



CONSTRUCTION NETWORK

Connecting Owners to AEC and CM Industries

Alternative Delivery & Progressive Design-Build

What Transportation Agencies are Doing Today

March 19, 2025

Los Angeles World Airports

Emery Molnar

Deputy Executive Director

The Development Group

LA Metro

James Wei, PE

Executive Officer, Project Engineering

Program Management

&

Mat Antonelli, PE

Deputy Chief Program Management Officer

Long Beach Airport

Stephan Lum, P.E.

Engineering Officer

Caltrans D12

Adnan Maiah

Deputy District Director

Caltrans D8

Jesus Galvan Jr

Design Deputy District Director

FACT SHEET

Project Description

Brightline West (BLW) proposes to construct and operate a fully grade-separated, electric, passenger-only high-speed rail system along the median of Interstate 15, an approximately 218-mile corridor connecting Rancho Cucamonga, California to Las Vegas, Nevada; 184 miles is in California. The project consists of 2 segments:

High Desert Segment, Apple Valley to Nevada State Line : PM 51.6 to PM 186.2

Cajon Pass Segment, Rancho Cucamonga to Apple Valley: PM 4.1 to PM 51.6

Project Location



Project Status

High Desert Segment:

Right of Way Lease Agreement was approved on June 19, 2020

The Federal Railroad Authority completed a NEPA re-evaluation in September 2020

Design plans are at 30%-60% completion

10 emergency cross-overs will be constructed in this segment.

Caltrans is partnering with BLW and CDFW to construct 3 wildlife crossings within this segment.

Cajon Pass Segment:

Right of Way Lease Agreement was approved on December 15, 2023

The Federal Railroad Authority completed a NEPA document in October 2023

Design plans are at 30%-60% completion

4 emergency cross-overs will be constructed in this segment.

BLW executed an MOU with SBCTA to construct a Commuter Station in Hesperia.

A Transportation Hub is proposed at the Rancho Cucamonga Station.

Schedule

BLW submits Advanced Design to Caltrans for review August 2024.
Begin Construction Early 2025

Funding:

\$2.5B: FRA Private Activity Bond.
\$3B to NDOT: Bipartisan Infrastructure Bill (2024).
\$1B: USDOT private activity bond (03/2020)
\$25 RAISE grant (Federal), grant coming to SBCTA.
BW are seeking private funds in the amount of \$6.5B.

Agreements:

High Desert Segment:

MOU signed January 2019.
Reimbursement Agreement for Preliminary Engineering signed 2019.
Reimbursement Agreement for Design & Construction signed 2020.
Design and Construction Agreement signed in 2020.
Right-of-Way Use Agreement signed 2020.
Operations and Maintenance Agreement in progress.

Cajon Pass Segment:

Reimbursement Agreement for Preliminary Design signed 09/14/2020.
Right-of-Way Use Agreement signed 12/2023.
Operation and Maintenance Agreement in progress.
Design and Construction Agreement in progress.

CMGC
NOMINATION FACT SHEET
08-SBD-40-PM R153.9/R154.6
AZ: MO-40-0.0/0.6
EA 08-OR380
September 26, 2023

Project Description

Interstate 40 (I-40) is a major east-west transportation route within San Bernardino County that connects the states of California and Arizona via the Colorado River Bridge (California Br. No. 54-0415, Arizona Bridge No. 957). To improve the bridge deck integrity and accommodate all permit vehicle traffic, the California Department of Transportation (Caltrans) District 8, in cooperation with the Arizona Department of Transportation (ADOT), is proposing a project to replace the Colorado River Bridge. The Colorado River Bridge is located at the State line near the city of Needles in San Bernardino County, California and Topock in Mojave County, Arizona, see Figure 1 below.

Figure 1 – Project Location Map



Project Proposal

The project will replace the existing bridge by constructing standard lanes, shoulder widths, upgrading the bridge barrier rail system, and addressing deck deterioration and strengthening the girders to increase the load rating.

Deck replacement with non-standard and standard shoulders were considered for the project. The deck replacement alternative with non-standard shoulders was rejected at the planning phase due to the low probability of obtaining a design exception approval. Deck replacement alternative with standard shoulders was rejected at the PA&ED phase by the PDT and ADOT, on September 21, 2020, based on reduced cost-benefit ratio, long term maintenance issues, and difficulties with emergency lane closures.

The following four alternatives, all with standard shoulders, were the final outcome of the project development phase during PA&ED:

- Alternative 1: Replace bridge at existing alignment, the recommended alternative
- Alternative 2: Replace bridge (realign to the North)
- Alternative 3: Replace bridge (realign to the South)
- Alternative 4: No-Build

The Colorado River Bridge's concrete deck has begun to deteriorate with delamination along the outside shoulders, particularly in the westbound direction. In many locations concrete cover has been reduced such that rebar is exposed, further compounding and accelerating deck deterioration.

Currently, the bridge load rating for permit vehicles is rated PPPGO (Purple permit rating for 5, 7 and 9-axle vehicles and reduced permit ratings of Green and Orange for 11 and 13 axle vehicles respectively) with no asphalt concrete on the deck. To maintain the existing deck, would at a minimum, require adding a polyester concrete overlay to the deck; however, such an overlay may degrade the load rating for permit vehicles further to an unacceptable low level.

