RIVERSIDE COUNTY TRANSPORTATION COMMISSION

MEETING AGENDA

Western Riverside County Programs and Projects Committee

Time: 1:30 p.m.

Date: July 27, 2020

Pursuant to Governor Newsom's Executive Order N-29-20, (March 18, 2020), the Governing Board meeting will only be conducted via video conferencing and by telephone.

COMMITTEE MEMBERS

Michael Vargas, **Chair**/Rita Rogers, City of Perris
Clint Lorimore, **Vice Chair**/Todd Rigby, City of Eastvale
Wes Speake/Jim Steiner, City of Corona
Brian Berkson/Chris Barajas, City of Jurupa Valley
Bill Zimmerman/Dean Deines, City of Menifee
Yxstian Gutierrez/Carla Thornton, City of Moreno Valley
Scott Vinton/Christi White, City of Murrieta
Berwin Hanna/Ted Hoffman, City of Norco
Andrew Kotyuk/Russ Utz, City of San Jacinto
Ben J. Benoit/Joseph Morabito, City of Wildomar
Kevin Jeffries, County of Riverside, District I
Jeff Hewitt, County of Riverside, District V

STAFF

Anne Mayer, Executive Director
John Standiford, Deputy Executive Director

AREAS OF RESPONSIBILITY

Air Quality, Capital Projects, Communications and Outreach Programs, Intermodal Programs, Motorist Services, New Corridors, Regional Agencies/Regional Planning, Regional Transportation Improvement Program (RTIP), Specific Transit Projects, State Transportation Improvement Program (STIP) Transportation Uniform Mitigation Fee (TUMF) Program, and Provide Policy Direction on Transportation Programs and Projects related to Western Riverside County and other areas as may be prescribed by the Commission.

Comments are welcomed by the Commission. If you wish to provide comments to the Commission, please complete and submit a Speaker Card to the Clerk of the Board.

RIVERSIDE COUNTY TRANSPORTATION COMMISSION
WESTERN RIVERSIDE COUNTY PROGRAMS AND PROJECTS COMMITTEE

www.rctc.org

AGENDA*

**Actions may be taken on any item listed on the agenda*

1:30 p.m.

Monday, July 27, 2020

Pursuant to Governor Newsom's Executive Order N-29-20, (March 18, 2020), the Western Riverside County Programs and Projects Committee meeting will only be conducted via video conferencing and by telephone. Please follow the instructions below to join the meeting remotely.

INSTRUCTIONS FOR ELECTRONIC PARTICIPATION

Join Zoom Meeting
https://us02web.zoom.us/j/87578464483

Meeting ID: 875 7846 4483
One tap mobile
+16699006833,,87578464483# US (San Jose)

Dial by your location
+1 669 900 6833 US (San Jose)
Meeting ID: 875 7846 4483

For members of the public wishing to submit comment in connection with the Western Riverside County Programs and Projects Committee Meeting please email written comments to the Clerk of the Board at lmobley@rctc.org prior to July 26, 2020 at 5:00 p.m. and your comments will be made part of the official record of the proceedings and read into the record. Members of the public may also make public comments through their telephone or Zoom connection when recognized by the Chair.

In compliance with the Brown Act and Government Code Section 54957.5, agenda materials distributed 72 hours prior to the meeting, which are public records relating to open session agenda items, will be available for inspection by members of the public prior to the meeting on the Commission's website, www.rctc.org.

In compliance with the Americans with Disabilities Act, Government Code Section 54954.2, Executive Order N-29-20, and the Federal Transit Administration Title VI, please contact the Clerk of the Board at (951) 787-7141 if special assistance is needed to participate in a Committee meeting, including accessibility and translation services. Assistance is provided free of charge. Notification of at least 48 hours prior to the meeting time will assist staff in assuring reasonable arrangements can be made to provide assistance at the meeting.

1. CALL TO ORDER

2. ROLL CALL

3. PUBLIC COMMENTS – *Each individual speaker is limited to speak three (3) continuous minutes or less. The Committee may, either at the direction of the Chair or by majority vote of the Committee, waive this three minute time limitation. Depending on the number of items on the Agenda and the number of speakers, the Chair may, at his/her discretion, reduce the time of each speaker to two (2) continuous minutes. Also, the Committee may terminate public comments if such comments become repetitious. In addition, the maximum time for public comment for any individual item or topic is thirty (30) minutes. Speakers may not yield their time to others without the consent of the Chair. Any written documents to be distributed or presented to the Committee shall be submitted to the Clerk of the Board. This policy applies to Public Comments and comments on Agenda Items.*

4. ADDITIONS/REVISIONS *(The Committee may add an item to the Agenda after making a finding that there is a need to take immediate action on the item and that the item came to the attention of the Committee subsequent to the posting of the agenda. An action adding an item to the agenda requires 2/3 vote of the Committee. If there are less than 2/3 of the Committee members present, adding an item to the agenda requires a unanimous vote. Added items will be placed for discussion at the end of the agenda.)*

5. APPROVAL OF MINUTES – FEBRUARY 24, 2020

6. AGREEMENT WITH BNSF RAILWAY COMPANY FOR RAIL SIGNAL DESIGN SERVICES FOR THE RIVERSIDE DOWNTOWN METROLINK STATION TRACK AND PLATFORM EXPANSION PROJECT

Page 1

Overview

This item is for the Committee to:

1) Approve Agreement No. 21-31-001-00, with BNSF Railway Company (BNSF) for rail signal design services for the Riverside Downtown Metrolink Station Track and Platform Expansion Project for a total amount not to exceed $150,000;
2) Authorize the Chair or Executive Director, pursuant to legal counsel review, to execute the agreement; and
3) Forward to the Commission for final action.

7. 2020 STATE ROUTE 91 IMPLEMENTATION PLAN

Page 7

Overview

This item is for the Committee to:

1) Approve the 2020 State Route 91 Implementation Plan; and
2) Forward to the Commission for final action.

8. AWARD OF SR-91 CORRIDOR OPERATIONS PROJECT CONSTRUCTION AGREEMENT TO OHL USA

Page 53

Overview

This item is for the Committee to:

1) Pending final results of the Disadvantaged Business Enterprise (DBE) Good Faith Efforts review, award Agreement No. 20-31-069-00 to OHL USA to construct the SR-91 Corridor Operations Project (91 COP), in the amount of $18,886,963, plus a contingency amount of $1,888,696, supplemental work in the amount of $406,900, and an incentive payment in the amount of $472,500, for a total amount not to exceed $21,655,059;
2) Authorize the Chair or Executive Director, pursuant to legal counsel review, to finalize and execute the agreement on behalf of the Commission;
3) Authorize the Executive Director, or designee, to approve contingency work, supplemental work and incentive payments as may be required for the 91 COP; and
4) Forward to the Commission for final action.

9. COMMISSIONERS / STAFF REPORT

Overview

This item provides the opportunity for the Commissioners and staff to report on attended and upcoming meeting/conferences and issues related to Commission activities.

10. ADJOURNMENT

The next Western Riverside County Programs and Projects Committee meeting is scheduled to be held at **1:30 p.m., Monday, August 24, 2020,** Board Chambers, First Floor, County Administrative Center, 4080 Lemon Street, Riverside.

AGENDA ITEM 5

MINUTES

RIVERSIDE COUNTY TRANSPORTATION COMMISSION

WESTERN RIVERSIDE COUNTY PROGRAMS AND PROJECTS COMMITTEE

Monday, February 24, 2020

MINUTES

1. CALL TO ORDER/ ROLL CALL

The meeting of the Western Riverside County Programs and Projects Committee was called to order by Chair Brian Berkson at 1:33 p.m., in the Board Room at the County of Riverside Administrative Center, 4080 Lemon Street, First Floor, Riverside, California, 92501.

2. ROLL CALL

Members/Alternates Present	Members Absent
Ben Benoit*	Bill Zimmerman
Brian Berkson	
Berwin Hanna	
Jeff Hewitt	
Kevin Jeffries*	
Clint Lorimore	
Wes Speake	
Carla Thornton*	
Michael Vargas	
Scott Vinton	
Russ Utz	

*arrived after meeting was called to order

3. PLEDGE OF ALLEGIANCE

At this time, Anne Mayer, Executive Director led the Western Riverside County Programs and Projects Committee in a flag salute.

4. PUBLIC COMMENTS

There were no requests to speak.

5. ADDITIONS/REVISIONS

There were no additions or revisions at this time.

6. APPROVAL OF MINUTES – OCTOBER 28, 2019

M/S/C (Hanna/Utz) to approve the minutes as submitted.

At this time, Commissioners Kevin Jeffries and Carla Thornton arrived.

7. AWARD OF: (1) DESIGN-BUILD CONTRACT; AND (2) AMENDMENT TO PROJECT AND CONSTRUCTION MANAGEMENT SERVICES AGREEMENT FOR THE INTERSTATE 15/STATE ROUTE 91 EXPRESS LANES CONNECTOR PROJECT

David Thomas, Toll Project Manager, presented the scope of the agreement for the design-build contract and the amendment to project and construction management services agreement for the 15/91 Express Lanes Connector project.

In response to Commissioner Wes Speake's question regarding current projects, Anne Mayer explained this project will not delay any of the other projects in the corridor and will help alleviate the local traffic through Corona.

Mr. Thomas discussed the sunset limit for the SB 132 funds in relation to this project, the difference in price between the bids, and why the Commission will not be going out for rebid.

Mr. Thomas explained for Commissioner Berkson, the additional work being done in preparation of accepting the new bridge and the additional work being done near McKinley.

M/S/C (Vinton/Hanna) to:

1) **Award Agreement No. 19-31-074-00 to Myers-Rados, a Joint Venture (Myers-Rados JV) as the design-build contractor to design and construct the Interstate 15/State Route 91 Express Lanes Connector project (15/91 ELC) in the amount of $164,840,000, plus a contingency amount of $10,487,000, for a total amount not to exceed $175,327,000;**
2) **Approve Agreement No. 15-31-001-07, Amendment No. 7 to Agreement No. 15-31-001-00, with Parsons Transportation Group (Parsons) to provide project and construction management services for the proposed 15/91 ELC in the amount of $14,825,000, plus a contingency amount of $1,482,000, for a total amount not to exceed $16,307,000, and extend the term to June 30, 2024;**
3) **Authorize the Chair or the Executive Director, pursuant to legal counsel review, to finalize and execute the agreements on behalf of the Commission;**
4) **Authorize the Executive Director or designee to approve contingency work up to the total amounts as required for the project; and**

5) Forward to the Commission for final action.

No: Speake

8. Award of Interstate 15/Railroad Canyon Road Interchange Project Construction Agreement to Riverside Construction Company

Bryce Johnston, Capital Projects Manager, presented the scope of the agreement for the 15/Railroad Canyon Road Interchange project construction.

Anne Mayer clarified for Commissioner Lorimore that Pechanga was the only tribe interested in monitoring the project and that if any other tribes come forward, another agreement will have to be entered into.

Ms. Mayer added that plans are being uploaded to PlanetBids before the plans are final so contractors have more time to work on their bids and there has been an increase in bids received to the Commission since it started this practice.

Commissioner Speake commented on the amount of bids the Commission received.

Ms. Mayer responded that the larger and more complex the project, the fewer bids the Commission receives.

M/S/C (Vargas/Hanna) to:

1) Award Agreement No. 20-31-034-00 to Riverside Construction Company to construct the Interstate 15/Railroad Canyon Road Interchange Project (Project), in the amount of $27,698,589, plus a contingency amount of $2,769,859, for potential change orders and supplemental work in the amount of $910,000 during construction, for a total amount not to exceed $31,378,448;
2) Approve Agreement No. 20-31-046-00 with the Pechanga Band of Luiseño Indians (Pechanga) for an amount not to exceed $100,000 for Native American monitoring services during construction of the Project;
3) Authorize the Chair or Executive Director, pursuant to legal counsel review, to finalize and execute the agreements on behalf of the Commission;
4) Authorize the Executive Director, or designee, to approve contingency work as may be required for the Project; and
5) Forward to the Commission for final action.

At this time, Commissioner Ben Benoit arrived.

9. AMENDMENT TO AGREEMENT WITH T.Y. LIN INTERNATIONAL FOR FINAL DESIGN SERVICES RELATED TO THE MID COUNTY PARKWAY INTERSTATE 215/PLACENTIA AVENUE INTERCHANGE IMPROVEMENT PROJECT AND AGREEMENT FOR CONSTRUCTION ZONE ENFORCEMENT ENHANCEMENT PROGRAM SERVICES FOR THE PROJECT

Mark Lancaster, Capital Projects Manager, presented the scope of the amendment to agreement with T.Y. Lin International for final design services related to the Mid County Parkway Interstate 215/Placentia Avenue interchange improvement project and agreement for construction zone enforcement enhancement program services for the project.

Mr. Lancaster clarified for Commissioner Vinton that initially the details of the drainage were not looked at. During the design phase, the Commission discovered that there is a master floodplain line that runs through the whole interchange and Mid County Parkway project. RCTC then had to do extraordinary analysis, a hydrology report, and a hydraulics report in order to ensure that the hydraulics worked and the water did not come out of the conveyance or the pipes. RCTC had to make sure we have positive drainage to the Perris Valley Pipeline.

Ms. Mayer added that Riverside County Flood Control master plan was done after the Mid County Project was awarded. This section of the 215 is subject to flood waters so it is a unique situation.

M/S/C (Hanna/Utz) to:

1) **Approve Agreement No. 16-31-066-04, Amendment No. 4 to Agreement No. 16-31-066-00, with T.Y. Lin International (T.Y. Lin) to complete final design services and prepare the Interstate 215/Placentia Avenue interchange improvement (I-215/Placentia Avenue) project for advertising and award, in the amount of $386,663, plus a contingency amount of $38,666, for an additional amount of $425,329, and a total amount not to exceed $5,171,185;**
2) **Approve Agreement No. 20-31-051-00 with the California Highway Patrol (CHP) for Construction Zone Enforcement Enhancement Program (COZEEP) services in an amount not to exceed $279,900;**
3) **Authorize the Chair or Executive Director, pursuant to legal counsel review, to finalize and execute the agreements on behalf of the Commission;**
4) **Authorize the Executive Director or designee to approve the use of the contingency amount as may be required for the project; and**
5) **Forward to the Commission for final action.**

10. AMENDMENT TO AGREEMENT FOR CALIFORNIA HIGHWAY PATROL CONSTRUCTION ZONE ENHANCEMENT ENFORCEMENT PROGRAM SERVICES DURING THE CONSTRUCTION OF THE STATE ROUTE 60 TRUCK LANES PROJECT

Bryce Johnston, Capital Projects Manager, presented the details of amendment for CHP construction zone enhancement enforcement program services during the construction of the SR-60 Truck Lanes project.

M/S/C (Vargas/Utz) to:

1) **Approve Agreement No. 19-31-038-01, Amendment No. 1 to Agreement No. 19-31-038-00, with the California Highway Patrol (CHP) for Construction Zone Enhanced Enforcement Program (COZEEP) services during the construction of the State Route 60 Truck Lanes project (Project) in the amount of $350,000, plus a contingency amount of $100,000, for an additional amount of $450,000, and a total amount not to exceed $1,490,070;**
2) **Authorize the Chair or Executive Director, pursuant to legal counsel review, to execute the agreement on behalf of the Commission;**
3) **Authorize the Executive Director, or designee, to approve contingency work as may be required for the agreement; and**
4) **Forward to the Commission for final action.**

11. ELECTION OF OFFICERS FOR THE WESTERN RIVERSIDE COUNTY PROGRAMS AND PROJECTS COMMITTEE

Lisa Mobley, Clerk of the Board, stated this item is for the Western Riverside County Programs and Projects Committee to conduct an election of the officers for 2020.

At this time, Chair Berkson opened nominations for the Chair position.

Commissioner Wes Speake, seconded by Commissioner Ben Benoit, nominated Vice Chair Michael Vargas for the Chair position for 2020.

No other nominations were received. The Chair closed the nominations. Michael Vargas was elected as the Western Riverside County Programs and Projects Committee's Chair for 2020.

The Chair then opened nominations for the Vice Chair position for 2020. Commissioner Berwin Hanna, seconded by Commissioner Scott Vinton, nominated Commissioner Clint Lorimore for the Vice Chair position for 2020.

No other nominations were received. The Chair closed the nominations. Commissioner Clint Lorimore was elected as the Western Riverside County Programs and Projects Committee's Vice Chair for 2020.

12. COMMISSIONERS / STAFF REPORT

12A. Commissioner Benoit requested he be able to add his yes vote on Agenda Items 7 and 8.

12B. Anne Mayer announced the Budget & Implementation update on refinancing proposal is going to be on the March 11 Commission agenda.

13. ADJOURNMENT

There being no further business for consideration by the Western Riverside County Programs and Projects Committee, the meeting was adjourned at 2:22 p.m.

Respectfully submitted,

Lisa Mobley
Clerk of the Board

AGENDA ITEM 6

RIVERSIDE COUNTY TRANSPORTATION COMMISSION	
DATE:	July 27, 2020
TO:	Western Riverside County Programs and Projects Committee
FROM:	David Lewis, Capital Projects Manager
THROUGH:	Marlin Feenstra, Project Delivery Director
SUBJECT:	Agreement with BNSF Railway Company for Rail Signal Design Services for the Riverside Downtown Metrolink Station Track and Platform Expansion Project

STAFF RECOMMENDATION:

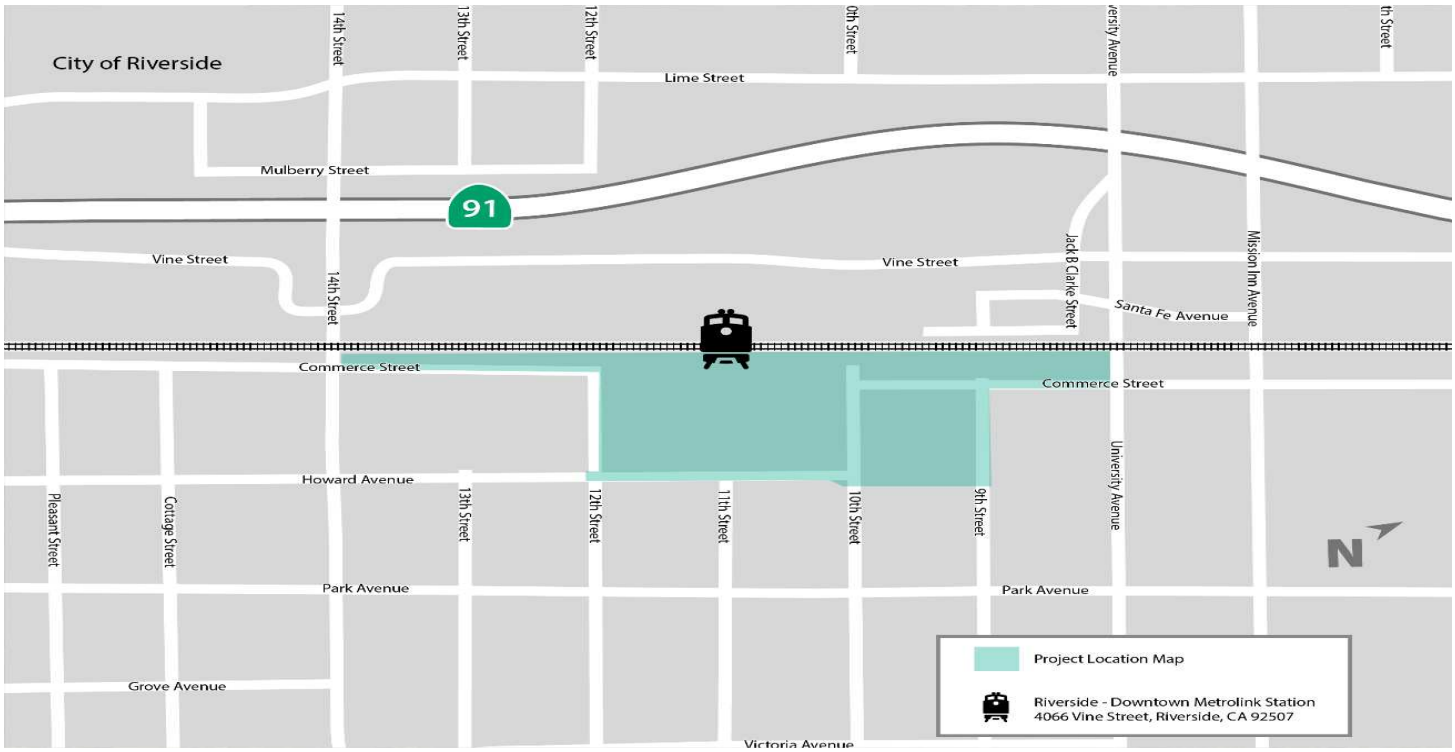
This item is for the Committee to:

1) Approve Agreement No. 21-31-001-00, with BNSF Railway Company (BNSF) for rail signal design services for the Riverside Downtown Metrolink Station Track and Platform Expansion Project for a total amount not to exceed $150,000;
2) Authorize the Chair or Executive Director, pursuant to legal counsel review, to execute the agreement; and
3) Forward to the Commission for final action.

BACKGROUND INFORMATION:

The Commission is currently in the design and environmental phase for additional tracks, pedestrian overcrossing extension, new passenger loading platform, and a new parking lot on the east side of the Riverside-Downtown Metrolink Station (Figure 1). The Commission approved a memorandum of understanding with Metrolink to provide Southern California Optimized Rail Expansion funds for the project at its June 2019 meeting.

Figure 1
Riverside Downtown Metrolink Station Track and Platform Expansion Project



The additional tracks, switching for the tracks and the required signalization will be controlled by BNSF, and therefore BNSF must provide the design services for this work. Staff, working in conjunction with Metrolink and HNTB, the designer, has developed a concept for these additional tracks, switching for the tracks and the required signalization. BNSF has concurred with this concept and has given staff the following cost estimate to complete design services.

Signal Design	$	113,000
Contingency (10%)		11,300
Sub Total		124,300
Miscellaneous Flagging		25,700
Total	**$**	**150,000**

BNSF has committed to complete design within six months after given a notice to proceed.

Staff concurs with the above BNSF cost estimate and recommends approval of Agreement No. 21-31-001-00, with BNSF for rail signal design services for the Riverside Downtown Metrolink Station Track and Platform Expansion Project for a total amount not to exceed $150,000. Staff also recommends authorization for the Chair or Executive Director, pursuant to legal counsel review, to execute the agreement.

Financial Information						
In Fiscal Year Budget:	Yes	Year:	FY 2020/21	Amount:	$150,000	
Source of Funds:	Federal Transit Administration			Budget Adjustment:	No	
GL/Project Accounting No.:	004027 81402 00000 0000 265 33 81402					
Fiscal Procedures Approved:	Theresia Trevino			Date:	07/14/2020	

Attachment: Draft Agreement No. 21-31-001-00

REIMBURSEMENT AGREEMENT

BNSF File #: BF_____
LS 7602
MP 10.0
San Bernardino Subdivision
Riverside Downtown Metrolink Station Expansion Project
Riverside, Riverside County, CA.
Agreement No. _____

This Reimbursement Agreement ("Agreement") is entered into effective as of _____2020, by and between **RIVERSIDE COUNTY TRANSPORTATION COMMISSION ("RCTC"),** a political subdivision of the State of California, and **BNSF RAILWAY COMPANY** (**"BNSF**").

RECITALS

A. WHEREAS, BNSF operates a freight transportation system by rail with operations throughout the United States and Canada; and

B. WHEREAS, RCTC desires that the below described improvements be constructed at the location(s) referenced in Recital D, adjacent to BNSF's Rail Corridor; and

C. WHEREAS, it is the policy of BNSF, as owner of the Rail Corridor, to check the plans and specifications of adjacent rail projects that make modifications to BNSF's Rail Corridor: and

D. WHEREAS, RCTC has adopted a project **("Riverside-Downtown Metrolink Station Track & Platform Expansion Project")** which adds an additional platform, extends the existing pedestrian bridge and adds an additional elevator, and adds two new station tracks adjacent to the BNSF's Rail Corridor, at MP 10.0, LS 7602; and

H. WHEREAS, RCTC is obligated to reimburse BNSF for all of the costs incurred by BNSF under any agreement between BNSF and RCTC and for the cost for the BNSF Signal team to complete the Signal design 0-100%, and provide flagging for said project.

NOW, THEREFORE, in consideration of the terms, conditions, covenants and performances contained herein, or attached and incorporated and made a part hereof, IT IS MUTUALLY AGREED AS FOLLOWS:

SECTION 1. SCOPE OF SERVICES

BNSF will provide all the work, labor, and services for the BNSF Signal team to complete the Signal design 0-100%, and for flagging services for the project described below:

> **Riverside-Downtown Metrolink Station Track & Platform Expansion Project , Approximate BNSF MP 10.0, in Riverside, CA,** Adds an additional platform, extends the existing pedestrian bridge and adds a new elevator, and adds two new station tracks adjacent to the BNSF's Rail Corridor.

The estimate for the Signal team to complete the design 0-100% is shown below. Design time line is normally 6 months.

Signal Design 0-100% -	$113,000.00
Contingency 10% -	$ 11,300.00
Sub Total -	**$124,300.00**
Misc Flagging -	$25,700.00
Total -	$150,000.00

SECTION 2. AUTHORITY TO BEGIN WORK

BNSF agrees not to commence work until receipt of notice to begin work in writing by RCTC, and that reimbursement will be limited to those costs incurred subsequent to the date of such notification.

SECTION 3. PAYMENT OF FEES

RCTC, in consideration of the faithful performance of the work to be done by BNSF, agrees to pay BNSF actual direct and related indirect costs accumulated in accordance with a work order accounting procedure as prescribed and approved by the ICC Uniform System of Accounts, or its equivalent, for work described in Section 1, SCOPE OF SERVICES above, with the total cost estimated to be $150,000.00.

Following the execution of the Agreement and written authorization to proceed with the SCOPE OF SERVICES, progress billings may be submitted to RCTC to cover costs incurred and RCTC shall pay such progress billings promptly upon receipt. Progress bills are not to be submitted more frequently that one (1) per month.

Final and detailed billing for all incurred costs associated with this work shall be made by BNSF and furnished to RCTC within one (1) year of project completion, and RCTC shall pay all eligible amounts of such bill, less progress payments previously made, within sixty (60) days of final billing.

The parties agree that payment of any billing will not constitute agreement as to the appropriateness of any item and that at the time of final audit all required adjustments will be made and reflected in a final payment by either party. In the event that such final audit reveals an overpayment to BNSF, BNSF agrees to refund such overpayment to RCTC within 60 days of agreement to audit findings.

During the progress of the work and for a period not less than three (3) years from the date of the final BNSF invoice under this Agreement, the records and accounts pertaining to the work of the project and accounting therefor shall be maintained by BNSF and made available for inspection and audit by RCTC and/or Federal Government, and copies of all records, accounts, documents, or other data pertaining to the project shall be furnished by BNSF upon request. If any litigation, claim, or audit is commenced, the records and accounts along with supporting documentation shall be retained until all dispute, litigation, claim or audit finding has been resolved even though such dispute, litigation, claim or audit continues past the three (3) year retention period.

No liability shall attach to RCTC or BNSF by reason of entering into this Agreement except as expressly provided herein.

