demonstration panels on pier 9 until a satisfactory color gradient is attained.

The Engineer uses the authorized demonstration panel to determine the acceptability of the painted surface.
The demonstration panel must closely resemble the referee sample described in section 78-4.03B.

Replace the 2nd paragraph of section 78-4.03B with:

The paint must consist of the two colors. Both colors must be from the same manufacturer. The first color must match Matthews Paint color Blue Flag (MP01992). The second color must match Matthews Paint color Jet Stream (MP07490)

Comply with Section 91-5.

The painted concrete must match the color of the referee sample located at:

City of Long Beach
411 W. Ocean Blvd
Long Beach, CA 90802

Replace section 78-4.03C(1) with:

78-4.03C(1) General

Paint bridge identification under section 51-1.03E(1).

Add to section 78-4.03C(3):

Paint the surfaces such that they gradually transition between the two paint colors specified and closely resemble the two-color gradient of the referee sample.

Replace items 2 and 3 in the list in the 1st paragraph of section 78-4.06B with:

2. Be compatible with painted concrete surfaces
3. Have a clear satin finish when dry

Replace section 78-6 with:

78-6 COMMUNITY IDENTIFICATION (PANELS)

78-6.01 GENERAL

78-6.01A Summary

Section 78-6 includes specifications for furnishing and installing the Community Identification (Panels) as shown, and as described in the *Information Handout* in the document titled *Signature Gateway East Concept*. Panels consist of perforated aluminum and attachments to bridge members.

78-6.01B Definitions

Not used

78-6.01C Submittals

Submit a certificate of compliance for aluminum and all other components used in the panels.

Submit shop drawings and calculations for the panels. The shop drawings and calculations must be sealed and signed by an engineer who is registered as a civil engineer in the State.

The shop drawings and calculations must include:

1. Panel layout
2. Panel dimensions
3. Complete details for the construction of the work, including methods of attachment, construction methods, sequence of shop and field assembly, installation procedures, and methods for adjustment to line and grade.
4. Welding sequences and procedures
5. Material specifications and grades
6. Material preparation and painting procedures
7. Design calculations that include stresses and deflections in all load carrying components of the panels.

Allow 30 days for the Department's review.

78-6.01D Quality Assurance

78-6.01D(1) General

Welding must comply with AWS D1.2 for aluminum.

78-6.01D(2) Mock-ups

Mock-up must be:

1. Full size representing one panel selected by the Engineer.
2. Available for viewing by the Engineer for a period of 5 days at the fabrication site~~. prior to delivery to project site.~~
3. ~~Furnished to the project site and installed at an authorized location on the bridge.~~
4. Furnished ~~and installed~~ using the personnel, materials, equipment, and methods to be used in the work.
5. Authorized before starting fabrication of final panels.

Notify the Engineer 10 days prior to the start of the viewing period at the fabrication site.

The Engineer may request that additional mock-ups be constructed until the desired results are attained.

The Engineer uses the authorized mock-up to determine the acceptability of the work.

The authorized mock-up may be incorporated into the final work.

78-6.02 MATERIALS

78-6.02A General

Panels and attachments must be fabricated from commercial quality aluminum.

Coatings must be provided from the same manufacturer, and comply with Section 91. Finish coats must have a satin finish and match the colors described in the *Information Handout*.

78-6.02B Design Criteria

Design panels to resist all vertical and horizontal loads. Comply with the current *AASHTO LRFD Structural Supports for Highway Signs, Luminaires, and Traffic Signals*.

78-6.03 CONSTRUCTION

Perform aluminum welding by the inert-gas-shielded arc welding process. Finish exposed aluminum welds to a neat surface.

Before painting, remove burrs and sharp edges, and chamfer all corners.

Blast clean surfaces to be painted under SSPC-SP 10.

Carefully handle the materials such that no parts are bent, broken, abraded, or otherwise damaged. Do not use manufacturing, handling, or installation methods that damage or distort the members or damage the painted surfaces.

Attaching panels by welding to bridge members is not permitted.

Panels must present a uniform appearance in their final position, conforming closely to the horizontal and vertical lines shown or ordered.

Apply anti-graffiti coating to the panels under section 78-4.06. Anti-graffiti coating for panels must be compatible with painted surfaces, and have a satin finish when dry.

78-6.04 PAYMENT

Not Used

Replace section 78-7 with:

78-7 COMMUNITY IDENTIFICATION (LETTERS)

78-7.01 GENERAL

78-7.01A Summary

Section 78-7 includes specifications for furnishing and installing the Community Identification (Letters) as shown, and as described in the *Information Handout* in the document titled *Signature Gateway East Concept*. Letters are comprised of aluminum letter boxes, attachments to bridge members, internal polycarbonate panels, exterior acrylic faces, and wire raceways.