The proposed structure spans over the Colorado River, which is an environmentally sensitive area due to the presence of Federal Endangered Species Act (FESA)- and California Endangered Species Act (CESA)- listed species including: the Yuma Ridgeway's rail, California black rail, bonytail chub, razorback sucker, and several additional species that require avoidance and minimization measures. The Colorado River is jurisdictional to U.S. Coast Guard (USCG), United States Army Corp of Engineers (USACE), Regional Water Quality Control Board (RWQCB), Arizona Game and Fish department (AZGFD), and California Department of Fish and Wildlife (CDFW). To mitigate environmental impacts, bridge types with long span configurations have been proposed in the Advance Planning Study (APS) stage and will be further investigated during the bridge type selection.

Schedule

Currently, the project is proceeding as planned for the PA&ED phase, with a target date of 11/01/2023. Involving a Construction Manager (CM) during the initial PS&E phase will play a crucial role in ensuring that the project is completed within the programmed Fiscal Year (FY) delivery. Any delay in meeting the FY delivery schedule could jeopardize the project programmed funds. Below is the current project schedule.

Project Milestones		Milestone Date (Month/Day/Year)	Milestone Designation (Target/Actual)
Begin Environmental	M020	05/05/2020	Actual
Circulation Of Draft Environmental Document	M120	06/14/2023	Actual
PA & ED	M200	12/15/2023	Target
PS&E TO DOE	M377	10/02/2025	Target
Structure PS&E To OE	M378	09/15/2025	Target
Right Of Way Certification	M410	04/02/2026	Target
Ready To List	M460	04/15/2026	Target
Headquarters Advertise	M480	11/01/2026	Target
Award	M495	01/02/2027	Target
Approve Contract	M500	02/02/2027	Target
Contract Acceptance	M600	05/01/2030	Target
End Project Expenditures	M800	11/01/2031	Target
Final Project Closeout	M900	11/01/2032	Target

PA&ED was previously delayed for 8 months (March to November of 2023) to comply with CDFW and State Historic Preservation Officer (SHPO) requirements. The delay was due to the presence of recently discovered fully protected species and Section 106 compliance for complex cultural resources. Caltrans decided to take the risk of keeping RTL as originally planned.

Early in the PS&E phase, geotechnical information is essential to develop a preliminary foundation report for type selection and proper designing of the structure. Due to the schedule constraints, any delay in obtaining this essential data could result in adverse impacts to project delivery.

Having CM on this project in early design phase will result in the streamlining of permit review and approvals process by permitting agencies which is needed for geotechnical boring and prior to RTL.

Cost/Funding

In April 2019, Caltrans and ADOT entered into a COOP agreement (08-1653) to replace the Colorado River Bridge. Caltrans and ADOT agreed to split the cost 50/50 for PA&ED, PS&E, construction support and construction capital. Right of Way (ROW) capital and ROW support are agreed to be paid by each individual State. The current cost shown below is the total none-escalated cost for each phase.

Component	Current Cost In thousands of dollars (\$1,000)	CMGC Fund (1.5% of the construction cost+ ICE 0.5% of construction cost)(\$1000)
PA&ED Support	\$5,300	\$0
PS&E Support	\$7,518	\$1,985*
R/W Support	\$431	\$0
Const Support	\$20,536	\$0
R/W Cap	\$8,000	\$0
Const Capital	\$99,232	\$0
Total	\$133,499	\$1,985
Subtotal	\$135,484	

*The additional support cost needed to utilize CMGC in PS&E will be adjusted by the funds request. ADOT has agreed to cover 50% of the cost increase associated by utilizing the CMGC in PS&E phase. Construction support increase will be adjusted through PCR prior to fiscal year delivery.

Work Package

As this project is complex with multiple difficult challenges early work packages will be considered. Using early work packages will allow for schedule acceleration, accommodation of the funding timeline, mitigate project risks, minimize public impact, allow the contractor to procure long-lead time materials if necessary to lock in pricing, and reduce escalation or inflationary costs.

Permits/Agreements

Due to biological and archaeological monitoring resources needed on this project, \$7,067,000 from ROW capital has been allocated for acquisition of offsite

mitigations and permit fees during and after Construction. These commitments include bridge work biological monitoring, high visibility Environmental Sensitive Area (ESA) fencing, Natural Resources Protection Plan (NRPP), Bat panels, and mitigation off site restoration.

The Cooperative agreement that covers the PA&ED phase of the project has been executed (COOP # 08-1653 and 1653A1). A separate COOP agreement (#1775) is under review with HQ for the PS&E, ROW.

This project requires coordination with several resource agencies. Local governments such as, (USFWS), (USACE), (CDFW), (RWQCB), Arizona Department of Environmental Quality (ADEQ), (USCG), and California State Lands Commission (SLC). Environmental Permits needed on this project are 401, 404, 1600, 2081 and permit from US Coast Guard.

Pursuant to the California Endangered Species Act (CESA), Caltrans has determined that the Project may have habitat encroachment to state-listed species [bonytail chub, razorback sucker, Yuma Ridgway's rail, and California black rail]. Therefore, the CDFW incidental take permit (pursuant to Section 2080 of the California Fish and Game Code (CFGC)) is anticipated. Senate Bill (SB) 147, until December 31, 2033, authorizes CDFW to issue a permit using the permitting structure in CESA that would authorize the take of a fully protected species resulting from impacts attributable to the implementation of critical infrastructure projects if certain conditions are satisfied. Because razorback sucker, Yuma Ridgway's rail, and California black rail have CDFW fully protected species designation, Caltrans may apply for a CDFW 2081 Incidental Take permit under CESA for these species.