This Agreement shall be governed by and construed in accordance with the laws of the State of California, excluding its conflict of laws principles. In the event of litigation arising out of or relating to this Agreement, the parties hereto consent to the exclusive jurisdiction and venue of the state courts of and federal courts in Riverside County, California, and to service of process by any means authorized by California law.

A manually signed copy of this Agreement which is transmitted by facsimile, email or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original executed copy of this Agreement for all purposes. This Agreement may be signed using an electronic signature.

This Agreement may be signed in counterparts, each of which shall constitute an original.

IN WITNESS WHEREOF, the parties hereto have caused this Reimbursement Agreement to be executed as of the day and year first written above.

BNSF RAILWAY COMPANY

By: _____
Printed Name: Kate Kalinoskey
Title: Manager Public Projects

RIVERSIDE COUNTY TRANSPORTATION COMMISSION

By: _____
Anne Mayer, Executive Director

APPROVED AS TO FORM:

By:_____
Best Best & Krieger LLP
Counsel to the Riverside County
Transportation Commission

AGENDA ITEM 7

RIVERSIDE COUNTY TRANSPORTATION COMMISSION	
DATE:	July 27, 2020
TO:	Western Riverside County Programs and Projects Committee
FROM:	David Thomas, Toll Project Manager
THROUGH:	Anne Mayer, Executive Director
SUBJECT:	2020 State Route 91 Implementation Plan

STAFF RECOMMENDATION:

This item is for the Committee to:

1) Approve the 2020 State Route 91 Implementation Plan; and
2) Forward to the Commission for final action.

BACKGROUND INFORMATION:

In 2002, AB 1010 authored by former Assemblyman Lou Correa allowed the Orange County Transportation Authority (OCTA) to purchase the 91 Express Lanes franchise from the California Private Transportation Company. OCTA completed the purchase agreement in January 2003, at a cost of $207.5 million. AB 1010 also eliminated the existing non-compete clause in the franchise agreement that prohibited any capacity-enhancing improvements from being made to SR-91 until the year 2030. The purchase of the 91 Express Lanes and the elimination of the non-compete clause allowed much needed improvements to be planned and implemented within the SR-91 corridor. Caltrans Districts 8 and 12, the Commission, and OCTA have been coordinating these improvements.

In 2008, SB 1316's passage authorized an extension of OCTA's tolling authority to 2065 and for the Commission to impose tolls and fees for 50 years on transportation facilities and to use toll revenues to construct, operate, and maintain toll facilities on SR-91 in Riverside County. SB 1316 also required the creation of the State Route 91 Advisory Committee with specific responsibilities composed of board members from the Commission and OCTA.

SB 1316 also required the continuation of annual updates of an implementation plan of SR-91 improvements for the Legislature initially required under AB 1010. Consistent with the legislation, OCTA and the Commission in consultation with Caltrans completed the 2020 State Route 91 Implementation Plan (attached). The plan details proposed projects and completion schedules for transportation improvements to Metrolink, express bus, express lanes, freeways and interchanges, new east-west highway corridors, and high-speed rail.

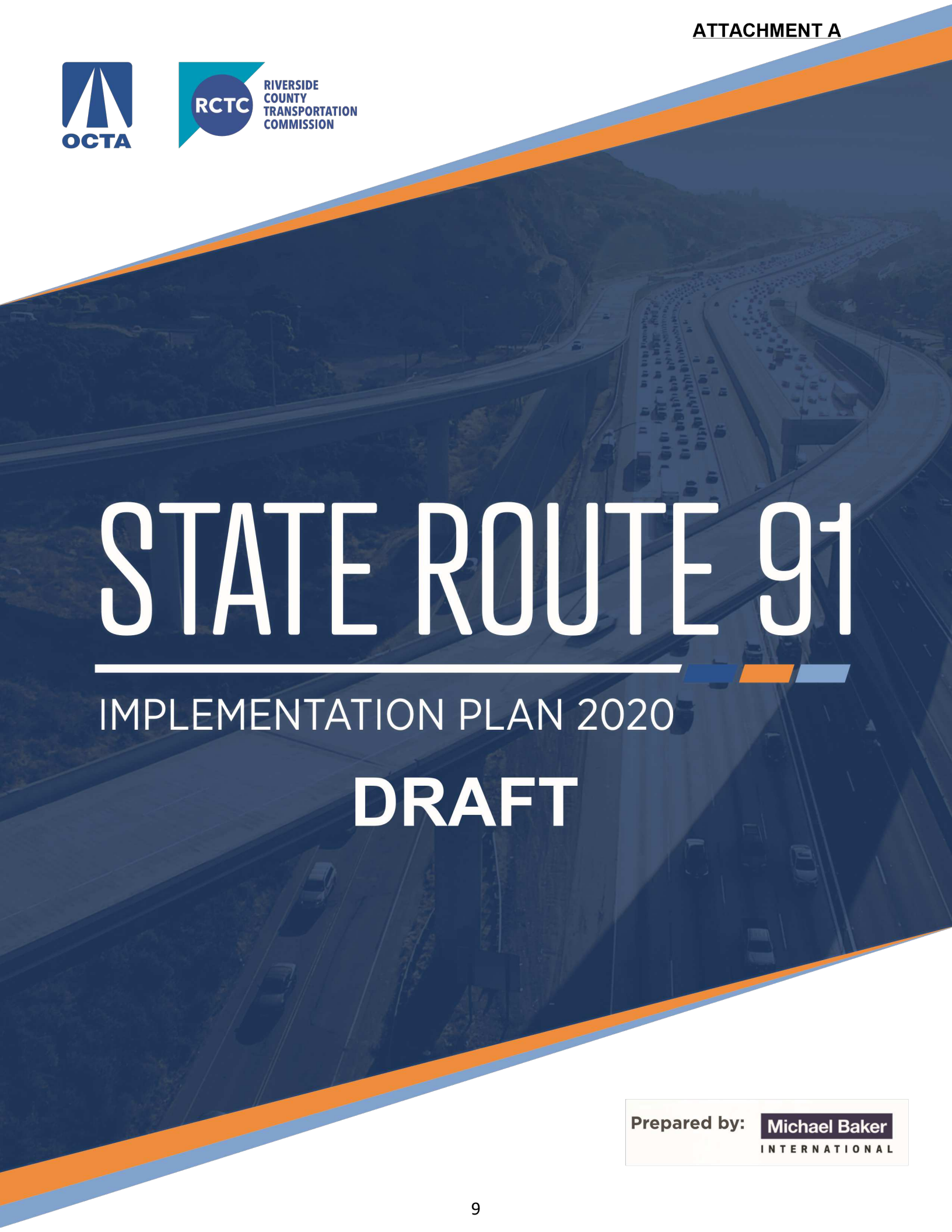
SB 1316 grants the Commission the authority to expend tolls and fees on capital costs, operations and maintenance, repair and rehabilitation, debt financing costs, and administration. Any tolls and fees generated in excess of the expenditure needs (i.e., surplus) previously listed may be spent on transportation needs within the State Route 91 corridor from the Orange County line to Interstate 15. These transportation needs include transit capital, transit operations, and State Highway capital improvements for both toll and non-tolled improvements. As part of its annual budget approval process, the Commission approved the use of tolls and fees generated from its 91 Express Lanes operations designated as surplus for various projects.

Lastly, staff posted on the Commission's web site the SR-91 Implementation Plan for public review and comment on May 26, 2020 for 30 days per SB 1316.

Attachment: *2020 State Route 91 Implementation Plan*

OCTA

RCTC RIVERSIDE COUNTY TRANSPORTATION COMMISSION



STATE ROUTE 91

IMPLEMENTATION PLAN 2020

DRAFT

Prepared by: Michael Baker INTERNATIONAL

STATE ROUTE 91 (SR-91) IMPLEMENTATION PLAN
KEEPING MOTORISTS MOVING ON THE SR-91 CORRIDOR

Every year since 2003, OCTA, RCTC, and stakeholders have worked collaboratively to review a program of projects along the SR-91 corridor.

BENEFITS

- Provides seamless connectivity between Orange and Riverside Counties
- Increases travel options
- Optimizes vehicle throughput
- Reinvests net 91 Express Lanes revenues on the SR-91 corridor to improve regional mobility
- Investments to date: $1.9 billion

COMPLETED EFFORTS

	PROJECT	COST (MILLIONS)	COMPLETION
Orange County	Eastbound Lane Addition (SR-241 to SR-71)	$51.2	2010
	Fifth Lane Addition (SR-55 to SR-241)	$85.2	2013
	Westbound Lane at Tustin Avenue	$43.3	2016
Riverside County	Green River Road Overcrossing	$24.3	2009
	North Main Street Corona Metrolink Parking Structure	$25	2009
	91 Corridor Improvement Project (Initial Phase)	$1,407	2017
	La Sierra Metrolink Parking Improvements	$6.3	2019
Bi-County	Metrolink Service Improvements	$249	2016

ANTICIPATED PROJECTS

	PROJECT	COST (MILLIONS)	CURRENT PHASE
Orange County	SR-91 Improvements (SR-57 to SR-55)	$460	Environmental
	Anaheim Canyon Metrolink Station Improvements	$29.8	Final Design
	Placentia Metrolink Rail Station	$34.8	Final Design
	Fairmont Boulevard Improvements	$76.8	Preliminary Engineering
Riverside County	15/91 Express Lanes Connector	$270	Final Design
	SR-71/SR-91 Interchange Improvements	$117	Final Design
	Improvements East of I-15	TBD	Environmental
Bi-County	Express Bus Service	$6	Underway
	SR-91 Corridor Operations Project	$44	Final Design
	6th General Purpose Lane Addition (SR-241 to SR-71)	TBD	Environmental
	SR-241/SR-91 Tolled Express Lanes Connector	$250	Final Design

CONCEPTS

LOCATION	COST (MILLIONS)
Elevated 4-Lane Facility (MIS Corridor A) from SR-241 to I-15 (Post-2035)	$2,720
Anaheim to Ontario International Airport Maglev High Speed Rail (Post-2035)	$2,770 - $3,200
Irvine-Corona Expressway (ICE) 4-Lane Facility from SR-241/SR-133 to I-15/Cajalco Road (Post-2035)	$8,855
WB SR-91 to SB SR-55 Connector Improvements (Post-2035)	$75 - $150
EB SR-91 Fifth Lane Addition at SR-241	$31

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SECTION 1: 2020 STATUS REPORT AND UPDATE

INTRODUCTION

Previous law authorized the California Department of Transportation (Caltrans) to enter into franchise agreements with private companies to construct and operate four demonstration toll road projects in California. This resulted in the development of the 91 Express Lanes facility in Orange County. The four-lane, 10-mile toll road runs along the median of State Route 91 (SR-91) in northeast Orange County between the Orange/Riverside County line and State Route 55 (SR-55). Since the 91 Express Lanes carried its first vehicle on December 27, 1995, the facility has saved users tens of millions of hours of commuting time.

While the 91 Express Lanes facility has improved travel time along the SR-91 corridor, provisions in the franchise agreement between Caltrans and the private franchisee, the California Private Transportation Company (CPTC), prohibited Caltrans and county transportation agencies from adding transportation capacity or operational improvements to the SR-91 corridor through the year 2030 from Interstate 15 (I-15) in Riverside County to the Orange/Los Angeles Counties border. Consequently, the public agencies were barred from adding new lanes, improving interchanges, and adding other improvements to decrease congestion on the SR-91 freeway.

Recognizing the need to eliminate the non-compete provision of the franchise agreement, Governor Gray Davis signed Assembly Bill 1010 (Lou Correa) (AB 1010) into law in September 2002, paving the way for much-needed congestion relief for thousands of drivers who use SR-91 to travel between Riverside and Orange Counties each day. The bill allowed the Orange County Transportation Authority (OCTA) to purchase the 91 Express Lanes franchise and eliminate non-compete clause that prohibited capacity-enhancing improvements from being made to SR-91. Although the 91 Express Lanes operate within a 10-mile stretch of Orange County, between SR-55 and Orange/Riverside county lines the franchise technically allowed operation of toll lanes into Riverside County. The purchase agreement for the 91 Express Lanes was completed on January 3, 2003, placing the road in public hands at a cost of $207.5 million. With the elimination of the non-compete provision through AB 1010 and the subsequent 91 Express Lanes purchase by OCTA, Orange County and Riverside County public officials and Caltrans Districts 8 and 12 have been coordinating improvement plans for SR-91.

Senate Bill 1316 (Lou Correa) (SB 1316) was signed into law in September 2008 as an update to the provisions of AB 1010. SB 1316 authorizes OCTA to transfer its rights and interests in the Riverside County portion of SR-91 toll lanes by assigning them to the Riverside County Transportation Commission (RCTC) and authorizes RCTC to operate tolls for 50 years. In 2017, RCTC opened the extension of the 91 Express Lanes to traffic into Riverside County with completion of the initial phase of the SR-91 Corridor Improvement Project (see Appendix B). SB 1316 also requires OCTA and RCTC, in consultation with Caltrans, to continue to issue an annual SR-91 Implementation Plan (Plan) for SR-91 improvements between State Route 57 (SR-57) and I-15. The Plans prior to adoption of SB 1316 included a westerly project limit of SR-55. The Plan establishes a program of potential improvements to relieve congestion and improve operations in the SR-91 corridor.

The 2020 Plan fulfills the requirement to provide the State Legislature with an annual Implementation Plan for SR-91 improvements and builds on the 2019 Plan. This year's update includes concepts that were identified in the 2006 Riverside County – Orange County Major Investment Study (MIS) as well as other project development efforts, including the RCTC 10-Year Western County Highway Delivery Plan that outlines a number of projects such as the extension of the 91 Express Lanes from the Orange/Riverside County line to I-15. The projects included in the 2020 Plan have been infused with various sources of local, state, and federal funding. The 2020 Plan includes overviews, status summaries, and proposed costs and schedules for project packages to improve mobility on SR-91. Also included are conceptual lane diagrams (as appropriate), and discussions of key considerations that need to be addressed in the planning and development of each project. This Plan will provide OCTA, RCTC, and Caltrans with a framework to

implement SR-91 and other related improvements. Future annual Plan updates will continue to refine the scope, cost, and schedule of each project included in this version of the Plan.

91 EXPRESS LANES TOLL POLICY GOALS

With the completion of the State Route 91 Corridor Improvement Project's initial phase in spring 2017, there are now approximately 18 miles of Express Lanes between Orange and Riverside counties. OCTA and RCTC have adopted goals for the 91 Express Lanes to continue to maintain a safe, reliable, and predictable travel time for express lane users traversing seamlessly between the two counties. The goals below take into consideration the 91 Express Lanes as well as the SR-91 corridor at large. These guiding principles include:

- optimizing vehicle throughput at free flow speeds;
- increasing average vehicle occupancy;
- balancing capacity and demand to serve customers who pay tolls as well as carpoolers (3+) who are offered discounted tolls;
- paying debt service and maintaining debt service coverage;
- generating sufficient revenue to sustain the financial viability of the 91 Express Lanes; and
- when appropriate, reinvesting net revenues on the SR-91 corridor to improve regional mobility.

PROJECT ACCOMPLISHMENTS

Much progress has been made since the initial 2003 SR-91 Implementation Plan was approved. The 2020 Plan includes select completed project exhibits as a historical reference, (see Appendix B).

Completed Construction/Improvement Projects

The following improvements have been constructed or implemented:

- Repaved and sealed pavement surfaces, restriped, and replaced raised channelizers on the 91 Express Lanes.
- On EB SR-91 the roadway was restriped, and the median barrier was reconstructed. This project removed the CHP enforcement area and extended the EB auxiliary lane from SR-71 to the Serfas Club Drive off-ramp.
- The WB auxiliary lane was extended between the County line and SR-241. This project eliminated the lane drop at the 91 Express Lanes and extended the existing auxiliary lane from the County line to SR-241 in the westbound direction. This improvement minimized the traffic delays at the lane drop area, resulting in improved vehicle progression.
- On WB SR-91 the roadway was restriped to extend the auxiliary lane between SR-71 and the County line. This resulted in a new continuous lane between SR-71 and SR-241.
- Safety Improvements were constructed at the Truck Scales. Existing shoulders were improved, lanes were re-striped, illumination improved, and signage was modified into and out of the EB facilities.
- Green River Road overcrossing replacement (see Appendix B).
- Metrolink parking structure at the North Main Street Corona Metrolink Station (see Appendix B).
- EB SR-91 lane addition from SR-241 to SR-71 (see Appendix B).
- Additional SR-91 WB and EB travel lane between SR-55 and SR-241 (see Appendix B).
- SR-91 WB bypass lane to Tustin Avenue at SR-55 (see Appendix B).
- Metrolink Service Improvements (see Appendix B).
- Initial SR-91 Corridor Improvement Project (CIP) (see Appendix B).
- La Sierra Metrolink Parking Improvements (see Appendix B)

These projects provide enhanced freeway capacity and/or improved mobility for one of the most congested segments of SR-91.

The completed EB SR-91 lane addition project from SR-241 to SR-71 (see Appendix B) has improved highway operations. This project reduced travel time by approximately 20 minutes during its opening year.

The Initial CIP project has provided significant benefits to drivers on SR-91. This $1.4 billion investment project included widening SR-91 by one GP lane in each direction east of SR-71, adding collector-distributor (CD) roads and direct south connectors at I-15/SR-91, extending the 91 Express Lanes to I-15, and providing system/local

interchange improvements. The new lanes and other improvements save time, offer choice and reliability, boost safety, enhance access and job creation, promote ridesharing, reduce pollution and aid the movement of goods along the region's roadways.

The WB SR-91 Widening Project completed construction in 2016 from State College Blvd to Interstate 5 (I-5). This project added one WB general purpose lane and removed the dedicated exit lane to State College Blvd from the SB SR-57 to WB SR-91 Connector that was causing operational issues due to the short weaving distance. While this project falls just to the west of the limits for the Plan study area, it will have an influence on operations within the Plan area.

In addition, there are two projects that impact future SR-91 widening projects. The first is the $2 billion U.S. Army Corps of Engineers (Corps) Santa Ana River Mainstem improvement project that provides flood protection from the recently improved Prado Dam (near SR-71) to the Pacific Ocean. The construction includes several phases that have been completed (Phase 1, 2A, 2B, 3) and ongoing (Phase 4, 5A, 5B, and BNSF Bridge Protection). The improvements include sheet pile and grouted stone bank protection, and bridge pier protection.

The other project with a direct impact to SR-91 is the $120 million Santa Ana Regional Interceptor (SARI) sewer trunk line relocation. The existing SARI line is within the Santa Ana River floodplain and was in jeopardy of failure due to scour from the potential increased flood releases by the aforementioned Corps project. This project was completed in 2014.

SR-91 project teams have coordinated with the Corps, Orange County Flood Control District, Caltrans, and other federal, regional, and local agencies in order to accommodate planned SR-91 improvements adjacent to the Santa Ana River.

Completed Designs and Reports

There are various project development phase documents (Feasibility Reports, Studies, PSR, PA/ED, or PS&E) that are completed, or are in draft form and anticipated to be approved that identify mobility improvements. These documents include:

- MIS – Final Project Report: Locally Preferred Strategy Report (January 2006).
- Renewed Measure M Transportation Investment Plan (November 2006).
- RCTC 10-Year Western County Highway Delivery Plan (December 2006).
- SR-91/Fairmont Boulevard Feasibility Study (December 2009).
- Corridor System Management Plan (CSMP) Orange County SR-91 Corridor Final Report (August 2010).
- Renewed Measure M Early Action Plan, approved August 2007 and subsequently renamed as the Capital Action Plan (April 2011).
- PSR-PDS for SR-241/SR-91 Tolled Express Lanes Connector (January 2012).
- Project Report & Environmental Document for 91 Corridor Improvement Project (October 2012)
- PSR-PDS on SR-91 between SR-57 and SR-55 (October 2014).
- SR-71/SR-91 Interchange Environmental Phase (2011) and Final Design (2015).
- 2018 Next 10 Delivery Plan approved by OCTA Board, (September 2018).
- Project Report & Environmental Document for 15/91 Express Lanes Connector (June 2019)
- Project Report & Environmental Document for 91 Corridor Operations Project (April 2020)
- Project Report & Environmental Document for SR-241/SR-91 Tolled Express Lanes Connector (April 2020).

SR-91 CORRIDOR CONDITIONS

Project Limits

The project study limits encompass the segment of SR-91 from west of the junction of SR-57 and SR-91 in the City of Anaheim in Orange County, to east of the junction of SR-91 and I-15 in the City of Corona in Riverside County. The freeway segment is approximately 20.3 miles long and includes 12.7 miles within Orange County and 7.6 miles within Riverside County.

Existing Traffic Conditions Summary

A review of traffic conditions in the Corridor indicates that the existing capacity of the facility is inadequate to accommodate current and future peak demand volumes. Level of Service (LOS) F prevails in the peak direction during the entire peak period. The definition of LOS F is a density of more than 45 passenger cars/lane/mile and the worst freeway operating condition. The results also

indicate that there are several physical conditions that contribute to unacceptable traffic queues.

During the weekdays, westbound SR-91 experiences heavier traffic conditions during the morning commute for travelers leaving Riverside County to employment areas in Orange and Los Angeles counties. The Corridor is generally congested between the peak period of 6 a.m. to 10 a.m. in the westbound direction and the peak period of 3 p.m. to 7 p.m. in the eastbound direction. Due to the high demand, congestion in the corridor occurs before and after the peak periods. The eastbound afternoon conditions tend to be exacerbated by the lack of receiving capacity in the Riverside County portion of the SR-91 Corridor. Accordingly, RCTC is working closely with Caltrans District 8 to sponsor improvements that will provide congestion relief for the eastbound afternoon condition. Some of these improvements include the 15/91 Express Lane Connector, SR-71/SR-91 Interchange, and Improvements East of I-15.

The following is a summary of the deficiencies identified along the SR-91 corridor:

- Heavy traffic volumes to/from I-15 converge with the SR-91 and increase delay during the morning and evening peak hours.
- SR-71 traffic demand as well as physical and operational constraints for the EB SR-91 to NB SR-71 connector contribute to mainline and EB SR-91 corridor delays.
- Traffic entering the WB SR-91 from the Green River Road and SR-71 on-ramps contribute to mainline congestion during the AM peak period.
- High traffic volumes entering the freeway from Gypsum Canyon Road, Santa Ana Canyon Road, Green River Road, Weir Canyon Road, Imperial Highway and Lakeview Avenue contribute to congestion on the SR-91 mainline.
- One of the two lanes from the Eastern Transportation Corridor (State Route 241) connector is dropped at the merge to EB SR-91 causing additional congestion on the EB SR-91 general purpose lanes.
- At the NB SR-55 interchange with EB SR-91, a lane on SR-91 is dropped (as a dedicated exit) at Lakeview Avenue and a second lane is dropped (as a dedicated exit) at Imperial Highway creating a weave condition.
- WB SR-91 drops two GP lanes and a 91 Express Lane to SB SR-55, contributing to mainline congestion. This drop also occurs on the left-hand side of SR-91, creating a weaving condition.
- WB traffic entering SR-91 at Lakeview Avenue traveling to SB SR-55 contributes to mainline congestion by weaving across three lanes on SR-91.The existing two-lane connector from WB SR-91 to SB SR-55 traffic volume exceeds operational capacity causing a queue on the SR-91 mainline.
- A lane drop on EB SR-91 at SB SR-241 creates a chokepoint.

Logical Project Sequencing

As noted, the SR-91 Corridor in Riverside County, in the EB direction, lacks the receiving capacity during the afternoon peak period which creates a bottleneck condition. Due to the high levels of congestion experienced on this segment of the corridor, there is sensitivity to any changes that may affect traffic operations. Without first addressing the congestion in Riverside County, any performance or capacity enhancing projects upstream would further exacerbate congested conditions causing additional delays and queueing. Therefore, projects that have the potential to impact demand and/or provide additional capacity in the EB direction should be considered in a logical sequence to ensure that there is sufficient receiving capacity in Riverside County.

In October 2019, a consensus was reached between OCTA, RCTC, Caltrans, and the TCA that would set the stage for a series of projects to be implemented in sequential order to improve the SR-91 corridor. OCTA, RCTC, TCA, and Caltrans, Districts 8 and 12, as well as Caltrans Headquarters directors, worked through five major issues. This framework will enable the streamlining of the implementation of the SR-241/SR-91 Tolled Express Lanes Connector project while minimizing impacts to the 91 corridor. The subject matter of the multi-agency consensus is outlined below:

1. Setting priorities for SR-91 corridor projects to reduce construction-related impacts;
2. Allowing completion of the environmental approval process and updating related programming documents;
3. Clarifying lead agencies for final design, construction, and maintenance;
4. Identifying the principal funding agency for final design, construction, and maintenance; and
5. Designating lead agencies for retaining toll revenue and toll setting/operational control.

Based on the above framework, the agencies reached consensus on a 91 Corridor program of projects and sequencing as outlined below:

- ❖ 15/91 Express Lanes Connector
- ❖ SR-91 Corridor Operations Project
- ❖ SR-71/SR-91 Interchange Improvements*
- ❖ SR-241/SR-91 Tolled Express Lanes Connector

*Note: SR-241/SR-91 Tolled Express Lanes Connector is not dependent upon completion of SR-71/SR-91 Interchange Improvements

PROJECT SUMMARY

Many of the highway projects and concepts identified in this 2020 Plan are based on the MIS that was completed in January 2006. The projects are presented in the following groups: Orange County Projects, Riverside County Projects and Bi-County Projects. The stage of development for each project, such as planning, final design, construction, or procurement and implementation, varies as noted in the project summaries. Table 1 summarizes the various planned projects, concept projects, and completed projects. For details on each project refer to Section 2 for planned projects and Appendix B for selected complete projects:

- ❖ The Orange County projects have a total cost of approximately $600 million. The projects include the SR-91 improvements between SR-57 and SR-55, Anaheim Canyon Metrolink station improvements, Placentia Metrolink rail station, and Fairmont Boulevard improvements.

Table 1 – SR-91 Implementation Plan Projects

Project Summary	Cost ($M)
Orange County Projects	
SR-91 Improvements between SR-57 and SR-55	460
Anaheim Canyon Metrolink Station Improvements	29.8
Placentia Metrolink Rail Station	34.8
Fairmont Boulevard Improvements	76.8
SUBTOTAL	**601**
Riverside County Projects	
15/91 Express Lanes Connector	270
SR-71/SR-91 Interchange Improvements	117
SR-91 Improvements East of I-15	TBD
SUBTOTAL	**387+**
Bi-County Projects	
Express Bus Service Improvements Between Orange County and Riverside County	6
SR-91 Corridor Operations Project	44
Sixth General Purpose Lane Addition (SR-241 to SR-71)	TBD
SR-241/SR-91 Tolled Express Lanes Connector	250
SUBTOTAL	**300+**
Concept Project Summary	**Cost ($M)**
Conceptual Projects	
Elevated 4-Lane Facility (MIS Corridor A) from SR-241 to I-15	2,720
Anaheim to Ontario International Airport Maglev High Speed Rail	2,770 – 3,200
Irvine-Corona Expressway (ICE) 4-Lane Facility from SR-241/SR-133 to I-15/Cajalco Road	8,855
Westbound SR-91 to Southbound SR-55 Improvements	75 – 150
Eastbound SR-91 Fifth Lane Addition at SR-241	31
SUBTOTAL	**14,451 – 14,956**
Completed Project Summary Since 2006 (Constructed Year)	**Cost ($M)**
Green River Road Overcrossing Replacement (March 2009)	24.3
North Main Street Corona Metrolink Station Parking Structure (June 2009)	25
Eastbound Lane Addition from SR-241 to SR-71 (September 2010)	51.2
Widen SR-91 between SR-55 and SR-241 by Adding a 5th GP Lane in Each Direction (January 2013)	85.2
SR-91 WB Lane at Tustin Avenue (April 2016)	43.2
Metrolink Service Improvements (June 2016)	249
Initial Phase CIP: Widen SR-91 by One GP Lane in Each Direction East of Green River Rd, CD Roads and I-15/SR-91 Direct South Connector, Extension of Express Lanes to I-15 and System/Local Interchange Improvements (2017)	1,407
La Sierra Metrolink Parking Improvements (2019)	6.3
SUBTOTAL	**1,891**

- The Riverside County projects have a total cost of over $387 million. The improvements include: a 15/91 Express Lanes Connector, the SR-71/SR-91 Interchange Improvements, and the SR-91 improvements east of I-15.
- The Bi-County projects benefit both Orange and Riverside Counties. The total cost for the Bi-County projects exceeds $300 million. The improvements include: Express Bus service improvements, SR-91 Corridor Operations Project, a Sixth General Purpose Lane Addition (SR-241 to SR-71), and a SR-241/SR-91 Tolled Express Lanes Connector.

