

ROAD REPAIR AND ACCOUNTABILITY ACT OF 2017  
PROJECT BASELINE AGREEMENT

LA28 Games Route Network (GRN) (07-50320)

Resolution **SHOPP-P-2526-06B**  
(to be completed by CTC)

**1. FUNDING PROGRAM**

- Active Transportation Program
- Local Partnership Program (Competitive)
- Solutions for Congested Corridors Program
- State Highway Operation and Protection Program
- Trade Corridor Enhancement Program

**2. PARTIES AND DATE**

2.1 This Project Baseline Agreement (Agreement) effective on **May 14, 2026** (will be completed by CTC), is made by and between the California Transportation Commission (Commission), the California Department of Transportation (Caltrans), the Project Applicant, **Caltrans**, and the Implementing Agency, **Caltrans**, sometimes collectively referred to as the “Parties”.

**3. RECITAL**

- 3.1 Whereas at its **3/20/2026** meeting the Commission approved the **State Highway Operation and Protection Program** and included in this program of projects the **LA28 Games Route Network (GRN) (07-50320)**, the parties are entering into this Project Baseline Agreement to document the project cost, schedule, scope and benefits, as detailed on the Project Programming Request Form attached hereto as **Exhibit A**, the Project Report attached hereto as **Exhibit B**, the Performance Metrics Form, if applicable, attached hereto as **Exhibit C**, as the baseline for project monitoring by the Commission.
- 3.2 The undersigned Project Applicant certifies that the funding sources cited are committed and expected to be available; the estimated costs represent full project funding; and the scope and description of benefits is the best estimate possible.

**4. GENERAL PROVISIONS**

The Project Applicant, Implementing Agency, and Caltrans agree to abide by the following provisions:

- 4.1 To meet the requirements of the Road Repair and Accountability Act of 2017 (Senate Bill [SB] 1, Chapter 5, Statutes of 2017) which provides the first significant, stable, and on-going increase in state transportation funding in more than two decades.
- 4.2 To adhere, as applicable, to the provisions of the Commission:
- Resolution **[REDACTED]**, “Adoption of Program of Projects for the Active Transportation Program”, dated **[REDACTED]**
  - Resolution **[REDACTED]**, “Adoption of Program of Projects for the Local Partnership Program”, dated **[REDACTED]**
  - Resolution **[REDACTED]**, “Adoption of Program of Projects for the Solutions for Congested Corridors Program”, dated **[REDACTED]**
  - Resolution **G-26-33**, “Adoption of Program of Projects for the State Highway Operation and Protection Program”, dated **3/20/2026**
  - Resolution **[REDACTED]**, “Adoption of Program of Projects for the Trade Corridor Enhancement Program”, dated **[REDACTED]**

- 4.3 All signatories agree to adhere to the Commission's Guidelines. Any conflict between the programs will be resolved at the discretion of the Commission.
- 4.4 All signatories agree to adhere to the Commission's SB 1 Accountability and Transparency Guidelines and policies, and program and project amendment processes.
- 4.5 Caltrans agrees to secure funds for any additional costs of the project.
- 4.6 Caltrans agrees to report to Caltrans on a quarterly basis; on the progress made toward the implementation of the project, including scope, cost, schedule, and anticipated benefits/performance metric outcomes.
- 4.7 Caltrans agrees to prepare program progress reports on a on a semi-annual basis and include information appropriate to assess the current state of the overall program and the current status of each project identified in the program report.
- 4.8 Caltrans agrees to submit a timely Completion Report and Final Delivery Report as specified in the Commission's SB 1 Accountability and Transparency Guidelines.
- 4.9 Caltrans agrees to submit a timely Project Performance Analysis as specified in the Commission's SB 1 Accountability and Transparency Guidelines.
- 4.10 All signatories agree to maintain and make available to the Commission and/or its designated representative, all work related documents, including without limitation engineering, financial and other data, and methodologies and assumptions used in the determination of project benefits and performance metric outcomes during the course of the project, and retain those records for six years from the date of the final closeout of the project. Financial records will be maintained in accordance with Generally Accepted Accounting Principles.
- 4.11 The Inspector General of the Independent Office of Audits and Investigations has the right to audit the project records, including technical and financial data, of the Department of Transportation, the Project Applicant, the Implementing Agency, and any consultant or sub-consultants at any time during the course of the project and for six years from the date of the final closeout of the project, therefore all project records shall be maintained and made available at the time of request. Audits will be conducted in accordance with Generally Accepted Government Auditing Standards.

## 5. SPECIFIC PROVISIONS AND CONDITIONS

- 5.1 Project Schedule and Cost  
See Project Programming Request Form, attached as Exhibit A.
- 5.2 Project Scope  
See Project Report or equivalent, attached as Exhibit B. At a minimum, the attachment shall include the cover page, evidence of approval, executive summary, and a link to or electronic copy of the full document.
- 5.3 Performance Metrics  
See Performance Metrics Form, if applicable, attached as Exhibit C.
- 5.4 Additional Provisions and Conditions *(Please attach an additional page if additional space is needed.)*

### Attachments:

- Exhibit A: Project Programming Request Form  
Exhibit B: Project Report  
Exhibit C: Performance Metrics Form *(if applicable)*

SIGNATURE PAGE  
TO  
PROJECT BASELINE AGREEMENT

Project Name **LA28 Games Route Network (GRN) (07-50320)**

Resolution **SHOPP-P-2526-06B**

*(to be completed by CTC)*



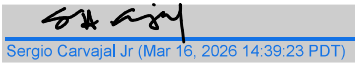
03/16/2026

Michael Zwissler

Date

Project Manager

Project Applicant

  
[Sergio Carvajal Jr \(Mar 16, 2026 14:39:23 PDT\)](#)

03/16/2026

David Yan

Date

Chief, Office of Program Management

Implementing Agency



03/30/2026

for Gloria Roberts

Date

District Director

California Department of Transportation

  
[Cory Binns \(Apr 27, 2026 14:58:36 PDT\)](#)

04/27/2026

FOR Dina El-Tawansy

Date

Director

California Department of Transportation



for

05/20/2026

Tanisha Taylor

Date

Executive Director

California Transportation Commission

Baseline agreement information was extracted from Caltrans' project data systems. Project description, funding and performance measures are from CTIPS. Project delivery milestones are from PRSM. All information is current and accurate.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

BASELINE AGREEMENT						Date:	04/09/26 02:51:43 PM
District	EA	Project ID		PPNO	Project Manager		
07	50320	0724000249		6345	ZWISSLER, MICHAEL		
County	Route		Begin Postmile	End Postmile	Implementing Agency		
LA	Var				PA&ED	Caltrans	
					PS&E	Caltrans	
					Right of Way	Caltrans	
					Construction	Caltrans	
Project Nickname							
LA28 Games Route Network (GRN)							
Location/Description							
In Los Angeles, Orange, and San Diego Counties on various routes and locations. Install Active Traffic Management (ATM) systems and additional Closed Caption Television (CCTV) cameras for LA28 Games Route Network (GRN). This is a Job-Order-Contract (JOC) project.							
Legislative Districts							
<b>Assembly:</b>	41, 42, 44, 46, 48, 49, 51, 52, 53, 54, 55, 56, 57, 61, 62, 64, 65, 66, 67, 69, 70		<b>Senate:</b>	20, 22, 24, 25, 26, 27, 28, 30, 33, 35, 36		<b>Congressional:</b>	28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 42, 43, 44, 45, 47
PERFORMANCE MEASURES							
	Primary Asset	Good	Fair	Poor	New	Total	Units
Existing Condition	Operational Improvements	0	0	2476		2476	Daily Person Hours of Delay
Programmed Condition	Operational Improvements	2476	0	0	0	2476	Daily Person Hours of Delay
Project Milestone						Actual	Planned
Project Approval and Environmental Document Milestone						01/16/26	
Right of Way Certification Milestone							02/22/27
Ready to List for Advertisement Milestone							02/22/27
Begin Construction Milestone (Approve Contract)							02/22/27
FUNDING (Allocated amounts are shaded)							
Component	Fiscal Year	SHOPP					Total
PA&ED	25/26	1,018					1,018
PS&E	25/26	17,517					17,517
RW Support	25/26	100					100
Const Support	26/27	14,476					14,476
RW Capital	26/27	422					422
Const Capital	26/27	129,331					129,331
Total		162,864					162,864

# Memorandum

**To:** Kelly Lamare  
Acting Deputy District Director  
Program/Project Management  
District 7

**Date:** March 16, 2026

**File:** 07-503201  
07-LA-VAR  
PID: 0724000249

**From:** MICHAEL ZWISSLER  
Project Manager  
District 7

**Subject: SB1 BASELINE AGREEMENT CLARIFICATION MEMORANDUM**

This memorandum is written to accompany the SB-1 Baseline Agreement for this Operational Improvements project on Various Routes in Los Angeles, Orange, and San Diego County. The purpose of this memorandum is to update the project milestones in the Project Report (PR):

- The project milestones are updated as shown in the PPR and PRSM as follows:
  - M410 Planned 2/22/2027 (PPR/PRSM)
  - M460 Planned 2/22/2027 (PPR/PRSM)
  - M500 Planned 2/22/2027 (PPR/PRSM)

If you have any questions, please contact me at (213) 269-1122.

Michael Zwissler

3/16/2026

# Project Report

## *For Project Approval*

On Routes LA-2, 5, 10, 57, 101, 105, 110, 134, 164, 210, 405; ORA-5, 57, 91, 405; SD-5

Between Various Locations

And Various Post Miles

I have reviewed the right-of-way information contained in this report and the right-of-way data sheet attached hereto, and find the data to be complete, current and accurate:



\_\_\_\_\_  
Dan Murdoch, District Division Chief, Right of Way

APPROVAL RECOMMENDED:


  
\_\_\_\_\_  
Principal Transportation Engineer  
for Manny T. Marcos, Project Manager

APPROVAL RECOMMENDED:



\_\_\_\_\_  
Rafael Molina, Deputy District Director  
Transportation Safety and Operations

PROJECT APPROVED:

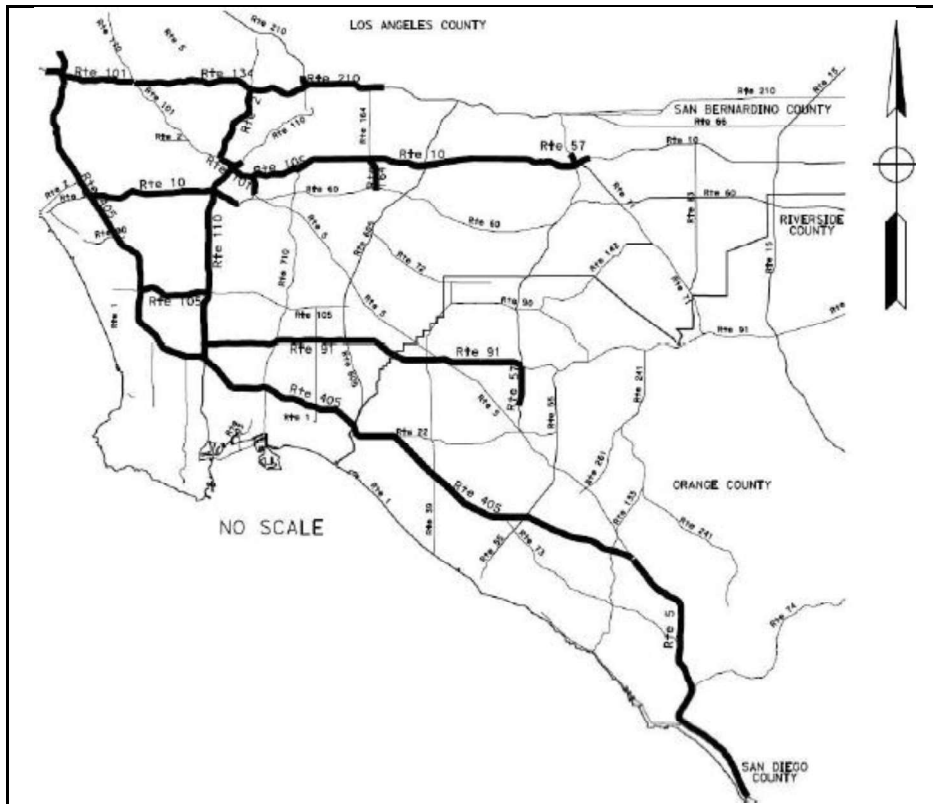
  
\_\_\_\_\_  
Gloria Roberts (Jan 16, 2026 16:24:33 PST)

\_\_\_\_\_  
Gloria Roberts, District Director

01/16/2026

\_\_\_\_\_  
Date

## Vicinity Map



- On 07-LA SR-2 from Glendale Blvd to SR-134, PM 12.7-18.8,
- On 07-LA I-10 from I-605 to Fairplex Dr., PM 21.838-43.66,
- On 07-LA I-10 from I-405 to Downtown LA, PM 5.492-16.976,
- On 07-LA I-10 Busway from Downtown LA to I-605, PM 16.975-21.838,
- On 07-LA SR-57 from I-10 to Via Verde, PM 7.716-8.653,
- On 07-LA SR-91 from I-110 to LA County line, PM 6.352-20.717,
- On 07-LA US-101 from SR-2 to I-10 PM 2.838-0,
- On 07-LA US-101 from Hayvenhurst to I-405 PM 18.624-17.096,
- On 07-LA US-101 from I-405 to SR-134 PM 17.096-11.812,
- On 07-LA I-105 from I-405 to I-110 PM 2.112-7.342,
- On 07-LA I-110 from Stadium Way to I-405 PM 24.535-8.818,
- On 07-LA SR-134 from US-101 to I-210 PM 0-13.327,
- On 07-LA SR-164 from I-10 to Shooting Park Venue Ent PM 5.605-3.116,
- On 07-LA I-210 from Mountain to N. Baldwin Ave. PM 24.144-30.619,
- On 07-LA I-405 from Victory Blvd. to LA County line PM 41.378-0,
- On 12-ORG I-5 from I-405 to SD County Line PM 21.059-0,
- On 12-ORG SR-57 from Katella Ave to SR-91 PM 12.5-15.6,
- On 12-ORG SR-91 from LA County Line to SR-57 PM R0-6.1,
- On 12-ORG I-405 from LA County Line to I-5 PM 24.165-0,
- On 11-SD I-5 from ORG County Line to Basilone Road PM 72.361-71.379

This project report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

*Jennifer Nguyen*  
REGISTERED CIVIL ENGINEER

11/19/2025  
DATE



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## 1. INTRODUCTION

### Project Description:

This Project Report (PR) proposes to permanently install State Highway Operation and Protection (SHOPP) eligible Operational Improvements and Active Transportation Management Systems (ATMS) on various routes and postmiles throughout the project limits. The proposed scope includes:

- Install 11 Overhead (OH) Sign Structures (Gantries).
- Install 256 Closed Circuit Television (CCTV) Camera Systems.
- Install 12 Dynamic Message Sign (DMS).
- Install 69 Lane Management Signs (LMS).
- Install 24 Variable Advisory Speed Signs (VASS).

Additionally, this project proposes to temporarily install a Games Route Network (GRN). This scope consists of a system of dedicated travel lanes designed to ensure reliable, secure, and timely transportation for key Olympic and Paralympic participants—including athletes, coaches, officials, and broadcasters, between competition and non-competition locations. Developed to support the demanding logistics of the Games, the GRN helps minimize delays, reduce traffic related risks, and maintain the smooth flow of operations during a period of exceptionally high visitor volume and citywide activity.

The GRN includes the implementation of traffic operations strategies on over 200 centerline-miles of highways throughout District 7, 11, and 12 on highways 2, 5, 10, 57, 91, 101, 105, 110, 134, 164, 210, and 405.

As part of the GRN Scope, a Concept of Operations (ConOps) document will be prepared for this project that includes detailed recommended locations with various traffic control devices and measures to be implemented for this project's duration in coordination with local, regional, and federal partners.

**Table 1 – Project Programming Information**

<b>Project Limits</b>	LA-07/11/12-LA/SD/ORG-Var	
<b>Number of Alternatives</b>	2 (Build/No-Build)	
	<b>Current Cost Estimate:</b>	<b>Escalated Cost Estimate:</b>
<b>Capital Outlay Support</b>	\$46,508,000.00	\$50,461,000.00
<b>Capital Outlay Construction</b>	\$185,527,000.00	\$195,017,000.00
<b>Capital Outlay Right-of-Way</b>	\$354,000.00	\$422,000.00
<b>Funding Source</b>	SHOPP/HM	
<b>Funding Year</b>	FY26/27	
<b>Type of Facility</b>	Conventional Highway, Expressway, Freeway, Local	
<b>Number of Structures</b>	11	
<b>SHOPP Project Output</b>	SHOPP Performance Measures: Operations and Safety (See Attachment O & Q)	
<b>Environmental Determination or Document</b>	CEQA (Categorical Exemption and Statutory Exemption [CE and SE])	
<b>Legal Description</b>	In Los Angeles County, Orange County, and San Diego County	
<b>Project Development Category</b>	5	

## 2. RECOMMENDATION

It is recommended that this Project Report be approved using the preferred alternative and that the project proceeds to PS&E phase. This report was prepared to documentation Level 2.

## 3. BACKGROUND

### Project History

To request programming in the 2024 SHOPP, a Project Initiation Report (PIR) under EA 50320K was approved on August 15, 2025.

Millions of visitors, from around the world, will visit Los Angeles in the Summer of 2028. According to data models prepared by the City of Los Angeles, the Olympic and Paralympic Games are expected to generate approximately 1.2 million peak day spectator trips. This volume is equivalent to hosting seven Super Bowls per day, for over a month (with an anticipated two Super Bowls per day for the Paralympic Games). The GRN is being developed by this project to ensure reliable and timely transportation during Olympic and Paralympic.

**Table 2 – GRN Route Locations in the following Caltrans Districts and routes**

District	State Highway Route (SR) (Tentative)	Post Mile Limits (Tentative)		From - to
7	405	0	41.378	Victory to Orange County Line
7	110	8.818	24.535	Stadium Way - I405
7	105	2.112	7.342	I405 - I110
7	10	21.838	43.66	I605 – Fairplex Dr
7	10S	16.976	21.838	Downtown – I605
7	57	7.716	8.653	I10 – Via Verde (Frank Bonelli Park)
7	91	6.352	20.717	I110 – County Line
7	101	0	2.838	SR2/Alvarado St – I10
7	134	0	13.327	U101 – I210
7	2	12.776	18.839	SR134 – Glendale Blvd (@US101)
7	210	24.144	24.756	Mountain - SR134
7	210	24.756	30.629	SR134-N. Baldwin (Wayfinding)
7	10	5.492	16.976	I405 - Downtown
7	101	17.096	18.624	Havenhurst - I405
7	101	11.812	17.096	I405 - SR134
7	164	3.116	5.605	I10 – Shooting Park
12	405	0	24.165	LA County Line - I5 (Wayfinding)
12	57	12.531	15.6	SR91 – Katella Ave
12	91	0	6.124	County Line – SR57
12	5	0	21.059	I405 - SD County Line (Wayfinding)
11	5	71.379	72.379	OC County Line - Basilone Road (Wayfinding)

Caltrans has requested the Federal Highway Administration Headquarters to review and approve a National Manual on Uniform Traffic Control Devices (MUTCD) 11th edition, experimental request for the use of light blue color as a background color for use on the “LA 2028” white, or black, color legend word message, as a unique identifier to draw attention to the traffic sign plaques, traffic sign panels and pavement markings. This will aid recognition and quicker comprehension of the dedicated lanes on the GRN roadways to facilitate travel during LA 2028 games. Please refer to Attachment R.

In coordination with the experiment and in collaboration with local municipalities, Caltrans has also prepared a request for a supplement to the CA MUTCD 2014 edition to the California Traffic Control Devices Committee (CTCDC). This supplement provides specific guidance for the temporary modification of existing traffic control devices to allow identification of priority lanes for the Games and is still under review by FHWA.

The project is anticipated to begin construction in December 2026, with both permanent and temporary features completed by December 2027. The temporary features will then be removed by JOC contractors beginning in September 2028, with a target CCA milestone date of April 2, 2029 (M600).

#### Existing Facility Condition Section

Caltrans is committed to implementing a GRN to provide efficient and reliable transportation for the Games vehicles. This network will include dedicated lanes for Games stakeholders. Refer to the table below regarding the type of lane conversion based on existing facilities and their lane configuration on each route of GRN.

**Table 3 – Existing Facility**

District	State Highway Route (Tentative)	Post Mile Limits (Tentative)		Type of Conversion Each Direction
7	405	0	41.378	HOV 1-Lane
7	110	8.818	24.535	HOT 2-Lane
7	105	2.112	7.342	HOV 1-Lane
7	10	21.838	43.66	HOV 1-Lane
7	10S	16.976	21.838	HOT 2-Lane
7	57	7.716	8.653	GP (Wayfinding only)
7	91	6.352	20.717	HOV 1-Lane
7	101	0	2.838	HOT 1-Lane
7	134	0	13.327	HOV 1-Lane
7	2	12.776	18.839	GP 1-Lane
7	210	24.144	24.756	HOV 1-Lane
7	210	24.756	30.629	HOV 1-Lane
7	10	5.492	16.976	GP 1-Lane
7	101	17.096	18.624	GP (Wayfinding only)
7	101	11.812	17.096	GP 1-Lane
7	164	3.116	5.605	GP 1-Lane
12	405	0	24.165	HOT (Wayfinding only)
12	57	12.531	15.6	HOV 1-Lane
12	91	0	6.124	HOV 1-Lane
12	5	0	21.059	HOV (Wayfinding only)
11	5	71.379	72.379	GP (Wayfinding only)

#### **4. PURPOSE AND NEED**

##### **Purpose:**

The purpose of this project is to improve the performance and reliability of the state highway system by enhancing the capability of the District's Traffic Management System (TMS). The project will improve monitoring and provide guidance traveler information with efficient incident detection and response and reduce the impacts of congestion to accommodate large-scale travel demand associated with regional events.

This includes improvements that will support coordinated traffic management during the 2028 Olympic and Paralympic Games while delivering lasting benefits for emergency response and traffic operations.

##### **Need:**

The project corridors experience significant recurrent and non-recurrent congestion due to insufficient or outdated TMS infrastructure. These deficiencies limit the ability of the Los Angeles Regional Transportation Management Center (LARTMC) to actively monitor conditions, detect incidents, and manage traffic in real time. Existing systems also lack the ability to provide accurate and timely travel information needed to support efficient use of the transportation network. Enhancing and expanding the TMS infrastructure—such as field elements, communications systems, detection devices, and traveler information tools—will allow for better traffic monitoring, improved travel-time reliability, and reduced incident-related delays. These upgrades will maximize the operational efficiency of the corridor and provide permanent system management benefits. In addition, these improvements will strengthen the highway system's ability to manage extraordinary travel demand during major regional events such as the 2028 Olympic and Paralympic Games. While temporary in nature, these events highlight the need for a resilient, adaptive traffic management system that can respond to fluctuating demands and protect long-term mobility.

##### **A. Problem, Deficiencies, Justification**

###### Problem

Dedicated travel lanes are needed to ensure reliable, secure, and timely transportation for key Olympic and Paralympic participants and officials between competition and non-competition locations. In addition, there is a need for minimizing delays, reducing traffic related risks, and maintaining the smooth flow of operations during the high visitor volume and citywide activity. The existing TMS infrastructure is outdated, limiting the ability of the LARTMC to monitor and mitigate traffic while traffic volume will be increased during the 2028 Olympic and Paralympic Games.

Deficiencies

Existing systems lack capability to:

- Accommodate high volume traffic during events
- Actively monitor conditions
- Detect incidents
- Manage traffic
- Provide accurate, timely travel information

Justification

Enhancing TMS infrastructure will have the following benefits:

- Reduced Green House Gas emissions
- Updated field elements and communication systems
- Expanded detection devices and traveler information tools
- More efficient operation and monitoring
- Reduce incident-related delays
- Improve travel time reliability
- Improve traffic congestion

**B. Regional and System Planning**Corridor and System Planning

This project does not conflict with corridor regional transportation plans or district system management plans and supports concurrent regional efforts for the LA 2028 Olympic Games.

The projects below are currently being planned and programmed within the proposed project limits.

**Table 4 – Coordination for 11 gantry locations**

<b>Project</b>	<b>Location (PM)</b>	<b>Scope</b>	<b>Ready to List Date</b>	<b>Contract Acceptance Date</b>
07-35433	405-PM 28.40/41.40	Convert HOV to HOT Express lanes	Jul 2028	Oct 2032
07-37540	405-PM 13.60/29/50	Replace/Line various culverts	Mar 2026	Jun 2028
07-39350	405-PM 12.80/31.60	Pavement Resurfacing and Restoration	Jan 2030	Apr 2034
07-50370	405-PM 25.90/34.76	Enhancing Operational Improvements	Dec 2029	Feb 2032
07-0Y490	101-PM 1.68/31.95	Line/Repair Culverts	Dec 2025	Oct 2029

Operational Coordination for entire Games Route Network

For a list of projects located on the GRN and require coordination, see Attachment P.

**C. Traffic****C-1. Traffic Analysis and Modeling**

An extensive LA 2028 Games Living Model was developed in coordination with LA Metro and the LA 2028 Games Mobility Executives (GME) to reflect the impact of an estimated 1.2 million additional vehicles including buses, trucks, and cars on the State Highway System (SHS) during the LA 2028 Games. The traffic analysis methodology was prepared at the early stage of the project and contained in the Games Route Network Modeling Technical Analysis Approach Memorandum (see Attachment N). The methodologies used to develop the traffic demand forecasts and to conduct traffic analysis are summarized below. More details are included in the attached memorandum.

The traffic analysis results presented herein only include the GRN routes identified during the project initiation phase of the project. More routes, which include 210, 101, and 2 were added after the traffic modeling effort to the GRN, and LA Metro is in the process of developing another traffic model to study the impacts of new GRN routes to the state highway systems. Since the completion of the PID, some routes have been eliminated from the GRN, which include Routes 1, 15, 39, and 71. The area and overall network data shown in this report include all routes studied during the PID phase.

Traffic analysis was conducted, and the results were reported at the segment level and separated by travel direction and by lane group (e.g. General Purpose-GP, Managed Lanes-ML, and Games Lanes-GL) during the AM and PM peak hours. To support the environmental analysis, daily traffic volumes and estimates of vehicle miles traveled (VMT) were also developed for study corridors and segments. The analysis time periods, key metrics, and demand segments are summarized in **Table 5-1**.

**Table 5-1 Traffic Analysis Results Overview**

<b>Scenario</b>	<b>Existing (2023)</b>	<b>2028 No Games</b>	<b>2028 With Games</b>
Time Periods	AM and PM peak hours, Daily	AM and PM peak hours, Daily	AM and PM peak hours, Daily
Traffic Volume	<b>GP:</b> Auto, Truck Total Vehicles <b>ML:</b> Auto	<b>GP:</b> Auto, Truck Total Vehicles <b>ML:</b> Auto	<b>GP:</b> Background Auto, GD Auto, Truck, Total Vehicles <b>GL:</b> GF Auto, GF Bus, GETS bus
Travel Time	GP & ML	GP & ML	GP & GL
Average Speed	GP & ML	GP & ML	GP & GL
Travel Delay	GP & ML	GP & ML	GP & GL
VMT	<b>GP:</b> Auto, Truck <b>ML:</b> Auto	<b>GP:</b> Auto, Truck <b>ML:</b> Auto	<b>GP:</b> Background Auto, GD Auto, Truck <b>GL:</b> GF Auto

Note: **GP:** General Purpose Lanes, **ML:** Managed Lanes, **GL:** Games Lanes in GRN on SHS, **GD:** Games Demand (Spectator and Workforce), **GF:** Games Family, **GETS:** Games Enhanced Transit Service

The 2023 field data were used as the baseline for estimating 2028 No Games speeds and volumes. After comparing the 2028 Southern California Association of Governments (SCAG) data versus the 2023 field data, the 2028 No Games traffic volumes were forecasted by applying an annual growth rate of 1.1 percent to the existing (2023) traffic volumes. The 2028 No Games travel time and speeds were calculated using the speed-flow curve from the SCAG model. (See attachment N)

For the 2028 With Games conditions, the traffic volumes were developed using the difference method by applying the delta between the 2028 With Games and 2028 No Games models to the 2028 No Games forecasts. The travel time/speeds were estimated using the speed-flow curve from the SCAG model.

Traffic delays were developed by comparing the congested travel time to free flow travel time for each time of day and for each scenario for each study segment. VMT was calculated by multiplying the volumes for each time of day and for each scenario and the segment distance. (See Attachment N)

## C-2. Existing Conditions (2023)

### Summary of Analysis Results

**Table 5-2** summarizes the traffic volumes for the GRN study area, divided into managed and general-purpose lanes. The data in **Table 5-2** represents the average volumes by facility type. General purpose lane volumes range from 4,103 to 5,837 vehicles per hour across facility types, while managed lanes carry between 1,116 and 1,942 vehicles per hour. The total study area average ranges from 4,882 to 5,179 vehicles per hour for general purpose lanes and to 1,322 to 1,323 vehicles per hour for managed lanes, with a daily total of 107,956 vehicles.

**Table 5-2 Existing 2023 GRN Study Area Average Volumes by Facility Type**

Facility Type	AM Peak Hour		PM Peak Hour		Daily Total
	GP	ML	GP	ML	
Freeway with HOV Lane	5,837	1,116	5,410	1,147	115,530
Freeway with Express Lane	5,447	1,942	5,297	1,853	122,458
Facilities with GP Only	4,304	-	4,103	-	74,131
Total	5,179	1,322	4,882	1,323	107,956

**Table 5-3** shows the corridor totals for the GRN daily and peak hour traffic volumes (divided into managed and general-purpose lanes). The numbers for each corridor reflect the average volumes from multiple segments.

Managed lanes volumes serve approximately 15 to 20 percent of the overall corridor volumes. In some cases, the managed lanes do not exist for the entire corridor, so only those corridors with complete managed lanes have data shown in the table below.

**Table 5-3 Existing 2023 Average Volumes by Corridor**

Corridor	AM Peak Hour		PM Peak Hour		Daily Total
	GP	ML	GP	ML	
405	6,503	1,219	5,980	1,212	127,546
101	6,840	-	6,178	-	114,399
134	6,283	1,171	5,253	1,148	117,754
210	3,814	-	3,917	-	68,503
2	3,601	-	4,231	-	70,012
10	5,430	804	5,245	788	94,217
91	5,495	1,210	5,385	1,244	114,044
105	5,319	1,265	4,344	1,692	106,365
57	6,274	868	6,135	851	109,613
110	5,844	1,699	4,750	1,666	92,456

**C-3. 2028 No Games Conditions**Summary of Analysis Results

Using the No Games traffic volumes, the segment capacity, and the SCAG model volume delay-functions, the 2028 No Games travel speeds were calculated. The 2028 No Games travel speeds were used to calculate the travel time in minutes, and the difference between the free-flow travel time and the 2028 No Games travel time was used to calculate the segment delay.

**Table 5-4** presents 2028 No Games average GRN study area volumes by facility type, showing modest increases in traffic volumes compared to existing conditions. General purpose lane volumes range from 4,096 to 5,971 vehicles per hour across facility types, while managed lanes carry between 1,151 and 1,984 vehicles per hour. The total study area average ranges from 4,802 to 5,134 vehicles per hour for general purpose lanes and 1,308 to 1,313 vehicles per hour for managed lanes, with a daily total of 111,214 vehicles. The data follows a similar pattern as shown in **Table 5-2**, with volumes approximately 3 percent higher than in 2023.

**Table 5-4 No Games GRN Study Area Average Volume by Facility Type**

Facility Type	AM Peak Hour		PM Peak Hour		Daily Total
	GP	ML	GP	ML	
Freeway with HOV Lane	5,965	1,175	5,526	1,151	105,670
Freeway with Express Lane	5,971	1,898	5,801	1,984	135,471
Facilities with GP Only	4,387	-	4,096	-	78,230
Total	5,134	1,308	4,802	1,313	111,214

**Table 5-5** shows the corridor totals for the GRN daily and peak hour traffic volumes (divided into managed and general-purpose lanes). The volumes are approximately 6 percent higher than in 2023, consistent with the application of the 1.1% annual growth rate for background traffic.

**Table 5-5 2028 No Games Average Volumes by Corridor**

Corridor	AM Peak Hour		PM Peak Hour		Daily Total
	GP	ML	GP	ML	
405	6,869	1,280	6,317	1,287	134,721
101	7,225	-	6,525	-	120,835
134	6,636	1,213	5,548	1,237	124,382
210	4,028	-	4,137	-	72,350
2	3,804	-	4,469	-	73,950
10	5,736	835	5,539	860	99,617
91	5,804	1,314	5,688	1,278	120,450
105	5,618	1,787	4,588	1,336	112,349
57	6,627	899	6,480	991	116,355
110	6,173	1,849	5,017	1,967	99,392

**C-4. 2028 Games Conditions**

This section outlines the anticipated traffic conditions during the 2028 Olympics (the Games) when the GRN is operational, and the Games are active. It builds upon the 2028 No Games Conditions described in Section C-3 by incorporating the traffic demand generated by Games-related activities and the effect of the GRN implementation.

**C-4a. With Games Traffic Demand Development****Background Traffic Demand**

The 2028 No Games background demand from the SCAG Activity-Based Model (ABM) was reduced to represent Games-specific Travel Demand Management (TDM) activities and trip suppression. In the absence of specific TDM analysis, a 10% background auto traffic reduction factor was applied to reflect the TDM goal set by LA 2028 and other regional agencies responsible for delivering the Games; the 10% reduction factor was recommended by the LA 2028 committee based on observation and experience from previous Games traffic data. Background traffic was not allowed to use Games Lanes.

**Spectator and Workforce Demand**

The demand generated by Games spectators and workforce supporting the events involved the use of a "Living Model" suite of tools, including the Spectator Games Time Demand Model (SGTDM) and the Workforce Games Time Demand Model (WGTDM). These models use the Olympic event schedule, accommodation allocation, and various assumptions about travel behavior to estimate hourly demand for travel to and from events and other activities.

Private car trips by spectators and workforce to Park & Ride sites and parking lots near venues are not allowed to use the Games Lanes. Instead, they would use general purpose lanes. An important element for serving spectators and workforce will be the GETS, which will operate shuttle buses between designated rail/BRT stations, GETS Park & Ride sites, and competition venues. It is assumed that GETS shuttle buses will

be allowed to run in the Games Lanes. The demand levels and GETS bus movements are crucial inputs for the PSR/PR assessment.

### Games Family Demand

The "Games Family" includes accredited individuals such as athletes, team officials, technical officials, media and broadcast personnel, Games stakeholders, and marketing partners. The development of the Games Family Demand (GFD) utilizes the Games Family Demand Model (GFDM). The purpose of the GFDM is to estimate the number of Games Family accredited vehicles expected to travel between Games competition and noncompetition venues. The GFD vehicles are represented by passenger vehicles and buses and are allowed to use the Games Lanes within the GRN on the SHS.

Non-competition venues include accommodation locations, official Ports of Entry (POEs) like LAX and Union Station, and key Games locations such as the International Broadcast Center (IBC) and the Main Press Center (MPC). The GFDM estimates vehicle trips between the venues outlined in Tables 2 and 3 of the Games Family Demand Model Memorandum (submitted 2/25/2025). These venues, although draft and subject to change, encompass accommodation venues (Olympic Village, Olympic Family Hotel, Media Village, Technical Official Hotels, Marketing Partner Hotels), all competition venue clusters in Southern California as of October 2024, Ports of Entry (LAX, Union Station), Broadcast and Media centers (IBC at SoFi Stadium, MPC at USC), and Live Sites.

Demand forecasts are developed on an hourly basis for Day 10 of the Olympic Games. The GFDM takes the event schedule and assumptions about Games Family travel behavior to estimate the demand for travel to and from various locations. The output of the GFDM, in the form of demand matrices, is then allocated to the GRN to estimate traffic flow on different segments.

### **Summary of Analysis Results**

To develop the 2028 With Games traffic volumes and speeds, the difference method was employed. This approach first established a baseline based on adjusted 2023 existing traffic conditions. Then, the projected changes (the delta value) in volume and speed/travel time between the 2028 No Games and 2028 With Games scenario results were determined using travel demand model traffic volume outputs. Finally, this delta value was applied to the 2028 No Games data to estimate the 2028 With Games traffic volumes and speeds.

**Table 5-6** presents the average regional volumes in vehicles for the general-purpose lanes for different freeway types in 2028 with Games. Since the Games Family has a substantial portion of the trips occurring in buses and there will be additional few but not insignificant number of GETS buses, passenger car equivalents (PCEs) are reported rather than vehicles for Games Lanes. Across the entire region, the average number of PCEs in the Games Lanes is below the capacity of the typical managed lane. It is important to note that the geographic location of the individual corridors and study segments may have Games Lanes volumes that are much higher than the average.

**Table 5-6 2028 With Games GRN Study Area Average Volumes by Facility Type**

Facility Type	AM Peak Hour		PM Peak Hour		Daily Total
	GP	GL	GP	GL	
Freeway with HOV Lane	6,660	222	6,152	190	135,489
Freeway with Express Lane	6,620	373	6,701	321	142,758
Facilities with GP Only	4,612	221	4,371	176	90,616
Total	5,576	238	5,273	197	112,625

**Table 5-7** summarizes the average volumes by corridor and shows corridors like I-405 and US-101 have relatively high average total volumes compared to others. It also highlights the variation in Games Lane volumes by corridor, with some corridors (like I-110) showing significantly higher Games Lane volumes than others, reflecting the differing usage patterns of the Games Lanes on those specific routes. As with the regional summary, it is important to note that the corridor averages do not identify specific segments where the Games Lanes PCEs may be much higher than the average. The segment level data provided in the attachment can be used to identify specific segments that have higher or lower volumes.

**Table 5-7 2028 With Games Average Volumes by Corridor**

Corridor	AM Peak Hour		PM Peak Hour		Daily Total
	GP	GL	GP	GL	
405	7,923	229	7,168	215	164,148
101	7,485	237	7,052	189	142,200
134	6,922	44	5,837	119	118,737
210	4,057	19	4,621	79	78,696
2	3,872	94	4,620	80	81,294
10	6,103	324	6,277	261	131,366
91	6,468	242	6,241	138	137,652
105	6,825	325	5,626	265	130,515
57	6,769	116	6,709	48	124,719
110	6,863	910	5,871	766	151,291

#### **C-4b. Comparison with 2028 No Games**

**Table 5-8** compares the average regional volumes in Passenger Car Equivalent (PCE) during the AM peak hour for the No Games and With Games scenarios, broken down by facility type (Freeway with HOV, Freeway with Express, GP Only) and lane group (GP, ML, or GL). It shows that in the With Games scenario, general purpose lanes carry higher average volumes than in the No Games scenario, while the Games Lanes carry significantly lower average volumes than the managed lanes did in the No Games scenario. For instance, general purpose volumes on Freeways with HOV lanes increase from 5,965 under No Games to 6,660 under With Games, while managed lanes volumes of 1,179 under No Games are replaced by Games Lanes volumes of 222 under With Games.

**Table 5-8 AM Peak Hour GRN Study Area Average Volumes by Facility Type**

Facility Type	No Games		With Games	
	GP	ML	GP	GL
Freeway with HOV Lane	5,965	1,175	6,660	222
Freeway with Express Lane	5,971	1,898	6,620	373
Facilities with GP Only	4,387	-	4,612	221
Total	5,134	1,308	5,576	238

**Table 5-9** presents a similar comparison for the PM peak hour average regional volumes by facility type and lane group. It mirrors the AM peak findings, indicating that general purpose lanes experience increased volumes in the With Games scenario compared to No Games. Conversely, the Games Lanes have substantially lower volumes regionally during the PM peak compared to the managed lanes in the No Games scenario. For example, general purpose volumes on Freeway with Express Lanes increase from 5,801 (No Games) to 6,701 (With Games), while the corresponding managed lane volumes of 1,984 drop to Games Lanes volumes of 321.

**Table 5-9 PM Peak Hour GRN Study Area Average Volumes by Facility Type**

Facility Type	No Games		With Games	
	GP	ML	GP	GL
Freeway with HOV Lane	5,526	1,151	6,152	190
Freeway with Express Lane	5,801	1,984	6,701	321
Facilities with GP Only	4,096	-	4,371	176
Total	4,802	1,313	5,273	197

**Table 5-10** details the average volumes by corridor during the AM peak hour, comparing the No Games (GP, ML) and Games (GP, GL) scenarios. It shows that general purpose volumes generally increase across most corridors in the With Games scenario. The Games Lanes volumes vary considerably by corridor, with some corridors like I-110 showing relatively higher Games Lanes volumes (910 PCE) compared to others such as I-210 (19 PCE), indicating specific routes would experience more Games Lanes traffic.

**Table 5-10 AM Peak Hour Average Volumes by Corridor**

Corridor	AM Peak Hour		PM Peak Hour	
	GP	ML	GP	GL
405	6,869	1,280	7,923	229
101	7,225	-	7,485	237
134	6,636	1,213	6,922	44
210	4,028	-	4,057	19
2	3,804	-	3,872	94
10	5,736	835	6,103	324
91	5,804	1,314	6,468	242
105	5,618	1,787	6,825	325
57	6,627	899	6,769	116
110	6,173	1,849	6,863	910

**Table 5-11** provides the PM peak hour average volumes comparison by corridor for the two scenarios. Similar to the AM peak, general-purpose volumes are higher in the With Games scenario in most corridors. Games Lanes volumes again show significant corridor to-corridor variation, with I-110 having the highest average Games Lanes volumes (766 PCE).

**Table 5-11 PM Peak Hour Average Volumes by Corridor**

Corridor	AM Peak Hour		PM Peak Hour	
	GP	ML	GP	GL
405	6,317	1,287	7,168	215
101	6,525	-	7,052	189
134	5,548	1,237	5,837	119
210	4,137	-	4,621	79
2	4,469	-	4,620	80
10	5,539	860	6,277	261
91	5,688	1,278	6,241	138
105	4,588	1,336	5,626	265
57	6,480	991	6,709	48
110	5,017	1,967	5,871	766

### Traffic Findings

The analysis aims to evaluate the traffic effect on SHS segments where Games Lanes will be implemented, by comparing the traffic performance results between the 2028 No Games and 2028 With Games scenarios. The two scenarios incorporated projected background traffic growth, Games-related demand (Games Family, spectators, workforce, GETS buses), and the designation of Games Lanes on the SHS. This study specifically focused on freeway mainlines, not intersections or ramps.

The findings below highlight the key traffic performance implications resulting from the implementation of dedicated Olympic Lanes:

- The analysis represents two specific hours (AM and PM peak hour) on a single day during the Olympics. There may be other hours of the day or days of the Games where the results would be different depending on background traffic patterns and the time-of-day activity at different venues during the analysis period.
- The analysis indicates Games Lanes are projected to maintain significantly higher speeds compared to the adjacent general-purpose lanes, functioning as a higher-speed network to provide efficient and reliable travel for accredited Games vehicles (Games Family vehicles and GETS buses).
- General purpose lanes are projected to see increase in traffic due to shift of background traffic from managed lanes to general purpose lanes. Games Family demand is anticipated to be the highest near key locations such as the broadcast centers and athlete villages. Similarly, GETS buses are projected to have the highest demand near venues with greater spectator activity.
- For the With Games scenario, a generalized TDM factor was applied to reduce non-Games-related trips by 10%. Parallel efforts to identify specific TDM strategies and locations are on-going as part of separately led efforts by multiple agencies. In addition to the benefits resulting from the 10% generalized TDM factor applied in this analysis, additional TDM reduction and temporary congestion management may be achieved as TDM plans are finalized to further improve operations on general purpose lanes.
- The traffic pattern changes due to GRN are temporary and will return to no-game conditions for all corridors.
- The LA 2028 planning effort is an on-going process, and potential changes to Games venues and competition schedules are anticipated as the project progresses.

LA Metro is developing another traffic model to study the impacts of newly added GRN routes, which include 210, 101, and 2. Traffic Analysis Memo and Modeling Data is in Attachment N.

### **C-5. Traffic Collisions**

The 60-month available incident history from 10/1/2019 to 9/30/24 for the Games Route Network Gantry locations on Routes 10, 101, and 405 are included in the table below. Based on the available collision rates data (rates are in Million-Vehicle Miles hereafter referred to as MVM), it is indicated that the Actual Fatal plus Injury and Total Collision rates are higher in two locations where gantries are proposed. The Actual 0.64 fatality, injury and Total Collision rates are higher versus the Statewide Average for similar facilities (1.74 MVM Actual vs. 1.35 MVM Statewide Average) in the corridor from LA-101 PM 016.809 to 016.843, Sepulveda Blvd northbound.

In the southbound direction, similarly, The Actual 0.55 fatality and injury and Total Collision rates are higher versus the Statewide Average for similar facilities (1.37

MVM Actual vs. 0.36 and 1.15 MVM Statewide Average) from LA-101 PM 16.844-17.008, Sepulveda Blvd-L. Additionally, the fatality rates were higher at this location (0.048 MVM Actual vs. 0.003 MVM Statewide Average for a Similar Facility).

Active Transportation Management Gantry with dynamic message signs, variable advisory speed signs, and lane management signs will be installed in this corridor to improve traffic operations in the area.

**Table 5-12 Traffic Collisions**

Location	Crash Rates (per MVM)					
	Actual (MVM)			Statewide Average for Similar Facility (MVM)		
	Fatal	F+I	Total	Fatal	F+I	Total
07 LA I-10 EB R5.829/R6.029 Coventry	0.000	.25	.66	0.004	.36	1.13
07 LA I-10 EB R11.76/R11.96 7th Ave	0.000	.22	.68	.0004	.43	1.39
07 LA I-10 WB R11.82/R12.02 7th Ave	0.017	0.48	1.07	0.004	.43	1.39
07-LA-010 EB PM R9.197/R9.397	0.000	.22	.77	0.004	.38	1.17
07-LA-405 NB 405 PM 27.713-27.913	0.000	.32	.77	0.004	.43	1.38
07 LA 405 NB 405 PM 27.951-28.151 Venice Blvd	0.000	.36	1.09	0.004	.43	1.39
07 LA 405 NB 405 PM 29.142-29.342	0.000	.12	.64	0.004	.38	1.20
07 LA 405 SB 405 PM 27.043-27.243 Culver Blvd	0.000	.36	.77	0.004	.43	1.37
07 LA 405 SB 405 PM 29.142-29.342 National Blvd	0.000	.40	1.01	0.004	.38	1.20
07 LA 101 NB LA 101 12.234 Irvine	0.000	.18	.61	0.003	.36	1.15
07 LA 101 016.809 – 016.843 Sepulveda Blvd	0.000	.64	1.74	0.004	.42	1.35
07 LA 101 016.844 L– 017.008 L Sepulveda Blvd	0.048	.55	1.37	0.003	.36	1.15

The data provided is protected by 23 U.S.C. § 407, and shall not be subject to discovery, nor admitted as evidence in any applicable legal proceeding against the State of California. By allowing the release of this information, the State of California, Department of Transportation does not waive any rights it has under 23 U.S.C. § 407.

### **C-6. Corridor Geometric Information and Condition**

The GRN will convert existing lanes along the state highway system into a temporary managed-lane system. This conversion will be a combination of managed lanes (HOV/HOT) as well as general purpose lanes. No geometric improvements are being proposed for this project. See Viable Alternatives, Section 5A, for lanes and facility improvements.

**Table 5-13 Corridor Geometric Information and Condition**

District	State Highway Route (Tentative)	Post Mile Limits (Tentative)		Type of Conversion Each Direction	GP	ML
7	405	0	41.378	HOV 1-Lane	8	2
7	110	8.818	24.535	HOT 2-Lane	8-10	2-4
7	105	2.112	7.342	HOV 1-Lane	8	2
7	10	21.838	43.66	HOV 1-Lane	10	2-4
7	10S	16.976	21.838	HOT 2-Lane	12	2
7	57	7.716	8.653	GP (Wayfinding only)	10	0
7	91	6.352	20.717	HOV 1-Lane	8-10	2
7	101	0	2.838	HOT 1-Lane	8	0
7	134	0	13.327	HOV 1-Lane	8	2
7	2	12.776	18.839	GP 1-Lane	6	0
7	210	24.144	24.756	HOV 1-Lane	8	2
7	210	24.756	30.629	HOV 1-Lane	12	2
7	10	5.492	16.976	GP 1-Lane	10	0
7	101	17.096	18.624	GP (Wayfinding only)	12	0
7	101	11.812	17.096	GP 1-Lane	10	0
7	164	3.116	5.605	GP 1-Lane	6	0
12	405	0	24.165	HOT (Wayfinding only)	10-12	4
12	57	12.531	15.6	HOV 1-Lane	8-10	2
12	91	0	6.124	HOV 1-Lane	8	2
12	5	0	21.059	HOV (Wayfinding only)	8-12	2
11	5	71.379	72.379	GP (Wayfinding only)	8	0

Typical Details for Lane Conversions to GRN are included in Attachment R.

## 5. ALTERNATIVES

### 5A. Viable Alternatives

#### Alternative 1

The proposed permanent improvements and construction of the temporary Games Route Network by conversion of HOV, HOT and GP lanes during the Olympics on the State Highways System is the viable build alternative with the proposed construction activities listed below:

- Permanent Improvements
  - 11 ATM gantries
  - 12 Dynamic Message Sign (DMS)
  - 69 Lane Management Signs (LMS)
  - 24 Variable Advisory Speed Signs (VASS)

- 256 CCTV Cameras
- Temporary Operational Improvements
  - 210 Centerline Lane-Miles of dedicated lanes
  - 300 Barrier Mounted Roadside Signs
  - 400 Overhead Sign Overlays
  - 1200 Roadside Sign Replacement
  - 320 Lane-Miles of Pavement Striping
  - 10,800 SQFT Pavement Markings
  - 58,000 Channelizers
  - 24/7 Construction and Maintenance Support during Games
  - Removal/Restoration
    - 320 Lane-Miles Pavement Striping
    - 64,512 SQFT Pavement Marking
    - 58,000 Channelizers
    - 400 Overhead Signs Overlays
    - 1200 Roadside Sign Overlays

See Attachments B, C, and R for locations of these improvements.

#### Design Standards Risk Assessment

Information pertaining to the Design Standards Risk Assessment can be found in Attachment K.

After review with Division of Design and DSDD approval authorities, it was decided in PA/ED-phase to include the Design Standards Risk Assessment (DSRA) matrix as an attachment in the PR. Per coordinating with Division of Design for non-standard features of project, the DSRA in PID phase is still valid, and it can be used for this Project Report in PA/ED phase due to no changes in the scope of work. The Design Standard Decision Document (DSDD) will be prepared/approved in the PS&E phase of the project. It is expected that all items listed in the DSRA will be confirmed through the DSDD process during PS&E. Please refer to Attachment K.

To ensure the assets are operational, the selected contractor will perform regular inspections and repairs prior to and during the Games.

#### **5B. Rejected Alternatives**

##### Alternative 2: No-Build Alternative

A no-build alternative will not provide the assets required to ensure an efficient transportation network. This alternative does not meet the purpose and need of this project.

## **6. CONSIDERATIONS REQUIRING DISCUSSION**

### **6A. Hazardous Waste**

Potentially hazardous waste concerns that require special handling and waste management during construction:

1. Material containing hazardous waste concentrations of aerially deposited lead (ADL) from proposed installation of roadside improvement items (new traffic poles).
2. Minimal disturbance of material containing hazardous waste concentrations of aerially deposited lead work from the installation of electrical conduit and temporary stationary mounted construction area signposts at existing unpaved areas.
3. Removal of existing yellow/white traffic stripes and/or pavement markings containing lead (hazardous and non-hazardous).

As specified in the Hazardous Waste Assessment shown in Attachment G, comprehensive site investigation (SI) will be performed during PS&E phase to adequately evaluate/recommend the appropriate soil handling and waste management requirements.

### **6B. Value Analysis**

Value Analysis will be performed during the PS&E phase of the project.

### **6C. Resource Conservation**

This project will deploy corridor wide ATM/ICM concepts which will reduce congestion, fuel consumption and greenhouse emissions. The proposed project will improve traffic flow within the I-405 corridor and other GRN routes by using various strategies to efficiently manage speed along the corridor during recurring and non-recurring congestion. These temporary and permanent improvements will reduce greenhouse gas emissions.

### **6D. Right-of-Way Issues**

All work planned for this project is within the State's existing right of way. There is no Right of Way acquisition. Capital cost includes costs for permit acquisition and potholing.

See Attachment H for the Right-of-Way Data Sheet.

### **6E. Environmental Compliance**

Under the California Environmental Quality Act (CEQA) the project Categorically Exempt (CE) and Statutorily Exempt (SE) per Section 15301 and Section 15272 of the CEQA Guidelines. The CEQA Exemption Form is attached to this PR (see Attachment F).

**6F. Air Quality Conformity**

The project is compatible with the design concept and scope described in the current regional transportation plan lump sum categories. Additionally, the project is not required to demonstrate conformity.

**6G. Title VI Considerations**

This project will not have any impact on the Title VI Considerations. This project is not expected to adversely affect low mobility and minority groups.

**6H. Noise Abatement Decision Report**

This project is not considered a Type I project as defined by 23 CFR 772 and Caltrans' Traffic Noise Analysis Protocol.

**6I. Life-Cycle Cost Analysis**

Life-Cycle Cost Analysis does not apply to this project.

**6J. Reversible Lanes**

This project does not qualify as capacity increase or a major street or highway realignment project. There are no planned reversible lanes considered to complete the project.

**7. OTHER CONSIDERATIONS AS APPROPRIATE**

**7A. Public Hearing Process**

This project falls under Project Development Category 5, and no public hearings are required; however, as a member of LA Metro's Games Mobility Executives, Caltrans meets monthly to coordinate with other agencies and develop the scope of this project. These meetings include municipalities and agencies at the local, state, and federal levels. The details of the improvements and operational considerations will be widely shared.

**7B. Permits**

The proposed improvements and GRN are within Caltrans right of way. However, no federal or state resource agency permits are required for biological resources since this project will not impact sensitive biological resources or jurisdictional waters. Permits from and coordination with the following entities may be required during PS&E:

- California Coastal Commission (CCC) – Coastal Development Permit or Exemption
- Cooperative Agreements
- Other Agreements

**7C. Transportation Management Plan**

The work shall be done in accordance with the lane requirement charts provided in the Maintaining Traffic Specifications. Any change to the scope of work will require a re-evaluation of the TMP Data Sheet. Temporary construction work zone speed limit reduction is recommended when construction activities require lane closures. Due to

the need to maintain throughput on the GRN during the games, additional hours have been added to typical Freeway Service Patrol Support. Portable changeable message signs will be used throughout the region to disseminate key traffic related information.

Transportation Management Plan Data Sheet is included in Attachment J.

#### **7D. Graffiti Control**

This project is in urban areas of Los Angeles, Orange, and San Diego counties therefore may require graffiti, vandalism, and homeless encampment control.

#### **7E. Asset Management**

The proposed Gantry ATM systems align with the 2023 SHSMP in support of reducing Daily Person Hours of Delay (DPHD). DPHD supports Caltrans' goal to enhance and connect the multimodal transportation network aligning with the current Caltrans Strategic Plan and represents a shift of focus from vehicular-based to person-based performance.

Primary Asset Classes - Operational Improvement 20.xx.201.310

**Table 6 Operational Improvement**

<b>Activity Desc</b>	<b>Unit</b>	<b>Pre-Poor</b>	<b>Pre-Fair</b>	<b>Pre-Good</b>	<b>New</b>	<b>Post-Good</b>
Operational Improvements (DPHD)	DPHD	2476				2476
Transportation Systems Management and Operations (TSMO)	Each	3				3
CCTV	Each	N/A	N/A	N/A	256	256
Overhead Sign Structure	Each	N/A	N/A	N/A	11	11
Lane Management Signs	Each	N/A	N/A	N/A	69	69
Variable Advisory Speed Signs	Each	N/A	N/A	N/A	24	24
Dynamic Messaging Signs	Each	N/A	N/A	N/A	12	12

Refer to the following attachments for details:

- Attachment O Safety Performance Measures Report
- Attachment Q SHOPP Performance Output Table

#### **7F. Complete Streets**

This GRN project is on the State Route Highway Freeway where bicycles, pedestrians, and other non-motorized transportation are prohibited. Any work located on local conventional highways is temporary in nature. Therefore, complete street requirements

do not apply to this project.

Complete Streets Decision Document is included in Attachment M.

### **7G. Climate Change Considerations**

Per State Senate Bill 1 Section 2030 (e), Caltrans has developed a GHG Reduction Measures Toolbox for use in project development and for the project development team (PDT) to review, evaluate, and consider all feasible and relevant project measures from Tables 1 and 3 of the Toolbox that the project can commit to minimizing GHG emissions. The applicable measures have been reviewed and will be reviewed and re-examined for applicability as the project progresses. Additionally, as discussed further in Section 10, TDM strategies to reduce congestion, promote alternative modes of transportation, and reduce SOV trips will be developed in coordination with SCAG and LA 2028.

### **7H. Broadband and Advance Technologies**

The broadband and advanced technology requirements are not applicable to this project.

### **7I. State Legislation and Regulatory**

Caltrans legislative affairs division spearheaded the revision to the California Vehicle Code (Section 21655.10) to authorize the use of HOV, High Occupancy Toll, and other lanes during the Games for vehicles displaying a decal, label, or other identifier issued by the Olympic and Paralympic Game organizers, regardless of the number of passengers in the vehicle. This trailer bill was approved on June 27, 2025, into Senate Bill 128 (SB128).

The CA Manual for Uniform Control Devices (MUTCD) 2026 Supplement LA 2028 is hereby adopted as, and shall be, the standard for all temporary traffic control devices to be used during LA 2028 in locations specified by the supplement, under Section 11340.9(h) of California Government Code and Section 21400 of California Vehicle Code.

### **7J. National Legislation and Regulatory**

Under the guidelines of the National Manual for Uniform Control Devices (MUTCD) 11th edition, and in collaboration with the Federal Highway Administration, a Request to Experiment was submitted for Games-related signs and sign panels and plaques, pavement markings, symbols, and changeable message signs. The request is currently under review.

The experimental request is for the use of an unassigned color, light blue, as a background color for traffic sign plaques, traffic sign panels and pavement markings. This will aid recognition and quicker comprehension of the dedicated lanes on GRN roadways to facilitate travel during LA 2028 Games.

### **7K. Community Involvement**

Caltrans plays a key role in community involvement for the LA 2028 Games by engaging local municipalities on local arterial routes to sporting venues, focusing on signage and messaging for dedicated lanes. In future phases of the project, Caltrans, in collaboration with the Southern California Association of Governments (SCAG) will engage in an extensive public outreach campaign for passengers and the freight industry.

Public engagement will include communication in the following areas:

- Community engagement with venue-adjacent residential areas for traffic management
- Spectator and accredited specific communications plan
- Games stakeholder plan
- Trip planning tools & digital wayfinding
- Travel restrictions and available alternative modes

### **7L. Local Route Engagement**

Caltrans works with local municipalities to develop signs and messaging on local streets that will support the dedicated lanes leading to sporting venues, improving the flow of traffic for Games participants.

### **7M. Accessibility and Equity**

Caltrans aims to support accessible multimodal transportation options for all spectators traveling to the Games venues. Caltrans works in coordination with other local agencies to support inter-agency alignment on Games accessibility needs and strategies, identifying priorities for upgrading existing infrastructure to meet compliance standards, and sharing resources for training volunteers and assisting spectators with disabilities.

### **7N. Collaboration and Partnership**

Caltrans works in collaboration with LA 2028, local and regional partners, and other transportation agencies to ensure a successful and well-planned Games transportation system.

### **7O. Transportation Demand Management**

Through influencing travel behavior and optimizing the use of existing infrastructure, TDM can reduce congestion. The primary purpose is to promote the adoption of alternative transportation modes, such as public transport, cycling, and walking, thus reducing single occupancy vehicle (SOV) trips. Through the implementation of strategies like incentives to encourage mode shift to non-SOV options, telecommuting, and flexible work hours, combined with freight efficiency, TDM can help mitigate the impacts of large events like the Games.

The objective of the TDM plan is to:

- Reduce the number of vehicle trips and non-Games related traffic in the LA region by 10%

- Increase frequency on regional rail and other transit lines; and
  - Provide venue specific transportation information and access signs
- GRN will require a public awareness campaign to ensure compliance on lanes and require significant coordination across agencies and consistent messaging to residents and Games spectators to ensure knowledge about streets closures around and alternative travel options to venues.

**8. FUNDING, PROGRAMMING AND ESTIMATE**

**8A. Funding**

The entire SHOPP program (Capital and Support) for this project will be funded with State-only resources due to the proposed use of Job Order Contracting (JOC) for project delivery. The permanent improvements will be funded through SHOPP, while the temporary operational improvements will be funded through the HM Program.

**8B. Programming**

Project programming costs are estimates based on Apr 2025 GRN mapping for the LA 2028 Games. Any changes to the Games and the GRN will affect programming costs reflected below.

**Table 7-1 Fund Source SHOPP 20.XX.201.310**

Fund Source	Fiscal Year Estimate								
	Prior	23/24	24/25	25/26	26/27	27/28	28/29	Future	Total
SHOPP 20.XX.201.310									
Component	In thousands of dollars (\$1,000)								
PA&ED Support				1,018					1,018
PS&E Support				17,517					17,517
Right-of-Way Support				100					100
Construction Support					14,476				14,476
Right-of-Way					422				422
Construction					129,331				129,331
Total				18,635	144,229				162,864

**Table 7-2 Fund Source HM 20.80.400.000**

Fund Source	Fiscal Year Estimate								
	Prior	23/24	24/25	25/26	26/27	27/28	28/29	Future	Total
HM 20.80.400.000									
Component	In thousands of dollars (\$1,000)								
PA&ED Support				132					132
PS&E Support				3,310	1,690				5,000
Right-of-Way Support									
Construction Support						6,109	6,109		12,218
Right-of-Way									
Construction					20,000	19,412	26,274		65,686
Total				3,442	21,690	25,521	32,383		83,036

**Table 7-3 Fund Source Combined SHOPP + HM**

Fund Source	Fiscal Year Estimate									
	Combined	Prior	23/24	24/25	25/26	26/27	27/28	28/29	Future	Total
Component	In thousands of dollars (\$1,000)									
PA&ED Support					1,150					1,150
PS&E Support					20,827	1,690				22,517
Right-of-Way Support					100					100
Construction Support						14,476	6,109	6,109		26,694
Right-of-Way						422				422
Construction						129,331	39,412	26,274		195,017
<b>Total</b>					<b>22,077</b>	<b>145,919</b>	<b>45,521</b>	<b>32,383</b>		<b>245,900</b>

**8C. Estimate**

The combined support cost ratio is 25.8%. An escalation rate of 3.8% was utilized for all capital costs and a rate of 3.7% was used for all Support costs.

The current estimate is included in Attachment E.

**9. DELIVERY SCHEDULE**

The project is scheduled to be delivered in the table below.

**Table 8 Delivery Schedule (for Job Order Contract Delivery)**

Project Milestones		Milestone Date (Month/Day/Year)	Milestone Designation (Target/Actual)
APPROVE PID	M010	08/15/2025	A
PROGRAM PROJECT	M015	10/17/2025	A
PA & ED	M200	01/30/2025	A
BEGIN STRUCTURE	M215	02/01/2026	A
AWARD (Master Agreement)	M495	09/29/2026	T
PS&E TO DOE	M377	10/26/2026	T
DRAFT STRUCTURES PS&E	M378	10/13/2026	T
PROJECT PS&E	M380	10/13/2026	T
RIGHT OF WAY CERTIFICATION	M410	12/14/2026	T
READY TO LIST	M460	7/13/2026	T
FUND ALLOCATION	M470	5/14/2026	T
HEADQUARTERS ADVERTISE (IFB)	M480	07/13/2026	T
APPROVE CONTRACT	M500	12/14/2026	T
CONTRACT ACCEPTANCE	M600	04/02/2029	T
END PROJECT EXPENDITURES	M800	04/01/2030	T
FINAL PROJECT CLOSEOUT	M900	04/01/2031	T

The project will be delivered by an alternative delivery method. During PS&E, a Job Order Contract (JOC) will be developed for construction and maintenance of the GRN prior to, during, and after the LA 2028 Games. A Job Order Contract (JOC) can begin HQ engagement and advertisement, M480, at 60% Design and awarded, M495, prior to Ready to List (RTL), M460. The Caltrans Office of Innovative Delivery is assisting in development of the JOC and adhering to requirements as outlined in SB146.

## 10. RISKS

The most significant risks of this project are:

- As a result of changes in the demand and supply of materials during the Construction Phase, equipment costs, labor rates, and material price increases may occur, which would lead to increased project costs.
- Low vendor pool due to increased construction activity in the region and among others including the county and local m causing limited availability of contractors for this work and contracting vehicle (job order contract).
- Inability to purchase all necessary state furnished materials for construction due to unfunded state budget change proposal (BCP).
- Scope changes due to changing operational needs.

An update to the Risk Register certified on 01/07/2026 during the PA/ED phase, is in Attachment L.

## 11. EXTERNAL AGENCY COORDINATION

The project requires the following coordination:

### Federal Highway Administration (FHWA)

The project is coordinating with FHWA for a Request to Experiment (RTE) with the CA MUTCD 11th edition. This experiment will allow the use of custom signage and colors (LA 2028 on light blue background) on the State Highway System to identify the GRN lanes for all users of the facility. The RTE is expected to be approved Summer 2025.

### California Highway Patrol (CHP)

The CHP are active members of the LA 2028 Games Mobility Executives Committee. CHP serves with Caltrans are co-chairs and representatives on the National Special Security Event (NSSE) Transportation subcommittee – established by the United States Secret Service. To ensure the safety and enforcement of the event and use of the lanes, CHP provides expertise in planning and will provide enforcement of the dedicated lanes during the Games.

Los Angeles County Metropolitan Transportation Authority (LA Metro)

LA Metro is a key partner in transportation planning, working with Caltrans and other agencies to ensure smooth mobility during the Games.

SCAG

The Southern California Association of Governments (SCAG) is leading the planning, coordination and implementation of regional Transportation Demand Management (TDM) for both freight and passenger vehicles. The LA 2028 goal is to remove 10% of vehicle traffic from the system to ensure unimpeded flow on the GRN, as used in prior Games. SCAG will collaborate with Caltrans and other municipalities in developing communication strategies and extensive public outreach campaigns.

The project requires additional coordination with:

California State Parks  
California State Historic Preservation Office (SHPO)  
California State Lands Commission  
California Public Resources Code Division 6  
Permits

Coordination with California Coastal Commission (CCC) may be required as detailed in Section 7B.

Local Agency

Los Angeles County Metropolitan Transportation Authority  
Orange County Transportation Authority  
City of Anaheim  
City of Arcadia  
City of Carson  
City of El Monte  
City of Inglewood  
City of Long Beach  
City of Los Angeles  
City of Irvine  
City of Pasadena  
City of Pomona  
City of Rosemead  
City of San Clemente  
City of San Dimas  
City of South El Monte  
County of Los Angeles  
County of Orange  
County of San Diego

Railroads

Los Angeles County Metropolitan Transportation Authority  
Southern California Regional Rail Authority (SCRRA)

Other

United States Secret Service

**12. PROJECT REVIEWS**

Scoping team field review \_\_\_\_\_ Date 02/25/2025  
Scoping team field review attendance roster below:  
2028 Games Caltrans District Liaison Tasha Higgins  
Chief, Traffic Design Amir Elshareif  
District Traffic Manager-Transportation Management Plan Julio Valdez  
Project manager Manny T. Marcos  
Planning Division Emily Han  
District Maintenance \_\_\_\_\_ *Shawn Enjily* \_\_\_\_\_ Date 12/16/2025  
Project Manager \_\_\_\_\_ *Manny Marcos* \_\_\_\_\_ Date 12/11/2025  
Transportation Safety and Operations \_\_\_\_\_ *Siew Mei Tan* \_\_\_\_\_ Date 10/22//2025  
District Design Liaison \_\_\_\_\_ *Susan Chau* \_\_\_\_\_ Date 12/05/2025  
District Quality Review \_\_\_\_\_ *Project Development Team* \_\_\_\_\_ Date 11/24/2025

### 13. PROJECT PERSONNEL

Following individuals may be contacted for the information pertaining to this PR

#### Caltrans District 7

**Table 9 – Caltrans District 7 Project Personnel**

Name	Title	Division/Office	Phone Number
Tasha Higgins	Principal Transportation Engineer	2028 Games/Traffic Operations	213-259-7259
Manny T Marcos	Project Manager	2028 Games/Traffic Operations	213-218-8974
Ryan Hudson	Assistant Project Manager	2028 Games/Traffic Operations	213-266-3988
Safa Abdalla	Project Management Assistant	2028 Games/Traffic Operations	213-626-9752
Chris Burlaza	Supervising Transportation Engineer	Office of Project Special Studies	213-598-0588
Michael Zwissler	Senior Transportation Engineer/PID	Office of Project Special Studies	213-269-1122
Roger Yoh	Supervising Transportation Engineer	Asset Management	213-269-1427
Siew Mei Tan	Supervising Transportation Engineer	Office of Mobility Programs	213-269-1251
Amir Elsharief	Supervising Transportation Engineer	Office of Traffic Design	213-793-9253
Anh D Nguyen	Senior Transportation Engineer	Office of Traffic Design	213-269-3994
Nima Haddadi	Senior Transportation Engineer	Office of Traffic Design	213-910-2123
Jennifer Nguyen	Project Engineer	Office of Traffic Design	213-269-1780
Isaias Pedroza	Design Engineer	Office of Traffic Design	213-269-1733
Oswald Elizondo	Senior Transportation Engineer	Office of ITS	213-266-3994
Thoa Le	Senior Env Scientist (Supervisory)	Office of Project Coord	213-269-0238
Elaine Lee	Associate Environmental Planner	Office of Project Coord	213-216-6986
Joel Magana	Supervising Bridge Engineer	HQ-Structures	916-952-4345
Wayne Lee	Supervising R/W Agent	Office of Project Coord	213-264-9044
Kenneth Young	Supervising Transportation Engineer	Office of District TM	213-435-7916
Shao-Chiang Liu	Senior Transportation Engineer	Stormwater Chief	213-269-1662
Hammer Sui	Assistant Project Manager	Division of Maintenance	213-598-9811
Shawn Silva	Region Manager	Division of Maintenance	213-479-9131

## **14. ATTACHMENTS**

- A. Vicinity map
- B. CCTV Locations
- C. Gantry Locations
- D. Sign Gantry Typical Cross Section
- E. Cost Estimate
- F. Environmental Document
- G. Hazardous Waste Assessment
- H. Right of Way Data Sheet
- I. Storm Water Data Report-signed cover sheet
- J. Transportation Management Plan Data Sheet
- K. Design Standard Risk Analysis
- L. Risk Register
- M. Complete Streets Decision Document
- N. Traffic Analysis Memo
- O. Safety Performance Measure
- P. Operational Coordination for GRN
- Q. SHOPP Performance Output
- R. Typical Details for Lane Conversions To GRN

**ATTACHMENT A**  
**VICINITY MAP**

# STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION PROJECT PLANS FOR CONSTRUCTION ON STATE HIGHWAY

## INDEX OF PLANS

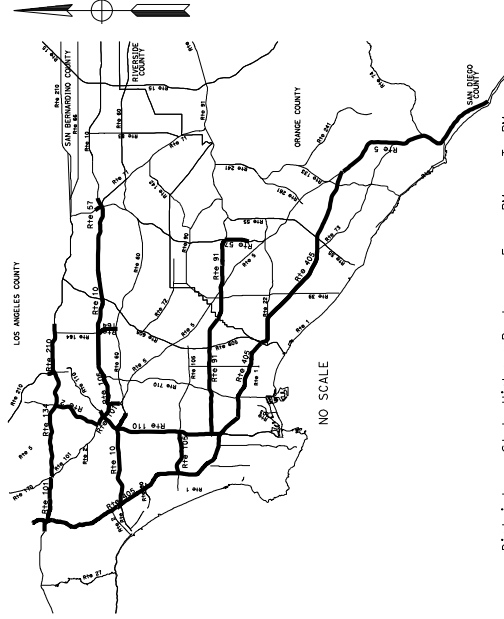
SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
X-X	TYPICAL CROSS SECTIONS
X	KEY MAP AND LINE INDEX
XX-XX	LAYOUTS
XX-XX	PROFILES AND SUPERELEVATION DIAGRAMS
XX-XX	CONSTRUCTION DETAILS
XX-XX	TEMPORARY WATER POLLUTION CONTROL PLANS
XX-XX	CONTOUR GRADING PLANS
XX-XX	DRAINAGE PLANS, PROFILES, DETAILS AND QUANTITIES
XX-XX	UTILITY PLANS
XX-XX	CONSTRUCTION AREA SIGNS
XX-XX	MOTORIST INFORMATION PLANS
XX-XX	STAGE CONSTRUCTION PLANS
XX-XX	TRAFFIC HANDLING PLANS AND QUANTITIES
XX-XX	PAVEMENT DELINEATION PLANS, DETAILS AND QUANTITIES
XX-XX	SIGN PLANS, DETAILS AND QUANTITIES
XX-XX	SUMMARY OF QUANTITIES
XX-XX	SOUND WALL PLANS
XX-XX	LANDSCAPE PLANS
XX-XX	ELECTRICAL PLANS
XX-XX	REVISED STANDARD PLANS

## STRUCTURE PLANS

XX-XXXX	NAME OF BRIDGE, BR No. XX-XXXX
XXX-XXX	NAME OF BRIDGE, BR No. XX-XXXX

THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 202X



District	State Highway Route	From PM	To PM
7	2	18,839	12,776
7	10	21,838	43,666
7	10	5,492	16,976
7	91	7,352	20,531
7	91	2,838	0+117
7	101	18,624	17,096
7	101	7,812	7,812
7	101	27,096	8,818
7	110	24,535	0
7	134	5,605	13,327
7	164	3,116	3,116
7	210	24,756	30,619
7	405	41,378	0
7	105	16,976	21,838
1	5	27,096	71,379
12	57	15,16	12,531
12	91	0	6,124
12	405	24,165	0

BORDER LAST REVISED 9/17/2018 | CALTRANS WEB SITE IS: [HTTP://WWW.DOT.CA.GOV/](http://www.dot.ca.gov/) | RELATIVE HORISONTAL SCALE 1"=150' HORIZONTAL DISTANCES | 0 1 2 3 | USERNAME -> USER | DGN FILE -> L283\_Ug\_Inty\_Map.dgn

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	LA, ORG, SD	Var	Var	-	-



LOCATION MAP

PROJECT ENGINEER REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_

PLANS APPROVAL DATE \_\_\_\_\_

OFF SEAL OR SIGNATURE SHALL NOT BE VALID UNLESS IT IS THE COMPETENTNESS OF CALIFORNIA REGISTERED CIVIL ENGINEER OF THIS PLAN SHEET.