Right of Way and Utilities

This project is in coordination with ADOT on ROW related matters. Each State will be responsible for its own ROW activities within their boundaries. On the California side, underground gas, electric, and communication lines exist. Notice to Owners and Utility Agreements may be expected on the California side.

Burlington Northern Santa Fe (BNSF)-owned railroad bridge is on the north side of the project and runs parallel to the Colorado Bridge. The scope of preferred Alternative 1, which involves replacing this bridge on the existing alignment, will not affect the BNSF on the California side. However, there is a temporary construction easement (TCE) needed from BNSF on the Arizona side. Having a CM onboard early in the design phase could maximize coordination with ADOT for ROW requirements needed to ensure ROW milestones are met.

A lease agreement is needed from the Land Commission for the new bridge prior to construction. It was verified that there are no impacts to Havasu National wildlife and no TCE needed from San Bernadino County for alternative 1. If any

design changes are encountered during the design phase for alternative, CM expertise could verify, reduce or eliminate the impact.

CM assistance could also help in identifying or simplifying the ROW impacts by early coordination with utility companies, Land Commission and ADOT.

Public/Political Support of Project

On May 25, 2023, after having a focus meeting with ADOT, and explaining the benefit of utilizing CMGC on this project, ADOT stated their support and agreed to move forward with CMGC on this project. It was also agreed that the cost and responsibilities of each state is to be added to the PS&E COOP. Currently the PS&E COOP is under review by both states and has not been executed.

In March of 2023, letters of information about the project scope and schedule went out to the cities, agencies and associations affected by the project. As of now, no oppositions have been received. In fact, Caltrans recently received a letter of resolution support from the Arizona Bullhead City Council supporting the project.

On June 29, 2023, Caltrans held a public meeting to inform the public of the project scope and its alternatives. As of September 26, 2023, no major comments were received. The political and public support will continue to be accessed as the project develops.

Overall Project Delivery Risk

The risk and proposed mitigation associated with delivering this project on schedule and within budget are as follows:

1. Due to the multiple inter-state agency coordination and the number of governmental agency jurisdictions requiring various permits, the project schedule could be delayed. Having a CM on board will streamline the permit approval processes by providing clarity in identifying materials, methods, and equipment used in executing work and minimize disagreement between different stakeholders.
2. This is a complex project which takes extensive design resources and time to ensure the design is buildable and on schedule. CM resources and expertise will help in evaluating the structure type selection and help in selecting the most effective construction method.
3. The utility relocations on this project will be complex and could jeopardize the schedule. CM expertise could reduce or minimize this impact by innovative construction staging and could minimize cost increase and schedule delays.

4. I-40 is a four-lane (two lanes in each direction) facility with high volume of truck traffic transporting goods across the nation and a significant volume of recreational trips to the Mojave Desert, the Colorado River, and states to the east. CM assessment on the most effective type of traffic closures could result in reducing the number of working days, minimizing detour delays, and reduce public inconvenience.
5. Construction means and methods could affect permit requirements for this project. CM expertise would assist with identifying construction risks related with permitting agencies early on during the PS&E phase and could answering resource agencies' questions regarding construction processes, types of equipment used and methods. CM input would also be instrumental with providing answers for any permits requirements and minimize the probability of permit amendments.
6. This is lengthy project with 600 working days and has high truck volumes. CM could accelerate bridge construction by adopting innovative strategies and opportunities.
7. Demolition of the existing bridge and foundation is very complicated due to spanning over US waters. CM expertise could reduce environmental impact and enhance safety.

Why is this Project a good CMGC candidate?

Anticipated benefits from the CMGC delivery method are as follows:

- Improved constructability innovation.
- Identify potential constructability issues early on and provide details on innovating means and methods to avoid or minimize the impacts.
- Better Coordination with regulatory agencies to streamline and expedite permitting process.
- The bridge construction over the US waters is complex (probably segmental). The CM can help with clarifying construction means and methods, identifying and managing bridge design and construction risk, and assisting in project development reviews, validation of structure type selection, stage construction, and the overall project cost.
- Developing traffic staging plans and providing recommendations to reduce detour delays, and the number of working days result in reducing construction support costs and impacts to the traveling public.
- Provide expertise to validate the engineer estimate by providing an independent pricing assessment of the bid items and verify quantity calculations.
- Coordination with utility agencies for early utility relocations.

- Assist in minimizing delays during construction by reducing construction change orders or design changes that could require permit amendments.
- Identify potential constructability issues and provide details on construction means and methods.

Project Personnel

Project Manager – Elaheh Hadipour

Years of experience 24, Registered Civil Engineer for 17 years; 9 years in Project Management, 9 years in Design (including 7 years in Design Oversight), 3 years in Maintenance design, and 3 years in Construction.

Design Senior – Ben Amiri

Registered Civil Engineer 30 years - 36 years with Caltrans District 8 / 32 years with Division of Design / 21 years as Senior Design Engineer.