Traffic Analysis

For the 2020 Plan, the traffic analysis for major SR-91 capacity projects used the Caliper TransModeler software model and traffic data calibrated to reflect traffic patterns. This traffic simulation model provides a better depiction of actual travel delays experienced by motorists compared to traditional travel demand models. The model can be used to analyze freeway bottlenecks sometimes neglected in traditional travel demand models. This approach is especially important given high SR-91 traffic volumes and the potential for relatively few vehicles to significantly slow down traffic. For example, a minor freeway merging area can cause many vehicles to slow, cascading delay through the traffic stream, and rapidly decreasing both speed and volume for major segments of the freeway. The metrics reported in the Plan include travel time from the beginning to the end of the study corridor and vehicle hours of delay experienced on study corridor, which both focus on operations for vehicles on SR-91. A third metric includes vehicles served by the system in the study corridor and takes into consideration vehicles on ramps and freeways that feed into and are fed by SR-91 in the study area. The operations analysis quantified travel time savings for WB morning and EB afternoon conditions for the following major capacity enhancing projects:

Year 2030

- SR-91 Improvements between SR-57 and SR-55.
- 15/91 Express Lanes Connector.
- SR-71/SR-91 Interchange Improvements.
- SR-91 Corridor Operations Project
- SR-241/SR-91 Tolled Express Lanes Connector.

Year 2045

- Projects completed in 2030
- SR-91 Improvements East of I-15.
- SR-91 Sixth General Purpose Lane Addition
- Fairmont Boulevard Improvements

Westbound Analysis

The WB morning (a.m.) traffic analysis results indicate that for the year 2030 forecasts, travel times are anticipated to improve in Riverside County (by about 6 minutes) and in Orange County (by about 11 minutes). In addition to decreasing travel time overall vehicle hours of delay in the corridor has decreased (by about 20 percent), while the entire system is serving more vehicles (by about 9 percent). Bottlenecks are anticipated at the Orange-Riverside County line and at the SR-241 interchange/Gypsum Canyon interchange area. The main bottlenecks in Riverside County will be reduced due to the completion of proposed projects. The bottleneck at the SR-55 interchange has been decreased. However, with the additional vehicles traveling downstream, there is additional congestion at the SR-57 interchange. For the year 2045, travel times in Riverside County are anticipated to decrease (by about 16 minutes), and increase (by about 23 minutes) in Orange County when compared to 2030. Overall vehicle hours of delay has increased (by about 68 percent) in the corridor, but the number of vehicles the system is serving has increased (by about 6 percent). Bottlenecks appear at SR-71 and at SR-57. Due to the SR-71 Corridor Improvement Project, there is a large increase of vehicles going to and from SR-71. Travel time in Orange County shows an increase in 2045 due to the

growth in traffic, projects relieving congestion upstream allowing more vehicles to travel downstream, and no additional capacity enhancing projects in Orange County. OCTA and RCTC are exploring multi-modal opportunities on, or adjacent to, the SR-91 corridor that could provide additional congestion relief.

Express Lanes operations in the westbound direction are consistent in all the analysis years and operate satisfactorily.

Eastbound Analysis

The EB evening (p.m.) peak hour traffic analysis indicates that for the year 2030 forecasts, travel times in Riverside County are anticipated to decrease (by about 7 minutes), and increase (by about 11 minutes) in Orange County. Although the overall travel time through the corridor has increased slightly, the vehicle hours of delay has decreased (by about 25 percent) and the number of vehicles served by the system has increased (by about 12 percent). The major bottleneck still occurs at the county line. Improvement projects near SR-55 and I-15 alleviate congestion in those areas. For the year 2045, travel times in Riverside County are anticipated to increase (by about 4 minutes) and decrease in Orange County (by about 18 minutes) when compared to 2030. Overall vehicle hours of delay increased (by about 40 percent) but the number of vehicles the system is serving has increased (by about 8 percent). The main bottleneck remains at the county line. However, with the inclusion of the Sixth General Purpose Lane Addition project, the congestion at the county line is reduced. More vehicles traveling downstream slightly increases congestion in Riverside County near I-15.

Express Lanes operations in the eastbound direction are consistent in all the analysis years and operate satisfactorily.

Figures 1-1 and 1-2 below summarize the westbound corridor vehicle hours of delay and systemwide served vehicles, respectively. Figures 1-3 and 1-4 below summarize the eastbound corridor vehicle hours of delay and systemwide served vehicles, respectively.

Figure 1-1 – Westbound SR-91 from SR-57 to I-15 A.M. Peak Period Corridor Vehicle Hours of Delay

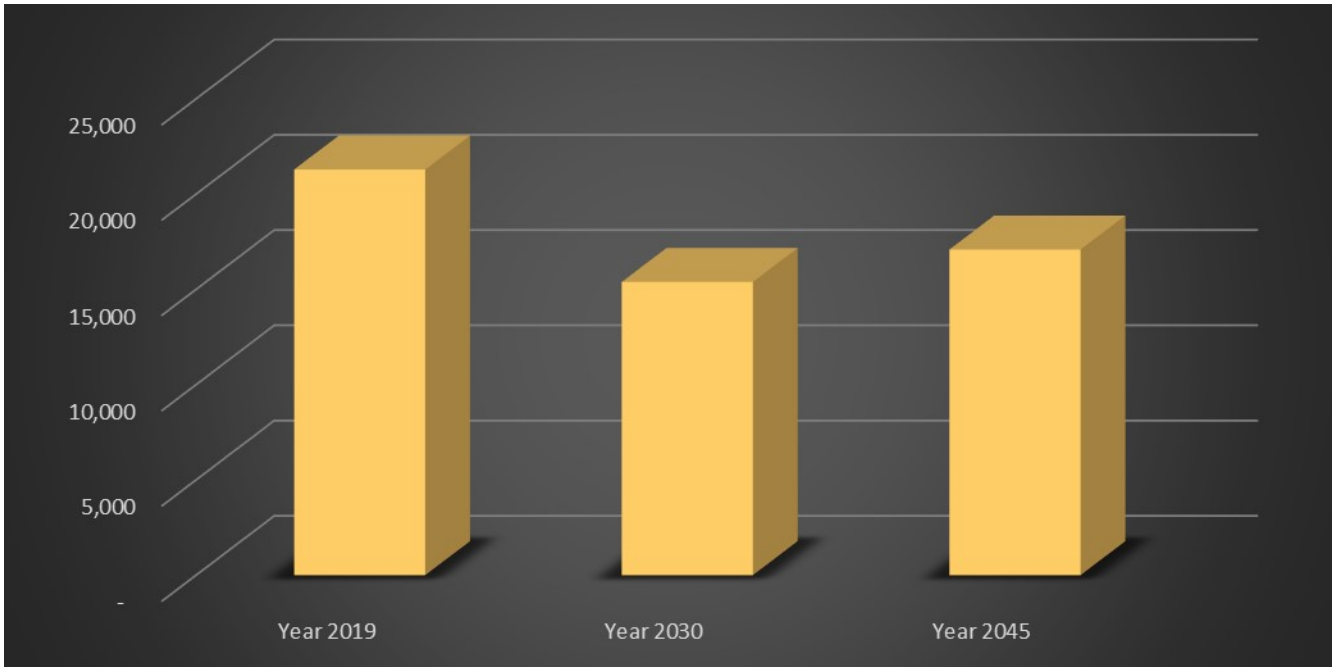


Figure 1-2 – Westbound SR-91 from SR-57 to I-15 A.M. Peak Period Systemwide Served Vehicles

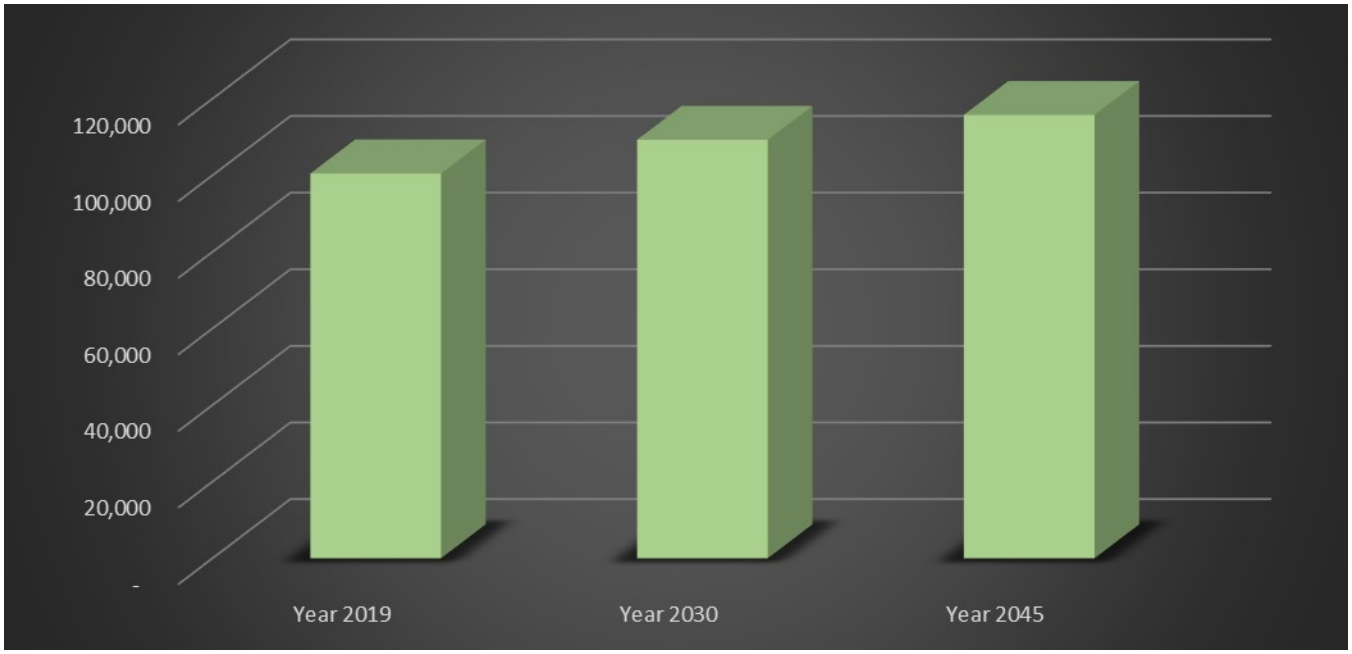


Figure 1-3 – Eastbound SR-91 from SR-57 to I-15 A.M. Peak Period Corridor Vehicle Hours of Delay

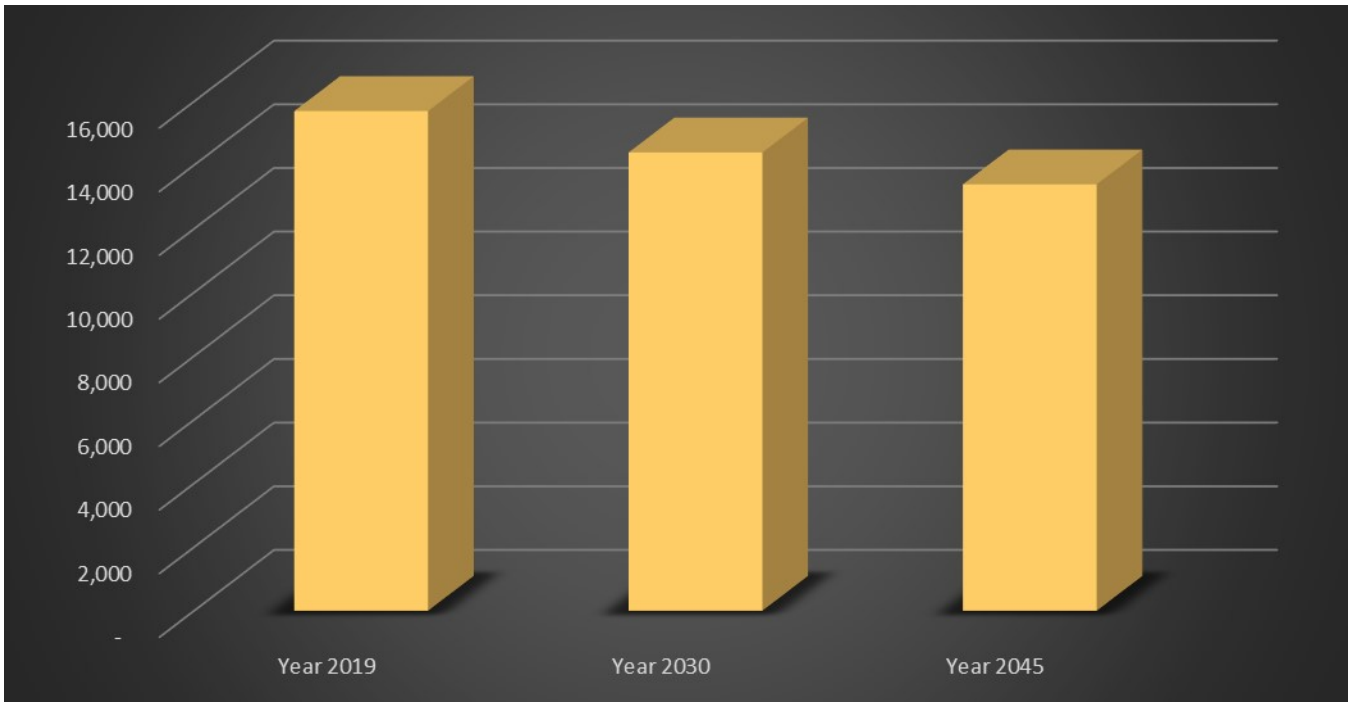
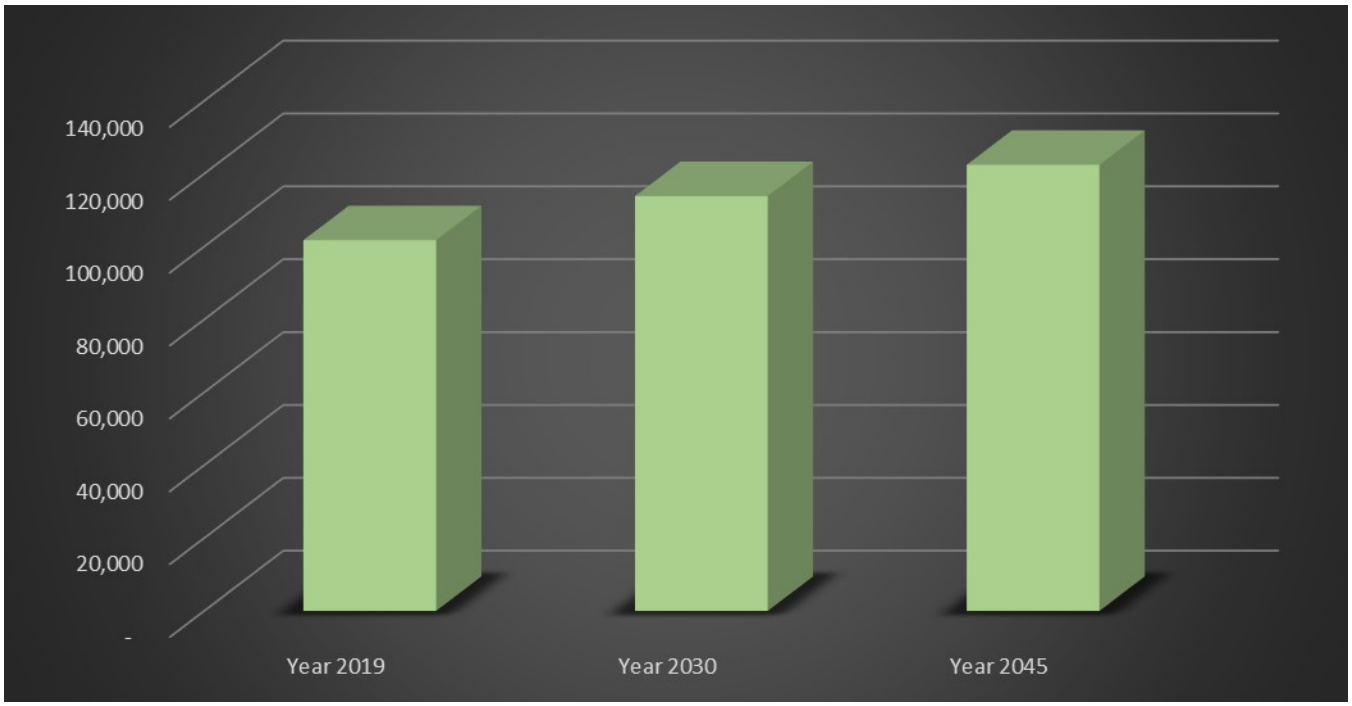


Figure 1-4 – Eastbound SR-91 from SR-57 to I-15 A.M. Peak Period Systemwide Served Vehicles



CONCEPT PROJECT SUMMARY

Many of the highway concept projects identified in this 2020 Plan are long lead time projects and/or projects without sufficient project development detail to be advanced into the Project Summary section. These potential concepts include significant environmental constraints and right of way requirements in addition to requiring a significant amount of planning, design, and future policy and public input. Many of these concept projects are multi-billion-dollar improvements that will remain a challenge to implement. Refer to Appendix A for details on each concept project.

ICE STATUS SUMMARY

The ICE concept was conceived as part of the MIS and was established as part of a suite of projects to support future peak demand volumes between Riverside and Orange Counties. The ICE was further evaluated in the 2009 ICE Feasibility Study for financial and geotechnical feasibility. Seven (7) primary feasibility issues were considered:

- Geologic, hydrogeologic/hydrologic, and geotechnical conditions.
- Corridor concepts (full tunnel and partial tunnel/partial surface road).
- Tunnel configuration.
- Tunnel excavation and support methods.
- Tunnel systems (e.g. ventilation, emergency fire system, operation building, toll system, etc.).
- Construction considerations.
- Construction, Operation & Maintenance (O&M) costs.

Per the direction of the Riverside-Orange Corridor Authority Board (ROCA) in 2010, staff has reevaluated the concept annually, as part of the preparation of this Plan, to determine if construction costs and tunneling technology have changed and become less prohibitive.

The National Forest Service has continued monitoring of the ground water level along the preliminary alignment of the tunnel and has not found any significant changes since 2010. A review of recent tunneling projects show that tunnels with similar challenges to those identified in the ICE Feasibility Study have been constructed. Two shorter tunnels were constructed in California with similar lane configurations. The Devil's Slide Tunnel in San Mateo County and the Caldecott Fourth Bore Tunnel in Contra Costa County both opened in 2013. These tunnels used a method of drilling and blasting (known as the New Austrian Tunneling Method), rather than operating a tunnel boring machine (TBM). Both tunnels were approximately 1.2 miles long and took six years and three years to construct, respectively.

Based on recent tunnel projects, the challenges that were identified in the ICE Feasibility Study were also experienced by other tunnel construction projects which provides insight into how tunneling technologies have changed. The New Austrian Tunneling Method may be a way to reduce the cost of boring for the ICE tunnel. This method was discussed in the 2009 ICE Feasibility Study but was dismissed due to the proposed length of the ICE tunnel concept. In the future, more investigation would be required to assess the feasibility of using a boring method other than a TBM, and to qualitatively assess possible impacts to the ICE corridor construction cost and duration.

There is currently a research and development project in Hawthorn, California utilizing TBM on a 14-foot diameter, 1.14-mile-long tunnel. While this project is much shorter in length and diameter than the ICE concept, it demonstrates that there is tunneling technology incubating locally.

An assessment of current economic conditions, lack of state and federal transportation funding; and the high construction cost continue to hinder the ability of OCTA and RCTC to implement this concept.

OVERVIEW

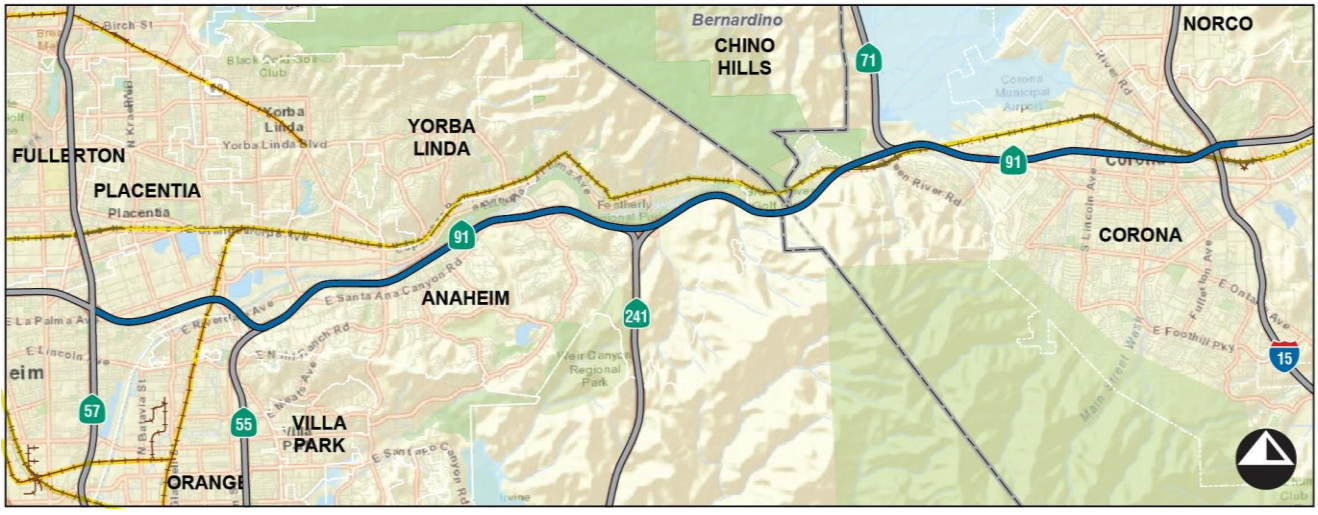
The 2020 Plan describes projects, key considerations, benefits, current status, schedule, and costs (in 2020 dollars, or as noted) for major projects and concepts through Post-2035. Some of the projects and concepts identified in this Implementation Plan are based on the MIS that was completed in January 2006. The projects are grouped as follows: Orange County Projects, Riverside County Projects and Bi-County Projects.

The intent of the Implementation Plan is to present a list of projects and studies along the SR-91 corridor and highlight coordination between OCTA, RCTC and Caltrans to improve the corridor.

As part of the project development process, detailed operational analysis will need to be conducted to evaluate operational issues associated with each project. The project development phases are discussed in the status updates and are defined as follows:

- **Conceptual Engineering = Pre-Project Study Report (Pre-PSR) –** Conceptual planning and engineering for project scoping and feasibility prior to initiating the PSR phase.
- **Preliminary Engineering = Project Study Report (PSR) –** Conceptual planning and engineering phase that allows for programming of funds.
- **Environmental = Project Approval/Environmental Document (PA/ED) –** The detailed concept design that provides environmental clearance for the project and programs for final design and right of way acquisition. The duration for this phase is typically 2-3 years.
- **Design = Plans, Specifications and Estimates (PS&E) –** Provide detailed design to contractors for construction bidding and implementation.
- **Construction =** The project has completed construction and will provide congestion relief to motorists.

Figure 2-1 – SR-91 Project Study Area from SR-57 to I-15

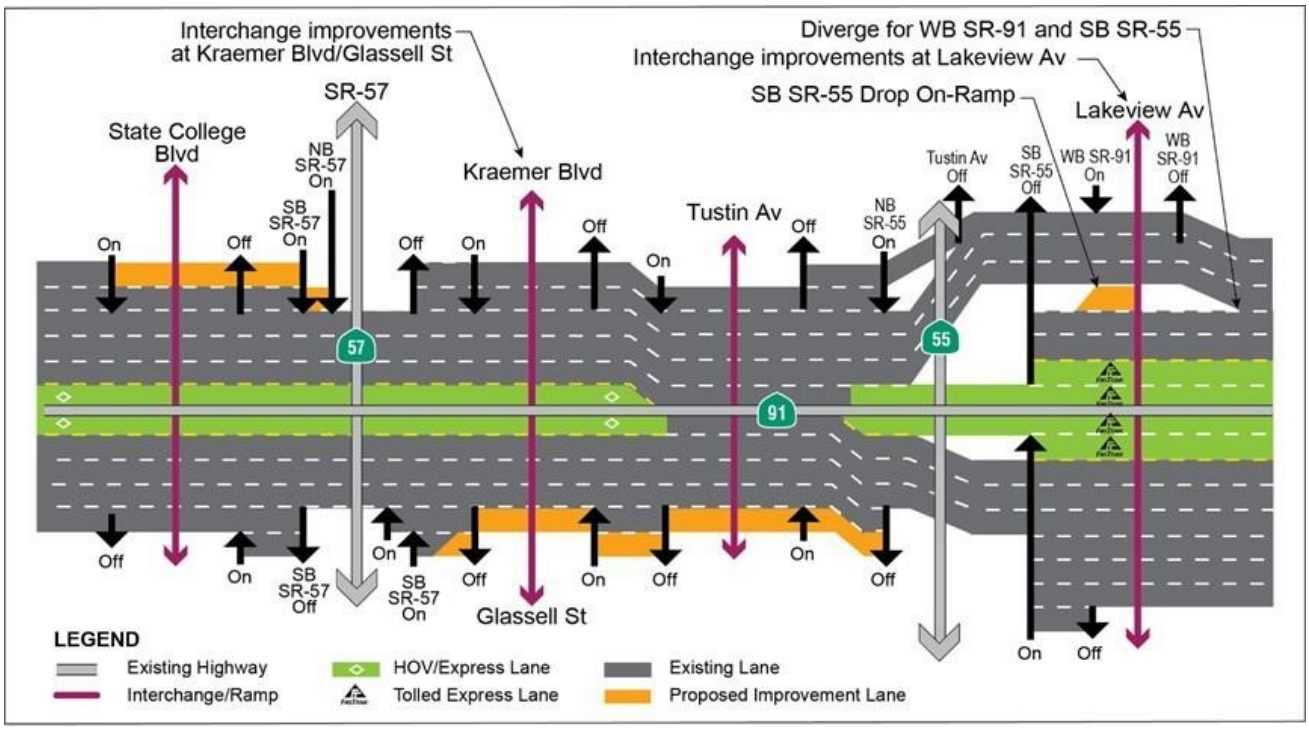


Orange County Projects

The Orange County set of projects include four improvements at a total cost of approximately $600 million (in 2020 dollars, or as noted). The projects include: SR-91 improvements between SR-57 and SR-55, Anaheim Canyon Metrolink station improvements, new Placentia Metrolink rail station, and Fairmont Boulevard Improvements. Further details for each of the projects are included in the following summaries.