REGISTRATION No. \_\_\_\_\_ STATE OF CALIFORNIA

CONTRACT No. **00-000004**

PROJECT ID **0000000000**

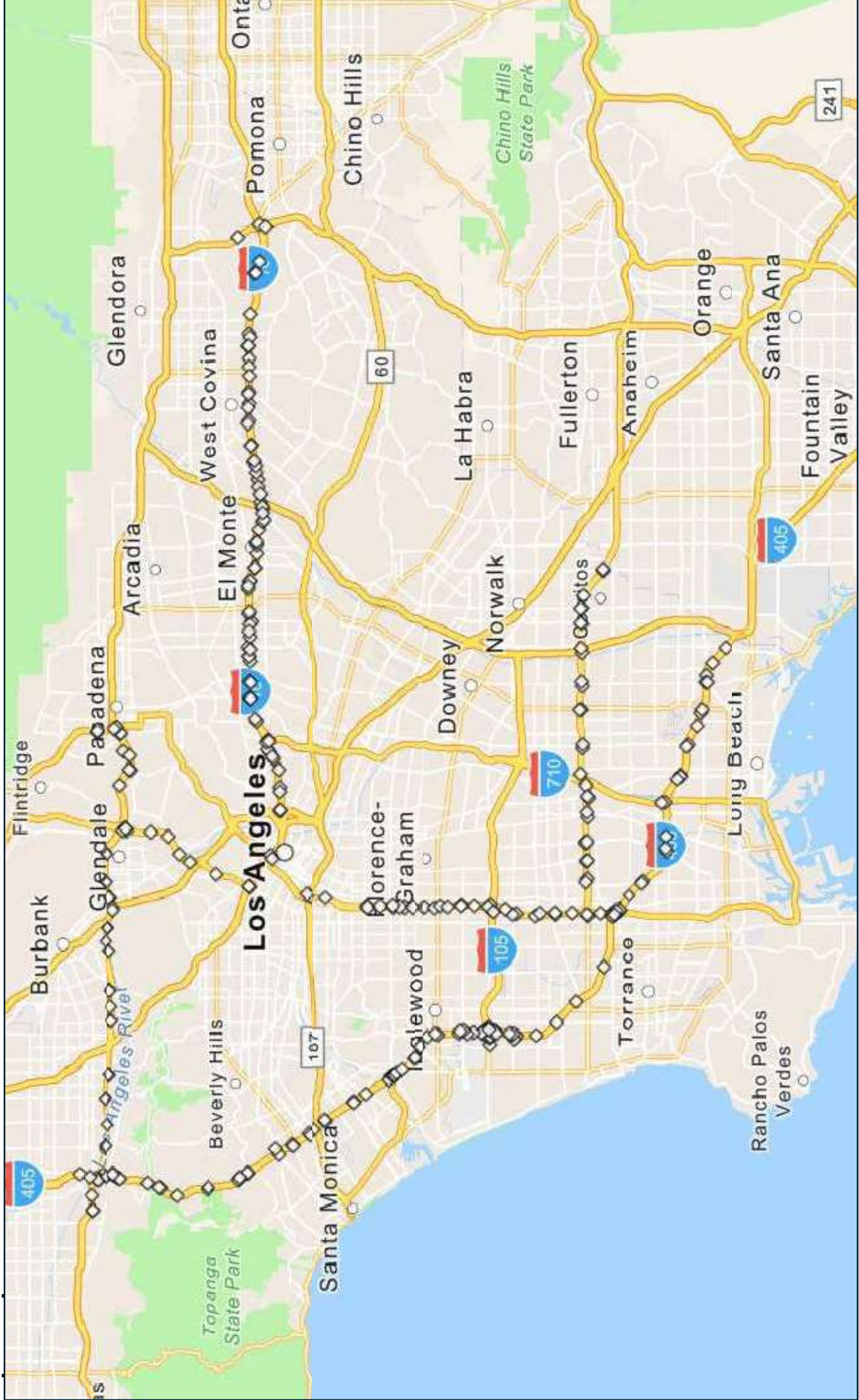
UNIT 0000 PROJECT NUMBER & PHASE 0000000001

DATE PLOTTED => 30-MAY-2025

DESIGN MANAGER	PROJECT MANAGER
----------------	-----------------

**ATTACHMENT B**  
**CCTV LOCATION**

# Game Route Network (GRN) CCTV Locations



E#	Location	Route	NAME	Latitude	Longitude	Comment
1	3	2	Proposed CCTV 069	34.091252	-118.258234	1
2	4	2	Proposed CCTV 072	34.107083	-118.249715	1
3	5	2	Proposed CCTV 073	34.113266	-118.244286	1
4	6	2	Proposed CCTV 075	34.119803	-118.231819	1
5	8	2	Proposed CCTV 077	34.129662	-118.228880	1
6	9	2	WB 134 to SB 2 connector	34.143636	-118.227781	1
7	17	10	EB ON FROM SB RTE 5	34.054308	-118.213324	1
8	18	10	EB ON FROM MARENGO/SOTO ST	34.054606	-118.200756	1
9	19	10	EB OFF TO RTE 710	34.059108	-118.176141	1
10	22	10	EB ON FROM EASTERN AVE	34.060363	-118.173212	1
11	23	10	WB ON FROM CAMPUS RD	34.061641	-118.171354	1
12	24	10	WB ON FROM RTE 710/WINTHROP	34.062179	-118.166377	1
13	25	10	Proposed CCTV 048	34.061280	-118.164731	1
14	26	10	EB OFF TO FREMONT ST	34.067832	-118.151695	1
15	28	10	EB OFF TO ATLANTIC BLVD	34.071228	-118.135828	1
16	29	10	WO ATLANTIC BLVD	34.071817	-118.135373	1
17	31	10	EB OFF TO GARFIELD AVE	34.071359	-118.124664	1
18	32	10	WB ON FROM GARFIELD AVE	34.071866	-118.123839	1
19	33	10	EB OFF TO NEW AVE	34.071530	-118.109736	1
20	34	10	WB OFF TO NEW AVE	34.072241	-118.106389	1
21	35	10	NEW AVE	34.072287	-118.106222	1
22	36	10	EB OFF TO DEL MAR AVE	34.071603	-118.101436	1
23	37	10	WB ON FROM SB DEL MAR AVE	34.072842	-118.099742	1
24	38	10	EB OFF TO SAN GABRIEL BLVD	34.071779	-118.092733	1
25	39	10	WB OFF TO SAN GABRIEL BLVD	34.072276	-118.088968	1
26	40	10	EB OFF TO WALNUT GROVE AVE	34.071830	-118.084168	1
27	42	10	W/O ROSEMEAD BLVD	34.072486	-118.077002	1
28	43	10	EB OFF TO ROSEMEAD BLVD	34.071934	-118.075395	1
29	44	10	WB ON FROM TEMPLE CITY BLVD	34.072713	-118.059333	1
30	46	10	EB OFF TO BALDWIN AVE	34.072170	-118.054280	1
31	47	10	EB ON FROM BALDWIN AVE	34.071541	-118.053635	1
32	50	10	EB OFF TO SB PECK RD	34.067750	-118.034816	1
33	51	10	EB OFF TO NB PECK RD	34.067714	-118.029287	1
34	52	10	WB ON FROM WB VALLEY BLVD	34.068435	-118.027223	1
35	54	10	WB OFF TO EXLINE/ STEWART	34.066579	-118.018089	1
36	56	10	EB ON FROM GARVEY AVE	34.063613	-118.011133	1
37	57	10	WB OFF TO GARVEY AVE	34.064475	-118.006422	1
38	60	10	WB RTE 10 - RTE 605	34.065532	-117.998679	1
39	61	10	EB OFF TO BESS AVE/FRAZIER	34.065781	-117.993293	1
40	62	10	WB OFF TO BESS AVE/FRAZIER	34.066863	-117.988473	1
41	63	10	EB OFF TO BALDWIN PARK BLVD	34.067127	-117.983302	1
42	65	10	EB OFF TO FRANCISQUITO AVE	34.068368	-117.973868	1
43	70	10	WB ON FROM PACIFIC AVE	34.072949	-117.944307	1
44	71	10	WB OFF TO PACIFIC AVE	34.072455	-117.942132	1
45	72	10	WB OFF TO SUNSET AVE	34.072670	-117.933158	1
46	73	10	EB OFF TO VINCENT AVE	34.072099	-117.930090	1
47	74	10	WB OFF TO VINCENT AVE	34.072523	-117.923666	1
48	75	10	Proposed CCTV 051	34.072265	-117.922024	1
49	76	10	EB OFF TO AZUSA AVE	34.071993	-117.911005	1
50	77	10	WB OFF TO AZUSA AVE	34.072352	-117.904567	1
51	78	10	Proposed CCTV 052	34.072088	-117.898849	1
52	79	10	WB ON FROM SB CITRUS ST	34.072793	-117.890393	1
53	80	10	WB ON FROM NB CITRUS ST	34.072634	-117.889945	1
54	81	10	EB OFF TO BARRANCA ST	34.071725	-117.884227	1
55	82	10	WB ON FROM SB BARRANCA ST	34.072292	-117.881572	1
56	83	10	Proposed CCTV 053	34.071519	-117.867929	1
57	84	10	EB ON FROM VIA VERDE	34.068349	-117.839330	1
58	85	10	WB ON FROM VIA VERDE	34.069268	-117.839507	1
59	86	10	Proposed CCTV 055	34.066187	-117.831515	1
60	87	57	WB 10 to SB 57 connector	34.066522	-117.805555	1

61	88	57	EB 10 to SB 57 connector	34.062958	-117.807164	1
62	89	57	VIA VERDE AVE	34.078657	-117.814258	1
63	98	91	EB on-ramp from SB 110	33.872658	-118.287103	1
64	99	91	WB On-ramp from SB 110	33.873255	-118.285799	1
65	100	91	Avalon Bl On/Off Ramp	33.873957	-118.263662	1
66	101	91	Avalon Bl On/Off Ramp	33.873084	-118.261162	1
67	102	91	WB on-ramp from Central Ave	33.873875	-118.249003	1
68	103	91	EB on-ramp from Central Ave	33.873003	-118.248405	1
69	104	91	WB on-ramp from Wilmington Ave	33.874208	-118.236391	1
70	105	91	EB on-ramp from Wilmington Ave	33.873216	-118.235746	1
71	106	91	EB ON FROM ALAMEDA ST	33.873203	-118.214794	1
72	107	91	EB OFF TO ALAMEDA ST	33.872881	-118.218203	1
73	108	91	EB OFF TO LONG BEACH BL	33.872329	-118.204772	1
74	109	91	WB ON FRM LONG BEACH BL	33.873123	-118.203617	1
75	110	91	EB OFF TO RTE 710	33.873903	-118.196154	1
76	111	91	WB OFF TO RTE 710	33.877134	-118.188692	1
77	112	91	EB ON CHERRY AVE	33.875695	-118.167414	1
78	113	91	WB OFF CHERRY AVE	33.875901	-118.169924	1
79	114	91	WB ON FR NB 19/LAKEWOOD	33.877521	-118.143798	1
80	115	91	WB ON FR SB 19/LAKEWOOD	33.876579	-118.143543	1
81	116	91	WB ON BELLFLOWER BLVD	33.876462	-118.123597	1
82	117	91	EB OFF BELLFLOWER BLVD	33.875941	-118.126701	1
83	118	91	EB on-ramp, from SB Rte 605	33.876125	-118.104017	1
84	119	91	WB On-ramp from NB Rte 605	33.876691	-118.100791	1
85	120	91	EB on-ramp from sb Pioneer Blvd	33.876186	-118.083401	1
86	121	91	WB on-ramp from SB Pioneer Blvd	33.876913	-118.082610	1
87	122	91	EB On-ramp from NB Norwalk Blvd	33.876104	-118.072296	1
88	123	91	WB on-ramp from SB Norwalk Blvd	33.876966	-118.072876	1
89	124	91	Proposed CCTV 119	33.875221	-118.063929	1
90	125	91	EB Off-ramp to Carmenita Rd	33.863881	-118.046920	1
91	126	91	WB Off-ramp to Carmenita Rd	33.864012	-118.045609	1
92	127	101	Grand Avenue Off Ramp	34.059922	-118.244873	1
93	128	101	Grand Avenue On Ramp	34.059078	-118.247373	1
94	129	101	Alvarado Street On Ramp	34.072467	-118.266653	1
95	130	101	Alvarado Street Off Ramp	34.071667	-118.267189	1
96	131	101	NB ON LAUREL CANYON BL	34.154792	-118.397772	1
97	132	101	SB OFFLAUREL CANYON BL	34.154186	-118.398128	1
98	133	101	NB ON COLDWATER CANYON	34.157065	-118.414678	1
99	134	101	SB OFF COLDWATER CANYON	34.156403	-118.414458	1
100	135	101	SB OFF WOODMAN AVE	34.155385	-118.433045	1
101	136	101	NB ON WOODMAN AVE	34.155922	-118.432558	1
102	137	101	NB OFFVAN NUYS BLVD	34.157018	-118.447743	1
103	138	101	SB ON VAN NUYS BLVD	34.156170	-118.447587	1
104	139	101	SB 405 to SB 101 connector	34.161270	-118.470825	1
105	140	101	NB 405 to SB 101 connector	34.158820	-118.467757	1
106	142	101	Hayvenhurst Av On Ramp 1	34.164826	-118.492311	1
107	144	105	NB 405 to EB 105 connector	33.927544	-118.367388	1
108	145	105	SB 405 to EB 105 connector	33.934221	-118.368890	1
109	146	105	Prairie Ave On Ramp 1	33.931211	-118.347983	1
110	147	105	Prairie Ave Off Ramp	33.932831	-118.345923	1
111	148	105	WB ON FR NB CRENSHAW BLD	33.925008	-118.326549	1
112	150	105	EBOFF TO VERMONT AVE	33.928334	-118.295130	1
113	152	105	Proposed CCTV 081	33.925490	-118.317264	1
114	153	105	SB 110 to WB 105 connector	33.931239	-118.280571	1
115	154	105	NB 110 to WB 105 connector	33.929868	-118.279047	1
116	155	110	SB 405 to SB 110 connector	33.856734	-118.285999	1
117	156	110	SB 405 to NB 110 connector	33.854649	-118.283854	1
118	157	110	NB 405 to SB 110 connector	33.858836	-118.285635	1
119	158	110	NB 405 to NB 110 connector	33.857411	-118.283725	1
120	162	110	Proposed CCTV 036	33.881852	-118.284959	1
121	163	110	NB OFF TO ROSECRANS AVE	33.900533	-118.285240	1

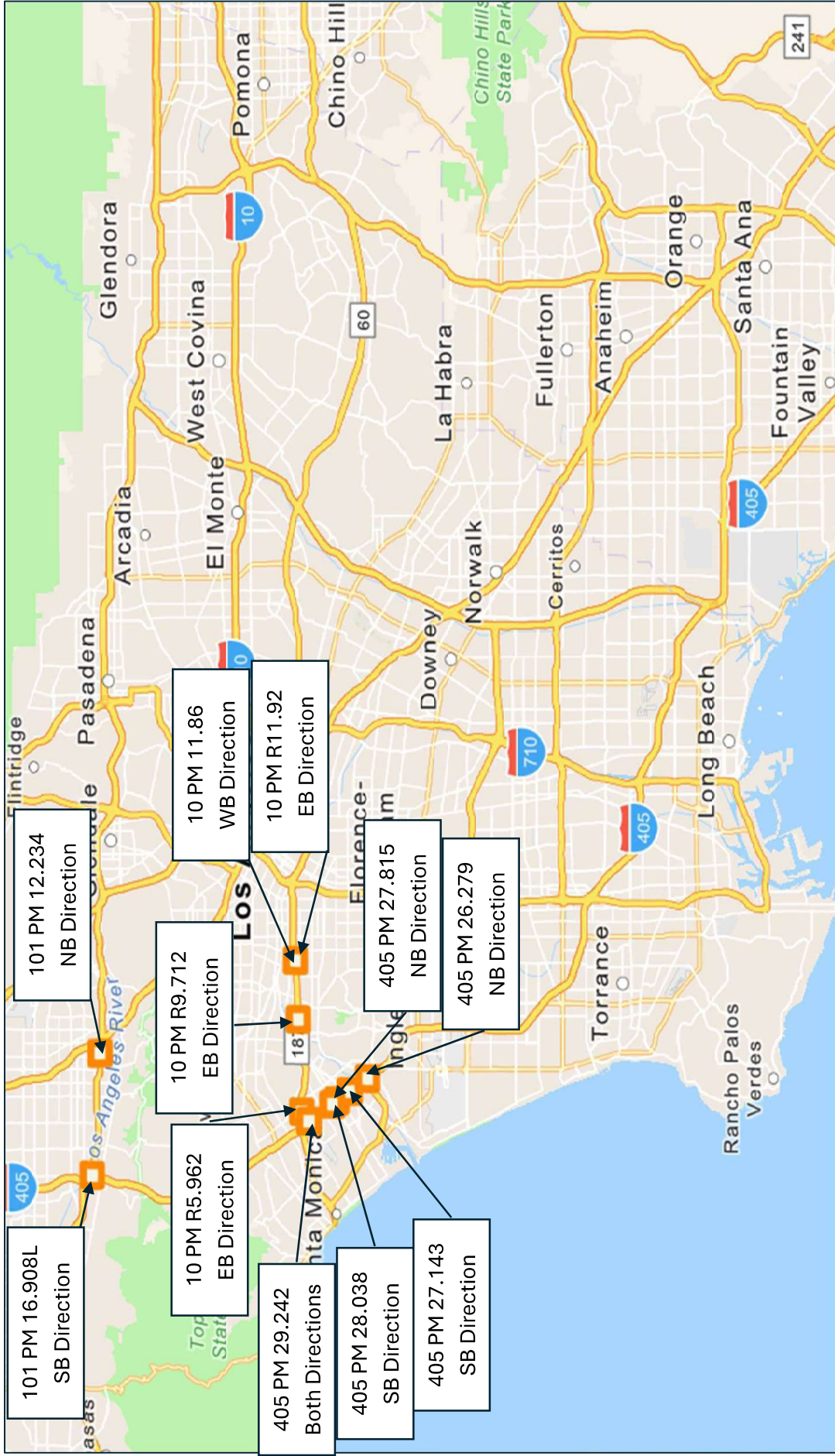
122	164	110	SB OFF TO ROSECRANS AVE	33.903125	-118.287129	1
123	165	110	SB OFF TO EL SEGUNDO BL	33.917092	-118.286016	1
124	166	110	NB OFF TO EL SEGUNDO BL	33.914880	-118.285437	1
125	167	110	Proposed CCTV 038	33.921318	-118.282212	1
126	168	110	EB 105 to SB 110 connector	33.928105	-118.284133	1
127	169	110	EB 105 to NB 110 connector	33.930277	-118.280914	1
128	170	110	Proposed CCTV 039	33.939122	-118.279895	1
129	173	110	Proposed CCTV 040	33.954359	-118.280753	1
130	174	110	NB OFF TO MANCHESTER AVE	33.958655	-118.280002	1
131	176	110	Proposed CCTV 041	33.967707	-118.280882	1
132	178	110	SB ON FLORENCE AVE	33.969700	-118.281195	1
133	179	110	SB ON GAGE AVE	33.980920	-118.281156	1
134	180	110	SB OFF GAGE AVE	33.983789	-118.280907	1
135	181	110	NB OFF TO SLAUSON AVE	33.987751	-118.280002	1
136	183	110	Proposed CCTV 043	33.995073	-118.280538	1
137	185	110	NB OFF VERNON AVE	34.002513	-118.280710	1
138	189	134	EB on-ramp from Cahuenga Blvd	34.152813	-118.360596	1
139	190	134	WB off-ramp to Cahuenga Blvd	34.153409	-118.360195	1
140	191	134	Proposed CCTV 064	34.153459	-118.350395	1
141	192	134	WB off-ramp to Alameda Ave	34.153960	-118.338650	1
142	194	134	EB off-ramp to Forest Lawn Dr	34.154397	-118.312165	1
143	195	134	WB on-ramp from Forest Lawn Dr	34.155127	-118.311722	1
144	196	134	Proposed CCTV 065	34.156407	-118.304733	1
145	197	134	EB off-ramp to Riverside Dr	34.155228	-118.295364	1
146	200	134	EB off-ramp to SB RTE 5	34.151836	-118.283133	1
147	202	134	EB off-ramp to San Fernando Rd	34.153737	-118.274512	1
148	204	134	EB on-ramp from Pacific Ave	34.155898	-118.263672	1
149	206	134	EB off-ramp to Glendale Ave	34.155780	-118.244206	1
150	207	134	NB 2 to EB 134 connector	34.144222	-118.226364	1
151	208	134	EB off-ramp to RTE 2	34.145892	-118.227790	1
152	209	134	EB on-ramp from EB RTE 2	34.144790	-118.225823	1
153	210	134	Proposed CCTV 067	34.147706	-118.196071	1
154	212	134	WB on-ramp from Figueroa St	34.141362	-118.185559	1
155	213	134	Proposed CCTV 068	34.141952	-118.175257	1
156	214	134	WB off-ramp to Orange Grove Blvd	34.147805	-118.160258	1
157	216	134	SB 210 to WB 134 connector	34.151076	-118.156734	1
158	217	210	Mountain Street Off Ramp	34.162148	-118.157959	1
159	218	210	Mountain Street On Ramp	34.162201	-118.159022	1
160	219	210	EB 134 to NB 210 connector	34.149425	-118.155533	1
161	220	405	Proposed CCTV 001	33.791400	-118.100256	1
162	221	405	Proposed CCTV 002	33.799175	-118.110899	1
163	222	405	Proposed CCTV 003	33.802741	-118.119654	1
164	223	405	NB OFF TO BELLFLOWER	33.803104	-118.124429	1
165	225	405	SB ON FR SB LAKEWOOD	33.805078	-118.143007	1
166	226	405	SBOFF TO LAKEWOOD	33.805935	-118.145392	1
167	227	405	Proposed CCTV 005	33.807947	-118.154930	1
168	228	405	NBON FROM CHERRY AV	33.814291	-118.169353	1
169	229	405	SBOFF TO CHERRY AV	33.813173	-118.167855	1
170	230	405	Proposed CCTV 007	33.819464	-118.191751	1
171	231	405	NB OFF WARDLOW/LONG BEACH	33.817685	-118.189034	1
172	232	405	SB OFF TO WARDLOW/LONG BEACH	33.817472	-118.189934	1
173	233	405	NBON FR RTE 710	33.828561	-118.208416	1
174	234	405	SB OFF TO NB 710	33.826302	-118.208128	1
175	235	405	Proposed CCTV 010	33.825953	-118.231791	1
176	236	405	SB ON WILMINGTON AVE	33.825635	-118.242201	1
177	237	405	NB ON WILMINGTON AVE	33.826163	-118.239972	1
178	238	405	SB OFF AVALON BLVD	33.840047	-118.264524	1
179	239	405	NB ON AVALON BLVD	33.839391	-118.263055	1
180	240	405	Proposed CCTV 012	33.848161	-118.272861	1
181	241	405	NB 110 to SB 405 connector	33.854114	-118.282716	1
182	242	405	NB 110 to NB 405 connector	33.856288	-118.283424	1

183	243	405	SB 110 to NB 405 connector	33.858765	-118.287287	1
184	244	405	SB 110 to SB 405 connector	33.857411	-118.285999	1
185	245	405	Proposed CCTV 012	33.863450	-118.322772	1
186	246	405	Proposed CCTV 013	33.879520	-118.346890	1
187	247	405	Proposed CCTV 014	33.890849	-118.361310	1
188	248	405	Proposed CCTV 015	33.902640	-118.370537	1
189	249	405	SBON FR SB COLLECTOR	33.914683	-118.370612	1
190	250	405	SB ON FR WB EL SEGUNDO	33.916226	-118.373122	1
191	251	405	SB OFF TO EL SEGUNDO BL	33.916297	-118.370987	1
192	252	405	NB ON WB EL SEGUNDO BL	33.916528	-118.369320	1
193	253	405	Proposed CCTV 016	33.917919	-118.369979	1
194	254	405	NB ON FR EB EL SEGUNDO	33.919054	-118.369045	1
195	255	405	NBOFF TO RTE 105	33.926921	-118.367518	1
196	256	405	SBON FR ROUTE 105	33.926442	-118.369162	1
197	257	405	NBOFF TO IMPERIAL HWY	33.930684	-118.366390	1
198	258	405	WB 105 to SB 405 connector	33.927901	-118.369169	1
199	259	405	SBON FR LACIENAGA-SOUTH	33.929026	-118.369730	1
200	260	405	EB OFF TO SB/NB RTE 405	33.930061	-118.376733	1
201	261	405	WBON FR SB/NB RTE 405	33.930610	-118.372000	1
202	262	405	NBOFF TO IMPERIAL HWY	33.930684	-118.366390	1
203	263	405	EBON FR NB ROUTE 405	33.930798	-118.364666	1
204	264	405	SBON FR LACIENAGA-NORTH	33.932655	-118.369757	1
205	265	405	NBON FR WB ROUTE 105	33.931881	-118.366391	1
206	266	405	NBON FR EB ROUTE 105	33.932100	-118.366783	1
207	267	405	EBON FR IMPERIAL HWY	33.929838	-118.371112	1
208	268	405	WB OFF TO IMPERIAL HWY	33.929838	-118.371095	1
209	269	405	WB 105 to NB 405 connector	33.933989	-118.367882	1
210	270	405	SBOFF TO RTE 105	33.934994	-118.368815	1
211	271	405	Proposed CCTV 017	33.939533	-118.368477	1
212	272	405	Century BI On/Off Ramp 2	33.943053	-118.369338	1
213	273	405	Century BI On/Off Ramp	33.945189	-118.367063	1
214	274	405	NBON FR CENTURY BLVD	33.947154	-118.367404	1
215	275	405	Century BI On/Off Ramp 1	33.947966	-118.368941	1
216	276	405	Manchester BI On Ramp	33.959865	-118.369982	1
217	277	405	Manchester BI On/Off Ramp	33.961635	-118.369295	1
218	278	405	Manchester BI Off Ramp	33.965951	-118.371269	1
219	279	405	SB ON LA TIJERA BLVD	33.971440	-118.378112	1
220	280	405	SB OFF LA TIJERA BLVD	33.971613	-118.378473	1
221	281	405	NB ON FR H HUGHES PKWY	33.974854	-118.385817	1
222	282	405	NB OFF TO H HUGHES PKWY	33.975037	-118.386583	1
223	283	405	NB OFF TO NB SEPULVEDA	33.982301	-118.394251	1
224	284	405	NB OFF TO WB RTE 90	33.985664	-118.396825	1
225	285	405	Proposed CCTV 019	33.986731	-118.398346	1
226	286	405	SB ON JEFFERSON BLVD	33.987166	-118.399237	1
227	287	405	NB OFF JEFFERSON BLVD	33.987686	-118.398546	1
228	288	405	NB ON FR EB RTE 90	33.989128	-118.399226	1
229	289	405	SB OFF TO RTE 90	33.989964	-118.401587	1
230	290	405	Proposed CCTV 021	34.003098	-118.411263	1
231	291	405	NBOFF VENICE/WASHINGTON	34.010173	-118.416460	1
232	292	405	SBOFF VENICE/WASHINGTON	34.010159	-118.417555	1
233	293	405	NB OFF NATIONAL	34.026544	-118.430472	1
234	294	405	NB OFF NATIONAL	34.026934	-118.429448	1
235	295	405	ON RAMP-RT DUM NB ON FR WBRTE 10	34.031348	-118.435690	1
236	296	405	DUM SB ON FR EB RTE 10	34.031333	-118.437153	1
237	297	405	Proposed CCTV 022	34.033511	-118.436283	1
238	299	405	NB ON FR OLYMPIC/PICO	34.037782	-118.438274	1
239	300	405	SB OFF TO RTE 2	34.047017	-118.447388	1
240	301	405	NB ON FR RTE 2	34.047344	-118.446356	1
241	302	405	Wilshire BI On/Off Ramp	34.057255	-118.449520	1
242	303	405	Wilshire BI On/Off Ramp	34.055064	-118.453366	1
243	304	405	Sunset BI On/Off Ramp	34.073075	-118.466107	1

244	308	405	Proposed CCTV 023	34.078345	-118.471087	1
245	309	405	SB ON SEPULVEDA&GETTY	34.096520	-118.477559	1
246	310	405	NB ON SEPULVEDA&GETTY	34.096218	-118.476093	1
247	311	405	Proposed CCTV 025	34.114559	-118.482084	1
248	314	405	Proposed CCTV 027	34.131579	-118.473273	1
249	316	405	SB OFF VALLEY VISTA/SEP	34.148771	-118.469949	1
250	317	405	Proposed CCTV 029	34.150333	-118.468553	1
251	323	405	SB 101 to SB 405 connector	34.161714	-118.471597	1
252	324	405	NB 101 to SB 405 connector	34.162690	-118.470289	1
253		110	NB Off to 3rd St	34.055761	-118.255714	1
254		110	NB/SB From 5th Street	34.056127	-118.255392	1
255		110	NB/SB From 5th Street	34.052851	-118.258073	1
256		110	SB Off to 4th St	34.054151	-118.256308	1

**ATTACHMENT C**  
**GANTRY LOCATION**

# Game Route Network (GRN) Gantry Locations (11)



Legend:

Orange square icon: GRN Gantry

APPROXIMATE LOCATIONS

Route	Direction	PM	Description of Location	VASS	LMS	DMS	GP lanes	HOV/T
405	Both	29.242	National Blvd.	4	10	2	8	2



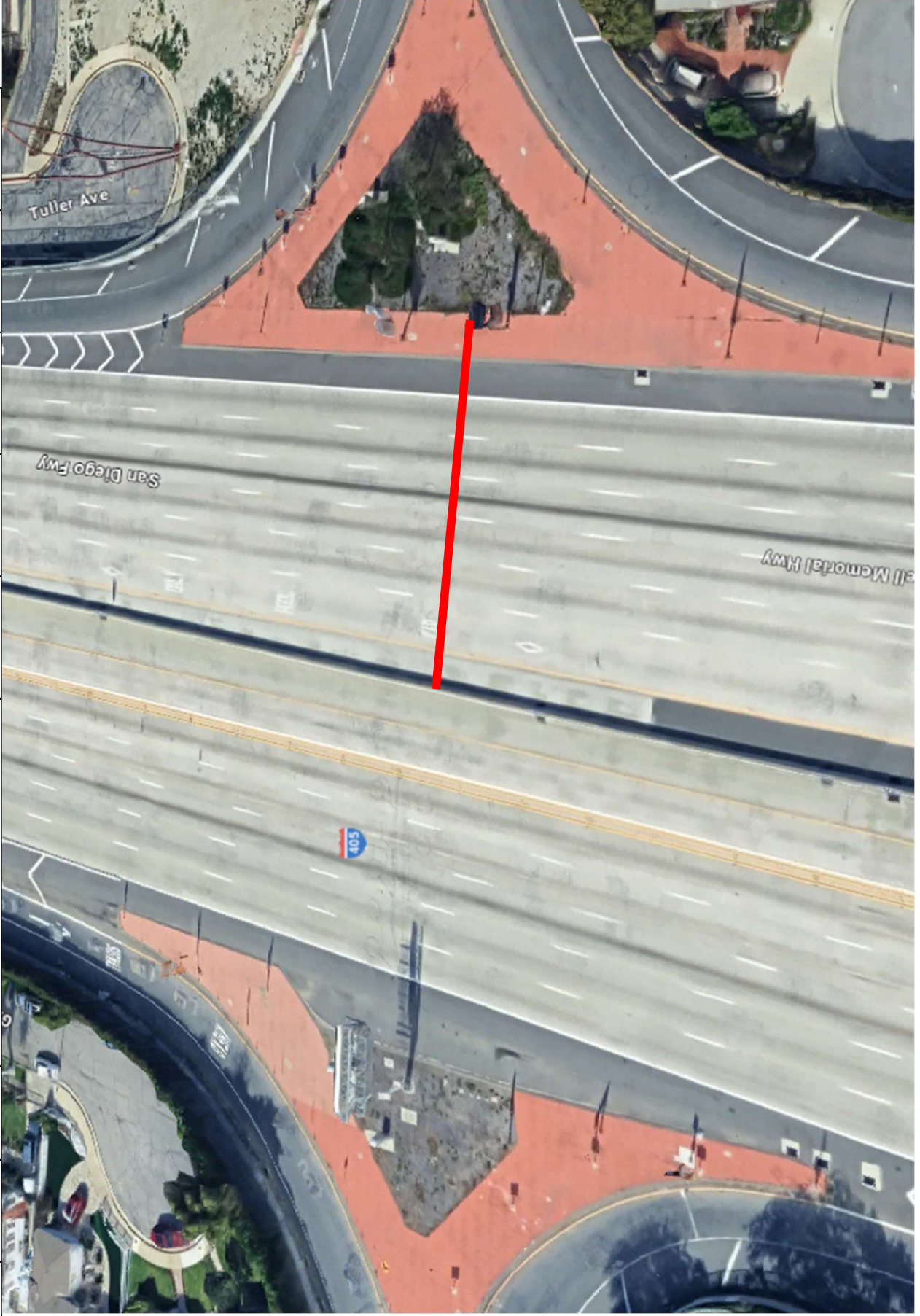
APPROXIMATE LOCATIONS

Route	Direction	PM	Description of Location	VASS	LMS	DMS	GP lanes	HOV/T
405	SB	28.038	Venice Blvd.	2	7	1	6	1



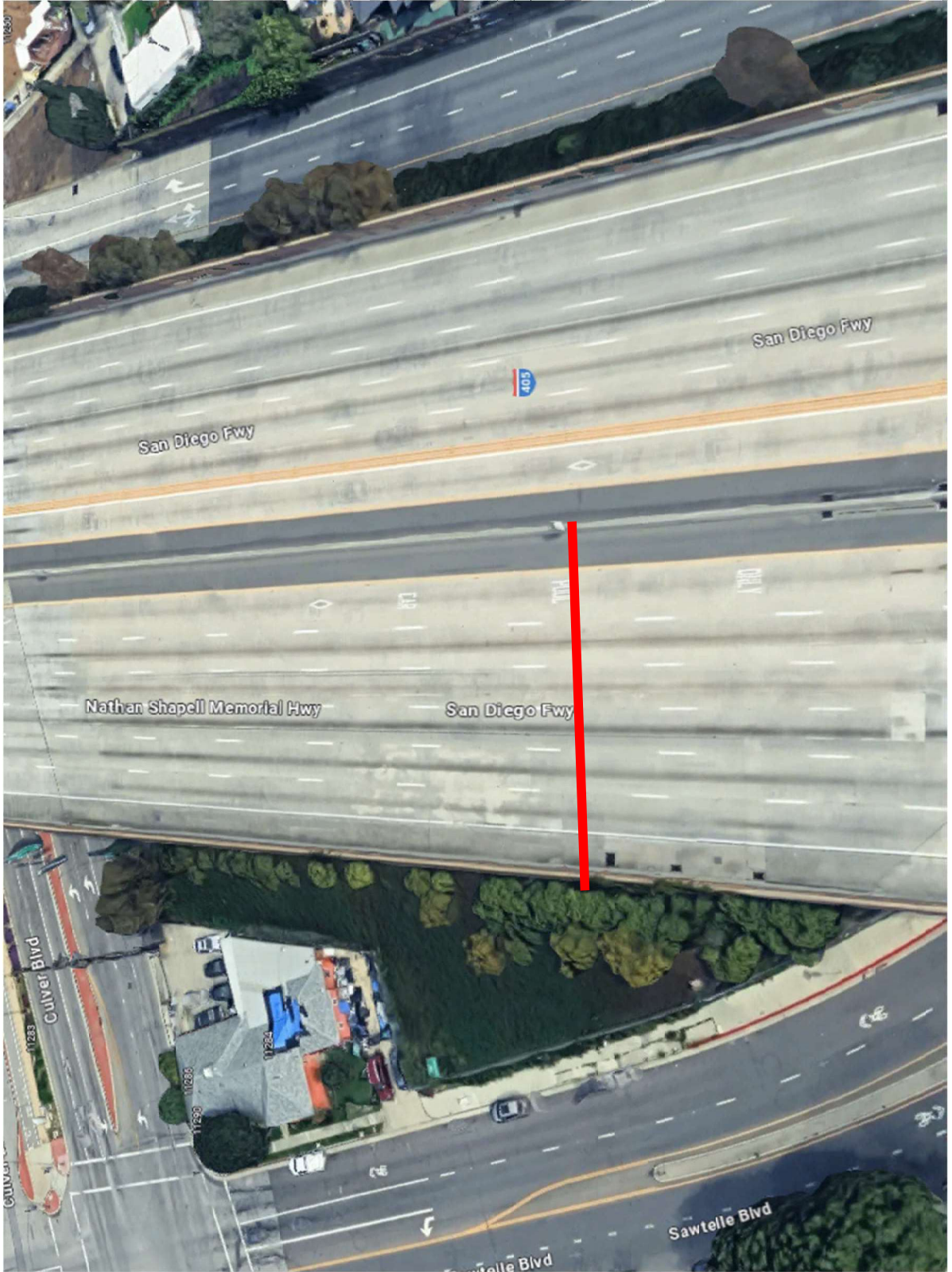
APPROXIMATE LOCATIONS

Route	Direction	PM	Description of Location	VASS	LMS	DMS	GP lanes	HOV/T
405	NB	27.815	Venice Blvd.	2	6	1	5	1



APPROXIMATE LOCATIONS

Route	Direction	PM	Description of Location	VASS	LMS	DMS	GP lanes	HOV/T
405	SB	27.143	Culver Blvd.	2	6	1	5	1



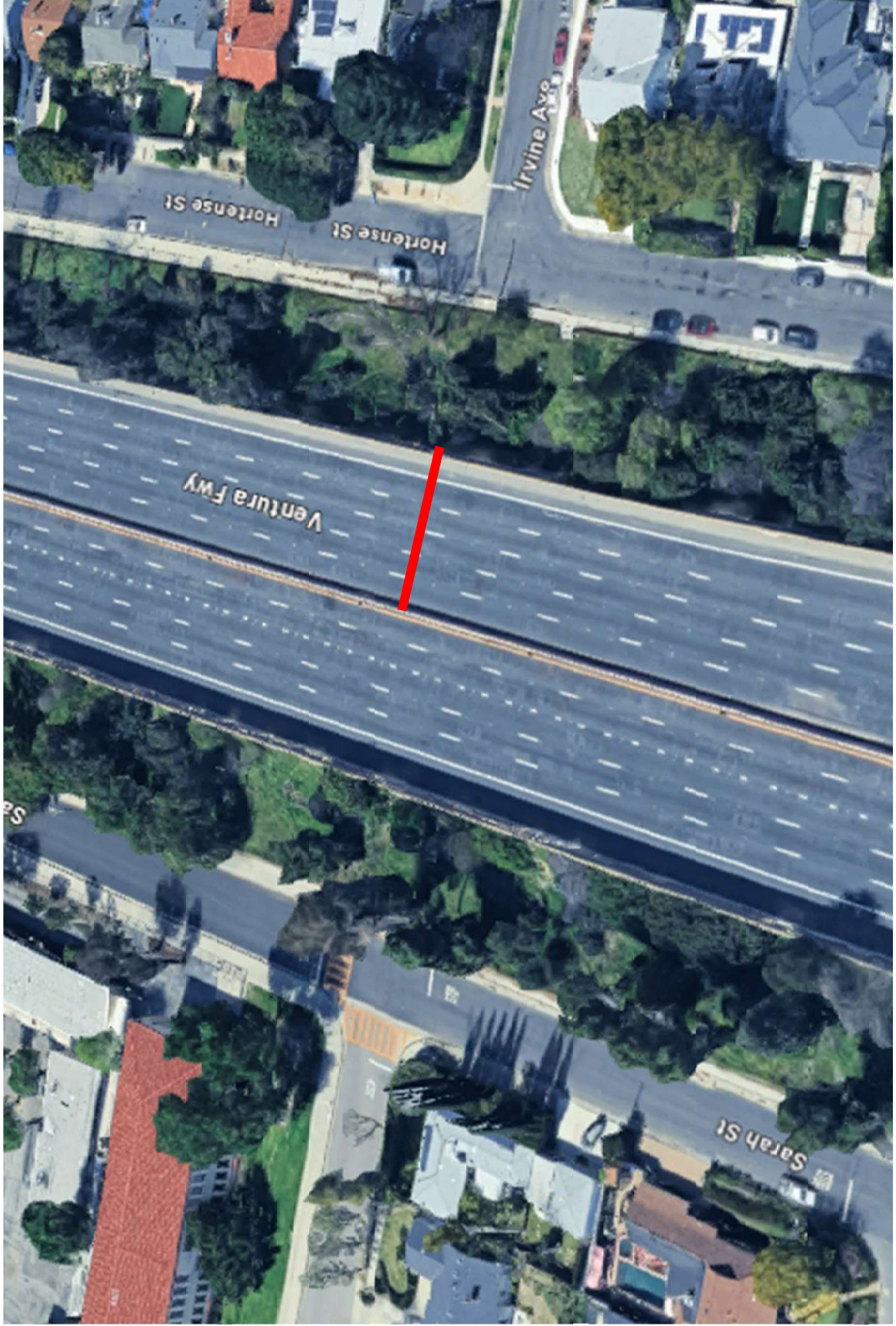
APPROXIMATE LOCATIONS

Route	Direction	PM	Description of Location	VASS	LMS	DMS	GP lanes	HOV/T
405	NB	26.279	Port Rd.	2	7	1	6	1



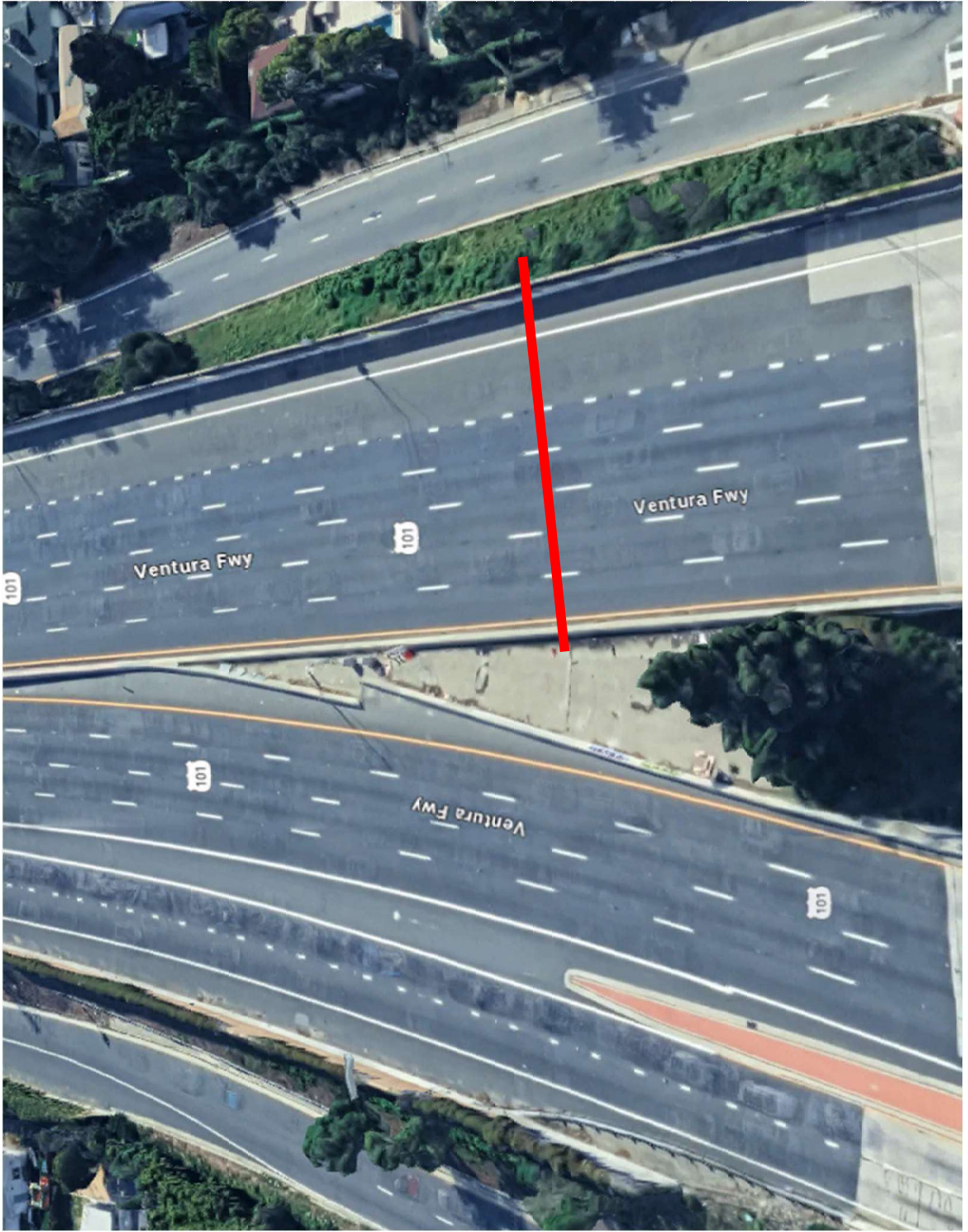
APPROXIMATE LOCATIONS

Route	Direction	PM	Description of Location	VASS	LMS	DMS	GP lanes	HOV/T
101	NB	12.234	Irvine Ave.	2	5	1	4	1



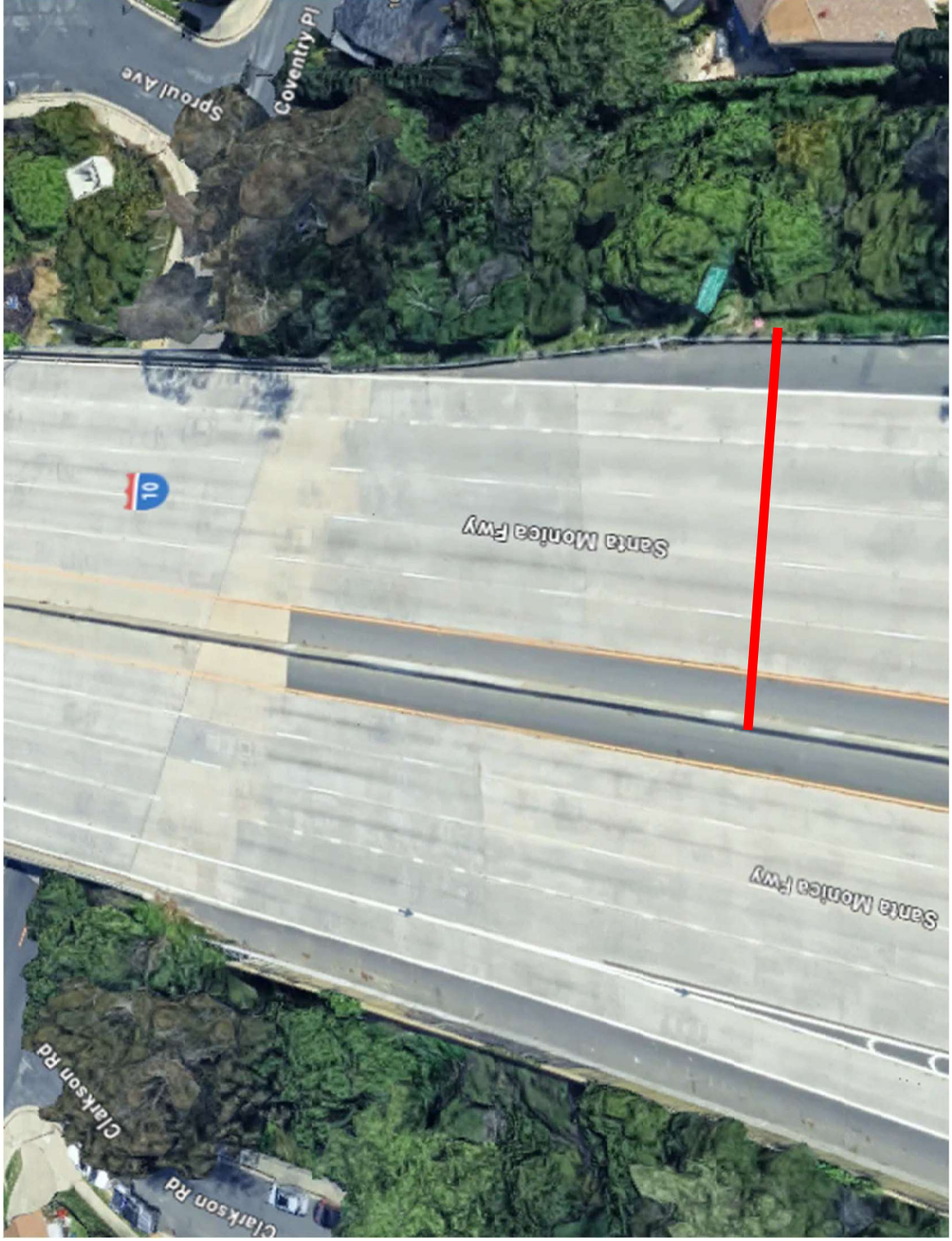
APPROXIMATE LOCATIONS

Route	Direction	PM	Description of Location	VASS	LMS	DMS	GP lanes	HOV/T
101	SB	16.908L	Sepulveda Blvd.	2	6	1	5	1



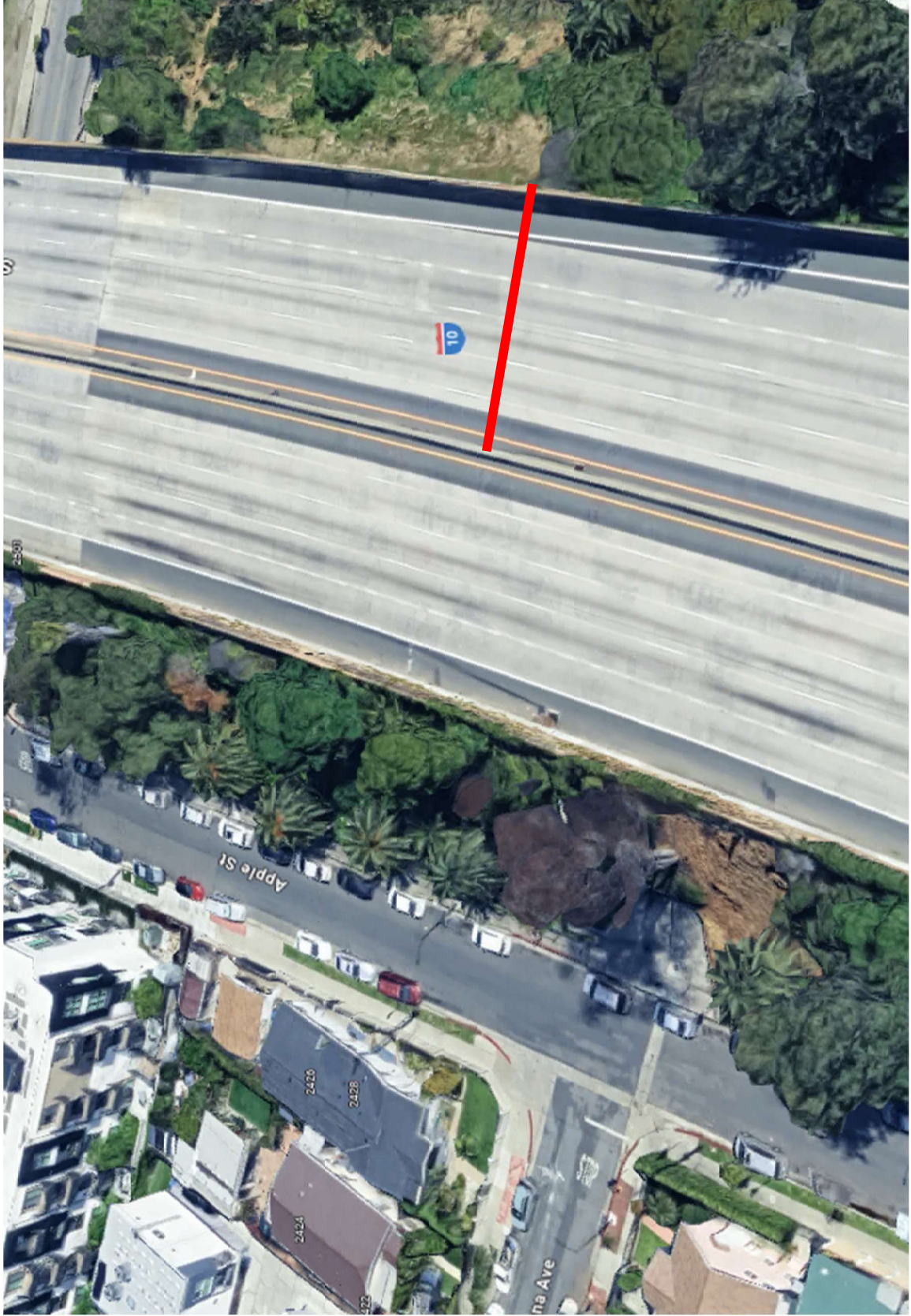
APPROXIMATE LOCATIONS

Route	Direction	PM	Description of Location	VASS	LMS	DMS	GP lanes	HOV/T
10	EB	R5.962	Coventry Pl.	2	5	1	5	0



APPROXIMATE LOCATIONS

Route	Direction	PM	Description of Location	VASS	LMS	DMS	GP lanes	HOV/T
10	EB	R9.712	Cormona Ave.	2	5	1	5	0



APPROXIMATE LOCATIONS

Route	Direction	PM	Description of Location	VASS	LMS	DMS	GP lanes	HOV/T
10	WB	R11.86	7th Ave.	2	6	1	6	0



APPROXIMATE LOCATIONS

Route	Direction	PM	Description of Location	VASS	LMS	DMS	GP lanes	HOV/T
10	EB	R11.92	7th Ave.	2	6	1	6	0



APPROXIMATE LOCATIONS

All locations

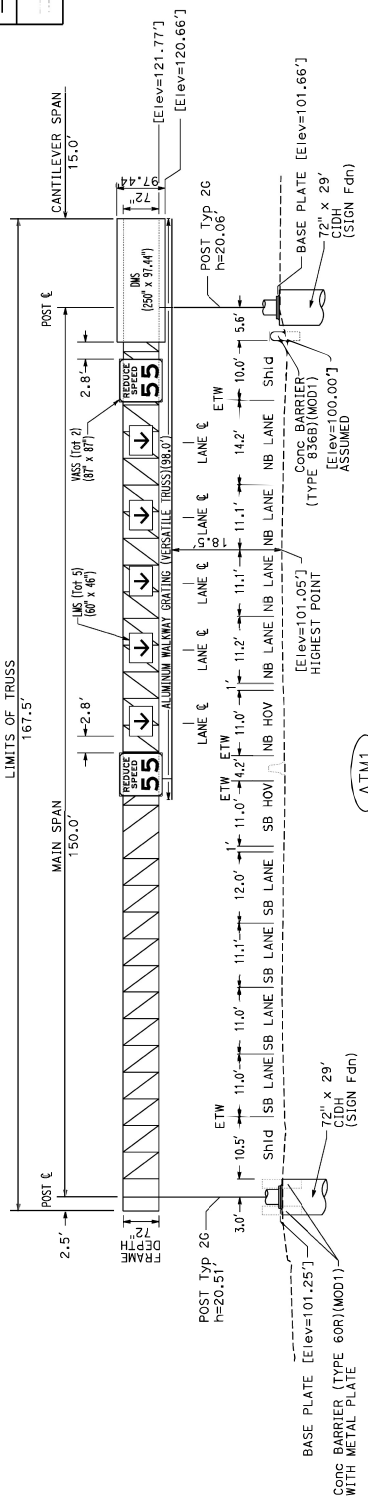
Route	Direction	PM	Description of Location	VASS	LMS	DMS	GP lanes	HOV/T
405	Both	29.242	National Blvd.	4	10	2	8	2
405	SB	28.038	Venice Blvd.	2	7	1	6	1
405	NB	27.815	Venice Blvd.	2	6	1	5	1
405	SB	27.143	Culver Blvd.	2	6	1	5	1
405	NB	26.279	Port Rd.	2	7	1	5	1
101	NB	12.234	Irvine Ave.	2	5	1	5	0
101	SB	16.908L	Sepulveda Blvd.	2	6	1	6	0
10	EB	R5.962	Coventry Pl.	2	5	1	5	0
10	EB	R9.712	Cormona Ave.	2	5	1	5	0
10	WB	R11.86	7th Ave.	2	6	1	6	0
10	EB	R11.92	7th Ave.	2	6	1	6	0
				24		12		

**ATTACHMENT D**  
**SIGN GANTRY TYPICAL X-SECTION**

Dist	COUNTY	ROUTE	POST MILES	SHEET TOTAL
07	LA	2-5, 101, 105, 405	Var	SHEETS
REGISTERED CIVIL ENGINEER		DATE	REGISTERED PROFESSIONAL ENGINEER	
No. 111111		No. 111111		No. 111111

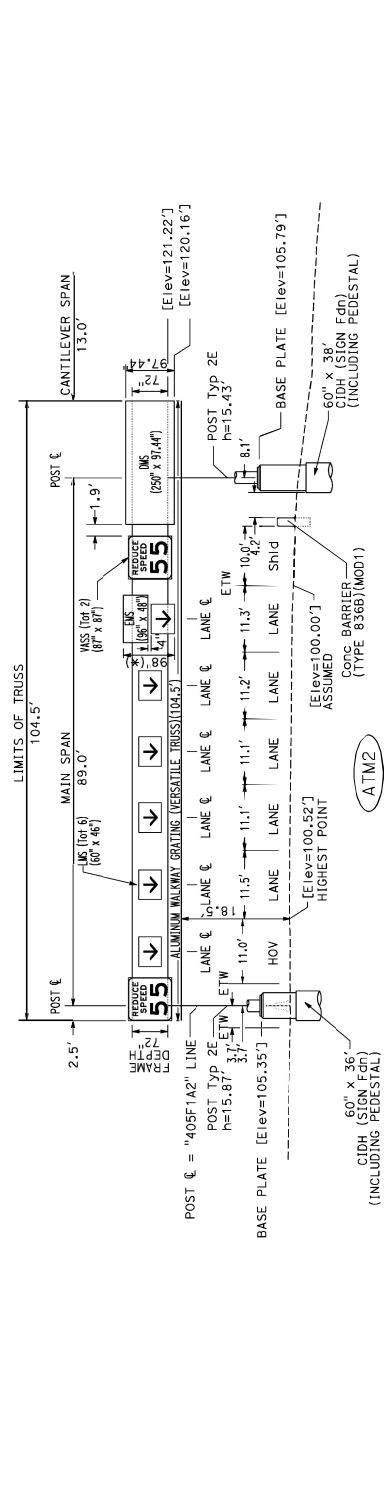


**ABBREVIATIONS:**  
 ATM ACTIVE TRAFFIC MANAGEMENT  
 ATW ADJUSTABLE ADVISORY SPEED SIGN  
 LMS LANE MANAGEMENT SIGN  
 DMS DYNAMIC MESSAGE SIGN



ATM1  
 FNBT "405F1A2" Std 1012+90.00

- FURNISH SIGN STRUCTURE (VERSATILE TRUSS) WITH ALUMINUM WALKWAY GRATING.
- INSTALL DMS, LMS AND VASS VERTICALLY, CENTERED TO THE DEPTH OF THE FRAME.



ATM2  
 FNBT "405F1A2" Std 1048+20.00

- FURNISH SIGN STRUCTURE (VERSATILE TRUSS) WITH ALUMINUM WALKWAY GRATING (VERSATILE TRUSS).
- INSTALL DMS, LMS AND VASS VERTICALLY, CENTERED TO THE DEPTH OF THE FRAME.
- INSTALL LMS AND LMS TO FRAME, TOP AND BOTTOM OVERHANG EQUAL.

APPROVED FOR SIGN WORK ONLY

DATE REVISION	REVISION
DATE REVISION	REVISION

DESIGNED BY	J.M. CANNITT/R.B.K/HW
CHECKED BY	ANH D. NGUYEN

FUNCTIONAL SUPERVISOR	ANH D. NGUYEN
TRAFFIC DESIGN	TRAFFIC DESIGN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	TRAFFIC DESIGN
--	----------------

USERNAME => s132301	PROJECT NUMBER & PHASE
DOB FILE => 735070a0801.dgn	UNIT 2124

DATE PLOTTED => 1-NOV-2024	PROJECT NUMBER & PHASE
TIME PLOTTED => 12:12	UNIT 2124

SIGN DETAILS	
NO SCALE	
SD-1	

RELATIVE BORDER SCALE IS IN INCHES	0 1 2 3
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BORDER LAST REVISED 8/5/2020

APPROVED FOR SIGN WORK ONLY







**ATTACHMENT E**  
**COST ESTIMATE**

**PROJECT  
PLANNING COST ESTIMATE©**

EA: 07-50320

EA: 07-50320 PID: 713000197

PID: 713000197

District-County-Route: VAR

PM: VAR

Type of Estimate : Project Scope Summary Report

Program Code : SHOPP

Project Limits : I-5, 10, 105, 110, 210, 405; SR-2, 57, 91, 110, 134, 164; US-101

Project Description: Games Route Network for LA 28 Olympics

Scope : Traffic Management Devices and Temporary Striping

Alternative : Alternative # 1

**SUMMARY OF PROJECT COST ESTIMATE**

	<u>Current Year Cost</u>	<u>Escalated Cost</u>
TOTAL OPERATIONS ROADWAY COST	\$ 62,488,900	\$ 65,685,082
TOTAL LEGACY ROADWAY COST	\$ 123,038,000	\$ 129,331,043
TOTAL STRUCTURES COST	\$ -	\$ -
SUBTOTAL CONSTRUCTION COST	\$ 185,526,900	\$ 195,016,125
TOTAL RIGHT OF WAY COST	\$ 354,000	\$ 422,000
<b>TOTAL CAPITAL OUTLAY COSTS</b>	<b>\$ 185,881,000</b>	<b>\$ 195,439,000</b>
PA/ED SUPPORT-LEGACY	\$ 1,018,000	\$ 1,018,000
PA/ED SUPPORT-OPERATIONS	\$ 132,000	\$ 132,000
PS&E SUPPORT-LEGACY	\$ 16,112,390	\$ 17,516,652
PS&E SUPPORT-OPERATIONS	\$ 4,599,140	\$ 5,000,000
RIGHT OF WAY SUPPORT-LEGACY	\$ 92,000	\$ 100,018
RIGHT OF WAY SUPPORT-OPERATIONS	\$ -	\$ -
CONSTRUCTION SUPPORT-LEGACY	\$ 13,315,400	\$ 14,475,893
CONSTRUCTION SUPPORT-OPERATIONS	\$ 11,238,500	\$ 12,217,982
<b>TOTAL SUPPORT COST</b>	<b>\$ 46,508,000</b>	<b>\$ 50,461,000</b>

<b>TOTAL PROJECT COST</b>	<b>\$ 232,431,000</b>	<b>\$ 245,900,000</b>
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Programmed Amount

Month / Year  
Date of Estimate (Month/Year) \_\_\_\_\_ 7 / 2025

Estimated Construction Start (Month/Year) \_\_\_\_\_ 12 / 2026

Number of Working Days = 400

Estimated Mid-Point of Construction (Month/Year) \_\_\_\_\_ 2 / 2028

Estimated Construction End (Month/Year) \_\_\_\_\_ 4 / 2029

Number of Plant Establishment Days

**Estimated Project Schedule**

PID Approval	8/15/2025
PA/ED Approval	1/30/2025
PS&E	10/13/2026
RTL	7/13/2026
Begin Construction	12/14/2026

Reviewed by District O.E. or  
Cost Estimate Certifier

Ragy Samy

12/2/2025

(213) 269-1218

Office Engineer / Cost Estimate Certifier

Date

Phone

Approved by Project Manager

Manny T. Marcos

12/19/2026

(213) 218-8974

Project Manager

Date

Phone

**PROJECT  
PLANNING COST ESTIMATE©**

EA: 07-50320

EA: 07-50320 PID: 713000197

PID: 713000197

District-County-Route: VAR

PM: VAR

Type of Estimate : Project Scope Summary Report

Program Code : SHOPP

Project Limits : I-5, 10, 105, 110, 210, 405; SR-2, 57, 91, 110, 134, 164; US-101

Project Description: Games Route Network for LA 28 Olympics

Scope : Traffic Management Devices and Temporary Striping

Alternative : Alternative # 1

**SUMMARY OF PROJECT COST ESTIMATE**

	<u>Current Year Cost</u>	<u>Escalated Cost</u>
TOTAL LEGACY ROADWAY COST	\$ 123,038,000	\$ 129,331,043
TOTAL STRUCTURES COST	\$ -	\$ -
SUBTOTAL CONSTRUCTION COST	\$ 123,038,000	\$ 129,331,043
TOTAL RIGHT OF WAY COST	\$ 354,000	\$ 421,700
<b>TOTAL CAPITAL OUTLAY COSTS</b>	<b>\$ 123,392,000</b>	<b>\$ 129,753,000</b>
PAVED SUPPORT-LEGACY	\$ 1,018,000	\$ 1,018,000
PS&E SUPPORT-LEGACY	\$ 16,112,390	\$ 17,516,652
RIGHT OF WAY SUPPORT-LEGACY	\$ 92,000	\$ 100,018
CONSTRUCTION SUPPORT-LEGACY	\$ 13,315,400	\$ 14,475,893
<b>TOTAL SUPPORT COST</b>	<b>\$ 30,538,000</b>	<b>\$ 33,111,000</b>
<b>TOTAL PROJECT COST</b>	<b>\$ 153,931,000</b>	<b>\$ 162,864,000</b>

Programmed Amount

Month / Year

Date of Estimate (Month/Year) 7 / 2025

Estimated Construction Start (Month/Year) 12 / 2026

Number of Working Days = 400

Estimated Mid-Point of Construction (Month/Year) 2 / 2028

Estimated Construction End (Month/Year) 4 / 2029

Number of Plant Establishment Days

**Estimated Project Schedule**

PID Approval 8/15/2025

PAVED Approval 1/30/2025

PS&E 10/13/2026

RTL 7/13/2026

Begin Construction 12/14/2026

Reviewed by District O.E. or  
Cost Estimate Certifier

Ragy Samy

12/2/2025

(213) 269-1218

Office Engineer / Cost Estimate Certifier

Date

Phone

Approved by Project Manager

Manny T. Marcos

12/19/2026

(213) 218-8974

Project Manager

Date

Phone

## I. ROADWAY-LEGACY ITEMS SUMMARY

	Section	Cost
1	Earthwork	\$ -
2	Pavement Structural Section	\$ -
3	Drainage	\$ 250,600
4	Specialty Items	\$ 1,079,500
5	Environmental	\$ 2,064,000
6	Traffic Items	\$ 71,505,100
7	Detours	\$ -
8	Minor Items	\$ 2,621,500
9	Roadway Mobilization	\$ 7,752,100
10	Supplemental Work	\$ 3,255,900
11	State Furnished	\$ 16,135,100
12	Time-Related Overhead	\$ 2,325,700
13	Total Roadway Contingency	\$ 16,048,500
<b>TOTAL ROADWAY-LEGACY ITEMS</b>		<b>\$ 123,038,000</b>

Estimate Prepared By : Isaias Pedroza  
Transportation Engineer                      12/15/2025                      (213) 269-1733  
 Name and Title    Date    Phone

Estimate Reviewed By : Jennifer Nguyen  
Transportation Engineer                      12/15/2025                      (213) 269-1780  
 Name and Title    Date    Phone

**By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.**

**SECTION 1: EARTHWORK**

Item code		Unit	Quantity	Unit Price (\$)	Cost
190101	Roadway Excavation	CY	x	= \$	-
19010X	Roadway Excavation (Insert Type) ADL	CY	x	= \$	-
19801X	Imported Borrow	CY/TON	x	= \$	-
194001	Ditch Excavation	CY	x	= \$	-
192037	Structure Excavation (Retaining Wall)	CY	x	= \$	-
193013	Structure Backfill (Retaining Wall)	CY	x	= \$	-
193031	Pervious Backfill Material (Retaining Wall)	CY	x	= \$	-
17010X	Clearing & Grubbing	LS/ACRE	x	= \$	-
100100	Develop Water Supply	LS	x	= \$	-
19801X	Imported Borrow	CY/TON	x	= \$	-
21012X	Duff	ACRE/SQFT	x	= \$	-
XXXXXX	Some Item	Unit	x	= \$	-

<b>TOTAL EARTHWORK SECTION ITEMS</b>	<b>\$</b>	<b>-</b>
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**SECTION 2: PAVEMENT STRUCTURAL SECTION**

Item code		Unit	Quantity	Unit Price (\$)	Cost
401050	Jointed Plain Concrete Pavement	CY	x	= \$	-
400050	Continuously Reinforced Concrete Pavement	CY	x	= \$	-
390132	Hot Mix Asphalt (Type A)	TON	x	= \$	-
26020X	Class 2 Aggregate Base	TON/CY	x	= \$	-
250401	Class 4 Aggregate Subbase	CY	x	= \$	-
414240	Isolation Joint Seal (Asphalt Rubber)	LF	x	= \$	-
414241	Isolation Joint Seal (Silicone)	LF	x	= \$	-
280010	Rapid Strength Concrete Base	CY	x	= \$	-
410096	Drill and Bond (Dowel Bar)	EA	x	= \$	-
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON	x	= \$	-
391006	Asphalt Binder (Geosynthetic Pavement Interlayer)	TON	x	= \$	-
290201	Asphalt Treated Permeable Base	CY	x	= \$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON	x	= \$	-
397005	Tack Coat	TON	x	= \$	-
377501	Slurry Seal	TON	x	= \$	-
374493	Polymer Asphaltic Emulsion (Seal Coat)	TON	x	= \$	-
370001	Sand Cover (Seal)	TON	x	= \$	-
731530	Minor Concrete (Textured Paving)	CY	x	= \$	-
731502	Minor Concrete (Miscellaneous Construction)	CY	x	= \$	-
39407X	Place Hot Mix Asphalt Dike (Insert Type)	LF	x	= \$	-
398100	Remove Asphalt Concrete Dike	LF	x	= \$	-
420201	Grind Existing Concrete Pavement	SQYD	x	= \$	-
398300	Remove Base and Surfacing	CY	x	= \$	-
390095	Replace Asphalt Concrete Surfacing	CY	x	= \$	-
41800X	Remove Concrete Pavement	SQYD/CY	x	= \$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD	x	= \$	-
398200	Cold Plane Asphalt Concrete Pavement	SQYD	x	= \$	-
846046	6" Rumble Strip (Asphalt Concrete Pavement)	STA	x	= \$	-
846049	6" Rumble Strip (Concrete Pavement)	STA	x	= \$	-
846051	12" Rumble Strip (Asphalt Concrete Pavement)	STA	x	= \$	-
846052	12" Rumble Strip (Concrete Pavement)	STA	x	= \$	-
420102	Groove Existing Concrete Pavement	SQYD	x	= \$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD	x	= \$	-
390136	Minor Hot Mix Asphalt	TON	x	= \$	-
XXXXXX	Some Item	Unit	x	= \$	-

<b>TOTAL PAVEMENT STRUCTURAL SECTION ITEMS</b>	<b>\$</b>	<b>-</b>
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**SECTION 3: DRAINAGE**

Item code	Unit	Quantity	Unit Price (\$)	Cost
71013X	Remove Culvert	EA/LF	x	= \$ -
710240	Modify Inlet	EA	x	= \$ -
710370	Sand Backfill	CY	x	= \$ -
71010X	Abandon Culvert	EA/LF	x	= \$ -
710196	Adjust Inlet	LF	1 x 250,550.00	= \$ 250,550
710262	Cap Inlet	EA	x	= \$ -
510501	Minor Concrete	CY	x	= \$ -
510502	Minor Concrete (Minor Structure)	CY	x	= \$ -
731627	Minor Concrete (Curb, Sidewalk, and Curb Ramp)	CY	x	= \$ -
6101XX	XX" Alternative Pipe Culvert (Insert Type)	LF	x	= \$ -
6411XX	XX" Plastic Pipe	LF	x	= \$ -
65XXXX	XX" Reinforced Concrete Pipe (Insert Type)	LF	x	= \$ -
6811XX	XX" Plastic Pipe (Edge Drain)	LF	x	= \$ -
6901XX	XX" Corrugated Steel Pipe Downrain (0.XXX" Thic	LF	x	= \$ -
7006XX	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF	x	= \$ -
7032XX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF	x	= \$ -
7050XX	XX" Steel Flared End Section	EA	x	= \$ -
703233	Grated Line Drain	LF	x	= \$ -
72XXXX	Rock Slope Protection (Type and Method)	CY/TON	x	= \$ -
72901X	Rock Slope Protection Fabric (Insert Class)	SQYD	x	= \$ -
721420	Concrete (Ditch Lining)	CY	x	= \$ -
721430	Concrete (Channel Lining)	CY	x	= \$ -
750001	Miscellaneous Iron and Steel	LB	x	= \$ -
XXXXXX	Additional Drainage	LS	x	= \$ -
<b>TOTAL DRAINAGE ITEMS</b>				<b>\$ 250,600</b>

**SECTION 4: SPECIALTY ITEMS**

Item code	Unit	Quantity	Unit Price (\$)	Cost
520103	Bar Reinforced Steel (Retaining Wall)	LB	x	= \$ -
5100XX	Structural Concrete	CY	x	= \$ -
510060	Structural Concrete, Retaining Wall	CY	x	= \$ -
5201XX	Bar Reinforcing Steel	LB	x	= \$ -
080050	Progress Schedule (Critical Path Method)	LS	1 x 10,000.00	= \$ 10,000
080050x	Progress Schedule (Monthly Update)	EA	22 x 2,000.00	= \$ 44,000
0800XX	Maintain GRN	LS	x 2,310,000.00	= \$ -
582001	Sound Wall (Masonry Block)	SQFT	x	= \$ -
510530	Minor Concrete (Wall)	CY	x	= \$ -
60005X	Remove Sound Wall	LF/LS/SQFT	x	= \$ -
070030	Lead Compliance Plan	LS	1 x 10,000.00	= \$ 10,000
141120	Treated Wood Waste	LB	x	= \$ -
839750	Remove Concrete Barrier	LF	2,266 x 30.00	= \$ 67,980
839752	Remove Guardrail	LF	x	= \$ -
710167	Remove Flared End Section	EA	x	= \$ -
8000XX	Chain Link Fence (Insert Type)	LF	x	= \$ -
80XXXX	XX" Chain Link Gate (Type CL-X)	EA	x	= \$ -
832005	Midwest Guardrail System	LF	300 x 225.50	= \$ 67,650
839301	Single Thrie Beam Barrier	LF	x	= \$ -
839310	Double Thrie Beam Barrier	LF	x	= \$ -
839521	Cable Railing	LF	x	= \$ -
839566	Terminal System (Type CAT)	EA	x	= \$ -
839584	Alternative In-line Terminal System	EA	x	= \$ -
839585	Alternative Flared Terminal System	EA	x	= \$ -
4906XX	XX" Cast-In-Drilled-Hole Concrete Piling	LF	x	= \$ -
8396XX	Crash Cushion (Insert Type)	EA	2 x 100,000.00	= \$ 200,000
8331XX	Concrete Barrier (Insert Type)	LF	2,266 x 300.00	= \$ 679,800
475010	Retaining Wall (Masonry Wall)	SQFT	x	= \$ -
511035	Architectural Treatment	SQFT	x	= \$ -
780460	Anti-Graffiti Coating	SQFT	x	= \$ -
780450	Rock Stain	SQFT	x	= \$ -
4730XX	Reinforced Concrete Crib Wall (Insert Type)	SQFT	x	= \$ -
83954X	Transition Railing (Insert Type)	EA	x	= \$ -
780440	Prepare and Stain Concrete	SQFT	x	= \$ -
839561	Rail Tensioning Assembly	EA	x	= \$ -
83958X	End Anchor Assembly (Insert Type)	EA	x	= \$ -
<b>TOTAL SPECIALTY ITEMS</b>				<b>\$ 1,079,500</b>

Effective immediately, districts must input estimated item quantities in blue text above in the PRSM database for the pay items listed in the Design Memo, dated April 9, 2018, when Project Report is approved (Milestone 200). [Link to Design Memo.](#)

**SECTION 5: ENVIRONMENTAL**

**5A - ENVIRONMENTAL MITIGATION**

Item code	Unit	Quantity	Unit Price (\$)	Cost
	LS	x	= \$	-
80010X Biological Mitigation (on-site)	LF	x	= \$	-
130670 Temporary Fence (Insert Type)	LF	x	= \$	-
130670 Temporary Reinforced Silt Fence				
<i>Subtotal Environmental Mitigation</i>				\$ -

**5B - LANDSCAPE AND IRRIGATION**

Item code	Unit	Quantity	Unit Price (\$)	Cost
20XXXX Highway Planting	LS	x	= \$	-
20XXXX Irrigation System	LS	x	= \$	-
204099 Plant Establishment Work	LS	x	= \$	-
20XXXX Follow-up Landscape Project	LS	x	= \$	-
206405 Remove Irrigation Facility	LS	x	= \$	-
204096 Maintain Existing Planted Areas	LS	x	= \$	-
206400 Check and Test Existing Irrigation Facilities	LS	x	= \$	-
21011X Imported Topsoil	CY/TON	x	= \$	-
200114 Rock Blanket	SQFT/SQYD	x	= \$	-
200122 Weed Germination	SQYD	x	= \$	-
995100 Water Meter Charges	LS	x	= \$	-
2087XX XX" Conduit (Use for Irrigation x-overs)	LF	x	= \$	-
20890X Extend X" Conduit (Use for Extension of Irrigation	LF	x	= \$	-
<i>Subtotal Landscape and Irrigation</i>				\$ -

**5C - EROSION CONTROL**

Item code	Unit	Quantity	Unit Price (\$)	Cost
211111 Permanent Erosion Control Establishment Work	LS	x	= \$	-
210010 Move-In/Move-Out (Erosion Control)	EA	x	= \$	-
210350 Fiber Rolls	LF	x	= \$	-
210360 Compost Sock	LF	x	= \$	-
2102XX Rolled Erosion Control Product (Insert Type)	SQFT	x	= \$	-
21025X Bonded Fiber Matrix	3SQFT/ACRE	x	= \$	-
210300 Hydromulch	SQFT	x	= \$	-
210420 Straw	SQFT	x	= \$	-
210430 Hydroseed	SQFT	x	= \$	-
210610 Compost	CY	x	= \$	-
210630 Incorporate Materials	SQFT			
<i>Subtotal Erosion Control</i>				\$ -

**5D - NPDES**

Item code	Unit	Quantity	Unit Price (\$)	Cost
130300 Prepare SWPPP	LS	x	= \$	-
130200 Prepare WPCP	LS	1	x 10,000.00	= \$ 10,000
130100 Job Site Management	LS	1	x 1,998,000.00	= \$ 1,998,000
130330 Storm Water Annual Report	EA	x	= \$	-
130310 Rain Event Action Plan	EA	x	= \$	-
130320 Storm Water Sampling and Analysis Day	EA	x	= \$	-
130520 Temporary Hydraulic Mulch	SQYD	x	= \$	-
130550 Temporary Hydroseed	SQYD	x	= \$	-
130505 Move-In/Move-Out (Temporary Erosion Control)	EA	x	= \$	-
130640 Temporary Fiber Roll	LF	x	= \$	-
130900 Temporary Concrete Washout	LS	x	= \$	-
130710 Temporary Construction Entrance	EA	x	= \$	-
130610 Temporary Check Dam	LF	x	= \$	-
130620 Temporary Drainage Inlet Protection	EA	340	x 164.71	= \$ 56,000
130730 Street Sweeping	LS	x	= \$	-
<i>Subtotal NPDES</i>				\$ 2,064,000

<b>TOTAL ENVIRONMENTAL</b>	<b>\$ 2,064,000</b>
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**Supplemental Work for NPDES**

066595 Water Pollution Control Maintenance Sharing*	LS	x	= \$	-
066596 Additional Water Pollution Control**	LS	1	x 5,000.00	= \$ 5,000
066597 Storm Water Sampling and Analysis***	LS	x	= \$	-
XXXXXX Some Item	LS	x	= \$	-
<i>Subtotal Supplemental Work for NDPS</i>				\$ 5,000

\*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

\*\*Applies to both SWPPPs and WPCP projects.

\*\*\* Applies only to project with SWPPPs.

**SECTION 6: TRAFFIC ITEMS**

**6A - Traffic Electrical**

Item code	Unit	Quantity	Unit Price (\$)	Cost
870200 Lighting System	LS	x	= \$	-
5680XX ATM Gantry (2 Post Sign Structure- Furnish and Install)	EA	11 x	650,000.00 = \$	7,150,000
5680XX Install CCTV on 40' Pole	EA	256 x	150,000.00 = \$	38,400,000
5680XX ATM Lane Management Sign	EA	69 x	6,500.00 = \$	448,500
5680XX ATM Dynamic Message Sign	EA	12 x	84,000.00 = \$	1,008,000
5680XX ATM Variable Advisory Speed Sign	EA	24 x	19,000.00 = \$	456,000
87181X Interconnection Conduit and Cable	LF/LS	x	= \$	-
5602XX Furnish Sign Structure (Insert Type)	LB	x	= \$	-
5602XX Install Sign Structure (Insert Type)	LB	x	= \$	-
4980XX XX" CIDHC Pile (Sign Foundation)	LF	x	= \$	-
87011X Inductive Loop Detector	EA/LS	x	= \$	-
870600 Traffic Monitoring Station System	LS	x	= \$	-
56804X Remove Sign Structure	EA/LS	x	= \$	-
568054 Reconstruct Sign Structure	EA	x	= \$	-
568060 Modify Sign Structure	EA	x	= \$	-
870009 Maintaining Existing Traffic Management System Elements During Construction	LS	x	= \$	-
86XXXX Fiber Optic Conduit System	LS	1 x	3,000,000.00 = \$	3,000,000
XXXXX ATMS Software Enhancements, Decision Support System (DSS) expansion and Inventory Updat	LS	1 x	4,000,000.00 = \$	4,000,000
XXXXX RMS Configuration at venue ramps	LS	1 x	1,500,000.00 = \$	1,500,000
XXXXX Connections between Traffic Signals for Dynamic Corridor Ramp Metering System (DCRMS)	LS	1 x	3,277,500.00 = \$	3,277,500
XXXXX AI-Based Enforcement	LS	1 x	3,500,000.00 = \$	3,500,000
XXXXX Satellite communication (Starlink) backup links at TOSNET IP Nodes and fiber trunkline enhancemer	LS	1 x	2,000,000.00 = \$	2,000,000
XXXXX Some Item	Unit	x	= \$	-
<b>Subtotal Traffic Electrical</b>				<b>\$ 64,740,000</b>

**6B - Traffic Signing and Striping**

Item code	Unit	Quantity	Unit Price (\$)	Cost
820840 Roadside Sign - One Post	EA	x	= \$	-
820850 Roadside Sign - Two Post	EA	600 x	1,000.00 = \$	600,000
5602XX Furnish Sign Structure (Insert Type)	SQFT	x	= \$	-
820890 Install Sign Panel on Existing Frame	SQFT	x	= \$	-
8208XX Roadside Sign - Barrier Mounted	EA	x	= \$	-
8208XX Remove Roadside Sign - Barrier Mounted	EA	x	= \$	-
820900 Install Roadside sign Panel on Existing Post	EA	x	= \$	-
820310 Remove Roadside sign Panel	EA	X	= \$	-
8208XY Roadside Sign - Overhead Sign Overlay	EA	x	= \$	-
8208XZ Roadside Sign - Existing Overlay	EA	x	= \$	-
846020 Remove Painted Traffic Stripe	LF	x	= \$	-
141102 Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF	x	= \$	-
846025 Remove Painted Pavement Marking	SQFT	x	= \$	-
846025 Remove Painted Pavement Marking-Restoration	SQFT	x	= \$	-
820250 Remove Roadside Sign	EA	x	= \$	-
820530 Reset Roadside Sign	EA	x	= \$	-
820610 Relocate Roadside Sign	EA	x	= \$	-
8101XX Delineator (Insert Class)	EA	x	= \$	-
840502 Thermoplastic Traffic Stripe (Enhanced Wet Night Visibility)	LF	x	= \$	-
846012 Thermoplastic Crosswalk and Pavement Marking (Enhanced Wet Night Visibility)	SQFT	x	= \$	-
120165 Channelizer (Surface Mounted)	EA	x	= \$	-
846012 Thermoplastic Crosswalk and Pavement Marking (Enhanced Wet Night Visibility) -Restoration	SQFT	x	= \$	-
120090 Construction Area Signs	LS	1 x	374,100.00 = \$	374,100
84XXXX Permanent Pavement Delineation	LS	1 x	3,000,000.00 = \$	3,000,000
<b>Subtotal Traffic Signing and Striping</b>				<b>\$ 3,974,100</b>

**6C - Traffic Management Plan**

Item code	Unit	Quantity	Unit Price (\$)	Cost
12865X Portable Changeable Message Sign	EA/LS	x	= \$	-
<b>Subtotal Traffic Management Plan</b>				<b>\$ -</b>

**6C - Stage Construction and Traffic Handling**

Item code	Unit	Quantity	Unit Price (\$)	Cost
120198 Plastic Traffic Drums	EA	x	= \$	-
12016X Channelizer (Insert Type)	EA	x	= \$	-
120116 Type II Barricade	EA	x	= \$	-
120120 Type III Barricade	EA	x	= \$	-
129100 Temporary Crash Cushion Module	EA	x	= \$	-
129108 Temporary Crash Cushion TL-3	EA	22 x	4,000.00 = \$	88,000
120100 Traffic Control System	LS	1 x	2,500,000.00 = \$	2,500,000
129110 Temporary Crash Cushion	EA	x	= \$	-
120320 Temporary Barrier System	LF	3,500 x	58.00 = \$	203,000
129000 Temporary Railing (Type K)	LF	x	= \$	-
120149 Temporary Pavement Marking (Paint)	SQFT	x	= \$	-
120152 Temporary Pavement Marking (Tape)	SQFT	x	= \$	-
8101XX Delineator (Insert Class)	EA	x	= \$	-
<b>Subtotal Stage Construction and Traffic Handling</b>				<b>\$ 2,791,000</b>

<b>TOTAL TRAFFIC ITEMS</b>	<b>\$ 71,505,100</b>
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**SECTION 7: DETOURS**

Includes constructing, maintaining, and removal

Item code	Unit	Quantity	Unit Price (\$)	Cost
190101	Roadway Excavation	CY	x	= \$ -
19801X	Imported Borrow	CY/TON	x	= \$ -
390132	Hot Mix Asphalt (Type A)	TON	x	= \$ -
26020X	Class 2 Aggregate Base	CY/TON	x	= \$ -
250401	Class 4 Aggregate Subbase	CY	x	= \$ -
130620	Temporary Drainage Inlet Protection	EA	x	= \$ -
129000	Temporary Railing (Type K)	LF	x	= \$ -
128601	Temporary Signal System	LS	x	= \$ -
120149	Temporary Pavement Marking (Paint)	SQFT	x	= \$ -
80010X	Temporary Fence (Insert Type)	LF	x	= \$ -
XXXXXX	Some Item	LS	x	= \$ -
<b>TOTAL DETOURS</b>				<b>\$ -</b>

SUBTOTAL SECTIONS 1 through 7    \$    74,899,200

**SECTION 8: MINOR ITEMS**

<b>8A - Americans with Disabilities Act Items</b>	ADA Items - No Local Road Upgrades	0.0%	\$	-
<b>8B - Bike Path Items</b>	Bike Path Items - No Local Road Upgrades	0.0%	\$	-
<b>8C - Other Minor Items</b>	Other Minor Items - No Local Road Upgrades	3.5%	\$	2,621,472
Total of Section 1-7		\$ 74,899,200	x 3.5%	= \$ 2,621,472
<b>TOTAL MINOR ITEMS</b>				<b>\$ 2,621,500</b>

**SECTIONS 9: ROADWAY MOBILIZATION \***

Item code	Total Section 1-8	\$ 77,520,700	x 10%	= \$ 7,752,070
999990				
<b>TOTAL ROADWAY MOBILIZATION</b>				<b>\$ 7,752,100</b>

**SECTION 10: SUPPLEMENTAL WORK**

Item code	Unit	Quantity	Unit Price (\$)	Cost
066670	Payment Adjustments For Price Index Fluctuations	LS	x	= \$ -
066094	Value Analysis	LS	x	= \$ -
066070	Maintain Traffic	LS	1	x 100,000.00 = \$ 100,000
066919	Dispute Resolution Board	LS	1	x 50,000.00 = \$ 50,000
066921	Dispute Resolution Advisor	LS	x	= \$ -
066015	Federal Trainee Program	LS	x	= \$ -
066610	Partnering	LS	x	= \$ -
066204	Remove Rock and Debris	LS	x	= \$ -
066222	Locate Existing Crossover	LS	x	= \$ -
XXXXXX	Some Item	Unit	x	= \$ -
<i>Cost of NPDES Supplemental Work specified in Section 5D</i>				<i>= \$ 5,000</i>
Total Section 1-8		\$ 77,520,700	4%	= \$ 3,100,828
<b>TOTAL SUPPLEMENTAL WORK</b>				<b>\$ 3,255,900</b>

**SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES**

Item code		Unit	Quantity		Unit Price (\$)	=	Cost
066105	Resident Engineers Office	LS	1	x	473,000.00	=	\$473,000
066063	Traffic Management Plan - Public Information	LS		x		=	\$0
066901	Water Expenses	LS		x		=	\$0
8609XX	Traffic Monitoring Station (X)	LS		x		=	\$0
066841	Traffic Controller Assembly	LS		x		=	\$0
066840	Traffic Signal Controller Assembly	LS		x		=	\$0
066062	COZEEP Contract	LS	1	x	3,902,000.00	=	\$3,902,000
XXXXXX	Partnering	LS	1	x	110,000.00	=	\$110,000
066065	Tow Truck Service Patrol	LS	1	x	9,324,400.00	=	\$9,324,400
066916	Annual Construction General Permit Fee	LS		x		=	\$0
XXXXXX	Some Item	Unit		x		=	\$0
Total Section 1-8			\$ 77,520,700		3%	=	\$ 2,325,621

**TOTAL STATE FURNISHED \$16,135,100**

**SECTION 12: TIME-RELATED OVERHEAD**

Estimated Time-Related Overhead (TRO) Percentage (0% to 10%) = 3%

Item code		Unit	Quantity		Unit Price (\$)	=	Cost
090100	Time-Related Overhead	WD	400	X	\$5,814	=	\$2,325,700

**TOTAL TIME-RELATED OVERHEAD \$2,325,700**

**SECTION 13: ROADWAY CONTINGENCY\***

Total Section 1-12 \$ 106,989,500 x 15% = \$16,048,425

**TOTAL CONTINGENCY\* \$16,048,500**

**II. STRUCTURE ITEMS**

	<u><b>Bridge 1</b></u>		<u><b>Bridge 2</b></u>		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Cost Per Square Foot	\$150		\$150		\$0
<b>COST OF EACH</b>	<b>\$0</b>		<b>\$0</b>		<b>\$0</b>

	<u><b>Building 1</b></u>				
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Cost Per Square Foot	\$300		\$0		\$0
<b>COST OF EACH</b>	<b>\$0</b>		<b>\$0</b>		<b>\$0</b>

<b>TOTAL COST OF BRIDGES</b>	<b>\$0</b>
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<b>TOTAL COST OF BUILDINGS</b>	<b>\$0</b>
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<b>Time-Related Overhead</b>	10%	<b>\$0</b>
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<b>STRUCTURES MOBILIZATION</b>	10%	<b>\$0</b>
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<b>STRUCTURES CONTINGENCY*</b>	25%	<b>\$0</b>
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<b>TOTAL COST OF STRUCTURES</b>	<b>\$0</b>
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Estimate Prepared By: \_\_\_\_\_  
 XXXXXXXXXXXXXXXXXXXX ----- Division of Structures

\_\_\_\_\_ Date

**III. RIGHT OF WAY**

Fill in all of the available information from the Right of Way Data Sheet.