Project Engineer – Rafaaf El Sheirf

Years of experience 23, Registered Civil Engineer for 17 years, 20 years work in Design unit and 3 years rotation in Construction and Traffic Design.

Bridge Design Senior – Howard NG

Registered Civil Engineer for 33 years since 1990. With Structure Construction as Registered Engineer from 1990 to 2002, 13 years. With Bridge Design since 2002, 21 years.

Area Construction Structure – Monty Navarro

Registered Civil Engineer for 28 years, Structure Construction

Area Construction Senior – Jabara Kawwa

Registered Civil Engineer for 30 years; 1 year in Design (Tennessee Department of Transportation), 1 year in Traffic Operations, 6 years in Project Studies, 6 years in Permits and 20 years in Construction.

Environmental Senior – Gabrielle Duff

Senior Environmental Planner (Supervisor); Experience in the Environmental Planning field as an archaeologist for over 25 years; 17 years with Caltrans including 7 years in general Environmental Planning.

Delivery Selection Tool

The following is the delivery selection tool evaluation. Please provide a response to each of the questions below. Each response should be described in the narrative of this Nomination Fact Sheet.

1.1 Evaluation of Project Scope and Characteristics

QUESTION No.	QUESTION	Rating (A, B or C)
A1	Where is the Project in the project development process? A. Detailed or final engineering stage (60% design or later). B. Preliminary design (30% design). C. Conceptual engineering stage (before PA&ED).	C
A2	What is the size of the Project? A. Small project (less than \$25 million construction capital cost). B. Medium size project (between \$25 to \$75 million construction capital cost). C. Large project (greater than \$75 million construction capital cost).	C
A3	What is the complexity of the Project? A. Relatively simple project with no need for specialized outside expertise. B. Project with more technically complex components and schedule complexity. C. Very complex project with significant schedule complexity (e.g., multiple phases, extensive third-party issues, and/or specialized expertise needed).	C
A4	Does the Project involve significant impacts to highway users and local businesses/community during construction? A. No more than typical. B. More than typical. C. Much more than typical.	C
A5	Does the Project present right of way limitations that would benefit from the contractor's assistance? (e.g., the contractor can describe means and methods to assist in obtaining temporary construction easements) A. No more than typical. B. More than typical. C. Much more than typical.	B

QUESTION No.	QUESTION	Rating (A, B or C)
A6	<p>Does the Project present environmental permitting issues that would benefit from the contractor's assistance? (e.g., the contractor can describe means and methods to assist in obtaining environmental permits)</p> <p>A. No more than typical. B. More than typical. C. Much more than typical.</p>	C
A7	<p>Does the Project present utility or third-party issues that would benefit from the contractor's assistance? (e.g., the contractor can describe means and methods to obtain railroad permits or coordinate utility relocation)</p> <p>A. No more than typical. B. More than typical. C. Much more than typical.</p>	B
A8	<p>Does the Project present unique work restrictions (e.g., strict environmental windows, railroad restrictions) or traffic maintenance requirements that would benefit from the contractor's assistance?</p> <p>A. No more than typical. B. More than typical. C. Much more than typical.</p>	C
A9	<p>Would the Project benefit by packaging features of work to allow early lock-in of construction materials/labor pricing (e.g., purchase of material such as steel, early utility relocation)?</p> <p>A. No more than typical. B. More than typical. C. Much more than typical.</p>	A
A10	<p>Would the Project benefit by raising quality standards/benchmarks to minimize maintenance and achieve lower life-cycle cost (e.g., construction of long-life pavement)?</p> <p>A. No more than typical. B. More than typical, C. Much more than typical.</p>	A

1.2 Evaluation of Success Criteria

12.2.1 Schedule Issues

QUESTION No.	QUESTION	Rating (A, B or C)
B1	<p>Can time savings be realized through concurrent design and construction activities (fast-tracking)? (e.g., Is the project large enough in size and the construction is multi-year/phase to allow for early construction activities. Describe in the narrative.)</p> <p>A. No more than typical. B. More than typical. C. Much more than typical.</p>	B
B2	<p>Can the schedule be compressed? (e.g., Is the project multi-year and can be shortened?)</p> <p>A. No more than typical. B. More than typical. C. Much more than typical.</p>	B

12.2.2 Opportunity for Innovation

QUESTION No.	QUESTION	Rating (A, B or C)
C1	<p>Will the Project scope allow for innovation (e.g., alternate designs, traffic management, construction means and methods, etc.)?</p> <p>A. No more than typical. B. More than typical. C. Much more than typical.</p>	C
C2	<p>Must the Project scope be primarily defined in terms of prescriptive specifications (e.g., predetermined materials and methods), or can performance specifications (expressing desired end results) be used, or a combination of both?</p> <p>A. Primarily prescriptive specifications. B. Combination of prescriptive and performance specifications. C. Performance specifications for significant elements.</p>	A

12.2.3 Quality Enhancement

QUESTION No.	QUESTION	Rating (A, B or C)
D1	<p>Will there be opportunities for contractors to provide materials or methods that provide greater value than normally specified by the state on similar projects?</p> <p>A. No more than typical. B. More than typical. C. Much more than typical.</p>	C
D2	<p>Will there be the opportunity for realization of greater value due to designs tailored to contractor's area of expertise?</p> <p>A. No more than typical. B. More than typical. C. Much more than typical.</p>	C
D3	<p>Will warranties or maintenance agreements be used?</p> <p>A. No. B. Limited to short-term workmanship and materials. C. Much more than typical.</p>	A