Orange County Project Summary	Cost ($M)
SR-91 Improvements between SR-57 and SR-55	460
Anaheim Canyon Metrolink Station Improvements	29.8
Placentia Metrolink Rail Station	34.8
Fairmont Boulevard Improvements	76.8
SUBTOTAL	**601**

SR-91 Improvements between SR-57 and SR-55



Project Description

The project proposes to add EB capacity between SR-55 and SR-57, improve the SR-91/SR-57 and SR-91/SR-55 interchanges and local interchanges. In the SR-91/SR-57 interchange area, improvements identified in Project Approval/Environmental Document (PA/ED) phase include splitting the WB SR-91 Connector into separate exits for NB and SB SR-57 and extending an additional lane on WB SR-91 from the NB SR-57 to WB SR-91 connector through State College Boulevard and terminating at the auxiliary lane to Raymond Avenue-East Street. At the SR-91/SR-55 interchange area, a drop on-ramp from Lakeview Avenue would be constructed between realigned WB SR-91 lanes for direct access to SB SR-55, allowing for the exit to SB SR-55 to be moved further east, with a barrier separating WB SR-91 and SB SR-55 traffic west of the Lakeview Avenue bridge. The 91 Express Lanes will not be impacted by the project. In order to accommodate the improvements, the Lakeview, Tustin, Kraemer/Glassell, and La Palma bridges are proposed to be replaced. The improvements have been developed in cooperation with local jurisdictions and affected communities.

Key Considerations

The proposed project improvements on WB and EB SR-91 may require minor partial right-of-way acquisition and Temporary Construction Easements (TCEs). In some areas, a non-standard geometric cross-section is proposed to reduce the right-of-way impacts.

Benefits

The proposed project improvements on WB and EB SR-91 between SR-57 and SR-55 include, among other features, adding one EB general purpose lane to achieve lane balancing and interchange improvements. Project improvements will reduce congestion and delay and reduce weaving.

Current Status

The project improvements were originally studied in the SR-91 Feasibility Study, which was completed in June 2009. The Project Study Report was completed in 2014 and the Project Approval/Environmental Document (PA/ED) phase began in early 2015 and is anticipated to be completed in mid-2020. The proposed improvements are included in the Measure M program.

Schedule and Cost

Construction is anticipated to be completed in 2027 and the total project cost is estimated to be approximately $460,000,000.

Anaheim Canyon Metrolink Station Improvements

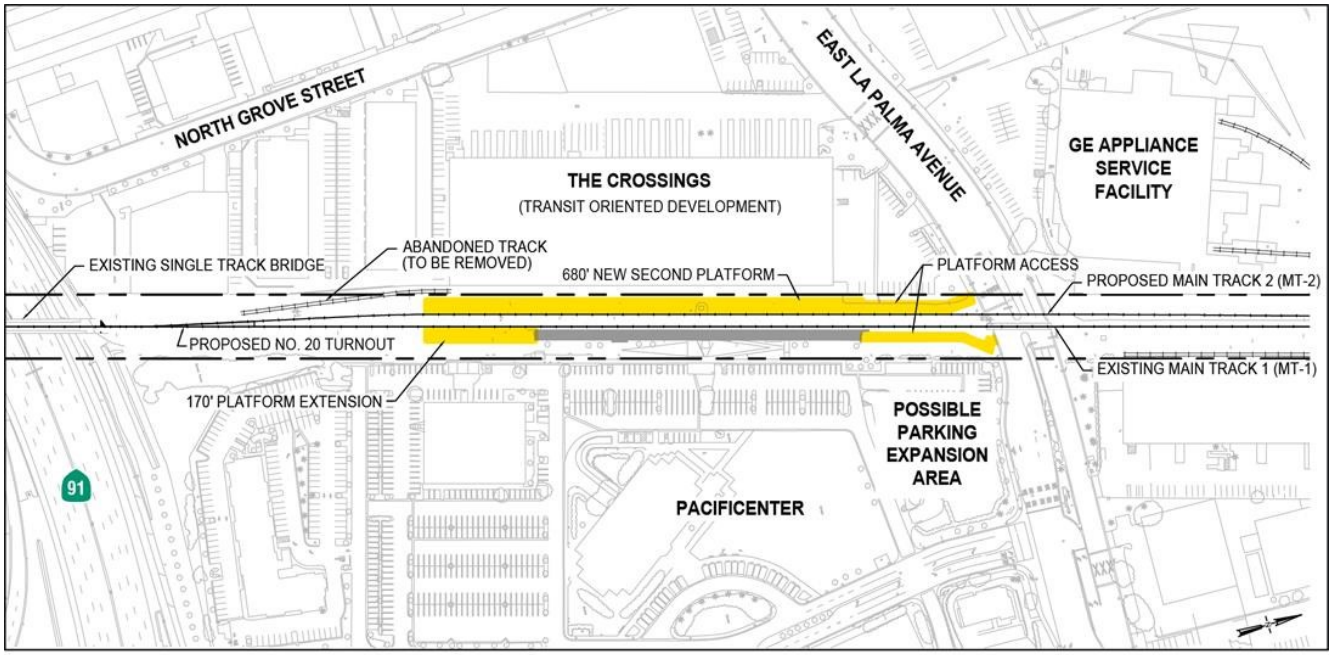


Image source:
Anaheim Canyon Station Project Definition Report, February 23, 2015

Project Description

The improvement project will at the Anaheim Canyon Metrolink Station will add improvements which will allow for future capacity for Metrolink commuter rail service along the Inland Empire-Orange County Line. The project will construct approximately 3,400 linear feet of second track, a new 680-foot second platform, extend the existing platform, improve the at-grade crossings, and upgrade the parking lot to comply with federal regulations.

Benefits

The project will enable future Metrolink service expansion, improve train service efficiency, and foster train ridership growth in the region, which will contribute to congestion relief on SR-91.

Current Status

OCTA is the lead agency on the project. Funding for the project is programmed to use Federal Congestion Mitigation and Air Quality Improvement Program (CMAQ), 5307 Federal Formula, M2 (OC Go), and City of Anaheim funds.

Schedule and Cost

The plans are anticipated to be complete, approved by all agencies and ready to bid in March 2020. Construction is anticipated to begin in July 2022 and completed in October 2024. The total project cost is estimated to be $29.8 million.

Placentia Metrolink Rail Station

Image source: www.placentia.org/Placentia-Metrolink-Site-Plan (Wildan Engineering)

Project Description

The new Placentia Metrolink Station will serve the Metrolink 91/Perris Valley Line, providing commuter rail service between Perris and Los Angeles, via Riverside and Orange counties. The project includes construction of a parking structure, OCTA bus access, an area for passenger pick-up and drop-off, and two station platforms.

Benefits

The station will meet the current transit demand and foster train ridership growth in the region, contributing to congestion relief on SR-91.

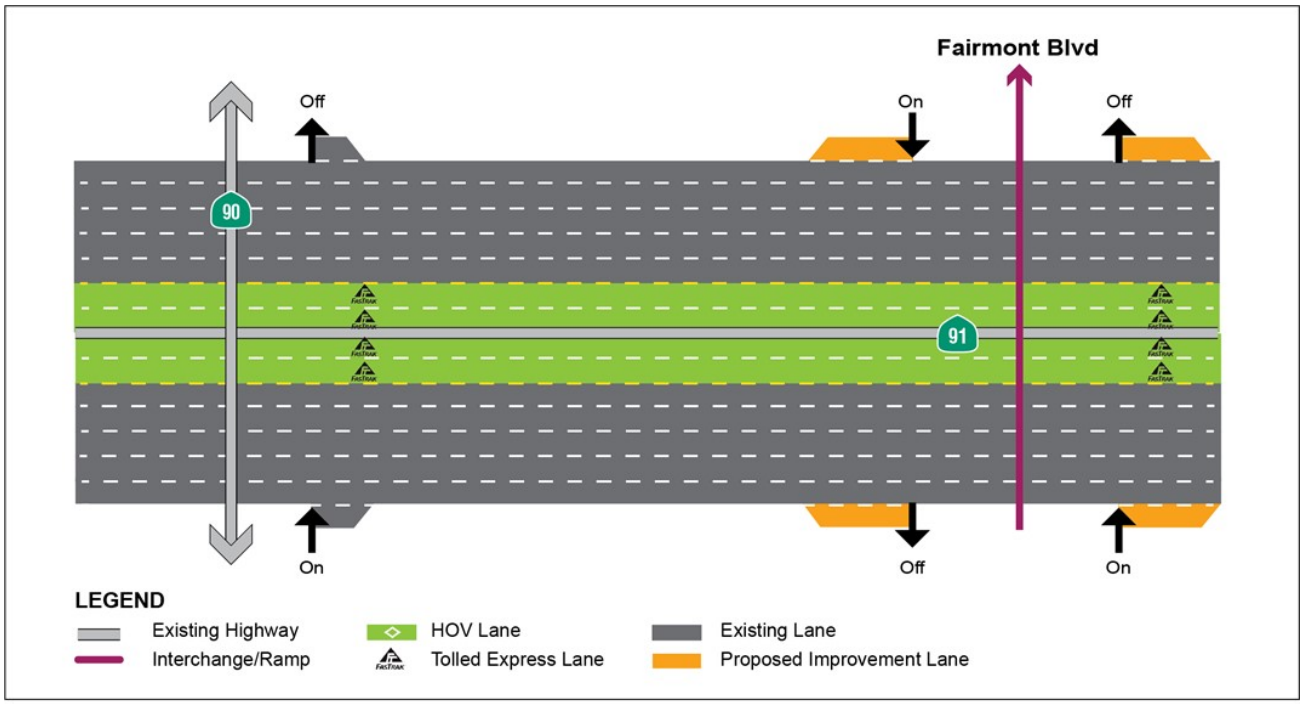
Current Status

The City of Placentia is the lead on right-of-way and environmental clearance, and OCTA is the lead agency for design and construction of the project. Funding for the project is programmed to use 91 Toll Revenues, M2 (OC Go) and the City of Placentia funds for the construction phase. State Transportation Improvement Program (STIP), Public Transportation Modernization, Improvement, and Service Enhancement Account (PTMISEA), OC Go and City funds are programmed for the design and right-of-way costs.

Schedule and Cost

Plans are 100 percent complete, however, the construction contract cannot be advertised until a Construction and Maintenance Agreement is in place with BNSF Railway, the right-of-way owner. Construction is anticipated to be completed in June 2021. The total project cost is estimated to be $34.8 million.

Fairmont Boulevard Improvements



Project Description

The project would provide a new interchange with SR-91 at Fairmont Boulevard. On and off ramps will connect Fairmont Boulevard from the north to eastbound (EB) and westbound (WB) SR-91. The proposed interchange does not include a vehicular Fairmont Boulevard connection to Santa Ana Canyon Road to the south. A pedestrian/bicycle connection is also proposed between La Palma Avenue and Santa Ana Canyon Road. This bridge and pathway will allow for direct Santa Ana River Trail access from both Anaheim south of SR-91 and from Yorba Linda.

Key Considerations

Interchange spacing and weaving issues (to SR-55) need to be evaluated. Widening of SR-91 may be needed to accommodate interchange ramps. Proximity of the Santa Ana River may require that the WB ramp junction be located north of the river. New connection requirements and interchange spacing needs to be considered. Ramp and bridge placement needs to take pedestrian/bicycle bridge into account, or incorporate the pedestrian/bike path into the design beyond the vehicular access limits of the project.

Benefits

The interchange is expected to relieve congestion at Imperial Highway (SR-90), Lakeview Avenue, and Weir Canyon Road Interchanges. Preliminary traffic modeling shows a 10-15% decrease in volumes at Weir Canyon and SR-90 interchanges with the interchange alternative.

Current Status

The City of Anaheim completed a conceptual engineering study in December 2009 for the interchange. Multiple alternatives have been developed as part of the conceptual engineering study. Bicycle/pedestrian bridge is currently in initial planning stages. Project development is pending funding identification. On July 24, 2017, OCTA staff along with a senior staff member of WSP presented the findings of a 91 Express Lanes intermediate access study. The study provided various alternatives, traffic modeling, and financial impacts of the additional access. At the conclusion of the discussion, the OCTA Board of Directors did not authorize additional analysis for the intermediate access.

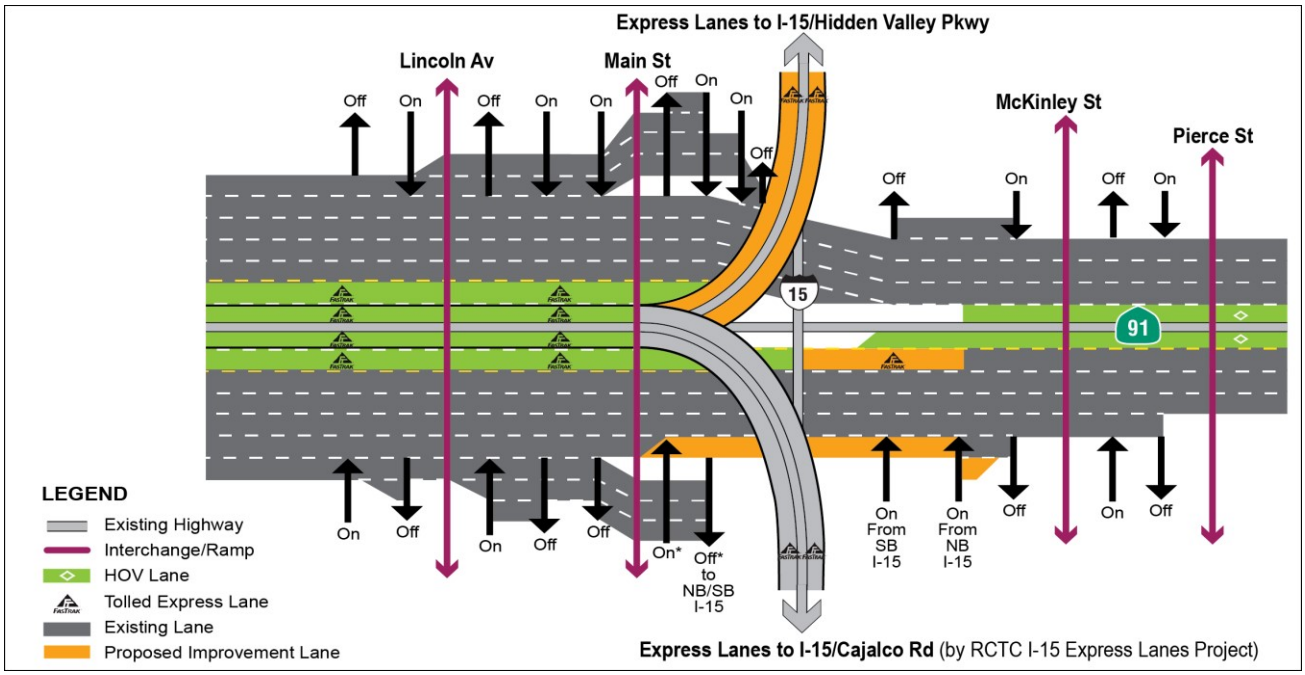
Schedule and Cost

Anticipated project completion is 2035 and construction cost is estimated to be $76,800,000 (costs from 2009 Feasibility Study). R/W cost is undetermined. Cost excludes any potential impact to Santa Ana River.

Riverside County Projects

The Riverside County set of projects includes three improvements: a 15/91 Express Lanes Connector, the SR-71/SR-91 Interchange Improvements, and SR-91 Improvements east of I-15. Projects for implementation in Riverside County are anticipated to cost in excess of $387 million (in 2020 dollars, or as noted).

Riverside County Project Summary	Cost ($M)
15/91 Express Lanes Connector	270
SR-71/SR-91 Interchange Improvements	117
SR-91 Improvements East of I-15	TBD
SUBTOTAL	**387+**



Project Description

The Project Approval and Environmental Document (PA/ED) for the SR-91 Corridor Improvement Project (CIP), from SR-241 to Pierce Street, included the addition of a 5th lane in each direction, the addition of auxiliary lanes at various locations, the addition of collector-distributor lanes at the I-15/SR-91 interchange, the extension of the 91 Express Lanes from the Orange County line to I-15, the construction of a SR-91 Express Lanes median direct connector to and from I-15 South, a SR-91 Express Lanes median direct connector to and from I-15 North (15/91 Express Lanes Connector, the subject project), and the construction of one Express Lane in each direction from the I-15/SR-91 interchange southerly to I-15/Cajalco Road (now part of RCTC I-15 Express Lanes Project), and easterly to east of McKinley Street. Due to funding constraints, a Project Phasing Plan was developed to allow an Initial Phase, with reduced improvements, to move forward as scheduled, with the remaining ultimate improvements to be completed later. Subsequently, the proposed 15/91 Express Lanes Connector improvements (the subject of this project) have been pulled out from the CIP as a standalone project.

Key Considerations

Coordination among many of the SR-91 freeway projects that overlap the project limits is critical to successfully delivering these projects on schedule and within budget. Designing to accommodate future projects is a recurring theme for each of these projects. Minimizing conflicts in scope between projects requires direct coordination between each project team. Additionally, future projects frequently have multiple alternatives under study, each with differing scope and construction footprints. Specifically, the project improvements need to continue to be coordinated with the SR-71/SR-91 interchange, the SR-241/SR-91 Tolled Express Lanes Connector, and RCTC's I-15 Express Lanes Project.

Benefits

The 15/91 Express Lanes Connector project will reduce congestion and operational delays by providing direct median-to-median access between the SR-91 Express Lanes and I-15 Express Lanes. Traffic operations will improve by eliminating weaving conflicts and out-of-direction travel along SR-91 and I-15 by the use of the direct connectors. The project will provide motorists a choice to use the 15/91 Express Lanes Connector for a fee in exchange for time savings.

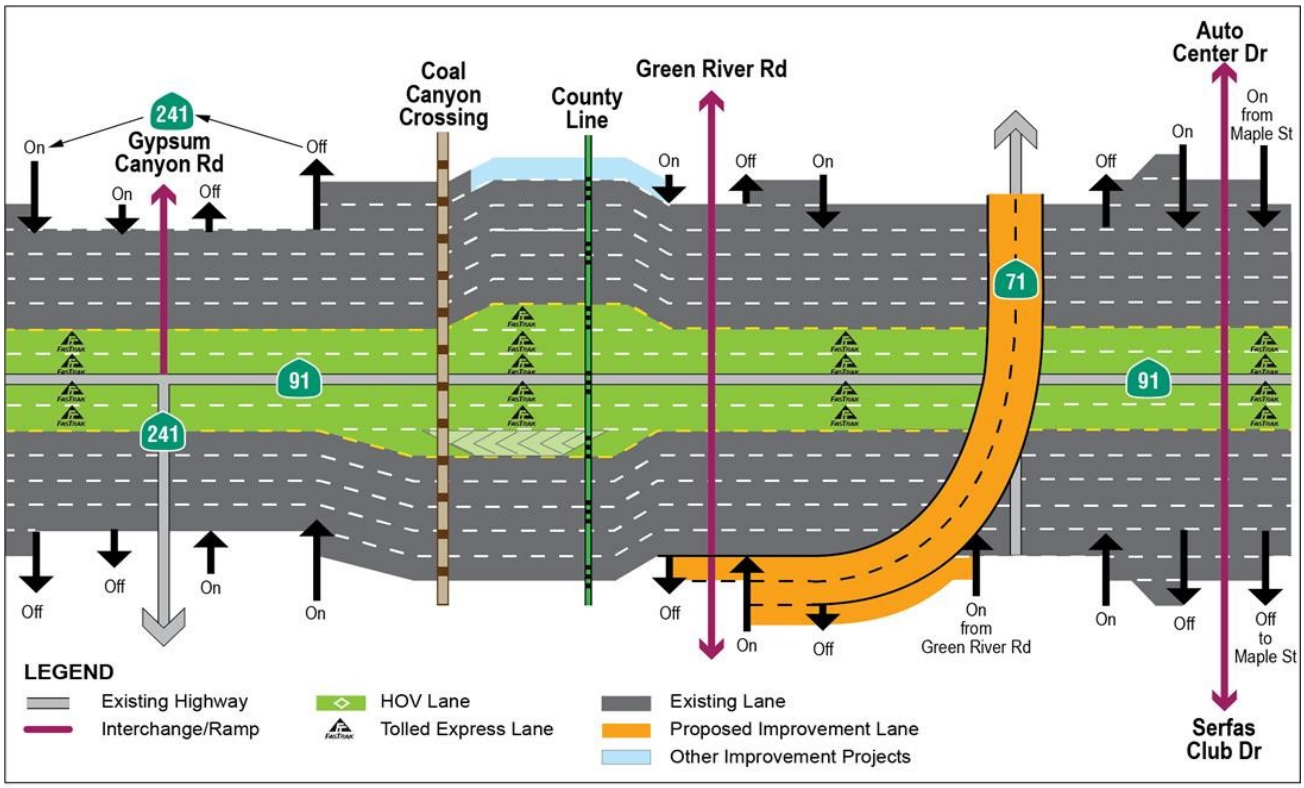
Current Status

The 15/91 Express Lanes Connector is currently discussed in the environmental document for the SR-91 CIP that was completed in 2012. An environmental revalidation was completed in 2019. A Design-Build contract was awarded in Spring 2020.

Schedule and Cost

The total project cost is estimated to be $270,000,000.

SR-71/SR-91 Interchange Improvements



Project Description

The current project includes a new two-lane direct connector from eastbound (EB) SR-91 to northbound (NB) SR-71 and realignment of the existing Green River Road SR-91 EB on-ramp to provide connection to NB SR-71 and EB SR-91.

Key Considerations

Project improvements must be coordinated with the following projects: the SR-91 Sixth GP Lane Addition and the SR-241/SR-91 Tolled Express Lanes Connector. Close coordination with the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and California Department of Fish and Wildlife will also be required as the connector crosses the Santa Ana River west of the Prado Dam.

Benefits

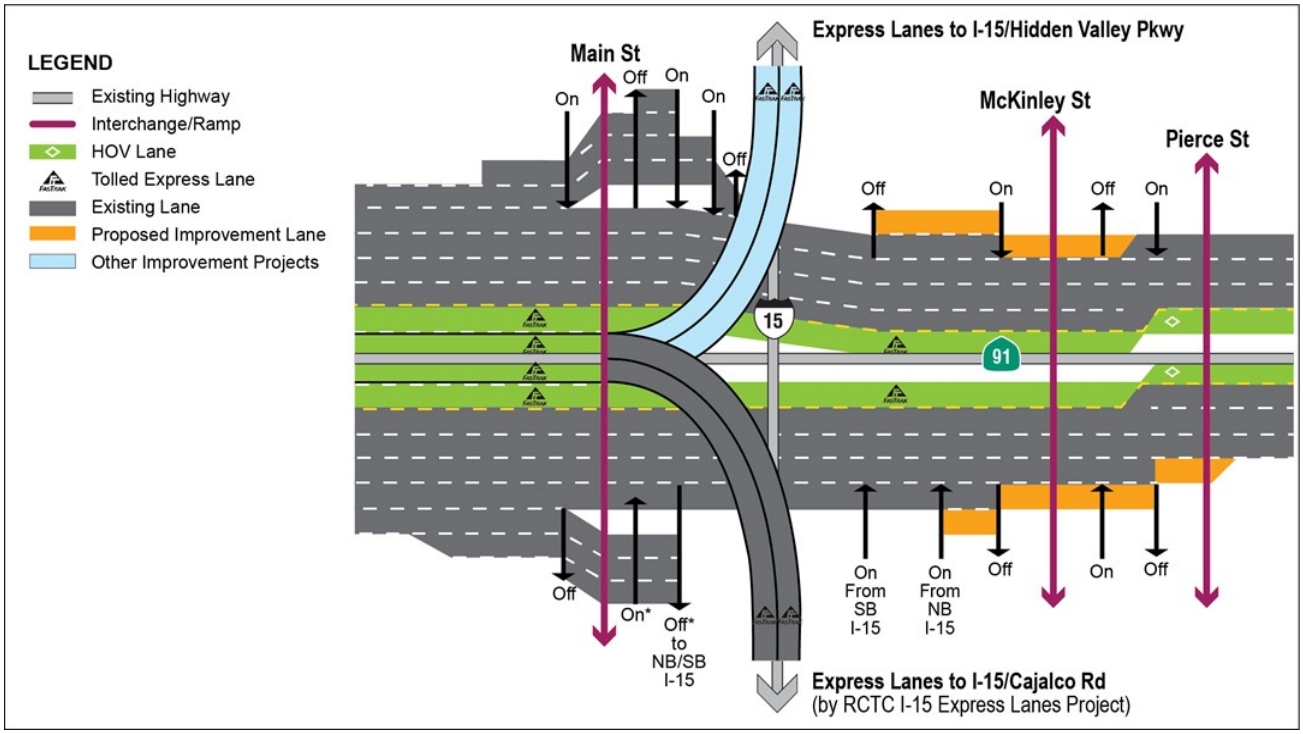
The project will provide a new direct connector improvement from EB SR-91 to NB SR-71, replacing the geometric choke point created by the existing loop connector. The project will also improve traffic operations and operational efficiency by eliminating or minimizing weaving conflicts through the use of auxiliary lanes.

Current Status

The environmental phase was completed in 2011 and final design in 2015. An environmental revalidation and update to the final design is underway.

Schedule and Cost

Construction is planned for completion in 2024 pending funding availability. Construction cost is estimated to be $117,000,000.



Project Description

The Project Approval and Environmental Document (PA/ED) for the SR-91 Corridor Improvement Project (CIP), from SR-241 to Pierce Street, included the addition of a 5th lane in each direction, the addition of auxiliary lanes at various locations, the addition of collector-distributor lanes at the I-15/SR-91 interchange, the extension of the 91 Express Lanes from the Orange County line to I-15, the construction of a SR-91 Express Lanes median direct connector to and from I-15 South, a SR-91 Express Lanes median direct connector to and from I-15 North, and the construction of one Express Lane in each direction from the I-15/SR-91 interchange southerly to I-15/Cajalco Road (now part of RCTC I-15 Express Lanes Project), and easterly to east of McKinley Street. Due to funding constraints, a Project Phasing Plan was developed to allow an Initial Phase, with reduced improvements, to move forward as scheduled, with the remaining ultimate improvements to be completed later. The SR-91 improvements east of I-15, which includes extending an Express Lane east of McKinley Street and adding a general purpose lane to Pierce Street in each direction (the subject project), is a component of the SR-91 CIP that was not constructed with the Initial Phase.

Key Considerations

Coordination among many of the SR-91 freeway projects that overlap the project limits is critical to successfully delivering these projects on schedule and within budget. Designing to accommodate future projects is a recurring theme for each of these projects. Minimizing conflicts in scope between projects requires direct coordination between each project team. Additionally, future projects frequently have multiple alternatives under study, each with differing scope and construction footprints. Specifically, the project improvements need to continue to be coordinated with the SR-71/SR-91 interchange, the SR-241/SR-91 Tolled Express Lanes Connector, 15/91 Express Lanes Connector, and RCTC's I-15 Express Lanes Project.