			<i>Current Value Future Use</i>		<i>Escalated Value</i>
A)	A1)	Acquisition, including Excess Land, Fees, Damages, Goodwill	\$ 150,000	\$	150,000
	A2)	Acquisition of Offsite Mitigation	0	\$	0
	A3)	Railroad Acquisition	0	\$	0
B)	B1)	Utility Relocation (State Share)	0	\$	0
	B2)	Potholing (Design Phase)	0	\$	0
C)		Utility - Advance Engineering Estimate (Encumber with State Only Funds)	0	\$	0
D)		RAP and/or Last Resort Housing	0	\$	0
E)		Clearance & Demolition	0	\$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	0	\$	0
G)		Title and Escrow	0	\$	0
H)		Environmental Review	0	\$	0
I)	Condemnation Settlements	<u>0%</u>	0	\$	0
J)	Design Appreciation Factor	<u>0%</u>	0	\$	0
K)		Utility Relocation (Construction Cost)	204,000	\$	271,691

L) 

<b>TOTAL RIGHT OF WAY ESTIMATE</b>	<b>\$354,000</b>
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M) 

<b>TOTAL R/W ESTIMATE: Escalated</b>	<b>\$421,700</b>
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N) 

<b>RIGHT OF WAY SUPPORT</b>	<b>\$100,018</b>
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Support Cost Estimate Prepared By Carly Corona (213) 266-3631  
Project Coordinator<sup>1</sup> Phone

Utility Estimate Prepared By Michele Graves (213) 269-0486  
Utility Coordinator<sup>2</sup> Phone

R/W Acquisition Estimate Prepared By Carly Corona (213) 266-3631  
Right of Way Estimator<sup>3</sup> Phone

Note: Items G & H applied to items A + B

<sup>1</sup> When estimate has Support Costs only

<sup>2</sup> When estimate has Utility Relocation

<sup>3</sup> When R/W Acquisition is required

### IV. SUPPORT COST ESTIMATE SUMMARY

report (D111 Project Management Support onramp) for component data.

Run a Support\_Cost Estimate Summary

Total by FY	PA&ED	PS&E	Unescalated-Risk Loaded	Total \$	PA&ED	Escalated (4.2% per year for ETC, effective 1/22/2018)	RW	CON	Total \$
<2016/16	Expended ETC								
2016/17	Expended ETC								
2017/18	Expended ETC								
2018/19	Expended ETC								
2019/20	Expended ETC								
2020/21	Expended ETC								
2021/22	Expended ETC								
2022/23	Expended ETC								
2023/24	Expended ETC								
2024/25	Expended ETC	\$1,018,000		\$1,018,000					\$1,018,000
2025/26	Expended ETC	\$0	\$80,000	\$9,118,299	\$0	\$9,826,025	\$86,972		\$9,912,997
2026/27	Expended ETC	\$7,074,091	\$12,000	\$9,748,991		\$7,690,628	\$13,046	\$2,894,983	\$10,598,656
2027/28	Expended ETC			\$10,652,500				\$11,580,910	\$11,580,910
2028/29	Expended ETC								
>2029/30	Expended ETC								
<b>EAC (Expended + ETC)</b>		<b>\$1,018,000</b>	<b>\$16,112,390</b>	<b>\$92,000</b>	<b>\$13,315,400</b>	<b>\$17,516,652</b>	<b>\$100,018</b>	<b>\$14,475,893</b>	<b>\$33,110,563</b>
<b>Risk Amount from Risk Register</b>									
<b>Support Escalation Rate</b>		3.7%	3.7%		Escalated Risk Amount	\$0	\$0	\$0	\$0
<b>Duration to mid-point component</b>		0.00	2.30						
<b>Total including Risk Amount</b>		\$1,018,000	\$16,112,390	\$92,000	\$13,315,400	\$17,516,652	\$100,018	\$14,475,893	\$33,110,563
<b>Approved Budget (PRSM)</b>									
<b>Difference (Budget - EAC)</b>		<b>-\$1,018,000</b>	<b>-\$16,112,390</b>	<b>-\$92,000</b>	<b>-\$13,315,400</b>	<b>-\$17,516,652</b>	<b>-\$100,018</b>	<b>-\$14,475,893</b>	<b>-\$31,074,563</b>
<b>Support Ratio (EAC / Cap Cost)</b>		0.8%	12.4%	0.1%	10.3%	13.5%	0.4%	11.2%	25.5%

<b>Total Capital Cost:</b>	<b>129,753,000</b>
<b>Total Capital Outlay Support Cost:</b>	<b>33,110,563</b>
<b>Overall Percent Support Cost:</b>	<b>25.5%</b>

PRSM workplan hours/costs verified against approved MWA.

Office Chief - \_\_\_\_\_ Date \_\_\_\_\_  
 Project Control - \_\_\_\_\_ Date \_\_\_\_\_

Approved by:

**PROJECT  
PLANNING COST ESTIMATE©**

EA: 07-50320

EA: 07-50320 PID: 713000197

PID: 713000197

District-County-Route: VAR

PM: VAR

Type of Estimate : Project Scope Summary Report

Program Code : Non-SHOPP

Project Limits : I-5, 10, 5, 105, 110, 210, 405; SR-2, 57, 91, 110, 134, 164; US-101

Project Description: Games Route Network for LA 28 Olympics

Scope : Traffic Management Devices and Temporary Striping

Alternative : Alternative # 1

**SUMMARY OF PROJECT COST ESTIMATE**

	<u>Current Year Cost</u>	<u>Escalated Cost</u>
TOTAL ROADWAY COST	\$ 62,488,900	\$ 65,685,082
TOTAL STRUCTURES COST	\$ -	\$ -
SUBTOTAL CONSTRUCTION COST	\$ 62,488,900	\$ 65,685,082
TOTAL RIGHT OF WAY COST	\$ -	\$ -
<b>TOTAL CAPITAL OUTLAY COSTS</b>	<b>\$ 62,489,000</b>	<b>\$ 65,686,000</b>
PA/ED SUPPORT	\$ 132,000	\$ 132,000
PS&E SUPPORT	\$ 4,599,140	\$ 4,999,974
RIGHT OF WAY SUPPORT	\$ -	\$ -
CONSTRUCTION SUPPORT	\$ 11,238,500	\$ 12,217,982
<b>TOTAL SUPPORT COST</b>	<b>\$ 15,970,000</b>	<b>\$ 17,350,000</b>

<b>TOTAL PROJECT COST</b>	<b>\$ 78,500,000</b>	<b>\$ 83,036,000</b>
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Programmed Amount

Month / Year

Date of Estimate (Month/Year) 7 / 2025

Estimated Construction Start (Month/Year) 12 / 2026

Number of Working Days = 400

Estimated Mid-Point of Construction (Month/Year) 2 / 2028

Estimated Construction End (Month/Year) 4 / 2029

Number of Plant Establishment Days

**Estimated Project Schedule**

PID Approval 8/15/2025

PAVED Approval 1/30/2025

PS&E 10/13/2026

RTL 7/13/2026

Begin Construction 12/14/2026

Reviewed by District O.E. or  
Cost Estimate Certifier

Ragy Samy

12/2/2025

(213) 269-1218

Office Engineer / Cost Estimate Certifier

Date

Phone

Approved by Project Manager

Manny T. Marcos

12/19/2026

(213) 218-8974

Project Manager

Date

Phone



**SECTION 1: EARTHWORK**

Item code		Unit	Quantity	Unit Price (\$)	Cost
190101	Roadway Excavation	CY	x	= \$	-
19010X	Roadway Excavation (Insert Type) ADL	CY	x	= \$	-
19801X	Imported Borrow	CY/TON	x	= \$	-
194001	Ditch Excavation	CY	x	= \$	-
192037	Structure Excavation (Retaining Wall)	CY	x	= \$	-
193013	Structure Backfill (Retaining Wall)	CY	x	= \$	-
193031	Pervious Backfill Material (Retaining Wall)	CY	x	= \$	-
17010X	Clearing & Grubbing	LS/ACRE	x	= \$	-
100100	Develop Water Supply	LS	x	= \$	-
19801X	Imported Borrow	CY/TON	x	= \$	-
21012X	Duff	ACRE/SQFT	x	= \$	-
XXXXXX	Some Item	Unit	x	= \$	-

<b>TOTAL EARTHWORK SECTION ITEMS</b>	<b>\$</b>	<b>-</b>
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**SECTION 2: PAVEMENT STRUCTURAL SECTION**

Item code		Unit	Quantity	Unit Price (\$)	Cost
401050	Jointed Plain Concrete Pavement	CY	x	= \$	-
400050	Continuously Reinforced Concrete Pavement	CY	x	= \$	-
390132	Hot Mix Asphalt (Type A)	TON	x	= \$	-
26020X	Class 2 Aggregate Base	TON/CY	x	= \$	-
250401	Class 4 Aggregate Subbase	CY	x	= \$	-
414240	Isolation Joint Seal (Asphalt Rubber)	LF	x	= \$	-
414241	Isolation Joint Seal (Silicone)	LF	x	= \$	-
280010	Rapid Strength Concrete Base	CY	x	= \$	-
410096	Drill and Bond (Dowel Bar)	EA	x	= \$	-
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON	x	= \$	-
391006	Asphalt Binder (Geosynthetic Pavement Interlayer)	TON	x	= \$	-
290201	Asphalt Treated Permeable Base	CY	x	= \$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON	x	= \$	-
397005	Tack Coat	TON	x	= \$	-
377501	Slurry Seal	TON	x	= \$	-
374493	Polymer Asphaltic Emulsion (Seal Coat)	TON	x	= \$	-
370001	Sand Cover (Seal)	TON	x	= \$	-
731530	Minor Concrete (Textured Paving)	CY	x	= \$	-
731502	Minor Concrete (Miscellaneous Construction)	CY	x	= \$	-
39407X	Place Hot Mix Asphalt Dike (Insert Type)	LF	x	= \$	-
398100	Remove Asphalt Concrete Dike	LF	x	= \$	-
420201	Grind Existing Concrete Pavement	SQYD	x	= \$	-
398300	Remove Base and Surfacing	CY	x	= \$	-
390095	Replace Asphalt Concrete Surfacing	CY	x	= \$	-
41800X	Remove Concrete Pavement	SQYD/CY	x	= \$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD	x	= \$	-
398200	Cold Plane Asphalt Concrete Pavement	SQYD	x	= \$	-
846046	6" Rumble Strip (Asphalt Concrete Pavement)	STA	x	= \$	-
846049	6" Rumble Strip (Concrete Pavement)	STA	x	= \$	-
846051	12" Rumble Strip (Asphalt Concrete Pavement)	STA	x	= \$	-
846052	12" Rumble Strip (Concrete Pavement)	STA	x	= \$	-
420102	Groove Existing Concrete Pavement	SQYD	x	= \$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD	x	= \$	-
390136	Minor Hot Mix Asphalt	TON	x	= \$	-
XXXXXX	Some Item	Unit	x	= \$	-

<b>TOTAL PAVEMENT STRUCTURAL SECTION ITEMS</b>	<b>\$</b>	<b>-</b>
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**SECTION 3: DRAINAGE**

Item code	Unit	Quantity	Unit Price (\$)	Cost
71013X	Remove Culvert	EA/LF	x	= \$ -
710240	Modify Inlet	EA	x	= \$ -
710370	Sand Backfill	CY	x	= \$ -
71010X	Abandon Culvert	EA/LF	x	= \$ -
710196	Adjust Inlet	LF	x	= \$ -
710262	Cap Inlet	EA	x	= \$ -
510501	Minor Concrete	CY	x	= \$ -
510502	Minor Concrete (Minor Structure)	CY	x	= \$ -
731627	Minor Concrete (Curb, Sidewalk, and Curb Ramp)	CY	x	= \$ -
6101XX	XX" Alternative Pipe Culvert (Insert Type)	LF	x	= \$ -
6411XX	XX" Plastic Pipe	LF	x	= \$ -
65XXXX	XX" Reinforced Concrete Pipe (Insert Type)	LF	x	= \$ -
6811XX	XX" Plastic Pipe (Edge Drain)	LF	x	= \$ -
6901XX	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thic	LF	x	= \$ -
7006XX	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF	x	= \$ -
7032XX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF	x	= \$ -
7050XX	XX" Steel Flared End Section	EA	x	= \$ -
703233	Grated Line Drain	LF	x	= \$ -
72XXXX	Rock Slope Protection (Type and Method)	CY/TON	x	= \$ -
72901X	Rock Slope Protection Fabric (Insert Class)	SQYD	x	= \$ -
721420	Concrete (Ditch Lining)	CY	x	= \$ -
721430	Concrete (Channel Lining)	CY	x	= \$ -
750001	Miscellaneous Iron and Steel	LB	x	= \$ -
XXXXXX	Additional Drainage	LS	x	= \$ -
<b>TOTAL DRAINAGE ITEMS</b>				<b>\$ -</b>

**SECTION 4: SPECIALTY ITEMS**

Item code	Unit	Quantity	Unit Price (\$)	Cost
520103	Bar Reinforced Steel (Retaining Wall)	LB	x	= \$ -
5100XX	Structural Concrete	CY	x	= \$ -
510060	Structural Concrete, Retaining Wall	CY	x	= \$ -
5201XX	Bar Reinforcing Steel	LB	x	= \$ -
080050	Progress Schedule (Critical Path Method)	LS	x	= \$ -
080050x	Progress Schedule (Monthly Update)	EA	x	= \$ -
0800XX	Maintain GRN	LS	1	x 4,928,000.00 = \$ 4,928,000
582001	Sound Wall (Masonry Block)	SQFT	x	= \$ -
510530	Minor Concrete (Wall)	CY	x	= \$ -
60005X	Remove Sound Wall	LF/LS/SQFT	x	= \$ -
070030	Lead Compliance Plan	LS	x	= \$ -
141120	Treated Wood Waste	LB	x	= \$ -
839750	Remove Concrete Barrier	LF	x	= \$ -
839752	Remove Guardrail	LF	x	= \$ -
710167	Remove Flared End Section	EA	x	= \$ -
8000XX	Chain Link Fence (Insert Type)	LF	x	= \$ -
80XXXX	XX" Chain Link Gate (Type CL-X)	EA	x	= \$ -
8320XX	Midwest Guardrail System (Insert Type)	LF	x	= \$ -
839301	Single Thrie Beam Barrier	LF	x	= \$ -
839310	Double Thrie Beam Barrier	LF	x	= \$ -
839521	Cable Railing	LF	x	= \$ -
839566	Terminal System (Type CAT)	EA	x	= \$ -
839584	Alternative In-line Terminal System	EA	x	= \$ -
839585	Alternative Flared Terminal System	EA	x	= \$ -
4906XX	XX" Cast-In-Drilled-Hole Concrete Piling	LF	x	= \$ -
8396XX	Crash Cushion (Insert Type)	EA	x	= \$ -
8331XX	Concrete Barrier (Insert Type)	LF	x	= \$ -
475010	Retaining Wall (Masonry Wall)	SQFT	x	= \$ -
511035	Architectural Treatment	SQFT	x	= \$ -
780460	Anti-Graffiti Coating	SQFT	x	= \$ -
780450	Rock Stain	SQFT	x	= \$ -
4730XX	Reinforced Concrete Crib Wall (Insert Type)	SQFT	x	= \$ -
83954X	Transition Railing (Insert Type)	EA	x	= \$ -
780440	Prepare and Stain Concrete	SQFT	x	= \$ -
839561	Rail Tensioning Assembly	EA	x	= \$ -
83958X	End Anchor Assembly (Insert Type)	EA	x	= \$ -
<b>TOTAL SPECIALTY ITEMS</b>				<b>\$ 4,928,000</b>

Effective immediately, districts must input estimated item quantities in blue text above in the PRSM database for the pay items listed in the Design Memo, dated April 9, 2018, when Project Report is approved (Milestone 200). [Link to Design Memo.](#)

**SECTION 5: ENVIRONMENTAL**

**5A - ENVIRONMENTAL MITIGATION**

Item code	Unit	Quantity	Unit Price (\$)	Cost
	LS	x	= \$	-
80010X Biological Mitigation (on-site)	LF	x	= \$	-
130670 Temporary Fence (Insert Type)	LF	x	= \$	-
130670 Temporary Reinforced Silt Fence				
<i>Subtotal Environmental Mitigation</i>				\$ -

**5B - LANDSCAPE AND IRRIGATION**

Item code	Unit	Quantity	Unit Price (\$)	Cost
20XXXX Highway Planting	LS	x	= \$	-
20XXXX Irrigation System	LS	x	= \$	-
204099 Plant Establishment Work	LS	x	= \$	-
20XXXX Follow-up Landscape Project	LS	x	= \$	-
206405 Remove Irrigation Facility	LS	x	= \$	-
204096 Maintain Existing Planted Areas	LS	x	= \$	-
206400 Check and Test Existing Irrigation Facilities	LS	x	= \$	-
21011X Imported Topsoil	CY/TON	x	= \$	-
200114 Rock Blanket	SQFT/SQYD	x	= \$	-
200122 Weed Germination	SQYD	x	= \$	-
995100 Water Meter Charges	LS	x	= \$	-
2087XX XX" Conduit (Use for Irrigation x-overs)	LF	x	= \$	-
20890X Extend X" Conduit (Use for Extension of Irrigation	LF	x	= \$	-
<i>Subtotal Landscape and Irrigation</i>				\$ -

**5C - EROSION CONTROL**

Item code	Unit	Quantity	Unit Price (\$)	Cost
211111 Permanent Erosion Control Establishment Work	LS	x	= \$	-
210010 Move-In/Move-Out (Erosion Control)	EA	x	= \$	-
210350 Fiber Rolls	LF	x	= \$	-
210360 Compost Sock	LF	x	= \$	-
2102XX Rolled Erosion Control Product (Insert Type)	SQFT	x	= \$	-
21025X Bonded Fiber Matrix	SQFT/ACRE	x	= \$	-
210300 Hydromulch	SQFT	x	= \$	-
210420 Straw	SQFT	x	= \$	-
210430 Hydroseed	SQFT	x	= \$	-
210610 Compost	CY	x	= \$	-
210630 Incorporate Materials	SQFT			
<i>Subtotal Erosion Control</i>				\$ -

**5D - NPDES**

Item code	Unit	Quantity	Unit Price (\$)	Cost
130300 Prepare SWPPP	LS	x	= \$	-
130200 Prepare WPCP	LS	x	= \$	-
130100 Job Site Management	LS	x	= \$	-
130330 Storm Water Annual Report	EA	x	= \$	-
130310 Rain Event Action Plan	EA	x	= \$	-
130320 Storm Water Sampling and Analysis Day	EA	x	= \$	-
130520 Temporary Hydraulic Mulch	SQYD	x	= \$	-
130550 Temporary Hydroseed	SQYD	x	= \$	-
130505 Move-In/Move-Out (Temporary Erosion Control)	EA	x	= \$	-
130640 Temporary Fiber Roll	LF	x	= \$	-
130900 Temporary Concrete Washout	LS	x	= \$	-
130710 Temporary Construction Entrance	EA	x	= \$	-
130610 Temporary Check Dam	LF	x	= \$	-
130620 Temporary Drainage Inlet Protection	EA	340	150.00	= \$ 51,000
130730 Street Sweeping	LS	x	= \$	-
<i>Subtotal NPDES</i>				\$ 51,000

<b>TOTAL ENVIRONMENTAL</b>	<b>\$ 51,000</b>
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**Supplemental Work for NPDES**

066595 Water Pollution Control Maintenance Sharing*	LS	x	= \$	-
066596 Additional Water Pollution Control**	LS	1	5,000.00	= \$ 5,000
066597 Storm Water Sampling and Analysis***	LS	x	= \$	-
XXXXXX Some Item	LS	x	= \$	-
<i>Subtotal Supplemental Work for NDPS</i>				\$ 5,000

\*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

\*\*Applies to both SWPPPs and WPCP projects.

\*\*\* Applies only to project with SWPPPs.

**SECTION 6: TRAFFIC ITEMS**

**6A - Traffic Electrical**

Item code	Unit	Quantity	Unit Price (\$)	Cost
870200	Lighting System	LS	x	= \$ -
5680XX	ATM Gantry	EA	x	= \$ -
5680XX	Install CCTV on 40' Pole	EA	x	= \$ -
870300	Sign Illumination System	LS	x	= \$ -
870400	Signal and Lighting System	LS	x	= \$ -
870510	Ramp Metering System	LS	x	= \$ -
87181X	Interconnection Conduit and Cable	LF/LS	x	= \$ -
5602XX	Furnish Sign Structure (Insert Type)	LB	x	= \$ -
5602XX	Install Sign Structure (Insert Type)	LB	x	= \$ -
4980XX	XX" CIDHC Pile (Sign Foundation)	LF	x	= \$ -
87011X	Inductive Loop Detector	EA/LS	x	= \$ -
870600	Traffic Monitoring Station System	LS	x	= \$ -
56804X	Remove Sign Structure	EA/LS	x	= \$ -
568054	Reconstruct Sign Structure	EA	x	= \$ -
568060	Modify Sign Structure	EA	x	= \$ -
870009	Elements During Construction	LS	x	= \$ -
86XXXX	Fiber Optic Conduit System	LS	x	= \$ -
XXXXX	Some Item	Unit	x	= \$ -
<b>Subtotal Traffic Electrical</b>				<b>\$ -</b>

**6B - Traffic Signing and Striping**

Item code	Unit	Quantity	Unit Price (\$)	Cost
820840	Roadside Sign - One Post	EA	x	= \$ -
820850	Roadside Sign - Two Post	EA	x	= \$ -
5602XX	Furnish Sign Structure (Insert Type)	SQFT	x	= \$ -
820890	Install Sign Panel on Existing Frame	SQFT	x	= \$ -
8208XX	Roadside Sign - Barrier Mounted	EA	300 x	= \$ 3,000,000
8208XX	Remove Roadside Sign - Barrier Mounted	EA	300 x	= \$ 600,000
820900	Install Roadside sign Panel on Existing Post	EA	2,400 x	= \$ 720,000
820310	Remove Roadside sign Panel	EA	1,200 X	= \$ 240,000
820870	Install Sign Overlay	SQFT	400 x	= \$ 2,500,000
8208XZ	Roadside Sign - Existing Overlay	EA	1,200 x	= \$ 96,000
846020	Remove Painted Traffic Stripe	LF	7,054,080 x	= \$ 5,995,968
141102	Remove Yellow Painted Traffic Stripe (Hazardous \	LF	881,760 x	= \$ 1,498,992
846025	Remove Painted Pavement Marking	SQFT	64,512 x	= \$ 258,048
846025	Remove Painted Pavement Marking-Restoration	SQFT	10,800 x	= \$ 43,200
820250	Remove Roadside Sign	EA	x	= \$ -
820530	Reset Roadside Sign	EA	x	= \$ -
820610	Relocate Roadside Sign	EA	x	= \$ -
8101XX	Delineator (Insert Class)	EA	x	= \$ -
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night '	LF	7,054,080 x	= \$ 10,581,120
846012	Thermoplastic Crosswalk and Pavement Marking (Enhanced Wet Night Visibility)	SQFT	10,800 x	= \$ 108,000
120165	Channelizer (Surface Mounted)	EA	58,000 x	= \$ 2,900,000
846012	Thermoplastic Crosswalk and Pavement Marking (Enhanced Wet Night Visibility) -Restoration	SQFT	64,512 x	= \$ 645,120
120090	Construction Area Signs	LS	1 x	= \$ 827,550
84XXXX	Permanent Pavement Delineation	LS	1 x	= \$ 3,000,000
<b>Subtotal Traffic Signing and Striping</b>				<b>\$ 33,013,998</b>

**6C - Traffic Management Plan**

Item code	Unit	Quantity	Unit Price (\$)	Cost
12865X	Portable Changeable Message Sign	EA/LS	x	= \$ -
<b>Subtotal Traffic Management Plan</b>				<b>\$ -</b>

**6C - Stage Construction and Traffic Handling**

Item code	Unit	Quantity	Unit Price (\$)	Cost
120198	Plastic Traffic Drums	EA	x	= \$ -
12016X	Channelizer (Insert Type)	EA	x	= \$ -
120116	Type II Barricade	EA	x	= \$ -
120120	Type III Barricade	EA	x	= \$ -
129100	Temporary Crash Cushion Module	EA	x	= \$ -
129108	Temporary Crash Cushion TL-3	EA	x	= \$ -
120100	Traffic Control System	LS	1 x	= \$ 3,500,000
129110	Temporary Crash Cushion	EA	x	= \$ -
120320	Temporary Barrier System	LF	x	= \$ -
129000	Temporary Railing (Type K)	LF	x	= \$ -
120149	Temporary Pavement Marking (Paint)	SQFT	x	= \$ -
120152	Temporary Pavement Marking (Tape)	SQFT	x	= \$ -
8101XX	Delineator (Insert Class)	EA	x	= \$ -
<b>Subtotal Stage Construction and Traffic Handling</b>				<b>\$ 3,500,000</b>

<b>TOTAL TRAFFIC ITEMS</b>	<b>\$ 36,514,000</b>
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**SECTION 7: DETOURS**

Includes constructing, maintaining, and removal

Item code	Unit	Quantity	Unit Price (\$)	Cost
190101	Roadway Excavation	CY	x	= \$ -
19801X	Imported Borrow	CY/TON	x	= \$ -
390132	Hot Mix Asphalt (Type A)	TON	x	= \$ -
26020X	Class 2 Aggregate Base	CY/TON	x	= \$ -
250401	Class 4 Aggregate Subbase	CY	x	= \$ -
130620	Temporary Drainage Inlet Protection	EA	x	= \$ -
129000	Temporary Railing (Type K)	LF	x	= \$ -
128601	Temporary Signal System	LS	x	= \$ -
120149	Temporary Pavement Marking (Paint)	SQFT	x	= \$ -
80010X	Temporary Fence (Insert Type)	LF	x	= \$ -
XXXXXX	Some Item	LS	x	= \$ -
<b>TOTAL DETOURS</b>				<b>\$ -</b>

SUBTOTAL SECTIONS 1 through 7    \$    41,493,000

**SECTION 8: MINOR ITEMS**

<b>8A - Americans with Disabilities Act Items</b>	ADA Items - No Local Road Upgrades	0.0%	\$	-
<b>8B - Bike Path Items</b>	Bike Path Items - No Local Road Upgrades	0.0%	\$	-
<b>8C - Other Minor Items</b>	Other Minor Items - No Local Road Upgrades	0.0%	\$	-
Total of Section 1-7		\$ 41,493,000	x 0.0%	= \$ -
<b>TOTAL MINOR ITEMS</b>				<b>\$ -</b>

**SECTIONS 9: ROADWAY MOBILIZATION \***

Item code	Total Section 1-8	\$ 41,493,000	x 10%	= \$ 4,149,300
999990				
<b>TOTAL ROADWAY MOBILIZATION</b>				<b>\$ 4,149,300</b>

**SECTION 10: SUPPLEMENTAL WORK**

Item code	Unit	Quantity	Unit Price (\$)	Cost
066670	Payment Adjustments For Price Index Fluctuations	LS	x	= \$ -
066094	Value Analysis	LS	x	= \$ -
066070	Maintain Traffic	LS 1	x 100,000.00	= \$ 100,000
066919	Dispute Resolution Board	LS 1	x 50,100.00	= \$ 50,100
066921	Dispute Resolution Advisor	LS	x	= \$ -
066015	Federal Trainee Program	LS	x	= \$ -
066610	Partnering	LS	x	= \$ -
066204	Remove Rock and Debris	LS	x	= \$ -
066222	Locate Existing Crossover	LS	x	= \$ -
XXXXXX	Some Item	Unit	x	= \$ -
<i>Cost of NPDES Supplemental Work specified in Section 5D</i>				<i>= \$ 5,000</i>
Total Section 1-8		\$ 41,493,000	4%	= \$ 1,659,720
<b>TOTAL SUPPLEMENTAL WORK</b>				<b>\$ 1,814,900</b>

**SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES**

Item code		Unit	Quantity		Unit Price (\$)	=	Cost
066105	Resident Engineers Office	LS	1	x	450,000.00	=	\$450,000
066063	Traffic Management Plan - Public Information	LS		x		=	\$0
066901	Water Expenses	LS		x		=	\$0
8609XX	Traffic Monitoring Station (X)	LS		x		=	\$0
066841	Traffic Controller Assembly	LS		x		=	\$0
066840	Traffic Signal Controller Assembly	LS		x		=	\$0
0660XX	RR Plan Review	LS		x		=	\$0
066062	RR Flagging	LS	1	x	500,000.00	=	\$500,000
066062	COZEEP Contract	LS	1	x	1,356,000.00	=	\$1,356,000
066838	Reflective Numbers and Edge Sealer	LS		x		=	\$0
066065	Tow Truck Service Patrol	LS	1	x	2,500,000.00	=	\$2,500,000
066916	Annual Construction General Permit Fee	LS		x		=	\$0
XXXXXX	Some Item	Unit		x		=	\$0
Total Section 1-8			\$ 41,493,000		2%	= \$	829,860

**TOTAL STATE FURNISHED \$5,635,900**

**SECTION 12: TIME-RELATED OVERHEAD**

Estimated Time-Related Overhead (TRO) Percentage (0% to 10%) = 3%

Item code		Unit	Quantity		Unit Price (\$)	=	Cost
090100	Time-Related Overhead	WD	400	X	\$3,112	=	\$1,244,800

**TOTAL TIME-RELATED OVERHEAD \$1,244,800**

**SECTION 13: ROADWAY CONTINGENCY\***

Total Section 1-12 \$ 54,337,900 x 15% = \$8,150,685

**TOTAL CONTINGENCY\* \$8,151,000**

**II. STRUCTURE ITEMS**

	<u><b>Bridge 1</b></u>		<u><b>Bridge 2</b></u>		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Cost Per Square Foot	\$150		\$150		\$0
<b>COST OF EACH</b>	<b>\$0</b>		<b>\$0</b>		<b>\$0</b>

	<u><b>Building 1</b></u>				
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Cost Per Square Foot	\$300		\$0		\$0
<b>COST OF EACH</b>	<b>\$0</b>		<b>\$0</b>		<b>\$0</b>

<b>TOTAL COST OF BRIDGES</b>	<b>\$0</b>
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<b>TOTAL COST OF BUILDINGS</b>	<b>\$0</b>
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<b>Time-Related Overhead</b>	10%	<b>\$0</b>
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<b>STRUCTURES MOBILIZATION</b>	10%	<b>\$0</b>
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<b>STRUCTURES CONTINGENCY*</b>	25%	<b>\$0</b>
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<b>TOTAL COST OF STRUCTURES</b>	<b>\$0</b>
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Estimate Prepared By: \_\_\_\_\_  
 XXXXXXXXXXXXXXXXXXXX ----- Division of Structures

\_\_\_\_\_  
 Date

**III. RIGHT OF WAY**

Fill in all of the available information from the Right of Way Data Sheet.

			<i>Current Value Future Use</i>		<i>Escalated Value</i>
A)	A1)	Acquisition, including Excess Land, Fees, Damages, Goodwill	\$ 0	\$	0
	A2)	Acquisition of Offsite Mitigation	\$ 0	\$	0
	A3)	Railroad Acquisition	\$ 0	\$	0
B)	B1)	Utility Relocation (State Share)	\$ 0	\$	0
	B2)	Potholing (Design Phase)	\$ 0	\$	0
C)		Utility - Advance Engineering Estimate (Encumber with State Only Funds)	\$ 0	\$	0
D)		RAP and/or Last Resort Housing	\$ 0	\$	0
E)		Clearance & Demolition	\$ 0	\$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	\$ 0	\$	0
G)		Title and Escrow	\$ 0	\$	0
H)		Environmental Review	\$ 0	\$	0
I)		Condemnation Settlements <u>0%</u>	\$ 0	\$	0
J)		Design Appreciation Factor <u>0%</u>	\$ 0	\$	0
K)		Utility Relocation (Construction Cost)	\$ 0	\$	0

L) 

<b>TOTAL RIGHT OF WAY ESTIMATE</b>	<b>\$0</b>
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M) 

<b>TOTAL R/W ESTIMATE: Escalated</b>	<b>\$0</b>
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N) 

<b>RIGHT OF WAY SUPPORT</b>	<b>\$0</b>
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Support Cost Estimate Prepared By Carly Corona (213) 266-3631  
Project Coordinator<sup>1</sup> Phone

Utility Estimate Prepared By Michele Graves (213) 269-0486  
Utility Coordinator<sup>2</sup> Phone

R/W Acquisition Estimate Prepared By Carly Corona (213) 266-3631  
Right of Way Estimator<sup>3</sup> Phone

Note: Items G & H applied to items A + B

<sup>1</sup> When estimate has Support Costs only

<sup>2</sup> When estimate has Utility Relocation

<sup>3</sup> When R/W Acquisition is required

### IV. SUPPORT COST ESTIMATE SUMMARY

Run a Support Cost Estimate Summary report (D11 Project Management Support onramp) for component data.

Total by FY	PA&ED		PS&E		Unescalated-Risk Loaded		Escalated (4.2% per year for ETC, effective 1/2/2018)		Total \$
	PA&ED	CON	PS&E	CON	PA&ED	PS&E	RW	CON	
<2016/16	Expended ETC								
2016/17	Expended ETC								
2017/18	Expended ETC								
2018/19	Expended ETC								
2019/20	Expended ETC								
2020/21	Expended ETC								
2021/22	Expended ETC								
2022/23	Expended ETC								
2023/24	Expended ETC								
2024/25	Expended ETC								
2025/26	Expended ETC	\$132,000	\$0	\$3,044,640	\$0	\$3,176,640	\$132,000	\$3,309,993	\$3,441,993
2026/27	Expended ETC		\$0	\$1,554,500	\$0	\$1,554,500		\$1,689,981	\$1,689,981
2027/28	Expended ETC				\$5,619,250	\$5,619,250		\$6,108,991	\$6,108,991
2028/29	Expended ETC				\$5,619,250	\$5,619,250		\$6,108,991	\$6,108,991
>2029/30	Expended ETC								
<b>EAC (Expended + ETC)</b>		<b>\$132,000</b>	<b>\$0</b>	<b>\$4,599,140</b>	<b>\$0</b>	<b>\$11,238,500</b>	<b>\$132,000</b>	<b>\$4,999,974</b>	<b>\$17,349,957</b>
Risk Amount from Risk Register						Escalated Risk Amount			\$0
Support Escalation Rate		3.7%		3.7%					
Duration to mid-point component		0.00		2.30					
Total including Risk Amount		\$132,000	\$0	\$4,599,140	\$0	\$11,238,500	\$132,000	\$4,999,974	\$17,349,957
Approved Budget (PRSM)									
Difference (Budget - EAC)		<b>-\$132,000</b>	<b>\$0</b>	<b>-\$4,599,140</b>	<b>\$0</b>	<b>-\$15,969,640</b>	<b>-\$132,000</b>	<b>-\$4,999,974</b>	<b>-\$17,349,957</b>
Support Ratio (EAC / Cap Cost)		0.2%	0.0%	7.0%	0.0%	24.3%	0.2%	7.6%	26.4%

<b>Total Capital Cost:</b>	<b>65,686,000</b>
<b>Total Capital Outlay Support Cost:</b>	<b>17,349,957</b>
<b>Overall Percent Support Cost:</b>	<b>26.4%</b>

PRSM workplan hours/costs verified against approved MWA.

Approved by:

Office Chief - \_\_\_\_\_

Date \_\_\_\_\_

Project Control - \_\_\_\_\_

Date \_\_\_\_\_

**ATTACHMENT F**  
**ENVIRONMENTAL DOCUMENT**



**CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION  
DETERMINATION FORM (rev. 06/2022)**

**Project Information**

**Project Name (if applicable):** Los Angeles 2028 Olympic Games Route Network  
**DIST-CO-RTE:** 07/11/12-LA/OC/SD-Various Routes **PM/PM:** Various  
**EA:** 07-50320 **Federal-Aid Project Number/EFIS:**0724000249 **CE:** 202503008

**Project Description:**

The Los Angeles 2028 Olympics Games Route Network (LA 28 GRN) on the state highway system (SHS) focuses on providing a secure and efficient transportation system for Games vehicles traveling between official venues along the SHS. Please see more information on the Continuation Sheet.

**Caltrans CEQA Determination (Check one)**

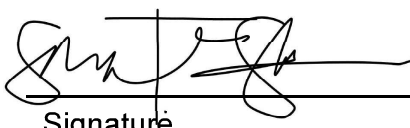
- Not Applicable** – Caltrans is not the CEQA Lead Agency
- Not Applicable** – Caltrans has prepared an IS or EIR under CEQA

Based on an examination of this proposal and supporting information, the project is:

- Exempt by Statute.** (PRC 21080(b)(7); 14 CCR 15260 et seq.)
- Categorically Exempt. Class 1(c).** (PRC 21084; 14 CCR 15300 et seq.)
- No exceptions apply that would bar the use of a categorical exemption (PRC 21084 and 14 CCR 15300.2). See the [SER Chapter 34](#) for exceptions.
- Covered by the Common Sense Exemption.** This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment (14 CCR 15061[b][3].)

Senior Environmental Planner or Environmental Branch Chief

Thoa Le		12/4/2025
Print Name	Signature	Date

Project Manager Manny T. Marcos		12/4/2025
Print Name	Signature	Date



CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION DETERMINATION FORM

Caltrans NEPA Determination (Check one)

[X] Not Applicable

Caltrans has determined that this project has no significant impacts on the environment as defined by NEPA, and that there are no unusual circumstances as described in 23 CFR 771.117(b). See SER Chapter 30 for unusual circumstances. As such, the project is categorically excluded from the requirements to prepare an EA or EIS under NEPA and is included under the following:

[ ] 23 USC 326: Caltrans has been assigned, and hereby certifies that it has carried out the responsibility to make this determination pursuant to 23 USC 326 and the Memorandum of Understanding dated April 18, 2022, executed between FHWA and Caltrans. Caltrans has determined that the project is a Categorical Exclusion under:

[ ] 23 CFR 771.117(c): activity (c)(Enter activity number)

[ ] 23 CFR 771.117(d): activity (d)(Enter activity number)

[ ] Activity listed in Appendix A of the MOU between FHWA and Caltrans

[ ] 23 USC 327: Based on an examination of this proposal and supporting information, Caltrans has determined that the project is a Categorical Exclusion under 23 USC 327. The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans.

Senior Environmental Planner or Environmental Branch Chief

Not Applicable

Print Name Signature Date

Project Manager/ DLA Engineer

Not Applicable

Print Name Signature Date

Date of Categorical Exclusion Checklist completion (if applicable): Not Applicable

Date of Environmental Commitment Record or equivalent: 12/3/2025



## CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION DETERMINATION FORM

### Continuation sheet:

#### Introduction

Millions of visitors from around the world are anticipated to visit Los Angeles in the Summer of 2028 for the Olympic and Paralympic Games (LA28 Games). The existing state highway system (SHS) lacks system-wide comprehensive and cohesive ability to accommodate the anticipated traffic volume, actively monitor conditions, detect incidents, manage traffic, and provide accurate and timely travel information in real time. Therefore, dedicated travel lanes are needed to ensure reliable, secure, and timely transportation for key Olympic and Paralympic participants and officials between competition and non-competition locations. In addition, there is a need to minimize delays, reduce traffic-related risks, and maintain the smooth flow of operations during the duration of the LA28 Games.

The Los Angeles 2028 Games Route Network (LA28 GRN or project) proposes system-wide improvements to the performance, reliability, and safety of the SHS by enhancing the capability of the California Department of Transportation's (Caltrans') Traffic Management System (TMS). The LA28 GRN would provide long-term system resiliency by enabling real-time data collection, improving monitoring, and allowing more effective dissemination of traveler information particularly during large-scale surges in travel demand associated with regional events, such as the LA28 Games.

#### Description of Work

Construction of the LA28 GRN or project would be within Caltrans right-of-way (ROW). Construction and operation of the LA28 GRN on local roadways will be cleared by the appropriate local jurisdiction. The scope of work for the LA28 GRN on the SHS would involve the following:

- Permanent Improvements
  - 11 Active Transportation management (ATM) gantries
  - 12 Dynamic Message Sign (DMS)
  - 69 Lane Management Signs (LMS)
  - 24 Variable Advisor Speed Signs (VASS)
  - 256 Closed-circuit television (CCTV) Cameras
- Temporary Operational improvements
  - 210 Centerline Lane-Miles of Games Vehicles & Public Transit Dedicated Managed Lanes (converted from certain existing managed lanes and general-purpose lanes)
  - 300 Barrier Mounted Roadside Signs
  - 400 Overhead Sign Overlays
  - 1200 Roadside Sign Overlays
  - 320 Lane Miles of Pavement Striping
  - 10,800 SQFT Pavement Markings
  - 58,000 EA Channelizers
  - 24/7 Construction and Maintenance Support during Games
- Removal/Restoration
  - 320 Lane Miles Pavement Striping
  - 64,512 SQFT Pavement Marking
  - 58,000 Channelizers



## CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION DETERMINATION FORM

- 400 Overhead Sign Overlays
- 1200 Roadside Sign Overlays
- 210 Dedicated Managed Lanes (converted back to original managed lanes and general purpose lanes)

The LA28 GRN is anticipated to start construction on December 2026, with a completion date of December 2027. During the Olympic and Paralympic events, there will be a construction moratorium placed on all state highways with LA28 GRN routes from June 1, 2028, to September 1, 2028. To ensure the assets are operational, the selected contractor will perform regular inspections and repairs, as appropriate, prior to and during the Games.

### Environmental Factors

The TMS improvements would be minor alterations to an existing facility, and no new facilities, structures, or changes to the existing alignment and capacity of the SHS are proposed.

The proposed LA28 GRN was reviewed in accordance with state laws, and environmental measures/commitments were considered to minimize any potential impacts as a result of project implementation on the SHS. These measures/commitments are listed below under *Environmental Commitments*.

### **Aesthetics**

A Visual Impact Assessment Questionnaire was prepared by the Office of Stormwater and Landscape Architecture to determine the visual impact assessment level which resulted in a score of 24 out of 48. Overall, the LA28 GRN SHS routes traverse through highly urbanized areas throughout the great Los Angeles County and parts of Orange County. None of the gantries or CCTV poles will be installed on Designated Scenic Highway or Eligible Scenic Highway. Therefore, minor visual changes to the environment would occur. However, SR-2, SR-210, SR-110, and SR-134 traverse through mountainous areas characterized by scenic mountain ridgelines and natural features. A Scenic Resource Evaluation document will be required for the Plans, Specifications, and Estimates (PS&E) Phase identify opportunities for context-sensitive design. Additionally, any landscape area and irrigation infrastructure disturbed by construction activities shall be restored and replaced in kind.

### **Transportation**

A Games Living Model for the proposed LA28 GRN was developed in coordination with Los Angeles County Metropolitan Transportation Authority (LA Metro) and the LA28 Games Mobility Executives (GME) to reflect the impact of an estimated 1.2 million additional vehicles including buses, trucks, and cars on mainlines of the SHS during the LA28 Games. The analysis compared the traffic performance between the 2028 No Games and 2028 With Games scenarios. The two scenarios incorporated projected background traffic growth, Games-related demand (Games Family, spectators, workforce, Games Enhanced Transit Service [GETS] buses), and the designation of Games Lanes on the SHS; and assessed two specific hours (AM and PM peak hour) on Day 10 of the LA28 Games. Based on the LA28 Organizing Committee's draft competition schedule, Day 10 is the day with the greatest number of event tickets that is not a Friday, Saturday or Sunday.



## CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION DETERMINATION FORM

The SHS mainlines that would be affected by the LA28 GRN are considered major thoroughfares within Southern California, particularly I-405, I-10, and SR-101. During construction and activation of the LA28 GRN on the SHS, the proposed game dedicated lane and associated ramp closures are anticipated to result in temporary increases to traffic volumes in the general-purpose lanes due to the shift of background traffic from managed lanes to general purpose lanes; thereby temporarily impacting the commuters and the traveling public who regularly use these routes. However, once the LA28 Games are complete the temporary operational improvements on the SHS would be removed, and changes to the traffic pattern along the SHS would be returned to pre-project or no-game conditions. Therefore, no significant transportation/traffic effect is anticipated due to the project.

In an effort to minimize any potential temporary traffic effects, prior to the activation of the LA28 GRN a construction moratorium, per non-standard special provisions (NSSP) 12-4.02C(3)(e)), would be placed on all SHS affected by the LA28 GRN to minimize traffic delays. The moratorium would restrict work or closures along the LA28 GRN on the SHS from June 1, 2028, to September 1, 2028. During construction and activation of the LA28 GRN on the SHS Caltrans would implement a Transportation Management Plan (TMP) to reduce traffic conflicts and delays on the SHS. The TMP would include strategies to provide public information, information for motorists, incident management, standard construction strategies, demand management, and alternative routes. Specific strategies of the TMP are listed under *Environmental Commitments*.

Parallel efforts to identify specific Traffic Demand Management (TDM) strategies and locations are on-going as part of separately led efforts by multiple agencies; including Southern California Association of Governments (SCAG) and LA Metro, to address the transportation demands of this large-scale-event and increase the efficiency of the affected routes and transportation system. In this high-demand context, TDM strategies are key to reducing the number of vehicles on the road while expanding access to a diverse range of travel options. Therefore, a generalized TDM factor was applied in the Games Living Model to reduce non-Games-related trips by 10 percent for the With Games scenario.

In addition to the benefits resulting from the generalized TDM factor applied in the model, further TDM reduction and temporary congestion management may be achieved as TDM plans are finalized to further improve operations on general purpose lanes. The objective of the TDM strategies are to ultimately reduce the number of vehicle trips and non-Games related traffic in the Los Angeles region by 20 percent. As part of the multi-agency effort to develop TDMs, SCAG has developed a *Games TDM Resource Guide* for mega-events like the LA28 Games. For the LA28 Games, the most effective strategies would focus on shifting the mode and timing of travel, and critically, reducing background or base load demand to make room for the additional trips generated by spectators, athletes, staff, and media. These TDM strategies include reaching out to spectators/tourists, businesses, commuters and residents through traditional media, city and participating organization websites, social media blasts, wayfinding, newsletters and brochures, billboard and digital displays. Thereby providing early and ongoing public information, real-time transit and traffic updates for wayfinding, latest information on local policies and requirements and to encourage and highlight commuter benefits, telework options to employers, and transit incentives for alternative modes of travel to reduce peak congestion and car trips.



## CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION DETERMINATION FORM

LA Metro has also prepared the *Special Event Transportation – Guidance and Opportunities (SET GO) Playbook* that LA Metro and partnering transportation agencies developed as a comprehensive resource to implement a seamless transit experience for large scale transit and transportation projects. The *SET GO Playbook* includes sections on marketing, communication, and solutions to be implemented during the LA28 Games; strategies and best management practices required to successfully deliver large scale events. This includes maximizing parking capacity at park-and-ride facilities, expanding bus services to and from park-and-ride facilities, retrofits to fleets for reliable service, wayfinding signage, deployment of LA Metro Ambassadors at key locations and stations, clear messaging, real time-coordination for bus and/or rail integration during the event, and integrated ticketing into event experiences. These strategies would promote car-free travel and advance sustainability by reducing congestion and emissions.

The TMP strategies would minimize traffic conflicts and delays on the SHS during construction and activation of the LA28 GRN on the SHS. Concurrently, implementation of TDM strategies would create a comprehensive transit network that would accelerate the shift to non-driving modes by improving mobility and access and support the LA28 GRN's ability to create a more efficient regional transportation system before, during and after the LA28 Games. These strategies may be further developed during the PS&E Phase. Further, as venues and routes are finalized during PS&E, additional traffic modeling will be conducted to account for changes to the GRN.

### **Air Quality**

An Air Quality and Greenhouse (GHG) Gas Assessment was prepared by the Air Quality Branch (AQB) for the proposed LA28 GRN. Site preparation and roadway construction will involve clearing, cut-and-fill, grading, removing or improving existing roadways, and paving roadway surfaces. During construction, short-term degradation of air quality is expected from the release of particulate emissions (airborne dust) generated by the activities related to construction. Emissions from construction equipment powered by gasoline and diesel engines are also anticipated and would include carbon monoxide (CO), Nitrogen Oxide (NO<sub>x</sub>), volatile organic compounds (VOCs), directly emitted particulate matters (PM<sub>10</sub> and PM<sub>2.5</sub>), and toxic air contaminants (TACs) such as diesel exhaust particulate matter. Construction activities are expected to increase traffic congestion in the area, resulting in increases in emissions from traffic during the delays. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Since the proposed LA28 GRN would be implemented to accommodate the SHS GRN for 3 months in 2028 and then restore the SHS facilities back to their original configurations, the LA28 GRN's operational effects are evaluated for conditions during the LA28 Games. Day 10 of the Games was selected to represent the peak day for Olympics activity due to the highest levels of spectators and Olympic workforce demands. The assessed operational emissions show that the emissions of NO<sub>x</sub> and CO will likely decrease in 2028 with or without LA28 Games. However, Day 10 of the LA28 Games will likely result in increase in emissions of all criteria pollutants when compared to the No-Games conditions, including PMs and NO<sub>x</sub>, due to the high traffic demands from spectators and Olympics workforce in addition to the background commuting traffic.



## CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION DETERMINATION FORM

The LA28 GRN is located in the lower desert portion of Los Angeles County and partially in Orange County and San Diego County. It is within the boundary of the South Coast Air Basin (SCAB) and within the jurisdictions of the South Coast Air Quality Management District (SCAQMD) and San Diego County Air Pollution Control District (SDAPCD). The LA28 GRN must comply with the Implementation Rule 403 to minimize temporary emissions during construction of the LA28 GRN as applicable and appropriate. Objectionable odors would be mainly related to operation of diesel-powered equipment and off-gas emissions during roadbuilding activities, such as paving and asphaltting. Therefore, the LA28 GRN shall comply with Rule 1113 which limits the amount of volatile organic compounds (VOC) emissions from paving, asphalt, concrete curing, and cement coatings operations and all applicable AQMD Rules. Objectionable odors should also be minimized by conducting certain construction activities in areas at least 500 feet from the sensitive receptors as feasible. The AQB will coordinate approval of the NSSP 14-9.05 which implements rules applicable for the LA28 GRN. These provisions and measures are listed below under *Environmental Commitments*.

The LA28 GRN also overlaps with several State Assembly Bill 617 Communities (East Los Angeles/ Boyle Heights/ South Los Angeles, and Wilmington/Carson/West Long Beach). In order to help address public health disparities in underserved communities, consistent with one of the action items of Caltrans' Strategic Plan Goal to "Advance Equity and Livability in All Communities," Caltrans now requires use of Tier 4 engines for off-road diesel-fueled vehicles. The AQB will coordinate with Headquarters for approval of NSSPs 5-1.33 and 7-1.02c to mandate contractors to use Tier 4 engines during construction.

Implementation of other strategies or commitments, some of which may also be required for other purposes such as the aforementioned construction moratorium (NSSP 12-4.02C(3)(e)), TMP, and TDMs would reduce air quality impacts during construction and operation of the LA28 GRN. The TMP and TDM strategies would support and accelerate the shift to non-driving modes and support the LA28 GRN's ability to create a more efficient transportation system before, during, and after the LA28 Games which would also reduce congestion, improve air quality. Additional measures may include standard storm water pollution control measures, contractor compliance with Standard Specification (SS) 14-9, application of water or dust palliative, use of soil binder, truck washing, locating equipment and material storage away from residential and park uses, and scheduling construction traffic to reduce congestion during peak hours

### **Greenhouse Gas (GHG)**

The Environmental Division has evaluated this non-capacity-increasing project for Greenhouse Gas (GHG) emissions and other climate change impacts. Although the proposed LA28 GRN would not add any additional capacity to the SHS, during the 3-month GRN activation, temporary GHG emissions would be unavoidable due to the amount of LA 28 participants and visitors that would increase traffic volumes in the general-purpose lanes along the existing SHS routes affected by the LA28 GRN. However, it is important to note that the traffic volume increase along these routes is anticipated with or without the project. Additionally, the LA28 GRN SHS corridors currently experience significant recurrent and non-recurrent congestion partially due to insufficient or outdated TMS infrastructure that limits the ability of the Los Angeles Regional Transportation Management Center (LARTMC) to actively monitor conditions. The existing SHS system deficiencies lack ability



## CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION DETERMINATION FORM

to accommodate high traffic volumes during events, actively monitor conditions, detect incidents, manage traffic, and provide accurate and timely travel information. However, the proposed TMS system improvements would reduce GHG by updating field elements and communication systems, expanding detection devices and traveler information tools, improving the efficiency of operation and monitoring systems, reducing incident-related delays, improving travel time reliability and traffic congestion, and enhancing travel safety within the transportation network during and post the LA28 Games. Further, as discussed in the *Air Quality* and *Transportation* sections, measures and TDMs strategies to reduce traffic impacts and promote car-free travel would also reduce temporary GHG emissions as a result of project implementation.

The LA28 GRN on the SHS consists of over 200 centerline-miles of highways throughout District 7, 11, and 12 on highways 2, 5, 10, 57, 91, 101, 105, 110, 134, 210, and 405. In regard to climate change, the LA28 GRN SHS alignment is not located in a floodplain or other location at risk of riverine flooding, and not within the Sacramento-San Joaquin Delta. Portions of the LA28 GRN SHS alignment are within the Coastal Zone and high fire hazard severity zones. However, the LA28 GRN is not at risk of future sea level rise impacts and the affected highways are existing structures; therefore, the proposed LA28 GRN components would not conflict with an adopted emergency plan, exacerbate wildfire risk, or expose people to risks related to wildfire pollutants or runoff slope instability and changes to drainage. In addition, the LA28 GRN construction would be temporary and would be less than 5 years.

Further, per Senate Bill 1 Section 2030 (e), Caltrans Division of Environmental Analysis, Office of Environmental Management has developed a GHG Reduction Measures Toolbox for use in project development and for the project development team (PDT) to review, evaluate, and consider all feasible and relevant project measures from Tables 1 and 3 of the Toolbox that the project can commit to. If any measures are proposed outside the Tables in the Toolbox, the PDT shall ensure those measures are biddable, buildable, and can be successfully implemented. The applicable measures are listed below under *Environmental Commitments*. Based on the discussion above, the LA28 GRN would not have a substantial impact on regional GHG emissions.

### **Biological Resources**

The Biological Resource Branch reviewed LA28 GRN documentation including aerial and ground imagery (i.e. Google Earth and Google Maps), species list provided the National Marine Fisheries Services (NMFS), U.S. Fish & Wildlife Service (USFWS), and California Department of Fish & Wildlife (CDFW).

All work is within the prism of the roadway/State ROW and minimal project impacts on biological resources are anticipated due to the limits of the LA28 GRN. Impacts resulting from ground disturbance from CCTV pole and gantry installation were further examined to determine whether existing vegetation or sensitive habitat would be disturbed resulting from those actions. The areas of impact are minor in size, within urban environments and/or are existing within Caltrans ROW and would have no impact on sensitive habitats or native vegetation. Indirect impacts from construction will be minimized through incorporation of all appropriate Stormwater and Erosion Control Best Management Practices. There would be no effect on federal/state threatened/endangered species, drainages, or Waters of the



## CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION DETERMINATION FORM

United States (WOUS). Therefore, no state resource agency permits are required for the proposed LA28 GRN. The applicable measures are listed below under *Environmental Commitments*.

### **Cultural Resources**

A Historic Property Survey Report has been prepared by the Cultural Resource Branch and Professionally Qualified Staff (PQS). As a result of record searches, three existing historic properties within the LA28 GRN's Area of Potential Effects (APE) were identified, all of which are also state-owned historical resources on the Master List for the purposes of PRC 5024 compliance. The first is the National Register of Historic Places (NRHP) listed Arroyo Seco Parkway Historic District (ASPHD). The second is the NRHP determined eligible Four Level Interchange, which is also a contributing resource of the ASPHD. The last is the Century Freeway Transitway Historic District (CFTHD). Further, review through desktop reconnaissance and record searches determined that no further historical resources existing within the APE and that no historic property evaluations are necessary; and no known archaeological sites within the Project Area Limits (PAL) would have any project activities taking place within or nearby, and that all ground disturbing activity is within previously disturbed areas of Caltrans ROW.

Caltrans, pursuant to Section 106 PA Stipulation IX.A, has determined a Finding of *No Historic Properties Affected* is appropriate for this undertaking because the following historic properties would not be affected. The vast majority of the proposed LA28 GRN's scope of work are features which are being installed temporarily for a short period of time and would be removed after they are no longer needed for the LA28 Summer Olympics and Paralympic games. Additionally, no permanent features are proposed to be installed within the boundaries of the historic properties, only temporary features. Further, during the K and O phase, coordination between the PQS, Project Management and Design worked to identify context sensitive solutions and modification to features in order to have no effect on the historical resources.

### **Hazards & Hazardous Materials**

A Hazardous Waste Assessment was prepared by the OEE for the proposed LA28 GRN. Limited review of the California State Water Resources Control Board's GeoTracker and the Department of Toxic Substances Control (DTSC) Envirostor environmental databases to identify potential Recognized Environmental Concerns (REC) with respect to potential soil, soil vapor, and groundwater related to the planned improvements (gantries).

Five closed environmental cleanup cases located within 500 feet of the 11 gantries. Soil contamination associated with these closed environmental cases are contained to their respective property boundaries and would not impact the scope of work. Additionally, groundwater has been reported at varying depths across the LA28 GRN limits; however, groundwater will likely not be encountered during construction activities and dewatering is not anticipated.

#### *Material Containing Hazardous Waste Concentrations of Aerially Deposited Lead:*

The proposed installation of roadside improvements items (gantries and MGS) will generate excess soil potentially contaminated with aerially deposited lead (ADL). The ADL Agreement issued by the Department of Toxic Substances Control (DTSC) allows reuse of



## CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION DETERMINATION FORM

soil containing hazardous waste levels of ADL within projects as long as certain conditions are met. Since an ADL investigation has not been performed for this project, it is recommended that all excess soil generated by the LA28 GRN shall be treated as Roadway/Structural Excavation (Type Z-2) (structural excavation is required based on the assumption that some MVPs location may require retaining system to construct). This material is classified as California hazardous waste (non-RCRA) and shall be managed, transported, and disposed of at a permitted Class I disposal facility within the State of California. A comprehensive site investigation (SI) will be performed during PS&E phase to adequately evaluate/recommend the appropriate soil handling and waste management requirements.

### *Minimal Disturbance of Material Containing Hazardous Waste Concentrations of Aerially Deposited Lead Work:*

The proposed installation of roadside improvement items (CCTV poles, conduit, pull boxes, and temporary stationary mounted construction area signposts) at existing unpaved areas are considered minimal disturbance of soil with hazardous waste concentrations of ADL. According to Caltrans' ADL guidance document (2010), US EPA allows certain discrete areas of generally dispersed contamination known as Areas of Contamination (AOCs), to be considered as individual waste management unit. All soil disturbed must remain in the immediate area of disturbance and not be transported elsewhere. Health and safety precautions and dust control for hazardous waste must be implemented. The General Contractor (GC) shall be notified that lead is present and allow for preparation of a task-specific Lead Compliance Plan (LCP) and lead awareness training as required by Title 8, Section 1532.1 of the California Code of Regulations (8 CCR) and California Occupational Safety and Health Administration (Cal-OSHA) Construction Safety Order.

### *Removal of Existing Yellow/White Traffic Stripes and/or Pavement Markings Containing Lead (Hazardous and Non-Hazardous):*

The existing yellow and non-yellow (white) traffic stripes and/or pavement markings along SHS routes affected by the LA28 GRN would be disturbed/removed as part of the project improvements, which includes removal and restoration of pavement striping/markings. Yellow thermoplastic and/or lead based painted traffic stripes and pavement marking contain elevated lead and chromium, which is regulated as California Hazardous Waste.

Residue produced when these materials are disturbed may contain heavy metals in concentration that exceed hazardous waste thresholds established by the CCR and may produce toxic fumes when heated. Such residue shall be properly collected, stored, transported, and disposed of in accordance with State and Federal guidelines. In addition to the LCP and lead awareness training, as discussed above, the GC shall prepare an Excavation and Transportation Plan (ETP) in conformance with 8 CCR, section 1532.1, "Lead" and Cal-OSHA Construction Safety Order and Caltrans standard special provisions and standard specifications.

Residue from the removal of existing non-yellow (white) thermoplastic/lead based painted traffic stripes and/or pavement marking is classified as non-hazardous waste and can be disposed of at a permitted non-hazardous waste disposal facility within the State of California. However, the GC is also required to develop a task-specific LCP and lead awareness training for worker safety prior to starting the removal operation.



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### Noise

Because the LA28 GRN would only temporarily re-assign lane usage along the SHS to provide exclusive game dedicated lanes for use by official Olympic vehicles and public transit and does not include increases to capacity and changes to realignment and posted speed limit, the LA 28 GRN is not a Type I project as defined in the 2020 Traffic Noise Analysis Protocol. Therefore, a detailed traffic noise impact study is not required for the LA28 GRN. Although the general-purpose lane volumes would increase as a result of shifting vehicular traffic from the temporarily re-assigned game dedicated lanes during operation of the LA28 GRN, the speed would temporarily decrease, resulting in lower noise levels during peak hours.

The potential construction noise impacts that may affect noise sensitive receptors in the vicinity would need to be addressed by compliance with Section 14-8.02, Sound Control Requirements, of Caltrans standard specifications as well as applicable local, state, and federal regulations.

### Environmental Commitments

#### General Environmental

- All work will remain in Caltrans ROW.
- If LA28 GRN project scope should change for any reason, the Division of Environmental Planning shall be notified to determine whether the current environmental documentation and technical assessments are adequate.

#### Aesthetics

- Any landscape area and irrigation infrastructure disturbed by construction activities shall be restored and replaced in kind.

#### Traffic

- NSSP 12-4.02C(3)(e) will enforce a construction moratorium on the SHS.
- The LA28 Games will be a “car free” event with no spectator parking at the venues and general traffic will be prohibited from using the LA28 Game dedicated lanes on the LA28 GRN. Therefore, spectators and workforce will be required to utilize public transportation and/or the GETS buses. The GETS buses are an important element for serving spectators and workforce. It will operate shuttle buses between designated rail/BRT stations, GETS Park & Ride sites, and competition venues. The GETS shuttle buses will be allowed to run in the LA28 Games dedicated lanes on the LA28 GRN.
- Pre-LA28 GRN, during LA28 GRN activation, and post-LA28 GRN, Caltrans will implement a TMP that will include, but are not limited to, the following strategies. Further refinement of TMP measures may occur during PS&E:
  - Public Information
    - SCAG will lead a comprehensive and robust regional PAC that will commence a year prior to the LA28 Games to inform the public about the LA28 Games and the development of the LA28 GRN.



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- Construction will notify the Office of Public Affairs and Media Relations at least one month prior to start of Construction to initiate the PAC.
- All project road closures information will be made available to the public via the Caltrans internet website at <http://www.dot.ca.gov> > Click "Travel" > Click "Planned Closures."
- Motorist Information Strategies
  - Existing CMS located along and in the vicinity of the GRN may be utilized during construction and LA28 Games to provide real-time traffic information to motorists to supplement information displayed on the PCMS.
  - An AWIS will be deployed to mitigate recurring delays and queuing generated due to shifting managed lanes traffic into general purpose lanes during GRN Activation. The AWIS will provide real time information to motorists using PCMS. The PCMS messages and locations will be shown on the Motorist Information Plans that will be developed during the PS&E phase.
  - A number of ramps leading directly to the LA28 venues will be closed for the duration of LA28 Games to provide direct access for LA28 vehicles from the Olympic Village to LA28 venues. Ground Mounted Signs (trailblazer) will be placed along the detour routes during GRN Activation.
- Incident management
  - Implement the COZEEP pre- and post-GRN and prepare cooperative agreement with CHP.
  - FSP is a joint effort between Caltrans and Metro to remove disabled vehicle from the freeway during AM and PM peak hours. FSP beats will be enhanced during GRN Activation by providing additional tow trucks and extending the hours of coverage.
  - The TMT may be deployed during the LA28 Games to assist in managing traffic in the vicinity of the LA28 venues by protecting the end of queue, ramp balancing or encouraging traffic diversion away from the venues.
  - Traffic Surveillance Stations (CCTV) will be installed to monitor traffic conditions along the GRN to assist LARTMC dispatchers to respond to incidents and manage traffic during the LA28 Games.
- Construction Strategies
  - All construction work shall conform to the Lane Requirement Charts that will be included in the "Maintaining Traffic" specification that will be developed during PS&E phase.
  - Construction Work Zone Speed Limit Reduction to improve worker and public safety on SHS, Caltrans' policy issued on 4/19/2019 requires a ten miles per hour (10 mph) speed limit reduction in work zones.
  - Utilization of PWP devices may be implemented during construction to reduce the likelihood of preventable injuries or fatalities to highway workers and the traveling public. Design shall determine if any PWP devices may be included for this project.



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- The project manager should identify and coordinate with other projects concurrently in construction to avoid conflicts in planned lane closures or detours
- Truck Traffic Restrictions may be required if heavy vehicles are not allowed to traverse through certain segments within the SHS.
- A Command Post will be established potentially at the TMC or an existing Caltrans Maintenance Yard to coordinate with field staff (i.e. TMT, Maintenance or Construction) to assist with traffic management during the LA28 Games.
- Demand Management
  - The Public Awareness Campaign will encourage a no vehicles campaign to reduce the traffic demand along and in the vicinity of the LA28 GRN.
  - Park and Ride Lots will be utilized to encourage LA28 Games spectators to use mass transit (light rail trains and buses) instead of driving vehicles to LA28 venues.
  - Variable Work Hours will be recommended to disperse existing commuting hours to reduce the concentration of traffic volumes during existing AM and PM peak hours.
  - Telecommute will be recommended/encouraged to companies that may be able to provide this opportunity to their employees.
  - Ramp Metering adjustments may be necessary for regulating vehicles entering the freeway during LA28 Games to improve the flow of traffic through the GRN.
- Alternative Routes Strategies
  - Due to ramp closures during LA28 Activation, street improvements (e.g. Traffic Signal Re-Timing) will be implemented by local agencies to enhance traffic flow along designated detour routes.
  - At specific intersections along the designated detour routes where signal re-timing is not effective in managing traffic flow, Traffic Control Officers may be deployed during the LA28 Games.
  - Parking Restrictions may be required along designated detour routes to increase vehicular capacity and storage.
- Ongoing coordination between Caltrans, SCAG, and LA Metro to further develop and implement TDM strategies will be developed in coordination effort with SCAG to increase the efficiency of the affected SHS and transportation system.

### Air Quality

- Compliance with NSSP 14-9.05 for all applicable local air districts' (AQMDs and APCDs) pre- and post-construction rules.
- Compliance with NSSPs 5-1.33 and 7-1.02C for the use of Tier 4 engines for off-road diesel-fueled vehicles during construction.
- In the unlikely event that NOA, serpentine, or ultramafic rock is discovered, SCAQMD or SDAPCD should be notified appropriately per Section 93105, Title 17 of the CCR.



## CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION DETERMINATION FORM

### GHG

- GHG Reduction Measures Toolbox (Table 1 and Table 3) to be implemented, as feasible:
  - Limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment (with some exceptions).
  - Schedule truck trips outside of peak morning and evening commute hours.
  - For improved fuel efficiency from construction equipment:
    - Maintain equipment in proper tune and working condition
    - Use right sized equipment for the job
    - Use equipment with new technologies
  - Use alternative fuels such as renewable diesel for construction equipment.
  - Use solar-powered construction equipment.
  - Supplement existing construction environmental training with information on methods to reduce GHG emissions related to construction.
  - Salvage rebar from demolished concrete and process waste to create usable fill.
  - Maximize use of recycled materials (tire rubber for example).
  - Recycle existing project features on-site. (For example, MBGR, light standards, Sub-base Granular Material or native material that meets Caltrans specifications for incorporation into new work.)
  - Reduce construction waste. For example, reuse or recycle construction and demolition waste (reduces consumption of raw materials, reducing waste and transportation to landfill; saves costs).
  - Use recycled water or reduce consumption of potable water for construction.
  - Replace lighting with ultra-reflective sign materials that are illuminated by headlights to reduce energy used by electric lighting.
  - Establish setbacks/buffers from areas identified as vulnerable to climate stressors (Wildfire, Sea-level Rise, etc.)
  - Use corrosion-resistant materials
  - Modify standards for the design, location, and construction of infrastructure to account for areas potentially subject to storm surge, sea level rise, and more frequent flooding.
  - Include measures outlined in regional or local climate adaptation plans. For example: Sacramento Region Transportation Climate Adaptation Plan (SACOG CAP)

### Biological Commitments

- Prior to construction, all drain inlets must be protected with Best Management Practices to prevent miscellaneous debris from entering drainage courses.
- All appropriate Stormwater and Erosion Control Best Management Practices will be incorporated into the LA28 GRN specifications.
- All pollution and litter laws and regulations will be followed by the contractor and all personnel on site.
- Existing trees and shrubs should not be removed for CCTV and gantries post installation.



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### Hazardous Waste

- All excess soil generated by the LA28 GRN shall be treated as Roadway/Structural Excavation (Type Z-2) (structural excavation is required based on the assumption that some MVPs location may require retaining system to construct). This material is classified as California hazardous waste (non-RCRA) and shall be managed, transported, and disposed of at a permitted Class I disposal facility within the State of California.
- All soil disturbed must remain in the immediate area of disturbance and not be transported elsewhere.
- Health and safety precautions and dust control for hazardous waste must be implemented.
- The GC shall be notified that lead is present and to prepare a task-specific LCP and Excavation and Transportation Plan (ETP) and implement lead awareness training as required by Title 8, Section 1532.1 of the California Code of Regulations (8 CCR) and Cal-OSHA Construction Safety Order and Caltrans standard special provisions and standard specifications.

### Noise

- Standard Specification - Section 14-8.02 (Sound Control Requirements)

**ATTACHMENT H**  
**RIGHT-OF-WAY DATA SHEET**

# Memorandum

*Serious Drought!  
Help Save Water!*

To: Michael Zwissler , Design Manager  
Office of Design  
District 7, Los Angeles Office

**Date: 11/17/2025**  
**EA: 50320**  
Data Sheet ID NO: ds7147  
Project ID # 0724000249

From: Wayne D. Lee , Office Chief  
Right of Way Appraisals, and Planning & Management  
District 7, Los Angeles Office

Subject: Current Estimated Right of Way Costs for **Project Report**

We have completed an estimate of the Right of Way costs for the above referenced project based on information received from Michael Zwissler PE and the following assumptions and limiting conditions apply:

- The mapping did not provide sufficient detail to determine the limits of the right of way required.
- The transportation facilities have not been sufficiently designed, so our estimator could not determine the damages to any of the remainder parcels affected by the project.
- Additional right of way requirements are anticipated, but are not defined due to the preliminary nature of the estimate.

**Right of Way Certificate (RWC) lead time** will require a minimum of NA after maps to appraisal (MA). Completed Appraisal maps include HMDD, COS, HW Memo, and RE-49. An executed copy of the new freeway agreement is required for the project. When utility relocation is warranted, utility conflict maps will be required. Additionally a minimum of NA will be required after receiving the last revision to the appraisal map. Shorter lead times will require either more right of way resources or an increased number of condemnation suits to be filed and present a risk to the RWC project delivery milestone. Due to the passage of Map 21 and the Buy America provision, the Right of Way Certification process will be longer, if Utility Relocation is necessary.

### **Current Schedule: PRSM**

<b>PAED (M 200)</b>	<b>MA (M 224)</b>	<b>RWC (M 410)</b>	<b>RTL (M 460)</b>	<b>CCA (M 600)</b>
1/16/2026	N/A	12/12/2026	12/27/2026	4/1/2029

TO Michael Zwissler  
 ATTN Michael Zwissler

R/W DATA SHEET

ID NO ds7147

SENIOR R/W P&M Denrick Bautista

Date of Data Sheet 11/17/2025

ROUTE VAR  
 PM\_KM VAR  
 EA 50320

Project Description Construction of a temporary managed lane network along existing highways throughout Los Angeles County for use by official vehicles for the LA28 Olympic Paralympic Events.

This cost estimate is valid for the above scoping report only. This is an estimate only and not an appraisal. It may be based on worse case scenarios.

The estimate is subject to change and revision.

The mapping did not provide sufficient nor adequate detail to determine the limits of the Right of Way required and effects on the improvements.

The transportation facilities have not been sufficiently designed for our estimator to determine the damages to any of the remainder parcels affected by the project.

**This cost estimate is pursuant to the following responses supplied by Michael Zwissler to the Data Sheet Request Form.**

	YES	NO	Not known at this time
Utilities are depicted on plans		X	
Railroads are depicted on plans	X		
There are Material and/or Disposal Sites Required		X	
Caltrans will do the Right of Way work	X		
There will be a Cooperative Agreement			X
This is a reimbursable project	X		
There is Hazardous Waste potential	X		

RW COST ESTIMATE

	CURRENT VALUE	ESCALATED VALUE
R/ w acq.(incl.contingency G.w-condem.-adm.s'tl.)Permits	\$150,000	\$150,000
Clearance		
RAP (cont rate.)		
Escrow costs (cont rate.)		
Utility relocation costs	\$204,000	\$273,473
Estimate of Reimbursed Appraisal Fee		
<b>Total estimated cost</b>	<b>\$354,000</b>	<b>\$423,473</b>

Escalation Rate Rw .07  
 Escalation Rate Utilities .08  
 Cert.date 12/12/26

### Parcel Count and Py Info

PARCEL DUAL TYPES APPR.

A		
B		
C		
D		
F		

RIGHTS NEEDED

FEE	
EASE	
TCE	

TAKES

FULL	
PART	
TOTAL	

DISPLACEMENT OF UNITS

SFR	
BUS	
MULTI	

PARCELS WITH RAP

POTENTIAL CLEARANCE PARCELS

POTENTIAL CONDEMNATION PARCELS

POTENTIAL EXCESS PARCELS

UTILITY IMPACTS

u4-1	
u4-2	
u4-3	
u4-4	
u5-7	
u5-8	
u5-9	

### Estimate Of Right Of Way Support Hours

Activity Codes	Function	Hours
225 & 245	Appraisals	
225 & 245	Acquisitions	
200	Utilities	
185.20.40	Utility Potholing	260
205	Railroads	95
225 & 245	Condemnation	
225 & 245	Clearance	
225 & 245	Relocation	
220 & 300	RW Engineering	
<b>Total</b>		<b>355</b>

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### UTILITY INFORMATION

**Please See the Utility Conflict Addendum for Complete Utility Information**

Are utility easements required? No

Are Utility agreements required? No

Utility types , Facilities & Agreements Description:

Based of Caltrans as-builts and substructures

Total Current Cost \$204,000

Const. Completion Date 4/1/2029

Utility Escalation Rate 8%

Total Escalated Cost \$273,473

**Utility Conflicts  
Id- ds7147  
EA- 50320**

Description	Quantity	\$/Unit	Total Cost	
1				
2				
3	Pothole 4" SCG line along Glendale Blvd. PM 14.2 LA02 (ea)	2	2000	4000
4	Pothole 12" SCG line along San Fernando Rd. PM 16.0 LA02	2	2000	4000
5	Pothole LADWP power line along San Fernando Rd. PM 16.0	2	2000	4000
6	Pothole 8" LADWP water line Across LA02 PM 16.85 (ea)	2	2000	4000
7	Pothole AT&T line along LA02 PM 18.55 (ea)	2	2000	4000
8	Pothole 14" in 20" csa Arco oil line across LA10 PM 20.55(ea)	2	2000	4000
9	Pothole 20" City of Alhambra sewer line along LA10 PM 23.3	2	2000	4000
10	Pothole 6" City of Alhambra water line across LA10 PM 23.3	2	2000	4000
11	Pothole 36" LACSD sewer line across LA10 PM 25.7(ea)	2	2000	4000
12	Pothole 30" SCG line across LA10 PM 26.3(ea)	2	2000	4000
13	Pothole SCE line along Peck Rd. LA10 PM 29.42 (ea)	2	2000	4000
14	Pothole 17" SGV Water line along Peck Rd. LA10 PM 29.42	2	2000	4000
15	Pothole SCE line along Valley Blvd. LA10 PM 29.55 (ea)	2	2000	4000
16	Pothole 30" water line along LA10 PM 30.8 (ea)	2	2000	4000
17	Pothole 8" in 22" csa SGV Water line along across LA10 PM	2	2000	4000
18	Pothole 8" Suburban Water Systems water line along W Pacific	2	2000	4000
19	Pothole 8" City of West Covina water line along LA10 PM 35.0	2	2000	4000
20	Pothole 4" SCG along LA10 PM 35.05 (ea)	2	2000	4000
21	Pothole 8" SCG along LA10 PM 35.3 (ea)	2	2000	4000
22	Pothole 12" Suburban Water Systems water line along N	2	2000	4000
23	Pothole SCE line along S Citrus St. LA10 PM 37.47 (ea)	2	2000	4000
24	Pothole SCE line along Barranca St. LA10 PM 38.0 (ea)	2	2000	4000
25	Pothole SCE line along LA10 PM 40.9 (ea)	2	2000	4000
26	Pothole SCE line along Central Ave. LA91 PM 8.45 (ea)	2	2000	4000
27	Pothole 30" SCG line along Central Ave. LA91 PM 8.45 (ea)	2	2000	4000
28	Pothole 4" Shell oil line along Central Ave. LA91 PM 8.45 (ea)	2	2000	4000
29	Pothole 4" Shell oil line along Wilminaton Ave. LA91 PM 9.15	2	2000	4000
30	Pothole 6" Shell oil line along Wilminaton Ave. LA91 PM 9.15	2	2000	4000
31	Pothole 4" SCG along Pioneer Blvd. LA91 PM 18.1 (ea)	2	2000	4000
32	Pothole 4" SCG along Norwalk St. LA91 PM 18.65 (ea)	2	2000	4000
33	Pothole 16" gas line along Crenshaw Blvd. LA105 PM 4.61 (ea)	2	2000	4000
34	Pothole 8" gas line along Alvarado St. LA101 PM 2.94 (ea)	2	2000	4000
35	Pothole LADWP power line along Alvarado St. LA101 PM 2.94	2	2000	4000

**Utility Conflicts**  
**Id- ds7147**  
**EA- 50320**

	Description	Quantity	\$/Unit	Total Cost
36	Pothole 30" LADWP water line across LA110 PM3.74 (ea)	2	2000	4000
37	Pothole LADWP power line along W79th St. LA110 PM 16.52	2	2000	4000
38	Pothole 4" SCG line along W79th St. LA110 PM 16.52 (ea)	2	2000	4000
39	Pothole 12" LADWP water line along W Mountain Ave. LA210	2	2000	4000
40	Pothole LADWP power line along W Mountain Ave. LA210	2	2000	4000
41	Pothole Paramount oil line across LA405 PM7.6 (ea)	2	2000	4000
42	Pothole 10" gas in 24" csq Air Products & Chemical Inc across	2	2000	4000
43	Pothole 16" Chevron oil line across LA405 PM11.95 (ea)	2	2000	4000
44	Pothole SCE line across LA405 PM20.2 (ea)	2	2000	4000
45	Pothole SCE line across LA405 PM25.48 (ea)	2	2000	4000
46	Pothole Verizon telecom line along LA405 PM 25.75 (ea)	2	2000	4000
47	Pothole 2" in 4" ACP water line across LA405. PM29.2 (ea)	2	2000	4000
48	Pothole 6" Crimson oil line across LA405 PM30.07 (ea)	2	2000	4000
49	Pothole 4" Shell oil line along Sawtelle Blvd. LA405 PM30.07	2	2000	4000
50	Pothole 4" LADWP water line along Beloit Ave. LA405 PM	2	2000	4000
51	Pothole 36" LADWP water line along Sunset Blvd. LA405 PM	2	2000	4000
52	Pothole 8" Shell oil line along Sepulveda Blvd. LA405 PM38.85	2	2000	4000
53	Pothole 6" SCG along El Segundo Blvd. LA405 PM 20.2 (ea)	2	2000	4000

ROUTE VAR  
 PM\_KM VAR  
 EA 50320  
 ALT

## RR INFORMATION

Are RR affected Yes

Describe affected RR PHL, BNSF, ATAX railroad crossings at PM 8.35, 9.05, 9.27, 9.95

When Branch Lines Or Spurs Are Affected ,would Acquisition And Or Payment Of Damages To Businesses And Or Industries Served By The Railroad Facility Be More Cost Effective Than Service Contracts ,or Grade Separations Requiring Construction And Maintenance Agreements Involved?