12.2.4 Cost Issues

QUESTION No.	QUESTION	Rating (A, B or C)
E1	<p>Will there be opportunities for contractors to provide designs with lower initial construction costs than those typically specified by the state?</p> <p>A. No more than typical. B. More than typical. C. Much more than typical.</p>	C
E2	<p>Will there be opportunities for contractors to provide alternate design concepts with lower lifecycle costs than those typically specified by the state?</p> <p>A. No more than typical. B. More than typical. C. Much more than typical.</p>	B

QUESTION No.	QUESTION	Rating (A, B or C)
E3	<p>Is funding for the Project committed and available?</p> <p>A. Secured for design phase only or cannot support accelerated construction.</p> <p>B. Funding can accommodate fast-tracking to some extent.</p> <p>C. Funding will accommodate compressed schedule/fast-tracking.</p>	B
E4	<p>Will the cost of procurement affect the number of bidders? (e.g., cost of putting the SOQ or Proposal together will limit the number of bidders)</p> <p>A. Procurement cost would significantly limit competition.</p> <p>B. Procurement cost could affect the number of bidders.</p> <p>C. Procurement cost would not be a significant issue given the size or complexity of the Project.</p>	C
E5	<p>Will Project budget control benefit from the use of formal contingencies?</p> <p>A. No benefit.</p> <p>B. A formal contingency may permit the Department to add Project scope or enhance quality within the constraints of its published budget.</p> <p>C. A formal contingency is required to allow the Department to maximize Project scope and quality within the constraints of its published budget.</p>	A

12.2.5 Staffing Issues

QUESTION No.	QUESTION	Rating (A, B or C)
F1	<p>Does the Department have the expertise and resources necessary for a complicated procurement process?</p> <p>A. Inadequate resources or expertise.</p> <p>B. Limited resources or expertise.</p> <p>C. Adequate resources and expertise.</p>	C

F2	<p>Are resources available to complete the design?</p> <p>A. Resources are available to complete design. B. Resources are available for partial design. C. Specialized expertise, not available in-house, is required.</p>	A
F3	<p>Are resources available to provide construction oversight?</p> <p>A. Resources are available. B. Full-time construction oversight could strain staff resources. C. Resources are unavailable.</p>	A

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DISTRICT SINGLE FOCAL POINT:

I, **Anthony Liao**, Deputy District Director of Program/Project Management, hereby support this project, COLORADO RIVER BRIDGE REPLACEMENT, to utilize the Construction Manager/General Contractor (CMGC) alternative delivery method.

Date: 10/09/2023

By: 

Authorized Signature

Construction Manager Tasks

The Construction Manager's tasks should be evaluated by the Project team with input from the appropriate functional units. Select tasks that the Construction Manager's assistance will be needed in the tables below and discuss its benefits in delivering the Project. (Note: This initial selection will be used to assist in understanding how the district intends to use the Construction Manager. This table can be modified before release of the RFQ).

DESIGN RELATED

- Validate Department/Consultant Design
- Assist/Input to Department/Consultant Design
- Design Reviews
- Design Charrettes
- Constructability Reviews
- Operability Reviews
- Regulatory Reviews
- Market Surveys for Design Decisions
- Verify/Take-Off Quantities
- Assistance in Shaping the Scope of Work
- Feasibility Studies
- Risk Identification and Mitigation
- Maintenance of Traffic
- Staging Needs

COST RELATED

- Validate Department/Consultant Estimates
- Prepare Project Estimates
- Cost/Benefit Engineering Reviews
- Early Award of Critical Bid Packages
- Life Cycle Cost Analysis
- Value Analysis/Engineering
- Material Selection and Cost Forecasting
- Cost Risk Analysis
- Cash Flow projections/Cost control

SCHEDULE RELATED

- Validate Department/Consultant Schedules
- Prepare and Manage Project Schedules
- Develop Sequence of Design Work
- Construction Phasing
- Schedule Risk Analysis/Control

ADMINISTRATION RELATED

- 3rd Party Impact Avoidance & Reduction Strategies
- Prepare Document Control
- Coordinate Contract Documents
- Coordinate with 3rd Party Stakeholders
- Attend Public Meetings
- Biddability Reviews
- Subcontractor Bid Packaging
- Assist in R/W Acquisition/Validation
- Assist in Permitting Actions
- Study Labor Availability/Conditions
- Prepare Sustainability Certification Application
- Analyze Environmental Commitments/Permits
- Coordinate Site Visits for Subcontractors
- Project Meetings