Benefits

The SR-91 Improvements east of I-15 will reduce congestion and delays by providing additional SR-91 capacity from I-15 to Pierce Street.

Current Status

Preliminary engineering is complete but may need to be revisited at a future date. The SR-91 Improvements east of I-15 is currently discussed in the SR-91 CIP environmental document for the SR-91 that was completed in 2012.

Schedule and Cost

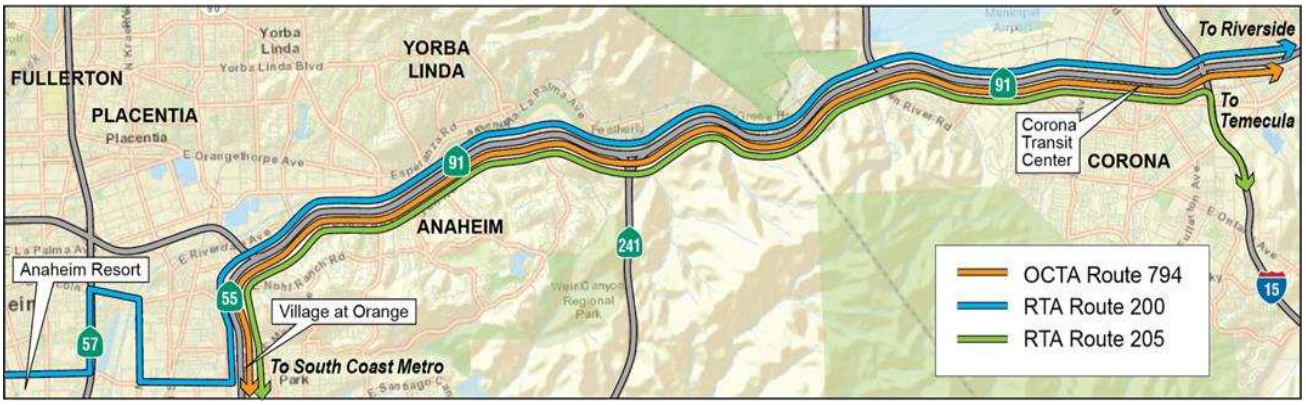
Anticipated project completion and cost are to be determined.

Bi-County Projects

There are four Bi-County improvement projects that will benefit both Orange and Riverside Counties. These projects include: Express Bus service improvements, SR-91 Corridor Operations Project, a Sixth General Purpose Lane Addition (SR-241 to SR-71), and the SR-241/SR-91 Tolled Express Lanes Connector. The total cost for the four projects is expected to be more than $300 million (in 2020 dollars, or as noted).

Bi-County Project Summary	Cost ($M)
Express Bus Service Improvements	6
SR-91 Corridor Operations Project	44
Sixth General Purpose Lane Addition (SR-241 to SR-71)	TBD
SR-241/SR-91 Tolled Express Lanes Connector	250
SUBTOTAL	**300+**

Express Bus Service Improvements



Project Description

Orange County Transportation Authority (OCTA), working with the Riverside County Transportation Commission (RCTC) and the Riverside Transit Agency (RTA), operate Express Bus service between Riverside and Orange counties. Commuters lack direct transit connections to some Orange County employment centers not served by Metrolink. The Express Bus service provides this connection.

Existing Service

OCTA has operated Route 794 since 2006 from Riverside County to Hutton Centre and South Coast Metro (shown in orange above). On Route 794, OCTA removed trips to Corona in February 2018 based on low ridership. OCTA currently operates six morning westbound trips and five afternoon eastbound trips to/from the La Sierra Metrolink Station. Two new Express Bus routes were implemented by RTA in January 2018 between Riverside County and Orange County including RTA Route 200 (shown in blue above) from San Bernardino/Riverside to the Anaheim Resort. The route provides hourly service on weekdays and 90-120 minute service on weekends with a fleet of six buses. RTA Route 205 (shown in green above) from Lake Elsinore/Temecula/ Corona to the Village at Orange includes three AM and three PM roundtrips with 3 buses.

New Service

The Express Bus Routes have been fully implemented as of FY19 and there are no planned service additions. Changes to routes may be made in the future based on available funding and ridership demand.

Key Considerations

Intercounty Express Bus service is effective between locations where transit travel times by Express Bus would be more competitive than Metrolink and connecting rail feeder buses.

Benefits

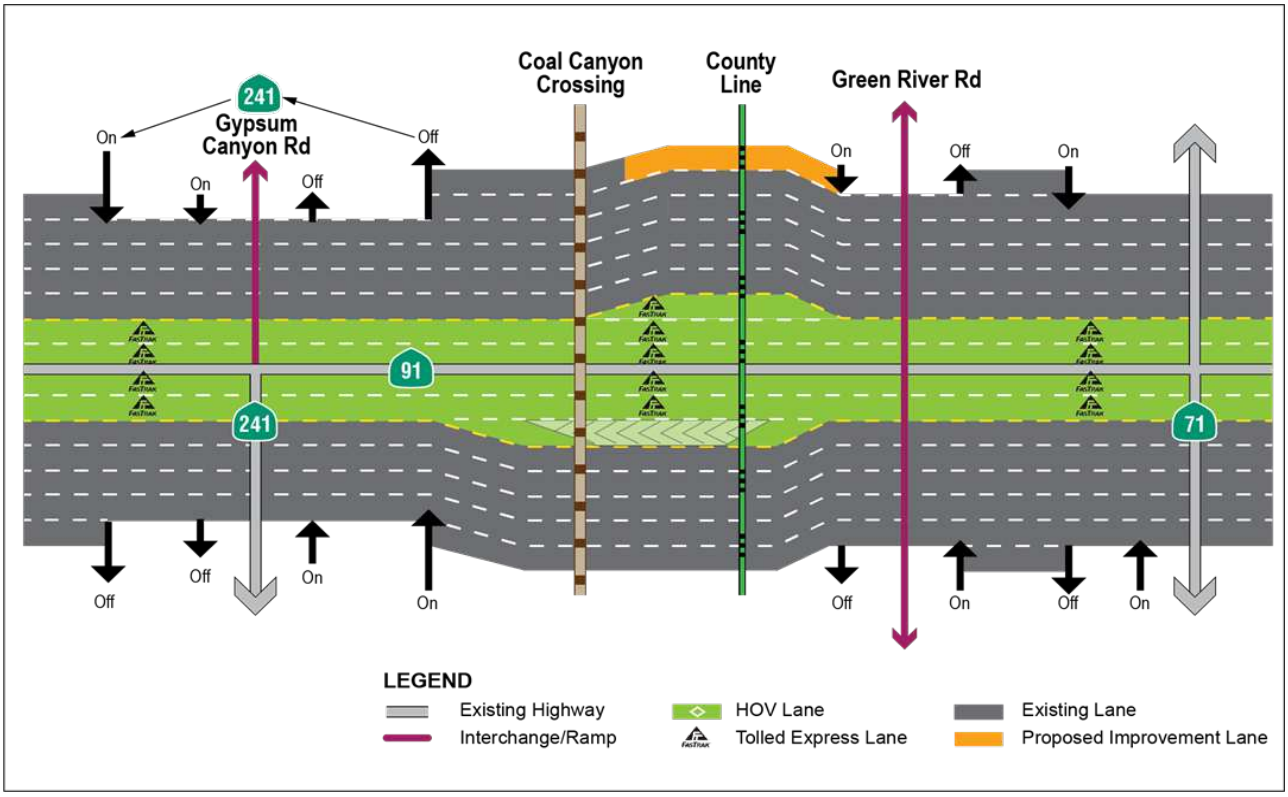
Express Bus services contribute to congestion relief on SR-91.

Current Status

Since completion of the 91 Express Lanes, RTA more than doubled its Express Bus service on SR-91. Currently, OCTA operates 11 bus trips per day on SR-91. RTA now operates 47 trips on weekdays (up from 18 trips that Route 216 provided weekdays) and 18 trips on weekends (up from 8 trips provided by Route 216) on SR-91 Express Lanes. Service hours for this expansion is an extra 21,445 hours per year and is being served by five new coaches added to the RTA fleet.

Schedule and Cost

The Express Bus Routes have been fully implemented as of FY19. Ongoing operating costs average $4,892,000 per year and capital costs average $1,174,000 per year (2019 dollars). The annual capital cost was increased in 2019 to reflect the future cost of complying with the new Innovative Clean Transit regulation.



Project Description

The Riverside County portion of the 91 Express Lanes began operation in March 2017. Throughout the first year of operation, RCTC made minor operational improvements to improve the SR-91 corridor travel between State Route 241 (SR-241) and McKinley Street. In November 2018, RCTC implemented additional striping and signage improvements to westbound SR-91 at the McKinley entrance to the 91 Express Lanes as well as the County Line access location to further enhance efficiency along the westbound SR-91 corridor between McKinley Street and SR-241. In December 2018, the RCTC Commission authorized its staff to proceed with a project to construct an additional westbound lane along SR-91 between Green River Road and SR-241 (the subject of this project). This new project is now known as the SR-91 Corridor Operations Project (91 COP).

Key Considerations

The goal of this project is to implement a substantial operational improvement that is cost effective and timely to address the peak period bottleneck conditions along westbound SR-91 near the County Line. Key considerations include reducing impacts to adjacent land and local streets by the use of retaining walls and minimizing throw-away costs with future projects. Specifically, the project improvements need to be coordinated with the SR-241/SR-91 Tolled Express Lanes Connector and the SR-91 Sixth GP Lane Addition projects.

Benefits

The 91 COP will reduce congestion and delays along westbound SR-91 between McKinley Street and SR-241.

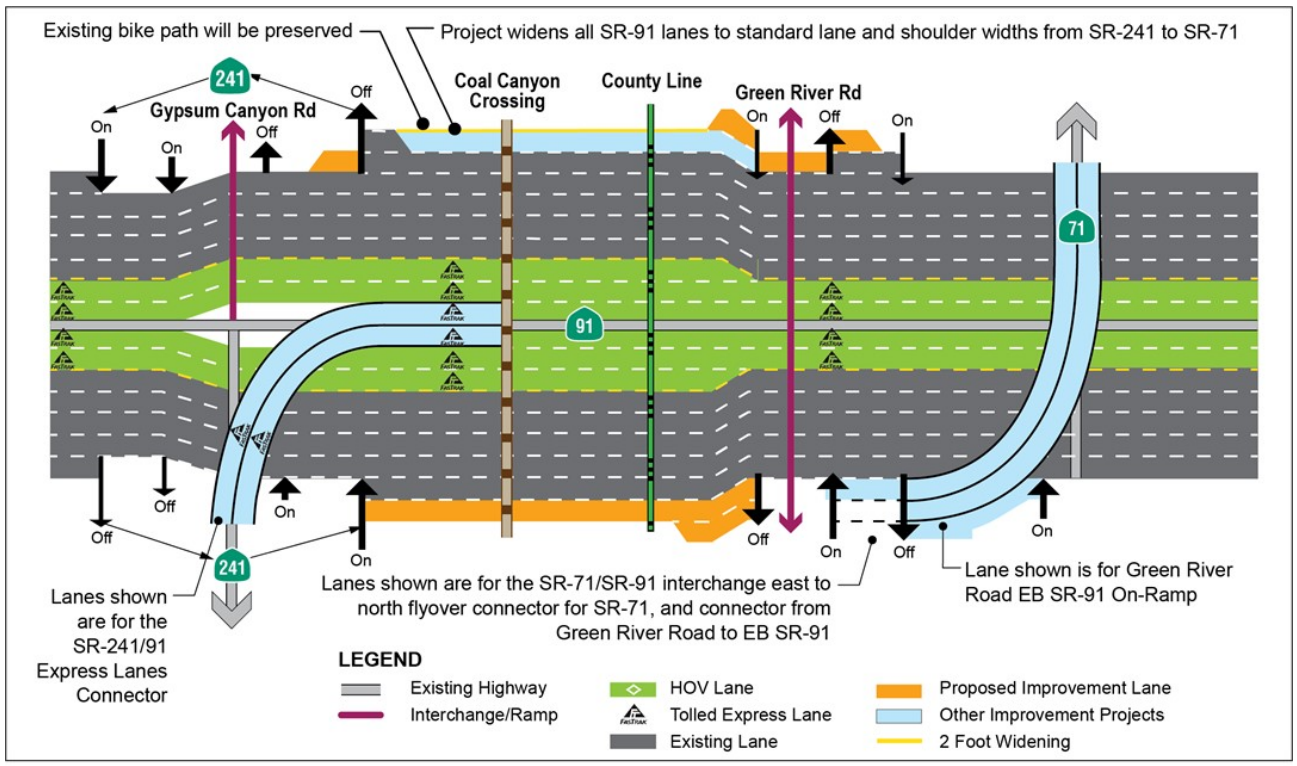
Current Status

This project is within the footprint of the SR-91 Sixth GP Lane Addition project that was an element of the SR-91 CIP environmental document approved in 2012. An environmental revalidation for the 91 COP was completed in Spring 2020. Final design is also proceeding with project advertisement and contract award anticipated in 2020.

Schedule and Cost

Construction is planned for completion in 2021/2022. The total project cost is estimated to be $44,000,000.

Sixth General Purpose Lane Addition (SR-241 to SR-71)



Project Description

The Project Approval and Environmental Document (PA/ED) for the SR-91 Corridor Improvement Project (CIP), from SR-241 to Pierce Street, included the addition of a 5th lane in each direction, the addition of auxiliary lanes at various locations, the addition of collector-distributor lanes at the I-15/SR-91 interchange, the extension of the 91 Express Lanes from the Orange County line to I-15, the construction of a SR-91 Express Lanes median direct connector to and from I-15 South, a SR-91 Express Lanes median direct connector to and from I-15 North, and the construction of one Express Lane in each direction from the I-15/SR-91 interchange southerly to I-15/Cajalco Road (now part of RCTC I-15 Express Lanes Project), and easterly to east of McKinley Street. Due to funding constraints, a Project Phasing Plan was developed to allow an Initial Phase, with reduced improvements, to move forward as scheduled, with the remaining ultimate improvements to be completed later. The SR-91 sixth general purpose lane in each direction between SR-241 and SR-71 (the subject of this project) is a component of the SR-91 CIP that was not constructed with the Initial Phase.

Key Considerations

Coordination among many of the SR-91 freeway projects that overlap the project limits is critical to successfully delivering these projects on schedule and within budget. Designing to accommodate future projects is a recurring theme for each of these projects. Minimizing conflicts in scope between projects requires direct coordination between each project team. Additionally, future projects frequently have multiple alternatives under study, each with differing scope and construction footprints. Specifically, the project improvements need to continue to be coordinated with the 91 COP, SR-71/SR-91 interchange and the SR-241/SR-91 Tolled Express Lanes Connector.

Benefits

The SR-91 Sixth General Purpose Lane Addition will reduce congestion and delays by providing additional SR-91 capacity from SR-241 to SR-71.

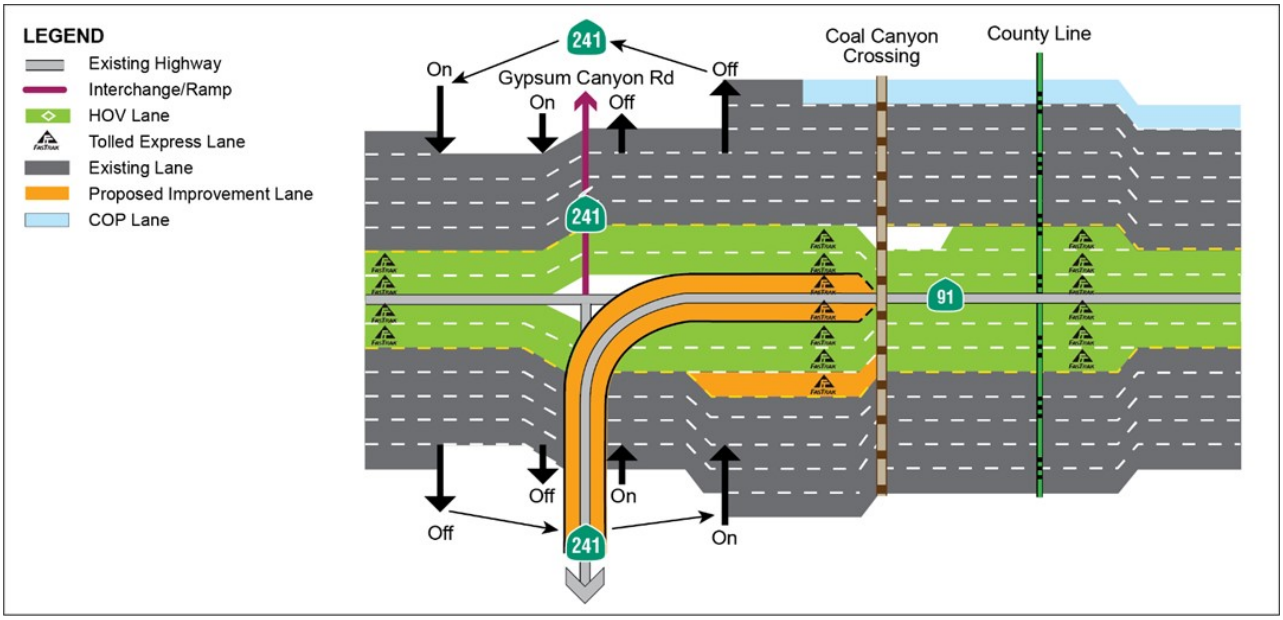
Current Status

Preliminary engineering is complete but may need to be revisited at a future date. The SR-91 Sixth General Purpose Lane Addition is currently discussed in the SR-91 CIP environmental document for the SR-91 that was completed in 2012.

Schedule and Cost

Anticipated project completion and cost are to be determined.

SR-241/SR-91 Tolled Express Lanes Connector



Project Description

The SR-241/SR-91 Tolled Express Lanes Connector would construct a direct connector between SR-241 and the 91 Express Lanes, carrying northbound (NB) SR-241 traffic to eastbound (EB) 91 Express Lanes and westbound (WB) 91 Express Lanes traffic to southbound (SB) SR-241.

Key Considerations

The purpose of the project is to implement the build out of the Eastern Transportation Corridor as approved in 1994 in order to improve traffic operations on northbound SR-241 and the SR-91 general-purpose lanes while also maintaining reliable travel times and free flow speeds during peak periods on the 91 Express Lanes which were all key considerations in Caltrans' approval of this project. The project will require widening of SR-91 to accommodate the direct connector and associated Express Auxiliary Lanes in the median. The project's planned construction is aligned with the implementation of other planned improvements in the area including the 15/91 Express Lanes Connector, SR-91 Corridor Operations Project, and SR-71/SR-91 Interchange Improvements. Coordination will be conducted with local agencies to ensure the project avoids impacts to planned bicycle and trail connections on Gypsum Canyon Road per the City of Anaheim General Plan and OCTA Commuter Bikeways Strategic Plan.

Benefits

The project will provide connectivity between the 91 Express Lanes and the SR 241 Toll Road, which will enhance operations along the SR-91 general purpose lanes while also improving traffic operations on northbound SR-241.

Current Status

Preliminary engineering concepts for a SR-241/SR-91 Tolled Express Lanes Connector have been developed by the Foothill/Eastern Transportation Corridor Agency (TCA) and Caltrans, which were utilized for the environmental analysis. The 91 Express Lanes Extension and SR-241 Connector Feasibility Study was completed in March 2009 and was initiated to evaluate the various alternatives. A Project Study Report was initiated in January 2011 and was completed in January 2012. The Draft Environmental Document was circulated for public review from November 7, 2016 through January 9, 2017. The Final Environmental Document has been signed by Caltrans and circulated for public review. Caltrans approval of the project with the Record of Decision was completed in April 2020.

Schedule and Cost

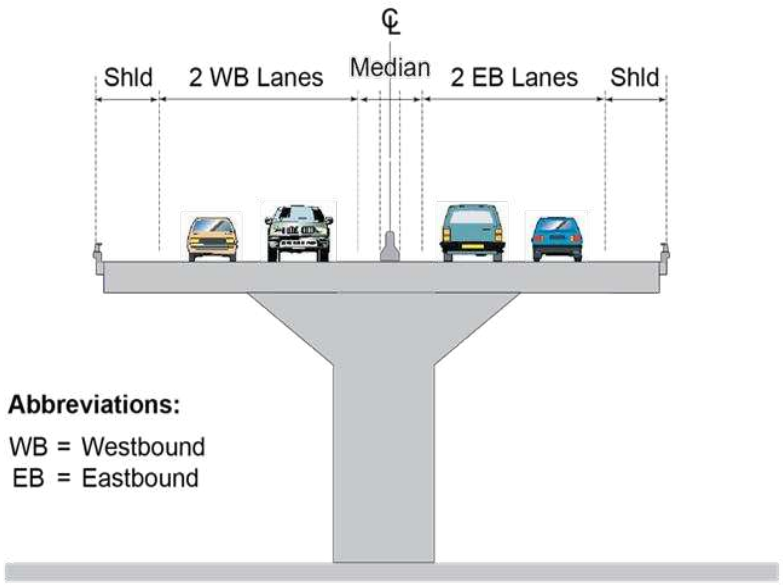
Agreements to document roles and responsibilities for funding, delivery and operation of the project are under development by the multi-agency team. Final Design is expected to be completed in 2022. Construction is anticipated to last approximately 26 months beginning in 2023 with project opening in 2025. The total cost of the Project would be approximately $250,000,000.

Appendix A - Post-2035 and Conceptual Projects

Concepts for potential Post-2035 implementation (potentially earlier if funding becomes available) focus on longer-lead time projects. This multi-billion dollar program may include: an elevated 4-lane facility (MIS Corridor A) from SR-241 to I-15; the Anaheim to Ontario International Airport Maglev High Speed Rail; the Irvine-Corona Expressway (ICE) 4-lane facility from SR-241/SR-133 to I-15/Cajalco Road (formerly known as MIS Corridor B), Westbound SR-91 to Southbound SR-55 Connector Improvements, and Eastbound SR-91 Fifth Lane Addition at SR-241. These potential concepts include significant environmental constraints and right of way requirements in addition to requiring a significant amount of planning, design, and future policy and public input.

Concept Summary	Cost ($M)
Elevated 4-Lane Facility (MIS Corridor A) from SR-241 to I-15	2,720
Anaheim to Ontario International Airport Maglev High Speed Rail	2,770-3,200
Irvine-Corona Expressway (ICE) 4-Lane Facility from SR-241/SR-133 to I-15/Cajalco Road	8,855
Westbound SR-91 to Southbound SR-55 Connector Improvements	75-150
Eastbound SR-91 Fifth Lane Addition at SR-241	31
SUBTOTAL	**14,451 – 14,956**

Elevated 4-Lane Facility from SR-241 to I-15 (MIS Corridor A)



Elevated 4-Lane Facility (MIS Corridor A) Cross-Section

Concept Description

The improvements primarily consist of constructing a new 4-lane elevated expressway near or within the Santa Ana Canyon with freeway-to-freeway connectors at SR-241 and I-15. The facility may include managed lanes and potential reversible operations.

Key Considerations

Choice of alignment will be key to determining net capacity increase. Extensive right-of-way (R/W) will be required to implement the improvements if the alignment is not in the SR-91 corridor. When median connector projects or HOV/HOT projects are constructed and this 4-lane elevated facility is proposed within the median of SR-91 through Corona, then extensive managed lane closures would be required during construction (thus temporarily reducing SR-91 capacity during construction).

An alternative could be studied for the median Corridor A viaduct along with reduced SR-91 geometric standards to minimize R/W impacts. Also, direct connectors (such as for High Occupancy Vehicle (HOV) / High Occupancy Toll (HOT) at I-15/SR-91) to/from the median could be precluded by Maglev columns located within the same median area. Caltrans and Maglev highway R/W, maintenance, safety, and operations considerations would need to be analyzed if shared use with a Maglev facility were pursued. Additional mitigation costs may be required for improvements to SR-241 and SR-133 as a result of additional Corridor traffic volumes. Corridor A as managed lanes, with the extension of 91 Express Lanes to I-15, this project concept may affect traffic distribution due to "parallel" tolled facilities.

Benefits

The concept would provide significant congestion relief by allowing vehicles to bypass the at-grade freeway lanes and local arterial interchanges between SR-241 and I-15. Connections are proposed directly between SR-91, SR-241, and I-15.

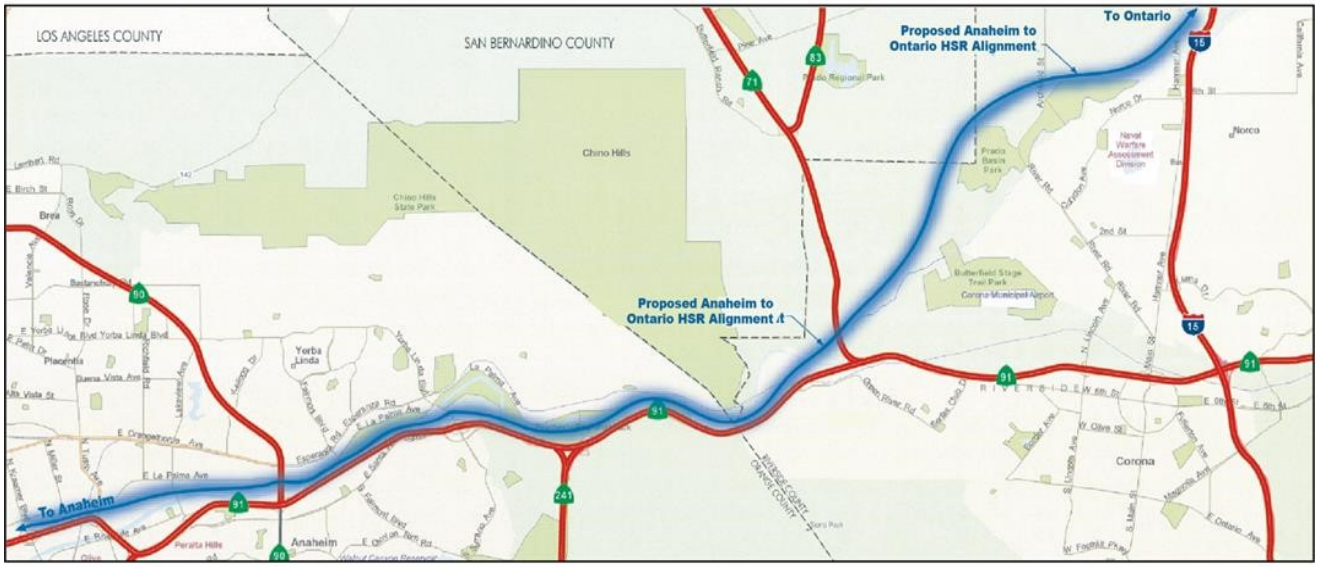
Current Status

This concept is identified in the Riverside County - Orange County Major Investment Study (MIS) as part of the Locally Preferred Strategy to improve mobility between Riverside County and Orange County. No project development work is planned at this time.

Schedule and Cost

Anticipated project completion is post-2035 and construction cost is estimated to be $2,720,000,000 (2005 dollars).