78-7.01B Definitions

Not used

78-7.01C Submittals

Submit a certificate of compliance for aluminum, polycarbonate sheets, acrylic sheets, sealants, and all other components used in the letters.

Submit shop drawings and calculations for the letters. The shop drawings and calculations must be sealed and signed by an engineer who is registered as a civil engineer in the State.

The shop drawings and calculations must include:

1. Letter layout
2. Letter dimensions
3. Complete details for the construction of the work, including methods of attachment, construction methods, sequence of shop and field assembly, installation procedures, and methods for adjustment to line and grade.
4. Welding sequences and procedures
5. Material specifications and grades
6. Material preparation and painting procedures
7. Methods for accessing internal letter components for service
8. Design calculations that include stresses and deflections in all load carrying components of the letters.

Allow 30 days for the Department's review.

78-7.01D Quality Assurance

78-7.01D(1) General

Welding must comply with AWS D1.2 for aluminum.

78-7.01D(2) Mock-ups

Mock-up must be:

1. Full size representing the letters "G" and "B".
2. Include internal lighting components.
3. Available for viewing by the Engineer for a period of 5 days at the fabrication site. ~~prior to delivery to project site.~~
4. ~~Furnished to the project site and installed at an authorized location on the bridge.~~
5. Furnished ~~and installed~~ using the personnel, materials, equipment, and methods to be used in the work.
6. Authorized before starting fabrication of final letters.

Notify the Engineer 10 days prior to the start of the viewing period at the fabrication site.

The Engineer may request that additional mock-ups be constructed until the desired results are attained.

Mock-up letters must be temporarily powered for viewing both at the fabrication site and at the project site.

The Engineer uses the authorized mock-up to determine the acceptability of the work.

The authorized mock-ups may be incorporated into the final work.

78-7.02 MATERIALS

78-7.02A General

Channel letter frames, back panels, wire raceways, and attachments must be fabricated from commercial quality aluminum.

Internal clear lenses must be fabricated from commercial quality polycarbonate sheets with low hazing and UV resistant characteristics.

Letter faces must be fabricated from commercial quality acrylic sheets with low hazing, UV resistant, and abrasion resistant surface coating.

Sealants must be clear and of commercial quality, compatible with the materials sealed, and suitable for outdoor exposure.

Coatings must be provided from the same manufacturer, and comply with Section 91. Finish coats must have a satin finish and match the colors described in the *Information Handout*.

78-7.02B Design Criteria

Design letters to resist all vertical and horizontal loads. Comply with the current *AASHTO LRFD Structural Supports for Highway Signs, Luminaires, and Traffic Signals*.

78-7.03 CONSTRUCTION

Perform aluminum welding by the inert-gas-shielded arc welding process. Finish exposed aluminum welds to a neat surface.

Before painting, remove burrs and sharp edges, and chamfer all corners.

Blast clean surfaces to be painted under SSPC-SP 10.

Carefully handle the materials such that no parts are bent, broken, abraded, or otherwise damaged. Do not use manufacturing, handling, or installation methods that damage or distort the members or damage the painted surfaces or letter faces.

Attaching letters by welding to bridge members is not permitted.

Letters must present a uniform appearance in their final position, conforming closely to the horizontal and vertical lines shown or ordered.

78-7.04 PAYMENT

Not Used

^^

DIVISION XI MATERIALS

91 PAINT

Replace section 91-5 with:

91-5 PAINT FOR COMMUNITY IDENTIFICTION ELEMENTS

91-4.01 GENERAL

Section 91-5 includes specifications for furnishing paint for Community Identification elements including bridge piers and perforated aluminum panels.

91-5.02 MATERIALS

91-5.02A General

All paint and clear coat to have a satin finish.

91-5.02B Primer

Primer must consist of Matthews epoxy primer and associated product listed below.

Product No.	Product Name
274530SP	2.1 VOC White Epoxy Primer
274529SP	2.1 VOC Epoxy Hardener

91-5.02C Paint

Paint must consist of Matthews acrylic polyurethane paint and associated products listed below.

Product No.	Product Name
MAP-LVS	Acrylic Polyurethane Ultra Low VOC Paint
MAP-LVX270	Low VOC Hardener
MAP-LVRS02	Spray Reducer with Pot-life Extender

91-5.02D Clear Coat

The clear coat must consist of Matthews products listed below.

Product No.	Product Name
MAP-LVC228	Ultra Low VOC Clear
MAP-LVX270	Low VOC Hardener
MAP-LVRS02	Spray Reducer with Pot-life Extender

Obtain Matthews products from a Matthews Paint Distributer:

MATTHEWS PAINT
760 PITTSBURGH DR
DELAWARE OH 43015
(800) 323-6593
https://www.ppg.com/en-US/refinish/products/matthews-paint

91-5.03 CONSTRUCTION

Prepare and apply primer, paint and clear coat per manufacturer guidance provided in the *Information Handout*.

91-5.04 PAYMENT

Not Used