Glossary of Preconstruction Services Terms

Design-Related Preconstruction Services

- a. **Validate Department/Consultant Design:** Construction Manager evaluates the design as it is originally intended and compares it to the scope of work with both the required budget and schedule to determine if the scope can be executed within those constraints. A validated design is one that can be constructed within the budget and schedule constraints of the Project.
- b. **Assist/Input to Department/Consultant Design:** Construction Manager offers ideas/cost information to the designer to be evaluated during the design phase. Ultimately, the designer is still responsible for the design.
- c. **Design Reviews:** Construction Manager reviews the plans and documents to identify errors, omissions, and ambiguities to improve the constructability and economy of the design submittal.
- d. **Design Charrettes:** Construction Manager participates in structured brainstorming sessions with the Department to generate ideas to solve design problems associated with the Project.
- e. **Constructability Reviews:** Construction Manager reviews the plans and specifications to determine if the required level of tools, methods, techniques, and technology are available to permit a competent and qualified construction contractor to build the Project feature in question to the level of quality required by the Contract.
- f. **Operability Reviews:** Construction Manager meets with the Department's operations and maintenance personnel and provides them with an opportunity to make suggestions that will improve the operations and maintenance of the completed Project.
- g. **Regulatory Reviews:** Construction Manager verifies that the design complies with current codes and will not have difficulty obtaining the necessary permits.
- h. **Market Surveys for Design Decisions:** Construction Manager furnishes designers with alternative materials or equipment along with current pricing data and availability to assist them in making informed design decisions early in the process to reduce the need to change the design late in the process resulting from budget or schedule considerations.
- i. **Verify/Take-Off Quantities:** Construction Manager verifies the quantities generated by the designer for the engineer's estimate.
- j. **Assistance in Shaping the Scope of Work:** Construction Manager generates priced alternatives from the Department to ensure that the scope of work collates to the constraints dictated by the budget and/or schedule.

- k. Feasibility Studies: Construction Manager investigates the feasibility of possible solutions to resolve design issues on the Project.
- l. Risk Identification and Mitigation: Construction Manager identifies risks associated with the Project and proposes response strategies.
- m. Maintenance of Traffic: Construction Manager reviews, validates, and/or proposes alternative traffic handling concepts for the Project.
- n. Staging Needs: Construction Manager reviews, validates, and/or proposes alternative stage construction concepts for the Project.

Cost-Related Preconstruction Services

- a. Validate Department/Consultant Estimates: Construction Manager evaluates the estimate as it is originally intended and determines if the scope can be executed within the constraints of the budget.
- b. Prepare Project Estimates: Construction Manager provides real-time cost information on the Project at different points in the design process to ensure that the Project is staying within budget.
- c. Cost/Benefit Engineering Reviews: Construction Manager reviews cost to include not only the aspects of pricing but also focuses on the aspect that "time equals money" in construction projects.
- d. Early Award of Critical Bid Packages: Construction Manager recommends which design packages should be completed first to ensure that pricing can be locked in on the packages.
- e. Life-Cycle Cost Analysis: Construction Manager provides input for design decisions that impact the performance of the Project over its lifespan.
- f. Value Analysis/Engineering: Construction Manager identifies aspects of the design that either do not add value or whose value may be enhanced by changing them in some form or fashion. The change does not necessarily reduce the cost; it may decrease the life-cycle costs.
- g. Material Selection and Cost Forecasting: Construction Manager utilizes its contacts within the industry to develop estimates of construction material escalation to assist the Department in making decisions regarding material selection and early construction packages.
- h. Cost Risk Analysis: Construction Manager furnishes the Department with information regarding cost items that have the greatest probability of being exceeded.
- i. Cash Flow Projections/Cost Control: Construction Manager conducts earned value analysis to provide the Department with information on how Project financing must be made available to avoid delaying Project progress. This also may include an estimate of construction carrying costs to aid the Department in determining projected cash flow decisions.

Schedule-Related Preconstruction Services

- a. Validate Department/Consultant Schedules: Construction Manager evaluates if the current scope of work can be executed within the constraints of the schedule.
- b. Prepare and Manage Project Schedules: Construction Manager prepares and maintains schedules throughout the design phase to ensure that dates will be met and notifies the Department when issues arise.
- c. Develop Sequence of Design Work: Construction Manager recommends the sequences of the design work to mirror the construction work so early work packages can be developed.
- d. Construction Phasing: Construction Manager develops a construction phasing plan to facilitate construction progress and ensure maintenance of traffic. This includes identification of critical parcel acquisition and utility relocations.
- e. Schedule Risk Analysis/Control: Construction Manager evaluates the risks inherent to design decisions regarding the schedule and offers alternative materials, means, and/or methods to mitigate those risks.

Administrative-Related Preconstruction Services

- a. Third-Party Impact Avoidance and Reduction Strategies: Construction Manager reviews agreements, permits, and work around (commitments) made to third parties (e.g., [Edit as needed]: irrigation and flood control districts, adjacent cities, adjacent construction contracts, railroad, utilities, property owners, and regulatory agencies) and determine and/or identify feasibility of commitment. Advises the Department of impacts and alternative solutions to comply.
- b. Prepare Document Control: Construction Manager implements a document control process and software solution, as agreed upon by the Department, that will allow for the efficient transmittal, sharing, tracking, approval, and filing of all Project related documents.
- c. Coordinate Contract Documents: Construction Manager evaluates each component to the construction contract against all other components and identifies conflicts that can be resolved before award of the construction phase contract.
- d. Coordinate with Third-Party Stakeholders: Construction Manager communicates with third parties involved in the Project, including utilities, railroads, and the general public.
- e. Attend Public Meetings: Construction Manager assists the Department in organizing and/or attends public meetings to answer questions from the public about the construction of the Project.
- f. Biddability Reviews: Construction Manager reviews the design documents to ensure that subcontractor work packages can be bid out and receive

competitive pricing. This action reduces the risk to the subcontractors because they are given the specific design product they need for their bids; not just told to find their work inside the full set of construction documents.