Anaheim to Ontario International Airport Maglev High Speed Rail



REPRESENTATIVE ALIGNMENT SHOWN FOR ILLUSTRATIVE PURPOSES ONLY

LEGEND

- Existing Highway
- High Speed Rail Representative Alignment

Concept Description

Proposals for a new super-speed train corridor from Anaheim to Ontario are included in this concept. This concept includes an alternative that would use SR-91 right-of-way or would be aligned adjacent to SR-91 right-of-way or could potentially be co-located with the Major Investment Study (MIS) Corridor A alignment. Another alignment opportunity is being investigated along SR-57.

Key Considerations

Alternative alignment impacts to SR-91 right-of-way envelope and/or Santa Ana River are undetermined. The choice of alignment will potentially impact MIS Corridor A. Right-of-way (R/W) will be required to implement the improvements. Potential considerations for co-locating the Magnetic Levitation (Maglev) train adjacent to Corridor A (and also SR-91) include providing a two-column structure with a barrier between the trains and vehicles. Caltrans and Maglev highway R/W, maintenance, safety, and operations considerations would need to be analyzed if shared use with a Maglev facility were pursued. See the MIS Corridor A project for additional considerations. Coordination with Metrolink improvements will be required.

Benefits

The concept would provide congestion relief by providing a direct high-speed/high-capacity connection with Ontario International Airport for Orange County air passengers and business next-day deliveries. Maglev will make the trip in just 14.5 minutes. Relieves congestion on SR-91 by providing additional capacity in the corridor.

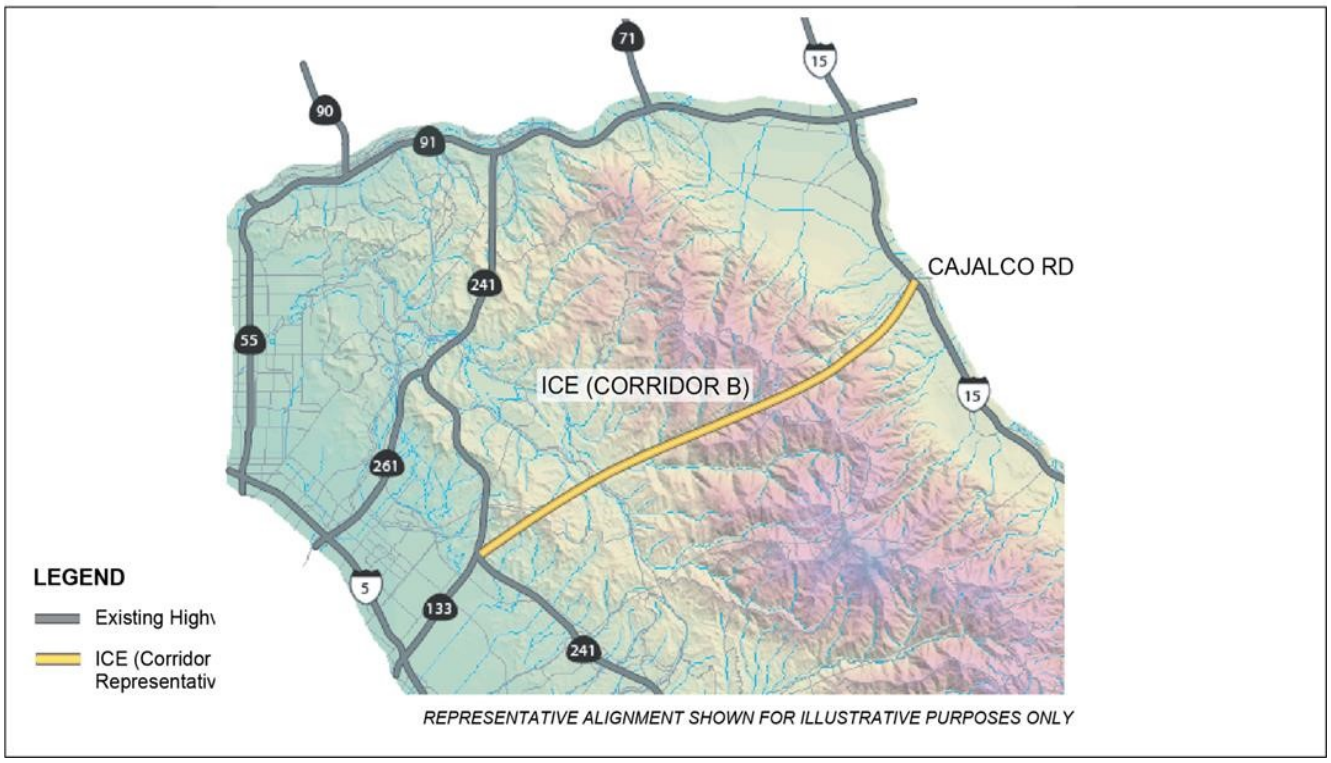
Current Status

Since 2012, no progress on this project has occurred. Preliminary design, engineering and Phases 1 and 2 of a Preliminary Environmental Impact Statement/Environmental Impact Statement (PEIS/EIS) are completed. Congress approved $45M in SAFETEA-LU for the environmental phase of the project. Construction funding of up to $7 billion was identified through a loan commitment from the China Export-Import Bank.

Schedule and Cost

Anticipated project completion is to be determined and construction cost is estimated to be from $2,770,000,000 to $3,200,000,000 (2012 dollars).

Irvine-Corona Expressway (ICE) from SR-241/SR-133 to I-15



Concept Description

The improvements primarily consist of constructing a highway and rail facility through the Cleveland National Forest with freeway-to-freeway connectors at SR-241/SR-133 and I-15/Cajalco Road. The facility would essentially be a continuation of SR-133 on the west end of the corridor, to I-15 on the east end.

Key Considerations

The tunnel concept is technically feasible based on the geotechnical investigation completed in December 2009. The initial project phase would be the construction of one 2-lane highway tunnel and one rail tunnel. The second project phase would include construction of a second 2-lane highway tunnel. Additional technical studies and geotechnical borings would be needed to refine the tunnel alignments and grades. Costs associated with the Irvine-Corona Expressway (ICE) tunnels are based on the Feasibility Evaluation Report completed in December 2009. A financial analysis will be needed for the construction, operations and toll requirements of the ICE tunnels.

Benefits

The concept would provide significant congestion relief by providing an alternative route between Orange and Riverside counties and would allow vehicles to bypass SR-91 between SR-241 and I-15. The concept would not disrupt SR-91 traffic during construction and would allow for additional route selection for incident management, emergency evacuation, and for continuity of the highway network by linking SR-133 to I-15.

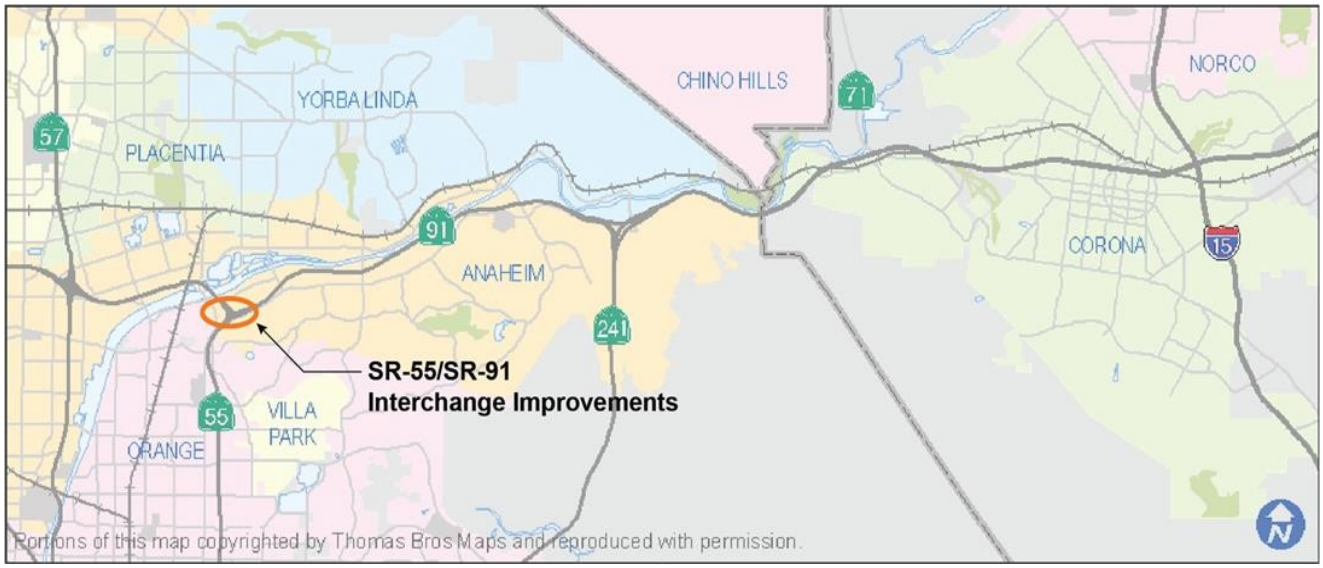
Current Status

On August 27, 2010 the Riverside Orange Corridor Authority Board took action to defer additional study of the ICE concept until such time as financial considerations improve and/or technological advancements warrant reexamination. Review of the concept shall be done annually through the SR-91 Implementation Plan update to determine if any of the major assumptions about financial considerations, private sector interest, or technological advancements have changed to make the tunnel financially viable. (See “ICE status summary” for further discussion).

Schedule and Cost

Anticipated project completion is post-2035 and construction cost is estimated to be $8,855,000,000 (2009 dollars).

Westbound SR-91 to Southbound SR-55 Connector Improvements



Concept Description

The project consists of operational improvements by modifying the connector to SB SR-55 from WB SR-91. The improvements would extend to Lakeview Avenue to the east and would include a new connector from WB SR-91 to SB SR-55 as a potential right-hand exit.

Key Considerations

Right-of-way impacts, detailed SR-55/SR-91 interchange improvements, and downstream impacts to SR-55 require further evaluation in a subsequent phase of project development. Conceptual design of SR-55/SR-91 would be coordinated with completed improvements at SR-91 and Tustin Avenue, and with the SR-91 Environmental Study Improvements from SR-57 to SR-55. This study is currently being conducted.

Operational enhancements between SR-55 and Lakeview Avenue will provide some benefit for SR-55/SR-91 by addressing WB SR-91 weaving issues. In addition, the proposed WB drop-ramp from Lakeview AV has been designed to accommodate three WB through lanes on either side in order to reduce throwaway costs in the future should the SR-91 be shifted to accommodate a right-hand exit for SB SR-55.

Benefits

Interchange improvements are anticipated to provide congestion relief for WB SR-91 traffic and potentially improve the connection from WB SR-91 to SB SR-55.

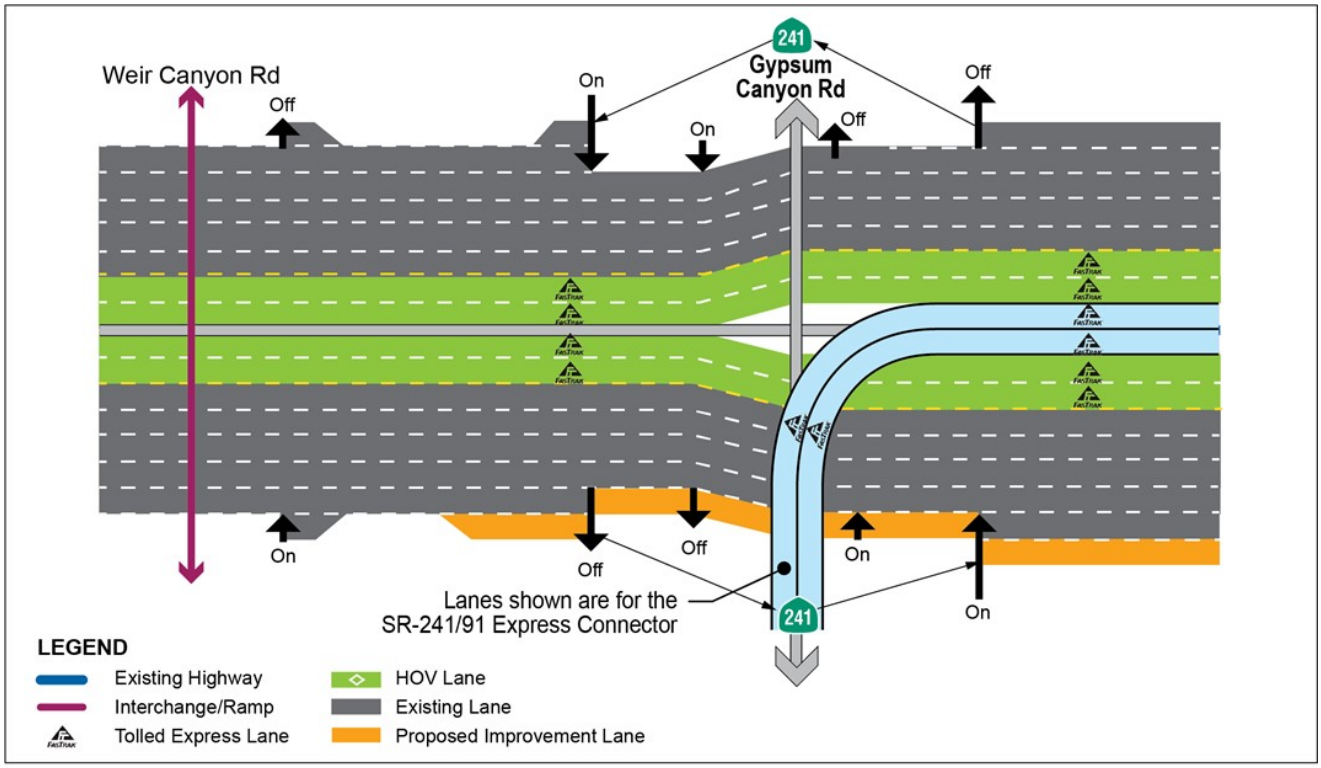
Current Status

SR-55/SR-91 project information was derived from the Final Alternatives Evaluation and Refinement Report, December 2005, by the Riverside County - Orange County Major Investment Study (MIS). Focused SR-91/SR-55 conceptual engineering needs to be scheduled. However, initial conceptual engineering was also studied as part of the SR-91 Feasibility Study Between State Route 57 and State Route 55 Interchange Areas in June 2009, and as part of the SR-91 Environmental Study Improvements from SR-57 to SR-55.

Schedule and Cost

Anticipated project completion is post-2035 and construction cost is estimated to be from $75,000,000 to $150,000,000 (2014 dollars).

Eastbound Fifth Lane Addition at SR-241



Concept Description

The location of the proposed EB SR-91 fifth general purpose (GP) lane addition (The Segment) is on EB SR-91 from Weir Canyon Road to the NB SR-241 Connector. The Segment consists of four GP lanes and two managed lanes (91 Express Lanes).

Upstream (westerly) from The Segment the EB SR-91 has 5 GP lanes and the 5th lane drops to the SB SR-241 Connector as some traffic volume exits to the SB SR-241. Downstream from The Segment the EB SR-91 gains the 5th lane back as the NB SR-241 Connector merges with SR-91 in a dedicated lane addition. This 5th lane continues beyond the Riverside County line providing enhanced mobility.

Key Considerations

This segment with four GP lanes might be creating a traffic choke point due to the decrease of capacity, potentially contributing to significant traffic delays passing through this segment along with other traffic issues such as queue jumping, weaving, merging and operational speed differential. However, additional traffic from NB SR-241 to EB SR-91 and Gypsum Canyon Rd on-ramp suggest balancing the number of lanes should be carefully examined. As such, additional capacity will enhance EB freeway operations along this Segment.

Benefits

1) Extends the existing 5th EB GP lane easterly and ties it to the existing 5th lane downstream. This could provide capacity enhancement and may result in removing an existing choke point. Significant delay savings is anticipated.
2) Potentially eliminate queue jumping in this area from EB SR-91 as well as Weir Canyon Rd.
3) Potentially reduce speed differential between through lanes, thus creating a more balanced flow.
4) Potentially provide balanced lane utilization at high traffic demand area.

Current Status

Additional traffic analysis and study is required to confirm the benefits to EB SR-91 by the proposed improvements. This location was identified by Caltrans as a high congestion location in the County. The concept is intended to improve the choke point that exists due to the presence of a 4-lane segment between 5-lane freeway segments.

Schedule and Cost

Total project cost, based on Caltrans' estimate, is $31.25 million. Project schedule has not been determined.

Appendix B - COMPLETED PROJECT EXHIBITS

The following exhibits represent completed projects from previous Plans since 2006 and are intended to be used as a reference to illustrate the progress made since the inception of the Plan. Note: some projects listed in the Plan as completed (see Section 1, Project Accomplishments) are not included herein since there was no exhibit created or necessary for use with prior Plans (such as for restriping projects, various safety enhancements, minor operational improvements, etc.).

Project Improvements	Constructed
Green River Road Overcrossing Replacement	March 2009
North Main Street Corona Metrolink Station Parking Structure	June 2009
Eastbound Lane Addition from SR-241 to SR-71	September 2010
Widen SR-91 between SR-55 and SR-241 by Adding a 5th GP Lane in Each Direction	December 2012
SR-91 WB Lane at Tustin Avenue	April 2016
Metrolink Service Improvements	June 2016
Initial Phase CIP: Widen SR-91 by One GP Lane in Each Direction East of Green River Rd, CD Roads and I-15/SR-91 Direct South Connector, Extension of Express Lanes to I-15 and System/Local Interchange Improvements	July 2017
La Sierra Metrolink Parking Improvements	February 2019

Green River Road Overcrossing Replacement

Appendix Project No: B-1

Actual Completion: March 2009

Project Costs

Capital Cost	$ 21,000,000
Support Cost	$ 3,000,000
R/W Cost	$301,000
Total Project Cost	$ 24,301,000

Project Schedule

Preliminary Engineering	Completed
Environmental	Completed
Design	Completed
Construction	Completed

Project Schedule Caltrans Equivalents:
Preliminary Engineering = PID
Environmental = PA/ED
Design = PS&E

Abbreviations:
CD = Collector Distributor Lane
FTR = Future
HOV = High Occupancy Vehicle
SHLD = Shoulder

Project Description

Improvements primarily consist of replacing the existing Green River Road overcrossing with a new six-lane wide, 4-span overcrossing to accommodate future widening of SR-91. The interior spans will accommodate up to eight mainline lanes in each direction including two HOV lanes. The exterior spans can accommodate two lanes, either for auxiliary lanes or collector distributor roads. Entrance and exit ramps will be realigned and widened to accommodate the new bridge, yet the interchange will retain its current configuration. New signals will be installed at the ramp intersections. Ramp and bridge improvements will be constructed within existing right of way.

Key Considerations

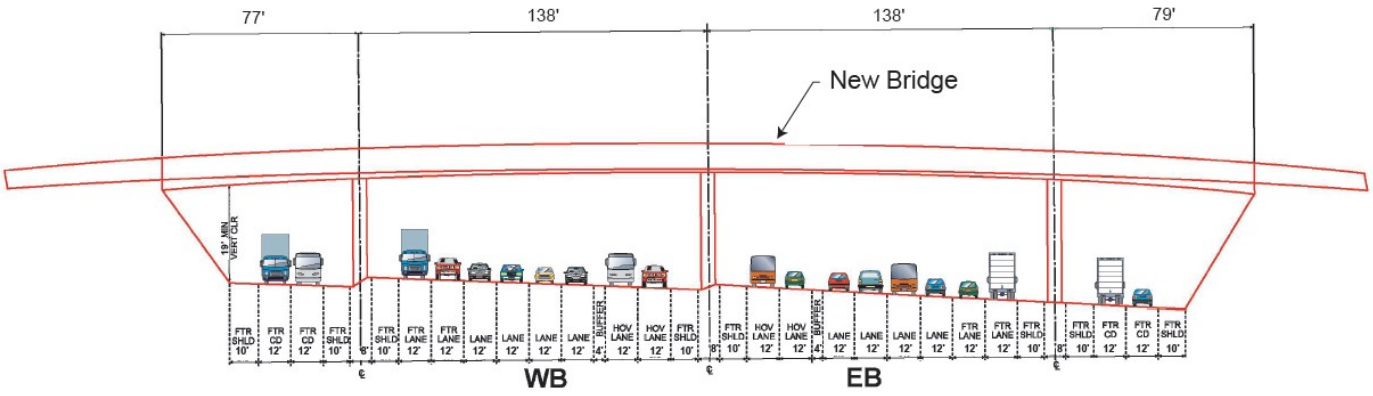
Design interface is required with the Eastbound Lane Addition from SR-241 to SR-71, SR-71/SR-91 Interchange Improvements, SR-91 Corridor Improvement Project, and SR-241/SR-91 HOV/HOT Connector.

Benefits

The project will improve the level of service at ramp and local street intersections at the interchange. Improvements will reduce ramp queues that extend into the freeway's general purpose lanes, thus contributing to congestion relief on SR-91.

Current Status

The project began construction in March 2007 and was completed in March 2009.



GREEN RIVER BRIDGE CROSS-SECTION

NOTE: All dimensions are approximate

North Main Street Corona Metrolink Station Parking Structure

Appendix Project No: B-2

Actual Completion: June 2009

Project Costs

Capital Cost	$ 20,000,000
Support Cost	$ 5,000,000
R/W Cost	$0
Total Project Cost	$ 25,000,000

Project Schedule

Preliminary Engineering	Completed
Environmental	Completed
Design	Completed
Construction	Completed

Project Description

The project provides a six level parking structure with 1,065 parking stalls. The construction is within the existing North Main Street Metrolink station property in Corona.

Key Considerations

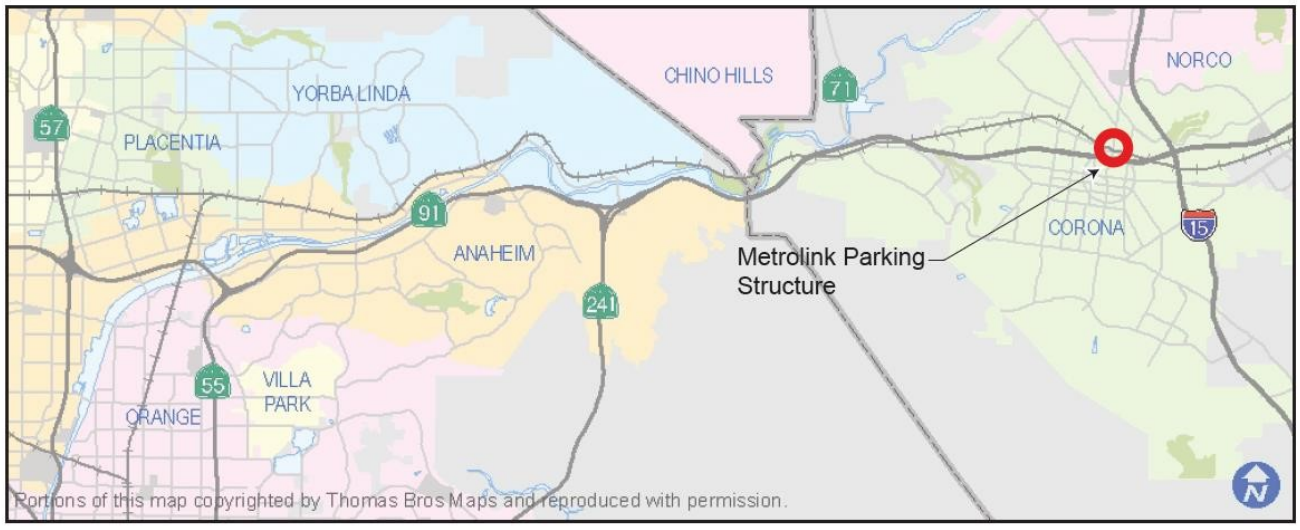
Proposed improvements were constructed within existing right of way. Currently there are 700 users of the facility, 200 more that were previously able to accomodate. Additionally RCTC has opened up the lot to park and ride carpools and vanpools and has issued over 120 permits for carpoolers to use the expanded station. This shows an added benefit of supporting carpooling as well as transit to offset congestion on SR-91.

Benefits

Demand for parking currently exceeds the capacity at the North Main Street Corona station. New parking capacity will allow Metrolink ridership to increase thereby diverting vehicle trips from SR-91.

Current Status

Construction was initiated in January 2008 and was completed in June 2009. The project was funded with Federal Congestion Management and Air Quality (CMAQ) funds.



Eastbound Lane Addition from SR-241 to SR-71

Appendix Project No: B-3

Actual Completion: September 2010

Project Cost Estimate

Capital Cost	$ 41,000,000
Support Cost	$ 8,000,000
R/W Cost	$ 2,200,000
Total Project Cost	$ 51,200,000

Project Schedule

Preliminary Engineering	Completed
Environmental	Completed
Design	Completed
Construction	Completed

Project Description

The project will provide an additional eastbound (EB) lane from the SR-91/SR-241 interchange to the SR-71/SR-91 interchange and will widen all EB lanes and shoulders to standard widths.

Key Considerations

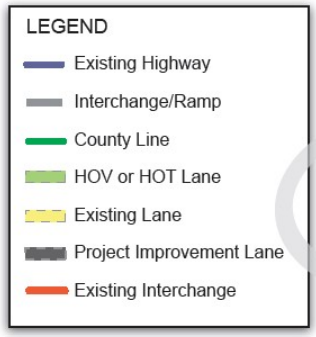
Coordination with the SR-91 Corridor Improvement Projects (Project #3 and #11) will be required. Staged construction would be required for all ramp reconstruction and freeway widening. Freeway operations would most likely be affected by this project, however, freeway lane closures are not anticipated. An EB concrete shoulder will be constructed with a 12 foot width to provide for future widening as contemplated by Project #3 and #11.

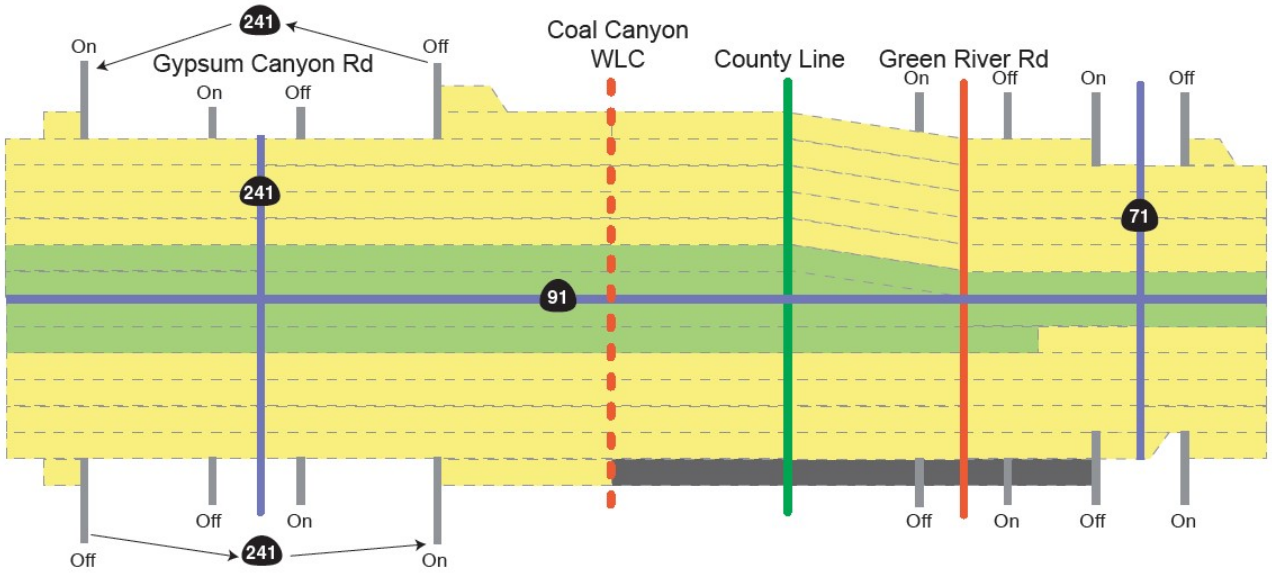
Benefits

The lane addition would help to alleviate the weaving condition between SR-241 and SR-71, as well as remove vehicles from the SR-91 mainline that would be exiting at Green River Road and SR-71.