150,000

Explain Branch lines Expected plan review costs from railroad companies

Discuss Types Of Agreements And Rights Required From The Railroads, Are Grade Xing Requiring Service Contracts ,or Grade Separations Requiring Construction And Maintenance Agreements Involved.

Broad estimate for potential flagging costs, dependent on necessity, number of working days, and number of locations

RAILROAD COST PERTAINING TO CONSTRUCTION ACTIVITY \$500,000

The cost of flagging related to project construction activity is a Phase 4 cost (construction contract cost). Though noted on the RW data sheet, the estimated flagging cost is not a RW cost, and is not a part of RW Capital.. The estimate is provided so it can be added to the engineer's estimate for construction – the RR flagging estimate is based on days needed for construction activity.

	<u>DATE</u>
Right of Way Estimate prepared by <u>Carly Corona</u>	<u>11/17/25</u>
Railroad Estimate prepared by <u>Ethan Yoon</u>	<u>5/5/25</u>
Utilities Estimate prepared by <u>Michele Graves</u>	<u>6/11/25</u>

I have personally reviewed this R/W Data Sheet and all supporting information I certify that the probable highest and best use estimated values and assumptions are reasonable and proper subject to the limiting conditions set forth and I find this Data Sheet complete and current.

This Data Sheet is not to be signed by Chief unless accompanied by final scoping report(PR,PSR,PSSR) for review and/or signature.

CHIEF Wayne D. Lee 12/18/2025

**ATTACHMENT I**  
**STORM WATER DATA REPORT**



Dist-County-Route: 07, 11, 12-Var

Post Mile Limits: Var

Project Type: Mobility Operational Improvements

Project ID (EA): 0724000249(50320)

Phase:  PID  PA/ED  PS&E

Regional Water Quality Control Board(s): Los Angeles-Region 4

- 1. Does the project disturb 5 or more acres of soil? Yes  No
- 2. Does the project disturb 1 or more acres of soil and not qualify for the Rainfall Erosivity Waiver? Yes  No
- 3. Is the project required to implement Treatment BMPs? Yes  No
- 4. Does the project impact existing Treatment BMPs? Yes  No

If the answer to any of the preceding questions is “Yes”, prepare a Long Form – Stormwater Data Report. Unless otherwise agreed upon by the District/Regional Design Stormwater Coordinator.

Applicable Caltrans Permit Post Construction Treatment Requirement: 2012  2022

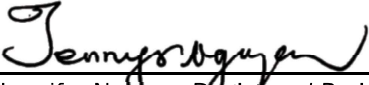
Total Disturbed Soil Area: 0.35 acres New Impervious Surface: 0 acres

Estimated Const. Start Date: 03/01/2029 Estimated Const. Completion Date: 04/01/2030

Risk Level: RL 1  RL 2  RL 3  Not Applicable

Is (M)WEL0 applicable? Yes  No

*This Short Form – Stormwater Data Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E only.*

 11/12/2025  
 Jennifer Nguyen, Registered Project Engineer/Landscape Architect Date

*I have reviewed the stormwater quality design issues and find this report to be complete, current, and accurate:*

 11/17/2025  
 Shao-Chiang Liu, District/Regional Design SW Coordinator Date  
 or Designee

[Stamp Required at PS&E only]

## 1. Project Description

This project proposes to permanently install SHOPP eligible Operational Improvements and Active Transportation Management Systems (ATMS) on various routes and postmiles throughout the project limits. The proposed scope includes:

- Install 11 OH Sign Structures (Gantries).
- Install 256 Closed Circuit Television (CCTV) Camera Systems. Install 12 Dynamic Message Sign (DMS).
- Install 69 Lane Management Signs (LMS).
- Install 24 Variable Advisor Speed Signs (VASS).

Additionally, this project proposes to temporarily install a Games Route Network (GRN). This scope consists of a system of dedicated travel lanes designed to ensure reliable, secure, and timely transportation for key Olympic and Paralympic participants—including athletes, coaches, officials, and broadcasters—between competition and non-competition locations. Developed to support the demanding logistics of the Games, the GRN helps minimize delays, reduce traffic-related risks, and maintain the smooth flow of operations during a period of exceptionally high visitor volume and citywide activity.

- The Total Cost of the Project is \$245,900,000.00.
- The Total Disturbed Soil Area (DSA) is calculated as follows:

### Roadside Sign- 600 (double posted) locations:

Footing for each post, 8" X 8" = 64 sq.in.

Assume 8" buffer for construction activities, 16" X 16" =256 sq. in.

The Disturbed Soil Area (DSA) = (600x2) =1200 Posts X 256 in<sup>2</sup>  
=307,200 in<sup>2</sup>=0.049 ac

### For new CIDH (CAST-IN-DRILLED-HOLE CONCRETE PILE):

78" (6.5') thickness max, Radius=3.75', say 4, Depth of CIDH=36'

Area: 3.14x4'x4'=50.24 sqft=0.0011 acres

Number of locations: 11

Total Area: 11x0.0012=0.0121 acres

### For new CCTV:

Radius=4' , Depth=9'

Area: 3.14x4'x4'=50.24 sqft=0.0011 acres

Number of locations: 256

Total Area: 256x0.0011=0.28 acres

Total Disturbed Soil Area (DSA): 0.049+0.0121+0.28=0.35 acres

Total Net New Impervious (NNI): 0 acres  
There is no Replaced Impervious Surface (RIS)

Total New Impervious Surface (NIS): 0 acres  
ATA Conditions 1 and 2 are both zero due to there being no treatment BMPs impacted,  
and NIS = 0 acres.

## 2. Site Data and Stormwater Quality Design Issues

- In Sherman Oaks, the month with the most rain in Sherman Oaks is February, with an average rainfall of 3.4 inches. The rainless period of the year lasts for 5.7 months, from April 26 to October 16.
- Sherman Oaks, the summers are short, hot, arid, and clear and the winters are long, cool, wet, and partly cloudy. Over the course of the year, the temperature typically varies from 46 °F to 87 °F and is rarely below 39 °F or above 96 °F.
- In Glendale, February is the rainiest month in Glendale with 6.7 days of rain, and July is the driest month with only 0.4 rainy days. There are 36.8 rainy days annually in Glendale, which is less rainy than most places in California. The rainiest season is Spring when it rains 49% of the time and the driest is Autumn with only a 4% chance of a rainy day.
- In Glendale, the summers are short, hot, arid, and clear and the winters are long, cool, wet, and partly cloudy. Over the course of the year, the temperature typically varies from 47 °F to 88 °F and is rarely below 40 °F or above 96 °F.
- In Pasadena, the rainy period of the year lasts for 6.2 months, from October 17 to April 24, with a 31-day rainfall of at least 0.5 inches. February is the month with the most rain, with an average rainfall of 3.2 inches. The rainless period of the year lasts for 5.8 months, from April 24 to October 17.
- Pasadena has a Mediterranean climate with typically hotter summers and slightly cooler winters than nearby coastal areas. The average temperature for the year in Pasadena is 63.9 °F (17.7 °C). The warmest month, on average, is August with an average temperature of 74.7 °F (23.7 °C).
- In Sierra Madre, the rainy period of the year lasts for 6.2 months, from October 18 to April 24, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in Sierra Madre is February, with an average rainfall of 3.1 inches.
- In Sierra Madre, the summers are hot, arid, and clear and the winters are long, cool, and partly cloudy. Over the course of the year, the temperature typically varies from 45 °F to 89 °F and is rarely below 38 °F or above 97 °F.
- In Culver City, the rainy period of the year lasts for 6.3 months, from October 15 to April 26, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in Culver City is February, with an average rainfall of 3.4 inches.
- In Culver City, the summers are warm, arid, and clear and the winters are long, cool, wet, and partly cloudy. Over the course of the year, the temperature typically varies from 49 °F to 78 °F and is rarely below 43 °F or above 86 °F.
- In Los Angeles, the rainy period of the year lasts for 6.3 months, from October 16 to April 25, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in Los Angeles is February, with an average rainfall of 3.3 inches.

- In Los Angeles, the summers are warm, arid, and clear and the winters are long, cool, wet, and partly cloudy. Over the course of the year, the temperature typically varies from 48 °F to 85 °F and is rarely below 42 °F or above 93 °F.
- In Monterey Park, the rainy period of the year lasts for 6.2 months, from October 17 to April 25, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in Monterey Park is February, with an average rainfall of 3.2 inches.
- In Monterey Park, the summers are hot, arid, and clear and the winters are long, cool, wet, and partly cloudy. Over the course of the year, the temperature typically varies from 46 °F to 87 °F and is rarely below 40 °F or above 95 °F.
- In West Covina, the rainy period of the year lasts for 6.1 months, from October 19 to April 24, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in West Covina is February, with an average rainfall of 3.1 inches.
- In West Covina, the summers are hot, arid, and clear and the winters are long, cool, wet, and partly cloudy. Over the course of the year, the temperature typically varies from 46 °F to 90 °F and is rarely below 39 °F or above 98 °F.
- In Inglewood, the rainy period of the year lasts for 6.3 months, from October 16 to April 26, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in Inglewood is February, with an average rainfall of 3.4 inches.
- In Inglewood, the summers are warm, arid, and clear and the winters are long, cool, wet, and partly cloudy. Over the course of the year, the temperature typically varies from 49 °F to 78 °F and is rarely below 43 °F or above 85 °F.
- In West Athens, the rainy period of the year lasts for 6.3 months, from October 17 to April 25, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in West Athens is February, with an average rainfall of 3.3 inches.
- In West Athens, the summers are warm, arid, and clear and the winters are long, cool, wet, and partly cloudy. Over the course of the year, the temperature typically varies from 49 °F to 79 °F and is rarely below 43 °F or above 87 °F.
- In Gardena, the rainy period of the year lasts for 6.2 months, from October 18 to April 25, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in Gardena is February, with an average rainfall of 3.3 inches.
- In Gardena, the summers are warm, arid, and clear and the winters are long, cool, wet, and partly cloudy. Over the course of the year, the temperature typically varies from 49 °F to 78 °F and is rarely below 44 °F or above 86 °F.
- In Paramount, the rainy period of the year lasts for 6.2 months, from October 18 to April 25, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in Paramount is February, with an average rainfall of 3.2 inches.
- In Paramount, the summers are short, warm, arid, and clear and the winters are long, cool, wet, and partly cloudy. Over the course of the year, the temperature typically varies from 47 °F to 83 °F and is rarely below 41 °F or above 91 °F.
- In Buena Park, the rainy period of the year lasts for 6.1 months, from October 19 to April 24, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in Buena Park is February, with an average rainfall of 3.1 inches.
- In Buena Park, the summers are short, warm, arid, and clear and the winters are long, cool, wet, and partly cloudy. Over the course of the year, the temperature typically varies from 46 °F to 85 °F and is rarely below 39 °F or above 95 °F.
- In Fullerton, the rainy period of the year lasts for 6.1 months, from October 20 to April 24, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in Fullerton is February, with an average rainfall of 3.1 inches.

- In Fullerton, the summers are short, warm, arid, and clear and the winters are long, cool, and partly cloudy. Over the course of the year, the temperature typically varies from 45 °F to 86 °F and is rarely below 39 °F or above 95 °F.
- In Anaheim, the rainy period of the year lasts for 6.1 months, from October 20 to April 23, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in Anaheim is February, with an average rainfall of 3.1 inches.
- In Anaheim, the summers are short, warm, arid, and clear and the winters are long, cool, and partly cloudy. Over the course of the year, the temperature typically varies from 46 °F to 85 °F and is rarely below 39 °F or above 94 °F.
- In Signal Hill, the rainy period of the year lasts for 6.1 months, from October 20 to April 24, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in Signal Hill is February, with an average rainfall of 3.2 inches.
- In Signal Hill, the summers are short, warm, arid, and clear and the winters are long, cool, wet, and partly cloudy. Over the course of the year, the temperature typically varies from 48 °F to 82 °F and is rarely below 42 °F or above 91 °F.
- In Los Altos, the rainy period of the year lasts for 7.3 months, from October 4 to May 12, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in Los Altos is February, with an average rainfall of 3.7 inches.
- In Los Altos, the summers are long, comfortable, arid, and mostly clear and the winters are short, cold, wet, and partly cloudy. Over the course of the year, the temperature typically varies from 44 °F to 76 °F and is rarely below 37 °F or above 86 °F.
- In Midway City, the rainy period of the year lasts for 6.0 months, from October 21 to April 23, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in Midway City is February, with an average rainfall of 3.1 inches.
- In Midway City, the summers are short, warm, arid, and clear and the winters are long, cool, and partly cloudy. Over the course of the year, the temperature typically varies from 46 °F to 82 °F and is rarely below 39 °F or above 90 °F.
- In Irvine, the rainy period of the year lasts for 6.0 months, from October 23 to April 23, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in Irvine is February, with an average rainfall of 2.9 inches.
- In Irvine, the summers are short, warm, arid, and clear and the winters are long, cool, and partly cloudy. Over the course of the year, the temperature typically varies from 47 °F to 82 °F and is rarely below 40 °F or above 90 °F.
- In Laguna Woods, the rainy period of the year lasts for 6.0 months, from October 23 to April 23, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in Laguna Woods is February, with an average rainfall of 2.9 inches.
- In Laguna Woods, the summers are short, warm, arid, and clear and the winters are long, cool, and partly cloudy. Over the course of the year, the temperature typically varies from 48 °F to 82 °F and is rarely below 41 °F or above 90 °F.
- In Mission Viejo, the rainy period of the year lasts for 6.0 months, from October 22 to April 23, with a sliding 31-day rainfall of at least 0.5 inches. The month with the most rain in Mission Viejo is February, with an average rainfall of 2.9 inches.
- In Mission Viejo, the summers are short, warm, arid, and clear and the winters are long, cool, and partly cloudy. Over the course of the year, the temperature typically varies from 47 °F to 82 °F and is rarely below 41 °F or above 90 °F.
- This project does not require any 401 certifications.
- There are no known drinking water reservoirs or recharge facilities within the project limits.

- The project does not involve using soil containing Aerially Deposited Lead (ADL).
- The project limits are within these hydrologic areas:
  - Santa Monica Bay Hydrologic Unit, Interior Santa Monica Bay Hydrologic Area, Wilshire Hydrologic Sub-Area #405.20
  - Santa Monica Bay Hydrologic Unit, Interior Santa Monica Bay Hydrologic Area, Culver City Hydrologic Sub-Area #404.61
  - Santa Monica Bay Hydrologic Unit, Interior Santa Monica Bay Hydrologic Area, Wilshire Hydrologic Sub-Area #404.63
  - Santa Ana River Hydrologic Unit, Lower Santa Ana River Hydrologic Area, East Coastal Plain Hydrologic Sub-Area #801.11
  - San Gabriel River Hydrologic Unit, Lower San Gabriel Hydrologic Area, Central (Split) Hydrologic Sub-Area #845.15
  - San Gabriel River Hydrologic Unit, Lower San Gabriel Hydrologic Area, Central (Split) Hydrologic Sub-Area #405.15
  - San Gabriel River Hydrologic Unit, Anaheim Hydrologic Area, undefined Hydrologic Sub-Area #845.61
  - Los Angeles River Hydrologic Unit, Los Angeles Hydrologic Area, undefined Hydrologic Sub-Area #412.10
  - Los Angeles River Hydrologic Unit, San Fernando Hydrologic Area, Bull Canyon Hydrologic Sub-Area #412.21
  - Los Angeles River Hydrologic Unit, Raymond Hydrologic Area, Pasadena Hydrologic Sub-Area #412.31
  - Dominguez Channel Hydrologic Unit, undefined Hydrologic Area, undefined Hydrologic Sub-Area #411.01
  - San Juan Hydrologic Unit, San Clemente Hydrologic Area, Segunda Deshecha Hydrologic Sub-Area #901.32
  - San Juan Hydrologic Unit, Mission Viejo Hydrologic Area, Lower San Juan Hydrologic Sub-Area #901.27
  - San Juan Hydrologic Unit, San Mateo Canyon Hydrologic Area, undefined Hydrologic Sub-Area #901.40
- The nearest 303 (d) listed receiving water bodies are Alamitos Bay, Alhambra Wash, Aliso Canyon Wash, Alondra Park Lake, Anaheim Bay, Arroyo Seco Reach 1 (LA River to West Holly Ave.), Arroyo Seco Reach 2 (West Holly Ave to Devils Gate Dam), Arroyo Trabuco Creek, Lower, Artesia-Norwalk Drain, Balboa Beach, Balboa Lake, Ballona Creek, Ballona Creek Estuary, Ballona Creek Wetlands, Bell Creek, Bolsa Bay Marsh, Bolsa Chica Channel, Bolsa Chica Ecological Reserve, Bolsa Chica State Beach, Bonita Creek, Borrego Creek (from Irvine Blvd to San Diego Creek Reach 2), Buck Gully Creek, Bull Creek (Los Angeles County), Burbank Western Channel, Centinela Creek, Clark Channel, Colorado Lagoon, Compton Creek, Coyote Creek, Coyote Creek, North Fork, Cristianitos Creek, Crystal Cove State Park, Dominguez Channel (lined portion above Vermont Ave), Dominguez Channel Estuary (unlined portion below Vermont Ave), Downtown Shoreline Marina part of San Pedro Bay Near Off Shore Zones, Dry Canyon Creek, Earvin Magic Johnson Park Lakes (Los Angeles County), East Garden Grove Wintersburg Channel, Echo Park Lake, El Dorado Lakes, Huntington Beach State Park, Huntington City Beach, Huntington Harbour, La Mirada Park Lake, Lake Calabasas, Legg Lake, Lincoln Park Lake, Little Corona Del Mar Beach, Long Beach City Beach, Los Angeles - Long Beach Inner Harbor, Los Angeles - Long Beach Outer Harbor inside breakwater, Los Angeles River Estuary (Queensway Bay), Los Angeles Harbor - Consolidated Slip, Los Angeles River Reach 1 (Estuary to Carson Street), Los Angeles River Reach 2 (Carson to Figueroa Street), Los Angeles River Reach 3 (Figueroa St. to Riverside

Dr.), Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam), Los Angeles River Reach 5 (within Sepulveda Basin), Los Angeles River Reach 6 (Above Sepulveda Flood Control Basin), Los Cerritos Channel, Los Coyotes Channel, Los Trancos Creek (Crystal Cove Creek), Marina del Rey Harbor, Marina del Rey Harbor Beach, McCoy Canyon Creek, Monrovia Canyon Creek, Morning Canyon Creek, Moro Canyon Creek, Newport Bay, Lower (entire lower bay, including Rhine Channel, Turning Basin and South Lido Channel to east end of H-J Moorings), Newport Bay, Upper (Ecological Reserve), Newport Slough, Oxford Retention Basin (Los Angeles County), Pacific Ocean Shoreline, San Clemente HA, at San Clemente City Beach at Linda Lane, Pacific Ocean Shoreline, San Clemente HA, at San Clemente City Beach at Mariposa Lane, Pacific Ocean Shoreline, San Clemente HA, at San Clemente City Beach at Pier, Pacific Ocean Shoreline, San Clemente HA, at San Clemente City Beach, 45ft North of Pier, Pacific Ocean Shoreline, San Clemente HA, at San Clemente City Beach, North Beach, Pacific Ocean Shoreline, Lower San Juan HSA, 1000 feet south of outfall, Pacific Ocean Shoreline, Lower San Juan HSA, at North Beach Creek, Pacific Ocean Shoreline, Lower San Juan HSA, at San Juan Creek, Pacific Ocean Shoreline, Lower San Juan HSA, at surfzone outfall at Doheny State Beach, Pacific Ocean Shoreline, San Mateo Canyon HA, at San Mateo Creek outlet, Peck Road Park Lake, Peters Canyon Wash (Orange County), Rattlesnake Reservoir (Orange County), Rhine Channel, Rio Hondo Reach 1 (Confl. LA River to Snt Ana Fwy), Rio Hondo Reach 2 (At Spreading Grounds), Rio Hondo Reach 3 (above Spreading Grounds), San Gabriel River Estuary, San Gabriel River Reach 1 (Estuary to Firestone), San Gabriel River Reach 2 (Firestone to Whittier Narrows Dam), San Gabriel River Reach 3 (Whittier Narrows to Ramona), San Diego Creek Reach 1, San Diego Creek Reach 2, San Juan Creek, San Juan Creek (mouth), San Mateo Creek (San Diego County), San Pedro Bay Near Off Shore Zones, Sand Canyon Reservoir (Orange County), Santa Ana Delhi Channel, Santa Anita Wash (Peck Road Park to Elkins Ave.), Santa Monica Bay Offshore/Nearshore, Sawpit Creek, Seal Beach (Orange County), Segunda Deshecha Creek, Sepulveda Canyon, Serrano Creek, Siphon Reservoir (Orange County), Spring Street Channel, Sunset Beach, Talbert Channel (Orange County), Torrance Carson Channel, Tujunga Wash (LA River to Hansen Dam), Veeh Reservoir (Orange County), Venice Beach, Verdugo Wash Reach 1 (LA River to Verdugo Rd.), Verdugo Wash Reach 2 (Above Verdugo Road) and Wildlife Lake.

- Alamitos Bay has the following pollutants of concern (POCs): Copper, DDD (Dichlorodiphenyldichloroethane), DDT (Dichlorodiphenyltrichloroethane), Indicator Bacteria, Oxygen, Dissolved and PCBs (Polychlorinated biphenyls).
- Alhambra Wash has the following pollutants of concern (POCs): Ammonia.
- Aliso Canyon Wash has the following pollutants of concern (POCs): Copper, Indicator Bacteria and Selenium.
- Alondra Park Lake has the following pollutants of concern (POCs): Mercury.
- Anaheim Bay has the following pollutants of concern (POCs): Nickel, PCBs (Polychlorinated biphenyls) and Toxicity.
- Arroyo Seco Reach 1 (LA River to West Holly Ave.) has the following pollutants of concern (POCs): Indicator Bacteria and Trash.
- Arroyo Seco Reach 2 (West Holly Ave to Devils Gate Dam) has the following pollutants of concern (POCs): Indicator Bacteria and Trash.
- Arroyo Trabuco Creek, Lower has the following pollutants of concern (POCs): Benthic Community Effects, Indicator Bacteria, Nitrogen, Phosphorus and Toxicity.
- Artesia-Norwalk Drain has the following pollutants of concern (POCs): Indicator Bacteria and Selenium.

- Balboa Beach has the following pollutants of concern (POCs): DDT (Dichlorodiphenyltrichloroethane), Dieldrin and PCBs (Polychlorinated biphenyls).
- Balboa Lake has the following pollutants of concern (POCs): Oxygen, Dissolved, Temperature, water and Toxicity.
- Ballona Creek has the following pollutants of concern (POCs): Aluminum, Bifenthrin, Chlordane, Copper, Cyanide, Cyfluthrin, Cyhalothrin, Lambda, Cypermethrin, DDT (Dichlorodiphenyltrichloroethane), Deltamethrin, Esfenvalerate/Fenvalerate, Fipronil, Imidacloprid, Indicator Bacteria, Lead, Permethrin, pH, Pyrethroids, Toxicity, Trash, Viruses (enteric) and Zinc.
- Ballona Creek Estuary has the following pollutants of concern (POCs): Cadmium, Chlordane, Copper, DDE (Dichlorodiphenyldichloroethylene), DDT (Dichlorodiphenyltrichloroethane), Indicator Bacteria, Lead, PAHs (Polycyclic Aromatic Hydrocarbons), PCBs (Polychlorinated biphenyls), Silver, Toxicity and Zinc.
- Ballona Creek Wetlands has the following pollutants of concern (POCs): Exotic Vegetation, Habitat alterations, Reduced Tidal Flushing and Trash.
- Bell Creek has the following pollutants of concern (POCs): Indicator Bacteria and Indicator Bacteria.
- Bolsa Bay Marsh has the following pollutants of concern (POCs): Toxicity
- Bolsa Chica Channel has the following pollutants of concern (POCs): Ammonia (Unionized), Indicator Bacteria and pH.
- Bolsa Chica Ecological Reserve has the following pollutants of concern (POCs): Toxicity.
- Bolsa Chica State Beach has the following pollutants of concern (POCs): Copper, Indicator Bacteria and Nickel.
- Bonita Creek has the following pollutants of concern (POCs): Benthic Community Effects and Toxicity.
- Borrego Creek (from Irvine Blvd to San Diego Creek Reach 2) has the following pollutants of concern (POCs): Ammonia (Unionized) and Indicator Bacteria.
- Buck Gully Creek has the following pollutants of concern (POCs): Indicator Bacteria
- Bull Creek (Los Angeles County) has the following pollutants of concern (POCs): Copper, Indicator Bacteria and Toxicity.
- Burbank Western Channel has the following pollutants of concern (POCs): Chlorine, Copper, Indicator Bacteria, Lead, pH, Selenium and Trash.
- Centinela Creek has the following pollutants of concern (POCs): Copper, Indicator Bacteria, Lead and Zinc.
- Clark Channel has the following pollutants of concern (POCs): Aluminum, Copper, Indicator Bacteria and Oil and Grease.
- Colorado Lagoon has the following pollutants of concern (POCs): Chlordane, DDT (Dichlorodiphenyltrichloroethane), Dieldrin, Indicator Bacteria, Lead, PAHs (Polycyclic Aromatic Hydrocarbons), PCBs (Polychlorinated biphenyls), Toxicity and Zinc.
- Compton Creek has the following pollutants of concern (POCs): Aluminum, Benthic Community Effects, Copper, Indicator Bacteria, Lead, pH, Trash and Zinc.
- Coyote Creek has the following pollutants of concern (POCs): Aluminum, Chlorine, Copper, Dissolved, Indicator Bacteria, Iron, Malathion, pH and Toxicity.

- Coyote Creek, North Fork has the following pollutants of concern (POCs): Indicator Bacteria, Oil and Grease, Selenium and Zinc.
- Cristianitos Creek has the following pollutants of concern (POCs): Cadmium, Indicator Bacteria and Selenium.
- Crystal Cove State Park has the following pollutants of concern (POCs): Indicator Bacteria
- Dominguez Channel (lined portion above Vermont Ave) has the following pollutants of concern (POCs): Aluminum, Copper, Indicator Bacteria, Lead, Toxicity and Zinc.
- Dominguez Channel Estuary (unlined portion below Vermont Ave) has the following pollutants of concern (POCs): Benthic Community Effects, Benzo(a)anthracene, Benzo(a)pyrene, Chlordane, Chlordane (tissue), Chrysene (C1-C4), Copper, DDT (tissue & sediment), Dieldrin (tissue), Indicator Bacteria, Lead, PCBs (Polychlorinated biphenyls), Phenanthrene, Pyrene, Toxicity and Zinc.
- Downtown Shoreline Marina part of San Pedro Bay Near Off shore Zones has the following pollutants of concern (POCs): Copper and Oxygen, Dissolved.
- Dry Canyon Creek has the following pollutants of concern (POCs): Dry Canyon Creek and Selenium, Total.
- Earvin Magic Johnson Park Lakes (Los Angeles County) has the following pollutants of concern (POCs): Mercury.
- East Garden Grove Wintersburg Channel has the following pollutants of concern (POCs): Ammonia (Unionized).
- Echo Park Lake has the following pollutants of concern (POCs): Algae, Chlordane, Dieldrin, Eutrophic, Odor, PCBs (Polychlorinated biphenyls), pH and Trash.
- El Dorado Lakes has the following pollutants of concern (POCs): Algae, Ammonia, Copper, Eutrophic, Lead, Mercury and pH.
- Huntington Beach State Park has the following pollutants of concern (POCs): Indicator Bacteria and PCBs (Polychlorinated biphenyls).
- Huntington City Beach has the following pollutants of concern (POCs): Indicator Bacteria.
- Huntington Harbour has the following pollutants of concern (POCs): Chlordane, Copper, Indicator Bacteria, Lead, PCBs (Polychlorinated biphenyls) and Toxicity.
- La Mirada Park Lake has the following pollutants of concern (POCs): DDT (Dichlorodiphenyltrichloroethane) and Mercury.
- Lake Calabazas has the following pollutants of concern (POCs): Ammonia, Eutrophic, Odor, Organic Enrichment/Low Dissolved Oxygen and pH.
- Legg Lake has the following pollutants of concern (POCs): Ammonia, Chlorophyll-a, DDT (Dichlorodiphenyltrichloroethane), Mercury, Odor, PCBs (Polychlorinated biphenyls), pH and Trash.
- Lincoln Park Lake has the following pollutants of concern (POCs): Ammonia, Eutrophic, Odor, Organic Enrichment/Low Dissolved Oxygen, PCBs (Polychlorinated biphenyls) and Trash.
- Little Corona Del Mar Beach has the following pollutants of concern (POCs): Indicator Bacteria.
- Long Beach City Beach has the following pollutants of concern (POCs): Indicator Bacteria.
- Los Angeles-Long Beach Inner Harbor has the following pollutants of concern (POCs): Benthic Community Effects, Copper, DDD (Dichlorodiphenyldichloroethane), DDE (Dichlorodiphenyldichloroethylene), DDT (Dichlorodiphenyltrichloroethane), PCBs (Polychlorinated biphenyls), Silver and Toxicity.

- Los Angeles-Long Beach Outer Harbor inside breakwater has the following pollutants of concern (POCs): Chlordane, Copper, DDT (Dichlorodiphenyltrichloroethane), PCBs (Polychlorinated biphenyls) and Toxicity.
- Los Angeles River Estuary (Queensway Bay) has the following pollutants of concern (POCs): Chlordane, Copper, DDT (Dichlorodiphenyltrichloroethane), DDT (sediment), Indicator Bacteria, Oxygen, Dissolved, PCBs (Polychlorinated biphenyls), PCBs (Polychlorinated biphenyls) (sediment), Toxicity, Trash and Zinc.
- Los Angeles Harbor-Consolidated Slip has the following pollutants of concern (POCs): 2-Methylnaphthalene, Benthic Community Effects, Benzo(a)anthracene, Benzo(a)pyrene, Cadmium, Cadmium (sediment), Chlordane, Chlordane (tissue & sediment), Chromium, Chrysene (C1-C4), Copper, Copper (sediment), DDE (Dichlorodiphenyldichloroethylene), DDT (Dichlorodiphenyltrichloroethane), DDT (tissue & sediment), Dieldrin, Lead, Lead (sediment), Mercury, Mercury (sediment), Oxygen, Dissolved, PCBs (Polychlorinated biphenyls), PCBs (Polychlorinated biphenyls) (tissue & sediment), Phenanthrene, Pyrene, Toxaphene Toxaphene (tissue), Toxicity, Zinc and Zinc (sediment).
- Los Angeles River Reach 1 (estuary to Carson Street) has the following pollutants of concern (POCs): Aluminum, Ammonia, Bifenthrin, Copper, Copper, Dissolved, Cyanide, Cyfluthrin, Cypermethrin, Deltamethrin, Fipronil, Imidacloprid, Indicator Bacteria, Iron, Lead, Nutrients (Algae), Oil and Grease, Permethrin, pH, Profenofos, Pyrethroids, Toxicity, Trash, Zinc and Zinc, Dissolved.
- Los Angeles River Reach 2 (Carson to Figueroa Street) has the following pollutants of concern (POCs): Ammonia, Copper, Indicator Bacteria, Lead, Nutrients (Algae), Oil, Oil and Grease, Trash and Zinc.
- Los Angeles River Reach 3 (Figueroa St. to Riverside Dr.) has the following pollutants of concern (POCs): Copper, Indicator Bacteria, Nutrients (Algae), Toxicity and Trash.
- Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam) has the following pollutants of concern (POCs): Indicator Bacteria, Nutrients (Algae), Toxicity and Trash.
- Los Angeles River Reach 5 (within Sepulveda Basin) has the following pollutants of concern (POCs): Benthic Community Effects, Copper, Lead, Nutrients (Algae), Oil, Selenium, Toxicity and Trash.
- Los Angeles River Reach 6 (Above Sepulveda Flood Control Basin) has the following pollutants of concern (POCs): Chlordane, Chloride, Copper, Indicator Bacteria, Selenium, Sulfates, Total Dissolved Solids, Toxicity and Zinc.
- Los Cerritos Channel has the following pollutants of concern (POCs): Ammonia, Bis(2ethylhexyl)phthalate (DEHP), Copper, Indicator Bacteria, Lead, pH, Trash and Zinc.
- Los Coyotes Channel has the following pollutants of concern (POCs): Copper, Indicator Bacteria and Oil and Grease.
- Los Trancos Creek (Crystal Cove Creek) has the following pollutants of concern (POCs): Indicator Bacteria.
- Marina del Rey Harbor has the following pollutants of concern (POCs): alpha-Endosulfan (Endosulfan 1), Chlordane, Copper, DDT (Dichlorodiphenyltrichloroethane), Dieldrin, Indicator Bacteria, Lead, Oxygen, Dissolved, PCBs (Polychlorinated biphenyls), Toxicity and Zinc.
- Marina del Rey Harbor Beach has the following pollutants of concern (POCs): Indicator Bacteria.
- McCoy Canyon Creek has the following pollutants of concern (POCs): Indicator Bacteria, Nitrate, Nitrogen, Nitrate and Selenium, Total.

- Monrovia Canyon Creek has the following pollutants of concern (POCs): Lead.
- Morning Canyon Creek has the following pollutants of concern (POCs): Indicator Bacteria.
- Moro Canyon Creek has the following pollutants of concern (POCs): Nitrogen, Phosphorus, Selenium and Toxicity.
- Newport Bay, Lower (entire lower bay, including Rhine Channel, Turning Basin and South Lido Channel to east end of H-J Moorings) has the following pollutants of concern (POCs): Chlordane, Copper, DDT (Dichlorodiphenyltrichloroethane), Dieldrin, Indicator Bacteria, Nutrients, PCBs (Polychlorinated biphenyls) and Toxicity.
- Newport Bay, Upper (Ecological Reserve) has the following pollutants of concern (POCs): Chlordane, Copper, DDT (Dichlorodiphenyltrichloroethane), Indicator Bacteria, Malathion, Nutrients, PCBs (Polychlorinated biphenyls), Sedimentation/Siltation and Toxicity.
- Newport Beach has the following pollutants of concern (POCs): Indicator Bacteria.
- Newport Slough has the following pollutants of concern (POCs): Indicator Bacteria.
- Oxford Retention Basin (Los Angeles County) has the following pollutants of concern (POCs): Copper, Indicator Bacteria and Zinc.
- Pacific Ocean Shoreline, San Clemente HA, at San Clemente City Beach at Linda Lane has the following pollutants of concern (POCs): Indicator Bacteria.
- Pacific Ocean Shoreline, San Clemente HA, at San Clemente City Beach at Mariposa Lane has the following pollutants of concern (POCs): Indicator Bacteria.
- Pacific Ocean Shoreline, San Clemente HA, at San Clemente City Beach at Pier has the following pollutants of concern (POCs): Indicator Bacteria.
- Pacific Ocean Shoreline, San Clemente HA, at San Clemente City Beach, 45ft North of Pier has the following pollutants of concern (POCs): Indicator Bacteria.
- Pacific Ocean Shoreline, San Clemente HA, at San Clemente City Beach, North Beach has the following pollutants of concern (POCs): Indicator Bacteria.
- Pacific Ocean Shoreline, Lower San Juan HSA, 1000 feet south of outfall has the following pollutants of concern (POCs): Indicator Bacteria.
- Pacific Ocean Shoreline, Lower San Juan HSA, at North Beach Creek has the following pollutants of concern (POCs): Indicator Bacteria.
- Pacific Ocean Shoreline, Lower San Juan HSA, at San Juan Creek has the following pollutants of concern (POCs): Indicator Bacteria.
- Pacific Ocean Shoreline, Lower San Juan HSA, at surfzone outfall at Doheny State Beach has the following pollutants of concern (POCs): Indicator Bacteria.
- Pacific Ocean Shoreline, Lower Mateo HSA, at San Mateo Creek outlet has the following pollutants of concern (POCs): Indicator Bacteria.
- Peck Road Park Lake has the following pollutants of concern (POCs): Chlordane (tissue), DDT (tissue), Mercury, Odor, Organic Enrichment/Low Dissolved Oxygen and Trash.
- Peters Canyon Wash (Orange County) has the following pollutants of concern (POCs): Benthic Community Effects, Copper, DDT (Dichlorodiphenyltrichloroethane), Indicator Bacteria, Malathion, pH, Selenium, Toxaphene, Toxicity
- Rattlesnake Reservoir (Orange County) has the following pollutants of concern (POCs): pH.

- Rhine Channel has the following pollutants of concern (POCs): Copper, Lead, Mercury, PCBs (Polychlorinated biphenyls), Toxicity and Zinc.
- Rio Hondo Reach 1 (Confl. LA River to Snt Ana Fwy) has the following pollutants of concern (POCs): Copper, Indicator Bacteria, Lead, Oil and Grease, pH, Toxicity, Trash and Zinc.
- Rio Hondo Reach 2 (At Spreading Grounds) has the following pollutants of concern (POCs): Coliform Bacteria and Cyanide.
- Rio Hondo Reach 3 (above Spreading Grounds) has the following pollutants of concern (POCs): Copper, Indicator Bacteria, Iron, Oxygen, Dissolved and Zinc.
- San Gabriel River Estuary has the following pollutants of concern (POCs): Chlordane, Chlorine, Copper, Dioxin, Indicator Bacteria, Nickel and Oxygen, Dissolved.
- San Gabriel River Reach 1 (estuary to Firestone) has the following pollutants of concern (POCs): Indicator Bacteria, Oil and Grease and pH.
- San Gabriel River Reach 2 (Firestone to Whittier Dam) has the following pollutants of concern (POCs): Aluminum, Cyanide and Indicator Bacteria.
- San Gabriel River Reach 3 (Whittier Narrows to Ramona) has the following pollutants of concern (POCs): Chlorine and Indicator Bacteria.
- San Diego Creek Reach 1 has the following pollutants of concern (POCs): Benthic Community Effects, Bifenthrin, DDT (Dichlorodiphenyltrichloroethane), Indicator Bacteria, Malathion, Nitrogen, Nutrients, Pyrethroids, Sedimentation/Siltation, Selenium, Toxaphene and Toxicity.
- San Diego Creek Reach 2 has the following pollutants of concern (POCs): Benthic Community Effects, Indicator Bacteria, Nutrients, Sedimentation/Siltation and Toxicity.
- San Juan Creek has the following pollutants of concern (POCs): Benthic Community Effects, Bifenthrin, DDE (Dichlorodiphenyldichloroethylene), Indicator Bacteria, Nitrogen, Oxygen, Dissolved, Phosphorus, Pyrethroids, Selenium and Toxicity.
- San Juan Creek (mouth) has the following pollutants of concern (POCs): Cadmium, Copper, Indicator Bacteria, Nickel and Nitrogen, ammonia (Total Ammonia).
- San Mateo Creek (San Diego County) has the following pollutants of concern (POCs): Indicator Bacteria, Invasive Species and Oxygen, Dissolved.
- San Pedro Bay Near Off Shore Zones has the following pollutants of concern (POCs): Chlordane, Copper, DDE (Dichlorodiphenyldichloroethylene), DDT (Dichlorodiphenyltrichloroethane), PCBs (Polychlorinated biphenyls), Total DDT (sum of 4,4'- and 2,4'- isomers of DDT, DDE, and DDD) and Toxicity.
- Sand Canyon Reservoir (Orange County) has the following pollutants of concern (POCs): pH.
- Santa Ana Delhi Channel has the following pollutants of concern (POCs): Chlordane, DDT (Dichlorodiphenyltrichloroethane) and PCBs (Polychlorinated biphenyls).
- Santa Anita Wash (Peck Road Park to Elkins Ave.) has the following pollutants of concern (POCs): Indicator Bacteria and Lead.
- Santa Monica Bay Offshore/Nearshore has the following pollutants of concern (POCs): Arsenic, DDT (Dichlorodiphenyltrichloroethane), Mercury, PCBs (Polychlorinated biphenyls) and Trash.
- Sawpit Creek has the following pollutants of concern (POCs): Bis(2ethylhexyl)phthalate (DEHP), Chlordane, Indicator Bacteria and Lead.
- Seal Beach (Orange County) has the following pollutants of concern (POCs): Indicator Bacteria and PCBs (Polychlorinated biphenyls).

- Segunda Deshecha Creek has the following pollutants of concern (POCs): Benthic Community Effects, Indicator Bacteria, Malathion, Nitrogen, Phosphorus, Selenium, Toxicity and Turbidity.
- Sepulveda Canyon has the following pollutants of concern (POCs): Copper, Indicator Bacteria, Lead, Selenium and Zinc.
- Serrano Creek has the following pollutants of concern (POCs): Ammonia (Unionized), Benthic Community Effects, Indicator Bacteria, pH and Toxicity.
- Siphon Reservoir (Orange County) has the following pollutants of concern (POCs): pH.
- Spring Street Channel has the following pollutants of concern (POCs): Copper, Indicator Bacteria and Zinc.
- Sunset Beach has the following pollutants of concern (POCs): Indicator Bacteria
- Talbert Channel (Orange County) has the following pollutants of concern (POCs): Toxicity.
- Torrance Carson Channel has the following pollutants of concern (POCs): Copper, Indicator Bacteria and Lead.
- Tujunga Wash (LA River to Hansen Dam) has the following pollutants of concern (POCs): Ammonia, Copper, Indicator Bacteria and Trash.
- Veeh Reservoir (Orange County) has the following pollutants of concern (POCs): Mercury.
- Venice Beach has the following pollutants of concern (POCs): Indicator Bacteria.
- Verdugo Wash Reach 1 (LA River to Verdugo Rd.) has the following pollutants of concern (POCs): Copper, Indicator Bacteria and Trash.
- Verdugo Wash Reach 2 (Above Verdugo Road) has the following pollutants of concern (POCs): Indicator Bacteria and Trash.
- Wildlife Lake has the following pollutants of concern (POCs): Oxygen, Dissolved.

The project limits are in the Santa Monica Bay, Los Angeles River, San Gabriel River, Dominguez Channel, San Juan and Santa Ana River Total Maximum Daily Load (TMDL) Watershed Boundary. The TMDLs are as follows:

### 1 Dominguez Channel

Pollutant(s)	Effective Date	LA RWQB Resolution No.	Categorical Implementation Requirements <sup>1 2</sup>
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*Title: Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL*

Toxic pollutants (dichlorodiphenyl-trichloroethane (DDT), polycyclic aromatic hydrocarbons (PAHs), total polychlorinated biphenyls (PCBs), metals (Cu, Pb, Zn))	03/23/2012 <sup>2</sup>	R11-008	Targeted pollutants are to be monitored in the water column in the channel and harbors as well as the sediment in the harbors. The TMDL requires the dischargers of the Los Angeles River and the San Gabriel River to monitor water quality at the mouth of each river. Caltrans shall implement control measures and/or treatment BMPs to prevent the discharge of sediments which may contain toxic pollutants as listed in the TMDL. Possible treatment options include the interception and infiltration of runoff which will allow water to percolate into soil.
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1 Refer to §4 of the PPDG to determine the specific impervious threshold for stormwater Treatment BMP requirements.

2 General TMDL Requirements can be found in Attachment IV of the NPDES Statewide Storm Water Permit.

### Los Angeles River

Pollutant(s)	Effective Date	LA RWQB Resolution No.	Categorical Implementation Requirements <sup>1,2</sup>
<b><i>Title: Los Angeles River Trash TMDL</i></b>			
Trash	12/24/2008, revised 06/30/2016	R15-006	Discharge of trash to receiving waters from Caltrans R/W is prohibited. Caltrans is assigned a WLA and compliance schedule in the Los Angeles River Trash TMDL. Installation/retrofit of Gross Solid Removal Devices (GSRDs) and/or full capture systems at existing drainage outfalls within Caltrans R/W are required for TMDL compliance. Existing projects with GSRDs do not require additional implementation.
<b><i>Title: TMDL for Metals for the Los Angeles River and its Tributaries</i></b>			
Metals (Cu, Pb)	12/22/2005, revised 12/12/2016	R15-004	Caltrans shall implement control measures and/or treatment BMPs to prevent the discharge of sediments which may contain metals. Possible treatment options include the interception and infiltration of runoff which will allow water to percolate into soil. Compliance of the TMDL will be achieved through implementation of BMPs.
<b><i>Title: TMDL for Indicator Bacteria for the Los Angeles River Watershed</i></b>			
Indicator bacteria	03/23/2012	R10-007	Dry-weather non-storm water and wet-weather storm water discharges may significantly increase bacteria loading to receiving waters. Caltrans shall implement control measures and/or BMPs to prevent the discharge of bacteria from its R/W. Source control measures include street sweeping, illegal dumping clean-up, public education on littering. BMPs include devices which treat storm water through retention/detention, infiltration and/or diversion.

***Title: Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL***

Toxic pollutants (dichlorodiphenyl-trichloroethane (DDT), polycyclic aromatic hydrocarbons (PAHs), total polychlorinated biphenyls (PCBs), metals (Cu, Pb, Zn))	03/23/2012	R11-008	Targeted pollutants are to be monitored in the water column in the channel and harbors as well as the sediment in the harbors. The TMDL requires the dischargers of the Los Angeles River and the San Gabriel River to monitor water quality at the mouth of each river. Caltrans shall implement control measures and/or treatment BMPs to prevent the discharge of sediments which may contain toxic pollutants as listed in the TMDL. Possible treatment options include the interception and infiltration of runoff which will allow water to percolate into soil.
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1 Refer to §4 of the PPDG to determine the specific impervious threshold for stormwater Treatment BMP requirements.

2 General TMDL Requirements can be found in Attachment IV of the NPDES Statewide Storm Water Permit.

**San Gabriel River**

Pollutant(s)	Effective Date	LA RWQB Resolution No.	Categorical Implementation Requirements <sup>1,2</sup>
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***Title: TMDL for Metals and Selenium in the San Gabriel River and its Tributaries***

Metals (Cu, Pb, Zn) and Se	03/26/2007, revised 10/13/2014	R13-004	Caltrans shall implement control measures and/or treatment BMPs to prevent the discharge of sediments which may contain metals and Se. Possible treatment options include the interception and infiltration of runoff which will allow water to percolate into soil.
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***Title: TMDL for Indicator Bacteria in the San Gabriel River, Estuary and Tributaries***

Indicator bacteria	06/14/2016	R15-005	Dry-weather non-storm water and wet-weather storm water discharges may significantly increase bacteria loading to receiving waters. Caltrans shall implement control measures and/or BMPs to prevent the discharge of bacteria from its R/W. Source control measures include street sweeping, illegal dumping clean-up, public education on littering. BMPs include devices which treat storm water through retention/detention, infiltration and/or diversion.
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***Title: Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL***

Toxic pollutants (dichlorodiphenyl-trichloroethane (DDT), polycyclic aromatic hydrocarbons (PAHs), total polychlorinated biphenyls (PCBs), metals (Cu, Pb, Zn))	03/23/2012	R11-008	Targeted pollutants are to be monitored in the water column in the channel and harbors as well as the sediment in the harbors. The TMDL requires the dischargers of the Los Angeles River and the San Gabriel River to monitor water quality at the mouth of each river. Caltrans shall implement control measures and/or treatment BMPs to prevent the discharge of sediments which may contain toxic pollutants as listed in the TMDL. Possible treatment options include the interception and infiltration of runoff which will allow water to percolate into soil.
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1 Refer to §4 of the PPDG to determine the specific impervious threshold for stormwater Treatment BMP requirements.

2 General TMDL Requirements can be found in Attachment IV of the NPDES Statewide Storm Water Permit.

### Santa Monica Bay

Pollutant(s)	Effective Date	LA RWQB Resolution No.	Categorical Implementation Requirements <sup>1 2</sup>
<b><i>Title: Santa Monica Bay Beaches Dry- and Wet-Weather Bacteria TMDLs</i></b>			
Indicator bacteria	07/15/2003	2002-004 (dry-weather) 2002-022 (wet-weather)	Dry-weather non-storm water and wet-weather storm water discharges may significantly increase bacteria loading to receiving waters. Caltrans shall implement control measures and/or BMPs to prevent the discharge of bacteria from its R/W. Source control measures include street sweeping, illegal dumping clean-up, public education on littering. BMPs include devices which treat storm water through retention/detention, infiltration and/or diversion.
<b><i>Title: Santa Monica Bay Nearshore and Offshore Debris TMDL</i></b>			
Debris (trash and plastic pellets)	03/20/2012	R10-010	Discharge of trash to receiving waters from Caltrans R/W is prohibited. Caltrans is assigned a WLA and compliance schedule in the Trash TMDL. Installation/retrofit of Gross Solid Removal Devices (GSRDs) and/or full capture systems at existing drainage outfalls within Caltrans R/W are required for TMDL compliance. Existing projects with GSRDs do not require additional implementation.
<b><i>Title: Santa Monica Bay TMDLs for DDT and PCBs</i></b>			
Dichlorodiphenyl-trichloroethane (DDT), total polychlorinated biphenyls (PCBs)	03/26/2012	US EPA established TMDL	Caltrans shall implement control measures and/or treatment BMPs to prevent the discharge of sediments which may contain toxic pollutants as listed in the TMDL. Possible treatment options include the interception and infiltration of runoff which will allow water to percolate into soil.

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1 Refer to §4 of the PPDG to determine the specific impervious threshold for stormwater Treatment BMP requirements.

2 General TMDL Requirements can be found in Attachment IV of the NPDES Statewide Storm Water Permit.

### 3. Construction Site BMPs

- This project requires a Water Pollution Control Program (WPCP), since total Disturbed Soil Area (DSA) created by the project is less than one (1) acre.
- The following BMPs will be implemented under, “Job Site Management”:
  - Material Delivery and Storage
  - Material Use
  - Stockpile Management
  - Spill Prevention and Control
  - Solid Waste Management
  - Hazardous Waste Management
  - Contaminated Soil Management
  - Concrete Waste Management
  - Sanitary/Septic Waste Management
  - Liquid Waste Management
  - Sweeping
  - Paving, Sealing, Sawcutting, and Grinding Operations
  - Illegal Connection/Illegal Discharge Detection and Reporting
  - Vehicle and Equipment Fueling and Maintenance
  - Concrete Curing and Finishing
  - Water Control and Conservation Practices

- The following Contract Bid Items are required for the implementation of temporary Construction Site BMP Strategy:
  - WPCP
  - Job Site Management
- “Additional Water Pollution Control” is included as a Supplemental Work item.
- Temporary Construction BMPs are estimated to \$2,069,000.00 in accordance with the guidelines of Appendix F, 2023 PPDG.
- On October 20, 2025, Arthur Hedayati, District 7 Construction Stormwater Coordinator, concurs with the temporary construction site BMP strategy used (at PAED phase) for the scope of work of this project.

#### Required Attachments<sup>1</sup>

- Vicinity Map
- Evaluation Documentation Form
- SWDR Summary Spreadsheets

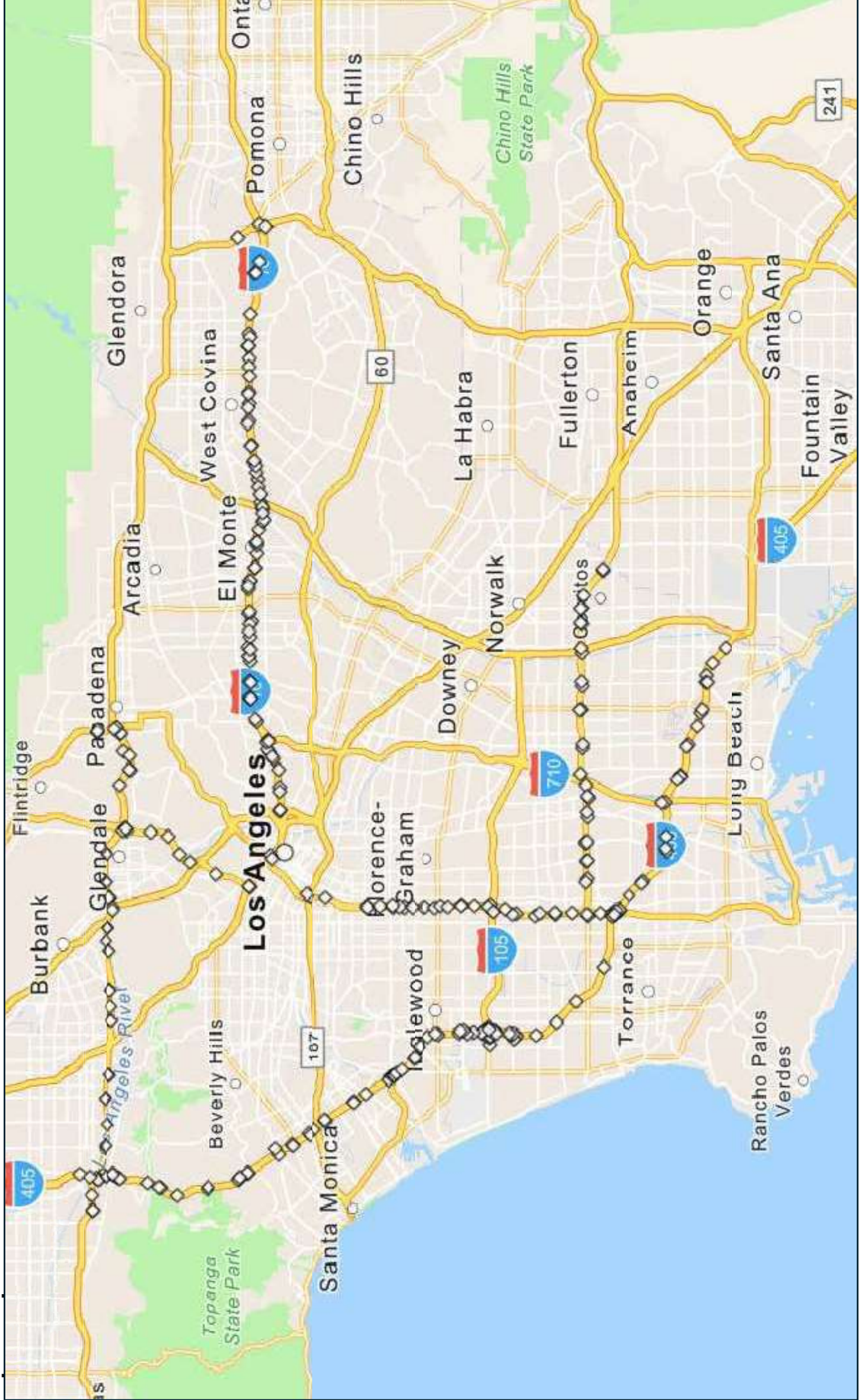
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<sup>1</sup> Additional attachments may be required as applicable or directed by the District/Regional Design Stormwater Coordinator. (e.g., BMP line item estimate, SW, DPP, and CS Checklists).

## Evaluation Documentation Form

No.	Criteria	Yes ✓	No ✓	Supplemental Information for Evaluation
1.	Begin Project evaluation regarding requirement for implementation of Treatment BMPs	✓		Continue to 2.
2.	Is the scope of the Project to install Treatment BMPs (e.g., Alternative Compliance or TMDL requirement)?		✓	If <b>Yes</b> , go to 8. If <b>No</b> , continue to 3.
3.	Is there a direct or indirect discharge to surface waters?	✓		If <b>Yes</b> , continue to 4. If <b>No</b> , go to 9.
4.	As defined in the WQAR or ED, does the project:		✓	If <b>Yes to any</b> , contact the District/Regional Design Stormwater Coordinator or District/Regional NPDES Coordinator to discuss the Department's obligations, go to 8 or 5. <u>SL</u> (Dist./Reg. Coordinator initials)  If <b>No</b> to all, continue to 5.
	a. discharge to Areas of Special Biological Significance (ASBS), or			
	b. discharge to a TMDL watershed where Caltrans is named stakeholder, or	✓		
	c. have other pollution control requirements for surface waters within the project limits (e.g. STGA)?	✓		
5.	Are any existing Treatment BMPs partially or completely removed? (ATA Condition 1, Section 4.3.1)		✓	If <b>Yes</b> , go to 8 <b>AND</b> continue to 6. If <b>No</b> , continue to 6.
6.	Is this a Routine Maintenance Project?		✓	If <b>Yes</b> , go to 9. If <b>No</b> , continue to 7.
7.	Does the project result in an increase of <u>10,000 ft<sup>2</sup> or more</u> (or <u>5,000 ft<sup>2</sup></u> for "non-highway facilities projects") of new impervious surface (NIS)?		✓	If <b>Yes</b> , go to 8. If <b>No</b> , go to 9.
8.	Project is required to implement Treatment BMPs.	Complete Checklist T-1, Part 1.		
9.	Project is not required to implement Treatment BMPs. <u>SL</u> (Dist./Reg. Design SW Coord. Initials) <u>JN</u> (Project Engineer Initials) <u>11-12-2025</u> (Date)	Document for Project Files by completing this form and attaching it to the SWDR.		

# Game Route Network (GRN) CCTV Locations



E#	Location	Route	NAME	Latitude	Longitude	Comment
1	3	2	Proposed CCTV 069	34.091252	-118.258234	1
2	4	2	Proposed CCTV 072	34.107083	-118.249715	1
3	5	2	Proposed CCTV 073	34.113266	-118.244286	1
4	6	2	Proposed CCTV 075	34.119803	-118.231819	1
5	8	2	Proposed CCTV 077	34.129662	-118.228880	1
6	9	2	WB 134 to SB 2 connector	34.143636	-118.227781	1
7	17	10	EB ON FROM SB RTE 5	34.054308	-118.213324	1
8	18	10	EB ON FROM MARENGO/SOTO ST	34.054606	-118.200756	1
9	19	10	EB OFF TO RTE 710	34.059108	-118.176141	1
10	22	10	EB ON FROM EASTERN AVE	34.060363	-118.173212	1
11	23	10	WB ON FROM CAMPUS RD	34.061641	-118.171354	1
12	24	10	WB ON FROM RTE 710/WINTHROP	34.062179	-118.166377	1
13	25	10	Proposed CCTV 048	34.061280	-118.164731	1
14	26	10	EB OFF TO FREMONT ST	34.067832	-118.151695	1
15	28	10	EB OFF TO ATLANTIC BLVD	34.071228	-118.135828	1
16	29	10	WO ATLANTIC BLVD	34.071817	-118.135373	1
17	31	10	EB OFF TO GARFIELD AVE	34.071359	-118.124664	1
18	32	10	WB ON FROM GARFIELD AVE	34.071866	-118.123839	1
19	33	10	EB OFF TO NEW AVE	34.071530	-118.109736	1
20	34	10	WB OFF TO NEW AVE	34.072241	-118.106389	1
21	35	10	NEW AVE	34.072287	-118.106222	1
22	36	10	EB OFF TO DEL MAR AVE	34.071603	-118.101436	1
23	37	10	WB ON FROM SB DEL MAR AVE	34.072842	-118.099742	1
24	38	10	EB OFF TO SAN GABRIEL BLVD	34.071779	-118.092733	1
25	39	10	WB OFF TO SAN GABRIEL BLVD	34.072276	-118.088968	1
26	40	10	EB OFF TO WALNUT GROVE AVE	34.071830	-118.084168	1
27	42	10	W/O ROSEMEAD BLVD	34.072486	-118.077002	1
28	43	10	EB OFF TO ROSEMEAD BLVD	34.071934	-118.075395	1
29	44	10	WB ON FROM TEMPLE CITY BLVD	34.072713	-118.059333	1
30	46	10	EB OFF TO BALDWIN AVE	34.072170	-118.054280	1
31	47	10	EB ON FROM BALDWIN AVE	34.071541	-118.053635	1
32	50	10	EB OFF TO SB PECK RD	34.067750	-118.034816	1
33	51	10	EB OFF TO NB PECK RD	34.067714	-118.029287	1
34	52	10	WB ON FROM WB VALLEY BLVD	34.068435	-118.027223	1
35	54	10	WB OFF TO EXLINE/ STEWART	34.066579	-118.018089	1
36	56	10	EB ON FROM GARVEY AVE	34.063613	-118.011133	1
37	57	10	WB OFF TO GARVEY AVE	34.064475	-118.006422	1
38	60	10	WB RTE 10 - RTE 605	34.065532	-117.998679	1
39	61	10	EB OFF TO BESS AVE/FRAZIER	34.065781	-117.993293	1
40	62	10	WB OFF TO BESS AVE/FRAZIER	34.066863	-117.988473	1
41	63	10	EB OFF TO BALDWIN PARK BLVD	34.067127	-117.983302	1
42	65	10	EB OFF TO FRANCISQUITO AVE	34.068368	-117.973868	1
43	70	10	WB ON FROM PACIFIC AVE	34.072949	-117.944307	1
44	71	10	WB OFF TO PACIFIC AVE	34.072455	-117.942132	1
45	72	10	WB OFF TO SUNSET AVE	34.072670	-117.933158	1
46	73	10	EB OFF TO VINCENT AVE	34.072099	-117.930090	1
47	74	10	WB OFF TO VINCENT AVE	34.072523	-117.923666	1
48	75	10	Proposed CCTV 051	34.072265	-117.922024	1
49	76	10	EB OFF TO AZUSA AVE	34.071993	-117.911005	1
50	77	10	WB OFF TO AZUSA AVE	34.072352	-117.904567	1
51	78	10	Proposed CCTV 052	34.072088	-117.898849	1
52	79	10	WB ON FROM SB CITRUS ST	34.072793	-117.890393	1
53	80	10	WB ON FROM NB CITRUS ST	34.072634	-117.889945	1
54	81	10	EB OFF TO BARRANCA ST	34.071725	-117.884227	1
55	82	10	WB ON FROM SB BARRANCA ST	34.072292	-117.881572	1
56	83	10	Proposed CCTV 053	34.071519	-117.867929	1
57	84	10	EB ON FROM VIA VERDE	34.068349	-117.839330	1
58	85	10	WB ON FROM VIA VERDE	34.069268	-117.839507	1
59	86	10	Proposed CCTV 055	34.066187	-117.831515	1
60	87	57	WB 10 to SB 57 connector	34.066522	-117.805555	1

61	88	57	EB 10 to SB 57 connector	34.062958	-117.807164	1
62	89	57	VIA VERDE AVE	34.078657	-117.814258	1
63	98	91	EB on-ramp from SB 110	33.872658	-118.287103	1
64	99	91	WB On-ramp from SB 110	33.873255	-118.285799	1
65	100	91	Avalon Bl On/Off Ramp	33.873957	-118.263662	1
66	101	91	Avalon Bl On/Off Ramp	33.873084	-118.261162	1
67	102	91	WB on-ramp from Central Ave	33.873875	-118.249003	1
68	103	91	EB on-ramp from Central Ave	33.873003	-118.248405	1
69	104	91	WB on-ramp from Wilmington Ave	33.874208	-118.236391	1
70	105	91	EB on-ramp from Wilmington Ave	33.873216	-118.235746	1
71	106	91	EB ON FROM ALAMEDA ST	33.873203	-118.214794	1
72	107	91	EB OFF TO ALAMEDA ST	33.872881	-118.218203	1
73	108	91	EB OFF TO LONG BEACH BL	33.872329	-118.204772	1
74	109	91	WB ON FRM LONG BEACH BL	33.873123	-118.203617	1
75	110	91	EB OFF TO RTE 710	33.873903	-118.196154	1
76	111	91	WB OFF TO RTE 710	33.877134	-118.188692	1
77	112	91	EB ON CHERRY AVE	33.875695	-118.167414	1
78	113	91	WB OFF CHERRY AVE	33.875901	-118.169924	1
79	114	91	WB ON FR NB 19/LAKEWOOD	33.877521	-118.143798	1
80	115	91	WB ON FR SB 19/LAKEWOOD	33.876579	-118.143543	1
81	116	91	WB ON BELLFLOWER BLVD	33.876462	-118.123597	1
82	117	91	EB OFF BELLFLOWER BLVD	33.875941	-118.126701	1
83	118	91	EB on-ramp, from SB Rte 605	33.876125	-118.104017	1
84	119	91	WB On-ramp from NB Rte 605	33.876691	-118.100791	1
85	120	91	EB on-ramp from sb Pioneer Blvd	33.876186	-118.083401	1
86	121	91	WB on-ramp from SB Pioneer Blvd	33.876913	-118.082610	1
87	122	91	EB On-ramp from NB Norwalk Blvd	33.876104	-118.072296	1
88	123	91	WB on-ramp from SB Norwalk Blvd	33.876966	-118.072876	1
89	124	91	Proposed CCTV 119	33.875221	-118.063929	1
90	125	91	EB Off-ramp to Carmenita Rd	33.863881	-118.046920	1
91	126	91	WB Off-ramp to Carmenita Rd	33.864012	-118.045609	1
92	127	101	Grand Avenue Off Ramp	34.059922	-118.244873	1
93	128	101	Grand Avenue On Ramp	34.059078	-118.247373	1
94	129	101	Alvarado Street On Ramp	34.072467	-118.266653	1
95	130	101	Alvarado Street Off Ramp	34.071667	-118.267189	1
96	131	101	NB ON LAUREL CANYON BL	34.154792	-118.397772	1
97	132	101	SB OFFLAUREL CANYON BL	34.154186	-118.398128	1
98	133	101	NB ON COLDWATER CANYON	34.157065	-118.414678	1
99	134	101	SB OFF COLDWATER CANYON	34.156403	-118.414458	1
100	135	101	SB OFF WOODMAN AVE	34.155385	-118.433045	1
101	136	101	NB ON WOODMAN AVE	34.155922	-118.432558	1
102	137	101	NB OFFVAN NUYS BLVD	34.157018	-118.447743	1
103	138	101	SB ON VAN NUYS BLVD	34.156170	-118.447587	1
104	139	101	SB 405 to SB 101 connector	34.161270	-118.470825	1
105	140	101	NB 405 to SB 101 connector	34.158820	-118.467757	1
106	142	101	Hayvenhurst Av On Ramp 1	34.164826	-118.492311	1
107	144	105	NB 405 to EB 105 connector	33.927544	-118.367388	1
108	145	105	SB 405 to EB 105 connector	33.934221	-118.368890	1
109	146	105	Prairie Ave On Ramp 1	33.931211	-118.347983	1
110	147	105	Prairie Ave Off Ramp	33.932831	-118.345923	1
111	148	105	WB ON FR NB CRENSHAW BLD	33.925008	-118.326549	1
112	150	105	EBOFF TO VERMONT AVE	33.928334	-118.295130	1
113	152	105	Proposed CCTV 081	33.925490	-118.317264	1
114	153	105	SB 110 to WB 105 connector	33.931239	-118.280571	1
115	154	105	NB 110 to WB 105 connector	33.929868	-118.279047	1
116	155	110	SB 405 to SB 110 connector	33.856734	-118.285999	1
117	156	110	SB 405 to NB 110 connector	33.854649	-118.283854	1
118	157	110	NB 405 to SB 110 connector	33.858836	-118.285635	1
119	158	110	NB 405 to NB 110 connector	33.857411	-118.283725	1
120	162	110	Proposed CCTV 036	33.881852	-118.284959	1
121	163	110	NB OFF TO ROSECRANS AVE	33.900533	-118.285240	1

122	164	110	SB OFF TO ROSECRANS AVE	33.903125	-118.287129	1
123	165	110	SB OFF TO EL SEGUNDO BL	33.917092	-118.286016	1
124	166	110	NB OFF TO EL SEGUNDO BL	33.914880	-118.285437	1
125	167	110	Proposed CCTV 038	33.921318	-118.282212	1
126	168	110	EB 105 to SB 110 connector	33.928105	-118.284133	1
127	169	110	EB 105 to NB 110 connector	33.930277	-118.280914	1
128	170	110	Proposed CCTV 039	33.939122	-118.279895	1
129	173	110	Proposed CCTV 040	33.954359	-118.280753	1
130	174	110	NB OFF TO MANCHESTER AVE	33.958655	-118.280002	1
131	176	110	Proposed CCTV 041	33.967707	-118.280882	1
132	178	110	SB ON FLORENCE AVE	33.969700	-118.281195	1
133	179	110	SB ON GAGE AVE	33.980920	-118.281156	1
134	180	110	SB OFF GAGE AVE	33.983789	-118.280907	1
135	181	110	NB OFF TO SLAUSON AVE	33.987751	-118.280002	1
136	183	110	Proposed CCTV 043	33.995073	-118.280538	1
137	185	110	NB OFF VERNON AVE	34.002513	-118.280710	1
138	189	134	EB on-ramp from Cahuenga Blvd	34.152813	-118.360596	1
139	190	134	WB off-ramp to Cahuenga Blvd	34.153409	-118.360195	1
140	191	134	Proposed CCTV 064	34.153459	-118.350395	1
141	192	134	WB off-ramp to Alameda Ave	34.153960	-118.338650	1
142	194	134	EB off-ramp to Forest Lawn Dr	34.154397	-118.312165	1
143	195	134	WB on-ramp from Forest Lawn Dr	34.155127	-118.311722	1
144	196	134	Proposed CCTV 065	34.156407	-118.304733	1
145	197	134	EB off-ramp to Riverside Dr	34.155228	-118.295364	1
146	200	134	EB off-ramp to SB RTE 5	34.151836	-118.283133	1
147	202	134	EB off-ramp to San Fernando Rd	34.153737	-118.274512	1
148	204	134	EB on-ramp from Pacific Ave	34.155898	-118.263672	1
149	206	134	EB off-ramp to Glendale Ave	34.155780	-118.244206	1
150	207	134	NB 2 to EB 134 connector	34.144222	-118.226364	1
151	208	134	EB off-ramp to RTE 2	34.145892	-118.227790	1
152	209	134	EB on-ramp from EB RTE 2	34.144790	-118.225823	1
153	210	134	Proposed CCTV 067	34.147706	-118.196071	1
154	212	134	WB on-ramp from Figueroa St	34.141362	-118.185559	1
155	213	134	Proposed CCTV 068	34.141952	-118.175257	1
156	214	134	WB off-ramp to Orange Grove Blvd	34.147805	-118.160258	1
157	216	134	SB 210 to WB 134 connector	34.151076	-118.156734	1
158	217	210	Mountain Street Off Ramp	34.162148	-118.157959	1
159	218	210	Mountain Street On Ramp	34.162201	-118.159022	1
160	219	210	EB 134 to NB 210 connector	34.149425	-118.155533	1
161	220	405	Proposed CCTV 001	33.791400	-118.100256	1
162	221	405	Proposed CCTV 002	33.799175	-118.110899	1
163	222	405	Proposed CCTV 003	33.802741	-118.119654	1
164	223	405	NB OFF TO BELLFLOWER	33.803104	-118.124429	1
165	225	405	SB ON FR SB LAKEWOOD	33.805078	-118.143007	1
166	226	405	SBOFF TO LAKEWOOD	33.805935	-118.145392	1
167	227	405	Proposed CCTV 005	33.807947	-118.154930	1
168	228	405	NBON FROM CHERRY AV	33.814291	-118.169353	1
169	229	405	SBOFF TO CHERRY AV	33.813173	-118.167855	1
170	230	405	Proposed CCTV 007	33.819464	-118.191751	1
171	231	405	NB OFF WARDLOW/LONG BEACH	33.817685	-118.189034	1
172	232	405	SB OFF TO WARDLOW/LONG BEACH	33.817472	-118.189934	1
173	233	405	NBON FR RTE 710	33.828561	-118.208416	1
174	234	405	SB OFF TO NB 710	33.826302	-118.208128	1
175	235	405	Proposed CCTV 010	33.825953	-118.231791	1
176	236	405	SB ON WILMINGTON AVE	33.825635	-118.242201	1
177	237	405	NB ON WILMINGTON AVE	33.826163	-118.239972	1
178	238	405	SB OFF AVALON BLVD	33.840047	-118.264524	1
179	239	405	NB ON AVALON BLVD	33.839391	-118.263055	1
180	240	405	Proposed CCTV 012	33.848161	-118.272861	1
181	241	405	NB 110 to SB 405 connector	33.854114	-118.282716	1
182	242	405	NB 110 to NB 405 connector	33.856288	-118.283424	1

183	243	405	SB 110 to NB 405 connector	33.858765	-118.287287	1
184	244	405	SB 110 to SB 405 connector	33.857411	-118.285999	1
185	245	405	Proposed CCTV 012	33.863450	-118.322772	1
186	246	405	Proposed CCTV 013	33.879520	-118.346890	1
187	247	405	Proposed CCTV 014	33.890849	-118.361310	1
188	248	405	Proposed CCTV 015	33.902640	-118.370537	1
189	249	405	SBON FR SB COLLECTOR	33.914683	-118.370612	1
190	250	405	SB ON FR WB EL SEGUNDO	33.916226	-118.373122	1
191	251	405	SB OFF TO EL SEGUNDO BL	33.916297	-118.370987	1
192	252	405	NB ON WB EL SEGUNDO BL	33.916528	-118.369320	1
193	253	405	Proposed CCTV 016	33.917919	-118.369979	1
194	254	405	NB ON FR EB EL SEGUNDO	33.919054	-118.369045	1
195	255	405	NBOFF TO RTE 105	33.926921	-118.367518	1
196	256	405	SBON FR ROUTE 105	33.926442	-118.369162	1
197	257	405	NBOFF TO IMPERIAL HWY	33.930684	-118.366390	1
198	258	405	WB 105 to SB 405 connector	33.927901	-118.369169	1
199	259	405	SBON FR LACIENAGA-SOUTH	33.929026	-118.369730	1
200	260	405	EB OFF TO SB/NB RTE 405	33.930061	-118.376733	1
201	261	405	WBON FR SB/NB RTE 405	33.930610	-118.372000	1
202	262	405	NBOFF TO IMPERIAL HWY	33.930684	-118.366390	1
203	263	405	EBON FR NB ROUTE 405	33.930798	-118.364666	1
204	264	405	SBON FR LACIENAGA-NORTH	33.932655	-118.369757	1
205	265	405	NBON FR WB ROUTE 105	33.931881	-118.366391	1
206	266	405	NBON FR EB ROUTE 105	33.932100	-118.366783	1
207	267	405	EBON FR IMPERIAL HWY	33.929838	-118.371112	1
208	268	405	WB OFF TO IMPERIAL HWY	33.929838	-118.371095	1
209	269	405	WB 105 to NB 405 connector	33.933989	-118.367882	1
210	270	405	SBOFF TO RTE 105	33.934994	-118.368815	1
211	271	405	Proposed CCTV 017	33.939533	-118.368477	1
212	272	405	Century BI On/Off Ramp 2	33.943053	-118.369338	1
213	273	405	Century BI On/Off Ramp	33.945189	-118.367063	1
214	274	405	NBON FR CENTURY BLVD	33.947154	-118.367404	1
215	275	405	Century BI On/Off Ramp 1	33.947966	-118.368941	1
216	276	405	Manchester BI On Ramp	33.959865	-118.369982	1
217	277	405	Manchester BI On/Off Ramp	33.961635	-118.369295	1
218	278	405	Manchester BI Off Ramp	33.965951	-118.371269	1
219	279	405	SB ON LA TIJERA BLVD	33.971440	-118.378112	1
220	280	405	SB OFF LA TIJERA BLVD	33.971613	-118.378473	1
221	281	405	NB ON FR H HUGHES PKWY	33.974854	-118.385817	1
222	282	405	NB OFF TO H HUGHES PKWY	33.975037	-118.386583	1
223	283	405	NB OFF TO NB SEPULVEDA	33.982301	-118.394251	1
224	284	405	NB OFF TO WB RTE 90	33.985664	-118.396825	1
225	285	405	Proposed CCTV 019	33.986731	-118.398346	1
226	286	405	SB ON JEFFERSON BLVD	33.987166	-118.399237	1
227	287	405	NB OFF JEFFERSON BLVD	33.987686	-118.398546	1
228	288	405	NB ON FR EB RTE 90	33.989128	-118.399226	1
229	289	405	SB OFF TO RTE 90	33.989964	-118.401587	1
230	290	405	Proposed CCTV 021	34.003098	-118.411263	1
231	291	405	NBOFF VENICE/WASHINGTON	34.010173	-118.416460	1
232	292	405	SBOFF VENICE/WASHINGTON	34.010159	-118.417555	1
233	293	405	NB OFF NATIONAL	34.026544	-118.430472	1
234	294	405	NB OFF NATIONAL	34.026934	-118.429448	1
235	295	405	ON RAMP-RT DUM NB ON FR WBRTE 10	34.031348	-118.435690	1
236	296	405	DUM SB ON FR EB RTE 10	34.031333	-118.437153	1
237	297	405	Proposed CCTV 022	34.033511	-118.436283	1
238	299	405	NB ON FR OLYMPIC/PICO	34.037782	-118.438274	1
239	300	405	SB OFF TO RTE 2	34.047017	-118.447388	1
240	301	405	NB ON FR RTE 2	34.047344	-118.446356	1
241	302	405	Wilshire BI On/Off Ramp	34.057255	-118.449520	1
242	303	405	Wilshire BI On/Off Ramp	34.055064	-118.453366	1
243	304	405	Sunset BI On/Off Ramp	34.073075	-118.466107	1

244	308	405	Proposed CCTV 023	34.078345	-118.471087	1
245	309	405	SB ON SEPULVEDA&GETTY	34.096520	-118.477559	1
246	310	405	NB ON SEPULVEDA&GETTY	34.096218	-118.476093	1
247	311	405	Proposed CCTV 025	34.114559	-118.482084	1
248	314	405	Proposed CCTV 027	34.131579	-118.473273	1
249	316	405	SB OFF VALLEY VISTA/SEP	34.148771	-118.469949	1
250	317	405	Proposed CCTV 029	34.150333	-118.468553	1
251	323	405	SB 101 to SB 405 connector	34.161714	-118.471597	1
252	324	405	NB 101 to SB 405 connector	34.162690	-118.470289	1
253		110	NB Off to 3rd St	34.055761	-118.255714	1
254		110	NB/SB From 5th Street	34.056127	-118.255392	1
255		110	NB/SB From 5th Street	34.052851	-118.258073	1
256		110	SB Off to 4th St	34.054151	-118.256308	1

Case No.	Case Name	Case Type	Case Status	Case Date	Case Location	Case Description	Case Details	Case Notes	Case Outcome	Case Review	Case Follow-up	Case Resolution	Case Closure
1	1000	10	10	10	10	10	10	10	10	10	10	10	10
2	1000	10	10	10	10	10	10	10	10	10	10	10	10
3	1000	10	10	10	10	10	10	10	10	10	10	10	10
4	1000	10	10	10	10	10	10	10	10	10	10	10	10
5	1000	10	10	10	10	10	10	10	10	10	10	10	10
6	1000	10	10	10	10	10	10	10	10	10	10	10	10
7	1000	10	10	10	10	10	10	10	10	10	10	10	10
8	1000	10	10	10	10	10	10	10	10	10	10	10	10
9	1000	10	10	10	10	10	10	10	10	10	10	10	10
10	1000	10	10	10	10	10	10	10	10	10	10	10	10
11	1000	10	10	10	10	10	10	10	10	10	10	10	10
12	1000	10	10	10	10	10	10	10	10	10	10	10	10
13	1000	10	10	10	10	10	10	10	10	10	10	10	10
14	1000	10	10	10	10	10	10	10	10	10	10	10	10
15	1000	10	10	10	10	10	10	10	10	10	10	10	10
16	1000	10	10	10	10	10	10	10	10	10	10	10	10
17	1000	10	10	10	10	10	10	10	10	10	10	10	10
18	1000	10	10	10	10	10	10	10	10	10	10	10	10
19	1000	10	10	10	10	10	10	10	10	10	10	10	10
20	1000	10	10	10	10	10	10	10	10	10	10	10	10

**ATTACHMENT J**  
**TMP DATA SHEET**

## TRANSPORTATION MANAGEMENT PLAN DATA SHEET (Preliminary TMP Elements and Costs)

Co-Rte-PM LA, OC, SD-Var-Var EA/EFIS 503200/0724000249 Alternative No. PA ED  
 Project Limit On Various Routes in Los Angeles, Orange and San Diego Counties  
 Project Description LA 2028 Games Route Network (GRN) and Wayfinding Routes for the  
Los Angeles Olympics and Paralympic Games

1) Public Information

<input checked="" type="checkbox"/>	a. Brochures and Mailers	\$ See LA28 TDM Project
<input checked="" type="checkbox"/>	b. Press Release	
<input checked="" type="checkbox"/>	c. Paid Advertising	\$ See LA28 TDM Project
<input type="checkbox"/>	d. Public Information Center/Kiosk	\$
<input type="checkbox"/>	e. Public Meeting/Speakers Bureau	
<input type="checkbox"/>	f. Telephone Hotline	
<input checked="" type="checkbox"/>	g. Internet	
<input checked="" type="checkbox"/>	h. Others <u>Fact Sheets, Fliers &amp; Web Notices</u>	\$ See LA28 TDM Project

2) Motorists Information Strategies

<input checked="" type="checkbox"/>	a. Changeable Message Signs (Fixed)	\$ Use Existing
<input checked="" type="checkbox"/>	b. Changeable Message Signs (Portable)	\$ See LA28 ITM Project
<input checked="" type="checkbox"/>	c. Ground Mounted Signs	\$74,100
<input type="checkbox"/>	d. Highway Advisory Radio	\$
<input type="checkbox"/>	e. Caltrans Highway Information Network (CHIN)	
<input type="checkbox"/>	f. Others _____	\$

3) Incident Management

<input checked="" type="checkbox"/>	a. Construction Zone Enhanced Enforcement Program (COZEEP)	\$5,258,000
<input checked="" type="checkbox"/>	b. Freeway Service Patrol	\$11,823,527
<input checked="" type="checkbox"/>	c. Traffic Management Team	
<input type="checkbox"/>	d. Helicopter Surveillance	\$
<input checked="" type="checkbox"/>	e. Traffic Surveillance Stations (Loop Detector and CCTV)	\$ See LA28 ITM Project
<input type="checkbox"/>	f. Others _____	\$

4) Construction Strategies

<input checked="" type="checkbox"/> a. Lane Requirement Charts	<u>\$ Design to Include</u>
<input type="checkbox"/> b. Reversible Lanes	
<input type="checkbox"/> c. Total Freeway Mainline Closure	
<input type="checkbox"/> d. Extended Weekend Closure	
<input type="checkbox"/> e. Contra Flow	
<input checked="" type="checkbox"/> f. Truck Traffic Restrictions	<u>\$ Design to Include</u>
<input checked="" type="checkbox"/> g. Reduced Speed Zone	
<input checked="" type="checkbox"/> h. Connector and Ramp Closures	
<input type="checkbox"/> i. Incentive and Disincentive	<u>\$</u>
<input type="checkbox"/> j. Moveable Barrier	<u>\$</u>
<input type="checkbox"/> k. Others _____	<u>\$</u>

5) Demand Management

<input type="checkbox"/> a. HOV Lanes/Ramps (New or Convert)	<u>\$</u>
<input checked="" type="checkbox"/> b. Park and Ride Lots	<u>\$ Use Existing</u>
<input type="checkbox"/> c. Rideshare Incentives	<u>\$</u>
<input checked="" type="checkbox"/> d. Variable Work Hours	
<input checked="" type="checkbox"/> e. Telecommute	
<input type="checkbox"/> f. Ramp Metering (Temporary Installation)	<u>\$</u>
<input checked="" type="checkbox"/> g. Ramp Metering (Modify Existing)	<u>\$ Use Existing</u>
<input type="checkbox"/> h. Others _____	<u>\$</u>

6) Alternative Route Strategies

<input type="checkbox"/> a. Add Capacity to Freeway Connector/Ramps	<u>\$</u>
<input checked="" type="checkbox"/> b. Street Improvement (widening, traffic signal... etc)	<u>\$ Cities to Include</u>
<input checked="" type="checkbox"/> c. Traffic Control Officers	<u>\$ Cities to Include</u>
<input checked="" type="checkbox"/> d. Parking Restrictions	
<input type="checkbox"/> e. Others _____	<u>\$</u>

7) Other Strategies

<input type="checkbox"/> a. Application of New Technology	<u>\$</u>
<input type="checkbox"/> b. Others _____	<u>\$</u>

**TOTAL ESTIMATED COST OF TMP ELEMENTS = \$17,155,627**

## Project Notes:

6/20/2025

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**1. Project Information:**

- A) This TMP was developed to include strategies that will be implemented on the State Highway System (SHS) in Districts 7 (LA County), 11 (San Diego County) and 12 (Orange County) to construct the Games Route Network (GRN) and Wayfinding Routes for the Los Angeles 2028 Olympic and Paralympic Games (LA28 Games). The majority of the LA28 GRN will be within District 7.
- B) The TMP will be implemented during the following phases:
- Pre-GRN: Converting existing carpool and/or interior lane to LA28 Games lane.
  - GRN Activation: LA28 Games.
  - Post-GRN: Restoring LA28 Games lane back to original field conditions.
- C) Project phases schedule:
- Pre-GRN (Construction): 7/1/2027 - 12/31/2027.
  - Operation Readiness and Testing: 1/1/2028 - 05/31/2028.
  - Construction Moratorium: 6/1/2028 - 9/1/2028.
  - Post-GRN(Construction): 9/2/2028 - 12/1/2028.
- D) Total Estimated Project Cost: \$245.9 Million.
- 

**2. Public Information:**

- A) Southern California Association of Governments (SCAG) will lead a comprehensive and robust regional **Public Awareness Campaign (PAC)** that will commence a year prior to the LA28 Games to inform the public about the LA28 Games and the development of the LA28 GRN.
- B) The Office of Public Affairs and Media Relations from each District provided a cost estimate for PAC to supplement SCAG's effort within their respective District. The funding for this TMP element will be included in the LA28 TDM project.
- C) Construction will notify the Office of Public Affairs and Media Relations at least one month prior to start of Construction to initiate the PAC.
- D) All project road closures information will be made available to the public via the Caltrans internet website at <http://www.dot.ca.gov> > Click "Travel" > Click "Planned Closures."
-

### 3. Motorist Information Strategies:

- A) Existing **Changeable Message Signs (CMS)** located along and in the vicinity of the GRN may be utilized during construction and LA28 Games to provide real-time traffic information to motorist to supplement information displayed on the PCMS.
  - B) An **Automated Work Zone Information System (AWIS)** will be deployed to mitigate recurring delays and queuing generated due to shifting HOV traffic onto general purpose lanes during GRN Activation. The AWIS will provide real time information to motorist using **Portable Changeable Message Sign (PCMS)**. The PCMS messages and locations will be shown on the Motorist Information Plans that will be developed during PS&E phase. Funding for PCMS will be included in the LA28 ITM project.
  - C) A number of ramps leading directly to the LA28 venues will be closed long-term for the duration of LA28 Games to provide direct access for LA28 vehicles from the Olympic Village to LA28 venues. **Ground Mounted Signs** (trailblazer) will be placed along the detour routes during GRN Activation. A cost estimate of \$74,100 for detour trailblazer signs installation should be added to Bid Item No. 120090.
- 

### 4. Incident Management:

- A) The Construction Traffic/Safety Advisor reviewed the scope of the work and determined the need for **Construction Zone Enhanced Enforcement Program (COZEEP)** funding for Pre- and Post-GRN. Include COZEEP funding of \$5,258,000 in Department Furnished Materials, Bid Item No. 066062. CHP coverage during GRN activation will require additional funding and a cooperative agreement to reimburse CHP directly for services rendered.
  - B) **Freeway Service Patrol (FSP)** is a joint effort between Caltrans and Metro to remove disabled vehicle from the freeway during AM and PM peak hours. FSP beats will be enhanced during GRN Activation by providing additional tow trucks and extending the hours of coverage. FSP funding of \$11,823,527 shall be included in Department Furnished Materials, Bid Item No. 066065.
  - C) The **Traffic Management Team (TMT)** may be deployed during the LA28 Games to assist in managing traffic in the vicinity of the LA28 venues by protecting the end of queue, ramp balancing or encouraging traffic diversion away from the venues.
  - D) **Traffic Surveillance Stations (CCTV)** will be installed to monitor traffic conditions along the GRN to assist Los Angeles Regional Transportation Management Center (LARTMC) dispatchers to respond to incidents and manage traffic during the LA28 Games. Funding for CCTV will be included in the LA28 ITM project.
-

**5. Construction Strategies:**

- A) All construction work shall conform to the **Lane Requirement Charts** that will be included in the "Maintaining Traffic" specification that will be developed during PS&E phase.
  - B) To improve worker and public safety on SHS, Caltrans' policy issued on 4/19/2019 requires a ten miles per hour (10 mph) speed limit reduction in work zones. Design should perform an assessment and allocate necessary funds for any **Construction Work Zone Speed Limit Reduction** bid items.
  - C) Utilization of **Positive Work Zone Protection (PWP)** devices may be implemented during construction to reduce the likelihood of preventable injuries or fatalities to highway workers and the traveling public. Design shall determine if any PWP devices may be included for this project.
  - D) The project manager should **identify and coordinate with other projects** concurrently in construction to avoid conflicts in planned lane closures or detours.
  - E) **Truck Traffic Restrictions** may be required if heavy vehicles are not allowed to traverse through certain segments within the SHS.
  - F) A **Command Post** will be established potentially at the TMC or an existing Caltrans Maintenance Yard to coordinate with field staff (i.e. TMT, Maintenance or Construction) to assist with traffic management during the LA28 Games.
- 

**6. Demand Management:**

- A) The Public Awareness Campaign will encourage a no vehicles campaign to reduce the traffic demand along and in the vicinity of the LA28 GRN.
  - B) **Park and Ride Lots** will be utilized to encourage LA28 Games spectators to use mass transit (light rail trains and buses) instead of driving vehicles to LA28 venues.
  - C) **Variable Work Hours** will be recommended to disperse existing commuting hours to reduce the concentration of traffic volumes during existing AM and PM peak hours.
  - D) **Telecommute** will be encourage to companies that may be able to provide this opportunity to their employees.
  - E) **Ramp Metering** adjustments may be necessary for regulating vehicles entering the freeway during LA28 Games to improve the flow of traffic through the GRN.
-

**7. Alternative Route Strategies:**




- A) Due to long-term ramp closures during LA28 Activation, street improvements (e.g. **Traffic Signal Re-Timing**) will be implemented by local agencies to enhance traffic flow along designated detour routes.
- B) At specific intersections along the designated detour route where signal re-timing does not mitigate traffic flow, **Traffic Control Officers** may be deployed during the LA28 Games.
- C) **Parking Restrictions** may be required along designated detour routes to increase vehicular capacity and storage.