- g. Subcontractor Bid Packaging: Construction Manager coordinates the design work packaging to directly correlate with subcontractor work packages so that early packages can be easily bid out and awarded.
- h. Assist in Right of Way Acquisition/Validation: Construction Manager assists the designer in identifying options for right of way acquisitions by providing means and methods input. The primary purpose is to minimize the amount of right of way actions that must be undertaken and to assist in prioritizing individual parcel acquisition.
- i. Assist in Permitting Actions: Construction Manager is empowered to meet with resource agencies and develop permit applications with assistance from the Department.
- j. Study Labor Availability/Conditions: Construction Manager furnishes advice during design regarding the availability of specialty trade subcontractors and the impact of that availability on the Project budget and schedule constraints.
- k. Prepare Sustainability Certification Application: Construction Manager prepares the necessary paperwork to submit for certification when certification for sustainability is desired.
- l. Analyze Environmental Commitments/Permits: Construction Manager reviews environmental commitments/permits attached to the Project and identifies feasibility issues of commitments/permits. Advises the Department of impacts and alternative solutions to comply.
- m. Coordinate Site Visits for Subcontractors: Construction Manager coordinates site visits for subcontractors to facilitate the subcontractor procurement process.
- n. Project Meetings: Construction Manager attends scheduled Project meetings and contributes with comments, provides solutions, and carries needed action items.