Current Status

Funding is from the American Recovery and Reinvestment Act (ARRA) with $71.44M approved, and the balance of project costs are from other sources. Construction began in late 2009 and was completed in September 2010.





Widen SR-91 between SR-55 and SR-241 by Adding a 5th GP Lane in Each Direction

Appendix Project No: B-4
Actual Completion: January 2013

Project Costs

Capital Cost	$ 65,005,000
Support Cost	$ 19,639,000
R/W Cost	$ 573,000
Total Project Cost	$ 85,217,000

Project Schedule

Preliminary Engineering	Completed
Environmental	Completed
Design	Completed
Construction	Completed

Project Description

This project proposes capacity and operational improvements by adding one general purpose (GP) lane on eastbound (EB) SR-91 from the SR-55/ SR-91 connector to east of the Weir Canyon Road interchange and on westbound (WB) SR-91 from just east of Weir Canyon Road interchange to the Imperial Highway (SR-90) interchange. Additionally, this project would facilitate truck traffic approaching the truck scales in both directions.

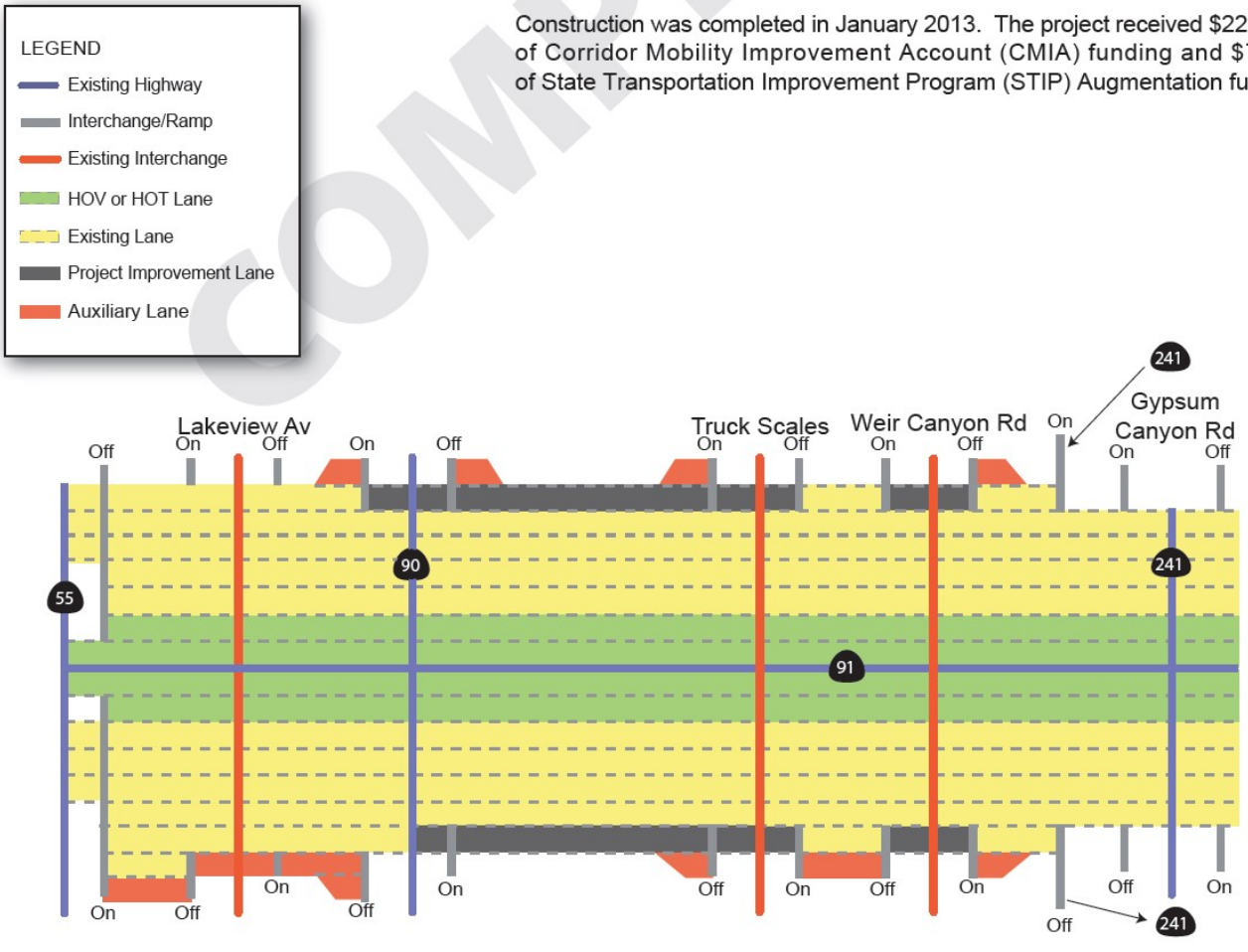
Key Considerations

Caltrans is not considering relocation of the truck scales at this time.

Benefits

Alleviates congestion on WB SR-91 by eliminating the lane drop at the truck scales and providing a continuous GP lane to SR-90. Alleviates congestion on EB SR-91 by eliminating the lane drop for northbound (NB) SR-55 at SR-91 by providing an auxiliary lane to Lakeview Avenue, and at SR-90 by providing a continuous GP lane through Weir Canyon

Construction was completed in January 2013. The project received $22M of Corridor Mobility Improvement Account (CMIA) funding and $74M of State Transportation Improvement Program (STIP) Augmentation funds.



NOTE: FAIRMONT BLVD IS CONTINGENT UPON IMPLEMENTATION OF THE PROJECT

Appendix Project No: B-5
Actual Completion: April 2016

Project Cost Estimate*

Capital Cost	$ 22,218,000
Support Cost	$ 16,382,000
R/W Cost	$ 4,682,000
Total Project Cost	$ 43,282,000

Project Schedule

Preliminary Engineering	Completed
Environmental	Completed
Design	Completed
Construction	Completed

Project Description

The project will add a westbound (WB) auxiliary lane on SR-91 beginning at the northbound (NB) SR-55 to WB SR-91 connector through the Tustin Avenue interchange. This project includes approximately 1.1 lane miles.

Key Considerations

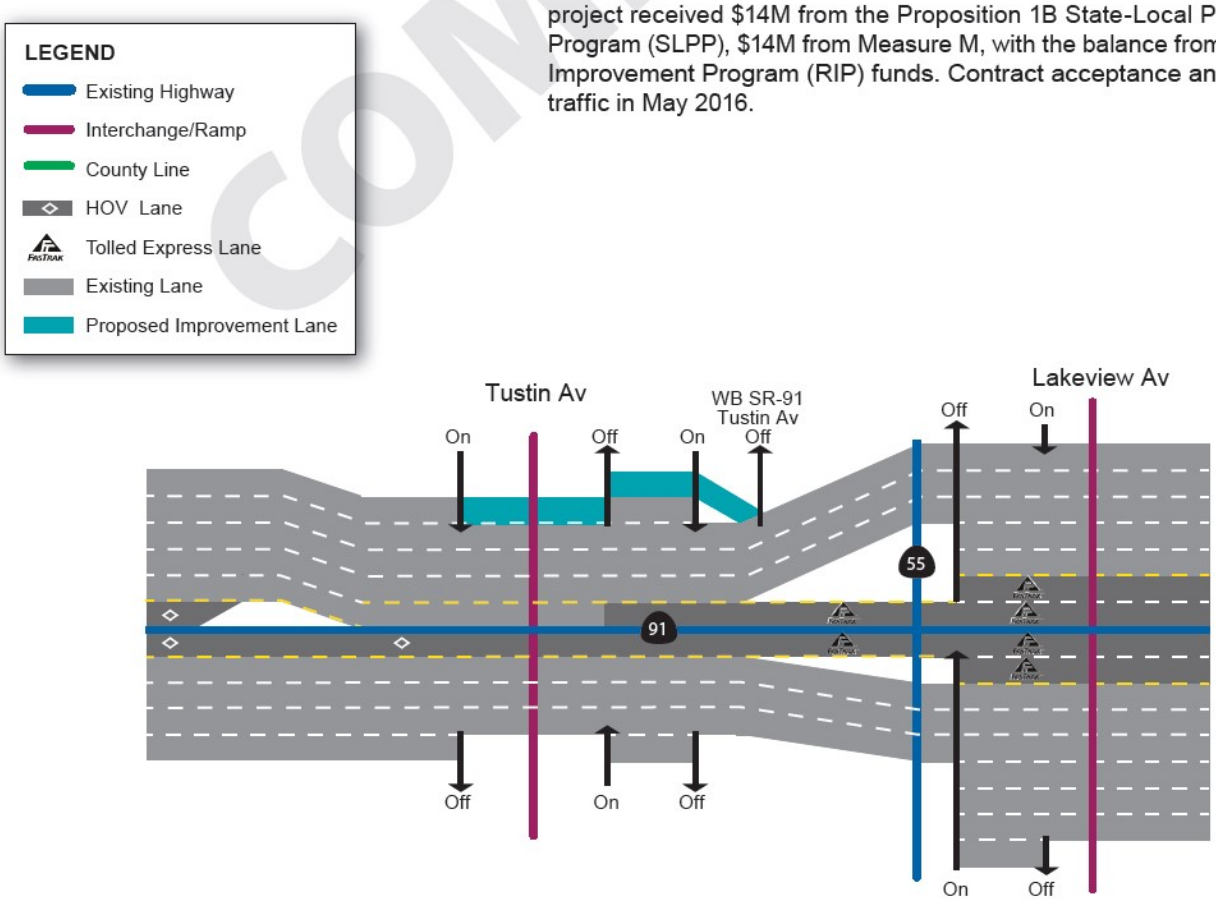
Build Alternative 3 was selected from the Project Study Report (PSR), *On Westbound (WB) SR-91 Auxiliary Lane from the Northbound (NB) SR-55/WB SR-91 Connector to the Tustin Avenue Interchange,* and requires additional right-of-way. City of Anaheim utilities are within close proximity of the proposed widening section. Widening of the Santa Ana River bridge is required. Coordination with the City of Anaheim occurred for widening of Tustin Avenue and the WB SR-91 Off-Ramp that was completed in early 2011.

Benefits

The project would reduce or eliminate operational problems and deficiencies on this section of WB SR-91 including weaving and merging maneuvers. This project would also address choke-point conditions, which are caused primarily by extensive weaving between the NB SR-55 to WB SR-91 connector and the WB SR-91 off-ramp to Tustin Avenue.

Current Status

Preliminary engineering was completed and approved by Caltrans. The environmental phase was completed in November 2010, and design was completed in mid-2013. Construction was initiated in February 2014. The project received $14M from the Proposition 1B State-Local Partnership Program (SLPP), $14M from Measure M, with the balance from Regional Improvement Program (RIP) funds. Contract acceptance and open to traffic in May 2016.



Appendix Project No: B-6
Actual Completion: 2016

Project Cost Estimate*

IEOC Service Cost	$ 1,160,000
Perris Valley Line Cost	$ 248,000,000
Total Metrolink Costs	$ 249,160,000

Project Schedule
Complete 2016

* Costs from OCTA and RCTC (in 2015 dollars)

Project Description

There are sixteen daily trains that run on the IEOC Line and nine trains running on the Los Angeles to Riverside portion of 91/Perris Valley (91/PV) Line for a total of 25 daily trains. The long-term service improvements will include 24 IEOC trains by 2030.

The Perris Valley portion of the 91 Line extends Metrolink service southeast by 25 miles, from Riverside to Perris. The project is located within the right of way of the existing San Jacinto Branch Line through Riverside, Moreno Valley and Perris. Construction began in October 2013, cost approximately $248 million, and the extension opened to the public in June 2016. The inaugural schedule (December 2015) includes nine trains through to Los Angeles and 12 between Perris and Riverside.

Key Considerations

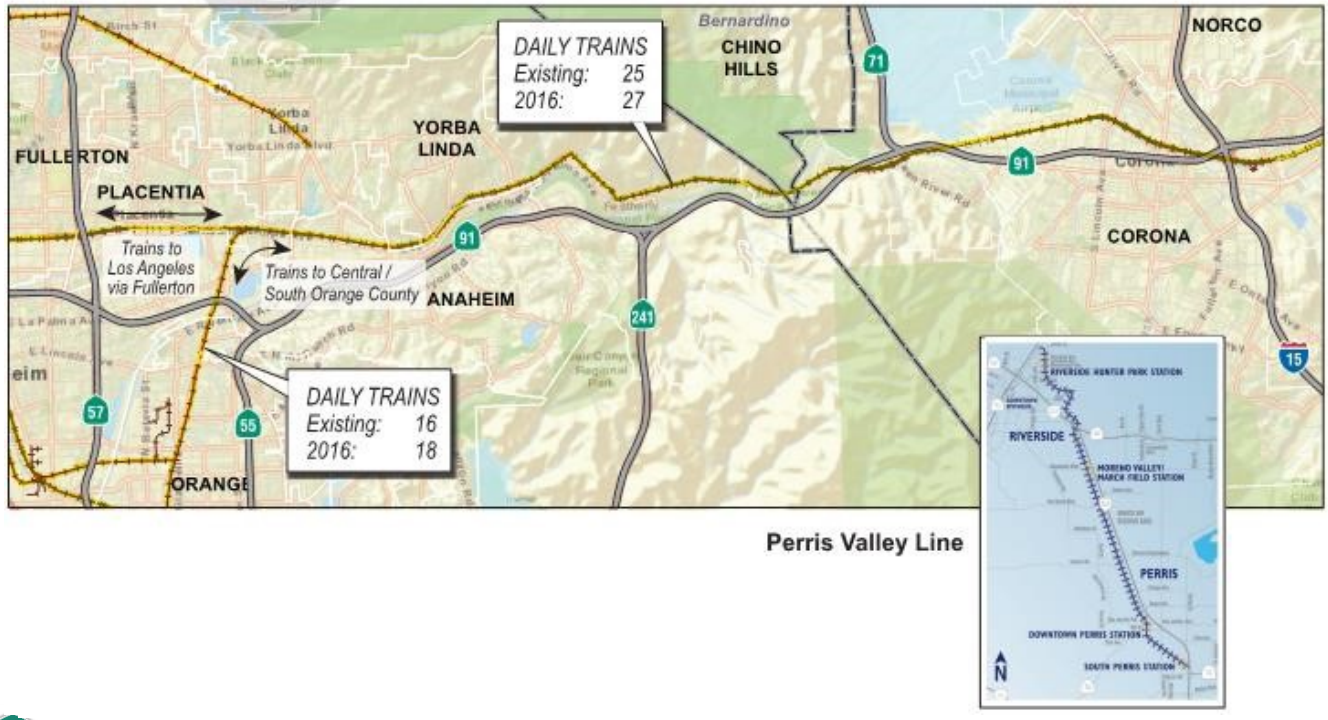
Construction of the new Placentia Metrolink station will improve passenger access to the 91/PV Line, by creating a station between Fullerton and Corona. Improvements at the Anaheim Canyon station are designed to account for future expansion of the IEOC rail service.

Benefits

Enables development of expanded Metrolink service, improved efficiency, and fosters train ridership growth in the region, which will contribute to congestion relief on SR-91.

Current Status

Two additional IEOC Line roundtrips were added in late 2015, and in mid-2016, nine trains began service on the Perris Valley extension to the 91/PV Line.



Perris Valley Line

Initial Phase CIP: Widen SR-91 by One GP lane In Each Direction East of Green River Road, CD Roads and I-15/SR-91 Direct South Connector, Extension of Express Lanes to I-15 and System / Local Interchange Improvements

Project No: B-7
Actual Completion: 2017

Project Cost Estimate*

Total Capital Cost	$ 1,161,000,000
Support Cost	$ 246,000,000
Total Project Cost	$ 1,407,000,000

Project Schedule**

Preliminary Engineering	Completed
Environmental	Completed
Design/Construction	2013-2017

* Cost obtained for Initial Phase is from RCTC (2014 dollars)
** Schedule for Inital Phase; subsequent phase for Ultimate Project anticipated in 2035

Project Description

The approved Project Study Report (PSR) for the SR-91 Corridor Improvement Project (CIP), from SR-241 to Pierce Street, includes the addition of a 5th general purpose lane in each direction, the addition of auxiliary lanes at various locations, additional lanes at the SR-71/SR-91 interchange (Project #5), and collector-distributor (CD) lanes at the I-15/SR-91 interchange. Subsequently, the Riverside County Transportation Commission's (RCTC) 10-Year Delivery Plan recommended the following in addition to the PSR recommended improvements: the extension of the 91 Express Lanes from the Orange County line to I-15, the construction of SR-91 (EB/WB)/I-15 (SB/NB) Express Lanes median direct connectors, and the construction of one Express Lane in each direction from the I-15/SR-91 interchange southerly to I-15/Cajalco Road, and northerly to I-15/Hidden Valley Parkway. An Express Lanes ingress/egress lane is also planned near the County Line. Due to economic conditions, a Project Phasing Plan was developed to allow an Initial Phase with reduced improvements to move forward as scheduled, with the remaining ultimate improvements to be completed later. The following is a summary of the deferred ultimate improvements: I-15/SR-91 median North Direct Connector, and I-15 Express Lanes North to Hidden Valley Parkway (Project #9); general purpose lanes and Express Lanes from I-15 to Pierce Street; and general purpose lanes from SR-241 to SR-71. The I-15 Express Lanes to be extended from Ontario Avenue to Cajalco Road are included in RCTC's I-15 Express Lane Project with an anticipated completion in 2020.

Key Considerations

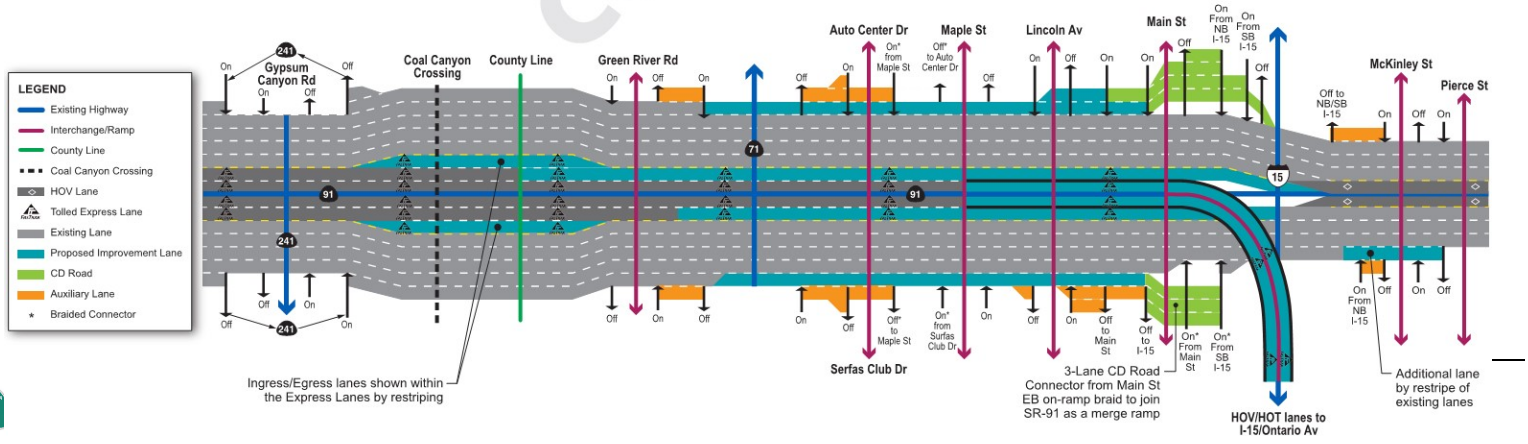
Coordination among many of the SR-91 freeway projects that overlap the project limits is critical to successfully delivering these projects on schedule and within budget. Designing to accommodate future projects is a recurring theme for each of these projects. Minimizing conflicts in scope between projects requires direct coordination between each project team. Additionally, future projects frequently have multiple alternatives under study, each with differing scope and construction footprints. Specifically, the project improvements need to continue to be coordinated with the SR-71/SR-91 Interchange, the SR-241/91 Express Connector, and RCTC's I-15 Express Lane Project.

Benefits

The Initial Phase and Ultimate CIP projects will reduce congestion and delays by providing additional SR-91 capacity from SR-241 to Pierce Street, along I-15 from SR-91 to Cajalco Road to the south, and to Hidden Valley Parkway to the north. Traffic operations will improve by eliminating or reducing weaving conflicts along SR-91 and I-15 by the use of CD roads and auxiliary lanes. The project will provide motorists a choice to use Express Lanes for a fee in exchange for time savings.

Current Status

The environmental phase was completed in Fall 2012. A Design-Build contractor was selected in May 2013 and construction activities began in early 2014 for the Initial Phase. The project is anticpated to open to traffic in Spring 2017 with final project acceptance anticipated at the end of 2017.



La Sierra Metrolink Parking Improvements

Image source:
Riverside Transit Agency, April 2019

Project Description

There are currently 1,000 spaces available. RCTC is implementing a parking lot expansion to include an additional 496 spaces and six bus bays to accommodate RTA Express Lane Service 200 that originates at Metrolink San Bernardino Transit Center with stops along Riverside Downtown Metrolink Station, Metrolink La Sierra, the Village at Orange, ARTIC, Disneyland, and Anaheim Convention Center, as well as other potential bus routes in the future.

Benefits

The 496 parking spaces will provide for existing and future demand. The parking lot expansion will provide for ADA parking, RTA express service, commuter rail, and vanpool.

Current Status

Construction and project implementation has begun.

Schedule and Cost

Construction was completed in February 2019. The project cost is estimated to be $6,260,000.

Appendix C - REFERENCES

The following documents and resources were used in the development of the 2020 Plan. Data was provided by OCTA, RCTC, Caltrans Districts 8 and 12, Transportation Corridor Agencies (TCA), other agencies, and online resources.

Measure M Next 10 Delivery Plan (Next 10 Plan), November 14, 2016

Riverside Transit Agency, Ten-Year Transit Network Plan, January 22, 2015

PSR-PDS on Route 91 Between SR-57 and SR-55, October 2014

PS&E for "Westbound State Route 91 Auxiliary Lane from the NB SR-55/WB SR-91 Connector to the Tustin Avenue Interchange", 2014

PS&E for Initial SR-91 CIP Project, 2014

California Transportation Commission, Corridor Mobility Improvement Account (CMIA), Amended December 2012

M2020 Plan (Measure M), September 2012

PSR-PDS for SR-241/SR-91 Tolled Express Lanes Connector, January 2012

Project Report and Environmental Document (EIR/EIS) for SR-91 CIP from SR-241 to Pierce Street Project, October 2012

PS&E "On State Route 91 Between the SR-91/SR-55 Interchange and the SR-91/SR-241 Interchange in Orange County", April 2011

Corridor System Management Plan (CSMP) Orange County SR-91 Corridor Final Report, August 2010

Project Study Report/Project Report "Right of Way Relinquishment on Westbound State Route 91 Between Weir Canyon Road and Coal Canyon", May 2010

SR-91/Fairmont Boulevard Feasibility Study, December 2009

Feasibility Evaluation Report for Irvine-Corona Expressway Tunnels, December 2009

Plans, Specifications and Estimates (PS&E) for Eastbound SR-91 lane addition from SR-241 to SR-71, May 2009

PSR "On State Route 91 Between the SR-91/SR-55 Interchange and the SR-91/SR-241 Interchange in Orange County", April 2009

91 Express Lanes Extension and State Route 241 Connector Feasibility Study, March 2009

PSR/PR "On Gypsum Canyon Road Between the Gypsum Canyon Road/SR-91 Westbound Off-Ramp (PM 16.4) and the Gypsum Canyon Road/SR-91 Eastbound Direct On-Ramp (PM 16.4)", June 2008

Orange County Transportation Authority Renewed Measure M Transportation Investment Plan, November 2006

Riverside County-Orange County Major Investment Study (MIS) – Final Project Report: Locally Preferred Strategy Report, January 2006

California – Nevada Interstate Maglev Project Report, Anaheim-Ontario Segment; California-Nevada Super Speed Train Commission, American Magline Group, August 2003

Route Concept Reports for SR-91, Caltrans Districts 8 and 12

Various Preliminary Drawings and Cross Sections, Caltrans Districts 8 and 12

AGENDA ITEM 8

RIVERSIDE COUNTY TRANSPORTATION COMMISSION	
DATE:	July 27, 2020
TO:	Western Riverside County Programs and Projects Committee
FROM:	David Thomas, Toll Projects Manager
THROUGH:	Michael Blomquist, Toll Program Director
SUBJECT:	Award of SR-91 Corridor Operations Project Construction Agreement to OHL USA

STAFF RECOMMENDATION:

This item is for the Committee to:

1) Pending final results of the Disadvantaged Business Enterprise (DBE) Good Faith Efforts review, award Agreement No. 20-31-069-00 to OHL USA to construct the SR-91 Corridor Operations Project (91 COP), in the amount of $18,886,963, plus a contingency amount of $1,888,696, supplemental work in the amount of $406,900, and an incentive payment in the amount of $472,500, for a total amount not to exceed $21,655,059;
2) Authorize the Chair or Executive Director, pursuant to legal counsel review, to finalize and execute the agreement on behalf of the Commission;
3) Authorize the Executive Director, or designee, to approve contingency work, supplemental work and incentive payments as may be required for the 91 COP; and
4) Forward to the Commission for final action.

BACKGROUND INFORMATION:

At its May 2018 meeting, the Commission authorized all project development activities needed to complete environmental approvals and final design for the 91 COP and to return in fall 2018 with a recommendation regarding the construction. In December 2018, the Commission authorized implementation of the construction phase of the 91 COP after completing environmental and design approvals. In May 2020, the Commission awarded a Construction Management Services Agreement to Falcon Engineering Services for the 91 COP. The subject of this staff report is the award of the construction contract for the 91 COP.

The 91 COP will add a 2-mile long general purpose lane in the westbound direction on SR-91 from Green River Road westbound on-ramp to SR-241. A detailed vicinity map of the 91 COP is provided as Attachment 1. The 91 COP involves:

1) Adding approximately 9 to 10 feet of outside pavement widening to SR-91 at some locations and restriping in others;
2) Widening the County Line Creek Undercrossing;

3) Constructing new retaining walls approximately 3,200 feet in length and approximately 6 to 28 feet in height on the north side of SR-91;
4) Reconstructing a portion of Green River Road;
5) Replacing overhead signs; and
6) Adding high mast lighting on the north side of the outside barrier.