Funding for the above TMP elements will be included in city's cost estimate.

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**8.** Any changes to the scope of the project that will result in different types of traffic lane closure than anticipated will require a re-evaluation of TMP cost and strategies.

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PREPARED BY	 Julio C. Valdez, Transportation Engineer	DATE <u>11/04/2025</u>
APPROVAL RECOMMENDED BY	 <small>Mohammad Islam (Nov 4, 2025 15:39:44 PST)</small> Mohammad Islam, Acting Senior Transportation Engineer	DATE <u>11/04/2025</u>
APPROVED BY	 Kenneth Young, District Traffic Manager	DATE <u>11/05/2025</u>









# EA 503200\_TMP DS\_110425

Final Audit Report

2025-11-05

Created:	2025-11-04
By:	Julio Valdez (s119625@dot.ca.gov)
Status:	Signed
Transaction ID:	CBJCHBCAABAAXOcC9Po8iuyJ3Cus1IO0RsY7QMfgu5Ke

## "EA 503200\_TMP DS\_110425" History

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**ATTACHMENT K**  
**DESIGN STANDARD RISK ANALYSIS**

Design Standards Risk Assessment Matrix for Alternative 1			
Standard			
Feature			
1	Shoulder Width - Index 302.1 of the Highway Design Manual states: "The shoulder widths given in table 302.1 shall be the minimum continuous usable width paved shoulder on highways."  Horizontal Clearance - Index 309.1(3)(a) Highway Design manual States: "The minimum horizontal clearance to all objects, such as bridge rails and safety shaped concrete barriers, as well as sand-filled barrels, guardrail, etc., on all freeway and expressway facilities, including auxiliary lanes, ramps, and collector distributor roads, shall be equal to the standard shoulder width of the highway facility as stated in Table 302.1. A minimum clearance of 4 feet shall be provided where the standard shoulder width is less than 4 feet."		
Feature 1 Location	Description	Probability of Nonstandard Design Feature Conceptual Approval (None, Low, Medium, High)	Justification for the approval risk rating and additional data/studies needed for approval
1	LA10 PM R11.8 Overhead sign structure 2-post on WB I- 10 WB/EB Median shoulder/Horizontal Clearance: Proposed: 0' - 3' Existing: 3' Standard: 10'	Medium	<i>The median shoulder reduction from 3-foot to 0ft median shoulder EB and 3-foot to 0ft median shoulder WB is due to the placement of the Active Transportation Management (ATM) gantry. Existing width and shape of the median barrier needs to be modified to protect the column in the median. The current Standard Plan S100 through S122 require larger overhead sign pedestal to fit in the median. Providing 10 feet wide shoulder will require freeway widening, additional Right of way, relocation Drainage Inlet (DI) drainage facilities, potential increase to environmental impacts which would delay the delivery of the project beyond the LA2028 games, and possibly risk cancellation to the project due to ROW condemnation necessities.</i>  <i>The sign structure cannot be moved to an alternate location with standard shoulder widths and function as intended providing up to date information to the travelling public. The reduction in shoulder width will occur over a length of 200', with the minimal width of 0' being for a length of 6'. Sign structure will be placed on tangent section of roadway outside of decision points for ramps.</i>  <i>Exterior Column support is to be placed on non-transversible slope above 4' from roadway surface.</i>  <i>The new ATM gantry will provide up-to-date lane information to the public to best utilize the existing freeway lanes and optimize traffic flow through the region for LA28 Games vehicles as well as the general public. Optimized traffic movement will reduce idling which will lead to reduced Green House Gas emissions, and noise in the region.</i>

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2	<p>LA10 PM R11.9 Overhead sign structure 2-post on EB I- 10 WB/EB Median shoulder/Horizontal Clearance: Proposed: 0' – 3' Existing: 3' Standard: 10'</p>	Medium	<p>The median shoulder reduction from 3-foot to 0ft median shoulder EB and 3-foot to 0ft WB is due to the placement of the ATM gantry. Existing width and shape of the median barrier needs to be modified to protect the column in the median. The current Standard Plan S100 through S122 require larger overhead sign pedestal to fit in the median. Providing 10 feet wide shoulder will require freeway widening, additional Right of way, relocation Drainage Inlet (DI) drainage facilities, potential increase to environmental impacts which would delay the delivery of the project beyond the LA2028 games, and possibly risk cancellation to the project due to ROW condemnation necessities.</p> <p>The sign structure cannot be moved to an alternate location with standard shoulder widths and function as intended providing up to date information to the travelling public. The reduction in shoulder width will occur over a length of 200', with the minimal width of 0' being for a length of 6'. Sign structure will be placed on tangent section of roadway outside of decision points for ramps.</p> <p>Exterior Column support is to be placed on non-transversable slope above 4' from roadway surface.</p> <p>The new ATM gantry will provide up-to-date lane information to the public to best utilize the existing freeway lanes and optimize traffic flow through the region for LA28 Games vehicles as well as the general public. Optimized traffic movement will reduce idling which will lead to reduced Green House Gas emissions, and noise in the region.</p>
3	<p>LA10 PM R5.9 Overhead sign structure 2-post on EB I- 10 WB/EB Median shoulder/Horizontal Clearance: Proposed: 5' – 8' Existing: 8' Standard: 10'</p>	Medium	<p>The median shoulder reduction from 8-foot to 5ft median shoulder EB and 8-foot to 5ft WB is due to the placement of the ATM gantry. Existing width and shape of the median barrier needs to be modified to protect the column in the median. The current Standard Plan S100 through S122 require larger overhead sign pedestal to fit in the median. Providing 10 feet wide shoulder will require freeway widening, additional Right of way, relocation Drainage Inlet (DI) drainage facilities, potential increase to environmental impacts which would delay the delivery of the project beyond the LA2028 games, and possibly risk cancellation to the project due to ROW condemnation necessities.</p> <p>The sign structure cannot be moved to an alternate location with standard shoulder widths and function as intended providing up to date information to the travelling public. The reduction in shoulder width will occur over a length of 200', with the minimal width of 5' being for a length of 6'. Sign structure will be placed on tangent section of roadway outside of decision points for ramps.</p> <p>Exterior Column support is to be placed behind existing MGS on outside shoulder.</p> <p>The new ATM gantry will provide up-to-date lane information to the public to best utilize the existing freeway lanes and optimize traffic flow through the region for LA28 Games vehicles as well as the general public. Optimized traffic movement will reduce idling which will lead to reduced Green House Gas emissions, and noise in the region.</p>

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4	<p>LA10-EB PM R9.7 Overhead sign structure 2-post on EB I- 10 WB/EB Median shoulder/Horizontal Clearance: Proposed: 1' – 4' Existing: 4' Standard: 10'</p>	Medium	<p>The median shoulder reduction from 4-foot to 1ft median shoulder EB and 4-foot to 1ft WB is due to the placement of the ATM gantry. Existing width and shape of the median barrier needs to be modified to protect the column in the median. The current Standard Plan S100 through S122 require larger overhead sign pedestal to fit in the median. Providing 10 feet wide shoulder will require freeway widening, additional Right of way, relocation Drainage Inlet (DI) drainage facilities, potential increase to environmental impacts which would delay the delivery of the project beyond the LA2028 games, and possibly risk cancellation to the project due to ROW condemnation necessities.</p> <p>The sign structure cannot be moved to an alternate location with standard shoulder widths and function as intended providing up to date information to the travelling public. The reduction in shoulder width will occur over a length of 200', with the minimal width of 1' being for a length of 6'. Sign structure will be placed on tangent section of roadway outside of decision points for ramps.</p> <p>Exterior Column support is to be placed behind existing MGS on outside shoulder.</p> <p>The new ATM gantry will provide up-to-date lane information to the public to best utilize the existing freeway lanes and optimize traffic flow through the region for LA28 Games vehicles as well as the general public. Optimized traffic movement will reduce idling which will lead to reduced Green House Gas emissions, and noise in the region.</p>
5	<p>LA101-NB PM R12.3 Overhead sign structure 2-post on NB US-101 NB Median shoulder/Horizontal Clearance: Proposed: 0' – 2' Existing: 2' Standard: 10' SB Median shoulder/Horizontal Clearance: Proposed: 0' – 4' Existing: 4' Standard: 10'</p>	Medium	<p>The median shoulder reduction from 2-foot to 0 median shoulder SB and 4-foot to 0ft NB is due to the placement of the ATM gantry. Existing width and shape of the median barrier needs to be modified to protect the column in the median. The current Standard Plan S100 through S122 require larger overhead sign pedestal to fit in the median. Providing 10 feet wide shoulder will require freeway widening, additional Right of way, relocation Drainage Inlet (DI) drainage facilities, potential increase to environmental impacts which would delay the delivery of the project beyond the LA2028 games, and possibly risk cancellation to the project due to ROW condemnation necessities.</p> <p>The sign structure cannot be moved to an alternate location with standard shoulder widths and function as intended providing up to date information to the travelling public. The reduction in shoulder width will occur over a length of 200', with the minimal width of 0' being for a length of 6'. Sign structure will be placed on tangent section of roadway outside of decision points for ramps.</p> <p>Exterior Column support is to be placed behind existing barrier protected soundwall on outside shoulder.</p> <p>The new ATM gantry will provide up-to-date lane information to the public to best utilize the existing freeway lanes and optimize traffic flow through the region for LA28 Games vehicles as well as the general public. Optimized traffic movement will reduce idling which will lead to reduced Green House Gas emissions, and noise in the region.</p>

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6	<p>LA101-SB PM R16.8 Overhead sign structure 2-post on SB US-101 SB Median shoulder/Horizontal Clearance: Proposed: 0' – 2' Existing: 2' Standard: 10' NB Median shoulder/Horizontal Clearance: Proposed: 2' – 6' Existing: 6' Standard: 10'</p>	Medium	<p>The median shoulder reduction from 2-foot to 0 median shoulder SB and 6-foot to 2ft NB is due to the placement of the ATM gantry. Existing width and shape of the median barrier needs to be modified to protect the column in the median. The current Standard Plan S100 through S122 require larger overhead sign pedestal to fit in the median. Providing 10 feet wide shoulder will require freeway widening, additional Right of way, relocation Drainage Inlet (DI) drainage facilities, potential increase to environmental impacts which would delay the delivery of the project beyond the LA2028 games, and possibly risk cancellation to the project due to ROW condemnation necessities.</p> <p>The sign structure cannot be moved to an alternate location with standard shoulder widths and function as intended providing up to date information to the travelling public. The reduction in shoulder width will occur over a length of 200', with the minimal width of 0' being for a length of 6'. Sign structure will be placed on tangent section of roadway outside of decision points for ramps.</p> <p>Exterior Column support is to be placed behind existing MGS on outside shoulder.</p> <p>The new ATM gantry will provide up-to-date lane information to the public to best utilize the existing freeway lanes and optimize traffic flow through the region for LA28 Games vehicles as well as the general public. Optimized traffic movement will reduce idling which will lead to reduced Green House Gas emissions, and noise in the region.</p>
7	<p>LA405-NB PM R26.3 Overhead sign structure 2-post on NB I-405 NB Median shoulder/Horizontal Clearance: Proposed: 7.5' – 10' Existing: 10' Standard: 10' SB Median shoulder/Horizontal Clearance: Proposed: 7.5' – 10' Existing: 10' Standard: 10'</p>	Medium	<p>The median shoulder reduction from 10-foot to 7.5 median shoulder NB and 10-foot to 7.5ft SB is due to the placement of the ATM gantry. Existing width and shape of the median barrier needs to be modified to protect the column in the median. The current Standard Plan S100 through S122 require larger overhead sign pedestal to fit in the median. Providing 10 feet wide shoulder will require freeway widening, additional Right of way, relocation Drainage Inlet (DI) drainage facilities, potential increase to environmental impacts which would delay the delivery of the project beyond the LA2028 games, and possibly risk cancellation to the project due to ROW condemnation necessities.</p> <p>The sign structure cannot be moved to an alternate location with standard shoulder widths and function as intended providing up to date information to the travelling public. The reduction in shoulder width will occur over a length of 200', with the minimal width of 7.5' being for a length of 6'. Sign structure will be placed on tangent section of roadway outside of decision points for ramps.</p> <p>Exterior Column support is to be placed behind existing concrete barrier protected soundwall on outside shoulder.</p> <p>The new ATM gantry will provide up-to-date lane information to the public to best utilize the existing freeway lanes and optimize traffic flow through the region for LA28 Games vehicles as well as the general public. Optimized traffic movement will reduce idling which will lead to reduced Green House Gas emissions, and noise in the region.</p>


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8	<p>LA405-SB PM R27.1 Overhead sign structure 2-post on SB I- 405 SB Median shoulder/Horizontal Clearance: Proposed: 7.5' – 10' Existing: 10' Standard: 10'</p> <p>NB Median shoulder/Horizontal Clearance: Proposed: 7.5' – 10' Existing: 10' Standard: 10'</p>	<p>Medium</p>	<p>The median shoulder reduction from 10-foot to 7.5 median shoulder NB and 10-foot to 7.5ft SB is due to the placement of the ATM gantry. Existing width and shape of the median barrier needs to be modified to protect the column in the median. The current Standard Plan S100 through S122 require larger overhead sign pedestal to fit in the median. Providing 10 feet wide shoulder will require freeway widening, environmental impacts which would delay the delivery of the project beyond the LA2028 games, and possibly risk cancellation to the project due to ROW condemnation necessities.</p> <p>The sign structure cannot be moved to an alternate location with standard shoulder widths and function as intended providing up to date information to the travelling public. The reduction in shoulder width will occur over a length of 200', with the minimal width of 7.5' being for a length of 6'. Sign structure will be placed on tangent section of roadway outside of decision points for ramps.</p> <p>Exterior Column support is to be placed behind existing concrete barrier protected soundwall on outside shoulder.</p> <p>The new ATM gantry will provide up-to-date lane information to the public to best utilize the existing freeway lanes and optimize traffic flow through the region for LA28 Games vehicles as well as the general public. Optimized traffic movement will reduce idling which will lead to reduced Green House Gas emissions, and noise in the region.</p>
9	<p>LA405-NB PM R27.8 Overhead sign structure 2-post on EB I- 405 NB Median shoulder/Horizontal Clearance: Proposed: 8' – 10' Existing: 10' Standard: 10'</p>	<p>Medium</p>	<p>The median shoulder reduction from 10-foot to 8 median shoulder NB and 14-foot to 10ft SB is due to the placement of the ATM gantry. Existing width and shape of the median barrier needs to be modified to protect the column in the median. The current Standard Plan S100 through S122 require larger overhead sign pedestal to fit in the median. Providing 10 feet wide shoulder will require freeway widening, environmental impacts which would delay the delivery of the project beyond the LA2028 games, and possibly risk cancellation to the project due to ROW condemnation necessities.</p> <p>The sign structure cannot be moved to an alternate location with standard shoulder widths and function as intended providing up to date information to the travelling public. The reduction in shoulder width will occur over a length of 200', with the minimal width of 8' being for a length of 6'. Sign structure will be placed on tangent section of roadway outside of decision points for ramps.</p> <p>Exterior Column support is to be placed behind concrete barrier at existing Edge of Shoulder 10' from ETW. Concrete barrier to be protected with mash compliant crash cushion.</p> <p>The new ATM gantry will provide up-to-date lane information to the public to best utilize the existing freeway lanes and optimize traffic flow through the region for LA28 Games vehicles as well as the general public. Optimized traffic movement will reduce idling which will lead to reduced Green House Gas emissions, and noise in the region.</p>

EA 07-50320K  
07-LA-Route VAR- PM VAR

10	<p>LA405-SB PM R28.0 Overhead sign structure 2-post on EB I- 405 SB Median shoulder/Horizontal Clearance: Proposed: 8' – 10' Existing: 10' Standard: 10'</p>	Medium	<p>The median shoulder reduction from 10-foot to 8 median shoulder NB and 14-foot to 10ft SB is due to the placement of the ATM gantry. Existing width and shape of the median barrier needs to be modified to protect the column in the median. The current Standard Plan S100 through S122 require larger overhead sign pedestal to fit in the median. Providing 10 feet wide shoulder will require freeway widening, additional Right of way, relocation Drainage Inlet (DI) drainage facilities, potential increase to environmental impacts which would delay the delivery of the project beyond the LA2028 games, and possibly risk cancellation to the project due to ROW condemnation necessities.</p> <p>The sign structure cannot be moved to an alternate location with standard shoulder widths and function as intended providing up to date information to the travelling public. The reduction in shoulder width will occur over a length of 200', with the minimal width of 8' being for a length of 6'. Sign structure will be placed on tangent section of roadway outside of decision points for ramps.</p> <p>Exterior Column support is to be placed behind existing concrete barrier protected soundwall on outside shoulder.</p> <p>The new ATM gantry will provide up-to-date lane information to the public to best utilize the existing freeway lanes and optimize traffic flow through the region for LA28 Games vehicles as well as the general public. Optimized traffic movement will reduce idling which will lead to reduced Green House Gas emissions, and noise in the region.</p>
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The nonstandard design features proposed for all viable alternatives presented in the PIR have been discussed with the Design Manager, District Design Liaison, Geographical Design Office Chief and Project Delivery Coordinator and they concurred on the Probability Rating of Conceptual Approval for all nonstandard features based on the justifications provided. More detailed studies and information, in the Project Approval and Environmental Document phase, may change the probabilities of certain listed non-standard features, and therefore the final Design Standard Decision Document approval.

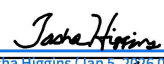
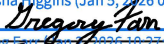

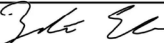
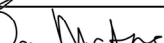
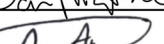

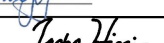
	Initial	Date
Sunil Gandrathi		08/13/2025
Project Delivery Coordinator		
Asadour Terterian	<i>AT</i>	08/13/2025
Design Office Chief		
Susan Chau	<i>SC</i>	8/13/2025
District Design Liaison		
Anh Nguyen	<i>AN</i>	08/13/2025
Design Manager		

**ATTACHMENT L**  
**RISK REGISTER MANAGEMENT PLAN**

# RISK REGISTER CERTIFICATION (ACCOUNTABILITY CHECKPOINTS) FORM

PPM-D07-0001 (REV 08/2025)

The risk register is to be approved and signed-off by the District Deputies listed below for all scalability levels. By signing this form, you are certifying that you have reviewed the risks documented in the register and agree that they have been managed to the extent possible by the PDT.

<u>Project Information</u> <input checked="" type="checkbox"/> Capital Project <input type="checkbox"/> Major Maintenance Project(Check One)		Risk-Based Total Construction Capital Cost (\$K): <b>\$193,593</b>
Project ID/District-EA:	<b>Project ID: 0724000249/ EA-07-503200</b>	
Project Description/ Route/ Post-Mile:	<b>LA-2028 Games Route Network (GRN)/ Various Locations</b>	
Project Manager:	<b>Manny Marcos</b>	
Project Risk Manager:	<b>Cardiel Bugarin</b>	
<input type="checkbox"/> No Risk Register Certification Required -- Check box if project is less than \$1 million in total cost and risk register not prepared. Sign below and submit this form with PID, PA&ED, PS&E submittal, and RE Handoff File (as applicable).		
Project Manager Signature	_____	Date: _____
<b>PID (Required for Capital Projects)</b>		
Project Manager	_____	Date: _____
Deputy District Director, Planning	_____	Date: _____
Deputy District Director, Design	_____	Date: _____
Deputy District Director, Rightof Way	_____	Date: _____
Deputy District Director, Environmental	_____	Date: _____
Deputy District Director, Traffic Operations	_____	Date: _____
Deputy District Director, Maintenance	_____	Date: _____
Deputy District Director, Project Management	_____	Date: _____
<b>PA&amp;ED (Required for Capital Projects)</b>		
Project Manager	 <small>Tasha Higgins (Jan 5, 2026 08:51:10 PST)</small>	Date: 01/05/2026
Deputy District Director, Design	 <small>Gregory Lam (Jan 2, 2026 19:27:17 PST)</small>	Date: 01/02/2026
Deputy District Director, Construction		Date: 01/07/2026
Deputy District Director, Rightof Way		Date: 01/02/2026
Deputy District Director, Environmental		Date: 01/05/2026
Deputy District Director, Traffic Operations		Date: 01/07/2026
Deputy District Director, Maintenance		Date: 01/02/2026
Deputy District Director, Project Management	 <small>Tasha Higgins (Jan 7, 2026 11:49:50 PST)</small>	Date: 01/07/2026
<b>Prior to PS&amp;E (Required for Capital Projects)</b>		
Project Manager	_____	Date: _____
Deputy District Director, Design	_____	Date: _____
Deputy District Director, Construction	_____	Date: _____
Deputy District Director, Rightof Way	_____	Date: _____
Deputy District Director, Environmental	_____	Date: _____
Deputy District Director, Traffic Operations	_____	Date: _____
Deputy District Director, Maintenance	_____	Date: _____
Deputy District Director, Project Management	_____	Date: _____

EA-07-303200, EFS ID: 0724000249										Milestones				Duration				Base Cap Exp Est (k): \$161,327											
Route & Post Mile: Various Routes and Locations										PALED		PSSE		RTL		CCA		Con Working Days: 400		Risk Based Contingency (k): \$32,265		PM: Manny Marcos							
Project Description: LA-2028 Games Route Network (GRN)										(M010)		(M330)		(M460)		(M690)		Plan Est Days: 0		Risk Based Total Construction Capital Est (k): \$193,593		DM: Anh D Nguyen							
Scope Summary: The California Department of Transportation (Caltrans) plays a key role in the LA 2028 Olympic and Paralympic Games by ensuring efficient and safe transportation for athletes, Games stakeholders, and the public. This includes creating a Games Route Network (GRN) with dedicated lanes for Games vehicles, working with other transportation agencies, and implementing a supplement to the Manual on Uniform Traffic Control Devices for the Games Legacy Scope-Elven (11) ATM markings, 258 CCTV cameras.										815/2025A		01/16/28		07/13/26		04/02/29		Total Con Days: 400		Risk Based Total Construction Capital Est (k): \$193,593		RM: Carleil Bugarin							
Siting Scope-210 Dedicated managed lanes, 300 Barrier Mounted Roadside Signs, 400 Overhead Sign Overlays, 1200 Roadside Sign Overlays, 10,800 SCFT Pavement Markings, 36,000 EA Channelizers, Nightly Inspection, Restoration 120 LM Pavement Striping, 64,512 SQFT Pavement Marking, Remove 56,000 EA Channelizers.										Risk Impact Assessment										Response Strategy									
Risk No.	Status	Type	Category	Risk Title	Risk Statement	Risk Details with Current Status/Assumptions	Probability of Occurrence	Contingency (90th Percentile):				Risk Impact on Working Days (90th Percentile):				Rationale	Strategy	Response Actions	Risk Owner	Updated									
								Low (\$)	Most Likely (\$)	High (\$)	25%	Low	Med/Likely	High	50%														
1	Active	Threat	CON	Low Vendor and Contractor Pool	If there is a low vendor and contractor pool for firms able to provide the services needed for the project, this may cause higher bid prices or a low bid limit.	Due to the low vendor and contractor pool for firms able to provide the services needed for the project, this may cause higher bid prices or a low bid limit. This may also be the case for OIT and OIT2 as well.	40%	\$1,000,000	\$10,000,000	\$20,000,000	30	60	90	With the scope of work and the value of the project, there is a risk that not many vendors can take on the project.	Accept	Follow the Caltrans process to list and advertise the project for the maximum competition. The Estimated Schedules in the PSSE Phase to determine the appropriate pricing and cost for the proposed work using recent bid information.	Project Manager, Resident Engineer & Project Engineer	June 04, 2025											
2	Active	Threat	CON	Meq Size Project-Job Order Contracting	Because a job contractor may be utilized for such large projects, the bidding process may be less competitive, which may cause an increase in capital costs.	The project will be going through a Job Order Contract (JOC) delivery method for District 7. This may also be the case for OIT and OIT2 as well.	40%	\$5,000,000	\$10,000,000	\$20,000,000	30	60	90	Due to the size of the project, an alternative delivery method such as Job Order Contract (JOC) may be used.	Mitigate	Determine the most feasible delivery method for this project that will meet all requirements and be delivered most effectively.	Project Manager & Project Engineer	June 04, 2025											
3	Active	Threat	DGN	Prices and Economic Conditions	As a result of changes in the demand and supply of materials and labor, the cost of materials and labor may increase, which would lead to increased project costs.	In the past year, there have been noticeable increases in the cost of materials and labor. This is due to a combination of factors, including inflation, supply chain issues, and the availability of materials. The cost of materials and labor is expected to continue to increase over the next few years. The US and California economies may be negatively impacted resulting in lower competition and ultimately driving up prices. Such as steel and the availability of materials. The construction industry is in a period of exceptionally high demand for materials and labor. This is due to a combination of factors, including inflation, supply chain issues, and the availability of materials. The cost of materials and labor is expected to continue to increase over the next few years.	50%	\$6,750,000	\$11,500,000	\$11,500,000	0	0	0	Contribution materials/equipment and labor. The construction may lead to delay and cost overruns.	Mitigate	Follow the Caltrans process to list and advertise the project for the maximum competition. The Estimated Schedules in the PSSE Phase to determine the appropriate pricing and cost for the proposed work using recent bid information.	Resident Engineer & Project Engineer	June 04, 2025											
4	Active	Threat	PM	Funding Gap-BCP	Because legislation requires the Budget Office to report on the funding gap, the funding process may not be approved, which may add additional costs to the project.	There is a risk that legislation will not approve the future request for funding for FY 27 BCP. There is a funding gap of \$5.5 million to cover the FY 27 BCP. The funding gap is currently \$5.5 million.	60%	\$5,500,000	\$6,500,000	\$7,500,000	0	0	0	There is a risk that the state legislature will not approve the funding request for FY 27 BCP for the LA 2028 Games.	Mitigate	Pursue different funding sources to cover reduce the funding gap that is being identified.	LA 28 Principal & Traffic Safety & Operations	June 19, 2025											
5	Active	Threat	DGN	Scope Change	As a result of changes in the demand and supply of materials and labor, the cost of materials and labor may increase, which would lead to increased project costs.	The LA GRN project will cover District 7, District 11, and District 17. Field programs may need to cover several active locations in LA, which may increase the project cost. The scope of the project may be expanded to include other areas, which may increase the project cost. The project may require additional work to complete the project, which may increase the project cost. The project may require additional work to complete the project, which may increase the project cost.	50%	\$1,875,000	\$3,750,000	\$5,625,000	0	0	0	By firmly establishing an acceptable scope, the cost of the project will be reduced.	Mitigate	Work with all functional units and stakeholders to identify the project scope.	Project Engineer & Project Manager	June 18, 2025											
6	Active	Threat	CON	Field Inspection for Large Project Site	As a result of limited field inspection covering a large area for LA28 GRN, a timely inspection may not be done, resulting in network and increasing project costs.	The LA GRN project will cover District 7, District 11, and District 17. Field programs may need to cover several active locations in LA, which may increase the project cost. The scope of the project may be expanded to include other areas, which may increase the project cost. The project may require additional work to complete the project, which may increase the project cost. The project may require additional work to complete the project, which may increase the project cost.	80%	\$750,000	\$1,250,000	\$1,750,000	0	0	0	Due to the size of the project, construction office staff may be overwhelmed by provided services.	Mitigate	Coordinate operations to meet to schedule. Increase the workload and coordinate with other field offices. Callers non-field units, and consultant support for additional staff.	Resident Engineer & Project Manager	June 04, 2025											
7	Active	Threat	CON	Inspection of CCTV	As a result of limited field inspection covering a large area for LA28 GRN, a timely inspection may not be done, resulting in network and increasing project costs.	The project currently proposes to install 258 CCTVs or 40' poles along the LA 2028 GRN. A timely inspection may not be done, resulting in network and increasing project costs. The project may require additional work to complete the project, which may increase the project cost. The project may require additional work to complete the project, which may increase the project cost.	80%	\$250,000	\$1,250,000	\$1,750,000	0	0	0	The project may require additional work to complete the project, which may increase the project cost. The project may require additional work to complete the project, which may increase the project cost.	Mitigate	In the subsequent phase, the Resident Engineer/Project Manager/Project Engineer should discuss plans on how to complete inspections of the CCTV cameras.	Resident Engineer, Electrical, Electrical Engineer	June 04, 2025											
8	Active	Threat	DGN	Contingency and Safety Issues	If contingency issues such as adequate working space, safety issues, or other issues may occur, this may increase project cost and schedule delays.	1. Construction staging is complicated due to the following factors: a. Numerous work locations (i.e. limited space in the median for the work locations) b. The closure of lanes 8 & 9, shoulders or ramps may be required. c. Limited traffic staging and construction with lane. 2. The contractor will also need to maintain the staging as well.	15%	\$1,000,000	\$5,000,000	\$10,000,000	20	60	80	Appropriate modifications to plans will be made.	Accept	R.E. will monitor construction progress and work with contractor to address any issues. Expect to use contingency funds to cover risk.	Resident Engineer & Project Engineer	June 04, 2025											
9	Active	Threat	PM	Quality Review	If errors and omissions have been identified, overlooked during the quality control (QC) and quality assurance (QA) process, corrective actions may be required during construction, which would lead to increased project cost and schedule delays.	Although the project plans will go through several iterations of quality control and assurance in the PSSE phase, errors may still occur which will cause delays. The project may require additional work to complete the project, which may increase the project cost. The project may require additional work to complete the project, which may increase the project cost.	15%	\$1,000,000	\$5,000,000	\$10,000,000	20	60	80	By following the QA/QC process, the cost and schedule impact on the schedule can be minimized.	Accept	Inform the Project Manager and Project Engineer of any issues. Expect to use contingency funds to cover risk.	Resident Engineer, Project Manager & Project Engineer	December 31, 2025											
10	Active	Threat	CON	Validation of Fiber Network	If the fiber network is validated before and/or during the construction, it will need to be continually replaced, which would lead to additional project costs and schedule delays.	There is a possibility that fiber network may be damaged or stolen before and during the LA 2028 Games. The contractor will be responsible for any fiber network damage.	50%	\$1,000,000	\$1,500,000	\$2,000,000	60	90	110	Fiber may be validated in search of copper wire.	Accept	Coordinate with the contractor to ensure fiber network is protected. Expect to use contingency funds to cover risk.	ITS	June 17, 2025											
11	Active	Threat	CON	Modifications from External Agencies	As a result of proposed various rules and meeting a Games Legacy Scope-Elven (11) ATM markings, 258 CCTV cameras, this may require modifications to the project, which would lead to additional costs.	The LA 2028 GRN will be completed through the coordination efforts of various agencies, including Caltrans, SDGHS, and the LA 2028 Organizing Committee. The project may require additional work to complete the project, which may increase the project cost. The project may require additional work to complete the project, which may increase the project cost.	15%	\$500,000	\$4,000,000	\$8,000,000	0	0	0	Coordination of the Departments effort, along with constant communication with the different agencies involved to make sure that everything is clear and concise.	Mitigate	In the subsequent phase, coordinate and keep constant communication with the different agencies involved to make sure that everything is clear and concise.	Project Engineer & Project Manager	June 04, 2025											
12	Active	Threat	SUP	Limited Staffing & Functional Support	With the limited staff and functional support, this may lead to increased project costs.	Because the project work sites are situated throughout various locations on the D7 State Highway System (SHS), maintaining adequate workable sites may be difficult. The project may require additional work to complete the project, which may increase the project cost. The project may require additional work to complete the project, which may increase the project cost.	75%	\$300,000	\$800,000	\$1,000,000	0	0	0	Shifting and productivity contribute mostly to the support for the project. The project may require additional work to complete the project, which may increase the project cost. The project may require additional work to complete the project, which may increase the project cost.	Accept	Balance approved and knowledgeable staff with the project. The project may require additional work to complete the project, which may increase the project cost. The project may require additional work to complete the project, which may increase the project cost.	Construction Senior & Project Manager	June 04, 2025											



EA-07-303200, EFS ID: 0724000249										Milestones				Duration				Base Con Cap Est. (k): \$161,327					
Route & Post Mile: Various Routes and Locations										PALED (M10)		PSSE (M330)		RTL (M460)		CCA (M690)		Con Working Days: 400		Risk Based Contingency (k): \$32,265		PIK: Merry Marcos	
Project Description: LA-2028 Games Route Network (GRN)										M10/1		M330		M460		M690		Plan Est Days: 0		Risk Based Total Construction Capital Est (k): \$193,593		DK: Anh D Nguyen	
Scope Summary: The California Department of Transportation (Caltrans) plays a key role in the LA 2028 Olympic and Paralympic Games by ensuring efficient and safe transportation for athletes, Games stakeholders, and the public. This includes creating a Games Route Network (GRN) with dedicated lanes for Games vehicles, working with other transportation agencies, and implementing a supplement to the Manual on Uniform Traffic Control Devices for the Games Legacy Scope: Eleven (11) ATM gantries, 258 CCTV Cameras, 400 Overhead Sign Overlays; 120 Roadside Sign Overlays; 120 LM of Pavement Striping; 10,800 SODT Pavement Markings; 38,000 EA Channelizers; Nightly Inspection; Restoration (320 LM Pavement Striping; 64,512 SODT Pavement Marking; Remove 56,000 EA Channelizers).										815/2025A		01/16/28		07/13/26		04/02/29		Total Con Days: 400		Risk Based Total Construction Capital Est (k): \$193,593		RM: Carleif Bugarin	
Risk Identification										Contingency (90th Percentile):		Risk Impact on Working Days (90th Percentile):		High		553		Response Strategy					
Risk No.	Status	Type	Category	Risk Title	Risk Statement	Risk Details with Current Status/Assumptions	Probability of Occurrence	Low (\$)	Most Likely (\$)	High (\$)	Low	Med/Likely	High	Rationale	Strategy	Response Actions	Risk Owner	Updated					
24	Active	Threat	ENV	Potential to Encounter Cultural Resources	As a result of the discovery of unknown buried rock mounds during construction, excavation and disposal activities may occur which would lead to increased project costs and schedule delays.	The 12 Ghanies and 258 CCTV would require excavation; however, they would be replaced with Caltrans ROW and previously installed rail.	15%	\$200,000	\$385,000	\$650,000	200	240	360	The GRN route is in a development environment and would require excavation of unknown buried rock mounds. The GRN route is not considered as an archeologically sensitive.	Avoid	Measures to avoid impacts on cultural resources include: 1. Conduct a pre-construction survey for unknown buried rock mounds. 2. If rock mounds are found in the project area, conduct a geotechnical investigation. 3. Coordinate with the contractor to excavate and remove rock mounds. 4. Update the GRN route design to avoid rock mounds.	Environmental Planner/Cultural	June 10, 2025					
25	Active	Threat	CON	Procurement Delays and Unavailability of Caltrans	As a result of procuring various materials and creating a Games route network, there may be delays in the procurement of materials and equipment. This may lead to increased project costs and schedule delays.	There is a risk that there may be a potential delay in procurement or availability of materials due to factory issues and/or logistical challenges. The GRN route is not considered as an archeologically sensitive.	30%	\$112,000	\$187,500	\$225,000	30	60	90	The cameras will be purchased through another contract, but there is a risk that the contractor may need to purchase an additional 50-100 cameras to complete the project. The GRN route is not considered as an archeologically sensitive.	Mitigate	In the subsequent phases, coordinate and blow up the necessary camera. In addition, update and coordinate with Electrical unit to see if there are any cameras that can be used for the project. 3. E.E. will work with contractor and functional to reach an agreement on appropriate compensation.	Project Manager, Electrical & Resident Engineer	June 09, 2025					
26	Active	Threat	CON	Differing Site Conditions	If unexpected site conditions, soil and materials are encountered during construction, design modifications may be required, which would lead to increased project costs and schedule delays.	1. Variations in site hydrology (shaded physical conditions) are possible. 2. Contaminants may be present in the soil. 3. Construction may be used instead of standard MCS due to site conditions. 4. During drilling of the foundations for the poles, buried objects (such as concrete pipes) may be encountered.	15%	\$100,000	\$250,000	\$500,000	80	150	240	Adequately characterizing the project site will reduce the cost of uncertainty.	Mitigate	1. Conduct a site visit and a comprehensive site investigation. 2. Expect to use contingency funds to pay for work necessary from site condition variations. 3. E.E. will work with contractor and functional to reach an agreement on appropriate compensation.	Design Senior & Construction Senior	June 04, 2025					
27	Active	Threat	UTI	Unidentified Utilities	If unidentified utilities or utilities that are not shown on existing plans are encountered during construction, additional work may be required, which would lead to increased project costs and schedule delays.	1. The following utilities were identified near the site although no subsiding will be performed (not yet, but may be performed in the PSE Phase). 2. Utilities assessment and agreement are not required. 3. The project is not considered as an archeologically sensitive. 4. The project spans over 420 lane miles, but unidentified utilities occur. The design will try to be modified if the utilities may need to be relocated.	15%	\$100,000	\$250,000	\$500,000	20	60	80	Identifying all involved utilities is critical to establishing the cost of utility relocation. Potentially will minimize the risk.	Avoid	The project will avoid any potential utility conflict by modifying the design, plans, and construction of the proposed scope of work.	Project Engineer, Resident Engineer & Utility Engineer	June 04, 2025					
28	Active	Threat	ENV	Nesting, Breeding, Nesting Habitat	As a result of construction activities, nesting birds may occur which would lead to schedule delays during nesting season and increase costs.	No nesting or breeding of vegetation or trees and vegetation would occur on the project site. (SUI, for example, or SUI, for example). Construction will be halted until nesting have left the nest.	20%	\$80,000	\$100,000	\$150,000	10	15	20	There is a possibility to relocate nesting birds adjacent to the GRN route during construction.	Avoid	Include special provisions for bird protection in the project specifications. Contact Caltrans biologist to determine if any special provisions are needed in the area and continue or if suspension of work is necessary or until bird nesting activities are no longer present.	Environmental & Biologist	June 08, 2025					
29	Active	Threat	ENV	Environmental Impacts	If there are changes in the project scope, environmental impacts may occur which would lead to increased project costs and schedule delays.	The process to prepare a CEQA Declaration was initiated in October 2024. The project is not considered as an archeologically sensitive. The project is not considered as an archeologically sensitive.	80%	\$10,000	\$20,000	\$30,000	20	30	40	Based on the information of the design phase, the project scope, environmental safety, and there are not expected to change.	Accept	Inform the Division of Environmental Planning of any changes in scope or construction schedule. If suspension of work is necessary or until bird nesting activities are no longer present.	Environmental Planner & Construction Senior	December 08, 2025					
30	Active	Threat	CON	Construction	If other adjacent Caltrans and local projects are in progress, there may be delays in the procurement of materials and equipment, which would lead to increased project costs and schedule delays.	1. Coordination with other planned and programmed improvement projects (SUI, for example) is required. 2. The project is not considered as an archeologically sensitive. 3. Because the project spans over 420 lane miles, the project will be a long-term project. 4. If project have 35+ lanes, the GRN construction work can be modified to avoid the other project column.	10%	\$30,000	\$100,000	\$240,000	5	20	60	Coordination efforts with all necessary parties will help minimize the impact of the risk.	Accept	1. Coordinate with permitting agencies to identify local projects within the same project limits and adjust the construction schedule to avoid conflicts with other projects. 2. Identify all necessary work items, including the GRN and other contractors to resolve conflicts. 3. Expect to use contingency funds to cover risk.	Resident Engineer	June 10, 2025					
31	Active	Threat	DSN	Unidentified Items Within the Project Limits	If unanticipated items (assets or deficiencies) are discovered during construction, design changes may occur, which would lead to increased project costs and schedule delays.	1. There may be additional work items/assets that may require repair, upgrades or replacement, such as additional MCS, ITS elements (cameras, detectors, pole boxes etc.), overhead irrigation systems (nozzle, irrigation areas and valve boxes), and MVA's, etc. 2. Some components are equipment (Ethernet Switch, 3272 routers etc.) and power may be an older version and may be to be upgraded.	5%	\$100,000	\$140,000	\$250,000	20	60	120	Identifying all items of work improves the reliability of the cost estimate.	Mitigate	Identify all necessary work items, including the GRN and other contractors to resolve conflicts. In the cost estimate to cover the risk.	Project Engineer	June 04, 2025					
32	Active	Threat	CON	Stakeholder Requirements	As a result of changes to stakeholder requirements, Best Management Practices (BMP) design changes may occur, which would lead to increased costs.	The project is not considered as an archeologically sensitive. The project is not considered as an archeologically sensitive.	25%	\$12,750	\$25,000	\$33,750	0	0	0	Stakeholder requirements must be met. Surveys and maps are to be used for the design.	Accept	The Resident Engineer will ensure all the stakeholder requirements for the construction are met. If additional temporary BMPs are needed, expect to use contingency funds to cover the risk.	Resident Engineer & Stakeholder	June 18, 2025					

EA-07-503200, EFIS ID: 0724000249

Route & Post Mile: Various Routes and Locations

Project Description: LA-2028 Games Route Network (GRN)

Scope Summary: The California Department of Transportation (Caltrans) plays a key role in the LA 2028 Olympic and Paralympic Games by ensuring efficient and safe transportation for athletes, Games stakeholders, and the public. This includes creating a Games Route Network (GRN) with dedicated lanes for Games vehicles, working with other transportation agencies, and implementing a supplement to the Manual on Uniform Traffic Control Devices for the Games (MUTCD) to address the unique needs of the Games. The project includes creating a Games Route Network (GRN) with dedicated lanes for Games vehicles, working with other transportation agencies, and implementing a supplement to the Manual on Uniform Traffic Control Devices for the Games (MUTCD) to address the unique needs of the Games.

Legacy Scope: Elvert (11) ATM gantries, 258 CCTV cameras, 300 Barrier Mounted Roadside Signs, 400 Overhead Sign Overlays, 1200 Roadside Sign Overlays, 10,800 SODFT Pavement Markings, 38,000 EA Channelizers, Nightly Inspection, Restoration (20) LM Pavement Striping, 64,512 SODFT Pavement Marking, Remove 56,000 EA Channelizers.

Milestones		Duration		Base Con Cap Est. (k): \$161,327		Risk Based Contingency (k): \$32,265		Risk Based Total Construction Capital Est. (k): \$193,593	
PID	PALED	PSSE	RTL	CCA	CCA	Con Working Days: 400	Plan Est Days: 0	Plan Est Days: 0	Risk Based Total Construction Capital Est. (k): \$193,593
08101	08200	08300	08400	08500	08600				
815/2025A	0116/28	10/13/28	07/13/26	04/02/29	04/02/29				

**Risk Identification**

Risk No.	Status	Type	Category	Risk Title	Risk Statement	Risk Details with Current Status/Assumptions	Probability of Occurrence	Contingency (@70% Percentile):			Risk Impact on Working Days (80th Percentile):			High	Medium	Low	High (P)	Low (P)	High (P)	Low (P)	High (P)	Low (P)	High (P)	Low (P)
								Low (\$)	Most Likely (\$)	High (\$)	Low	Most Likely	High											

**Risk 33:** Active Threat ENV Community (Traffic) As a result of construction and operation of the GRN, substantial temporary traffic related impacts to adjacent communities and businesses would occur.

**Risk 34:** Active Threat CON Vandalism (Barricade and etc.) As a result of vandalism and theft of electrical components and signage, there may be potential for vandalism on the GRN. This could result in additional costs and time to remove and repair.

**Risk 35:** Active Threat DGN Utility Clearance Because the project is in an accelerated schedule, certain utility clearance activities may be completed in a timely manner. If there is a conflict the design may not be completed in a timely manner. In some projects, the contractor may not be able to complete a timely manner.

**Risk 36:** Active Threat CON Unshielded / Homeless Homeless encampments are encouraged within the project area during construction, additional effort may be required for their removal or possible relocation, which would lead to potential delays.

**Risk 37:** Refined Threat ENV Air Quality (Compliance) If the project cannot demonstrate that we have met the local air quality requirements or if the TOWG does not concur with the approach to program the project as a SHOPP project, the project may not be able to be exempt from conformity.

**Risk Impact Assessment**

Risk Impact Assessment		Risk Impact on Working Days (80th Percentile):		Contingency (@70% Percentile):		Risk Impact on Working Days (80th Percentile):		Response Actions		Strategy		Rationale		Risk Owner		Updated	
High	Medium	Low	High (P)	Low (\$)	Most Likely (\$)	High (\$)	Low	Most Likely	High	Response Actions	Strategy	Rationale	Risk Owner	Updated			

**Risk 33:** High impact on working days, 553 days. High contingency, \$30,000. Response: Coordinate with applicable agencies to develop TDM Strategies and ensure documentation in the Environmental Investigation during FODS.

**Risk 34:** High impact on working days, 0 days. High contingency, \$0. Response: This risk is to document that the risk of vandalism of items that are not on the mainline will be addressed by the Division of Maintenance program.

**Risk 35:** High impact on working days, 0 days. High contingency, \$0. Response: In the subsequent phase, review as-built and coordinate with the Design team to not delay the utility clearance. If it cannot be completed, the risk may be transferred to the contractor if needed.

**Risk 36:** High impact on working days, 60 days. High contingency, \$140,000. Response: The Resident Engineer will work with Parsons regarding the homeless encampments (HE) mitigation and encampments. The assessment did not include any mitigation encampments (if any) within the project limits.

**Risk 37:** High impact on working days, 0 days. High contingency, \$0. Response: The Resident Engineer will work with Parsons regarding the homeless encampments (HE) mitigation and encampments. The assessment did not include any mitigation encampments (if any) within the project limits.





# EA 503200 Risk Register Certification

Final Audit Report

2026-01-07

Created:	2026-01-02
By:	Ryan Nai (s148568@dot.ca.gov)
Status:	Signed
Transaction ID:	CBJCHBCAABAAAdLPVHCYxT6Ak_yyOrN-6js3jo5qYV5QM

## "EA 503200 Risk Register Certification" History

-  Document created by Ryan Nai (s148568@dot.ca.gov)  
2026-01-02 - 6:15:20 PM GMT- IP address: 149.136.33.247
-  Document emailed to Manny Marcos (manny.t.marcos@dot.ca.gov) for signature  
2026-01-02 - 6:17:10 PM GMT
-  Document emailed to Greg Farr (greg.farr@dot.ca.gov) for signature  
2026-01-02 - 6:17:10 PM GMT
-  Document emailed to Patricia Galvan (patricia.galvan@dot.ca.gov) for signature  
2026-01-02 - 6:17:10 PM GMT
-  Document emailed to Carly Corona (carly.corona@dot.ca.gov) for approval  
2026-01-02 - 6:17:10 PM GMT
-  Document sent to Wayne Lee (wayne.d.lee@dot.ca.gov) and Zoltan Elo (zoltan.elo@dot.ca.gov) for signature.  
One of them to sign  
2026-01-02 - 6:17:11 PM GMT
-  Document emailed to Dawn Montano (dawn.kukla@dot.ca.gov) for signature  
2026-01-02 - 6:17:11 PM GMT
-  Document emailed to Amir Elsharief (amir.elsharief@dot.ca.gov) for signature  
2026-01-02 - 6:17:11 PM GMT
-  Document emailed to Jackie Tan (jackie.tan@dot.ca.gov) for approval  
2026-01-02 - 6:17:12 PM GMT
-  Document emailed to Paul Crispi (paul.j.crispi@dot.ca.gov) for signature  
2026-01-02 - 6:17:12 PM GMT
-  Email viewed by Carly Corona (carly.corona@dot.ca.gov)  
2026-01-02 - 6:17:19 PM GMT- IP address: 54.225.206.80



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 Email viewed by Manny Marcos (manny.t.marcos@dot.ca.gov)

2026-01-02 - 6:17:23 PM GMT- IP address: 52.5.171.77

 Email viewed by Amir Elsharief (amir.elsharief@dot.ca.gov)

2026-01-02 - 6:17:23 PM GMT- IP address: 52.5.171.77

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2026-01-02 - 6:17:23 PM GMT- IP address: 3.214.247.230

 Email viewed by Patricia Galvan (patricia.galvan@dot.ca.gov)

2026-01-02 - 6:17:24 PM GMT- IP address: 3.229.227.176

 Email viewed by Wayne Lee (wayne.d.lee@dot.ca.gov)

2026-01-02 - 6:17:26 PM GMT- IP address: 50.17.188.48

 Email viewed by Zoltan Elo (zoltan.elo@dot.ca.gov)

2026-01-02 - 6:17:31 PM GMT- IP address: 107.23.116.18

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2026-01-02 - 6:17:49 PM GMT- IP address: 44.196.15.69

 Email viewed by Paul Crispi (paul.j.crispi@dot.ca.gov)

2026-01-02 - 6:17:50 PM GMT- IP address: 34.202.168.50

 Document approved by Carly Corona (carly.corona@dot.ca.gov)

Approval Date: 2026-01-02 - 6:19:30 PM GMT - Time Source: server- IP address: 149.136.33.252

 Email viewed by Jackie Tan (jackie.tan@dot.ca.gov)

2026-01-02 - 6:20:44 PM GMT- IP address: 34.226.181.172

 Document e-signed by Greg Farr (greg.farr@dot.ca.gov)

Signature Date: 2026-01-02 - 6:27:17 PM GMT - Time Source: server- IP address: 76.171.218.113

 Document e-signed by Paul Crispi (paul.j.crispi@dot.ca.gov)


Signature Date: 2026-01-02 - 6:46:03 PM GMT - Time Source: server- IP address: 35.150.131.149

 Document e-signed by Zoltan Elo (zoltan.elo@dot.ca.gov)

Signature Date: 2026-01-02 - 7:07:36 PM GMT - Time Source: server- IP address: 149.136.33.250


 Document e-signed by Dawn Montano (dawn.kukla@dot.ca.gov)

Signature Date: 2026-01-05 - 4:34:08 PM GMT - Time Source: server- IP address: 149.136.33.249

 Ryan Nai (s148568@dot.ca.gov) added alternate signer Tasha Higgins (tasha.higgins@dot.ca.gov). The original signer Manny Marcos (manny.t.marcos@dot.ca.gov) can still sign.

2026-01-05 - 4:39:16 PM GMT- IP address: 149.136.33.250



 Document emailed to Tasha Higgins (tasha.higgins@dot.ca.gov) for signature

2026-01-05 - 4:39:16 PM GMT

 Document e-signed by Tasha Higgins (tasha.higgins@dot.ca.gov)

Signature Date: 2026-01-05 - 4:51:11 PM GMT - Time Source: server- IP address: 149.136.33.252

 Document approved by Jackie Tan (jackie.tan@dot.ca.gov)

Approval Date: 2026-01-06 - 7:35:42 PM GMT - Time Source: server- IP address: 149.136.17.250

 Email viewed by Amir Elsharief (amir.elsharief@dot.ca.gov)


2026-01-07 - 5:42:00 PM GMT- IP address: 104.28.111.144

 Document e-signed by Amir Elsharief (amir.elsharief@dot.ca.gov)

Signature Date: 2026-01-07 - 6:31:49 PM GMT - Time Source: server- IP address: 149.136.33.247

 Document e-signed by Patricia Galvan (patricia.galvan@dot.ca.gov)

Signature Date: 2026-01-07 - 7:41:50 PM GMT - Time Source: server- IP address: 149.136.33.246

 Document emailed to Tasha Higgins (tasha.higgins@dot.ca.gov) for signature

2026-01-07 - 7:41:53 PM GMT

 Email viewed by Tasha Higgins (tasha.higgins@dot.ca.gov)

2026-01-07 - 7:48:56 PM GMT- IP address: 149.136.33.253

 Document e-signed by Tasha Higgins (tasha.higgins@dot.ca.gov)

Signature Date: 2026-01-07 - 7:49:50 PM GMT - Time Source: server- IP address: 149.136.33.253

 Agreement completed.

2026-01-07 - 7:49:50 PM GMT



**ATTACHMENT M**  
**COMPLETE STREETS DECISION**  
**DOCUMENT (CSDD)**

## Complete Streets Decision Document (CSDD)

- 1) Is it infeasible to include complete streets improvements because the project is located entirely on a facility where bicyclists and pedestrians are legally prohibited and the project does not involve a shared use path, pedestrian/bicycle structure or work impacting a local road crossing or interchange? (For example, a project including freeway mainline and ramp work, not including the ramp connection with the minor road, where the project freeway segment legally prohibits bicyclists and pedestrians.)

NO – Proceed to Question 2

YES – Stop here. The project is exempt from further complete streets evaluation. Sign and attach to the Project Initiation Document (PID).

- 2) Is the scope of the primary project not suitable because the purpose is to address assets that are outside of the roadbed where pedestrian and bicycle travel is not affected, and the proposed project will not affect future pedestrian and bicycle facilities? Examples may include culvert outfalls, storm water treatment facilities, bridge substructure or scour mitigation, planting or vegetation removal, retaining walls, etcetera.

NO – Continue to Question 3

YES – Stop here. The project is exempt from further complete streets evaluation. Sign and attach to PID.

- 3) Has a Transportation Planning Scoping Information Sheet (TPSIS) been completed for this project?

NO – Proceed to Question 4

YES – Skip to Question 5 (Note: TPSIS is attached to the PID)

- 4) Which of the following planning documents were consulted to determine bicycle, pedestrian or transit needs? Select all that apply and proceed to Question 5.

a. District Active Transportation Plan

b. Other Caltrans or local/regional agency bike/ped/transit/safe routes to school plans

c. ADA Transition Plan/Grievances (consult with the District ADA Coordinator)

d. Corridor planning documents

e. Other (list here) \_\_\_\_\_

- 5) Based on the reviews completed in Question 4 or identified in the TPSIS, after a review of the roadway geometrics, or identified by the PDT, are there any bicycle, pedestrian, or transit needs, deficiencies or opportunities for improvement identified for the project location?

NO – Provide brief description of findings: \_\_\_\_\_  
Stop here. The project meets the requirements for consideration of Complete Streets elements.  
Sign and attach to the PID.

YES – Describe them here and proceed to Question 6: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 6) Based on the needs identified in Question 5, what would be the preferred complete streets elements to address those needs (e.g. road diet, separated bikeway, reconstructed sidewalk, etc.)? Resources include the Complete Streets Elements Toolbox, the Contextual Guidance for Bikeway Facility Selection, the Bikeway Facility Selection Guidance Memorandum, etc. List them in the table below and

provide a rough estimated cost to construct preferred project complete streets elements (including right-of-way and support costs) and proceed to Question 7.

FACILITY TYPE	UNIT	APPROXIMATE QUANTITY	ESTIMATED TOTAL COST

7) Was there any known public and stakeholder opposition to any preferred complete streets elements identified for the project? Provide response and proceed to Question 8.

NO  
 YES – Describe the opposition position here: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

8) Does the programmable project alternative/project scope include all the complete streets elements identified in Question 6?

NO – Proceed to Question 9  
 YES – Stop here. The project has met the requirements for consideration of complete streets elements. Sign and attach to PID.

9) Does the project include any of the complete streets elements that are identified in Question 6? Or are there any proposed incremental improvements related to the complete streets elements in Question 6? Provide response and proceed to Question 10.

NO – The programmable project alternative does not include any complete streets elements, and therefore does not address identified needs for complete streets elements.  
 YES – List them here:

FACILITY TYPE	UNIT	APPROXIMATE QUANTITY	ESTIMATED TOTAL COST

10) Does the project funding have constraints that would preclude the ability to incorporate additional complete streets elements into the project (For example, cannot combine funding with other sources.)? Provide response and proceed to Question 11.

NO  
 YES – Describe the constraints here: \_\_\_\_\_

11) Provide a rationale and justification for not including all the recommended complete streets elements into the project: (Consider the engineering justification, right-of-way constraints, environmental impacts, etc.). \_\_\_\_\_

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Prepared by:



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Michael Zwissler, PID Preparer in responsible charge  
District 07 Office of Projects and Special Studies

Concurred by:



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Romeo Estrella  
District Complete Streets Coordinator

---

06/30/2025  
Date



---

Marlon Regisford  
Deputy District Director, Planning

---

06/30/2025  
Date

  
Greg Farr 6/30/2025 10:46 PDT

---

Gregory Farr  
Deputy District Director, Design

---

06/30/2025  
Date



---

Gloria Roberts  
District Director

---

06/30/2025  
Date

*Distribution: Attach completed original CSDD to PID and email to HQ Division of Design at CSDD@dot.ca.gov*

**Revalidation or supersession of CSDD at PA&ED**

Does the project scope defined in the project approval document include the complete streets elements identified in Question 6 or 9 of this CSDD and the PID?

       NO – Prepare a superseding CSDD (answer questions 1 through 11) replacing the original CSDD, certify, and obtain concurrence signatures in sequence. Attach the superseding CSDD to the project approval document. Email superseding CSDD to HQ Division of Design at CSDD@dot.ca.gov.

  X   YES – Certify there are no changes to the scope of complete streets elements with only the project engineer certification signature below on the original approved CSDD and attach the CSDD to the project approval document. Email revalidated CSDD to HQ Division of Design at CSDD@dot.ca.gov.

Certified by:

*Michael J. Zwissler*

06/30/2025

\_\_\_\_\_  
Michael Zwissler, Project Engineer  
District 07 Office of Projects and Special Studies

\_\_\_\_\_  
Date

Concurrence: *(Include concurrence signatures only if a superseding CSDD is prepared.)*

\_\_\_\_\_  
Name, District Complete Streets Coordinator

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name, Chief, Office of Complete Streets,  
Headquarters Division of Design

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name, Deputy District Director, Planning

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name, Deputy District Director, Design or  
Division Chief, Design/Project Development

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name, District Director

\_\_\_\_\_  
Date

**Revalidation or supersession of CSDD at PS&E**

Does the project scope designed in the plans, specifications and estimate include the complete streets elements identified in Question 6 or 9 of the revalidated CSDD (or superseding CSDD, if applicable) certified at PA&ED and the project approval document?

\_\_\_\_\_ NO – Prepare a superseding CSDD (answer questions 1 through 11) replacing the CSDD that was revalidated or superseded at PA&ED, certify, and obtain concurrence signatures in sequence. Attach completed superseding CSDD to the supplemental PR. If a supplemental PR is not required, place in the project history file. Email superseding CSDD to HQ Division of Design at CSDD@dot.ca.gov.

\_\_\_\_\_ YES – Certify there are no changes to scope of complete streets elements in the project, and that temporary bike and pedestrian facilities during construction have been considered. Include only the project engineer certification signature below on the CSDD that was completed at PA&ED and place the CSDD in the project history file. Email revalidated CSDD to HQ Division of Design at CSDD@dot.ca.gov.

Certified by:

\_\_\_\_\_  
Name, Project Engineer  
Branch/Company

\_\_\_\_\_  
Date

Concurrence: *(Include concurrence signatures only if a superseding CSDD is prepared.)*

\_\_\_\_\_  
Name, District Complete Streets Coordinator

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name, Chief, Office of Complete Streets,  
Headquarters Division of Design

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name, Deputy District Director, Planning

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name, Deputy District Director, Design or  
Division Chief, Design/Project Development

\_\_\_\_\_  
Date

---

Name, District Director

---

Date

## Zwissler, Michael@DOT

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**From:** Sanchez, Rafael@DOT  
**Sent:** Thursday, June 26, 2025 1:06 PM  
**To:** Zwissler, Michael@DOT; CSDD@DOT  
**Cc:** Estrella, Romeo F@DOT; Bautista, Denrick@DOT; Higgins, Tasha@DOT  
**Subject:** Re: 50320 LA28 GRN CSDD for Approval

Hello Michael,

Thank you for your email. The HQ Office of Complete Streets Planning reviewed the submitted CSDD justification for EA 50320 and determined the following:

HQ **concurs** that the project is exempt on the basis the primary project is located on freeways where bicycles and pedestrians are prohibited.

The District can proceed to finalize the CSDD.

Thank you,



**Rafael Sanchez** (he/him)  
Transportation Planner  
Active Transportation Planning Branch  
Office of Complete Streets Planning  
(916) 917-4578  
[Chat With Me on Teams!](#)

---

**From:** Zwissler, Michael@DOT <Michael.Zwissler@dot.ca.gov>  
**Sent:** Tuesday, June 24, 2025 3:50 PM  
**To:** CSDD@DOT <CSDD@dot.ca.gov>  
**Cc:** Estrella, Romeo F@DOT <Romeo.Estrella@dot.ca.gov>; Bautista, Denrick@DOT <Denrick.Bautista@dot.ca.gov>; Higgins, Tasha@DOT <Tasha.Higgins@dot.ca.gov>  
**Subject:** 50320 LA28 GRN CSDD for Approval

Hello,

Please find the attached CSDD for approval regarding the LA28 Games Route Network in support of the 2028 Olympic and Paralympic Games.

We determined that this project is exempt from CSDD because of the reasons listed below:

Currently the bike/ped configuration for the event areas are TBD based on security measures to be input by US Secret Service(USSS), making it difficult to provide a viable estimate at this time.

The GRN on local arterial roadways is going to be taking a dedicated lane with buffer on the current roadway. Placing bike/peds adjacent to trucks/busses associated with the GRN vehicle makeup wouldn't be an ideal

location for bike/peds with the preferred bike placement being barrier or buffer separated lanes depending on roadway design speed.

Additionally, the USSS has designated all of the LA28 games as a National Security Special Event (NSSE) the vehicles associated with the GRN are screened from venue to venue. Having them intermingle with unscreened personnel outside of the secure venues is not ideal from an event security perspective.

There are additional projects for LA28 running concurrent with the GRN project (50320) that address trailblazing, wayfinding, landscaping at on/off ramps.

These are the reasons why the LA28 GRN project has been determined to be exempt from the CSDD as shown in the response to question #1.

I've attached our draft PSR/PR as well as the CSDD document for approval.

 [ATTACHMENTS \(A-T\).pdf](#)

Please expedite the review as fast as possible as we are trying to circulate for final approval at beginning of July to partially fund project elements at October CTC.

I apologize for the late notice as this has been an a-typical delivery program for this project. Any and all support in helping us achieve success for the Olympics and Caltrans is appreciated.

Thanks,

Michael Zwissler, PE

Mobile: 213-269-1122

California Dept. of Transportation  
District 07 – Office of Projects and Special Studies  
LA28 GRN Senior Engineer  
100 S. Main Street  
Los Angeles, CA 90012



**CALTRANS** Safety / Equity / Climate Action / Prosperity

**ATTACHMENT N**  
**TRAFFIC ANALYSIS MEMO**

# Memorandum

Date: June 23, 2025

To: Tasha Higgins, Caltrans, Ernesto Chaves, LA Metro

From: Anna Luo, Mike Wallace, Chelsea Richer, and Jeremy Klop, Fehr & Peers  
Loren Bloomberg, Allan Gooch, and Philip Clarke, Jacobs

CC: Chris Liban, Metro  
Hoan Tang, Metro  
Jacqueline Torres, Metro  
Heather Shepard, TRC  
Katie Wilson, TRC  
Siew Mei Tan, Caltrans  
Chao Wei, Caltrans

**Subject: Los Angeles 2028 Games Route Network Modeling – Traffic Section  
Memorandum for PSR/PR**

LA24-3333.01

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This memorandum presents the content of Traffic Section to be used in support of the Los Angeles 2028 Olympic & Paralympic Games Route Network (GRN) Project Study Report/Project Report (PSR/PR) led by Caltrans for CEQA and NEPA approval.

The scope of this traffic analysis was developed in coordination with Metro and Caltrans, which focuses on Games Lanes on the GRN of the State Highway System (SHS). Other facilities such as intersections and ramps are not part of this study scope and could be assessed under separate efforts in the future. The primary objective of this study is to evaluate the traffic effect on the freeway mainline segments where Games Lanes will be implemented. The traffic analysis for this study focuses on changes in traffic demand volumes and resulting travel times, travel speeds, and travel delays on the Games Lanes segments.

The traffic analysis was performed in close coordination with Metro and Caltrans. This memorandum includes a summary of the traffic analysis. The detailed traffic analysis results will be used in preparation of the GRN environmental analysis.

The following topics are addressed in the memorandum:

1. Methodology
2. Existing (2023) Conditions
3. 2028 No Games Conditions
4. 2028 With Games Conditions
5. Findings

## 1. Methodology

The traffic analysis methodology was prepared at the early stage of the project and contained in the *Games Route Network Modeling Technical Analysis Approach Memorandum* (see **Attachment 1**), which was approved by Caltrans on February 6, 2025. The methodologies used to develop the traffic demand forecasts and to conduct traffic analysis are summarized below. More details are included in the attached memorandum.

### a. Traffic Demand Forecasting

Existing (2023) traffic data including traffic volumes and travel time/speeds were obtained from the Caltrans PeMS database, the Caltrans Census traffic count database, and the StreetLight Insight tool. Each data source was evaluated to maximize the data quality based on availability. Cross comparisons were conducted between PeMS and StreetLight data, where both datasets were available, to eliminate data with significant anomalies, and to develop adjustment factors when needed.

Future Year 2028 traffic forecasts were developed using a combination of the SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Regional Travel Demand Model (RTDM) and existing/historic traffic volume patterns. The SCAG model reflecting the 2020 RTP land use and demographics for the forecast year of 2026 was used to forecast 2028 conditions. Transit improvements anticipated to be complete by 2028 were incorporated into the SCAG model to represent the 2028 No Games conditions.

For the 2028 No Games scenario, traffic volumes were forecasted by applying an annual growth rate of 1.1 percent to the existing 2023 traffic volumes. This growth rate was determined by reviewing existing and historic traffic volumes at 10 locations for 2022 and 2025 to capture post COVID-19 traffic patterns. Since the travel demand model was calibrated to Year 2019 prior to COVID-19, the post COVID-19 traffic volumes were used in lieu of the travel demand model to develop the growth rate that more accurately represents the traffic growth for the 2028 No Games scenario.

For the Future Year 2028 With Games scenario, the traffic forecasts were developed via three steps. The first step was to develop the Games demand related to 1) Games Family vehicles using the Games Lanes in the GRN on the SHS, 2) spectator and workforce cars driving to venues and park & ride sites, and 3) Games Enhanced Transit Service (GETS) buses. The second step was to develop the 2028 With Games background traffic forecasts by applying the volume delta between the 2028 With Games and 2028 No Games travel demand models to the 2028 No Games traffic forecasts discussed above. The third step was to incorporate the Games demand into the background traffic forecasts from Step 2 to produce the 2028 With Games traffic demand volumes. The detailed methodologies to develop the Games demand are presented in Section 4 below.

**b. Traffic Analysis**

Traffic analysis was conducted using the following performance metrics. The results were reported at the segment level and separated by travel direction and by lane group (e.g. General Purpose, Managed Lanes, and Games Lanes) during the AM and PM peak hours. To support the environmental analysis, daily traffic volumes and estimates of vehicle miles traveled (VMT) were also developed for study corridors and segments. The analysis time periods, key metrics, and demand segments are summarized in **Table 1-1**.

**Table 1-1 Traffic Analysis Results Overview**

Scenario	Existing (2023)	2028 No Games	2028 With Games
Time Periods	AM and PM peak hours, Daily	AM and PM peak hours, Daily	AM and PM peak hours, Daily
Traffic Volume	<b>GP:</b> Auto, Truck, Total Vehicles <b>ML:</b> Auto	<b>GP:</b> Auto, Truck, Total Vehicles <b>ML:</b> Auto	<b>GP:</b> Background Auto, GD Auto, Truck, Total Vehicles <b>GL:</b> GF Auto, GF Bus, GETS bus
Travel Time	GP & ML	GP & ML	GP & GL
Average Speed	GP & ML	GP & ML	GP & GL
Travel Delay	GP & ML	GP & ML	GP & GL
VMT	<b>GP:</b> Auto, Truck <b>ML:</b> Auto	<b>GP:</b> Auto, Truck <b>ML:</b> Auto	<b>GP:</b> Background Auto, GD Auto, Truck <b>GL:</b> GF Auto

Note: **GP:** General Purpose Lanes, **ML:** Managed Lanes, **GL:** Games Lanes in GRN on SHS, **GD:** Games, Demand (Spectator and Workforce), **GF:** Games Family

The traffic analysis approach was developed to utilize field-collected travel times and speeds, which provide more accurate results than the planning-level assessments from the travel demand model.

Travel times and speeds for the 2028 No Games scenario were first calculated using the speed-flow curve from the SCAG model, in conjunction with the forecasted 2028 No Games volumes and segment capacity. The difference between the calculated speeds and the direct speed outputs from the 2028 No Games travel demand model were then applied to the Existing 2023 field-collected speeds to develop the final travel speeds and times for the 2028 No Games scenario.

For the 2028 With Games scenario, travel times and speeds were also estimated using the same approach as described above for the 2028 No Games scenario.

Traffic delays were developed by comparing the congested travel time to free flow travel time for each time of day and for each scenario for each study segment. VMT was calculated by multiplying the volumes for each time of day and for each scenario and the segment distance.

## 2. Existing (2023) Conditions

### a. Data Sources

The traffic analysis used available data from the PeMS database, the Caltrans Census traffic count database, and the Streetlight Insight tool. These data sources provided recent data on traffic volumes and travel time/speeds. Each data source was evaluated to maximize data quality. Cross comparisons were conducted between PeMS and StreetLight data to leverage the best data from each source, and to develop adjustments.

Existing data were extracted for multiple hours, days, and months and then averaged to develop values for peak hours and daily totals for a representative summer weekday. In general, PeMS was used to summarize existing traffic volumes, and Streetlight Insight was used for travel times/speeds. In cases where poor detector health resulted in limited PeMS data, Streetlight was used to supplement the volume data. StreetLight provided separate GP and managed lane travel time/volume data along some segments (e.g., I-10 between I-710 and I-605). For segments where StreetLight did not provide separate general purpose and managed lane data, PeMS was used to obtain travel times. The Census database was used to validate and supplement the volume data estimates for daily traffic.

A baseline existing conditions year of 2023 was used to ensure consistent comparison between datasets, because StreetLight lacked complete data for 2024. Detailed 2023 traffic volume and speed data for the GRN segments are provided in **Attachment 2**.

The GRN on the SHS is approximately 228 centerline miles. Over half of the study area for the GRN network consists of freeway with managed (HOV or Express) lanes. **Table 2-1** summarizes the GRN by SHS facility type. A significant portion of this network, 139 miles (104 HOV + 35 Express Lanes), are managed lanes, while 89 miles are exclusively general purpose only.

**Table 2-1 Existing 2023 SHS GRN Centerline Miles by Facility Type**

Facility Type	Miles
Freeway with HOV Lane	104
Freeway with Express Lane	35
Freeway with GP Only	89
Total	228

**b. Summary of Analysis Results**

**Table 2-2** summarizes the traffic volumes for the GRN study segments, delineated by managed and general purpose lanes. The data in Table 2-2 represent segment locations for each facility type. General purpose lane volumes range from 4,304 to 5,837 vehicles per hour across facility types, while managed lanes carry between 1,116 and 1,942 vehicles per hour. The total study segments average shows 5,179 vehicles per hour for general purpose lanes and 1,323 vehicles per hour for managed lanes, with a daily total of 107,956 vehicles.

For the general purpose lane segments, there are often congested locations where traffic volumes are lower due to upstream bottlenecks. Therefore, the HOV segment volumes are nearly as high as the general purpose lanes on a per lane basis. HOV volumes per lane are slightly higher than Express Lane volumes, likely because of high demand from carpools and exempt vehicles.