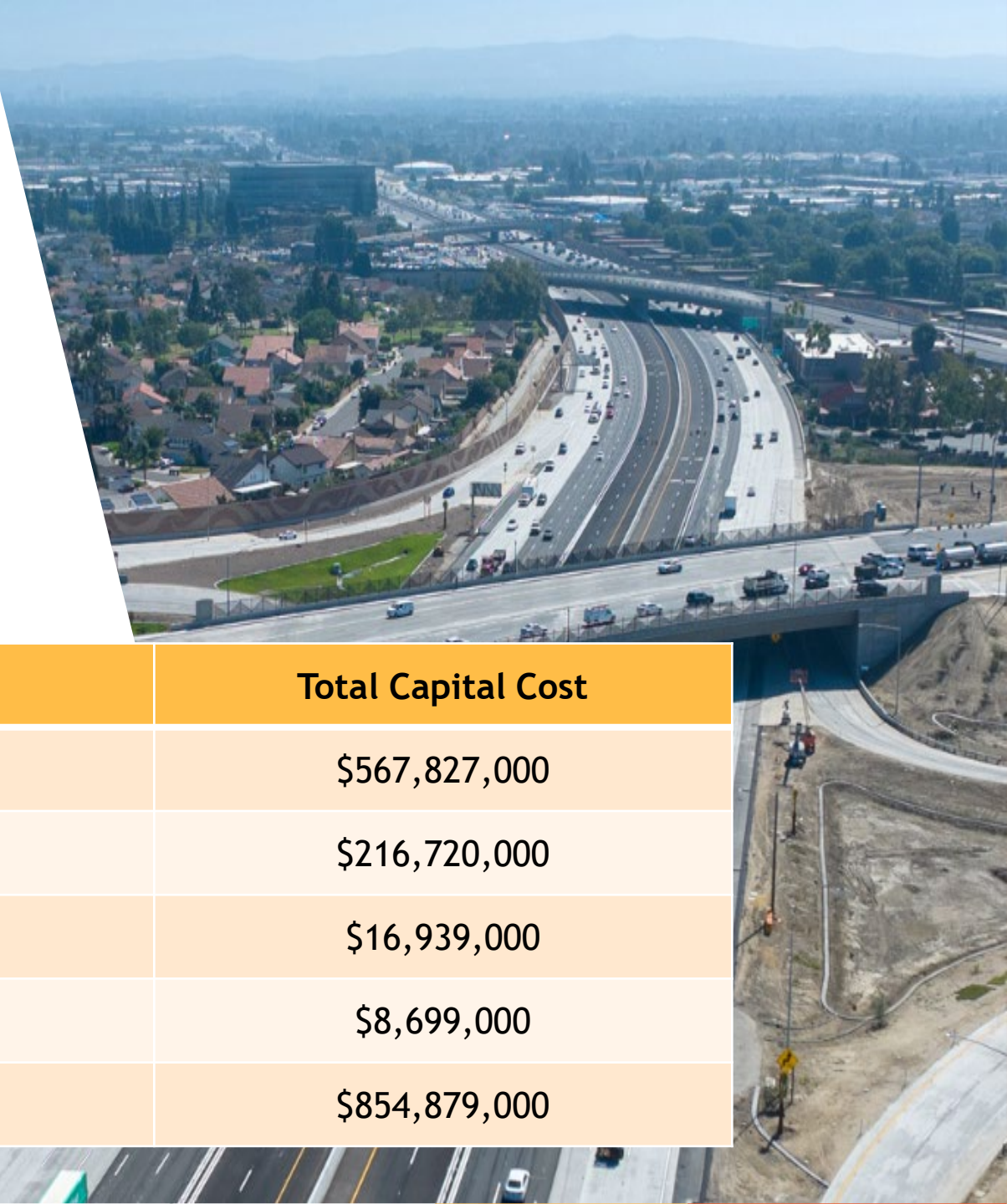
D12 Upcoming Procurements

Contract on LAR	Estimated Contract Amount	Estimated Advertisement Date	Work Type	Contract Type
12NEWP01-25	\$12,700,000	April 2025	I-5 ML, Program Management Consultant (PMC)	A&E
12NEWE01-25	\$4,000,000	April 2025	Environmental Services - On-Call	A&E
12NEWE02-25	\$3,900,000	April 2025	Biological Services - On-Call	A&E
Total on LAR	\$20,600,000			
Upcoming Contract	Estimated Contract Amount	Estimated Advertisement Date	Work Type	Contract Type
I-5 ML PD-B	TBD	August 2025	I-5 ML, Progressive Design-Build Contract (PD-B)	PD-B
I-5 ML FA	\$300,000	August 2025	I-5 ML, Financial Advisor Contract	Service
I-5 ML TSP	TBD	2025	I-5 ML, Toll Services Provider (TSP)	TBD
12NEWC01-26	TBD	2026	I-5 ML, Roadway CM Services	A&E
12NEWC03-22	\$9,000,000	2025	SR-241/91 Direct Connector, Roadway CM Services	A&E
59ANEW24191	\$7,000,000	2025	SR-241/91 Direct Connector, Structures CM Services	A&E
12NEWT01-26	TBD	2026	Traffic Operations Services - On-Call	A&E

D12 Upcoming Construction Projects Within Two Years

- ▶ Total Projects: 65
- ▶ Total Construction Cost: \$1.67B

Program	No. of Projects	Total Capital Cost
SHOPP	15	\$567,827,000
STIP	2	\$216,720,000
Maintenance	19	\$16,939,000
Minor (A and B)	16	\$8,699,000
Local, Partnership	13	\$854,879,000





Project Summary – 3/19/25

Capital Projects

- 2025 – Passenger Concourse Enhancements
- 2026 – Taxiway F Reconstruction
- 2026 – Safety & Security Checkpoint Improvements
- 2027 – Terminal MPOE Improvements
- 2027 – Apron High Mast Light Replacement
- 2028 – Pad 11 & Taxiway K Rehabilitation
- 2031 – Runway 12-30 Rehabilitation

RFQs for federally funded projects and On-Call consultant services

- Construction Management Services
- Airside & Landside selection completed
- Anticipated contract award May 2025
- Project Management Services
- Interviewing Shortlist
- Anticipated award June 2025
- Architectural & Engineering Services
- Currently advertising on LB Buys
- SOQ's due April 24, 2025

Stephan Lum, P.E.
Engineering Officer
Long Beach Airport
(562) 570-2682

CONSTRUCTION DESIGN-BUILD MATOC 9-MONTH PROJECT LOOK AHEAD

LAWA | LAX VNY

ADP - AIRPORTS DEVELOPMENT PROGRAM

Project Name	Estimated Value*	Delivery Method	RFI Issuance Date*
LAX Gateways	\$100,000,000	Design Build	04/15/25
Century Blvd. Rehabilitation	\$100,000,000	Design Build	04/15/25
Employee Lot C Electric Bus Charging Lot	\$10,000,000	Design-Bid Build	04/01/25
LAX South Terminal Taxilane Reconstruction (Taxilane C)	\$95,000,000	Design-Bid Build	06/01/25
LAWA Integrated Operations Center	\$50,000,000	CMAR	08/01/25
Imperial Highway Northside Aesthetic Improvements	\$25,000,000	Design-Bid Build	10/01/25

TDIP - TERMINAL DEVELOPMENT & IMPROVEMENT PROGRAM

Project Name	Estimated Value*	Delivery Method	RFI Issuance Date*
T5 Renovation and Reconstruction Project	\$1,300,000,000	Design Build	01/17/25
TBIT Refresh (Includes ICP Work)	\$250,000,000	CMAR	01/27/25
T5 Enabling - T1, T2, T6 Scope (Spirit/Jet Blue/LAWA rels)	\$20,000,000	CMAR	02/10/25
T5 Enabling - MSC South +TC 19 (Spirit relocation)	\$10,000,000	CMAR	02/10/25
T5 Enabling - TBIT Concourse (AA relocation)	\$10,000,000	CMAR	02/10/25
Terminal 2 Refresh - Arrivals & Departures	\$15,000,000	CMAR	03/14/25
Terminal 2 Refresh - Terrazo Only	\$25,000,000	CMAR	03/28/25
ERRCS - Interference Mitigation	\$4,000,000	Design-Bid Build	03/28/25
eDAS (T2 & T6 only)	\$35,000,000	Design-Bid Build	03/28/25
CTA West Station - Corridor	\$10,000,000	Design-Bid Build	04/01/25
Delta GSE Building Demolition	\$10,000,000	Design-Bid Build	04/01/25
CTA Departure Level Exterior Refresh	\$75,000,000	CMAR	04/17/25
CTA Exit Lane Breach Control Devices	\$50,000,000	Design Build	07/01/25
Century Sewer Connection Project	\$20,000,000	Design-Bid Build	10/01/25
Terminal 4 Concessions Concourse - Landlord Work	\$25,000,000	CMAR	01/01/26