**Table 2-2 Existing 2023 GRN Study Segments Average Volumes by Facility Type**

Facility Type	AM Peak Hour		PM Peak Hour		Daily Total
	GP	ML	GP	ML	
Freeway with HOV Lane	5,837	1,116	5,410	1,147	115,530
Freeway with Express Lane	5,447	1,942	5,297	1,853	122,458
Facilities with GP Only	4,304	-	4,103	-	74,131
Total	5,179	1,322	4,882	1,323	107,956

**Table 2-3** shows the corridor totals for the GRN daily and peak hour traffic volumes (delineated by managed and general purpose lanes). The numbers for each corridor reflect the average volumes from multiple segments.

Managed lanes volumes serve approximately 15 to 20 percent of the overall corridor volumes. In some cases, the managed lanes do not exist for the entire corridor, so only those corridors with complete managed lanes have data shown in the table below.

**Table 2-3 Existing 2023 Average Volumes by Corridor**

Corridor	AM Peak Hour		PM Peak Hour		Daily Total
	GP	ML	GP	ML	
405	6,503	1,219	5,980	1,212	127,546
101	6,840	-	6,178	-	114,399
134	6,283	1,171	5,253	1,148	117,754
210	3,814	-	3,917	-	68,503
2	3,601	-	4,231	-	70,012
10	5,430	804	5,245	788	94,217
71	2,750	179	2,777	175	48,926
91	5,495	1,210	5,385	1,244	114,044
15	3,518	140	3,691	137	63,973
105	5,319	1,265	4,344	1,692	106,365
57	6,274	868	6,135	851	109,613
110	5,844	1,699	4,750	1,666	92,456
39	1,341	-	1,523	-	25,539
1	1,992	-	1,815	-	33,470

**Table 2-4** is a summary of the average peak hour and daily speeds by facility type. Speeds are generally higher on the managed lanes than general purpose lanes. As with the other summaries, the speed data reflect multiple segments, including congested and uncongested segments.

**Table 2-4 Existing 2023 GRN Study Segments Average Speed by Facility Type**

Facility Type	AM Peak Hour (mph)		PM Peak Hour (mph)		Daily (mph)
	GP	ML	GP	ML	
Freeway with HOV Lane	50	54	45	46	57
Freeway with Express Lane	53	63	48	60	58
Facilities with GP Only	44	-	40	-	49
Total	49	58	44	53	55

**Table 2-5** is a summary of the peak hour and daily average speeds by corridor. Managed lanes speeds are somewhat higher than the general purpose lanes speeds, and the peak hour speeds are generally lower than the daily speeds, as expected.

**Table 2-5 Existing 2023 Average Speed by Corridor**

Corridor	AM Peak Hour (mph)		PM Peak Hour (mph)		Daily (mph)
	GP	ML	GP	ML	
405	49	49	44	42	56
101	33	-	27	-	44
134	50	57	45	50	55
210	55	-	58	-	60
2	33	-	31	-	37
10	44	60	42	58	53
71	52	74	43	61	56
91	51	57	46	46	59
15	66	74	62	61	67
105	46	57	44	61	56
57	62	55	54	35	65
110	43	57	29	61	49
39	35	-	32	-	35
1	41	-	40	-	42

### 3. 2028 No Games Conditions

#### a. Background Traffic Demand

Traffic volumes and speeds/travel times for 2028 were developed by applying factors to the 2023 data. The GRN traffic escalation rate was developed by reviewing recent historic PeMS traffic data at multiple locations throughout the network. The review included

traffic data from 10 locations for the years 2022 and 2025. These years were selected to capture any traffic patterns that have emerged post-COVID-19. An annual traffic escalation rate was calculated between these years for each location and then averaged together to develop a single average traffic escalation rate. A 1.1% per year average traffic escalation rate was calculated. That rate was applied to all the existing 2023 traffic volume data to escalate them to the year 2028.

**b. Summary of Analysis Results**

Using the No Games traffic volumes, the segment capacity, and the SCAG model volume-delay-functions, the 2028 No Games travel speeds were calculated. The 2028 No Games travel speeds were used to calculate the travel time in minutes, and the difference between the free-flow travel time and the 2028 No Games travel time was used to calculate the segment delay. Detailed 2028 No Build traffic volume and speed data for the GRN segments are provided in **Attachment 3**.

There are anticipated freeway improvements between 2023 and 2028, which modify the mileage of managed lanes for the 2028 No Games scenario compared to the 2023 Existing. A summary of the centerline miles by each facility type in 2028 is shown in **Table 3-1**.

**Table 3-1 2028 No Games SHS GRN Centerline Miles by Facility Type**

Facility Type	Miles
Freeway with HOV Lane	110
Freeway with Express Lane	35
Freeway with GP Only	83
Total	228

**Table 3-2** presents 2028 No Games average GRN study segments average volumes by facility type, showing modest increases in traffic volumes compared to existing conditions. General purpose lane volumes range from 4,387 to 5,971 vehicles per hour across facility types, while managed lanes carry between 1,175 and 1,898 vehicles per hour. The total study segments average shows 5,134 vehicles per hour for general purpose lanes and 1,308 vehicles per hour for managed lanes, with a daily total of 111,214 vehicles. The data follow a similar pattern as shown in Table 2-2, with volumes approximately 6 percent higher than in 2023.

**Table 3-2 2028 No Games GRN Study Segments Average Volumes by Facility Type**

Facility Type	AM Peak Hour		PM Peak Hour		Daily Total
	GP	ML	GP	ML	
Freeway with HOV Lane	5,965	1,175	5,526	1,151	105,670
Freeway with Express Lane	5,971	1,898	5,801	1,984	135,471
Facilities with GP Only	4,387	-	4,096	-	78,230
Total	5,134	1,308	4,802	1,313	111,214

**Table 3-3** shows the corridor totals for the GRN daily and peak hour traffic volumes (delineated by managed and general purpose lanes). The volumes are approximately 6 percent higher than in 2023, consistent with the application of the 1.1% annual growth rate for background traffic.

**Table 3-3 2028 No Games Average Volumes by Corridor**

Corridor	AM Peak Hour		PM Peak Hour		Daily Total
	GP	ML	GP	ML	
405	6,869	1,280	6,317	1,287	134,721
101	7,225	-	6,525	-	120,835
134	6,636	1,213	5,548	1,237	124,382
210	4,028	-	4,137	-	72,350
2	3,804	-	4,469	-	73,950
10	5,736	835	5,539	860	99,617
71	2,905	213	2,933	256	52,470
91	5,804	1,314	5,688	1,278	120,450
15	3,716	144	3,898	144	67,535
105	5,618	1,787	4,588	1,336	112,349
57	6,627	899	6,480	991	116,355
110	6,173	1,849	5,017	1,967	99,392
39	1,416	-	1,608	-	26,968
1	2,103	-	1,917	-	35,348

**Table 3-4** summarizes 2028 No Games GRN study segments average speeds by facility type, showing reduced speeds compared to existing levels due to increased traffic volumes. General purpose lane speeds decline across all facility types, with freeways with HOV lanes dropping to 42 mph (from 50 mph) and express lane facilities falling to 50 mph (from 53 mph). Managed lanes also show reduced speeds, though they maintain speed advantages over general purpose lanes. The regional average drops to 41 mph for general purpose lanes and 53 mph for managed lanes, with an overall daily average of 50 mph.

**Table 3-4 2028 No Games GRN Study Segments Average Speed by Facility Type**

Facility Type	AM Peak Hour (mph)		PM Peak Hour (mph)		Daily (mph)
	GP	ML	GP	ML	
Freeway with HOV Lane	42	52	42	45	54
Freeway with Express Lane	50	56	45	52	55
Facilities with GP Only	37	65	35	57	47
Total	41	53	38	47	50

**Table 3-5** presents 2028 No Games average speeds by corridor, demonstrating speed reductions across the network due to increased traffic volumes. Some routes experience higher congestion than others. I-210 shows a projected peak hour speed of 9-12 mph, however, this is only for a less than 0.5-mile segment and the effect on the entire I-210 corridor is not anticipated to be significant. Most corridors show speed reductions of 5-15 mph compared to existing conditions. The corridor-level analysis reveals that background traffic growth alone will reduce speeds across the network by 2028.

**Table 3-5 2028 No Games Average Speed by Corridor**

Corridor	AM Peak Hour (mph)		PM Peak Hour (mph)		Daily (mph)
	GP	ML	GP	ML	
405	41	47	41	41	53
101	27	-	26	-	42
134	39	55	42	49	57
210	12	-	9	-	57
2	29	-	26	-	35
10	39	60	39	49	51
71	47	73	37	60	53
91	47	52	44	42	56
15	65	73	59	61	63
105	31	47	42	60	53
57	44	53	36	34	61
110	34	53	28	49	47
39	33	-	30	-	33
1	33	-	35	-	40

## 4. 2028 With Games Conditions

This section outlines the anticipated traffic conditions during the 2028 Olympics (the Games) when the GRN is operational and the Games are active. It builds upon the 2028 No Games Conditions described in Section 3 by incorporating the traffic demand generated by Games-related activities and the effect of the GRN implementation.

### a. With Games Traffic Demand Development

#### i. Background Traffic Demand

The 2028 No Games background demand from the SCAG ABM was reduced to represent Games-specific Travel Demand Management (TDM) activities and trip suppression. In the absence of specific TDM analysis, a 10% background auto traffic reduction factor was applied to reflect the TDM goal set by LA28 and other regional agencies responsible for delivering the Games. Background traffic was not allowed to use Games Lanes.

#### ii. Spectator and Workforce Demand

The demand generated by Games spectators and workforce supporting the events involved the use of a "Living Model" suite of tools, including the Spectator Games Time Demand Model (SGTDM) and the Workforce Games Time Demand Model (WGTDM). These models use the Olympic event schedule, accommodation allocation, and various assumptions about travel behavior to estimate hourly demand for travel to and from events and other activities.

Private car trips by spectators and workforce to Park & Ride sites and parking lots near venues are not allowed to use the Games Lanes. Instead, they would use general purpose lanes. An important element for serving spectators and workforce will be the GETS, which will operate shuttle buses between designated rail/BRT stations, GETS Park & Ride sites, and competition venues. It is assumed that GETS shuttle buses will be allowed to run in the Games Lanes. The demand levels and GETS bus movements are crucial inputs for the PSR/PR assessment.

#### iii. Games Family Demand

The "Games Family" includes accredited individuals such as athletes, team officials, technical officials, media and broadcast personnel, Games stakeholders, and marketing partners. The development of the Games Family Demand (GFD) utilizes the Games Family Demand Model (GFDM). The purpose of the GFDM is to estimate the number of Games Family accredited vehicles expected to travel between Games competition and non-competition venues. The GFD vehicles are

represented by passenger vehicles and buses and are allowed to use the Games Lanes within the GRN on the SHS.

Non-competition venues include accommodation locations, official Ports of Entry (POEs) like LAX and Union Station, and key Games locations such as the International Broadcast Center (IBC) and the Main Press Center (MPC). The GFDM estimates vehicle trips between the venues outlined in Tables 2 and 3 of the *Games Family Demand Model Memorandum* (submitted 2/25/2025). These venues, although draft and subject to change, encompass accommodation venues (Olympic Village, Olympic Family Hotel, Media Village, Technical Official Hotels, Marketing Partner Hotels), all competition venue clusters in Southern California as of October 2024, Ports of Entry (LAX, Union Station), Broadcast and Media centers (IBC at SoFi Stadium, MPC at USC), and Live Sites.

Demand forecasts are developed on an hourly basis for Monday July 24<sup>th</sup> of 2028, Day 10 of the Olympic Games. The GFDM takes the event schedule and assumptions about Games Family travel behavior to estimate the demand for travel to and from various locations. The output of the GFDM, in the form of demand matrices, is then allocated to the GRN to estimate traffic flow on different segments. Further details regarding the methodology and assumptions of the GFDM are provided in **Attachment 4**.

#### **b. Summary of Analysis Results**

To develop the 2028 With Games traffic volumes and speeds, the difference method was employed. This approach first established a baseline based on adjusted 2023 existing traffic conditions. Then, the projected changes (the delta value) in volume and speed/travel time between the 2028 No Games and 2028 With Games scenario results were determined using travel demand model traffic volume outputs. Finally, this delta value was applied to the 2028 No Games data to estimate the 2028 With Games traffic volumes and speeds. Detailed 2028 With Games traffic volume and speed data for the GRN segments are provided in **Attachment 5**.

**Table 4-1** shows that the modeled network includes a total of 228 centerline miles of freeways. The With Games scenario includes Games Lane(s) that replace the existing managed lane(s) or remove a single general purpose lane for use as the Games Lane. For example, the 210 does not have a managed lane in the No Games scenario, so a general purpose lane was converted to be a Games Lane, while the existing managed lane on 134 was converted to a Games Lane and the general purpose lanes remain the same. Only Games Family and GETS vehicles are allowed in the Games Lane.

**Table 4-1 2028 With Games SHS GRN Centerline Miles by Facility Type**

Facility Type	Miles
Freeway with HOV Lane converted to Games Lane	110
Freeway with Express Lane converted to Games Lane	35
Freeway with GP Only with inside GP Lane converted to Games Lane	83
Total	228

**Table 4-2** presents the GRN study segments average volumes in vehicles for the general purpose lanes for different freeway types in 2028 with Games. Since the Games Family have a substantial portion of the trips occurring in buses and there will be additional few but not insignificant number of GETS buses, passenger car equivalents (PCEs) are reported rather than vehicles for Games Lanes. Across the entire region, the average number of PCEs in the Games Lanes is below the capacity of the typical managed lane. It is important to note that the geographic location of the individual corridors and study segments may have Games Lanes volumes that are much higher than the average.

**Table 4-2 2028 With Games GRN Study Segments Average Volumes by Facility Type**

Facility Type	AM Peak Hour		PM Peak Hour		Daily
	GP	GL	GP	GL	
Freeway with HOV Lane	6,660	222	6,152	190	135,489
Freeway with Express Lane	6,620	373	6,701	321	142,758
Facilities with GP Only	4,612	221	4,371	176	90,616
Total	5,576	238	5,273	197	112,625

**Table 4-3** summarizes the average volumes by corridor and shows corridors like I-405 and US-101 have relatively high average total volumes compared to others. It also highlights the variation in Games Lane volumes by corridor, with some corridors (like I-110) showing significantly higher Games Lane volumes than others, reflecting the differing usage patterns of the Games Lanes on those specific routes. As with the regional summary, it is important to note that the corridor averages do not identify specific segments where the Games Lanes PCEs may be much higher than the average. The segment level data provided in the attachment can be used to identify specific segments that have higher or lower volumes.

**Table 4-3 2028 With Games Average Volumes by Corridor**

Corridor	AM Peak Hour		PM Peak Hour		Daily
	GP	GL	GP	GL	
405	7,923	229	7,168	215	164,148
101	7,485	237	7,052	189	142,200
134	6,922	44	5,837	119	118,737
210	4,057	19	4,621	79	78,696
2	3,872	94	4,620	80	81,294
10	6,103	324	6,277	261	131,366
71	2,925	78	2,979	72	54,925
91	6,468	242	6,241	138	137,652
15	3,845	62	3,967	62	73,153
105	6,825	325	5,626	265	130,515
57	6,769	116	6,709	48	124,719
110	6,863	910	5,871	766	151,291
39	1,436	10	1,632	10	28,294
1	2,385	83	2,043	37	42,927

**Table 4-4** contains the average speed experienced across the GRN study segments during the 2028 Games, broken down by the type of facility. A crucial takeaway is the significant difference between average general purpose lanes speeds and average Games Lanes speeds across all facility types and time periods. For instance, in the AM peak, average general purpose speeds are lower (e.g., 33 mph on HOV freeways, 43 mph on Express freeways, 23 mph on general purpose only facilities), while Games Lane speeds are consistently much higher, often at or near free-flow speeds (e.g., 70 mph on HOV freeways and Express freeways, 61 mph on general purpose only). This indicates that while general purpose lanes regionally experience significant congestion, the Games Lanes are generally maintaining higher speeds, showing a faster travel option during the Games. As noted in the volume summaries, the specific corridors may have lower speeds given the location and demand of the segment.

**Table 4-4 2028 With Games GRN Study Segments Average Speed by Facility Type**

Facility Type	AM Peak Hour (mph)		PM Peak Hour (mph)		Daily (mph)
	GP	GL	GP	GL	
Freeway with HOV Lane	33	70	34	70	45
Freeway with Express Lane	42	70	40	70	46
Facilities with GP Only	23	60	20	61	42
Total	29	65	28	65	44

**Table 4-5** contains the average speed experienced across the regional freeway network during the 2028 Games, broken down by corridor. It illustrates the corridor-specific variations in speed and the speed differential between general purpose and Games Lanes. The GRN corridors would anticipate reduced general purpose speeds, particularly during peak hours, indicating increased congestion on general purpose lanes. Conversely, the Games Lanes speeds on these same congested corridors remain significantly higher. This highlights the expected challenges on specific routes for drivers using general lanes and underscores the potential benefit and intended function of the Games Lanes to provide a higher-speed option during the With Games scenario for both Games Family and GETS buses carrying spectators and workforce. The variation in general purpose speeds across corridors (ranging from lows of 3 mph on I-210 to highs of 49 mph on the I-15 in AM) points to the uneven distribution of congestion effects. As noted in the regional summaries, the specific segments may have lower speeds given the location and demand of the segment.

**Table 4-5 2028 With Games Average Speed by Corridor**

Corridor	AM Peak Hour (mph)		PM Peak Hour (mph)		Daily (mph)
	GP	GL	GP	GL	
405	28	70	32	70	44
101	12	65	14	65	42
134	29	70	38	70	47
210	3	40	2	40	42
2	20	47	16	47	28
10	26	69	25	69	45
71	33	66	24	66	48
91	40	70	37	70	45
15	49	74	40	74	59
105	21	70	34	70	45
57	37	64	29	64	54
110	20	63	24	66	42
39	28	43	23	43	26
1	16	45	15	45	28

**c. Comparison with 2028 No Games**

**Table 4-6** compares the GRN study segments average volumes in Passenger Car Equivalents (PCE) during the AM peak hour for the No Games and With Games scenarios, broken down by facility type (Freeway with HOV, Freeway with Express, GP Only) and lane group (GP, ML, or GL). It shows that in the With Games scenario, general purpose lanes carry higher average volumes than in the No Games scenario, while the Games Lanes carry significantly lower average volumes than the managed lanes did in the No Games scenario. For instance, general purpose volumes on Freeways with HOV lanes increase from 5,965 under No Games to 6,660 under With Games, while

managed lanes volumes of 1,179 under No Games are replaced by Games Lanes volumes of 222 under With Games.

**Table 4-6 AM Peak Hour GRN Study Segments Average Volumes by Facility Type**

Facility Type	No Games		With Games	
	GP	ML	GP	GL
Freeway with HOV Lane	5,965	1,175	6,660	222
Freeway with Express Lane	5,971	1,898	6,620	373
Facilities with GP Only	4,387	-	4,612	221
Total	5,134	1,308	5,576	238

**Table 4-7** presents a similar comparison for the PM peak hour average volumes by facility type and lane group. It mirrors the AM peak findings, indicating that general purpose lanes experience increased volumes in the With Games scenario compared to No Games. Conversely, the Games Lanes have substantially lower volumes regionally during the PM peak compared to the managed lanes in the No Games scenario. For example, general purpose volumes on Freeway with Express Lanes increase from 5,801 (No Games) to 6,701 (With Games), while the corresponding managed lane volumes of 1,984 drop to Games Lanes volumes of 321.

**Table 4-7 PM Peak Hour GRN Study Segments Average Volumes by Facility Type**

Facility Type	No Games		With Games	
	GP	ML	GP	GL
Freeway with HOV Lane	5,526	1,151	6,152	190
Freeway with Express Lane	5,801	1,984	6,701	321
Facilities with GP Only	4,096	-	4,371	176
Total	4,802	1,313	5,273	197

**Table 4-8** details the average volumes by corridor during the AM peak hour, comparing the No Games (GP, ML) and With Games (GP, GL) scenarios. It shows that general purpose volumes generally increase across most corridors in the With Games scenario. The Games Lanes volumes vary considerably by corridor, with some corridors like I-110 showing relatively higher Games Lanes volumes (910 PCE) compared to others such as I-210 (19 PCE), indicating specific routes would experience more Games Lanes traffic.

**Table 4-8 AM Peak Hour Average Volumes by Corridor**

Corridor	No Games		With Games	
	GP	ML	GP	GL
405	6,869	1,280	7,923	229
101	7,225	-	7,485	237
134	6,636	1,213	6,922	44
210	4,028	-	4,057	19
2	3,804	-	3,872	94
10	5,736	835	6,103	324
71	2,905	213	2,925	78
91	5,804	1,314	6,468	242
15	3,716	144	3,845	62
105	5,618	1,787	6,825	325
57	6,627	899	6,769	116
110	6,173	1,849	6,863	910
39	1,416	-	1,436	10
1	2,103	-	2,385	83

**Table 4-9** provides the PM peak hour average volumes comparison by corridor for the two scenarios. Similar to the AM peak, general purpose volumes are higher in the With Games scenario on most corridors. Games Lanes volumes again show significant corridor-to-corridor variation, with I-110 having the highest average Games Lanes volumes (766 PCE).

**Table 4-9 PM Peak Hour Average Volumes by Corridor**

Corridor	No Games		With Games	
	GP	ML	GP	GL
405	6,317	1,287	7,168	215
101	6,525	-	7,052	189
134	5,548	1,237	5,837	119
210	4,137	-	4,621	79
2	4,469	-	4,620	80
10	5,539	860	6,277	261
71	2,933	256	2,979	72
91	5,688	1,278	6,241	138
15	3,898	144	3,967	62
105	4,588	1,336	5,626	265
57	6,480	991	6,709	48
110	5,017	1,967	5,871	766
39	1,608	-	1,632	10
1	1,917	-	2,043	37

**Table 4-10** compares GRN study segments average speeds during the AM peak hour by facility type and lane group for No Games (GP, ML) and With Games (GP, GL). A critical finding is the significant decrease in average general purpose speeds in the With Games scenario compared to No Games (e.g., Total general purpose speed drops from 37 mph to 23 mph). In contrast, Games Lanes speeds are consistently high, often near free-flow conditions, indicating authorized vehicles using the Games Lanes experience much faster travel than general purpose traffic.

**Table 4-10 AM Peak Hour GRN Study Segments Average Speed by Facility Type**

Facility Type	No Games (mph)		With Games (mph)	
	GP	ML	GP	GL
Freeway with HOV Lane	42	52	33	70
Freeway with Express Lane	50	56	42	70
Facilities with GP Only	37	65	23	60
Total	41	53	29	65

**Table 4-11** presents the comparison of average speeds during the PM peak hour. It reinforces the pattern seen in the AM peak, showing lower average general purpose speeds in the With Games scenario (Total general purpose speed drops from 38 mph to 28 mph). Meanwhile, Games Lanes speeds remain high, highlighting the speed differential between general purpose and Games Lanes during the PM peak.

**Table 4-11 PM Peak Hour GRN Study Segments Average Speed by Facility Type**

Facility Type	No Games (mph)		With Games (mph)	
	GP	ML	GP	GL
Freeway with HOV Lane	42	45	34	70
Freeway with Express Lane	45	52	40	70
Facilities with GP Only	35	57	20	61
Total	38	47	28	65

**Table 4-12** shows the AM peak hour average speed comparison by corridor for the two scenarios. It reveals significant corridor-specific congestion effects in the With Games general purpose lanes, with some corridors projected to have very low average speeds (e.g., 210 freeway general purpose speed of 3 mph, for the very short segment of that corridor). Conversely, Games Lanes speeds are substantially higher than general purpose speeds on all corridors, demonstrating the Games Lanes function as a high-speed network for authorized users even on congested routes.

**Table 4-12 AM Peak Hour Average Speed by Corridor**

Corridor	No Games (mph)		With Games (mph)	
	GP	ML	GP	GL
405	41	47	28	70
101	27	-	12	65
134	39	55	29	70
210	12	-	3	40
2	29	-	20	47
10	39	60	26	69
71	47	73	33	66
91	47	52	40	70
15	65	73	49	74
105	31	47	21	70
57	44	53	37	64
110	34	53	20	63
39	33	-	28	43
1	33	-	16	45

**Table 4-13** provides the PM peak hour average speed comparison by corridor. It confirms the pattern of lower general purpose speeds and significantly higher Games Lanes speeds across corridors in the With Games scenario. Some corridors, such as the 210 freeway, are estimated to experience extremely severe PM peak congestion in general purpose lanes, with speeds as low as 2 mph, while Games Lanes speeds on that same corridor are projected to be 40 mph.

**Table 4-13 PM Peak Hour Average Speed by Corridor**

Corridor	No Games (mph)		With Games (mph)	
	GP	ML	GP	GL
405	41	41	32	70
101	26	-	14	65
134	42	49	38	70
210	9	-	2	40
2	26	-	16	47
10	39	49	25	69
71	37	60	24	66
91	44	42	37	70
15	59	61	40	74
105	42	60	34	70
57	36	34	29	64
110	28	49	24	66
39	30	-	23	43
1	35	-	15	45

## 5. Findings

The analysis aims to evaluate the traffic effect on SHS segments where Games Lanes will be implemented, by comparing the traffic performance results between the 2028 No Games and

2028 With Games scenarios. The two scenarios incorporated projected background traffic growth, Games-related demand (Games Family, spectators, workforce, GETS buses), and the designation of Games Lanes on the SHS. This study specifically focused on freeway mainlines, not intersections or ramps.

The findings below highlight the key traffic performance implications resulting from the implementation of Games Lanes.

- The analysis was conducted based on the GRN map included in the 2028 Games Route Network Mapbook dated October 2024. Any subsequent changes to the GRN network may result in changes to the traffic performance results and findings, which will be addressed in the later phase of the project.
- The analysis represents two specific hours (AM and PM peak hour) on a single day during the Olympics. There may be other hours of the day or days of the Games where the results would be different depending on background traffic patterns and the time-of-day activity at different venues during the analysis period.
- The analysis indicates Games Lanes are projected to maintain significantly higher speeds compared to the adjacent general purpose lanes, functioning as a higher-speed network to provide efficient and reliable travel for accredited Games vehicles (Games Family vehicles and GETS buses).
- Games Family demand is anticipated to be the highest near key locations such as the broadcast centers and athlete villages. Similarly, GETS buses are projected to have the highest demand near venues with greater spectator activity.
- For the With Games scenario, a generalized TDM factor was applied to reduce non-Games-related trips by 10%. Parallel efforts to identify specific TDM strategies and locations are on-going as part of separately led efforts by multiple agencies. In addition to the benefits resulting from the 10% generalized TDM factor applied in this analysis, additional TDM reduction and temporary congestion management may be achieved as TDM plans are finalized to further improve operations on general purpose lanes.
- This analysis focuses on the Games Lanes on the GRN of the SHS. Other facilities such as intersections and arterials on the GRN are not part of this analysis and could be assessed with a detailed operational analysis at a later phase of the project.
- The LA28 planning effort is an on-going process, and potential changes to Games venues and competition schedules are anticipated as the planning effort progresses. Potential updates to this traffic analysis may be anticipated to reflect those changes at a later phase of the project.

**Attachments:**

1. Games Route Network Modeling Technical Analysis Approach Memorandum
2. Existing (2023) Traffic Data
3. Year 2028 No Games Traffic Data
4. Games Family Traffic Demand Model Memorandum
5. Year 2028 With Games Traffic Data

# **Attachment 1**

Games Route Network Modeling Technical Analysis  
Approach Memorandum

# Memorandum

Date: February 6, 2025

To: Tasha Higgins, Caltrans, Ernesto Chaves, LA Metro

From: Anna Luo., Fehr & Peers  
Mike Wallace, Fehr & Peers  
Loren Bloomberg, Jacobs  
Allan Gooch, Jacobs

CC: Chris Liban, Metro  
Hoan Tang, Metro  
Jacqueline Torres, Metro  
Heather Shepard, TRC  
Katie Wilson, TRC  
Siew Mei Tan, Caltrans  
Chao Wei, Caltrans

**Subject: Los Angeles 2028 Olympic and Paralympic Games – Games Route Network Modeling Technical Analysis Approach Memorandum (Final)**

*LA24-3333.01*

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This memorandum presents the assumptions, methodologies, and approach for conducting the traffic analysis of the Games Lanes for the Los Angeles 2028 Olympic Games (the Games). The Games Lanes, as part of the Games Route Network (GRN), will result in changes in traffic patterns and General Purpose (GP) lanes volume during the Games. The scope of this traffic analysis was developed in coordination with Metro and Caltrans, which will focus on Games Lanes on the GRN of the State Highway System (SHS). Other facilities such as intersections and ramps are not part of this study scope and could be assessed under separate efforts in the future. The primary objective of this study is to evaluate the traffic impact on the freeway mainline segments where Games Lanes will be implemented. It aims to provide traffic performance metrics, as listed in Section 4 below, primarily based on the current Southern California Association of Governments (SCAG) Regional Travel Demand Model. This effort supports the GRN Project Study Report/Project Report (PSR/PR) led by Caltrans for CEQA and NEPA approval. The traffic impact analysis for this study will focus on changes in traffic demand volumes and resulting travel times, travel speeds,

and travel delay on the Games Lanes segments, and detailed traffic operations analysis is not scoped for this study.

The traffic analysis will be performed in close coordination with Metro and Caltrans, and the end product of this traffic analysis will be used in preparation of the GRN PSR/PR and environmental analysis.

The following topics are addressed in the memorandum:

- Introduction
- Background
- Study Corridors
- Traffic Performance Metrics
- Existing Traffic Data
- Analysis Scenarios
- No Games Modeling
- Games Day Modeling
- Traffic Analysis
- Next Steps

## **1. Introduction**

In the summer of 2028, Los Angeles will take center stage as host of the Olympic and Paralympic Games (Games), presenting a unique opportunity to showcase the city's innovation in mobility while creating a lasting legacy for the region. Central to the transportation strategy for the Games is the establishment of the GRN, a temporary traffic management system designed to ensure efficient and reliable travel for accredited Games vehicles, including spectator shuttle buses where capacity allows. The implementation of the GRN will include the temporary conversion of lanes on over 360 miles of the SHS, including LA Metro's Express Lanes, into dedicated "Games Lanes." These dedicated Games Lanes will not be open to general public traffic and will support the Games' commitment to a "Transit First" strategy. The "Transit First" policy was established to allow for more sustainable and reliable Olympics Games as a commitment of the Games Mobility Executives (GME), which is comprised of Metro, LA28, Caltrans, Metrolink, the Los Angeles Department of Transportation (LADOT), the City of Los Angeles Mayor's Office, and SCAG.

Metro and LA28 have performed initial planning for the GRN, such as traffic analysis, travel demand modeling, project definition, and rough-order-of-magnitude cost estimates. Caltrans is now providing leadership support to advance GRN planning and design with support from Metro, LA28, City of Los Angeles, and additional cities with venue agreements with LA28. Caltrans has initiated the PSR/PR development to advance the GRN, and the purpose of this study is to provide traffic analysis to meet the requirements of the PSR/PR for CEQA and NEPA approval.

This memorandum outlines the technical approach for the analysis of the effects of the Games Lanes of the GRN on traffic operations, detailing the study area, network assumptions, data collection needs, modeling tools, and performance measures. By integrating these elements into a cohesive mobility strategy, the GME aims to leave behind a transportation legacy that serves as a catalyst for more efficient, clean, safe, and beautiful mobility in the region for everyone.

## 2. Background

The GRN is a temporary traffic management system using existing roadways to facilitate safe and efficient Games travel operations for the LA 2028 Olympic and Paralympic Games. The GRN connects official venues across the region and prioritizes Games Family vehicles, such as those used by athletes and team officials, technical officials, media, and other accredited personnel. Dedicated lanes on the GRN will be implemented by temporarily converting one lane in each direction from the existing High-Occupancy Vehicle (HOV), High-Occupancy Toll (HOT)/Express Lanes, GP lanes, or road shoulders to exclusive Games Lanes. For the purposes of this analysis, it is assumed that only the following vehicles will be permitted to use the Games Lanes on the GRN:

- Accredited Games vehicles (including spectator shuttle buses operating as part of the Games Enhanced Transit Service (GETS))
- Emergency vehicles
- Transit vehicles that currently operate in a managed lane that will become a Games Lane

It is assumed that general traffic and ticketed spectators using private cars (e.g., to drive to park & ride sites or parking lots near venues) will not be permitted to use the Games Lanes. GRN access restrictions for the general public will be in effect during designated times and will be clearly marked with striping, pavement markings, and signage on existing and temporary structures. The GRN's primary goal is to facilitate safe, efficient, and reliable transportation for athletes and Games officials while maintaining essential connectivity for non-Games-related traffic across the broader network.

The GRN Study Area is shown in **Figure 1** below. The venues shown in the figure have not been finalized and are subject to change.



**Figure 1: GRN Study Area**

The GRN is part of a broader effort by Metro, Caltrans, and regional partners to meet the unique mobility demands of the Games while enhancing the region’s transportation infrastructure for decades to come. These efforts align with Metro’s Mobility Concept Plan for the LA28 Games to provide equitable, sustainable, and reliable transportation options that improve connectivity and quality of life. To support the implementation of the GRN, Caltrans is preparing a PSR/PR and environmental documentation, with this traffic analysis serving as a critical input.

### 3. Study Corridors

A large proportion of the GRN is located on freeways and local streets under Caltrans jurisdiction, as part of the SHS. The GRN map (dated October 2024) is attached to the memorandum. The traffic analysis will focus on the SHS corridors with Games Lanes (GL) planned, which are:

- Freeways<sup>1</sup> with HOV lanes: I-405, SR-57, SR-71<sup>2</sup>, SR-91, SR-134
- Freeways with HOT lanes/Express Lanes: I-10, I-15, I-105<sup>3</sup>, I-110, I-405, SR-91
- Freeways with only GP lanes: I-10, I-15, I-110, I-210, US-101, SR-2, SR-71<sup>2</sup>
- Surface streets: PCH (SR-1), SR-2, Beach Blvd (SR-39)

<sup>1</sup> Several freeways have a combination of HOV, HOT/Express Lanes, and/or GP lanes and are listed under more than one category.

<sup>2</sup> SR-71 is under construction to add one HOV lane and one GP lane in each direction in LA County.

<sup>3</sup> I-105 is under construction to build HOT lanes. Construction to be completed by early 2028.

To analyze the extensive set of freeways and surface streets, it is necessary to develop a scaled approach. The approach balances the need to evaluate traffic effects on the diverse roadway network, while maintaining a manageable level of analysis appropriate for a PSR/PR. The approach is to divide the study corridors into approximately 80 bi-directional segments. Each segment is one to six miles long, with the dividing point at major interchanges (typically system interchanges) as those crossing interchanges would likely result in substantive changes in traffic volumes and/or capacity between adjacent segments.

Each segment will be analyzed separately by direction (northbound/southbound or eastbound/westbound), with separate evaluations of the GP lanes and managed lanes (ML). Within each segment, traffic volumes and speeds are generally homogeneous, but data and modeling of multiple sub-elements of each segment will occur in many cases. For these cases, the results will be averaged into a single value.

#### 4. Traffic Performance Metrics

For the purposes of this study, the following performance metrics will be employed to evaluate potential outcomes. The results will be reported at the segment level and separated by travel direction and by lane group (e.g. General Purpose, Managed Lanes, and Games Lanes) during the AM and PM peak hours. To support the environmental analysis, daily traffic volumes and vehicle miles traveled (VMT) estimates will also be developed for study corridors.

Scenario	Existing (2023)	2028 No Games	2028 With Games
Time Periods	AM and PM peak hours, Daily	AM and PM peak hours, Daily	AM and PM peak hours, Daily
Traffic Volume	<b>GP:</b> Auto, Truck, Total Vehicles <b>ML:</b> Auto, Background Bus	<b>GP:</b> Auto, Truck, Total Vehicles <b>ML:</b> Auto, Background Bus	<b>GP:</b> Background Auto, GD Auto, Truck, Total Vehicles <b>GL:</b> GF Auto, GF Bus, GETS bus, Background Bus
Travel Time	GP ML	GP ML	GP GL
Average Speed	GP ML	GP ML	GP GL
Travel Delay	GP ML	GP ML	GP GL
VMT	<b>GP:</b> Auto, Truck <b>ML:</b> Auto	<b>GP:</b> Auto, Truck <b>ML:</b> Auto	<b>GP:</b> Background Auto, Games Related Auto, Truck <b>GL:</b> Games Family Auto

Note: **GP:** General Purpose Lanes, **ML:** Managed Lanes, **GL:** Games Lanes in GRN on SHS, **GD:** Games, Demand (Spectator and Workforce), **GF:** Games Family

- Traffic volumes will be obtained from existing data sources for 2023. The 2028 traffic volumes will be developed using the No Games and Games Day models described in Sections 7 and 8.
- Travel times and speeds will be obtained from existing data sources for 2023. The 2028 travel times and speeds will also be developed using the No Games and Games Day models described in Sections 7 and 8.
- Travel delay will be developed by comparing the congested travel time to free flow travel time for each of the analysis scenarios.
- VMT will be calculated for all three scenarios by multiplying the volume and the distance for each volume set and segment length.
- Truck volume, percent, and VMT will be included

## 5. Existing Traffic Data

The traffic analysis will leverage available data from the Caltrans PeMS database, the Caltrans Census traffic count database, and the StreetLight Insight tool. Each data source will be evaluated to maximize the data quality based on the data availability, and cross comparisons will be conducted between PeMS and StreetLight data where both datasets are available to eliminate data with significant anomalies, and to develop adjustment factors if needed. These data sources will provide recent data on traffic volumes and travel time/speeds.

Data will be extracted for multiple hours, days, and months and then averaged to develop values for peak hours and daily totals for a representative summer weekday. In general, PeMS will be used to summarize existing conditions traffic volumes, and Streetlight Insight will be used for travel times/speeds. However, PeMS has limitations because of its detector health, so Streetlight will be used to supplement volume data on some segments. StreetLight provides separate GP and HOV travel time/volume data along some segments like I-10 between I-710 and I-605. For segments where StreetLight does not provide separate GP and HOV data, PeMS will be used to obtain travel time. The Census database will also be used to validate and supplement the volume data estimates for daily traffic.

The baseline existing conditions year of 2023 will be used to ensure consistent comparison between datasets and because complete data are not available for 2024 in Streetlight.

## 6. Analysis Scenarios

The GRN will operate in the summer of 2028. The traffic analysis is based on Day 10 of the Olympic Games, Monday July 24<sup>th</sup> 2028. Based on the LA28 Organizing Committee's draft competition schedule, Day 10 is the day with the greatest number of event tickets that is not a Friday, Saturday or Sunday. As part of the Living Model development, the activity records were aggregated by hour to allow for more flexibility in determining detailed travel patterns rather

than relying on the peak and off-peak periods produced by the SCAG Regional Travel Demand Model. The project team will analyze weekday morning (AM) and weekday evening (PM) peak hour conditions for the following scenarios. The peak hour will be determined based on the existing traffic volumes obtained from PeMS.

- **Existing (2023) Conditions**
  - Represents roadway network and socioeconomic conditions under existing Year 2023 conditions
- **2028 without Games**
  - Includes the transportation and transit improvements to be completed by 2028 as identified in SCAG RTP/SCS
  - Reflects forecasted 2028 socioeconomic characteristics
  - Does not include Games Lanes on the GRN, Games-related TDM reductions, or the GETS
- **2028 with Games**
  - Based on 2028 without Games Scenario, plus
  - Includes roadway geometric changes from proposed GRN
  - Reflects the 10% reduction in volumes due to TDM
  - Reflects the Games Day travel demand

## 7. No Games Modeling

Future Year 2028 No Games traffic forecasts will be developed using the SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Regional Travel Demand Model (RTDM) which has been validated for the base year conditions. The RTDM is an activity-based model (ABM) that micro-simulates travel patterns within the six-county Southern California region. It also relies on a trip-based component for external and truck travel in the region.

The SCAG model reflecting the 2020 RTP land use and demographics for the forecast year of 2026 will be used to forecast 2028 conditions, pending an update of the RTP/SCS. For the No Games scenario, the transportation system will function without closures for Games Lanes or modifications reflecting the Games activity. The region's transit system will incorporate updates to 32 routes with adjusted operating parameters and modifications to six routes, including changes to stops and stations. These updates represent baseline improvements to support general mobility within the region, anticipated to be complete by 2028.

## 8. Games Day Modeling

The Games Day traffic forecasts will be developed in two steps. The first step is to develop the Games-related demand related to Games Family vehicles using the Games Lanes in the GRN on the SHS, spectator and workforce cars driving to venues and park & ride sites, and GETS buses.

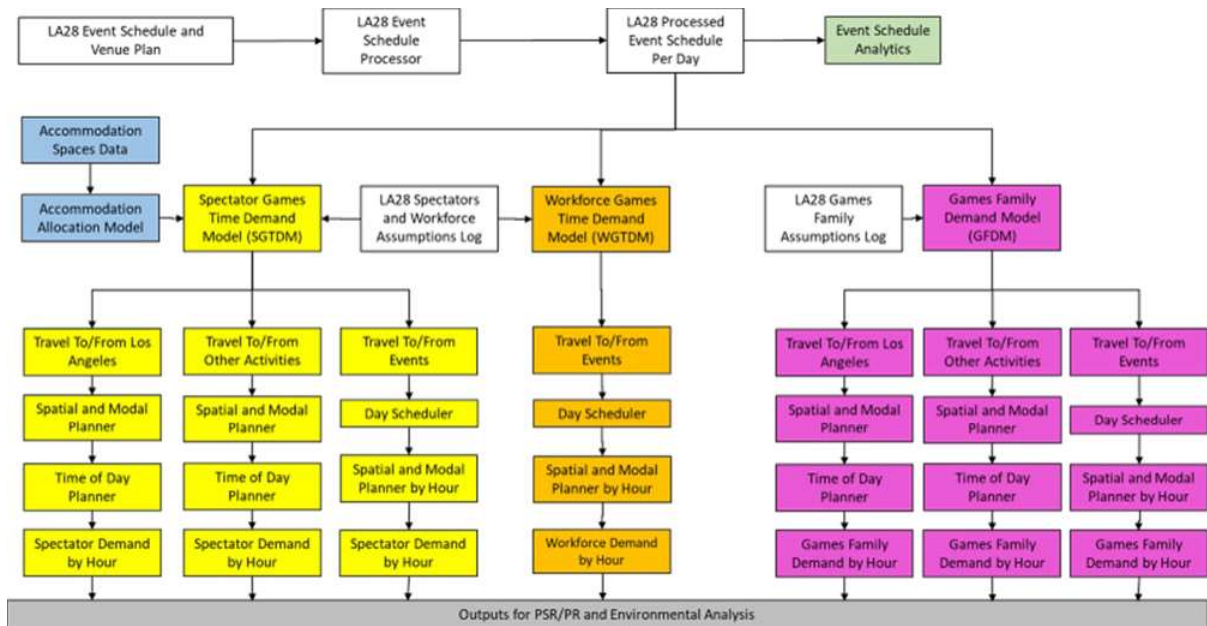
The second step is to incorporate the Games demand into the No Games SCAG model to produce performance metrics.

### **8A. Games Demand Forecasting**

A "Living Model" suite of tools is under development to support planning and operational decision-making for the 2028 Games. The Living Model will provide forecasts of Games-related demand and allow for scenario evaluation related to a range of transportation decisions, including those related to the GRN. The Living Model incorporates several primary components: a Spectator Games Time Demand Model (SGTDM) and a Workforce Games Time Demand Model (WGTDM) which produce demand estimates for each hour of each day of the Games for spectators and the Olympics workforce, and a Background Traffic Model which represents the multimodal transportation infrastructure in Los Angeles.

At present, the Living Model has been developed to represent spectator and workforce travel. Spectator travel includes travel to and from LA, travel to and from Olympic events and travel to and from other activities during their stay in LA. Olympics Workforce travel includes travel to and from Olympic events. The SGTDM and WGTDM are linked with the current Olympics event schedule and are based on the most appropriate available data at this time. The parameters used in the models are described in a comprehensive "Spectator and Workforce Assumptions Log" which is a fundamental component of the Games planning efforts.

The work for this task order will build upon the existing Living Model to include an initial Games Family Demand Model (GFDM). The GFDM will enable demand estimates to be generated for the different constituent groups who make up the "Games Family" (see detailed descriptions in Table 1). A Games Family Assumptions Log will also be created which will set out the assumptions related to how different components of the Games Family will travel during the Games. The way that the different components of the Living Model will derive outputs for the PSR/PR process is described in **Figure 2**.



**Figure 2: Living Model Structure**

Previous work undertaken for LA Metro has identified levels of spectator and Olympics workforce demand for six key hours of Day 10 of the Olympics. These estimates have been provided as a series of demand matrices covering different types of Games-related movements which have been assigned in the Background Model. The model assumes that private car trips made by spectators and workforce to Games park & ride sites and to parking lots close to competition venues will not be permitted to use the Games Lanes on the GRN. Instead, they would need to use GP lanes. The demand levels will therefore need to be extracted from these model runs to derive additional Games-related traffic flow inputs for the PSR/PR assessment.

An important component of the transportation serving spectators and workforce for the Games will be the GETS. The GETS will operate as a series of shuttle bus services between designated rail/BRT stations and competition venues, and also between GETS park & ride sites and competition venues. The current assumption is that the GETS shuttle buses will be allowed to run in the Games Lanes. The required frequency of services for each of the GETS services has been estimated for the six key hours on Day 10. The GETS-related bus movements will need to be extracted to inform the PSR/PR assessment.

The primary users of the Games Lanes on the GRN will be Games Family. There are several client groups which make up the Games Family. Different client groups will make different types of movement during the Games and will use different types of transport systems. The transport

system codes (e.g., "TA" for the athlete bus system) that have been used in the most recent Games will be applied. These codes are summarized in **Table 1**:

**Table 1: Games Family Types of Movements**

Client Group	Transport System	Type of Movement	Travel to and from:				
			LAX or Union Station <sup>1</sup>	Their Events and Training <sup>2</sup>	Events in the Same Discipline	Events in Other Disciplines	Other Activities
Athletes and Team Officials	TA Bus System	Fixed ODs	Yes	Yes	Yes	No	No
	NOC Cars with VAPP	Multiple Locations	No	Yes	Yes	Yes	Yes
Technical Officials	TF bus system	Fixed ODs	Yes	Yes	No	No	No
Games Family	TX bus system	Long list of acceptable ODs (Airport, city center, live sites, accommodation sites etc.)	Yes		Yes		Yes
Accredited Media and Broadcast	TG bus system	Fixed ODs	Yes		Yes <sup>3</sup>		No
Marketing Partners with VAPPs <sup>4</sup>	Partner-branded Systems	Multiple Locations	Yes		Yes		Yes
Contractors and Other Vehicles with VAPPs	Own vehicles	From multiple locations to/from Venues	No		Yes <sup>5</sup>		Yes

<sup>1</sup>. LAX and Union Station are assumed to be the "Official Ports of Entry". Olympics transport systems would not normally operate to/from other ports of entry.

<sup>2</sup>. Training venues are not currently known. For now, it is assumed that training venues are at the event venues.

<sup>3</sup>. These trips would primarily be to/from the International Broadcast Centre (SoFi) and Main Media Centre (USC).

<sup>4</sup>. VAPP stands for Vehicle Access Parking Permit and will be issued by LA28.

<sup>5</sup>. These trips would be to venues, IBC, and MMC.

A memo describing the methodology and key assumptions used to develop the initial GFDM will be developed in this task order. That approach will enable travel demand estimates to be generated for Games Family vehicles (cars and buses) for the six key hours of Day 10. These demand estimates will then need to be allocated to the different segments of the SHS to be considered in the PSR/PR assessment.

## 8B. Games Day Model and Forecasting

During the Games, the background travel demand is anticipated to react to the implementation of Games Lanes and other transportation system changes (e.g., people in Los Angeles will travel differently *during* the Games even if they are not traveling *for* the Games). To reflect this response and retain consistency with other modelling for the Games, a TDM factor has been applied to reduce non-Games-related trips by 10%. The 10% reduction is applied uniformly across the entire region in the SCAG model. At this stage, the 10% assumption is used in advance of any detailed work being undertaken to estimate more accurate values or geographic variation. Since the background demand generation, Games demand generation, and traffic assignment are not iterative, the background demand is not influenced by the Games-related congestion. However, the route choice is interactive with the Games demand.

The background traffic, Games spectators and Games workforce will be generated at an OD level and assigned by the SCAG model. The Games Family demand will be developed at a sector-to-sector level and will be allocated to the study segments. The allocation of trips to the Games Lanes will be identified so a predetermined route is taken by Games Family demand. The process will allow for the six hours to have different percentages and aggregate across multiple sector-to-sector OD routes that may use the same roadway segment based on Games events and resulting Games Family demand. Games Demand and background demand will be reported separately for the Games Lanes and parallel GP lane(s), so the GP lanes that had a lane of capacity removed to accommodate the Games Lanes will be correlated to the Games Lanes for reporting.

The implementation of the Games Lanes within the GRN on the SHS will reduce capacity for general purpose travel by restricting access to GRN lanes. These lanes will include managed lanes where they currently exist, and/or a GP lane where managed lanes do not exist. For this analysis, background transit services that currently have access to managed lane facilities will be allowed to use Games Lanes on the GRN on the SHS and the routes and stops will remain in use. Background transit that does not currently have access to managed lanes will continue to operate in the GP lanes.

The With Games Demand scenario introduces significant temporary modifications to the roadway system and enhances transit services to serve the unique requirements of the Games. The GRN will encompass more than 300 lane miles dedicated to Games-related travel. Complementing the roadway modifications, the GETS will be provided for Spectators and Games Workforce. The GETS will link designated rail and BRT stations with competition venues and will also provide shuttle bus links between multiple temporary Park & Ride sites and venues. Per prior efforts led by Metro, it is estimated that the GETS will require over 2,000 extra buses to provide the additional transit capacity required to meet the needs of Games spectators and workforce. These integrated

roadway and transit strategies aim to ensure efficient, reliable, and sustainable transportation during the Games while minimizing disruptions for residents.

## 9. Traffic Analysis

Using the data and modeling results described in the previous sections, the last step is to develop a comparison of Year 2028 “No Games” versus “With Games” traffic demand analysis. The comparisons will be conducted on the 80 segments and for the Games Lanes corridors defined in Section 3, with separate analysis by time period (AM, PM, and daily), by direction, and separated by GP vs. managed lanes. The 2023 field data will be the baseline for estimating 2028 No Games speeds and volumes. The 2023 data will be translated to a 2028 baseline (generally higher volumes and lower speeds) after comparing the 2028 SCAG data versus the 2023 field data in consideration of the NCHRP Report 765 methodologies.

To develop the 2028 “Games” volumes and speeds, a comparison of the projected changes in volume and speed/travel time will be determined. The traffic volume and travel time/speed estimates for the future (No Games/With Games) will be made by applying the delta value from the travel demand model analysis to the baseline (adjusted 2023 existing conditions). In addition, an evaluation of the change in delay (based on free flow travel time on each segment) will be provided.

## 10. Next Steps

We appreciate your prompt review of the proposed traffic analysis approach presented above. Upon approval from Caltrans, we will apply the stated methodologies to conduct the forecasting tasks and prepare the Traffic Analysis Section in support of the PSR/PR document.

### **Attachment:**

2028 Games Route Network Mapbook (October 2024)

# 2028 Games Route Network Mapbook



Metro



October 2024



# Proposed GRN Primary Routes

## 2028 Games GRN Mapbook



# Proposed GRN Freeway Segments and Managed Lanes

## 2028 Games GRN Mapbook



▲ Athletes Village  
▲ Olympic Family Hotel  
● Media Village  
● Competition Venue  
■ New Competition Venue  
— Proposed GRN Freeway – General Purpose Only  
— Proposed GRN Freeway – with Express Lanes  
— Proposed GRN Freeway – with HOV Lanes

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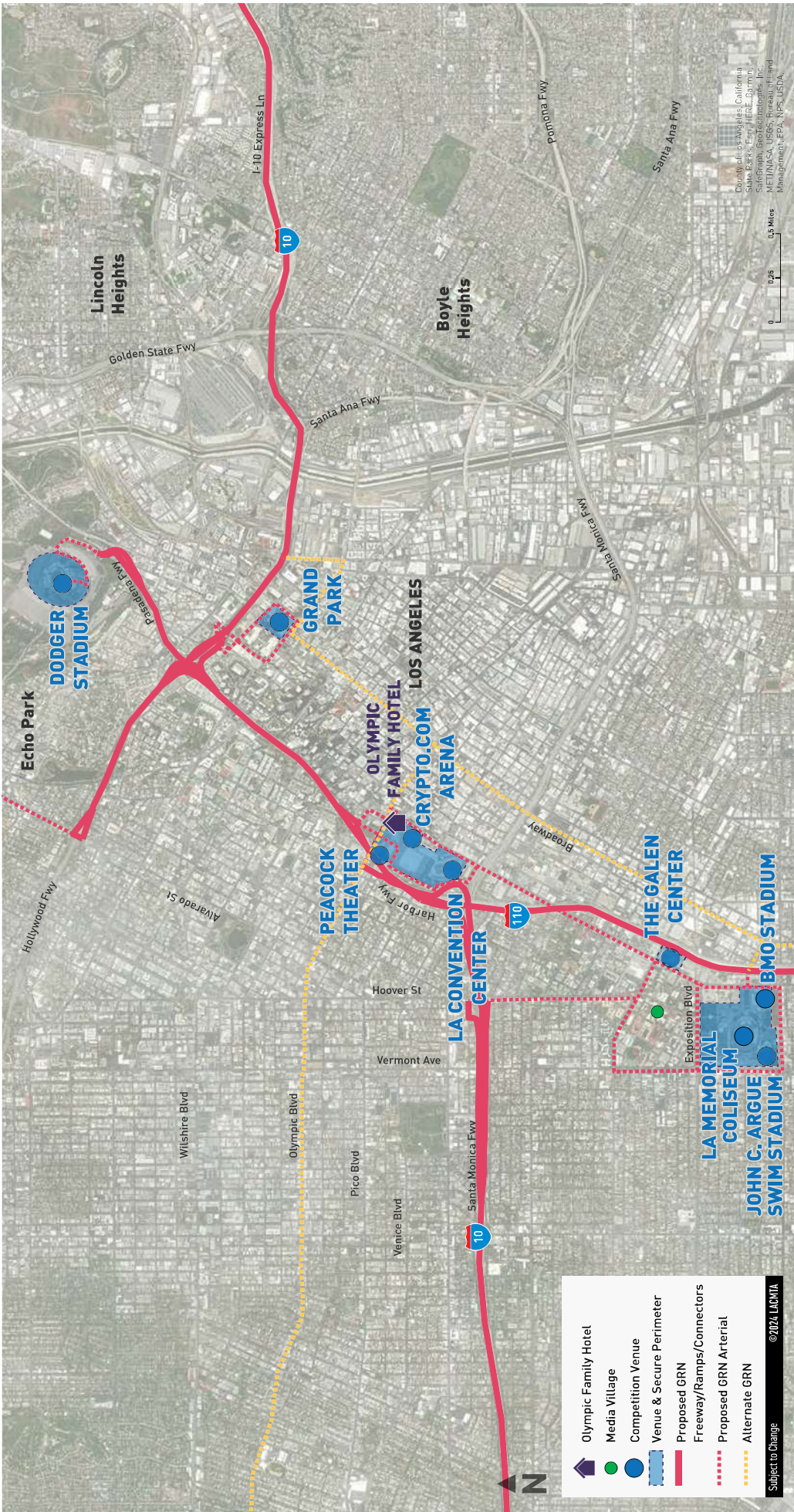
# Proposed GRN Core and Venue Routes

## 2028 Games GRN Mapbook



# Downtown LA – Proposed Primary and Alternate GRN Routes

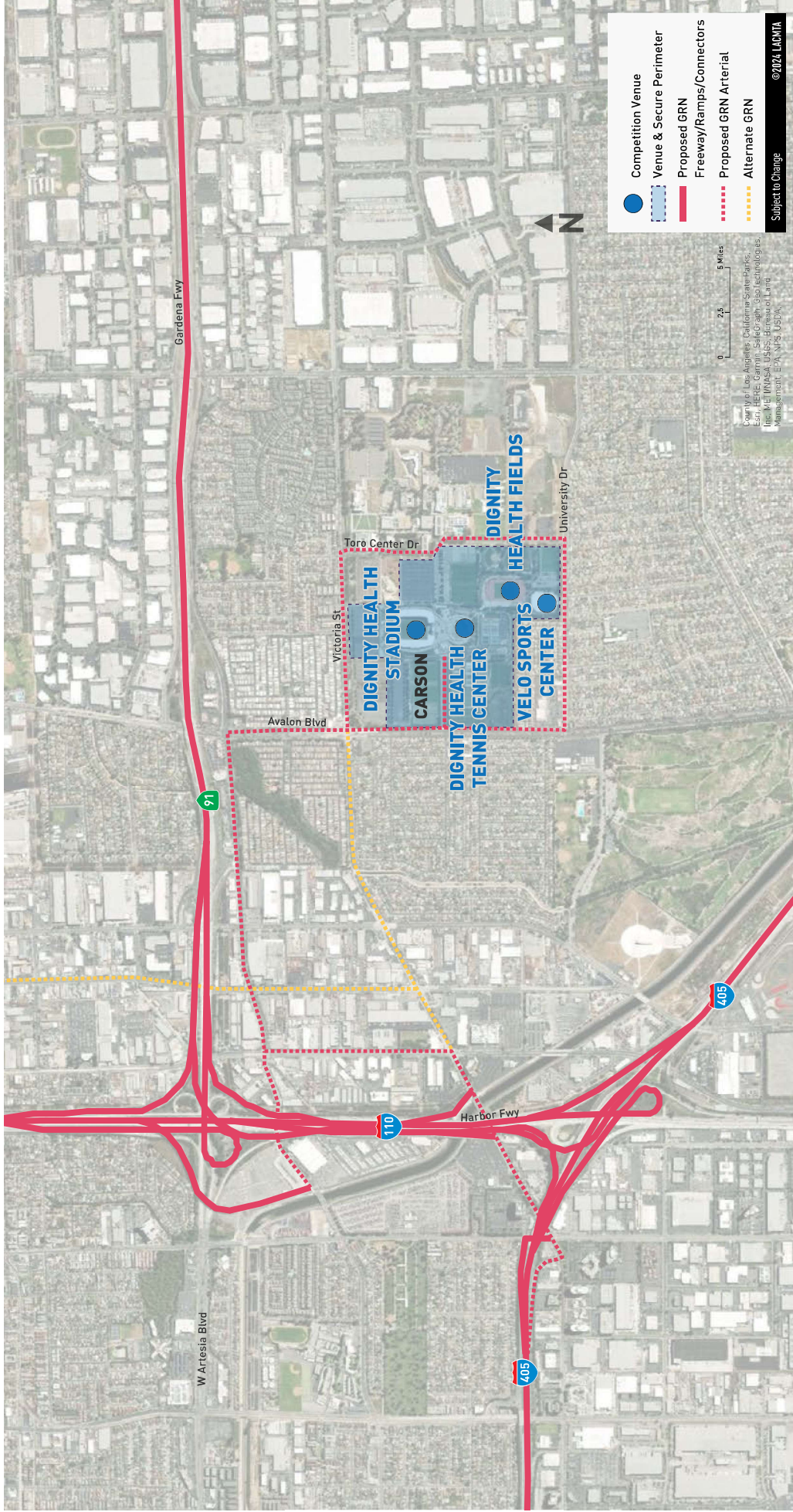
## 2028 Games GRN Mapbook





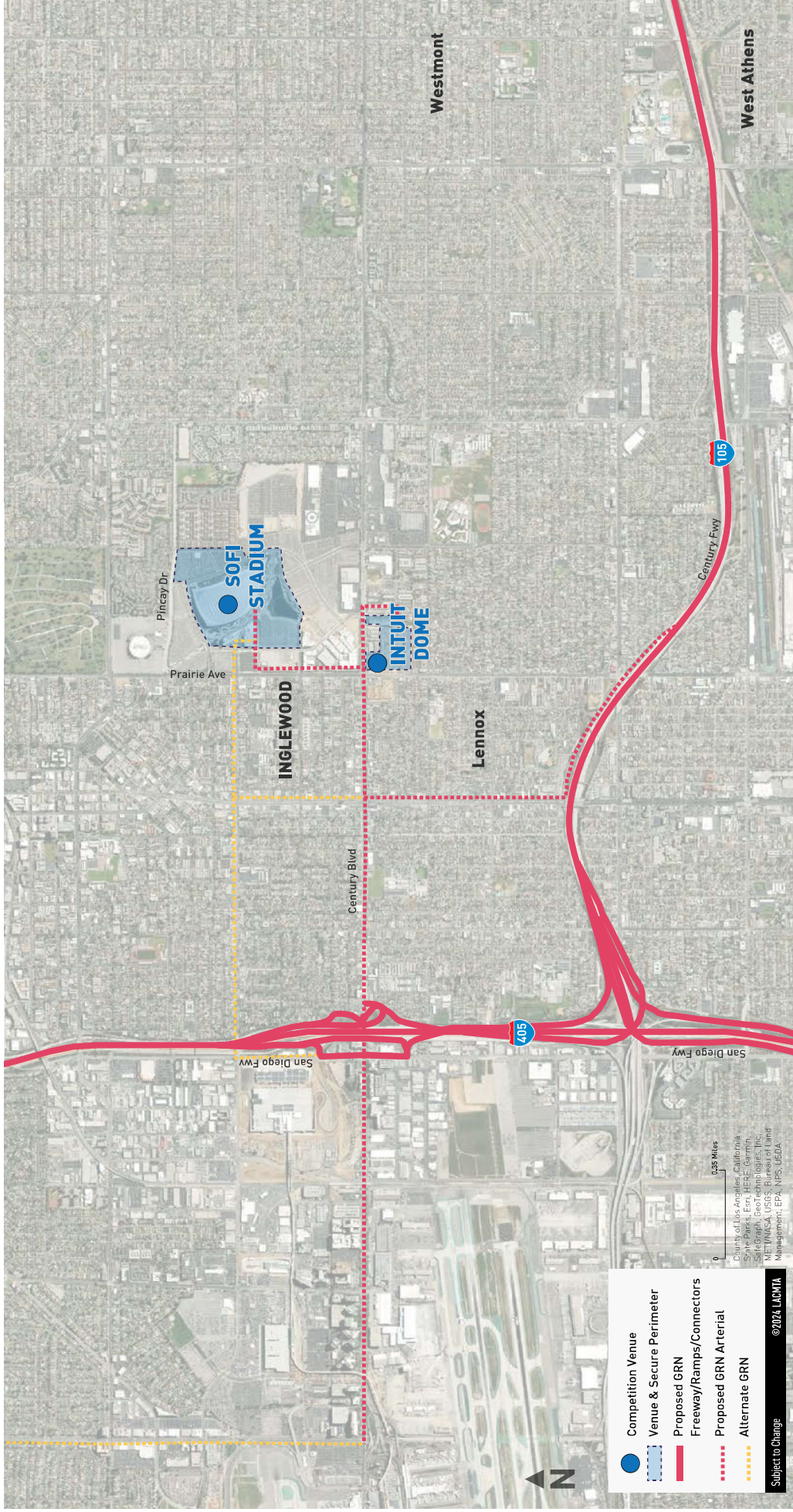
# Carson – Proposed Primary and Alternate GRN Routes

## 2028 Games GRN Mapbook



# Inglewood – Proposed Primary and Alternate GRN Routes

2028 Games GRN Mapbook



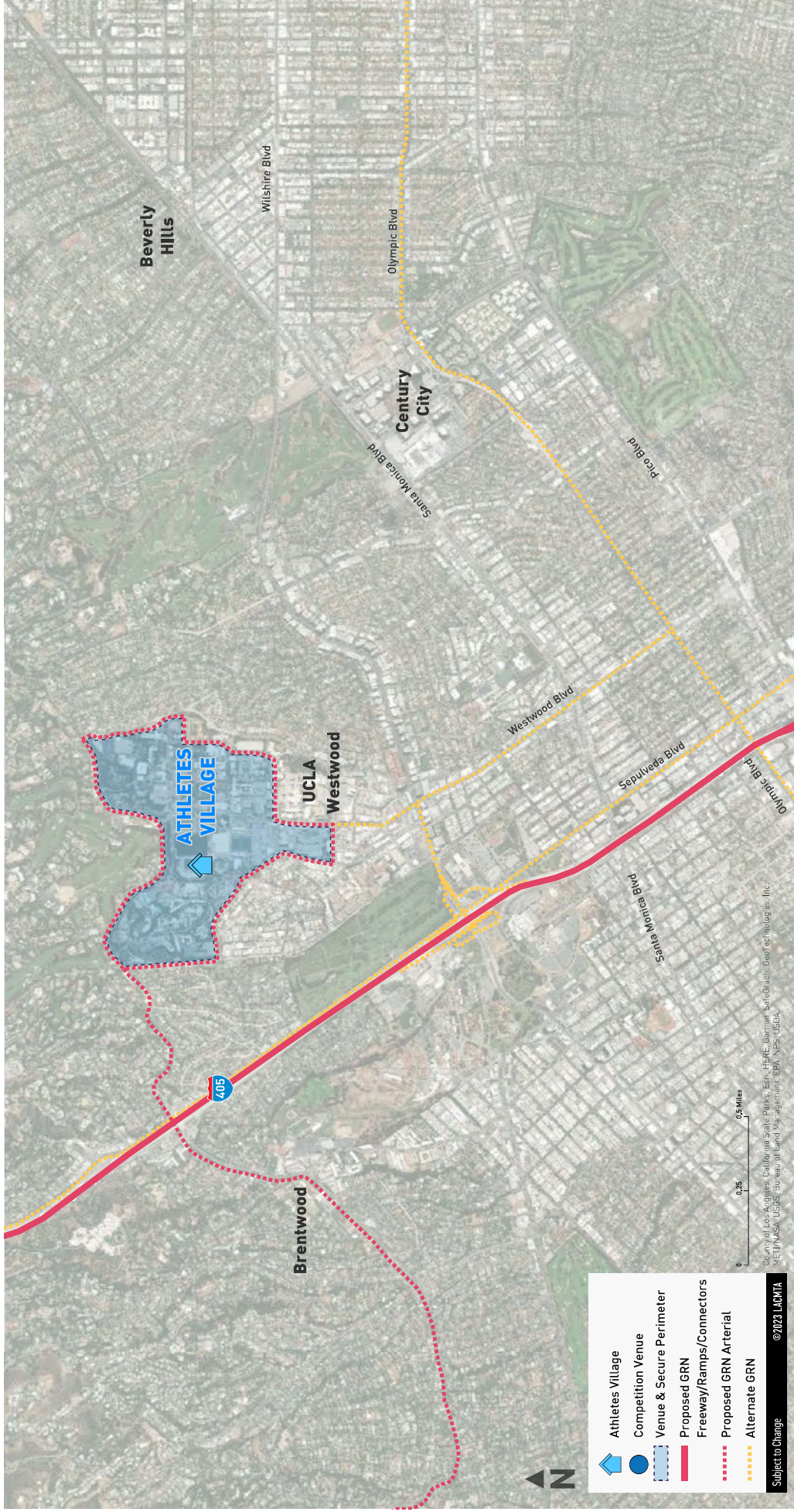
# Sepulveda Basin – Proposed Primary and Alternate GRN Routes

2028 Games GRN Mapbook



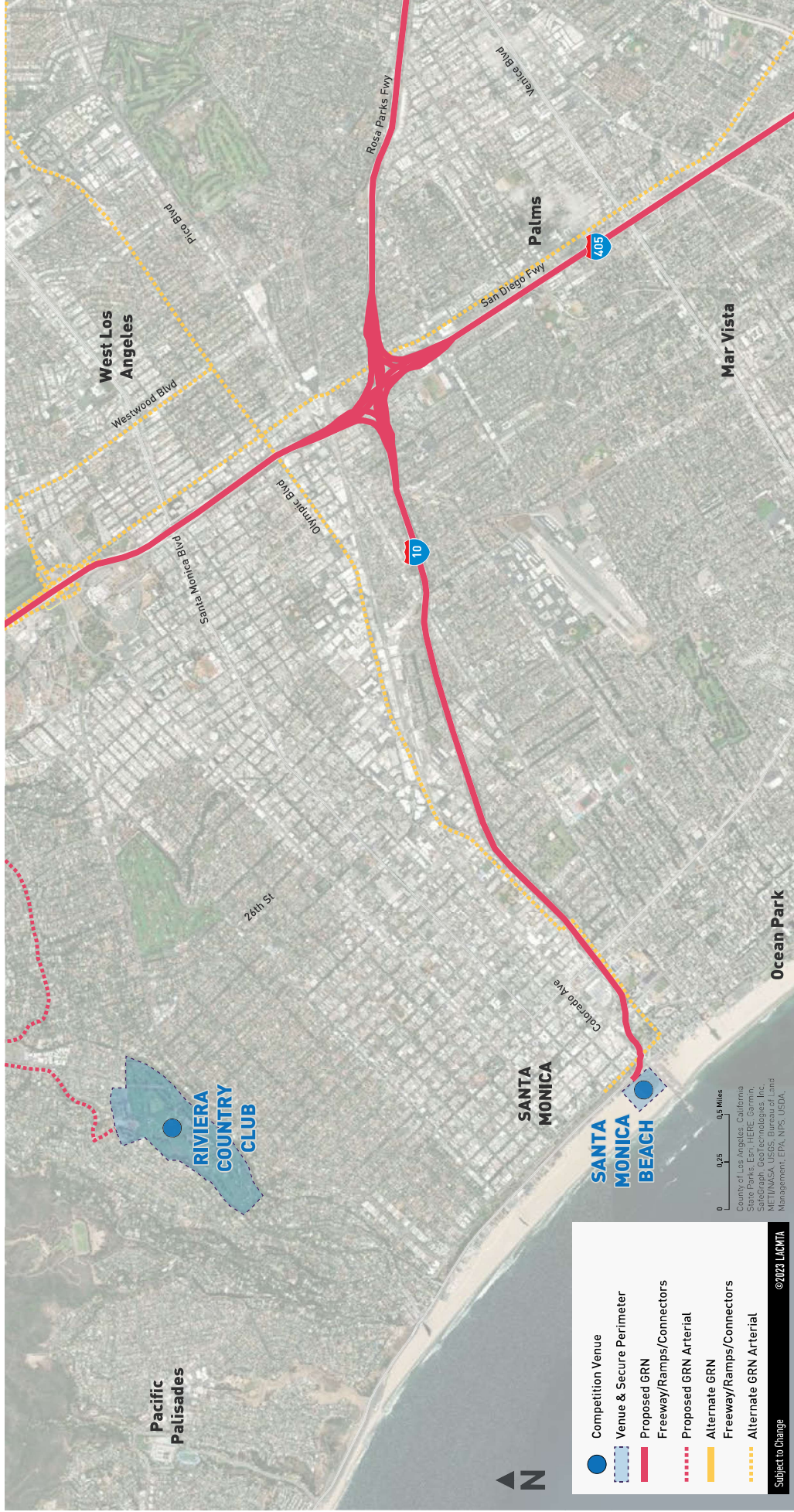
# UCLA – Proposed Primary and Alternate GRN Routes

## 2028 Games GRN Mapbook



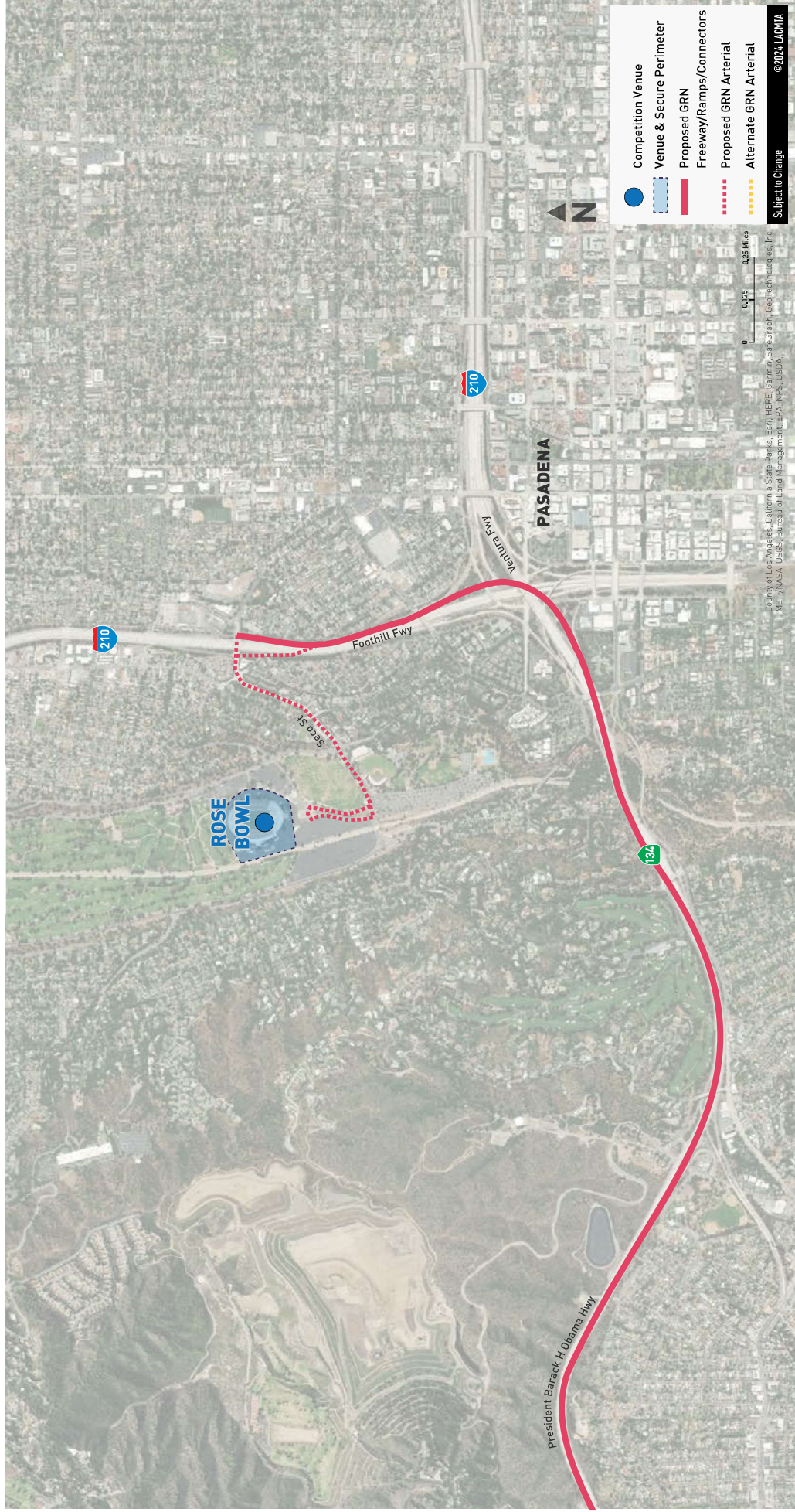
# Santa Monica – Proposed Primary and Alternate GRN Routes

## 2028 Games GRN Mapbook



# Pasadena – Proposed Primary GRN Routes

2028 Games GRN Mapbook





# Prado Shooting Range – Proposed Primary GRN Routes

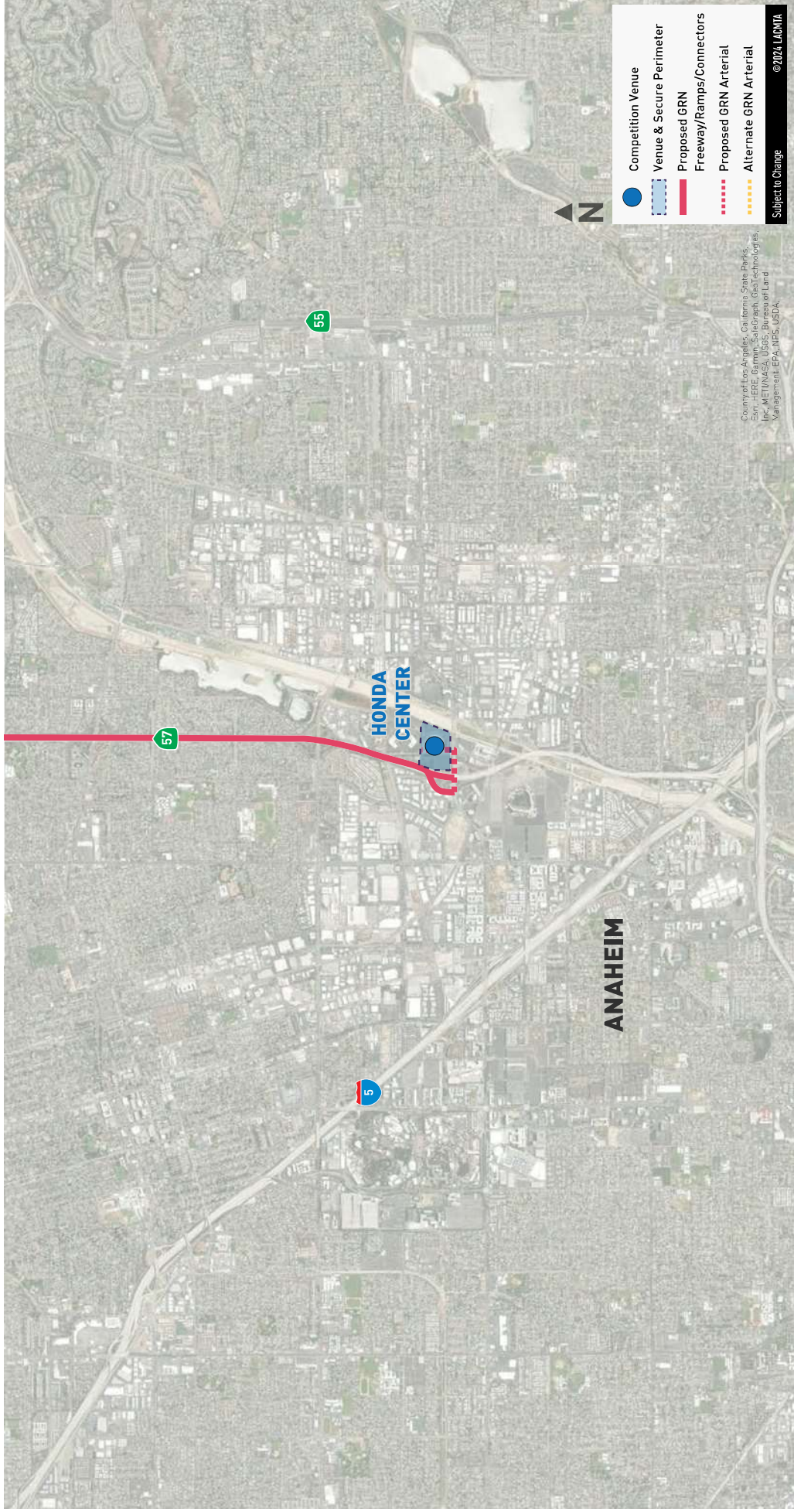
2028 Games GRN Mapbook



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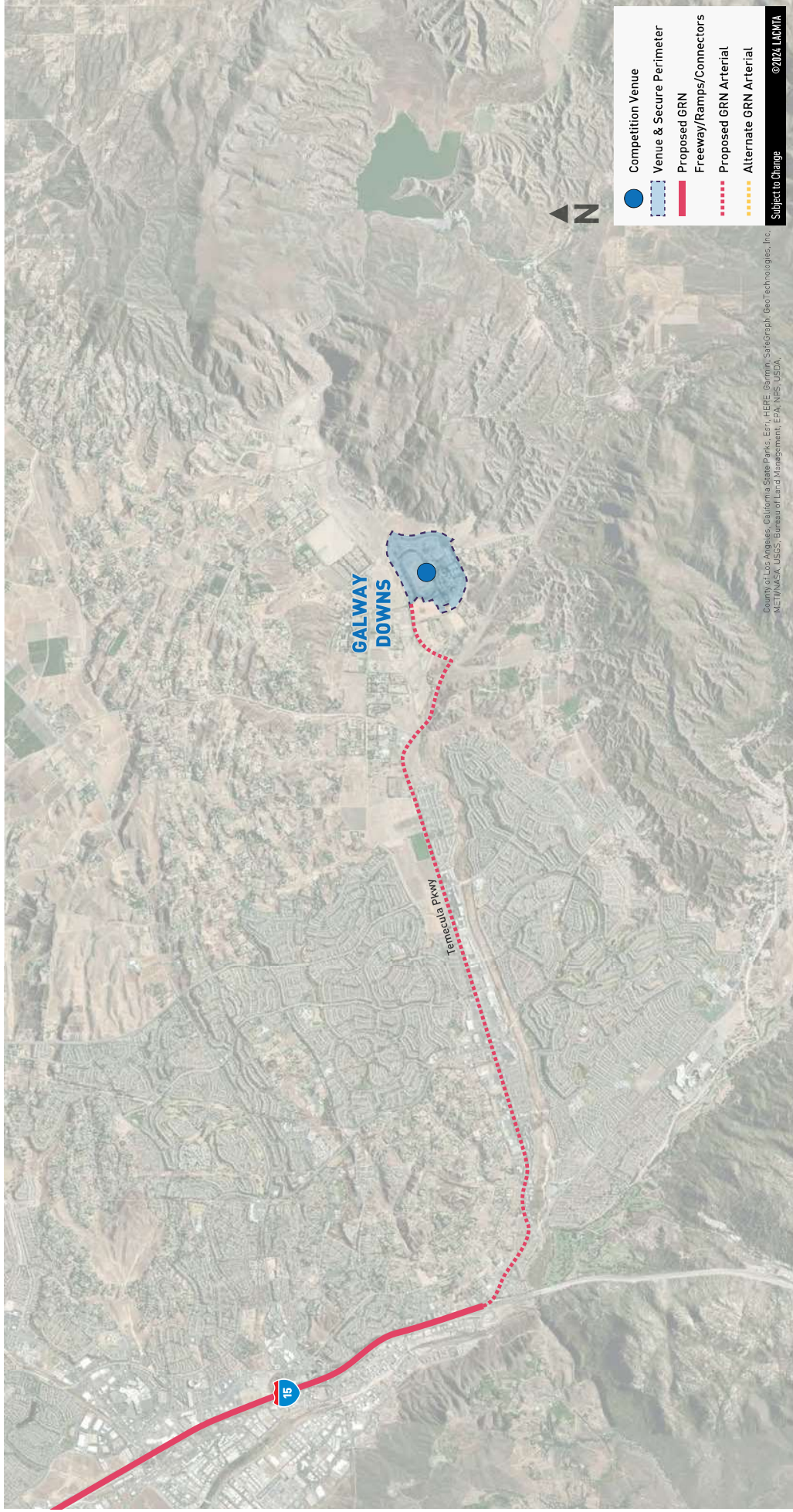
# Honda Center – Proposed Primary GRN Routes

2028 Games GRN Mapbook



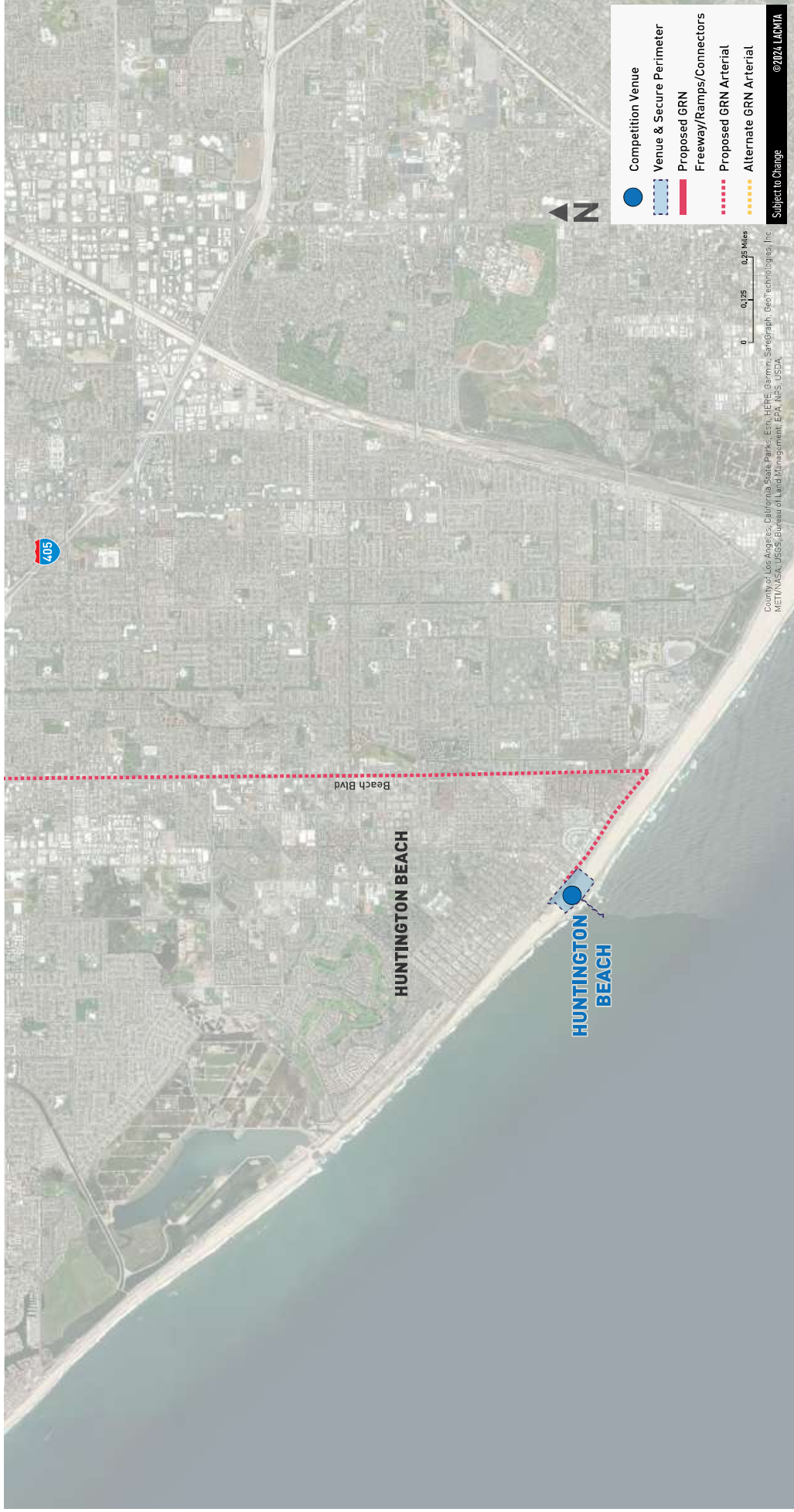
# Galway Downs – Proposed Primary GRN Routes

2028 Games GRN Mapbook





# Huntington Beach – Proposed Primary GRN Routes


## 2028 Games GRN Mapbook






 Metro  
One Gateway Plaza  
Los Angeles, CA 90012-2952

 323.GO.METRO

 MetroLA28@metro.net

 metro.net



**Metro**



# **Attachment 2**

Existing (2023) Traffic Data





Corridor	Segment Definition										2023 VMT										
	GP_ID	ML_ID	Route	Freeway Segment	Direction	District	PM [from]	PM [to]	Length	AM, GP, Truck	AM, GP, Total/Vehicles	AM, M, Auto	PM, GP, Truck	PM, GP, Total/Vehicles	PM, M, Auto	Daily GP, Auto	Daily GP, Truck	Daily GP, Total/Vehicles	Daily GP, M, Auto	Daily M, Auto	
NB405	GP1	ML1	405	North Blvd to SR-22	NB	12	15:45	20:22	4.277	24,300	8623	35,743	8,434	23,869	897	23,983	6,800	43,478	16,498	41,674	204,368
SB405	GP2	ML2	405	Beach Blvd to SR-22	SB	12	15:45	20:22	4.277	17,309	6717	17,928	4,010	23,778	918	24,494	8,188	39,679	15,157	40,963	99,970
NB405	GP3	ML3	405	SR-22 to I-405	NB	12	20:22	23:04	2,822	21,402	663	21,565	5,334	22,855	707	23,561	4,997	379,889	11,752	391,741	71,778
SB405	GP4	ML4	405	SR-22 to I-405	SB	12	20:22	23:04	2,822	23,962	749	24,291	9,918	19,800	613	20,413	4,909	369,243	11,423	380,766	69,207
NB405	GP5	ML5	405	I-405 to Lakeside Blvd	NB	7	7:30	8:30	1.000	11,359	3,139	14,528	4,533	9,994	2,394	17,420	5,130	441,962	20,638	463,700	74,841
SB405	GP6	ML6	405	I-405 to Lakeside Blvd	SB	7	7:30	8:30	1.000	11,359	3,139	14,528	4,533	9,994	2,394	17,420	5,130	441,962	20,638	463,700	74,841
NB405	GP7	ML7	405	Lakeside Blvd to I-710	NB	7	7:30	8:30	1.000	11,359	3,139	14,528	4,533	9,994	2,394	17,420	5,130	441,962	20,638	463,700	74,841
SB405	GP8	ML8	405	Lakeside Blvd to I-710	SB	7	7:30	8:30	1.000	11,359	3,139	14,528	4,533	9,994	2,394	17,420	5,130	441,962	20,638	463,700	74,841
NB405	GP9	ML9	405	I-710 to I-15	NB	7	7:56	12:67	4,571	38,533	1,634	38,188	8,250	32,497	1,453	33,950	6,090	698,988	27,230	636,219	115,772
SB405	GP10	ML10	405	I-710 to I-15	SB	7	7:56	12:67	4,571	33,104	1,487	34,584	4,952	27,783	1,243	29,038	6,307	571,043	25,334	596,578	85,624
NB405	GP11	ML11	405	I-15 to Reservoirs Ave	NB	7	12:67	18:22	5,295	36,712	1,380	38,099	6,867	29,622	1,437	39,499	7,796	696,547	26,312	722,859	129,178
SB405	GP12	ML12	405	I-15 to Reservoirs Ave	SB	7	12:67	18:22	5,295	37,614	1,389	39,412	6,167	29,396	1,391	41,110	6,817	615,554	23,136	641,691	109,368
NB405	GP13	ML13	405	Reservoirs Ave to Century Blvd	NB	7	18:22	22:34	4,112	17,585	664	18,250	2,693	18,770	717	19,693	2,852	336,622	12,718	349,338	44,683
SB405	GP14	ML14	405	Reservoirs Ave to Century Blvd	SB	7	18:22	22:34	4,112	18,303	722	19,025	2,623	12,779	473	13,004	3,838	295,427	11,160	306,588	45,430
NB405	GP15	ML15	405	Century Blvd to SR-99	NB	7	22:34	23:02	0.689	15,984	488	16,471	3,482	27,253	633	28,694	3,385	447,978	13,693	461,334	52,283
SB405	GP16	ML16	405	Century Blvd to SR-99	SB	7	22:34	23:02	0.689	20,732	765	21,517	3,961	21,488	659	22,141	5,933	453,897	12,790	429,068	93,708
NB405	GP17	ML17	405	SR-99 to I-10	NB	7	23:02	25:11	2,087	24,709	712	25,421	4,392	21,678	621	22,200	3,713	479,933	18,624	498,557	68,892
SB405	GP18	ML18	405	SR-99 to I-10	SB	7	23:02	25:11	2,087	31,623	920	32,543	3,612	13,983	399	14,262	2,960	480,770	13,847	494,617	52,632
NB405	GP19	ML19	405	I-10 to Sunset Blvd	NB	7	23:02	25:11	2,087	26,322	805	27,127	3,873	19,771	547	18,818	2,812	437,276	15,188	452,464	62,663
SB405	GP20	ML20	405	I-10 to Sunset Blvd	SB	7	23:02	25:11	2,087	27,235	978	28,213	4,489	15,929	475	16,707	3,399	431,918	14,833	426,753	68,657
NB405	GP21	ML21	405	Sunset Blvd to Serrano Center Dr	NB	7	23:02	25:11	2,087	25,943	830	26,773	3,600	20,778	743	21,522	4,060	474,988	17,023	491,991	71,704
SB405	GP22	ML22	405	Sunset Blvd to Serrano Center Dr	SB	7	23:02	25:11	2,087	13,638	489	14,128	5,038	20,988	751	21,718	3,825	412,721	14,792	427,511	67,472
NB405	GP23	ML23	405	Serrano Center Dr to US-101	NB	7	23:02	25:11	2,087	14,417	503	15,390	2,488	13,237	473	13,767	2,868	298,645	10,694	309,340	48,313
SB405	GP24	ML24	405	Serrano Center Dr to US-101	SB	7	23:02	25:11	2,087	14,700	530	15,230	3,700	15,837	568	16,403	3,900	395,774	10,959	406,733	53,488
NB405	GP25	ML25	405	US-101 to Burbank Blvd	NB	7	23:02	25:11	2,087	3,242	109	3,351	4,280	3,196	108	3,304	964	69,542	2,343	71,886	13,047
SB405	GP26	ML26	405	US-101 to Burbank Blvd	SB	7	23:02	25:11	2,087	2,659	98	2,757	718	2,969	108	3,080	812	53,190	1,806	55,026	9,930
WB101	GP27	ML27	101	US-101 to SR-10	WB	7	8:30	1:00	2.700	12,870	3,654	16,524	4,400	12,800	3,950	16,750	4,600	272,765	9,300	272,765	33,300
WB101	GP28	ML28	101	I-10 to SR-10	WB	7	8:30	1:00	2.700	12,870	3,654	16,524	4,400	12,800	3,950	16,750	4,600	272,765	9,300	272,765	33,300
WB101	GP29	ML29	101	SR-10 to Alvarado St	WB	7	1:00	2:30	1.300	6,607	226	6,833	2,641	7,531	259	7,790	1,603	140,919	5,101	146,120	15,412
WB101	GP30	ML30	101	SR-10 to Alvarado St	WB	7	2:30	4:00	1.700	278	10	288	1,651	1,739	52	1,791	1,216	15,811	378	16,029	82,663
WB101	GP31	ML31	101	SR-10 to I-405	WB	7	4:00	6:30	2.300	1,246	44	1,290	1,554	1,554	44	1,600	1,554	61,307	1,554	62,861	8,074
WB101	GP32	ML32	101	SR-10 to I-405	WB	7	6:30	8:00	1.700	3,883	122	4,005	2,707	3,388	131	3,519	2,841	68,111	30,218	71,400	9,400
WB101	GP33	ML33	101	Lakeside Blvd to I-405	WB	7	8:00	11:00	3.000	1,508	50	1,558	1,424	1,424	50	1,474	1,424	20,710	14,844	21,624	2,780
WB101	GP34	ML34	101	Lakeside Blvd to I-405	WB	7	11:00	14:00	3.000	1,508	50	1,558	1,424	1,424	50	1,474	1,424	20,710	14,844	21,624	2,780
NB134	GP35	ML35	134	SR-170 to I-6	NB	7	0	8:30	1:30	3,071	1,087	37,498	4,918	22,805	1,290	24,281	5,411	486,622	27,288	513,911	73,643
SB134	GP36	ML36	134	SR-170 to I-6	SB	7	0	8:30	1:30	3,071	1,087	37,498	4,918	22,805	1,290	24,281	5,411	486,622	27,288	513,911	73,643
NB134	GP37	ML37	134	I-6 to SR-134	NB	7	0	8:30	1:30	3,071	1,087	37,498	4,918	22,805	1,290	24,281	5,411	486,622	27,288	513,911	73,643
SB134	GP38	ML38	134	I-6 to SR-134	SB	7	0	8:30	1:30	3,071	1,087	37,498	4,918	22,805	1,290	24,281	5,411	486,622	27,288	513,911	73,643
NB134	GP39	ML39	134	SR-134 to I-210	NB	7	8:30	11:30	3.000	26,568	723	27,291	3,625	25,217	714	28,014	3,144	422,871	11,009	434,289	61,727
SB134	GP40	ML40	134	SR-134 to I-210	SB	7	8:30	11:30	3.000	28,803	787	29,590	6,929	23,625	643	24,292	5,286	381,103	10,367	391,700	84,097
WB101	GP41	ML41	101	SR-134 to Mountain St	WB	7	8:30	11:30	3.000	1,213	43	1,256	1,761	1,761	43	1,804	1,761	2,062	1,761	2,062	48,313
WB101	GP42	ML42	101	SR-134 to Mountain St	WB	7	8:30	11:30	3.000	1,213	43	1,256	1,761	1,761	43	1,804	1,761	2,062	1,761	2,062	48,313
NB2	GP43	ML43	2	US-101 to Sunset Blvd	NB	7	12:00	13:30	1.300	304	13	317	210	310	22	332	210	510	322	7,774	7,796
SB2	GP44	ML44	2	US-101 to Sunset Blvd	SB	7	12:00	13:30	1.300	686	30	716	346	670	26	742	346	8,986	422	9,408	16,229
NB2	GP45	ML45	2	Sunset Blvd to Glenview Blvd	NB	7	13:30	15:00	1.700	349	14	363	349	349	14	387	349	8,822	289	9,111	6,807
SB2	GP46	ML46	2	Sunset Blvd to Glenview Blvd	SB	7	13:30	15:00	1.700	579	25	604	387	387	25	404	387	7,732	333	8,065	3,806
NB2	GP47	ML47	2	Alvarado St to Alessandro St	NB	7	13:30	14:01	0.700	877	38	915	1,232	55	1,287	55	1,342	1,342	703	17,096	17,096
SB2	GP48	ML48	2	Alvarado St to Alessandro St	SB	7	13:30	14:01	0.700	1,462	68	1,530	1,432	1,432	68	1,500	1,432	1,500	1,432	1,500	1,432
NB2	GP49	ML49	2	Alexandria St to I-6	NB	7	14:01	15:42	1.441	1,448	41	1,489	2,499	79	2,569	2,499	27,388	783	28,171	28,171	
SB2	GP50	ML50	2	Alexandria St to I-6	SB	7	14:01	15:42	1.441	2,878	87	2,965	2,186	63	2,248	3,801	38,071	1,089	39,160	39,160	
NB2	GP51	ML51	2	I-6 to SR-134	NB	7	15:42	18:07	2.250	12,187	272	12,460	20,226	22,776	497	22,973	20,492	248,972	5,810	254,784	31,281
SB2																					

Corridor		Existing 2023															
		2023 Volumes								2023 Volumes							
Route	Direction	Length	AM_GP_Auto	AM_GP_Truck	AM_GP_TotalVehicles	AM_GP_Truck_Percent	AM_ML_Auto	PM_GP_Auto	PM_GP_Truck	PM_GP_TotalVehicles	PM_GP_Truck_Percent	PM_ML_Auto	Daily_GP_Auto	Daily_GP_Truck	Daily_GP_TotalVehicles	Daily_GP_Truck_Percent	Daily_ML_Auto
NE405	405 NB	47,739	6,272	239	6,512	3.68	1,324	6,132	224	6,356	3.67	1,200	17,702	4,462	22,164	3.68	19,868
SE405	405 SB	47,739	6,288	236	6,524	3.63	1,101	5,388	207	5,595	3.70	1,237	109,804	4,155	113,959	3.65	16,811
EB101	101 EB	10,775	6,480	288	6,768	4.25	NA	6,356	282	6,638	4.25	NA	122,561	5,402	127,963	4.22	NA
WB101	101 WB	10,775	6,618	295	6,913	4.27	NA	5,475	242	5,717	5.21	NA	122,577	5,403	127,980	4.22	NA
NE134	134 NB	13,323	6,058	266	6,324	4.21	840	4,992	209	5,201	4.01	1,187	91,307	3,948	95,254	4.14	13,539
SB134	134 SB	13,323	5,966	256	6,243	4.11	1,457	5,094	221	5,305	4.17	1,156	84,628	3,860	88,308	4.17	18,624
EB210	210 EB	0,494	3,468	163	3,631	4.49	NA	3,947	166	4,113	4.49	NA	50,904	2,393	53,297	4.48	NA
WB210	210 WB	0,494	3,818	179	3,997	4.49	NA	3,534	166	3,700	4.49	NA	50,952	2,396	53,347	4.48	NA
SE2	2 SB	6,075	2,462	114	2,555	2.45	NA	4,414	109	4,523	2.41	NA	50,014	1,495	51,509	2.44	NA
EB10	10 EB	39,522	5,133	236	5,369	4.39	516	4,470	222	4,692	4.73	1,017	90,736	4,223	94,959	4.45	11,943
WB10	10 WB	39,522	5,255	236	5,491	4.30	1,060	5,546	252	5,797	4.34	567	86,104	4,407	90,511	4.30	11,704
NE71	71 NB	11,829	2,728	198	2,926	6.76	198	2,862	207	3,069	6.73	146	45,229	3,287	48,515	6.78	2,503
SB71	71 SB	11,829	2,399	175	2,574	6.80	120	2,318	168	2,486	6.76	276	41,966	3,055	45,021	6.79	2,924
EB91	91 EB	26,741	5,024	411	5,435	7.56	1,019	4,890	401	5,291	7.59	1,299	90,285	7,384	97,669	7.56	17,730
WB91	91 WB	26,741	5,131	403	5,534	7.52	1,458	5,063	416	5,479	7.60	1,130	92,414	7,587	100,001	7.59	17,867
NE15	15 NB	38,025	3,061	333	3,414	9.77	168	3,304	354	3,658	9.67	82	57,281	6,161	63,441	9.71	1,934
SB15	15 SB	38,025	3,276	347	3,623	9.57	106	3,389	365	3,724	9.80	190	57,146	6,138	63,281	9.69	2,443
EB105	105 EB	5,281	3,811	209	4,021	5.20	1,730	3,395	185	3,580	5.18	1,324	78,616	4,317	83,134	5.19	30,176
WB105	105 WB	5,281	6,271	347	6,618	5.24	1,654	4,842	266	5,108	5.21	1,207	109,792	6,044	115,836	5.22	20,510
NE57	57 NB	4,144	6,130	601	6,732	8.93	1,135	5,652	554	6,206	8.93	895	92,827	9,110	101,937	8.94	8,965
SB57	57 SB	4,144	4,760	249	5,009	4.97	1,873	4,073	216	4,289	5.03	1,897	95,045	9,425	104,470	8.94	12,966
NE110	110 NB	15,486	6,364	316	6,680	4.72	1,458	4,951	260	5,211	4.98	1,637	105,027	5,166	110,193	4.69	31,740
SB110	110 SB	15,486	6,364	316	6,680	4.72	1,458	4,951	260	5,211	4.98	1,637	105,027	5,166	110,193	4.69	31,740
NE39	39 NB	5,764	1,054	16	1,070	1.51	NA	1,618	25	1,643	1.52	NA	20,553	315	20,868	1.51	NA
SB39	39 SB	5,764	1,567	24	1,591	1.50	NA	1,381	21	1,403	1.50	NA	21,345	326	21,671	1.50	NA
NE1	1 NB	1,737	2,493	89	2,581	3.44	NA	1,359	47	1,406	3.34	NA	25,616	977	26,593	3.65	NA
SB1	1 SB	1,737	1,346	56	1,402	4.00	NA	2,152	72	2,224	3.25	NA	26,157	978	27,135	3.61	NA

Corridor		Existing 2023																																			
		2023 Travel Time (Minutes)												2023 Average Speed (MPH)												2023 Delay (Minutes)											
		Route	Direction	Length	AM_GP	AM_ML	PM_GP	PM_ML	Daily_GP	Daily_ML	AM_GP	AM_ML	PM_GP	PM_ML	Daily_GP	Daily_ML	AM_GP	AM_ML	PM_GP	PM_ML	Daily_GP	Daily_ML	AM_GP	AM_ML	PM_GP	PM_ML	Daily_GP	Daily_ML									
NB405	NB	47.739	60.4	57.9	61.1	66.4	51.7	51.1	47.4	49.5	46.8	43.2	55.4	56.1	19.53	16.99	20.22	25.46	20.22	25.46	10.80	10.16															
SB405	SB	47.739	56.4	60.3	68.6	70.0	51.0	54.8	50.8	47.5	41.8	40.9	56.2	52.2	15.50	19.33	27.66	29.07	27.66	29.07	10.09	13.92															
EB101	EB	10.775	18.2	NA	19.6	NA	13.9	NA	35.5	NA	33.0	NA	46.5	NA	8.44	NA	9.82	NA	9.82	NA	4.13	NA															
WB101	WB	10.775	20.9	NA	30.4	NA	15.6	NA	31.0	NA	21.3	NA	41.5	NA	11.08	NA	20.65	NA	20.65	NA	5.81	NA															
NB134	NB	13.323	16.3	12.7	23.1	16.8	14.4	15.1	49.0	63.0	34.7	47.7	55.7	53.0	4.89	1.27	11.64	5.35	11.64	5.35	2.94	3.66															
SB134	SB	13.323	16.0	15.5	14.7	15.5	12.5	14.6	50.0	51.7	54.3	51.7	64.0	54.7	4.57	4.05	3.29	4.05	3.29	4.05	1.07	3.20															
EB210	EB	0.494	0.5	NA	0.5	NA	0.5	NA	64.0	NA	64.0	NA	64.0	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA															
WB210	WB	0.494	0.7	NA	0.6	NA	0.5	NA	45.0	NA	51.0	NA	56.0	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA															
NB2	NB	6.075	9.2	NA	11.5	NA	9.7	NA	39.8	NA	31.6	NA	37.6	NA	3.24	NA	5.61	NA	5.61	NA	3.77	NA															
SB2	SB	6.075	14.5	NA	11.7	NA	10.2	NA	25.2	NA	31.2	NA	35.8	NA	8.55	NA	5.77	NA	5.77	NA	4.27	NA															
EB10	EB	39.522	49.0	37.9	78.1	53.9	46.8	38.2	48.4	62.6	30.4	44.0	50.7	62.0	15.01	3.92	44.16	19.94	44.16	19.94	12.80	4.29															
WB10	WB	39.522	61.1	41.0	43.9	37.1	42.3	35.5	38.8	57.8	54.1	64.0	56.0	66.8	27.18	7.07	9.90	3.10	9.90	3.10	8.39	1.54															
NB71	NB	11.829	12.8	9.9	12.6	9.3	12.1	9.7	55.3	72.0	56.3	76.0	58.8	73.0	1.72	0.00	1.49	0.00	1.49	0.00	0.95	0.00															
SB71	SB	11.829	14.4	9.5	24.1	15.4	13.3	10.9	49.3	75.0	29.5	46.0	53.3	65.0	3.61	0.00	13.26	4.63	13.26	4.63	2.53	0.12															
EB91	EB	26.741	28.2	27.3	38.7	38.5	27.3	27.5	56.8	58.8	41.5	41.7	58.8	58.3	5.31	4.35	15.74	15.59	15.74	15.59	4.35	4.58															
WB91	WB	26.741	35.4	29.6	31.6	31.7	27.2	26.0	45.3	54.2	50.8	50.7	59.0	61.7	12.47	6.70	8.64	8.75	8.64	8.75	4.27	3.10															
NB15	NB	38.025	35.5	31.7	37.7	30.0	35.2	31.3	64.3	72.0	60.5	76.0	64.8	73.0	4.84	1.02	7.04	0.00	7.04	0.00	4.57	0.58															
SB15	SB	38.025	33.2	30.4	35.6	49.6	33.2	35.1	68.6	75.0	64.1	46.0	68.8	65.0	2.58	0.00	4.91	18.93	4.91	18.93	2.52	4.43															
EB105	EB	5.281	7.9	6.6	7.5	5.3	6.0	5.1	40.0	48.0	42.0	60.0	53.0	62.0	3.39	2.07	3.02	0.75	3.02	0.75	1.45	0.58															
WB105	WB	5.281	6.2	4.9	6.9	5.1	5.5	4.9	51.0	65.0	46.0	62.0	58.0	65.0	1.69	0.35	2.36	0.58	2.36	0.58	0.94	0.35															
NB57	NB	4.144	3.7	3.7	5.0	10.4	3.8	4.7	66.5	67.0	49.5	24.0	65.0	53.0	0.19	0.16	1.47	6.81	1.47	6.81	0.27	1.14															
SB57	SB	4.144	4.4	5.8	4.2	5.4	3.9	4.8	57.0	43.0	59.0	46.0	64.5	52.0	0.48	1.90	0.33	1.53	0.33	1.53	0.00	0.90															
NB110	NB	15.486	22.8	19.4	30.8	15.5	19.3	15.0	40.8	48.0	30.2	60.0	48.2	62.0	8.87	5.48	16.92	1.61	16.92	1.61	5.41	1.11															
SB110	SB	15.486	20.5	14.2	33.0	15.0	18.3	14.3	45.3	65.5	28.2	62.0	50.7	65.0	6.87	0.56	19.36	1.36	19.36	1.36	4.71	0.66															
NB39	NB	5.764	9.7	NA	11.2	NA	10.0	NA	35.8	NA	31.0	NA	34.5	NA	1.70	NA	3.19	NA	3.19	NA	2.05	NA															
SB39	SB	5.764	10.2	NA	10.5	NA	10.0	NA	33.8	NA	33.0	NA	34.8	NA	2.28	NA	2.51	NA	2.51	NA	1.98	NA															
NB1	NB	1.737	2.6	NA	2.6	NA	2.5	NA	40.0	NA	40.5	NA	41.5	NA	0.26	NA	0.22	NA	0.22	NA	0.16	NA															
SB1	SB	1.737	2.5	NA	2.7	NA	2.5	NA	42.0	NA	39.0	NA	42.0	NA	0.13	NA	0.32	NA	0.32	NA	0.13	NA															

Existing 2023

2023 VMT

Corridor	Route	Direction	Length	AM_GP_Auto	AM_GP_Truck	AM_GP_TotalVehicles	AM_ML_Auto	PM_GP_Auto	PM_GP_Truck	PM_GP_TotalVehicles	PM_ML_Auto	Daily_GP_Auto	Daily_GP_Truck	Daily_GP_TotalVehicles	Daily_ML_Auto
NB405	405	NB	47,739	299,436	11,433	310,869	63,185	292,718	11,156	303,874	57,307	5,618,966	212,997	5,831,963	934,077
SB405	405	SB	47,739	298,761	11,264	310,025	62,564	257,235	9,875	267,110	59,068	5,241,913	198,349	5,440,262	897,998
EB101	101	EB	10,775	69,626	3,101	72,927	NA	68,488	3,042	71,530	NA	1,320,593	58,203	1,378,796	NA
WB101	101	WB	10,775	71,307	3,177	74,484	NA	58,995	2,611	61,605	NA	1,320,770	58,216	1,378,986	NA
NB134	134	NB	13,323	80,704	3,547	84,251	11,188	66,513	2,781	69,294	15,809	1,216,477	52,595	1,269,072	180,379
SB134	134	SB	13,323	79,757	3,415	83,172	19,415	67,377	2,944	70,681	15,395	1,127,499	49,029	1,176,528	248,122
EB210	210	EB	0,494	1,713	81	1,794	NA	1,950	92	2,042	NA	25,147	1,182	26,329	NA
WB210	210	WB	0,494	1,886	89	1,975	NA	1,746	82	1,828	NA	25,170	1,183	26,353	NA
NB2	2	NB	6,075	15,142	379	15,921	NA	26,814	661	27,474	NA	303,837	7,602	311,439	NA
SB2	2	SB	6,075	27,539	692	28,232	NA	23,358	576	23,934	NA	361,677	9,082	370,759	NA
EB10	10	EB	39,522	202,880	9,313	212,192	20,394	176,659	8,775	185,433	40,199	3,586,079	166,882	3,752,962	472,007
WB10	10	WB	39,522	207,701	9,336	217,036	41,896	219,170	9,948	229,118	22,418	3,877,269	174,176	4,051,445	462,866
NB71	71	NB	11,829	32,267	2,341	34,608	2,722	33,857	2,444	36,302	1,723	534,997	38,888	573,885	29,609
SB71	71	SB	11,829	28,380	2,069	30,449	1,414	27,415	1,988	29,404	3,261	496,420	36,143	532,563	34,592
EB91	91	EB	26,741	134,354	10,984	145,338	27,249	130,754	10,733	141,487	34,481	2,414,304	197,445	2,611,749	474,106
WB91	91	WB	26,741	137,213	11,322	148,534	39,272	135,388	11,133	146,522	30,209	2,471,247	202,880	2,674,127	477,779
NB15	15	NB	38,025	117,147	12,679	129,826	6,391	125,632	13,455	139,087	3,121	2,178,095	234,266	2,412,360	73,540
SB15	15	SB	38,025	124,571	13,185	137,756	4,012	127,713	13,880	141,593	7,231	2,172,988	233,281	2,406,269	92,895
EB105	105	EB	5,281	20,128	1,104	21,233	9,134	17,927	979	18,906	6,992	416,228	22,801	439,028	159,357
WB105	105	WB	5,281	33,118	1,831	34,949	8,734	25,572	1,406	26,978	6,372	579,812	31,919	611,731	108,314
NB57	57	NB	4,144	21,950	2,154	24,104	2,148	22,887	2,243	25,130	3,710	384,675	37,753	422,428	37,153
SB57	57	SB	4,144	25,404	2,492	27,896	4,909	23,422	2,296	25,717	4,064	398,009	39,055	437,064	53,812
NB110	110	NB	15,486	73,716	3,859	77,575	29,011	63,067	3,341	66,408	29,219	1,325,214	66,462	1,391,676	491,519
SB110	110	SB	15,486	98,554	4,887	103,441	22,583	76,675	4,028	80,703	25,348	1,626,443	80,002	1,706,445	356,442
NB39	39	NB	5,764	6,076	93	6,168	NA	9,324	144	9,468	NA	118,465	1,817	120,282	NA
SB39	39	SB	5,764	9,148	139	9,286	NA	7,863	122	8,085	NA	123,031	1,879	124,910	NA
NB1	1	NB	1,737	4,329	154	4,484	NA	2,360	82	2,442	NA	44,843	1,697	46,540	NA
SB1	1	SB	1,737	2,337	97	2,435	NA	3,738	126	3,864	NA	45,434	1,699	47,134	NA

# **Attachment 3**

Year 2028 No Games Traffic Data



Corridor	Segment Definition				2028 No Games Travel Time (Minutes)														2028 No Games Average Speed (MPH)														2028 No Games Delay (Minutes)													
					2028 No Games Travel Time (Minutes)														2028 No Games Average Speed (MPH)														2028 No Games Delay (Minutes)													
					GP	DL	ID	Route	Freeway	Direction	District	PM (from)	PM (to)	Length	AM	AM	AM	PM	PM	PM	Daily	Daily	AM	AM	AM	PM	PM	PM	Daily	Daily	AM	AM	AM	PM	PM	PM	Daily	Daily	AM	AM	AM	PM	PM	PM	Daily	Daily
NB405	GP1	ML	1	405	Beach Blvd to SR-22	NB	12	18:55	20:22	4.277	4.1	4.0	5.1	4.3	4.5	4.4	4.5	4.4	62.5	63.8	50.2	60.0	59.8	58.7	0.44	0.38	1.45	0.61	0.85	0.71	0.44	0.38	1.45	0.61	0.85	0.71	0.44	0.38	1.45	0.61	0.85	0.71				
NB405	GP2	ML	2	405	Beach Blvd to SR-22	NB	12	18:55	20:22	4.277	4.1	4.0	5.1	4.3	4.5	4.4	4.5	4.4	62.5	63.8	50.2	60.0	59.8	58.7	0.44	0.38	1.45	0.61	0.85	0.71	0.44	0.38	1.45	0.61	0.85	0.71	0.44	0.38	1.45	0.61	0.85	0.71				
NB405	GP3	ML	3	405	SR-22 to I-605	NB	12	20:22	23:54	2.822	2.8	2.8	3.1	2.8	2.8	2.8	2.8	2.8	66.7	27.8	52.1	27.8	57.9	56.8	0.54	0.54	0.79	0.49	0.49	0.53	0.54	0.54	0.79	0.49	0.49	0.53	0.54	0.54	0.79	0.49	0.49	0.53				
NB405	GP4	ML	4	405	SR-22 to I-605	NB	12	20:22	23:54	2.822	2.9	2.6	3.7	2.7	2.7	2.7	2.7	2.7	55.3	61.0	48.3	59.9	58.7	52.1	0.61	0.61	0.34	1.03	0.99	0.49	0.61	0.61	0.34	1.03	0.99	0.49	0.61	0.61	0.34	1.03	0.99	0.49				
NB405	GP5	ML	5	405	I-605 to Lakewood Blvd	NB	7	3:54	3:54	3.82	6.1	4.8	5.7	4.5	4.0	3.5	3.7	3.7	37.6	50.3	40.3	50.4	57.8	65.3	2.82	1.29	2.42	1.27	0.89	0.23	2.82	1.29	2.42	1.27	0.89	0.23	2.82	1.29	2.42	1.27	0.89	0.23				
NB405	GP6	ML	6	405	I-605 to Lakewood Blvd	NB	7	3:54	3:54	3.82	4.8	3.6	4.2	6.3	4.8	4.3	4.8	4.8	49.8	29.3	36.9	36.3	37.8	53.0	0.49	0.49	0.31	2.83	3.03	0.89	0.49	0.49	0.31	2.83	3.03	0.89	0.49	0.49	0.31	2.83	3.03	0.89				
NB405	GP7	ML	7	405	Lakewood Blvd to I-710	NB	7	3:54	7:58	4:27.2	4.8	4.1	4.8	4.9	4.6	4.7	4.6	4.7	30.0	31.7	32.6	32.1	33.8	34.0	4.80	4.44	1.21	1.36	1.49	1.09	4.80	4.44	1.21	1.36	1.49	1.09	4.80	4.44	1.21	1.36	1.49	1.09				
NB405	GP8	ML	8	405	Lakewood Blvd to I-710	NB	7	3:54	7:58	4:27.2	4.2	4.2	6.8	8.3	4.3	4.3	4.3	4.3	49.2	60.7	37.9	30.8	59.6	54.0	1.55	0.56	3.11	4.66	4.04	1.09	1.55	0.56	3.11	4.66	4.04	1.09	1.55	0.56	3.11	4.66	4.04	1.09				
NB405	GP9	ML	9	405	I-710 to I-110	NB	7	7:58	12:07	5:37.1	12.5	7.2	11.8	9.4	5.4	6.4	6.4	6.4	25.7	44.8	55.4	34.3	59.6	50.2	7.96	2.59	1.21	4.79	8.00	1.82	7.96	2.59	1.21	4.79	8.00	1.82	7.96	2.59	1.21	4.79	8.00	1.82				
NB405	GP10	ML	10	405	I-710 to I-110	NB	7	7:58	12:07	5:37.1	7.1	6.4	14.2	14.8	6.3	6.4	6.4	6.4	45.2	59.9	22.7	21.8	51.1	50.2	2.53	0.78	9.58	10.10	1.70	1.82	2.53	0.78	9.58	10.10	1.70	1.82	2.53	0.78	9.58	10.10	1.70	1.82				
NB405	GP11	ML	11	405	I-110 to Rosecrans Ave	NB	7	12:07	12:07	12.07	12.5	12.5	12.5	12.5	7.6	7.6	7.6	7.6	31.5	39.1	35.2	35.2	35.2	51.1	11.22	11.22	2.57	11.11	2.58	1.98	11.22	11.22	2.57	11.11	2.58	1.98	11.22	11.22	2.57	11.11	2.58	1.98				
NB405	GP12	ML	12	405	I-110 to Rosecrans Ave	NB	7	12:07	19:22	6:25.7	7.0	6.0	12.4	16.4	7.2	7.9	7.9	7.9	50.9	62.8	30.3	22.9	50.1	47.3	2.01	0.61	7.03	11.03	1.85	2.57	2.01	0.61	7.03	11.03	1.85	2.57	2.01	0.61	7.03	11.03	1.85	2.57				
NB405	GP13	ML	13	405	Rosecrans Ave to Century Blvd	NB	7	19:22	22:24	3:02.2	3.6	3.3	3.2	2.9	3.1	3.0	3.0	3.0	49.9	54.9	55.9	62.9	58.7	60.8	1.07	0.71	0.65	0.29	0.50	0.40	1.07	0.71	0.65	0.29	0.50	0.40	1.07	0.71	0.65	0.29	0.50	0.40				
NB405	GP14	ML	14	405	Rosecrans Ave to Century Blvd	NB	7	19:22	22:24	3:02.2	4.1	2.6	8.0	3.1	3.5	2.6	2.6	2.6	44.9	17.9	22.7	99.2	52.1	69.1	1.47	0.00	0.37	0.47	0.89	0.03	1.47	0.00	0.37	0.47	0.89	0.03	1.47	0.00	0.37	0.47	0.89	0.03				
NB405	GP15	ML	15	405	Century Blvd to SR-90	NB	7	22:24	25:23	3:08.9	11.2	13.0	6.3	4.7	4.6	4.8	4.8	4.8	19.7	19.1	34.1	59.9	48.3	55.9	8.07	9.88	3.20	0.53	1.42	0.86	8.07	9.88	3.20	0.53	1.42	0.86	8.07	9.88	3.20	0.53	1.42	0.86				
NB405	GP16	ML	16	405	Century Blvd to SR-90	NB	7	22:24	25:23	3:08.9	4.8	4.1	6.0	4.0	2.2	4.2	4.2	4.2	47.7	53.8	36.8	37.1	59.0	53.0	1.48	0.95	2.30	2.30	0.94	1.03	1.48	0.95	2.30	2.30	0.94	1.03	1.48	0.95	2.30	2.30	0.94	1.03				
NB405	GP17	ML	17	405	SR-90 to I-10	NB	7	25:23	29:51	3:58.7	9.8	6.6	5.7	5.7	5.1	4.9	4.9	4.9	21.9	32.3	37.9	37.8	42.8	43.8	6.77	3.54	2.61	2.61	1.86	1.87	6.77	3.54	2.61	2.61	1.86	1.87	6.77	3.54	2.61	2.61	1.86	1.87				
NB405	GP18	ML	18	405	SR-90 to I-10	NB	7	25:23	29:51	3:58.7	6.7	10.3	16.2	16.6	4.6	6.7	6.7	6.7	32.3	20.9	13.3	13.0	46.4	32.2	3.58	7.21	13.16	13.48	1.56	3.61	3.58	7.21	13.16	13.48	1.56	3.61	3.58	7.21	13.16	13.48	1.56	3.61				
NB405	GP19	ML	19	405	I-10 to Sunset Blvd	NB	7	29:51	32:05	3:48.5	5.4	4.4	5.4	5.4	4.4	4.4	4.4	4.4	38.9	47.9	38.9	39.0	47.3	48.3	2.29	1.41	2.40	2.39	1.43	1.34	2.29	1.41	2.40	2.39	1.43	1.34	2.29	1.41	2.40	2.39	1.43	1.34				
NB405	GP20	ML	20	405	I-10 to Sunset Blvd	NB	7	29:51	32:05	3:48.5	6.8	6.3	6.7	7.8	5.2	4.2	4.2	4.2	31.5	39.1	38.9	29.8	32.2	49.2	3.64	2.26	2.66	4.77	1.17	1.29	3.64	2.26	2.66	4.77	1.17	1.29	3.64	2.26	2.66	4.77	1.17	1.29				
NB405	GP21	ML	21	405	Sunset Blvd to Skirball Center Dr	NB	7	32:05	36:16	3:72.1	3.9	3.6	5.1	12.5	4.4	4.8	4.8	4.8	57.1	62.9	24.6	17.9	51.1	46.4	0.72	0.80	5.88	9.29	1.18	1.62	0.72	0.80	5.88	9.29	1.18	1.62	0.72	0.80	5.88	9.29	1.18	1.62				
NB405	GP22	ML	22	405	Sunset Blvd to Skirball Center Dr	NB	7	32:05	36:16	3:72.1	6.1	7.4	3.6	6.8	4.4	4.8	4.8	4.8	36.8	30.0	61.9	32.9	50.2	46.4	2.87	4.26	4.02	3.60	1.26	1.63	2.87	4.26	4.02	3.60	1.26	1.63	2.87	4.26	4.02	3.60	1.26	1.63				
NB405	GP23	ML	23	405	Skirball Center Dr to US-101	NB	7	36:16	39:40	3:24.7	5.0	2.2	5.8	8.3	3.6	3.5	3.5	3.5	28.1	75.9	28.4	19.9	45.4	47.7	3.51	0.00	3.45	5.90	1.27	1.13	3.51	0.00	3.45	5.90	1.27	1.13	3.51	0.00	3.45	5.90	1.27	1.13				
NB405	GP24	ML	24	405	Skirball Center Dr to US-101	NB	7	36:16	39:40	3:24.7	5.8	7.7	3.3	2.8	3.8	3.8	3.8	3.8	29.8	21.9	51.1	59.8	39.0	43.8	3.27	5.38	2.07	0.41	0.80	1.47	3.27	5.38	2.07	0.41	0.80	1.47	3.27	5.38	2.07	0.41	0.80	1.47				
NB405	GP25	ML	25	405	US-101 to Burbank Blvd	NB	7	39:40	40:28	0:48.7	4.8	4.7	4.4	4.1	1.0	0.8	0.8	0.8	70.0	20.1	23.1	51.1	52.1	52.1	0.07	0.00	1.66	1.37	0.28	0.24	0.07	0.00	1.66	1.37	0.28	0.24	0.07	0.00	1.66	1.37	0.28	0.24				
NB405	GP26	ML	26	405	US-101 to Burbank Blvd	NB	7	39:40	40:28	0:48.7	3.1	6.2	0.8	0.8	1.0	1.2	1.2	1.2	14.0	8.0	58.7	61.0	50.2	39.8	2.82	5.48	0.14	0.10	0.28	0.54	2.82	5.48	0.14	0.10	0.28	0.54	2.82	5.48	0.14	0.10	0.28	0.54				
EB101	GP27	ML	1	101	I-10 to SR-110	EB	7	51:28	1:04	2:87.2	3.0	3.0	8.3	3.8	3.8	3.8	3.8	3.8	56.8	20.8	20.8	25.4	25.4	11.9	0.17	0.17	0.54	0.94	0.82	0.84	0.17	0.17	0.54	0.94	0.82	0.84	0.17	0.17	0.54	0.94	0.82	0.84				
EB101	GP28	ML	2	101	I-10 to SR-110	EB	7	51:28	1:04	2:87.2	14.0	14.0	10.7	10.8	10.8	10.8	10.8	10.8	119.8	161.8	193.8	119.8	119.8	7.83	0.90	2.40	3.00	3.00	3.00	7.83	0.90	2.40	3.00	3.00	3.00	7.83	0.90	2.40	3.00	3.00	3.00					
EB101	GP29	ML	3	101	SR-110 to Alvarado St	EB	7	1:04	2:58	1:25.4	3.1	3.1	4.0	4.0	2.0	2.0	2.0	2.0	24.0	18.8	18.8	37.9	37.9	1.88	1.88	1.88	2.72	0.74	0.74	1.88	1.88	2.72	0.74	0.74	0.74	1.88	1.88	2.72	0.74	0.74	0.74					
EB101	GP30	ML	3	101	SR-110 to Alvarado St	EB	7	1:04	2:58	1:25.4	7.0	7.0	16.8	16.8	7.0	7.0	7.0	7.0	23.4	23.4	27.8	41.7	41.7	41.7	8.30	2.84	2.84	2.84	2.84	2.84	8.30	2.84	2.84	2.84	2.84	2.84	8.30	2.84	2.84	2.84	2.84	2.84				
EB101	GP31	ML	4	101	Alvarado St to I-605	EB	7	1:58	1:58	1:58	10.8	10.8	11.4	10.8	5.8	5.8	5.8	5.8	27.8	25.8	25.8	48.2	48.2	6.40																						

Segment Definition										2020 No Games														
Contour	GP_ID	ML_ID	Route	Freeway Segment	Direction	District	PM [From]	PM [To]	Length	AM, GP, Truck	AM, GP, TotalVehicles	AM, ML, Auto	PM, GP, Auto	PM, GP, Truck	PM, GP, TotalVehicles	PM, ML, Auto	Daily GP, Auto	Daily GP, Truck	Daily GP, TotalVehicles	Daily ML, Auto				
	SB405	GP1	ML1	405	North Blvd to SR-22	NB	12	15:45	20:22	4.277	26,314	1,027			27,341	8,572	24,386	947	25,336	488,449	17,424	455,875	110,660	
	SB405	GP2	ML2	405	North Blvd to SR-22	SB	12	15:45	20:22	4.277	19,229	705			20,934	6,866	17,522	3,412	14,110	268,445	16,041	254,486	59,596	
	SB405	GP3	ML3	405	SR-22 to I-405	NB	12	20:22	23:04	2,882	22,658	705			23,363	5,634	24,139	747	24,886	5,277	401,383	12,413	413,796	75,814
	SB405	GP4	ML4	405	SR-22 to I-405	SB	12	20:22	23:04	2,882	24,887	705			25,592	6,343	26,045	843	26,888	5,076	390,998	12,045	403,043	68,978
	SB405	GP5	ML5	405	I-405 to Lakeside Blvd	NB	7	23:04	3:24	3.821	25,200	1,162			26,362	5,470	27,807	1,399	29,206	5,418	403,892	12,788	416,680	78,511
	SB405	GP6	ML6	405	I-405 to Lakeside Blvd	SB	7	23:04	3:24	3.821	24,977	1,169			26,146	5,446	26,464	1,443	27,907	5,061	434,073	12,011	451,084	67,352
	SB405	GP7	ML7	405	Lakeside Blvd to I-710	NB	7	3:24	7:56	4.272	29,983	1,384			31,367	6,207	31,480	1,473	32,953	5,991	567,123	26,537	593,659	81,543
	SB405	GP8	ML8	405	Lakeside Blvd to I-710	SB	7	3:24	7:56	4.272	29,983	1,384			31,367	6,207	31,480	1,473	32,953	5,991	567,123	26,537	593,659	81,543
	SB405	GP9	ML9	405	I-710 to I-15	NB	7	7:56	12:07	4.272	38,009	1,729			39,738	8,714	34,204	1,533	38,559	7,199	643,238	28,761	672,007	122,281
	SB405	GP10	ML10	405	I-710 to I-15	SB	7	7:56	12:07	4.272	38,009	1,729			39,738	8,714	34,204	1,533	38,559	7,199	643,238	28,761	672,007	122,281
	SB405	GP11	ML11	405	I-15 to Rosencrans Ave	NB	7	12:07	18:22	6.295	38,776	1,643			40,419	9,401	34,713	1,517	41,688	6,176	735,770	27,791	763,561	136,441
	SB405	GP12	ML12	405	I-15 to Rosencrans Ave	SB	7	12:07	18:22	6.295	38,009	1,477			39,486	8,514	31,704	1,198	37,901	6,031	613,311	21,198	634,509	87,010
	SB405	GP13	ML13	405	Rosencrans Ave to Century Blvd	NB	7	18:22	22:34	4.122	18,574	702			19,276	2,844	20,038	757	20,793	3,013	355,544	13,431	368,977	47,395
	SB405	GP14	ML14	405	Rosencrans Ave to Century Blvd	SB	7	18:22	22:34	4.122	16,777	762			17,539	2,771	13,785	902	13,788	3,843	312,048	11,788	323,891	47,864
	SB405	GP15	ML15	405	Century Blvd to SR-99	NB	7	22:34	23:03	0.689	16,882	938			17,820	3,678	20,795	876	20,963	3,943	472,946	14,423	487,369	55,159
	SB405	GP16	ML16	405	Century Blvd to SR-99	SB	7	22:34	23:03	0.689	21,578	829			22,407	3,982	22,898	892	23,380	3,943	459,771	13,434	473,205	58,977
	SB405	GP17	ML17	405	SR-99 to I-10	NB	7	23:03	29:11	6.087	26,099	752			26,851	4,607	27,760	878	28,448	3,821	566,918	14,603	581,521	72,765
	SB405	GP18	ML18	405	SR-99 to I-10	SB	7	23:03	29:11	6.087	33,718	971			34,689	3,813	14,642	422	15,064	2,493	507,728	14,626	522,352	55,591
	SB405	GP19	ML19	405	I-10 to Sunset Blvd	NB	7	29:11	32:05	2.944	8,051	416			8,467	4,186	16,130	378	16,788	2,971	447,646	16,040	463,686	65,123
	SB405	GP20	ML20	405	I-10 to Sunset Blvd	SB	7	29:11	32:05	2.944	10,371	673			10,797	4,741	17,640	601	17,640	3,928	437,190	15,659	452,849	72,728
	SB405	GP21	ML21	405	Sunset Blvd to Serrano Center Dr	NB	7	32:05	36:16	4.111	27,402	1,045			28,348	3,808	21,846	787	27,732	3,188	501,742	17,889	519,631	75,730
	SB405	GP22	ML22	405	Sunset Blvd to Serrano Center Dr	SB	7	32:05	36:16	4.111	14,403	616			14,919	3,222	22,247	794	22,941	4,046	435,828	16,624	451,454	71,286
	SB405	GP23	ML23	405	Serrano Center Dr to US-101	NB	7	36:16	39:43	3.271	16,301	684			16,985	2,628	12,866	443	14,443	3,128	311,861	11,286	326,147	31,641
	SB405	GP24	ML24	405	Serrano Center Dr to US-101	SB	7	36:16	39:43	3.271	15,621	660			16,181	3,008	16,728	600	17,327	3,177	322,867	11,575	334,442	36,506
	SB405	GP25	ML25	405	US-101 to Burbank Blvd	NB	7	39:43	40:24	0.241	3,424	115			3,540	402	3,716	114	3,488	1,009	73,452	2,475	75,928	13,780
	SB405	GP26	ML26	405	US-101 to Burbank Blvd	SB	7	39:43	40:24	0.241	3,424	115			3,540	402	3,716	114	3,488	1,009	73,452	2,475	75,928	13,780
	SB405	GP27	ML27	405	US-101 to SR-15	NB	7	40:24	42:00	1.760	2,124	78			2,202	798	3,130	308	2,824	841	27,246	1,826	28,072	10,420
	SB405	GP28	ML28	405	US-101 to SR-15	SB	7	40:24	42:00	1.760	2,124	78			2,202	798	3,130	308	2,824	841	27,246	1,826	28,072	10,420
	SB405	GP29	ML29	405	I-10 to SR-15	NB	7	42:00	45:00	3.000	1,477	478			1,699	1,169	13,140	470	13,609	1,380	279,051	10,824	280,121	31,518
	SB405	GP30	ML30	405	I-10 to SR-15	SB	7	42:00	45:00	3.000	1,477	478			1,699	1,169	13,140	470	13,609	1,380	279,051	10,824	280,121	31,518
	SB405	GP31	ML31	405	SR-15 to Alvarado St	NB	7	45:00	48:00	3.000	6,978	239			7,217	1,084	7,954	272	8,228	1,084	107,388	3,388	102,776	16,274
	SB405	GP32	ML32	405	SR-15 to Alvarado St	SB	7	45:00	48:00	3.000	6,978	239			7,217	1,084	7,954	272	8,228	1,084	107,388	3,388	102,776	16,274
	SB405	GP33	ML33	405	SR-15 to I-405	NB	7	48:00	51:00	3.000	8,051	312			8,363	1,488	8,851	350	9,201	1,568	103,511	3,518	107,029	16,613
	SB405	GP34	ML34	405	SR-15 to I-405	SB	7	48:00	51:00	3.000	8,051	312			8,363	1,488	8,851	350	9,201	1,568	103,511	3,518	107,029	16,613
	SB405	GP35	ML35	405	SR-15 to I-405	NB	7	51:00	54:00	3.000	9,239	329			9,568	1,759	9,897	359	10,256	1,759	108,260	3,518	111,778	16,958
	SB405	GP36	ML36	405	SR-15 to I-405	SB	7	51:00	54:00	3.000	9,239	329			9,568	1,759	9,897	359	10,256	1,759	108,260	3,518	111,778	16,958
	SB405	GP37	ML37	405	I-405 to I-710	NB	7	54:00	57:00	3.000	10,371	374			10,745	2,000	11,745	424	12,269	2,000	122,441	3,518	125,959	17,473
	SB405	GP38	ML38	405	I-405 to I-710	SB	7	54:00	57:00	3.000	10,371	374			10,745	2,000	11,745	424	12,269	2,000	122,441	3,518	125,959	17,473
	SB405	GP39	ML39	405	I-710 to I-15	NB	7	57:00	60:00	3.000	11,745	424			12,169	2,424	13,593	498	14,023	2,424	140,821	3,518	144,339	17,907
	SB405	GP40	ML40	405	I-710 to I-15	SB	7	57:00	60:00	3.000	11,745	424			12,169	2,424	13,593	498	14,023	2,424	140,821	3,518	144,339	17,907
	SB405	GP41	ML41	405	I-15 to I-405	NB	7	60:00	63:00	3.000	13,140	478			13,618	2,848	14,466	526	14,992	2,848	149,441	3,518	152,959	18,325
	SB405	GP42	ML42	405	I-15 to I-405	SB	7	60:00	63:00	3.000	13,140	478			13,618	2,848	14,466	526	14,992	2,848	149,441	3,518	152,959	18,325
	SB405	GP43	ML43	405	I-405 to I-710	NB	7	63:00	66:00	3.000	14,574	512			15,086	3,136	15,222	596	15,818	3,136	152,441	3,518	155,959	18,749
	SB405	GP44	ML44	405	I-405 to I-710	SB	7	63:00	66:00	3.000	14,574	512			15,086	3,136	15,222	596	15,818	3,136	152,441	3,518	155,959	18,749
	SB405	GP45	ML45	405	I-710 to I-15	NB	7	66:00	69:00	3.000	16,008	556			16,564	3,432	16,710	628	17,338	3,432	160,821	3,518	164,339	19,163
	SB405	GP46	ML46	405	I-710 to I-15	SB	7	66:00	69:00	3.000	16,008	556			16,564	3,432	16,710	628	17,338	3,432	160,821	3,518	164,339	19,163
	SB405	GP47	ML47	405	I-15 to I-405	NB	7	69:00	72:00	3.000	17,442	590			17,932	3,722	18,122	670	18,792	3,722	172,441	3,518	175,959	19,577
	SB405	GP4																						

2028 No Games

Corridor		2028 No Games Volumes															
Route	Direction	Length	AM_GP_Auto	AM_GP_Truck	AM_GP_TotalVehicles	AM_GP_Truck_Percent	AM_ML_Auto	PM_GP_Auto	PM_GP_Truck	PM_GP_TotalVehicles	PM_GP_Truck_Percent	PM_ML_Auto	Daily_GP_Auto	Daily_GP_Truck	Daily_GP_TotalVehicles	Daily_GP_Truck_Percent	Daily_ML_Auto
NE405	NS	47739	6625	253	6878	3.68	1388	6476	247	6723	3.67	1268	124319	4713	129032	3.65	20468
NE405	SB	47739	6610	249	6859	3.63	1163	5991	218	5910	3.70	1307	115977	4398	120366	3.65	19668
EB101	EB	10775	6845	304	7149	4.25	NA	6714	288	7002	4.25	NA	129452	5705	135157	4.22	NA
WB101	WB	10775	6980	311	7301	4.27	NA	5783	256	6039	4.01	NA	129469	5707	135176	4.22	NA
NE134	NS	13323	6398	281	6679	4.21	867	5273	220	5493	4.01	1253	96440	4170	100610	4.14	14300
SB134	SB	13323	6323	271	6594	4.11	1539	5370	233	5603	4.17	1220	89386	3887	93273	4.17	19671
EB210	EB	0484	3663	172	3835	4.49	NA	4169	196	4365	4.49	NA	53766	2526	56294	4.49	NA
WB210	WB	0484	4032	180	4212	4.49	NA	3753	175	3928	4.49	NA	53616	2526	56246	4.49	NA
NE2	NS	6075	2653	86	2899	2.44	NA	4562	115	4677	2.40	NA	52626	1322	54148	2.44	NA
SE2	SB	6075	4788	120	4908	2.45	NA	4061	100	4161	2.41	NA	62865	1578	64462	2.45	NA
EB10	EB	39522	5422	249	5671	4.39	545	4721	235	4956	4.73	1112	95638	4460	100298	4.45	12930
WB10	WB	39522	5551	249	5800	4.30	1125	5857	266	6123	4.34	608	103620	4655	108275	4.30	12470
NE71	NS	11829	2861	209	3090	6.76	300	3023	218	3241	6.73	220	47770	3472	51243	6.78	3056
SB71	SB	11829	2534	185	2719	6.80	126	2448	178	2626	6.76	291	44326	3227	47553	6.79	3089
EB91	EB	26741	5307	434	5741	7.56	1076	5165	424	5589	7.59	1362	95361	7796	103160	7.56	18726
WB91	WB	26741	5420	447	5867	7.52	752	5248	440	5688	7.60	1133	97610	8013	105623	7.59	19371
NE15	NS	38025	3254	352	3666	9.77	178	3488	374	3663	9.67	87	60501	6307	67068	9.71	2043
SB15	SB	38025	3460	366	3826	9.57	111	3547	386	3933	9.80	201	60359	6480	66839	9.69	2380
EB105	EB	5281	4026	221	4247	5.20	1827	3566	196	3761	5.18	1388	83247	4560	87808	5.19	31872
WB105	WB	5281	6624	366	6990	5.24	1747	5115	281	5396	5.21	1274	115965	6384	122349	5.22	21663
NE57	NS	4144	5995	549	6544	8.94	547	5833	572	6405	8.93	946	96046	9623	107669	8.94	9469
SB57	SB	4144	6475	635	7110	8.93	1251	5970	585	6555	8.93	1036	101444	9954	111399	8.94	13716
NE110	NS	15486	5028	263	5291	4.97	2127	4301	226	4526	5.03	2117	90386	4533	94919	4.78	35464
SB110	SB	15486	6722	333	7055	4.72	1571	5230	275	5504	4.98	1817	110832	5457	116388	4.69	25243
NE39	NS	5764	1113	17	1130	1.51	NA	1768	28	1796	1.52	NA	21708	333	22041	1.51	NA
SB39	SB	5764	1676	25	1702	1.50	NA	1489	22	1511	1.48	NA	22545	344	22889	1.50	NA
NE1	NS	1737	2653	94	2726	3.44	NA	1455	50	1481	3.44	NA	27268	1032	28300	3.65	NA
SB1	SB	1737	1421	59	1481	4.00	NA	2273	76	2349	3.25	NA	27628	1033	28661	3.61	NA

Corridor	2028 No Games																										
	2028 No Games Travel Time (Minutes)						2028 No Games Average Speed (MPH)						2028 No Games Delay (Minutes)														
	Route	Direction	Length	AM_GP	AM_ML	PM_GP	PM_ML	Daily_GP	Daily_ML	AM_GP	AM_ML	PM_GP	PM_ML	Daily_GP	Daily_ML	AM_GP	AM_ML	PM_GP	PM_ML	Daily_GP	Daily_ML	AM_GP	AM_ML	PM_GP	PM_ML	Daily_GP	Daily_ML
NB405	405	NB	47.739	72.4	60.8	69.2	68.5	54.6	54.0	39.6	47.1	41.4	41.8	52.4	53.1	31.49	19.91	28.24	27.56	13.71	13.03						
SB405	405	SB	47.739	69.1	61.0	72.1	71.0	53.9	57.9	41.4	47.0	39.7	40.3	53.2	49.5	28.19	20.08	31.19	30.09	12.96	17.00						
EB101	101	EB	10.775	20.5	NA	20.7	NA	14.7	NA	31.5	NA	31.2	NA	44.0	NA	10.78	NA	10.92	NA	4.91	NA						
WB101	101	WB	10.775	27.7	NA	32.1	NA	16.5	NA	23.3	NA	20.1	NA	39.3	NA	17.96	NA	22.36	NA	6.68	NA						
NB134	134	NB	13.323	20.6	12.7	24.4	17.2	15.2	15.9	38.8	63.0	32.8	46.4	52.7	50.2	9.20	1.28	12.94	5.82	3.75	4.51						
SB134	134	SB	13.323	20.3	16.7	15.5	15.6	13.2	15.4	39.3	47.8	51.4	51.2	60.6	51.8	8.92	5.32	4.12	4.21	1.77	4.03						
EB210	210	EB	0.494	2.1	NA	3.8	NA	0.5	NA	14.4	NA	7.9	NA	60.6	NA	1.21	NA	2.91	NA	0.00	NA						
WB210	210	WB	0.494	2.9	NA	2.9	NA	0.6	NA	10.1	NA	10.1	NA	53.0	NA	2.27	NA	2.27	NA	0.00	NA						
NB2	2	NB	6.075	9.8	NA	15.6	NA	10.2	NA	37.2	NA	23.3	NA	35.6	NA	3.87	NA	9.69	NA	4.32	NA						
SB2	2	SB	6.075	17.2	NA	12.6	NA	10.8	NA	21.2	NA	29.0	NA	33.9	NA	11.25	NA	6.64	NA	4.84	NA						
EB10	10	EB	39.522	54.9	37.2	82.5	68.9	49.4	40.4	43.2	63.7	28.7	34.4	48.0	58.7	20.94	3.24	48.55	34.97	15.43	6.47						
WB10	10	WB	39.522	68.2	41.6	48.4	37.2	44.7	37.8	34.8	57.0	49.0	63.7	53.0	62.7	34.28	7.65	14.40	3.25	10.77	3.86						
NB71	71	NB	11.829	14.6	10.0	15.3	9.6	12.8	11.0	48.7	71.3	46.3	74.0	55.6	64.4	3.43	0.00	4.21	0.00	1.63	0.00						
SB71	71	SB	11.829	15.4	9.5	25.4	15.5	14.1	11.5	46.0	75.0	27.9	45.9	50.4	61.5	4.65	0.00	14.62	4.65	3.28	0.74						
EB91	91	EB	26.741	30.2	27.6	40.8	48.1	28.8	29.1	53.2	58.1	39.3	33.4	55.7	55.2	7.25	4.68	17.91	25.15	5.88	6.13						
WB91	91	WB	26.741	39.3	35.7	33.3	32.1	28.7	27.5	40.8	45.0	48.1	49.9	55.9	58.4	16.39	12.73	10.42	9.22	5.80	4.56						
NB15	15	NB	38.025	36.6	31.7	39.6	30.0	37.2	33.0	62.3	72.0	57.7	76.0	61.3	69.1	5.94	1.02	8.90	0.00	6.55	2.34						
SB15	15	SB	38.025	34.1	30.4	37.5	49.6	35.1	37.1	67.0	75.0	60.8	46.0	65.1	61.5	3.41	0.00	6.83	18.95	4.38	6.40						
EB105	105	EB	5.281	8.0	8.0	8.0	5.4	6.3	5.4	39.7	39.8	39.8	58.1	50.2	58.7	3.46	3.43	3.44	0.92	1.79	0.87						
WB105	105	WB	5.281	14.9	5.9	7.3	5.2	5.8	5.1	21.3	53.7	43.6	61.3	54.9	61.5	10.33	1.37	2.75	0.65	1.24	0.62						
NB57	57	NB	4.144	3.9	3.7	5.7	10.5	4.0	5.0	63.6	67.0	43.7	23.7	61.5	50.2	0.36	0.16	2.14	6.92	0.49	1.40						
SB57	57	SB	4.144	9.9	6.4	8.7	5.5	4.1	5.1	25.2	39.0	28.7	45.0	61.1	49.2	5.99	2.49	4.77	1.65	0.19	1.17						
NB110	110	NB	15.486	27.7	22.1	32.5	19.3	20.4	15.7	33.5	42.0	28.6	48.1	45.6	59.0	13.83	8.25	18.65	5.44	6.50	1.87						
SB110	110	SB	15.486	27.1	14.6	34.8	18.7	19.4	14.4	34.3	63.8	26.7	49.8	48.0	64.4	13.47	0.92	21.21	5.04	5.74	0.81						
NB39	39	NB	5.764	9.8	NA	11.8	NA	10.6	NA	35.3	NA	29.3	NA	32.7	NA	1.82	NA	3.81	NA	2.62	NA						
SB39	39	SB	5.764	11.0	NA	11.1	NA	10.5	NA	31.5	NA	31.2	NA	32.9	NA	3.00	NA	3.10	NA	2.54	NA						
NB1	1	NB	1.737	4.2	NA	2.7	NA	2.7	NA	24.8	NA	38.3	NA	39.3	NA	1.86	NA	0.37	NA	0.30	NA						
SB1	1	SB	1.737	2.5	NA	3.4	NA	2.6	NA	41.1	NA	30.9	NA	39.8	NA	0.19	NA	1.03	NA	0.27	NA						

2028 No Games

2028 No Games VMT

Corridor	Route	Direction	Length	AM_GP_Auto	AM_GP_Truck	AM_GP_TotalVehicles	AM_ML_Auto	PM_GP_Auto	PM_GP_Truck	PM_GP_TotalVehicles	PM_ML_Auto	Daily_GP_Auto	Daily_GP_Truck	Daily_GP_TotalVehicles	Daily_ML_Auto
NB405	405	NB	47.739	316,271	12,076	328,347	66,738	309,175	11,783	320,959	60,529	5,934,883	224,972	6,159,855	986,594
SB405	405	SB	47.739	315,558	11,897	327,456	55,519	271,697	10,431	282,128	62,389	5,536,631	209,501	5,746,132	948,487
EB101	101	EB	10.775	73,752	3,275	77,027	NA	72,339	3,213	75,552	NA	1,394,841	61,475	1,456,316	NA
WB101	101	WB	10.775	75,316	3,356	78,672	NA	62,311	2,758	65,069	NA	1,395,028	61,489	1,456,518	NA
NB134	134	NB	13.323	85,242	3,746	88,988	11,817	70,253	2,937	73,190	16,698	1,284,872	55,522	1,340,424	190,520
SB134	134	SB	13.323	84,241	3,607	87,848	20,506	71,545	3,109	74,655	16,261	1,190,891	51,786	1,242,676	262,072
EB210	210	EB	0.494	1,809	85	1,895	NA	2,060	97	2,156	NA	26,560	1,249	27,809	NA
WB210	210	WB	0.494	1,992	94	2,086	NA	1,844	87	1,931	NA	26,585	1,250	27,835	NA
NB2	2	NB	6.075	15,993	401	16,394	NA	28,321	698	29,019	NA	320,920	8,029	328,949	NA
SB2	2	SB	6.075	29,088	731	29,819	NA	24,671	609	25,280	NA	382,012	9,592	391,604	NA
EB10	10	EB	39.522	214,286	9,836	224,122	21,541	186,591	9,268	195,859	43,956	3,787,701	176,265	3,963,966	511,019
WB10	10	WB	39.522	219,378	9,861	229,239	44,452	231,493	10,507	242,000	24,042	4,095,262	189,969	4,279,231	492,857
NB71	71	NB	11.829	34,082	2,472	36,554	3,554	35,761	2,582	38,343	2,604	565,076	41,074	606,150	42,058
SB71	71	SB	11.829	29,975	2,186	32,161	1,493	28,957	2,100	31,057	3,444	524,330	38,175	562,505	36,537
EB91	91	EB	26.741	141,908	11,602	153,510	28,781	138,106	11,336	149,442	36,420	2,550,045	208,546	2,758,591	500,762
WB91	91	WB	26.741	144,827	11,958	156,885	41,480	143,000	11,759	154,760	31,907	2,610,189	214,287	2,824,476	504,641
NB15	15	NB	38.025	123,734	13,391	137,125	6,750	132,696	14,211	146,907	3,297	2,300,555	247,437	2,547,991	77,675
SB15	15	SB	38.025	131,574	13,926	145,501	4,237	134,893	14,861	149,554	7,637	2,295,160	246,397	2,541,557	98,117
EB105	105	EB	5.281	21,260	1,166	22,426	9,648	18,935	1,034	19,969	7,385	439,630	24,082	463,712	168,316
WB105	105	WB	5.281	34,980	1,934	36,913	9,225	27,010	1,485	28,495	6,730	612,411	33,714	646,124	114,404
NB57	57	NB	4.144	23,184	2,275	25,459	2,268	24,174	2,369	26,543	3,919	406,303	39,876	446,178	39,241
SB57	57	SB	4.144	26,833	2,632	29,464	5,185	24,738	2,425	27,163	4,293	420,386	41,251	461,637	56,838
NB110	110	NB	15.486	77,861	4,076	81,936	32,940	66,613	3,529	70,142	32,780	1,399,722	70,199	1,469,921	549,499
SB110	110	SB	15.486	104,095	5,162	109,257	24,333	80,986	4,254	85,241	28,144	1,717,887	84,500	1,802,387	390,906
NB39	39	NB	5.764	6,417	98	6,515	NA	9,848	152	10,000	NA	125,125	1,919	127,044	NA
SB39	39	SB	5.764	9,662	147	9,809	NA	8,411	129	8,539	NA	129,948	1,985	131,933	NA
NB1	1	NB	1.737	4,573	163	4,736	NA	2,493	86	2,579	NA	47,364	1,793	49,157	NA
SB1	1	SB	1.737	2,469	103	2,572	NA	3,948	133	4,081	NA	47,989	1,795	49,784	NA

# **Attachment 4**

Games Family Traffic Demand Model Memorandum

# Memorandum

Date: February 24, 2025

To: Tasha Higgins, Caltrans, Ernesto Chaves, LA Metro

From: Allan Gooch, Jacobs  
Phil Clarke, Jacobs

CC: Chris Liban, Metro  
Hoan Tang, Metro  
Jacqueline Torres, Metro  
Siew Mei Tan, Caltrans  
Chao Wei, Caltrans  
Heather Shepard, TRC  
Katie Wilson, TRC  
Anna Luo, Fehr & Peers  
Chelsea Richer, Fehr & Peers

**Subject: Games Route Network Modeling – Games Family Demand Model Memorandum**

*LA24-3333.01*

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This memorandum presents the assumptions, methodologies, and approach to develop the Games Family Demand Model (GFDM) for the Los Angeles 2028 Olympic Games (the Games). The memorandum was prepared in response to Caltrans' request during the review of the Games Route Network Modeling Technical Analysis Approach Memorandum (approved on February 6, 2025).

## 1. Purpose

The purpose of the GFDM is to estimate the number of Games Family accredited vehicles that are expected to travel between Games competition and non-competition venues. Non-competition venues include accommodation locations, official Ports of Entry (POEs), and other key Games locations such as the International Broadcast Center (IBC) and the Main Press Center (MPC).

## 2. Scope of GFDM

### *Accredited Client Groups and Modes of Travel*

The GFDM includes trips generated by the accredited client groups described in **Table 1** below. The transport system(s) that will be used by each client group are also described. These assumptions are based on the transport systems that have been provided by the Organizing Committees for previous Olympic Games.

**Table 1: Accredited Client Groups and Transport Systems**

<b>Client Group</b>	<b>Transport System(s)</b>
Athletes and Team Officials	Athlete bus system (TA)
	National Olympic Committee (NOC) cars provided by LA28
Technical Officials (referees, judges, umpires, etc.)	Technical Official bus system (TF)
Media and Broadcast	Shared bus system for Media and other accredited clients (TC)
	Direct and Dedicated (DDS) bus system for Olympic Broadcast Services (OBS)
Games Stakeholders (International Olympic Committee (IOC) members, International Sports Federation staff, dignitaries, etc.)	TX car fleet system
Marketing Partners	Buses organized by each marketing partner using LA28's Marketing Partner Coach Program
LA28 workforce and contractors	Operational vehicles

### *Geographic Scope*

The GFDM will generate estimates of vehicle trips between the venues set out in **Tables 2 and 3**. It is important to note that these venues are draft and subject to change by the LA28 Organizing Committee.

**Table 2: Venues Included in the Games Family Demand Model\***

<b>Venue Type</b>	<b>Venue Name</b>	<b>Assumed Location</b>
Accommodation Venues	Olympic Village (accommodation for Athletes and Team Officials)	UCLA campus
	Olympic Family Hotel (accommodation for IOC members, International Sports Federation staff, and other Games stakeholders)	Ritz Carlton Hotel, Downtown LA
	Media Village (accommodation for accredited media and broadcast staff)	USC campus, Downtown LA
	Technical Official Hotels	Hotels in Downtown LA
	Marketing Partner Hotels	Hotels in LA County
Competition Venues	All competition venue clusters in SoCal	Various, see Table 3 below
Ports of Entry	LAX	
	Union Station	
Broadcast and Media	International Broadcast Center	SoFi Stadium complex
	Main Press Center	USC campus
Live Sites		Downtown LA
		Carson
		Inglewood
		Long Beach

**Table 3: Competition Venue Locations included in the Games Family Demand Model\***

<b>Venue</b>	<b>Venue Cluster</b>	<b>Sports/Discipline</b>
Belmont Pier	Long Beach	Sailing/ Windsurfing
BMO Stadium	Downtown USC	Lacrosse Flag Football
Crypto.com Arena	Downtown LA Live	Gymnastics – Rhythmic, Artistic & Trampoline
Dignity Health Park Fields	Carson	Field Hockey
Dignity Health Park Stadium	Carson	Rugby 7's
Dignity Health Park	Carson	Modern Pentathlon
Dignity Health Tennis Center	Carson	Tennis
Dodger Stadium	Dodger Stadium	Baseball
Frank G. Bonelli Park	Frank G. Bonelli Park	Mountain Biking
Galen Center	Downtown USC	Badminton
Galway Downs (including Galway Downs XC)	Galway Downs	Equestrian – Dressage, Eventing, Jumping & Eventing Cross Country
Grand Park and LA City Hall	Downtown Grand Park	Athletics Marathon and Walk, Road Cycling and Basketball 3x3
Honda Center	Honda Center	Indoor Volleyball
Huntington Beach	Huntington Beach	Surfing
Intuit Dome	Inglewood	Basketball
John C. Argue Swim Stadium	Downtown USC	Diving
LA Convention Center	Downtown LA Live	Fencing, Taekwondo, Table Tennis, Judo & Wrestling
LA Coliseum	Downtown USC	Athletics, Closing Ceremony
Long Beach Arena	Long Beach	Handball
Long Beach Convention Center Lot 1	Long Beach	Sports Climbing
Long Beach Convention Center Lot 2	Long Beach	Artistic Swimming & Water Polo
Long Beach Waterfront	Long Beach	Marathon Swimming, Triathlon

Venue	Venue Cluster	Sports/Discipline
Marine Stadium	Long Beach	Canoe/Kayak and Rowing
Peacock Theatre	Downtown LA Live	Squash Weightlifting
Prado Shooting Range	Prado Shooting Range	Shooting
Riviera Country Club	Riviera Country Club	Golf
Rose Bowl Stadium	Rose Bowl	Football (H, Q, S and Finals)
Santa Monica Beach	Santa Monica	Beach Volleyball
Sepulveda Basin	Sepulveda	BMX Freestyle and Racing, Skateboarding Street and Park
Sepulveda Basin Sports Complex	Sepulveda	Archery
SoFi Stadium	Inglewood	Opening Ceremony, Swimming
VELO Sports Center	Carson	Track Cycling

\* The venues listed in Tables 2 and 3 are those agreed with LA28 for the purposes of transportation planning. The venues are draft and subject to change.

### **Temporal Scope**

The GFDM will be developed to cover the whole period between the official opening of the Olympic Village (two weeks before the Opening Ceremony) until three days after the Closing Ceremony of the Olympic Games. This initial project will only develop the GFDM for one day (Day 10) of the Olympic Games.

Demand forecasts will be developed on an hourly basis.

## **3. Key Inputs and Assumptions**

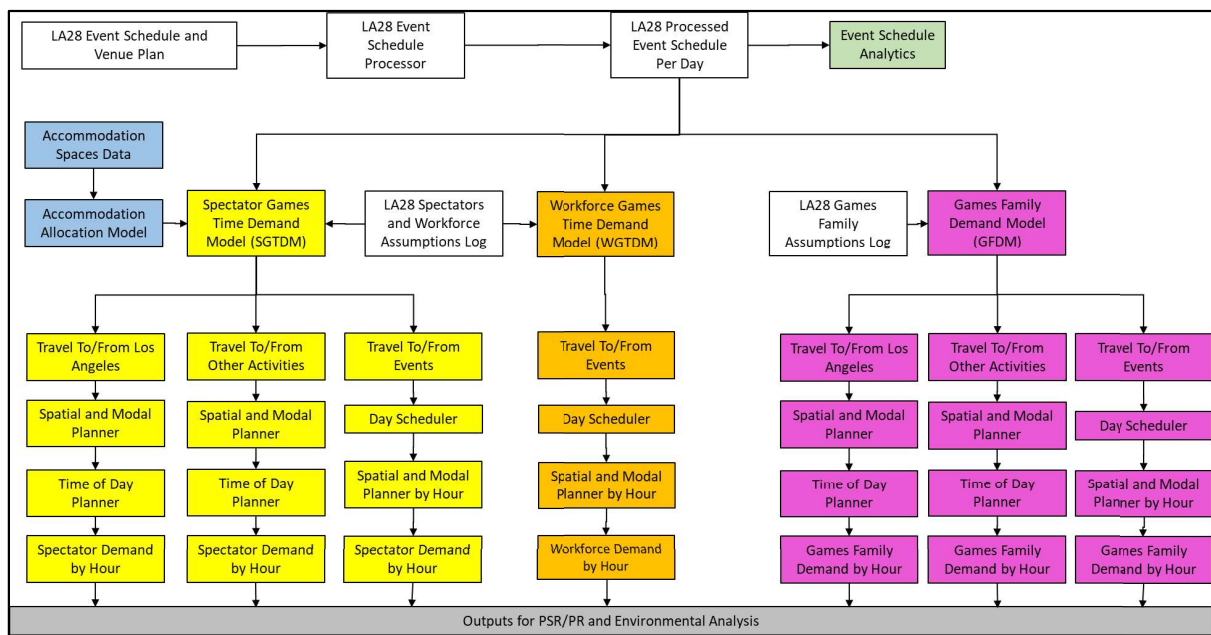
At this time, over 3 years out from the Games, many details regarding the Games have not yet been finalized by the LA28 Organizing Committee. Thus, assumptions have been made based on experience from previous Games, combined with draft information that has been provided by LA28. Key assumptions that will be used in the GFDM include the following:

- Olympic competition schedule (draft) provided by LA28
- Competition venues and seating capacities provided by LA28
- Location of non-competition venues provided by LA28
- Number of people in each client group assumed based on previous Games
- Games Family transport systems operating principles based on previous Games
- Travel behavior of different client groups assumed based on previous Games experience

An initial version of the Games Family Assumptions Log, which documents the assumptions applied for Games Family related travel, will be produced through this task order and presented at future bi-weekly project meetings. More details about the Assumptions Logs are provided below.

## 4. Methodology

The GFDM is a component of a broader 2028 Olympics Demand Model. The 2028 Olympics Demand Model consists of several connected modules that take inputs from their associated Assumptions Logs, the Olympic Event Schedule and Olympic Venue plan, and the Background Model (No Games), and generates demand estimates representing travel behavior associated with 2028 Games-related travel. Several components of the Olympics Demand Model have already been developed. An initial version of the GFDM will be developed through this task order. **Figure 1** below illustrates the 2028 Olympics Demand Model process.



**Figure 1: 2028 Olympics Demand Model Structure**

The primary components of the modelling process are:

- **LA28 Event Schedule Processor** – this uses the current event schedule and venue plan to create individual schedules for each day of the Games. This is then used in subsequent processes.
- **Accommodation Allocation Model** – this uses the data associated with accommodation spaces and allocates spectators to the available spaces for each day of the Games.

- **LA28 Spectators and Workforce Assumptions Log** – this documents all of the assumptions associated with spectator and workforce travel during the Games.
- **LA28 Games Family Assumptions Log** – this documents all of the assumptions associated with Games Family related travel during the Games.
- **Spectator Games Time Demand Model (SGTDM)** – this uses the event schedule for a particular Games Day produced by the LA28 Event Schedule Processor, the output from the Accommodation Allocation Model for that day, and the other spectator related assumptions in the Spectator and Workforce Assumptions Log. It then estimates the demand associated with traveling to and from LA, traveling to and from other activities and traveling to and from Olympic events. The SGTDM produces demand matrices for each hour of the Games separately.
- **Workforce Games Time Demand Model (WGTDM)** – this uses the event schedule for a particular Games Day produced by the LA28 Event Schedule Processor and the other workforce related assumptions in the Spectator and Workforce Assumptions Log. It then estimates the demand associated with traveling to and from Olympic events. The WGTDM produces demand matrices for each hour of the Games separately.
- **Games Family Demand Model (GFDM)** – this takes the event schedule for a particular Games Day produced by the LA28 Event Schedule Processor and the assumptions provided in the LA28 Games Family Assumptions Log. It then estimates the demand associated with traveling to and from LA, to and from training facilities and events, and to and from other activities. It will be used to forecast vehicle trips generated by accredited Games vehicles transporting Games Family members between their accommodations and competition venues and key non-competition venues etc. (e.g., the International Broadcast Center).

The 2028 Olympics Demand Model, including the GFDM, are developed using a combination of spreadsheets and Python scripts.

## 5. Outputs from the Model

Previous work undertaken for LA Metro has used the SGTDM and WGTDM model components to estimate Olympics related travel associated with spectators and Olympics workforce. These have been provided as a series of demand matrices for 6 key hours on Day 10 of the Olympics and have been assigned in the SCAG background model.

The GFDM developed as part of this task order will generate estimates of vehicle trips for accredited client group movements for the same 6 hours on Day 10 of the Olympic Games. These matrices will then be allocated to the Games Route Network, to generate link flows on each section of the GRN for each hour. Outputs from the model runs will be used to develop the performance metrics as identified in the Games Route Network Modeling Technical Analysis Approach Memorandum (approved on February 6, 2025), which will be applied in the PSR/PR assessment.

# **Attachment 5**

Year 2028 With Games Traffic Data





Segment Definition										2024 With Games VMT																		
Contra	GP ID	MD	Route	Freeway Segment	Direction	Dist	Dist [Down]	Dist [Up]	Length	AM GP Auto	AM GP Trucks	AM GP Totals	AM GP Trucks	AM GL Auto	AM GL Trucks	AM GL Totals	PM GP Auto	PM GP Trucks	PM GP Totals	PM GL Auto	PM GL Trucks	PM GL Totals	Daily GP Auto	Daily GP Trucks	Daily GP Totals	Daily GL Auto	Daily GL Trucks	Daily GL Totals
	NB405	PH1	M41	405	Beach Blvd to SR 22	SB	12	18.546	20.822	4.277	27,775	3,678	1,017	32,670	380	27,441	3,794	947	36,583	380	36,955	115,904	20,788	592,525	10,126	582,228	10,126	
	NB405	PH2	M42	405	Beach Blvd to SR 22	SB	12	18.546	20.822	4.277	29,340	1,077	790	27,647	240	25,688	3,187	747	29,614	240	29,854	140,101	14,880	611,725	10,577	611,725	10,577	
	NB405	PH3	M43	405	SR 22 to I 405	SB	12	20.822	23.586	2.764	23,514	4,433	790	27,647	240	25,688	3,187	747	29,614	240	29,854	140,101	14,880	611,725	10,577	611,725	10,577	
	NB405	PH4	M44	405	I 405 to Rossmore Ave	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH5	M45	405	I 405 to Lakerwood Blvd	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH6	M46	405	I 405 to Lakerwood Blvd	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH7	M47	405	I 405 to Lakerwood Blvd	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH8	M48	405	Lakerwood Blvd to I 710	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH9	M49	405	I 710 to I 110	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH10	M50	405	I 110 to I 15	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH11	M51	405	I 15 to Rossmore Ave	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH12	M52	405	Rossmore Ave to Century Blvd	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH13	M53	405	Rossmore Ave to Century Blvd	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH14	M54	405	Century Blvd to SR 99	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH15	M55	405	Century Blvd to SR 99	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH16	M56	405	SR 99 to I 10	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH17	M57	405	I 10 to Sunset Blvd	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH18	M58	405	I 10 to Sunset Blvd	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH19	M59	405	Sunset Blvd to Skyway Center Dr	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH20	M60	405	Sunset Blvd to Skyway Center Dr	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH21	M61	405	Skyway Center Dr to US-101	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH22	M62	405	Skyway Center Dr to US-101	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH23	M63	405	US-101 to Burbank Blvd	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH24	M64	405	US-101 to Burbank Blvd	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH25	M65	405	US-101 to Burbank Blvd	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH26	M66	405	US-101 to Burbank Blvd	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH27	M67	405	US-101 to I 5	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH28	M68	405	I 5 to I 5	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH29	M69	405	I 5 to I 5	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH30	M70	405	I 5 to I 5	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH31	M71	405	I 5 to I 5	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH32	M72	405	I 5 to I 5	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH33	M73	405	I 5 to I 5	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH34	M74	405	I 5 to I 5	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH35	M75	405	I 5 to I 5	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH36	M76	405	I 5 to I 5	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH37	M77	405	I 5 to I 5	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH38	M78	405	I 5 to I 5	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225	15,834	
	NB405	PH39	M79	405	I 5 to I 5	SB	7	12.967	13.922	0.955	39,927	4,433	790	44,750	447	40,300	4,346	1,017	45,717	447	46,164	208,668	23,520	1,017,225	15,834	1,017,225		



Corridor	2028 With Games																				
	2028 With Games Travel Time (Minutes)				2028 With Games Average Speed (MPH)				2028 With Games Delay (Minutes)												
	Route	Direction	Length	AM_GL	PM_GL	PM_GP	PM_GL	Daily_GP	Daily_GL	AM_GP	AM_GL	PM_GP	PM_GL	Daily_GP	Daily_GL	AM_GL	AM_GP	PM_GL	PM_GP	Daily_GL	Daily_GP
NB405	405	NB	47.739	93.52	40.92	99.87	40.92	63.73	40.92	30.6	70.0	28.7	70.0	44.9	70.0	52.60	0.00	58.95	0.00	22.81	0.00
SB405	405	SB	47.739	111.87	40.92	81.83	40.92	67.98	40.92	25.6	70.0	35.0	70.0	42.1	70.0	70.95	0.00	40.91	0.00	27.06	0.00
EB101	101	EB	10.775	43.72	9.95	51.83	9.95	15.63	9.95	14.8	65.0	12.5	65.0	41.3	65.0	33.95	0.18	42.06	0.18	5.86	0.18
WB101	101	WB	10.775	68.18	9.95	41.98	9.95	15.39	9.95	9.5	65.0	15.4	65.0	42.0	65.0	58.41	0.18	32.21	0.18	5.62	0.18
NB134	134	NB	13.323	26.50	11.42	27.38	11.42	16.79	11.42	30.2	70.0	29.2	70.0	47.6	70.0	15.08	0.00	15.96	0.00	5.37	0.00
SB134	134	SB	13.323	28.87	11.42	17.13	11.42	17.05	11.42	27.7	70.0	46.7	70.0	46.9	70.0	17.45	0.00	5.71	0.00	5.63	0.00
EB210	210	EB	0.494	9.13	0.85	16.69	0.85	0.64	0.85	3.2	35.0	1.8	35.0	46.7	35.0	8.28	0.00	15.85	0.00	0.00	0.00
WB210	210	WB	0.494	12.98	0.66	12.98	0.66	0.81	0.66	2.3	45.0	2.3	45.0	36.4	45.0	12.33	0.00	12.33	0.00	0.15	0.00
NB2	2	NB	6.075	11.34	7.75	32.55	7.75	13.09	7.75	32.2	47.0	11.2	47.0	27.8	47.0	5.41	1.83	26.62	1.83	7.17	1.83
SB2	2	SB	6.075	42.27	7.72	17.78	7.72	12.95	7.72	8.6	47.2	20.5	47.2	28.2	47.2	36.36	1.81	11.86	1.81	7.03	1.81
EB10	10	EB	39.522	79.58	34.23	104.05	34.23	54.76	34.23	29.8	69.3	22.8	69.3	43.3	69.3	45.62	0.27	70.09	0.27	20.80	0.27
WB10	10	WB	39.522	102.33	34.23	86.02	34.23	51.83	34.23	23.2	69.3	27.6	69.3	45.7	69.3	68.37	0.28	52.07	0.27	17.88	0.28
NB71	71	NB	11.829	21.99	10.92	22.13	10.92	14.97	10.92	32.3	65.0	32.1	65.0	47.4	65.0	10.86	0.00	11.01	0.00	3.84	0.00
SB71	71	SB	11.829	20.72	10.71	43.23	10.71	14.64	10.71	34.3	66.2	16.4	66.2	48.5	66.2	9.92	0.00	32.44	0.00	3.85	0.00
EB91	91	EB	26.741	34.17	22.92	51.47	22.92	33.69	22.92	47.0	70.0	31.2	70.0	47.6	70.0	11.25	0.00	28.55	0.00	10.76	0.00
WB91	91	WB	26.741	48.81	22.92	38.04	22.92	37.94	22.92	32.9	70.0	42.2	70.0	42.3	70.0	25.89	0.00	15.12	0.00	15.02	0.00
NB15	15	NB	38.025	46.97	30.68	60.70	30.68	39.88	30.68	48.6	74.4	37.6	74.4	57.2	74.4	16.30	0.01	30.03	0.01	9.21	0.01
SB15	15	SB	38.025	46.32	30.68	55.08	30.68	36.92	30.68	49.3	74.4	41.4	74.4	61.8	74.4	15.66	0.01	24.41	0.01	6.25	0.01
EB105	105	EB	5.281	8.61	4.53	8.13	4.53	7.84	4.53	36.8	70.0	39.0	70.0	40.4	70.0	4.08	0.00	3.60	0.00	3.31	0.00
WB105	105	WB	5.281	53.62	4.53	10.99	4.53	6.33	4.53	5.9	70.0	28.8	70.0	50.1	70.0	49.09	0.00	6.46	0.00	1.80	0.00
NB57	57	NB	4.144	4.10	3.55	6.60	3.55	4.36	3.55	60.7	70.0	37.7	70.0	57.1	70.0	0.55	0.00	3.05	0.00	0.81	0.00
SB57	57	SB	4.144	17.71	4.32	12.31	4.32	4.81	4.32	14.0	57.5	20.2	57.5	51.7	57.5	13.83	0.44	8.43	0.44	0.93	0.44
NB110	110	NB	15.486	49.34	14.29	37.13	14.30	22.08	14.32	18.8	65.0	25.0	65.0	42.1	64.9	35.46	0.41	23.25	0.42	8.20	0.44
SB110	110	SB	15.486	44.45	15.45	41.10	13.97	22.14	16.29	20.9	60.1	22.6	66.5	42.0	57.0	30.82	1.82	27.47	0.34	8.51	2.66
NB39	39	NB	5.764	10.57	8.02	17.33	8.02	13.29	8.02	32.7	43.1	20.0	43.1	26.0	43.1	2.59	0.05	9.36	0.05	5.32	0.05
SB39	39	SB	5.764	14.96	8.02	13.48	8.02	13.20	8.02	23.1	43.1	25.7	43.1	26.2	43.1	6.99	0.05	5.51	0.05	5.23	0.05
NB1	1	NB	1.737	9.96	2.31	4.96	2.31	3.91	2.31	10.5	45.0	21.0	45.0	26.6	45.0	7.61	0.00	2.61	0.00	1.57	0.00
SB1	1	SB	1.737	4.75	2.31	11.94	2.31	3.64	2.31	22.0	45.0	8.7	45.0	28.6	45.0	2.40	0.00	9.59	0.00	1.29	0.00

2028 With Games																	
2028 With Games VMT																	
Corridor	Route/Direction	Length	AM_GP_Auto	AM_GP_Games	AM_GP_Truck	AM_GP_TotalVehicles	AM_GL_Auto	PM_GP_Auto	PM_GP_Games	PM_GP_Truck	PM_GP_TotalVehicles	PM_GL_Auto	Daily_GP_Auto	Daily_GP_Games	Daily_GP_Truck	Daily_GP_TotalVehicles	Daily_GL_Auto
NB405	405 NB	47.739	323,691	33,047	12,076	368,814	5,729	317,605	36,139	11,783	365,527	5,658	6,281,578	1,025,978	231,470	7,539,026	161,783
SB405	405 SB	47.739	325,291	50,497	11,897	387,685	6,717	278,984	29,428	10,431	318,852	5,991	5,974,887	1,308,809	218,619	7,502,315	182,140
WB101	101 EB	10.775	73,752	3,908	3,617	81,277	1,029	72,339	4,350	6,130	82,819	989	1,364,274	122,097	57,843	1,544,214	28,516
WB101	101 WB	10.775	75,316	1,348	3,356	80,020	953	62,311	4,079	2,758	69,148	926	1,263,622	67,991	53,167	1,374,781	26,491
NB134	134 NB	13.323	85,562	741	3,746	90,049	330	70,253	2,344	3,216	75,813	301	1,389,842	38,405	57,164	1,485,411	9,004
SB134	134 SB	13.323	88,014	2,778	3,607	94,398	328	72,296	4,316	3,109	79,722	332	1,464,520	99,081	60,666	1,624,267	9,238
EB210	210 EB	0.494	1,809	1	85	1,896	2	2,060	1	97	2,157	2	34,533	31	1,551	36,114	44
WB210	210 WB	0.494	1,982	2	119	2,113	2	2,306	16	67	2,408	4	38,553	205	1,731	40,489	74
NB2	2 NB	6.075	15,993	283	401	16,687	158	28,321	744	903	29,968	193	415,929	13,348	10,045	439,322	4,730
SB2	2 SB	6.075	29,088	537	731	30,356	140	24,671	885	609	26,165	129	483,444	19,666	11,708	514,818	3,827
EB10	10 EB	39.522	214,718	10,944	9,884	235,546	4,672	186,846	23,034	13,041	222,921	4,487	3,834,665	450,841	173,436	4,458,942	129,440
WB10	10 WB	39.522	220,100	14,745	12,017	246,863	5,602	232,070	29,462	11,745	273,277	4,570	4,421,825	591,652	191,646	5,205,122	146,233
NB71	71 NB	11.829	34,082	291	2,472	36,846	465	35,761	397	2,707	38,865	465	625,995	9,831	42,224	678,050	13,039
SB71	71 SB	11.829	29,975	199	2,186	32,360	382	28,957	335	2,312	31,604	372	525,028	7,349	35,573	567,950	10,636
EB91	91 EB	26.741	141,908	10,043	11,602	163,553	3,597	138,106	14,961	11,336	164,402	2,679	2,689,520	351,721	203,935	3,255,176	92,988
WB91	91 WB	26.741	144,927	25,503	11,958	182,388	2,318	143,000	14,638	11,759	169,397	2,294	2,887,381	688,745	219,276	3,765,402	64,811
NB15	15 NB	38.025	125,783	5,101	13,391	144,275	1,827	132,696	3,867	14,211	150,774	1,827	2,372,428	141,179	230,421	2,744,028	51,237
SB15	15 SB	38.025	132,081	2,125	13,926	148,132	1,688	134,893	1,371	14,661	150,925	1,688	2,394,995	56,411	232,041	2,683,447	47,331
EB105	105 EB	5.281	25,834	3,420	1,166	30,420	403	22,143	1,957	1,034	25,134	421	466,025	88,269	24,173	578,468	11,452
WB105	105 WB	5.281	38,538	1,191	1,934	38,538	489	31,586	1,220	1,485	34,291	389	633,666	36,147	33,100	702,912	12,850
NB57	57 NB	4.144	23,267	115	2,275	25,657	85	24,174	109	2,380	26,663	85	422,690	3,410	37,747	463,847	2,374
SB57	57 SB	4.144	25,834	908	2,699	30,440	251	25,685	704	2,550	28,940	130	477,294	25,285	42,635	545,214	6,001
NB110	110 NB	15.486	77,861	5,664	4,455	87,980	3,059	66,613	9,365	5,291	81,269	3,866	1,402,280	207,679	69,958	1,679,917	92,751
SB110	110 SB	15.486	104,095	9,932	10,560	124,588	7,387	80,986	11,304	8,285	100,575	5,521	1,800,038	312,800	87,146	2,199,984	191,114
NB39	39 NB	5.764	6,417	173	88	6,688	60	9,848	145	152	10,145	60	150,624	4,822	2,279	157,826	1,685
SB39	39 SB	5.764	9,662	55	147	9,863	60	8,411	132	129	8,671	60	160,164	2,415	2,402	164,981	1,685
NB1	1 NB	1.737	5,285	68	167	5,520	76	2,586	88	139	2,813	37	67,917	2,254	2,434	72,606	1,799
SB1	1 SB	1.737	2,469	192	104	2,765	37	3,948	157	180	4,284	37	61,519	5,433	2,179	69,130	1,027

**ATTACHMENT O**  
**SAFETY PERFORMANCE MEASURE**

July 28, 2025

**For project EA#50320-LA28-Proactive Safety Vehicles:**

**I. Project location and description:**

10 LA-Upgrade 880 LF of median concrete barrier to MASH within the limits of PM (6-12).

101 LA-Upgrade 440 LF of median concrete barrier to MASH within the limits of PM (12-17).

405 LA-Upgrade 880 LF of median concrete barrier to MASH within the limits of PM (26-28).

Prorated ratio for Route 10 =  $(880/5280)/6=0.03$

Prorated ratio for Route 101 =  $(440/5280)/5=0.02$

Prorated ratio for Route 405 =  $(880/5280)/2=0.09$

**Data collected:**

TASAS Table “B”, 60-month data collected for 10/01/2019 thru 09/30/2024

**Estimated Project Life:**

20 years for Bridge Railing, MGS, Concrete Median Barrier, and 10 years for Delineation and Signs.

**II. Performance Measure Calculations (Prorated):**

1) Upgrade Concrete Barrier-Route 10 (Combined Prorated).

a. *(F+SI) Collision Reduction-Annual=4.93x0.03=0.15*

b. *(F+SI) Collision Reduction-Life of the project=3*

2) Upgrade Concrete Barrier-Route 101 (Combined Prorated).

c. *(F+SI) Collision Reduction-Annual=4.65x0.02=0.1*

d. *(F+SI) Collision Reduction-Life of the project=2*

3) Upgrade Concrete Barrier-Route 405 (Combined Prorated).

e. *(F+SI) Collision Reduction-Annual=2.13x0.09=0.2*

f. *(F+SI) Collision Reduction-Life of the project=4*

**III. Performance Measure Collective Totals:**

1. Total (F+SI) Collision Reduction-Vehicles-Annual= 0.45 (Proactive Safety Vehicles-Worst case scenario)

2. Total (F+SI) Collision Reduction-Vehicles-Life of the project= 9 (Proactive Safety Vehicles-Worst case scenario)

Please let me know if you have any questions.

Thanks,  
Ashraf

**Proposed Safety Performance Measure**

Calculated by	AWH		
Date Calculated	7/28/2025		
Reviewed by	AWH		
Date Reviewed	7/28/2025		
Project Asset Management Tool ID			
EA	50320		
District	7		
Project Location #	Primary		
County	Los Angeles	2	Los Angeles
Route	10	101	405
Begin Post Mile	6	12	26
End Post Mile	12	17	28
Crash Data Time Period	10/01/2019-09/30/2024	10/01/2019-09/30/2024	10/01/2019-09/30/2024
Statewide Average Fatal Collision Rate	0.004	0.003	0.004
Statewide Average Fatal + Injury Collision Rate	0.370	0.460	0.420
Traffic Volume (MV or MVM)	2896,940	2319,190	1119,070
Years of Data	5	5	5
S% of All Injuries	6.65%	6.65%	6.65%
Number of Fatal Collisions	11.59	6.96	4.48
Number of Injury Collisions	1060.28	1059.87	465.53
Number of Serious Injury Collisions	70.51	70.48	30.96
Number of F+SI Collisions	82.10	77.44	35.43
F+SI Collisions Per Year	16.42	15.49	7.09
Dominant Safety Focus	Vehicles	Vehicles	Vehicles
Countermeasure-1	Upgrade Median Barrier to MASH	Upgrade Median Barrier to MASH	Upgrade Median Barrier to MASH
Countermeasure-2			
Countermeasure-3			
F+SI Crash Reduction Factor - 1	0.30	0.30	0.30
Life of Countermeasure - 1	20.00	20.00	20.00
F+SI Crash Reduction Factor - 2	0.00	0.00	0.00
Life of Countermeasure - 2	0.00	0.00	0.00
F+SI Crash Reduction Factor - 3	0.00	0.00	0.00
Life of Countermeasure - 3	0.00	0.00	0.00
Combined F+SI Crash Reduction Factor	0.300	0.300	0.300
<b>Annual F+SI Collisions Reduction</b>	<b>4,926</b>	<b>4,646</b>	<b>2,126</b>
<b>F+SI Collisions reduced for life</b>	<b>98.50</b>	<b>92.90</b>	<b>42.50</b>

**ATTACHMENT P**  
**OPERATIONAL COORDINATION OF**  
**GRN**

**Operational Coordination for entire Games Route Network**

Project	Location (PM)	Scope	Ready to List Date	Contract Acceptance Date
<b>DISTRICT 7</b>				
07-32360	10- PM 17.12/31.15	I-10 HOT Lane, DTLA to 605	Aug 2028	Nov 2027
07-32010	101- PM 0.00/1.50	Storm Water Source Control	Apr 2022	Feb 2028
07-0Y100	101- PM 0.19/17.85	VEN101 PM 0.2/17.9 HM251 LINE CULVERTS 24/25 FY	Jan 2025	Apr 2027
07-22000	101- PM 0.40/0.40	AMTrack and Commuter Rail (OS)	Sep 2026	Aug 2027
07-37230	101- PM 0.70/2.10	LA-101/110 Four Level Interchange/Lighting Upgrades	Feb 2026	Jun 2028
07-2Q180	101- PM 0.91/0.91	LA 101-Slope & Fence Repair	Jan 2026	Apr 2027
07-50430	101- PM 0.91/0.91	Arcadian Joint build #2	Dec 2026	Oct 2027
07-0Y420	101- PM 0.91/37.72	FY25/26 HM4-SAFETY	Dec 2025	Dec 2027
07-36320	101- PM 2.50/13.90	Mobility - TMS	Jun 2025	Oct 2027
07-31452	105- PM 0.60/10.10	I-105 HOT Lanes Cons. Seg. 1	Jan 2025	Dec 2027
07-0Y450	105- PM 5.66/15.13	FY25/26 HM4-TMS	Dec 2025	Dec 2027
07-36210	110- PM 1.10/9.70	110 Culverts; San Pedro to 91	Mar 2026	Oct 2028
07-37530	110- PM 24.00/31.91	Arroyo Seco Pkwy Drainage	Jun 2025	Dec 2027
07-34710	134- PM 0.00/13.34	LA-134 Overhead Signs	Dec 2025	Mar 2027
07-38930	134- PM 5.93/5.93	Doran Street Grade Separation Project	Aug 2025	May 2028
07-36730	134- PM 8.40/13.30	LA-134 Storm Water	Dec 2025	Sep 2028
07-33440	164- PM 3.97/4.97	SR-164 Relinq. to South El Monte	Sep 2026	Oct 2027
07-34850	2- PM 14.97/26.54	LA2 ADA in LCF	Oct 2024	Nov 2027
07-35030	2- PM 16.34/16.34	7-LA/VEN-Various PMs Changeable Message Signs(CMS) Replacement Project	Jun 2024	May 2027
07-37300	2- PM 18.70/18.70	LA-2 TMC Electrical	Apr 2026	Nov 2027
07-37310	2- PM 18.70/18.70	LA-2 TMC Mech	Apr 2026	Jan 2028
07-34820	210- PM 19.40/27.00	210 Misc	Jun 2024	Feb 2028
07-37540	405- PM 13.60/29.50	LA-405 Drainage, PE:MN-KY	Mar 2026	Jun 2028
07-0Y120	405- PM 17.14/23.45	LA 405 HM1 Slabs and HOV CPOL 25/26	Sep 2025	Apr 2028
07-35070	405- PM 19.20/25.95	405 ATM/ITS near LAX (CMGC)	Jun 2024	Oct 2027
07-36330	405- PM 25.90/43.80	LA-405 Mobility - TMS	Jun 2025	Dec 2027
07-28570	405- PM 31.50/31.50	Westside HRT on Wilshire & 405 (OS)	Sep 2020	Aug 2027
07-35820	405- PM 7.20/7.20	Pacific MTC Station	Jun 2023	Feb 2027
07-35460	91- PM 11.80/13.20	Aux Lane from I-710 to Cherry Ave UC (OS)	May 2022	Sep 2028
07-33860	91- PM 6.10/20.70	Upgrade TMS	Sep 2023	Mar 2027
07-0Y230	91- PM 6.40/19.43	Route 91 & 605 HM Bridge Preservation	Dec 2025	Jul 2027
<b>DISTRICT 11</b>				
11-2N237	5- PM 40.60/72.00	BRIDGE PRESERVATION	Nov 2025	Feb 2027
<b>DISTRICT 12</b>				
12-0H100	405- PM 10.20/24.00	12-0H100 405 WIDENING & ADDING AUXILIARY LANES	Mar 2016	Feb 2027
12-0H101	405- PM 9.30/24.20	0H101 Add one Hot lane in each direction	Mar 2016	Jan 2028
12-0K024	5- PM 12.40/18.90	12-0K024 Rt 5 OCTA Replacement Planting for 0K02	Dec 2024	Sep 2028
12-0Q970	405- PM 0.20/11.40	12-0Q970 Rte 405 (S.) Asset Management	Jun 2022	Jun 2027
12-0R311	91- PM 0.00/4.80	12-0R311 State Route 91 Multi-Asset Project	Jun 2024	Dec 2027
12-0R57U	405- PM 11.40/24.20	12-0R57U Rte. 405 Reh pvmt, Indscpng-install WIM-add stations	Jun 2024	Mar 2027
12-0R970	5- PM 0.50/10.00	12-0R970 I-5 Multi Asset Project	Sep 2025	Jan 2028
12-0S380	5- PM 10.00/21.30	12-0S380, Rte 5, RT 74 to RT 405 Multi-Asset Project	Apr 2025	Jan 2028
12-0U760	57- PM 12.53/13.39	12-0U760 Rte. 57 NB Off-ramp @ Katella Ave & SB @ Ball Rd.	Jul 2026	Mar 2028

**ATTACHMENT Q**  
**SHOPP PERFORMANCE OUTPUT**

SHOPP Project - Accomplishment - Performance Measures - Benefits																
District: 07		Tool ID: 25594		Project ID: 0724000249		EA: 50320		Co-Rte-PM: All Locations		View/Print PIR (Performance) Report		Major Damage & Betterments		Green-house Gases		
Multi-Objective Worksheet		Bridge		Pavement		Drainage		Facilities		Signs and Lighting		Mobility		TMS		
								Roadside		Bicycle and Pedestrian Infrastructure		Sustainability /Climate Change		Advance Mitigation /Mitigation		
Performance & Accomplishments (PGC)																
ActID	Activity Detail	Performance Objective	Unit of Measurement	Quantity	Pre-Good	Pre-Fair	Pre-Poor	New	Post-Good	Post-Fair	Post-Poor	HQ Program Review - Agree with District?	HQ Comment	Review Date After Review	Performance Change Date	Comment
1	F02 Changeable Message Sign	No Performance Objective in the SHSMP	Each	54,000				54,000				Yes		09/02/25		
2	F02 Changeable Message Sign	No Performance Objective in the SHSMP	Each	51,000				51,000				Yes		09/02/25		
3	F03 CCTV	No Performance Objective in the SHSMP	Each	92,000				92,000				Yes		09/02/25		
4	F03 CCTV	No Performance Objective in the SHSMP	Each	164,000				164,000				Yes		09/02/25		
5	F37 TMC Improvements (No Facilities)	No Performance Objective in the SHSMP	Each	1,000				1,000								Communication Equipment Upgrade at LARTMC
6	F38 Central Systems (Hub)	No Performance Objective in the SHSMP	Each	1,000				1,000								Communication Equipment Upgrade at ELA Hub
7	F38 Central Systems (Hub)	No Performance Objective in the SHSMP	Each	1,000				1,000								Communication Equipment Upgrade at LAX Hub
8	F38 Central Systems (Hub)	No Performance Objective in the SHSMP	Each	1,000				1,000								Communication Equipment Upgrade at NHD Hub
9	F38 Central Systems (Hub)	No Performance Objective in the SHSMP	Each	1,000				1,000								Communication Equipment Upgrade at NMK Hub
10	F38 Central Systems (Hub)	No Performance Objective in the SHSMP	Each	1,000				1,000								Communication Equipment Upgrade at SGV Hub
11	F45 TMS Structure Component	Transportation Management System Structures	Each	361,000				361,000				Yes		09/02/25		
12	F46 TMS Technology Component	Transportation Management Systems	Each	361,000				361,000				Yes		09/02/25		
13	F48 Transportation Systems Management and Operations TSMO	No Performance Objective in the SHSMP	Each	3,000				3,000								
14	F53 Daily Person Hours of Delay (DPHD)	Operational Improvements	DPHD	2476,000				2476,000								
15	H32 Is any Location Within the Project Limits Ped/Bike Accessible?	No Performance Objective in the SHSMP	Yes/No	Yes												

(Last Saved - 09/26/25 @ 1:27 PM by Devang Vora)

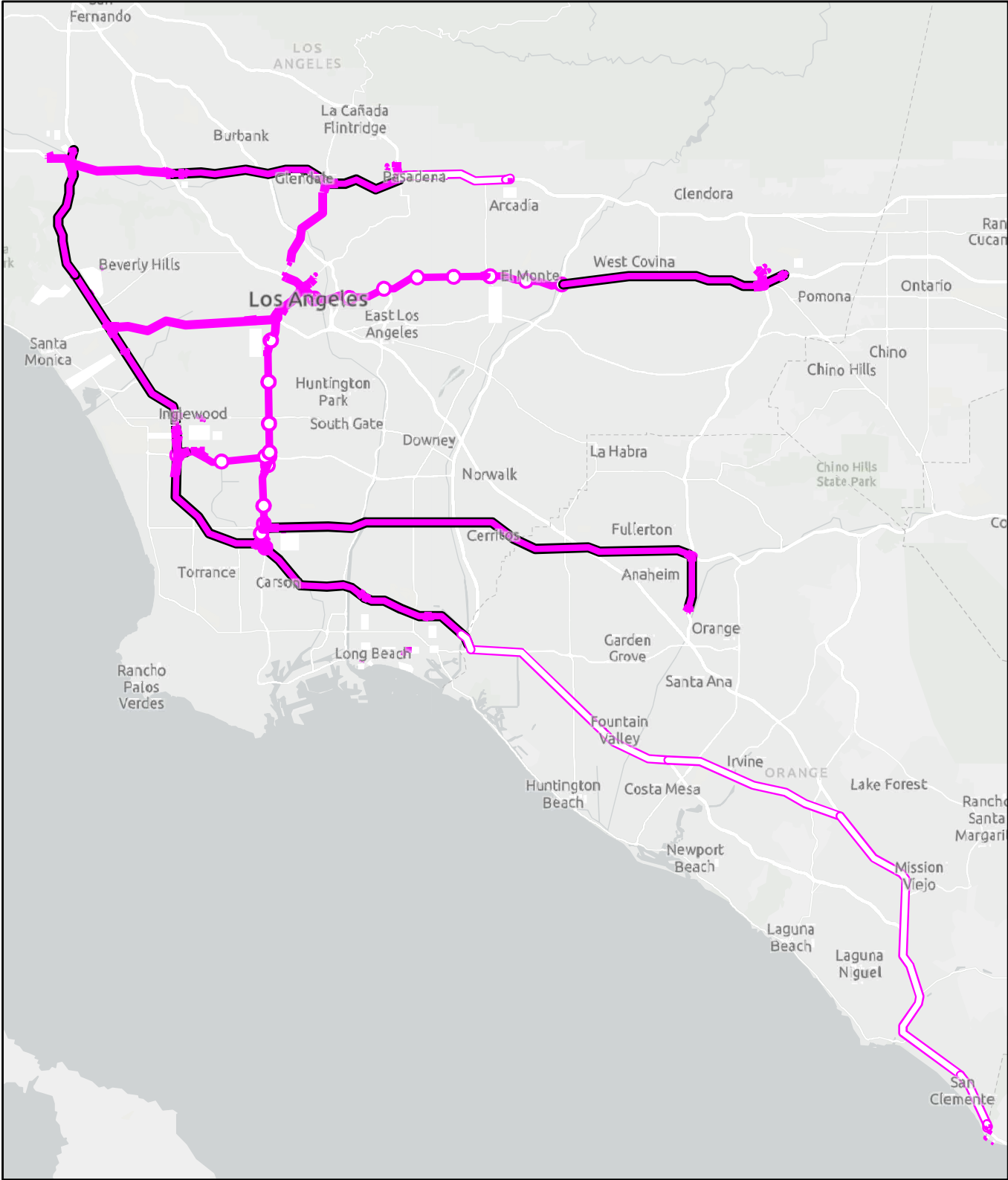
**Programming Performance Summary (All Locations)**

Program Code	Activity Category	Asset Class	Asset	Performance Value	Performance Measure	Unit	Pre-Good	Pre-Fair	Pre-Poor	Pre-Total	Post-Good+New	Post-Fair	Post-Poor	Post-Total
201,310	Mobility - Operational Improvements	Other Program Objectives	2476,0	Daily Person Hours of Delay (DPHD)	DPHD		0,0	0,0	2,476,0	2,476,0	0,0	0,0	0,0	2,476,0

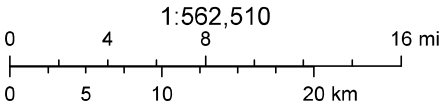
**Notes:**

- The crosswalk for reporting performance in the "Programming Performance Summary" was developed to assist the districts on performance reporting requirements for CTC and PCRs. For discrepancies or errors, please notify AM Tool admins via e-mail at CT-TAM@dot.ca.gov.
- The data summarized in the table represents the performance reported or to be reported in C-TIPS.
- Programming only requires the breakdown of Good, Fair and Poor for Primary and Supplementary Asset Classes.
- Reporting of bridge pre and post conditions may contain errors if the project RTL is before 2024/25.
- Reporting of drainage pre-total and post good may differ whenever projects contain abandoned/removed culverts as the culvert no longer exists at post construction, is deleted from the pre-total value for posting of the post good value, and gets deleted from the statewide CPF inventory database.
- Reactive Safety projects will temporarily use the same performance outputs of Safety Improvement projects. When the reporting requirements for CTC changes, the logic in the AM Tool will change.
- During the transition to the new Proactive Safety objective, the performance output for projects with a primary activity category of Proactive Safety (under program codes 015, 112, or 235) will continue to be presented here in the units of measure corresponding to the activities historically reported to date. A change in units for "Annual Fatal and Serious Injury Collisions" for future programming requests is being planned.

# Games Route Network (GRN) Map



8/6/2025

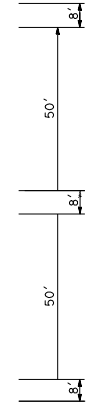
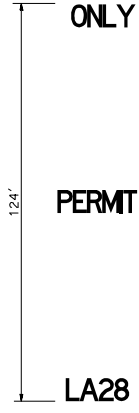
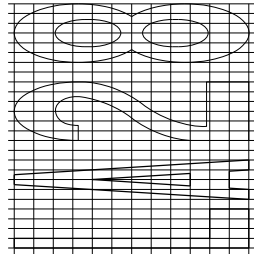


County of Los Angeles, California State Parks, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS

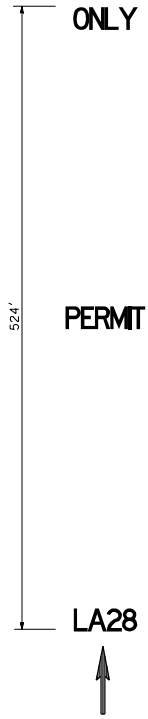
**ATTACHMENT R**  
**TYPICAL DETAILS ENTRY AND**  
**EXIT TO GRN**

DATE	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07					
REGISTERED CIVIL ENGINEER			DATE	WHICH IS PART OF THE	
ANH D. NGUYEN			02/23/25	PLANS FOR THE PROJECT	
No. 62370			I hereby certify that the above is a true and correct copy of the original as submitted to me for recording.		
Exp. 02/23/25			I hereby certify that the above is a true and correct copy of the original as submitted to me for recording.		

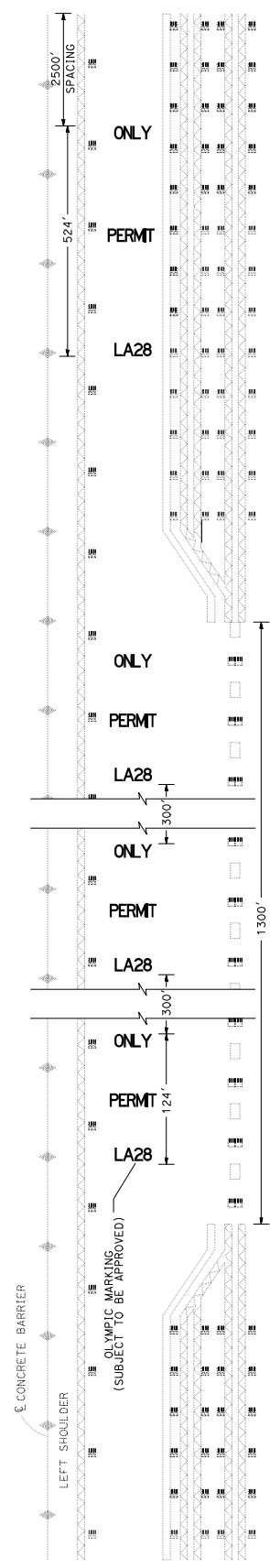
**DRAFT ONLY**



**DETAIL A**  
TYPICAL OLYMPIC MARKING  
(SUBJECT TO BE APPROVED)



**DETAIL B**  
TYPICAL OLYMPIC CONTRAST MARKING  
AT CONTINUOUS HOV/HOT  
(SUBJECT TO BE APPROVED)



**405 SB DIRECTION FOR VICTORY BLVD EXIT**

TYPICAL HOV SIGNS AND PAVEMENT MARKINGS  
TYPICAL INGRESS/EGRESS  
FOR LA28 FACILITIES WITH BUFFERS 0 FT TO 4 FT

NO SCALE

**PAVEMENT DELINEATION DETAILS**  
**PDD-1**

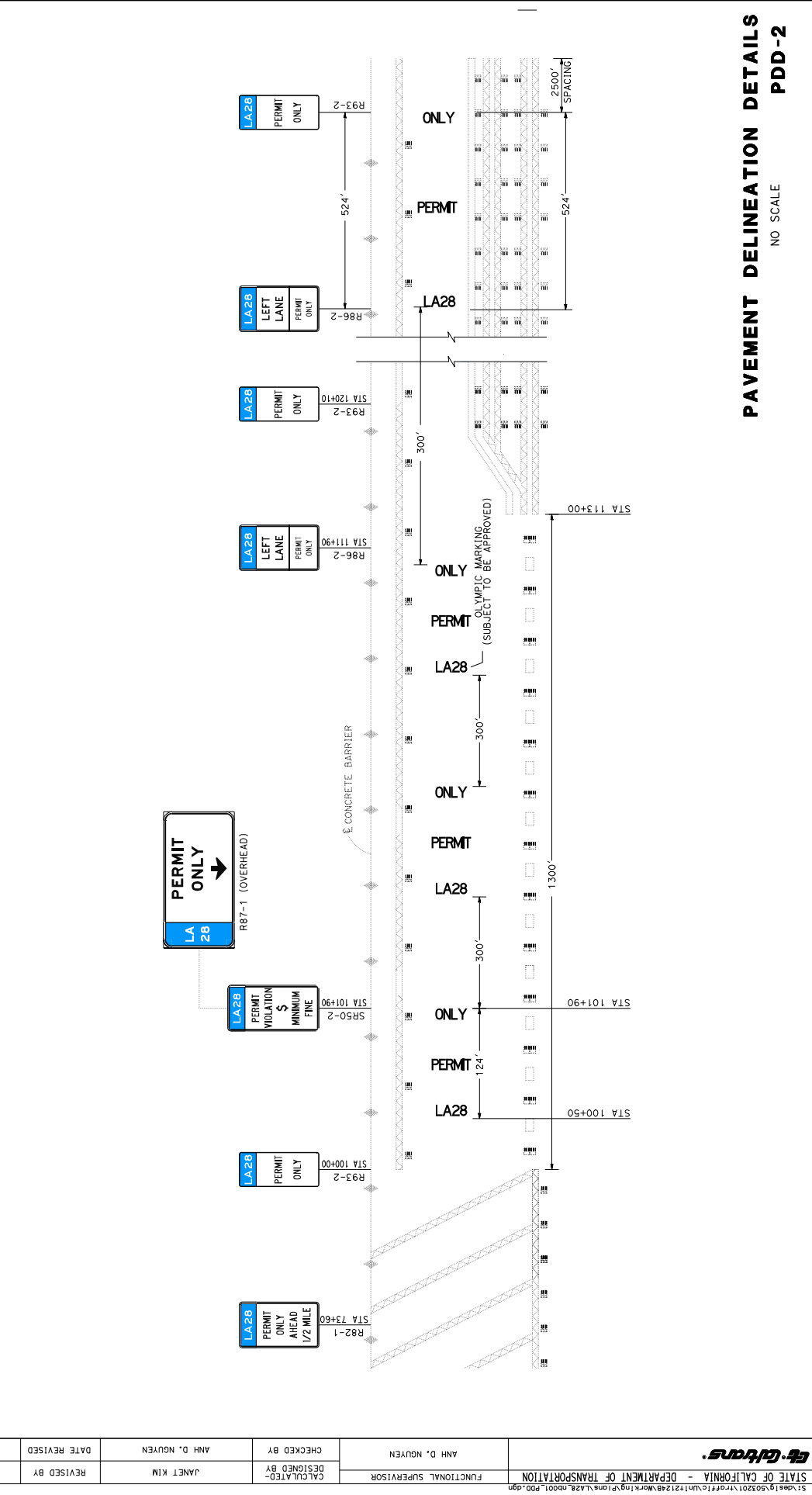
DESIGNED BY	JANET KIM	REVISOR	
CHECKED BY	ANH D. NGUYEN	DATE REVISOR	
FUNCTIONAL SUPERVISOR	ANH D. NGUYEN		
DEPARTMENT OF TRANSPORTATION			

Dist	County	ROUTE	TOTAL PROJECT	No. SHEETS
07			V07	

**DRAFT ONLY**

REGISTERED CIVIL ENGINEER DATE  
**ANH D. NGUYEN**  
 No. 62370 Exp. 3/30/25  
 CIVIL  
 STATE OF CALIFORNIA

PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION  
 THE ACCURACY OR COMPLETENESS OF SCANNED  
 COPIES OF THIS PLAN SHEET.



**PAVEMENT DELINEATION DETAILS**  
**PDD -2**  
 NO SCALE

DATE PLOTTED => 18-SEP-2024	LAST REVISION	PROJECT NUMBER & PHASE	UNIT 2124	00000000000
USER NAME => 165035	DGN FILE => LA28.dwg	RELATIVE SCALE	1" = 100'	0 1 2 3
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	ANH D. NGUYEN	CHECKED BY	ANH D. NGUYEN
DESIGNED BY	JANET KIM	REVISOR	DATE REVISOR	ANH D. NGUYEN

51:08619:503201\project\ch121248\working\plans\LA28.dwg

**DRAFT ONLY**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS
07				
VOT				

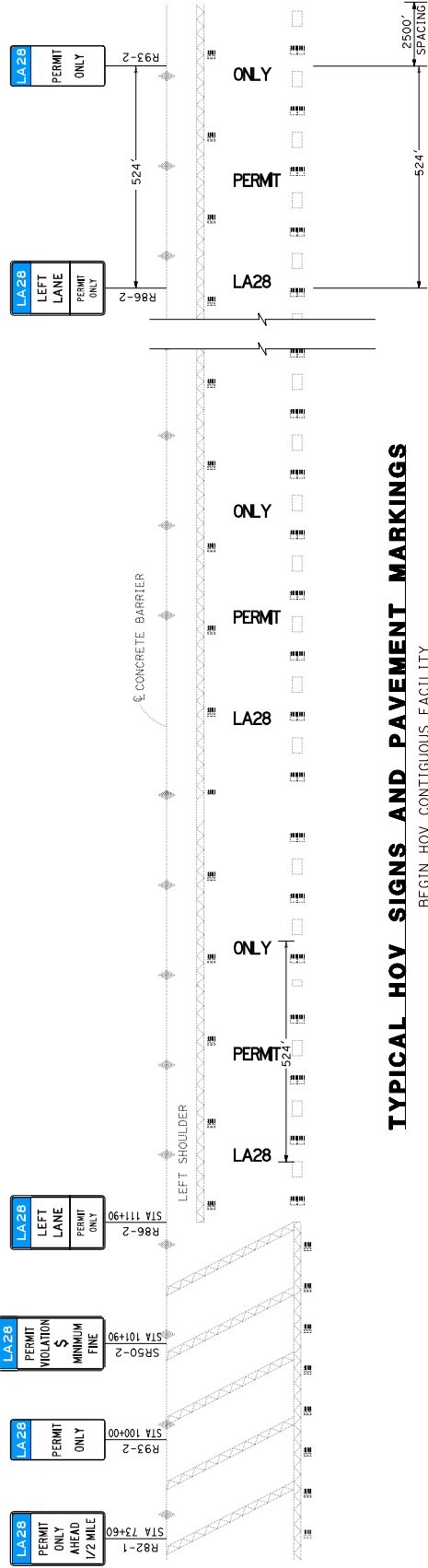
  

REGISTERED CIVIL ENGINEER	DATE
ANH D. NGUYEN	6/23/20

PLANS APPROVAL DATE	REGISTERED PROFESSIONAL ENGINEER
6/23/20	ANH D. NGUYEN
	No. 62370
	Exp. 3/30/25
	CIVIL
	STATE OF CALIFORNIA

THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION  
 ACCEPTS THE ACCURACY AND COMPLETENESS OF SCANNED  
 COPIES OF THIS PLAN SHEET.



**TYPICAL HOV SIGNS AND PAVEMENT MARKINGS**  
 BEGIN HOV CONTIGUOUS FACILITY

**PAVEMENT DELINEATION DETAILS**  
 PDD-3  
 NO SCALE

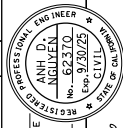
PROJECT NUMBER & PHASE: 000000000000  
 UNIT: 2124  
 RELATIVE HORIZ. SCALE: 1" = 100'-0"

DATE PLOTTED => 18-SEP-2024  
 TIME PLOTTED => 13:53  
 LAST REVISION

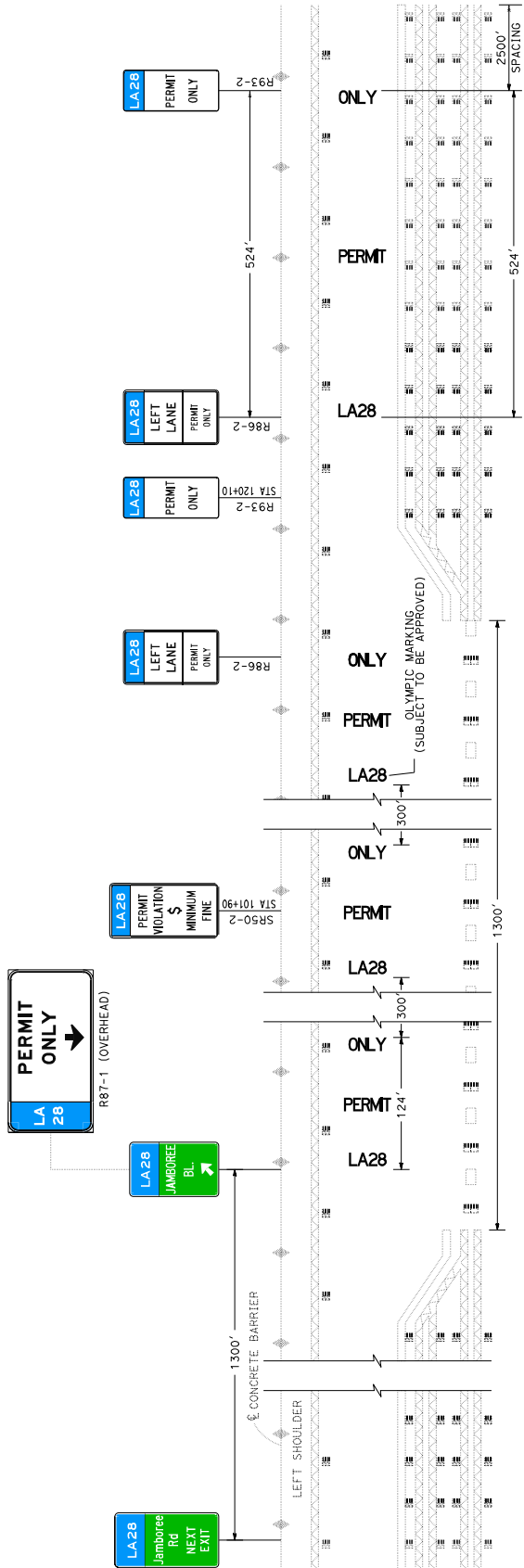
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	ANH D. NGUYEN	CHECKED BY	ANH D. NGUYEN	DATE REVISION	
DESIGNED BY	JANET KIM	REVISION				
CALCULATED BY						

USERNAME => JESUS  
 DGN FILE => L428\_PDD01\_PDD.dgn

BORDER LAST REVISED 8/5/2020

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07					
REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE			REGISTERED PROFESSIONAL ENGINEER <b>ANH D. NGUYEN</b> No. 62370 Exp. 3/30/25 CIVIL STATE OF CALIFORNIA		
I HEREBY APPROVE THE ABOVE PLANS AND FIGURES FOR THE ACCURACY, COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					

**DRAFT ONLY**



**TYPICAL HOV SIGNS AND PAVEMENT MARKINGS**

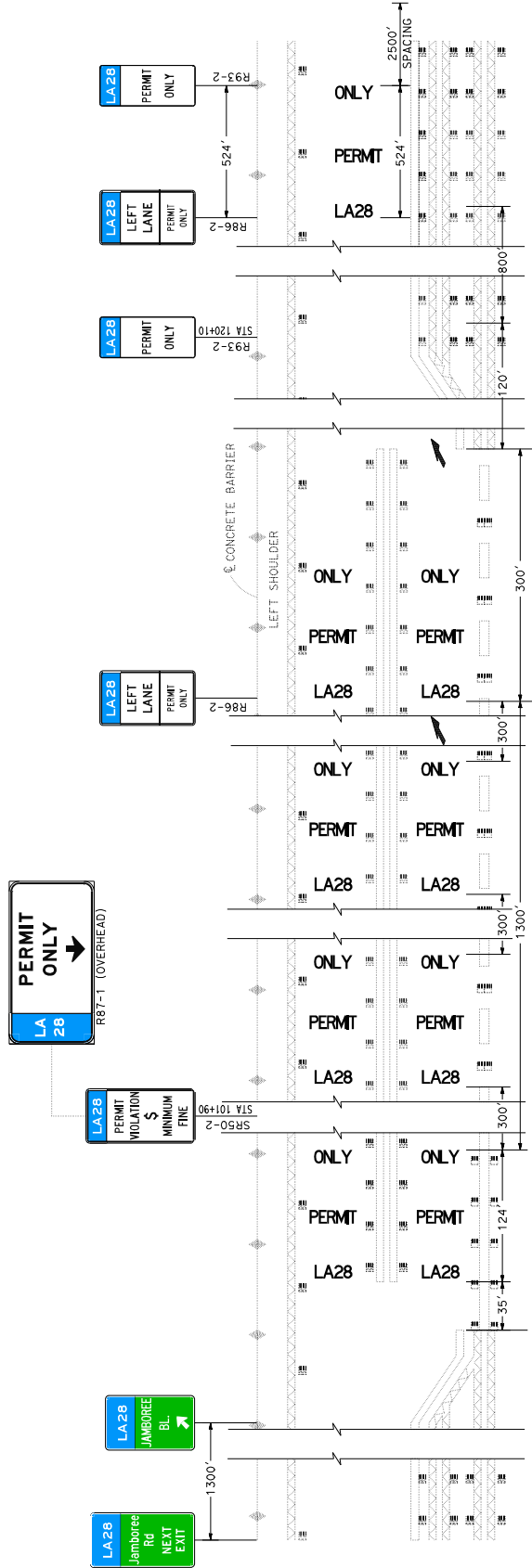
TYPICAL HOV SIGNS AND PAVEMENT MARKINGS  
 TYPICAL INGRESS/EGRESS  
 FOR LA28 FACILITIES WITH BUFFERS 0 FT TO 4 FT

**PAVEMENT DELINEATION DETAILS**  
 PDD -4  
 NO SCALE

DESIGNED BY	JANET KIM	REVISYON	
CHECKED BY	ANH D. NGUYEN	DATE REVISYON	
FUNCTIONAL SUPERVISOR	ANH D. NGUYEN		

**DRAFT ONLY**

DATE	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL
07				IND. SHEETS
REGISTERED CIVIL ENGINEER			DATE	WORKSHEET NO.
ANH D. NGUYEN			06/23/20	4
PLANS APPROVAL DATE			NO.	DATE OF CIVIL
			62310	06/23/20
I HEREBY CERTIFY THAT THE DATA SUBMITTED TO ME BY THE CLIENT IS TRUE AND CORRECT AND THAT I AM A REGISTERED CIVIL ENGINEER IN THE STATE OF CALIFORNIA.				



**TYPICAL HOV SIGNS AND PAVEMENT MARKINGS**

TYPICAL HOV SIGNS AND PAVEMENT MARKINGS  
TYPICAL EXIT/ENTRY POINTS  
FOR LA28 FACILITIES WITH BUFFERS 0 FT TO 4 FT

**PAVEMENT DELINEATION DETAILS**  
**PDD -5**  
NO SCALE

PROJECT NUMBER & PHASE  
0000000000

UNIT 2124

RELATIVE SCALE  
1" = 10' IN UNITS

USERNAME: s3165935  
DGN FILE: L428.dwg

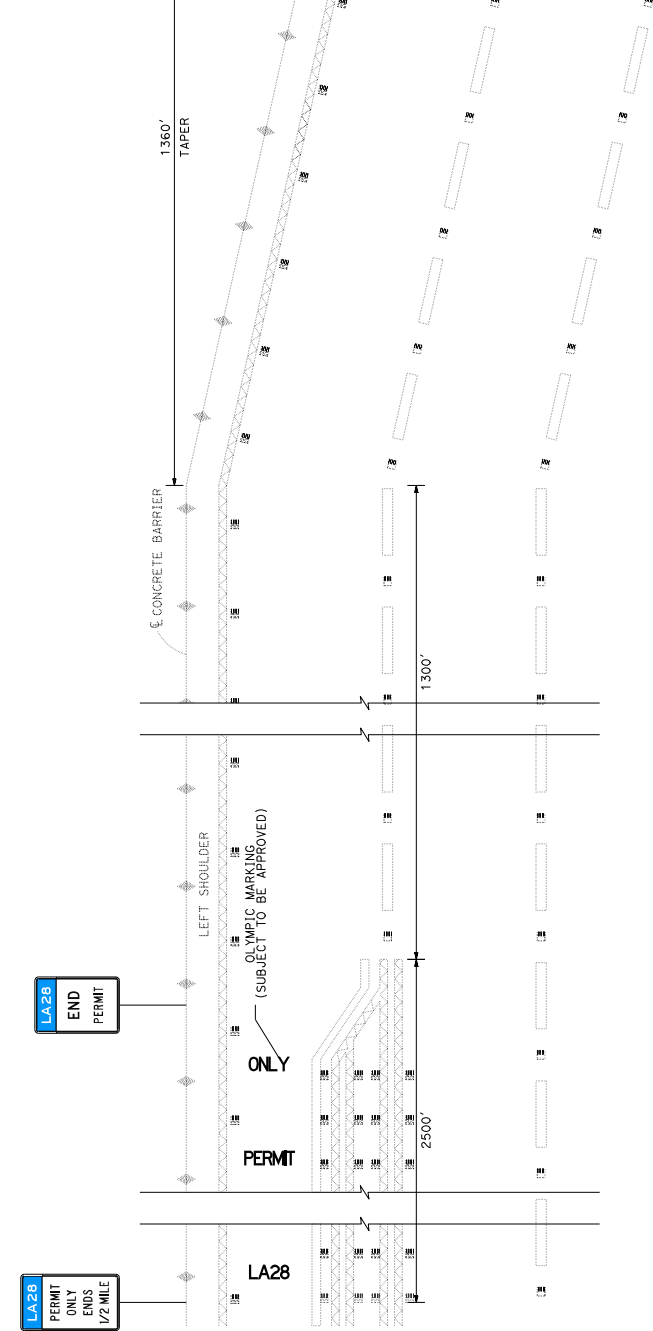
BORDER LAST REVISED 8/5/2020

POST MILES SHEET-TOTAL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	ANH D. NGUYEN	CHECKED BY	ANH D. NGUYEN	DATE REVISED	
DESIGNED BY	JANET KIM	REVISOR				

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07					
REGISTERED CIVIL ENGINEER			DATE	VOT	
ANH D. NGUYEN			6/23/20		
PLANS APPROVAL DATE					
6/23/20					
I HEREBY APPROVE THESE PLANS FOR THE ACCURACY AND COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					

**DRAFT ONLY**



**TYPICAL HOV SIGNS AND PAVEMENT MARKINGS**  
 (SIMILAR RIGHT LANE DROP FOR CONTIGUOUS AND BARRIER-SEPARATED FACILITIES)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 FUNCTIONAL SUPERVISOR  
 ANH D. NGUYEN

DESIGNED BY  
 JANET KIM

CHECKED BY  
 ANH D. NGUYEN

DATE REVISD

REVISD BY

BORDER LAST REVISED 8/5/2020

USERNAME: s37165935  
 DGN FILE: L428.dwg

RELATIVE SCALE  
 1" = 100'

UNIT 2124

PROJECT NUMBER & PHASE

POST MILES  
 0000000000

SHEET-TOTAL

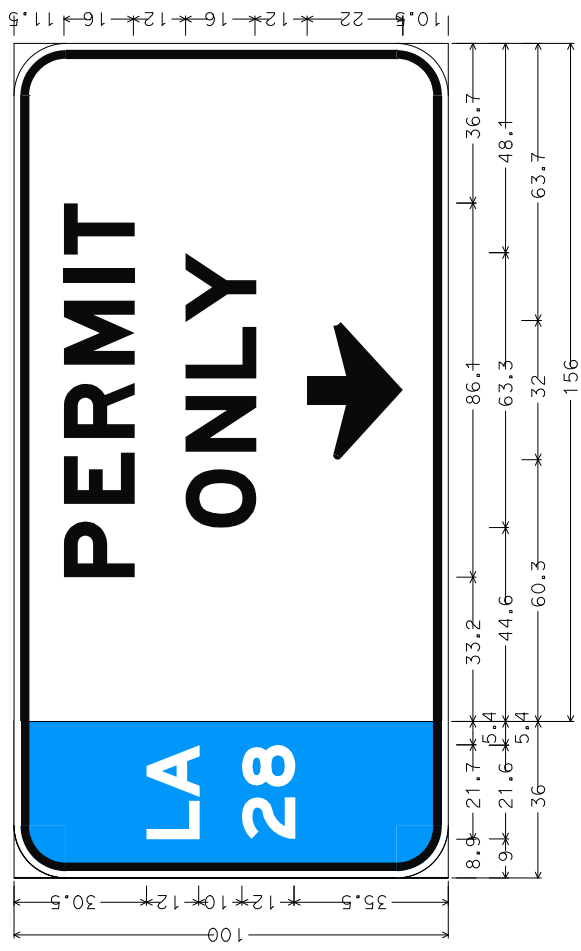
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**PDD-6**  
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 TIME PLOTTED: 13:54

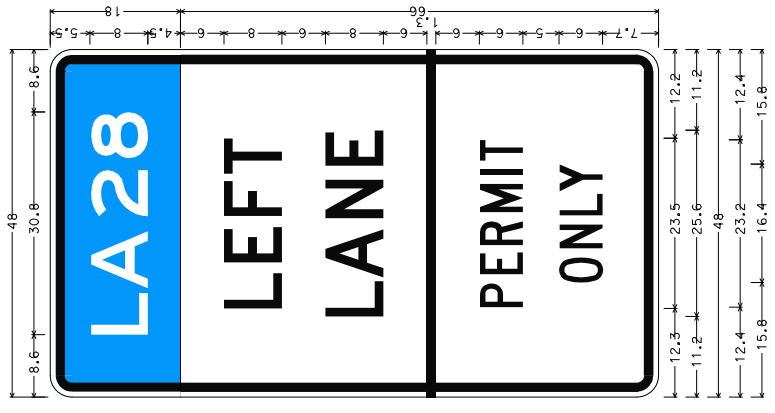


**DRAFT ONLY**

DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
07			TOTAL PROJECT	NO. SHEETS
			VOT	
REGISTERED CIVIL ENGINEER		DATE	REGISTERED PROFESSIONAL ENGINEER	
ANH D. NGUYEN		9/30/25	ANH D. NGUYEN	
No. 62370			No. 62370	
Exp. 9/30/25			Exp. 9/30/25	
CIVIL			CIVIL	
STATE OF CALIFORNIA			STATE OF CALIFORNIA	
THE ACCURACY OF THIS PLAN SHEET			THE ACCURACY OF THIS PLAN SHEET	



R87-1(CA)(MOD);  
 12.0" Radius, 2.0" Border, 1.5" Indent, Black on, Light blue;  
 "LA" White, E Mod; "28" White, E Mod;  
 12.0" Radius, 2.0" Border, 1.5" Indent, Black on, White;  
 "PERMIT", E Mod; "ONLY", E Mod; Down Arrow 22.0" 270°;



3.0" Radius, 1.3" Border, 0.8" Indent, Black on, Light blue;  
 "LA28" White, E;  
 R86-2;  
 3.0" Radius, 1.3" Border, 0.8" Indent, Black on, White;  
 "LEFT", D; "LANE", D; "PERMIT", C; "ONLY", C;

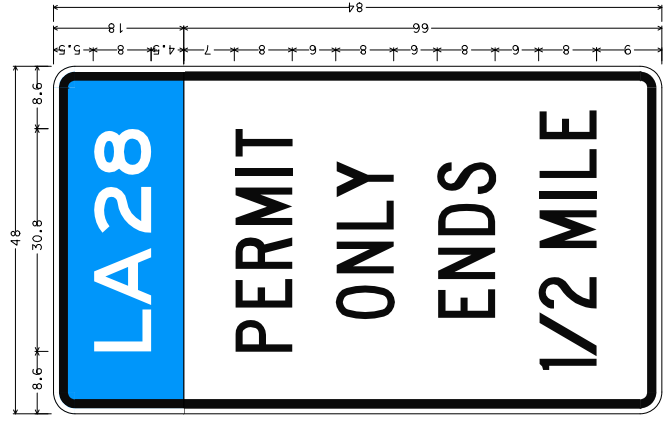
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NO SCALE

**SD-2**

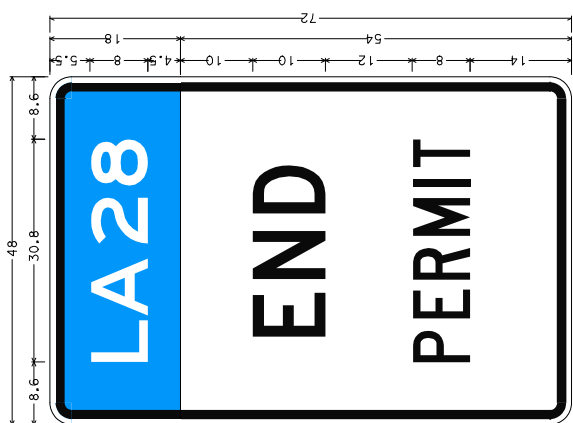
DATE REVISION	TIME PLOTTED < 9/12/2024 PM
LAST REVISION	
DATE PLOTTED < 9/12/2024 PM	
TIME PLOTTED < 9/12/2024 PM	

**DRAFT ONLY**

DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
07			TOTAL PROJECT	NO. SHEETS
			VOT	
REGISTERED CIVIL ENGINEER		DATE	REGISTERED PROFESSIONAL ENGINEER	
ALAN VU		9/30/25	ANH D. NGUYEN	
PLANS APPROVAL DATE		No. 62370		
THE STATE OF CALIFORNIA OR ITS OFFICERS THEY ARE NOT RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY COPIES OF THIS PLAN SHEET.				



R84-2(CA)(MOD);  
 3.0" Radius, 1.3" Border, 0.8" Indent, Black on, Light blue;  
 "LA28" White, E;  
 3.0" Radius, 1.3" Border, 0.8" Indent, Black on, White;  
 "PERMIT", C; "ONLY", C; "ENDS", C; "1/2 MILE", C;



R84-1(CA)(MOD);  
 3.0" Radius, 1.3" Border, 0.8" Indent, Black on, Light blue;  
 "LA28" White, E;  
 3.0" Radius, 1.3" Border, 0.8" Indent, Black on, White;  
 "END", D; "PERMIT", C;

DATE REVISIED BY	ANHN D. NGUYEN	CHECKED BY	ANHN D. NGUYEN
REVISIED BY	ALAN VU	DESIGNED BY	ALAN VU
		FUNCTIONAL SUPERVISOR	ANHN D. NGUYEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 CIVIL ENGINEER

**SIGN DETAILS**  
 NO SCALE  
**SD-3**











# LA28-07-50320-Games Route Network PID

Final Audit Report

2025-08-15


Created:	2025-08-14
By:	Manny Marcos (s126443@dot.ca.gov)
Status:	Signed
Transaction ID:	CBJCHBCAABAAFzp7pRyFmNdBS0kVXOmZyAl4A-MYUS4z

## "LA28-07-50320-Games Route Network PID" History

-  Document created by Manny Marcos (s126443@dot.ca.gov)  
2025-08-14 - 3:38:34 PM GMT- IP address: 149.136.25.252
-  Document signing automatically delegated to Chris Burlaza (chris.burlaza@dot.ca.gov) by Marlon Regisford (marlon.regisford@dot.ca.gov)  
2025-08-14 - 3:41:39 PM GMT
-  Document signing automatically delegated to James Vu (James.Vu@dot.ca.gov) by Chris Burlaza (chris.burlaza@dot.ca.gov)  
2025-08-14 - 3:41:40 PM GMT
-  Document sent to Greg Farr (greg.farr@dot.ca.gov) and Monica Benavides (monica.benavides@dot.ca.gov) for approval. One of them to approve  
2025-08-14 - 3:41:40 PM GMT
-  Document emailed to James Vu (James.Vu@dot.ca.gov) for signature  
2025-08-14 - 3:41:40 PM GMT
-  Document emailed to Marlon Regisford (marlon.regisford@dot.ca.gov) for signature  
2025-08-14 - 3:41:41 PM GMT
-  Document emailed to Chris Burlaza (chris.burlaza@dot.ca.gov) for signature  
2025-08-14 - 3:41:41 PM GMT
-  Email viewed by Monica Benavides (monica.benavides@dot.ca.gov)  
2025-08-14 - 3:47:28 PM GMT- IP address: 34.195.242.212
-  Email viewed by Greg Farr (greg.farr@dot.ca.gov)  
2025-08-14 - 3:53:33 PM GMT- IP address: 149.136.33.252
-  Document approved by Greg Farr (greg.farr@dot.ca.gov)  
Approval Date: 2025-08-14 - 3:57:35 PM GMT - Time Source: server- IP address: 149.136.33.252



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 Document signing automatically delegated to James Vu (James.Vu@dot.ca.gov) by Chris Burlaza (chris.burlaza@dot.ca.gov)


2025-08-14 - 3:57:43 PM GMT

 Email viewed by James Vu (James.Vu@dot.ca.gov)


2025-08-14 - 8:55:03 PM GMT- IP address: 54.146.133.158

 Document e-signed by Marlon Regisford (marlon.regisford@dot.ca.gov)

Signature Date: 2025-08-14 - 9:09:06 PM GMT - Time Source: server- IP address: 149.136.33.248

 Document emailed to Gloria Roberts (gloria.roberts@dot.ca.gov) for signature

2025-08-14 - 9:09:24 PM GMT

 Email viewed by Gloria Roberts (gloria.roberts@dot.ca.gov)

2025-08-14 - 10:09:59 PM GMT- IP address: 34.232.136.185

 Document e-signed by Gloria Roberts (gloria.roberts@dot.ca.gov)

Signature Date: 2025-08-15 - 12:33:34 PM GMT - Time Source: server- IP address: 166.198.130.50

 Agreement completed.

2025-08-15 - 12:33:34 PM GMT



**From:** [Higgins, Tasha@DOT](mailto:Higgins.Tasha@DOT)  
**To:** [Pedroza, Isaias@DOT](mailto:Pedroza.Isaias@DOT)  
**Subject:** RE: EA 503200 - Level 1 Review and Approvals  
**Date:** Monday, December 29, 2025 10:18:42 AM  
**Attachments:** [image001.jpg](#)  
[image002.png](#)

---

Morning Isaias,

Approved.

Respectfully,



**Tasha Higgins, PE, PMP**  
Principal Transportation Engineer  
2028 Games Caltrans Liaison  
**Phone/Mobile:** 213.259.7259  
**Email:** [tasha.higgins@dot.ca.gov](mailto:tasha.higgins@dot.ca.gov)  
100 S. Main Street  
Los Angeles, CA 90012



---

**From:** Pedroza, Isaias@DOT <Isaias.Pedroza@dot.ca.gov>  
**Sent:** Tuesday, December 23, 2025 1:13 PM  
**To:** Marcos, Manny T@DOT <manny.t.marcos@dot.ca.gov>  
**Cc:** Elsharief, Amir@DOT <amir.elsharief@dot.ca.gov>; Haddadi, Nima@DOT <Nima.Haddadi@dot.ca.gov>; Nguyen, Jennifer L@DOT <jennifer.nguyen@dot.ca.gov>; Higgins, Tasha@DOT <Tasha.Higgins@dot.ca.gov>  
**Subject:** RE: EA 503200 - Level 1 Review and Approvals

Hi Manny,

I believe you are covering while Tasha is out. Would you also be voting on her behalf?

Please let us know.

Thanks,

**Isaias Pedroza**  
Transportation Engineer  
District 7 – Division of Traffic Operations

**From:** [Kuoch, Chan Q@DOT](mailto:Kuoch, Chan Q@DOT)  
**To:** [Pedroza, Isaias@DOT](mailto:Pedroza, Isaias@DOT)  
**Cc:** [Nguyen, Jennifer L@DOT](mailto:Nguyen, Jennifer L@DOT); [Yan, David Y@DOT](mailto:Yan, David Y@DOT); [Alvarez, Eduardo@DOT](mailto:Alvarez, Eduardo@DOT); [Carvajal, Sergio@DOT](mailto:Carvajal, Sergio@DOT)  
**Subject:** Yes: EA 503200 - Level 1 Review and Approvals  
**Date:** Wednesday, January 7, 2026 9:58:32 AM

---

Approved if all Programming/Asset Management's comments have been addressed.

Best regards,  
Chan Kuoch  
Assistant District Division Chief  
Division of Program/Project Management  
California Department of Transportation  
District 7 – Los Angeles  
213.793.9651

**From:** [Liao, Andy C@DOT](mailto:Liao, Andy C@DOT)  
**To:** [Pedroza, Isaias@DOT](mailto:Pedroza, Isaias@DOT)  
**Subject:** Yes: EA 503200 - Level 1 Review and Approvals  
**Date:** Monday, December 29, 2025 2:41:46 PM

---

Regards,

Andy Liao, PE  
Assistant District Division Chief  
Caltrans District 7 Division of Design  
213.266.6167

**From:** [Young, Kenneth C@DOT](mailto:Young.Kenneth.C@DOT)  
**To:** [Pedroza, Isaias@DOT](mailto:Pedroza.Isaias@DOT)  
**Cc:** [Haddadi, Nima@DOT](mailto:Haddadi.Nima@DOT)  
**Subject:** Yes: EA 503200 - Level 1 Review and Approvals  
**Date:** Tuesday, December 23, 2025 12:58:48 PM

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Hi Isaias,

Thank you for your patience. Based on a review of the document, I offer my approval.

Please ensure that “Variable Advisor Speed Signs” are modified to “Variable Advisory Speed Signs” throughout the document.

Sincerely,

**Ken Young**

Chief | Office of District Traffic Manager  
California Department of Transportation  
District 7 | Division of Transportation Safety & Operations  
Mobile: (213) 435-7916  
Email: [KENNETH.C.YOUNG@DOT.CA.GOV](mailto:KENNETH.C.YOUNG@DOT.CA.GOV)

**From:** [Khan, Mohammad.T@DOT](mailto:Khan, Mohammad.T@DOT)  
**To:** [Pedroza, Isaias@DOT](mailto:Pedroza, Isaias@DOT)  
**Subject:** Yes: EA 503200 - Level 1 Review and Approvals  
**Date:** Friday, December 19, 2025 4:17:43 PM

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**From:** [Tan, Siew Mei@DOT](mailto:Tan,Siew%20Mei@DOT)  
**To:** [Pedroza, Isaias@DOT](mailto:Pedroza,Isaias@DOT)  
**Subject:** Yes: EA 503200 - Level 1 Review and Approvals  
**Date:** Wednesday, December 24, 2025 7:02:35 AM

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**From:** [Enjily\\_Shawn@DOT](mailto:Enjily_Shawn@DOT)  
**To:** [Pedroza, Isaias@DOT](mailto:Pedroza_Isaias@DOT); [Nguyen, Jennifer L@DOT](mailto:Nguyen_Jennifer_L@DOT)  
**Cc:** [Musa, Md@DOT](mailto:Musa_Md@DOT); [Chau, Eric D \(D7\)@DOT](mailto:Chau_Eric_D_(D7)_@DOT); [Lambert, Jeffrey \(D7\)@DOT](mailto:Lambert_Jeffrey_(D7)_@DOT)  
**Subject:** Yes: EA 503200 - Level 1 Review and Approvals  
**Date:** Tuesday, December 16, 2025 12:23:43 PM

---

Hi

I am approving this.

Thanks

Shawn Enjily  
Office Chief, Maintenance Engineering-SHOPP  
Cell- 213-266-6134  
Room 02-042

*Regions Boundary Map:*

<http://sv07lamaint.ct.dot.ca.gov/Maint/MS%20Station%20&%20Boundary%20Directory/D7%20Mtce%20Area%20Map.pdf>

*GIS Boundary Map*<http://sv07lamaint.ct.dot.ca.gov/gis/MTCEBN>

<http://sv07lamaint.ct.dot.ca.gov/GIS/MTCEBN>

[Statement of Ongoing Contracts | Caltrans](#)

[Caltrans 2020-2024 Strategic Plan 2-Page Summary](#)

[D7 Bridge and Pavement Condition Web Map \(ca.gov\)](#)

**From:** [Le, Thoa@DOT](mailto:Le,Thoa@DOT)  
**To:** [Pedroza, Isaias@DOT](mailto:Pedroza,Isaias@DOT)  
**Subject:** Yes: EA 503200 - Level 1 Review and Approvals  
**Date:** Thursday, December 18, 2025 10:34:00 AM

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See comments sent by Elaine. Thanks! Thoa

**From:** [Lee, Wayne D@DOT](mailto:Lee, Wayne D@DOT)  
**To:** [Pedroza, Isaias@DOT](mailto:Pedroza, Isaias@DOT); [Haddadi, Nima@DOT](mailto:Haddadi, Nima@DOT)  
**Cc:** [Elo, Zoltan@DOT](mailto:Elo, Zoltan@DOT); [Murdoch, Dan E@DOT](mailto:Murdoch, Dan E@DOT); [Corona, Carly@DOT](mailto:Corona, Carly@DOT); [Howard, William A@DOT](mailto:Howard, William A@DOT); [Wong, Kenneth@DOT](mailto:Wong, Kenneth@DOT)  
**Subject:** Yes: EA 503200 (2028 Olympics) - Level 1 Review and Approvals  
**Date:** Thursday, December 18, 2025 12:16:49 PM

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Hi Isaias and Nima,

In addition to providing Level 1 approval by RW, we have signed the data sheet for EA 50320. Due to the RWC date being not far away at 12/12/26, it would be best that the 51 potholing conflicts and 4 railroad crossings be addressed as soon as possible in PS & E so there is not delay in the RWC delivery on the 2028 Olympics project.

Wayne Lee  
Supervising Right of Way Agent  
D7 Office of Project Coordination, Planning and Management, Appraisals, and Operations  
213-264-9044

**From:** [Elsharief, Amir@DOT](mailto:Elsharief, Amir@DOT)  
**To:** [Pedroza, Isaias@DOT](mailto:Pedroza, Isaias@DOT)  
**Cc:** [Haddadi, Nima@DOT](mailto:Haddadi, Nima@DOT); [Nguyen, Jennifer L@DOT](mailto:Nguyen, Jennifer L@DOT)  
**Subject:** Yes: EA 503200 - Level 1 Review and Approvals  
**Date:** Monday, December 22, 2025 11:08:12 AM

---

Hi Isaias,

I approved with comments. Please see my comments on the attached PR.

Thank you

Amir Elsharief, P.E., Ph.D.  
Chief, Office of Traffic Design  
Division of Transportation Safety and Operations  
District 7  
(213)793-9253












# LA28 GRN EA-50320 Project Review Approvals

Final Audit Report


2026-01-17

Created:	2026-01-12
By:	Nima Haddadi (s148127@dot.ca.gov)
Status:	Signed
Transaction ID:	CBJCHBCAABAATsdK9qfDhfbrv9DYNuipvzbSWANdHAgw

## "LA28 GRN EA-50320 Project Review Approvals" History

-  Document created by Nima Haddadi (s148127@dot.ca.gov)  
2026-01-12 - 8:16:08 PM GMT- IP address: 149.136.33.247
-  Document emailed to Dan Murdoch (dan.murdoch@dot.ca.gov) for signature  
2026-01-12 - 8:19:37 PM GMT
-  Document e-signed by Dan Murdoch (dan.murdoch@dot.ca.gov)  
Signature Date: 2026-01-12 - 8:34:37 PM GMT - Time Source: server- IP address: 149.136.33.248
-  Document emailed to Kelly Ewing-Toledo (kelly.ewing-toledo@dot.ca.gov) for approval  
2026-01-12 - 8:35:03 PM GMT
-  Email viewed by Kelly Ewing-Toledo (kelly.ewing-toledo@dot.ca.gov)  
2026-01-12 - 9:19:58 PM GMT- IP address: 149.136.33.253
-  Document approved by Kelly Ewing-Toledo (kelly.ewing-toledo@dot.ca.gov)  
Approval Date: 2026-01-12 - 9:35:06 PM GMT - Time Source: server- IP address: 149.136.33.253
-  Document emailed to Kelly Lamare (kelly.m.lamare@dot.ca.gov) for approval  
2026-01-12 - 9:35:35 PM GMT
-  Email viewed by Kelly Lamare (kelly.m.lamare@dot.ca.gov)  
2026-01-12 - 11:10:44 PM GMT- IP address: 149.136.17.247
-  Document approved by Kelly Lamare (kelly.m.lamare@dot.ca.gov)  
Approval Date: 2026-01-12 - 11:11:05 PM GMT - Time Source: server- IP address: 149.136.17.247
-  Document emailed to Rafael Molina (rafael.molina@dot.ca.gov) for signature  
2026-01-12 - 11:11:33 PM GMT
-  Document e-signed by Rafael Molina (rafael.molina@dot.ca.gov)  
Signature Date: 2026-01-12 - 11:41:38 PM GMT - Time Source: server- IP address: 149.136.33.248




 Document emailed to Monica Benavides (monica.benavides@dot.ca.gov) for approval


2026-01-12 - 11:42:03 PM GMT

 Email viewed by Monica Benavides (monica.benavides@dot.ca.gov)

2026-01-13 - 5:45:46 AM GMT- IP address: 44.208.246.83

 Nima Haddadi (s148127@dot.ca.gov) added alternate approver Greg Farr (greg.farr@dot.ca.gov). The original approver Monica Benavides (monica.benavides@dot.ca.gov) can still approve.

2026-01-16 - 9:54:24 PM GMT- IP address: 149.136.33.250

 Document emailed to Greg Farr (greg.farr@dot.ca.gov) for approval


2026-01-16 - 9:54:24 PM GMT

 Email viewed by Greg Farr (greg.farr@dot.ca.gov)

2026-01-16 - 10:17:28 PM GMT- IP address: 149.136.25.249

 Document approved by Greg Farr (greg.farr@dot.ca.gov)

Approval Date: 2026-01-16 - 11:22:08 PM GMT - Time Source: server- IP address: 149.136.25.249

 Document emailed to Gloria Roberts (gloria.roberts@dot.ca.gov) for signature

2026-01-16 - 11:22:25 PM GMT

 Email viewed by Gloria Roberts (gloria.roberts@dot.ca.gov)

2026-01-17 - 0:24:22 AM GMT- IP address: 174.193.130.151

 Document e-signed by Gloria Roberts (gloria.roberts@dot.ca.gov)

Signature Date: 2026-01-17 - 0:24:33 AM GMT - Time Source: server- IP address: 174.193.130.151

 Agreement completed.

2026-01-17 - 0:24:33 AM GMT