Procurement Process:

On May 21, 2020, the Commission released Invitation for Bids (IFB) No. 20-31-069-00 for construction of the 91 COP. A public notice was advertised in the *Press Enterprise*, and the complete IFB, including all contract documents, was posted on the PlanetBids website, which is accessible through the Commission's website. Electronic mail messages were sent to vendors registered in the Commission's PlanetBids database that fit the IFB qualifications. 105 firms downloaded the IFB; 28 of those firms are located in Riverside County. A pre-bid video conference was held on May 28, 2020. On July 2, 2020, 11 bids were received and publicly opened. A summary of the bids received is shown in Table 1.

Table 1
Construction of 91 COP

	Firm (In order from Low Bid to High Bid)	Bid Amount
	Engineer's Estimate	$26,000,000.00
1	OHL USA	$18,886,963.15
2	Walsh Construction Company	$19,801,970.44
3	Griffith Company	$19,898,025.70
4	Ames Construction	$20,182,234.00
5	Security Paving Company	$20,662,814.96
6	Ortiz Enterprises Incorporated	$21,232,663.82
7	Beador Construction Company	$21,415,300.00
8	SEMA Construction, Inc	$21,499,039.63
9	Skanska USA Civil West California District Inc	$22,142,000.00
10	Myers-Rados, A Joint Venture	$23,339,887.75
11	Powell Constructors Inc	$28,051,533.00

The basis for award for a public works contract is the lowest responsive and responsible bidder as defined by the Commission's procurement policy and state law. The bid analysis (Attachment 3) shows the bid amounts of the three lowest apparent bidders, the total price per item and percent variation from the engineer's estimate for each bid item. The bid price submitted by OHL USA was approximately 27 percent lower than the engineer's estimate. Although OHL USA's bid is lower than the engineer's estimate, an analysis of the bids is required and was completed by staff.

After analyzing the 11 bids received, staff concluded that OHL USA is the lowest responsible bidder submitting a responsive bid in the amount of $18,886,963.

Staff received a bid protest letter dated July 20, 2020 protesting the bid submitted by OHL USA. The Executive Director, in consultation with staff, legal counsel and the Commission's DBE consultant, determined that the protest had merit, in part, and that OHL USA did not meet the DBE goal. As a result, staff is completing a DBE Good Faith Efforts analysis which has been submitted to Caltrans for review. Staff will inform the Commission of the final results of the Good Faith Efforts review at the Commission meeting. Should the Good Faith Efforts analysis not be completed by Caltrans prior to the meeting, this item may be deferred to the September Commission meeting.

Supplemental work is work that will need to be done during construction but is not quantifiable at the time of construction advertisement. Two common supplemental items of work are maintaining existing traffic and the price index fluctuation of asphalt pavement. The estimated budget for supplemental work is $406,900.

The bid documents included an incentive clause that would pay the contractor up to two early completion bonuses tied to two project milestones. The first bonus would be paid if the contractor reduces Stage 2 which is considered the most impactful to the traveling public. The second bonus would be paid if the contractor reduces the overall construction duration from Notice to Proceed (NTP) to Open to Traffic. These two early completion bonuses including the daily value of the incentive/disincentive and the maximum bonus achievable are shown in Table 2.

Table 2
Early Completion Bonus

Milestone Completion	***Duration (Working Days)***	***$/Day (Early/Late)***	***Maximum Days (Early/Late)***	***Maximum Bonus***
Stage 2	*60*	*$13,500*	*10/unlimited*	*$135,000*
NTP to Open to Traffic	*230*	*$13,500*	*25/unlimited*	*$337,500*

Each bonus can be achieved independently for a combined maximum bonus payment of $472,500.

Construction activity is expected to begin in October 2020 and will take about 12 months to complete.

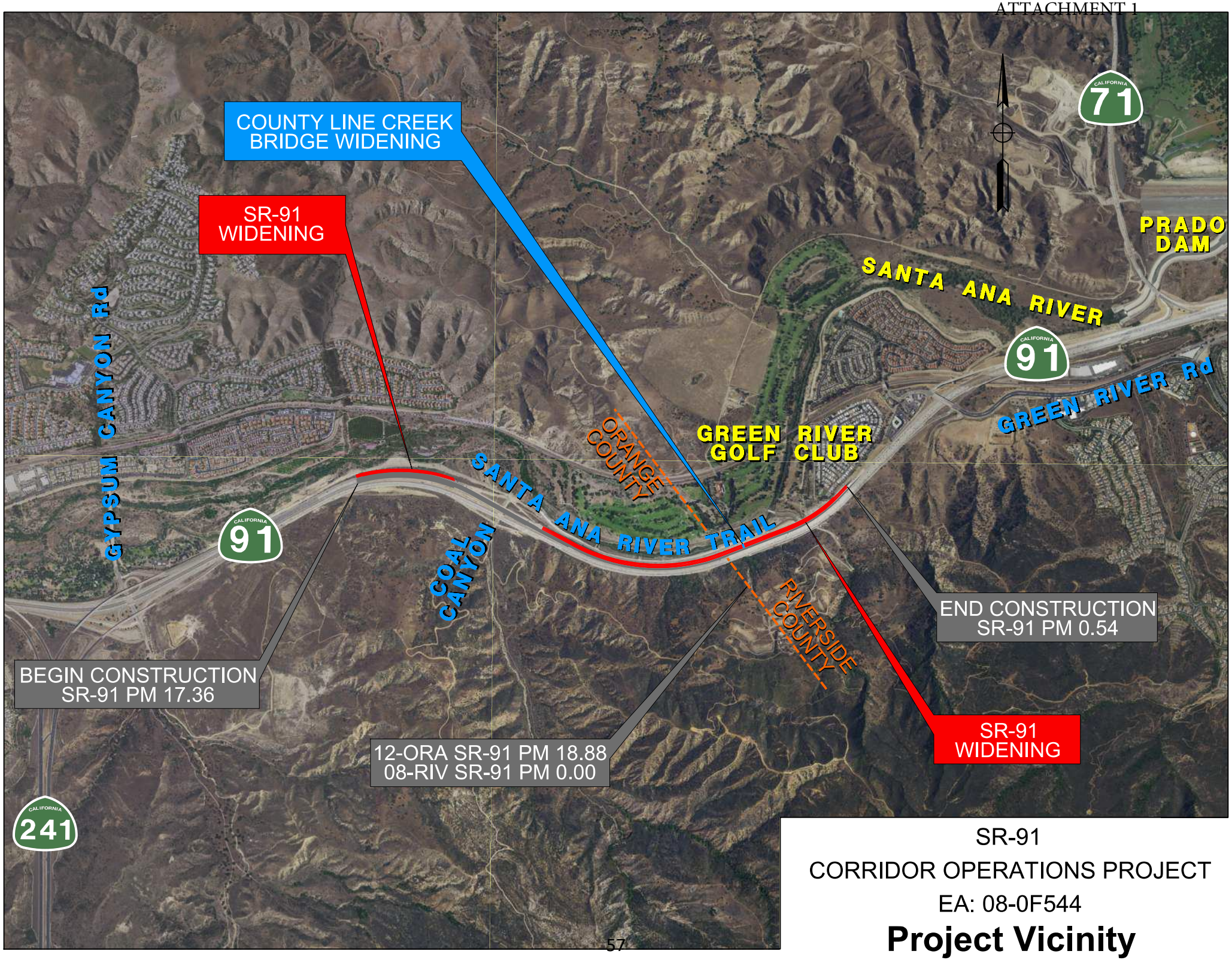
Pending final results of the DBE Good Faith Efforts review, staff recommends award of Agreement No. 20-31-069-00 for the construction of the 91 COP to OHL USA, in the amount of $18,886,963, plus a contingency amount of $1,888,696, supplemental work in the amount of $406,900, and an incentive payment in the amount of $472,500, for a total amount not to exceed $21,655,059. Staff also recommends authorization for the Chair or Executive Director, pursuant to legal counsel review, to finalize and execute the agreement on behalf of the

Commission and for the Executive Director, or designee, to approve contingency work, supplemental work and incentive payments as may be required for the 91 COP.

Financial Information					
In Fiscal Year Budget:	Yes N/A	Year:	FY 2020/21 FY 2021/22	Amount:	$ 18,000,000 $ 3,655,059
Source of Funds:	OCTA contribution and Federal Funds			Budget Adjustment:	No N/A
GL/Project Accounting No.:	623046 81301 00000 0000 262 31 81301				
Fiscal Procedures Approved:	Theresia Trevino			Date:	07/14/2020

Attachments:

1) Project Vicinity Map
2) Draft Agreement No. 20-31-069-00 with OHL USA
3) Bid Analysis



SR-91

CORRIDOR OPERATIONS PROJECT

EA: 08-0F544

Project Vicinity

RIVERSIDE COUNTY TRANSPORTATION COMMISSION

****

CONTRACT

****

CONSTRUCTION ON STATE ROUTE 91 CORRIDOR OPERATIONS PROJECT

RCTC Agreement No. 20-31-069-00

May 21, 2020

BETWEEN
RIVERSIDE COUNTY TRANSPORTATION COMMISSION

AND

OHL USA

CONSTRUCTION OF STATE ROUTE 91 CORRIDOR OPERATIONS PROJECT

RCTC AGREEMENT NO. 20-31-069-00

1. PARTIES AND DATE.

This Contract is made and entered into this ____ day of _____, 20___ by and between the Riverside County Transportation Commission (hereinafter called the "Commission") and OHL USA (hereinafter called the "Contractor"). This Contract is for that Work described in the Contract Documents entitled CONSTRUCTION OF STATE ROUTE 91 CORRIDOR OPERATIONS PROJECT.

2. RECITALS.

2.1 The Commission is a County Transportation Commission organized under the provisions of Sections 130000, et seq. of the Public Utilities Code of the State of California, with power to contract for services necessary to achieving its purpose;

2.2 Contractor, in response to a Notice Inviting Bids issued by Commission on May 21, 2020, has submitted a bid proposal for the CONSTRUCTION OF STATE ROUTE 91 CORRIDOR OPERATIONS PROJECT

2.3 Commission has duly opened and considered the Contractor's bid proposal and duly awarded the bid to Contractor in accordance with the Notice Inviting Bids and other Bid Documents.

2.4 Contractor has obtained, and delivers concurrently herewith, Performance and Payment Bonds and evidences of insurance coverage as required by the Contract Documents.

3. TERMS.

3.1 Incorporation of Documents.

This Contract includes and hereby incorporates in full by reference this Contract and the following Contract Documents provided with the above referenced Notice Inviting Bids, including all exhibits, drawings, specifications and documents therein, and attachments thereto, all of which, including all addendum thereto, are by this reference incorporated herein and made a part of this Contract:

a. NOTICE INVITING BIDS

b. INSTRUCTIONS TO BIDDERS

c. CONTRACT BID FORMS

d. FORM OF CONTRACT

e. PAYMENT AND PERFORMANCE BOND FORMS

f. ESCROW AGREEMENT FOR SECURITY DEPOSITS

g. CONTRACT APPENDIX

PART "A" - Regulatory Requirements and Permits

PART "B" - Special Provisions

PART "C" – Standard Provisions

PART "D" - Contract Drawings

PART "E" - Contract Compliance Provisions/DBE Requirements

PART "F" - Federal Minimum Wage Requirements

PART "G" - Federal Requirements for Federal Aid Construction Contracts

PART "H" – Supplemental Materials

h. ADDENDUM NO.(S) (N/A or Add Addendum Numbers)

3.2 Contractor's Basic Obligation.

Contractor promises and agrees, at his own cost and expense, to furnish to the Commission all labor, materials, tools, equipment, services, and incidental and customary work for the construction on State Route 9 to add one additional lane to the westbound State Route 91 between Green River Road on-ramp and the southbound State Route 241 toll road connector in the cities of Corona, Yorba Linda and Anaheim Hills. This project is hereby referred to as the Corridor Operations Project. The project scope generally consists of the addition of one general purpose (GP) lane approximately 2 miles in length in the WB direction on SR-91 from Green River Road to SR-241. This involves adding approximately 9 to 10 feet of outside widening to SR-91 at some locations and restriping in others. Additional work includes widening the County Line Creek UC, constructing new retaining walls approximately 3,200 feet in length and approximately 6 to 28 feet in height on the north side of SR-91, reconstructing a portion of Green River Road, and replacing overhead signs. Notwithstanding anything else in the Contract Documents, the Contractor shall complete the Work for a total of Eighteen Million Eight Hundred Eighty-Six Thousand Nine Hundred Sixty-Three Dollars ($18,886,963), as specified in the bid proposal and pricing schedules submitted by the Contractor in response to the above referenced Notice Inviting Bids. Such amount shall be subject to adjustment in accordance with the applicable terms of this Contract. All Work shall be subject to, and performed in accordance with the above referenced Contract Documents.

3.3 Beginning of Work, Time of Completion and Liquidate Damages.

The Contractor shall begin work within 15 calendar days after the issuance of the Notice to Proceed. This Work shall be diligently prosecuted to completion before the expiration of (excluding plant establishment work) **250 working days** beginning on the fifteenth calendar day after the date shown on the Notice to Proceed. Contractor agrees that if such Work is not completed within the

aforementioned periods, liquidated damages will apply as provided by the applicable provisions of the Standard Provisions, found in Part "C" of the Contract Appendix.

3.4 Commission's Basic Obligation.

Commission agrees to engage and does hereby engage Contractor as an independent contractor to furnish all materials and to perform all Work according to the terms and conditions herein contained for the sum set forth above. Except as otherwise provided in the Contract Documents, the Commission shall pay to Contractor, as full consideration for the satisfactory performance by the Contractor of services and obligation required by this Contract, the above referenced compensation in accordance with Compensation Provisions set forth in the Contract Documents.

3.5 California Prevailing Wages; Conflicts.

The State general prevailing wage rates determined by the Director of Industrial Relations are hereby made a part of this contract. It is further expressly agreed by and between the parties hereto that should there be any conflict between the terms of this instrument and the bid of said Contractor, then this instrument shall control and nothing herein shall be considered as an acceptance of the said terms of said bid conflicting herewith.

3.6 Contractor's Labor Certification.

Contractor maintains that he is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and agrees to comply with such provisions before commencing the performance of the Work. A certification form for this purpose is attached to this Contract as Exhibit "A" and incorporated herein by reference, and shall be executed simultaneously with this Contract.

3.7 Successors.

The parties do for themselves, their heirs, executors, administrators, successors, and assigns agree to the full performance of all of the provisions contained in this Contract. Contractor may not either voluntarily or by action of law, assign any obligation assumed by Contractor hereunder without the prior written consent of Commission.

3.8 Notices.

All notices hereunder and communications regarding interpretation of the terms of the Contract or changes thereto shall be provided by the mailing thereof by registered or certified mail, return receipt requested, postage prepaid and addressed as follows:

Contractor:	Commission:
OHL USA	Riverside County Transportation Commission
1920 Main Street, Suite 310	P.O. Box 12008

Irvine, CA 92614 Riverside, California 92502-2208

Attn: Ahmad Bagheri Attn: Executive Director

Any notice so given shall be considered received by the other party three (3) days after deposit in the U.S. Mail, first class postage prepaid, addressed to the party at the above address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

CONTRACTOR
OHL USA

By:_____

Name:_____

Title:_____

Tax I.D. Number:_____

RIVERSIDE COUNTY TRANSPORTATION COMMISSION

By:_____

Name:_____

Riverside County Transportation Commission

APPROVED AS TO FORM:

By:_____

Best Best & Krieger LLP
Counsel, RCTC

EXHIBIT "A"

CERTIFICATION
LABOR CODE - SECTION 1861

I, the undersigned Contractor, am aware of the provisions of Section 3700 et seq. of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of the Code. I agree to and will comply with such provisions before commencing the Work governed by this Contract.

CONTRACTOR
OHL USA

By:

_____
Signature

Name:_____

Title:_____

Date:_____

Bid Results for Project RCTC - SR-91 CORRIDOR OPERATIONS PROJECT (IFB NO. 20-31-069-00)

Issued on 05/21/2020
Bid Due on July 2, 2020 2:00 PM (Pacific)

Yellow items are >$100k below Engineer's Estimate

ENGINEER'S ESTIMATE

Item Num	Item Code	Description	Unit	Quantity	Unit Price	Total	% of EE
1	70030	LEAD COMPLIANCE PLAN	LS	1	$ 10,000.00	$ 10,000.00	0%
2	80050	PROGRESS SCHEDULE (CRITICAL PATH METHOD)	LS	1	$ 10,000.00	$ 10,000.00	0%
3	90100	TIME-RELATED OVERHEAD (WDAY)	WDAY	250	$ 8,500.00	$ 2,125,000.00	8%
4	120090	CONSTRUCTION AREA SIGNS	LS	1	$ 25,000.00	$ 25,000.00	0%
5	120100	TRAFFIC CONTROL SYSTEM	LS	1	$ 245,000.00	$ 245,000.00	1%
6	120100A	EXPRESS LANE CLOSURE CHARGES	LS	1	$ 76,700.00	$ 76,700.00	0%
7	120120	TYPE III BARRICADE	EA	3	$ 130.00	$ 390.00	0%
8	120149	TEMPORARY PAVEMENT MARKING (PAINT)	SQFT	170	$ 5.00	$ 850.00	0%
9	120159	TEMPORARY TRAFFIC STRIPE (PAINT)	LF	47700	$ 0.40	$ 19,080.00	0%
10	120165	CHANNELIZER (SURFACE MOUNTED)	EA	6	$ 60.00	$ 360.00	0%
11	120300	TEMPORARY PAVEMENT MARKER	EA	910	$ 4.50	$ 4,095.00	0%
12	128652	PORTABLE CHANGEABLE MESSAGE SIGN (LS)	LS	1	$ 70,000.00	$ 70,000.00	0%
13	129000	TEMPORARY RAILING (TYPE K)	LF	18800	$ 13.00	$ 244,400.00	1%
14	129110	TEMPORARY CRASH CUSHION	EA	3	$ 4,000.00	$ 12,000.00	0%
15	129150	TEMPORARY TRAFFIC SCREEN	LF	18800	$ 3.40	$ 63,920.00	0%
16	130100	JOB SITE MANAGEMENT	LS	1	$ 58,500.00	$ 58,500.00	0%
17	130300	PREPARE STORM WATER POLLUTION PREVENTION PLAN	LS	1	$ 6,000.00	$ 6,000.00	0%
18	130310	RAIN EVENT ACTION PLAN	EA	9	$ 500.00	$ 4,500.00	0%
19	130320	STORM WATER SAMPLING AND ANALYSIS DAY	EA	30	$ 3,225.00	$ 96,750.00	0%
20	130330	STORM WATER ANNUAL REPORT	EA	2	$ 2,000.00	$ 4,000.00	0%
21	130500	TEMPORARY EROSION CONTROL BLANKET	SQYD	4480	$ 3.40	$ 15,232.00	0%
22	130530	TEMPORARY HYDRAULIC MULCH (BONDED FIBER MATRIX)	SQYD	19800	$ 0.85	$ 16,830.00	0%
23	130570	TEMPORARY COVER	SQYD	20	$ 23.00	$ 460.00	0%
24	130620	TEMPORARY DRAINAGE INLET PROTECTION	EA	70	$ 263.00	$ 18,410.00	0%
25	130640	TEMPORARY FIBER ROLL	LF	5980	$ 3.00	$ 17,940.00	0%
26	130680	TEMPORARY SILT FENCE	LF	5730	$ 4.25	$ 24,352.50	0%
27	130710	TEMPORARY CONSTRUCTION ENTRANCE	EA	3	$ 4,400.00	$ 13,200.00	0%
28	130730	STREET SWEEPING	LS	1	$ 21,900.00	$ 21,900.00	0%
29	130900	TEMPORARY CONCRETE WASHOUT	LS	1	$ 47,100.00	$ 47,100.00	0%
30	141120	TREATED WOOD WASTE	LB	26500	$ 0.35	$ 9,275.00	0%
31	146002	CONTRACTOR-SUPPLIED BIOLOGIST (LS)	LS	1	$ 25,000.00	$ 25,000.00	0%
32	146007	INVASIVE SPECIES CONTROL	LS	1	$ 5,000.00	$ 5,000.00	0%
33	148005	NOISE MONITORING	LS	1	$ 10,000.00	$ 10,000.00	0%
34	160110	TEMPORARY HIGH-VISIBILITY FENCE	LF	4160	$ 6.00	$ 24,960.00	0%
35	170103	CLEARING AND GRUBBING (LS)	LS	1	$ 50,000.00	$ 50,000.00	0%
36	190101	ROADWAY EXCAVATION	CY	11200	$ 28.00	$ 313,600.00	1%
37	192003	STRUCTURE EXCAVATION (BRIDGE)	CY	228	$ 90.00	$ 20,520.00	0%
38	192037	STRUCTURE EXCAVATION (RETAINING WALL)	CY	6804	$ 115.00	$ 782,460.00	3%
39	193003	STRUCTURE BACKFILL (BRIDGE)	CY	451	$ 100.00	$ 45,100.00	0%
40	193013	STRUCTURE BACKFILL (RETAINING WALL)	CY	4517	$ 70.00	$ 316,190.00	1%
41	193030	PERVIOUS BACKFILL MATERIAL	CY	583	$ 150.00	$ 87,450.00	0%
42	198010	IMPORTED BORROW (CY)	CY	27300	$ 24.00	$ 655,200.00	3%
43	206405	REMOVE IRRIGATION FACILITY	LS	1	$ 10,000.00	$ 10,000.00	0%
44	210280	ROLLED EROSION CONTROL PRODUCT (BLANKET)	SQFT	20800	$ 1.15	$ 23,920.00	0%
45	210300	HYDROMULCH	SQFT	165000	$ 0.10	$ 16,500.00	0%
46	210350	FIBER ROLLS	LF	7730	$ 4.00	$ 30,920.00	0%
47	210420	STRAW	SQFT	165000	$ 0.10	$ 16,500.00	0%
48	210430	HYDROSEED	SQFT	165000	$ 0.15	$ 24,750.00	0%
49	210610	COMPOST (CY)	CY	2030	$ 50.00	$ 101,500.00	0%
50	210630	INCORPORATE MATERIALS	SQFT	165000	$ 0.20	$ 33,000.00	0%
51	250201	CLASS 2 AGGREGATE SUBBASE	CY	4160	$ 40.00	$ 166,400.00	1%
52	260203	CLASS 2 AGGREGATE BASE (CY)	CY	1300	$ 80.00	$ 104,000.00	0%
53	280000	LEAN CONCRETE BASE	CY	1840	$ 220.00	$ 404,800.00	2%
54	377501	SLURRY SEAL	TON	23	$ 250.00	$ 5,750.00	0%
55	390100	PRIME COAT	TON	2.1	$ 2,000.00	$ 4,200.00	0%
56	390132	HOT MIX ASPHALT (TYPE A)	TON	2210	$ 120.00	$ 265,200.00	1%
57	390137	RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	TON	790	$ 130.00	$ 102,700.00	0%
58	394074	PLACE HOT MIX ASPHALT DIKE (TYPE C)	LF	130	$ 10.00	$ 1,300.00	0%
59	394075	PLACE HOT MIX ASPHALT DIKE (TYPE D)	LF	220	$ 10.00	$ 2,200.00	0%
60	394077	PLACE HOT MIX ASPHALT DIKE (TYPE F)	LF	690	$ 10.00	$ 6,900.00	0%
61	397005	TACK COAT	TON	2.5	$ 1,300.00	$ 3,250.00	0%
62	398001	REMOVE ASPHALT CONCRETE PAVEMENT (SQFT)	SQFT	65100	$ 2.00	$ 130,200.00	1%
63	398100	REMOVE ASPHALT CONCRETE DIKE	LF	2080	$ 10.00	$ 20,800.00	0%
64	398200	COLD PLANE ASPHALT CONCRETE PAVEMENT	SQYD	3950	$ 15.00	$ 59,250.00	0%
65	401050	JOINTED PLAIN CONCRETE PAVEMENT	CY	6110	$ 280.00	$ 1,710,800.00	7%
66	414241	ISOLATION JOINT SEAL (SILICONE)	LF	6730	$ 10.00	$ 67,300.00	0%
67	418006	REMOVE CONCRETE PAVEMENT (CY)	CY	2920	$ 180.00	$ 525,600.00	2%
68	420201	GRIND EXISTING CONCRETE PAVEMENT	SQYD	8980	$ 8.00	$ 71,840.00	0%
69	460200	GROUND ANCHOR (VERTICAL)	EA	33	$ 3,550.00	$ 117,150.00	0%
70	477022	MECHANICALLY STABILIZED EMBANKMENT, LOCATION B	SQFT	4581	$ 90.00	$ 412,290.00	2%
71	477023	MECHANICALLY STABILIZED EMBANKMENT, LOCATION C	SQFT	4306	$ 90.00	$ 387,540.00	2%
72	490528	FURNISH STEEL PILING (HP 14 X 89)	LF	18100	$ 55.00	$ 995,500.00	4%
73	490529	DRIVE STEEL PILE (HP 14 X 89)	EA	730	$ 2,500.00	$ 1,825,000.00	7%
74	490780	FURNISH PILING (CLASS 200)	LF	1390	$ 55.00	$ 76,450.00	0%
75	490781	DRIVE PILE (CLASS 200)	EA	62	$ 2,500.00	$ 155,000.00	1%
76	510051	STRUCTURAL CONCRETE, BRIDGE FOOTING	CY	18	$ 500.00	$ 9,000.00	0%
77	510053	STRUCTURAL CONCRETE, BRIDGE	CY	200	$ 1,100.00	$ 220,000.00	1%
78	510054	STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER)	CY	21	$ 1,100.00	$ 23,100.00	0%
79	510060	STRUCTURAL CONCRETE, RETAINING WALL	CY	4489	$ 650.00	$ 2,917,850.00	11%
80	510094	STRUCTURAL CONCRETE, DRAINAGE INLET	CY	61.5	$ 3,000.00	$ 184,500.00	1%
81	510502	MINOR CONCRETE (MINOR STRUCTURE)	CY	3.4	$ 2,000.00	$ 6,800.00	0%
82	511055	CONCRETE SURFACE TEXTURE	SQFT	16438	$ 15.00	$ 246,570.00	1%
83	511106	DRILL AND BOND DOWEL	LF	57	$ 30.00	$ 1,710.00	0%
84	520102	BAR REINFORCING STEEL (BRIDGE)	LB	55381	$ 1.10	$ 60,919.10	0%
85	520103	BAR REINFORCING STEEL (RETAINING WALL)	LB	505451	$ 1.10	$ 555,996.10	2%
86	520115	BAR REINFORCING STEEL (GALVANIZED)	LB	1603	$ 1.20	$ 1,923.60	0%
87	560208	FURNISH SIGN STRUCTURE (TUBULAR)	LB	49130	$ 5.00	$ 245,650.00	1%
88	560209	INSTALL SIGN STRUCTURE (TUBULAR)	LB	49130	$ 0.50	$ 24,565.00	0%
89	568046	REMOVE SIGN STRUCTURE (EA)	EA	3	$ 3,000.00	$ 9,000.00	0%
90	600114	BRIDGE REMOVAL (PORTION)	LS	1	$ 7,000.00	$ 7,000.00	0%
91	600130A	RETAINING WALL REMOVAL (PORTION), LOCATION A	LS	1	$ 100,000.00	$ 100,000.00	0%
92	600130B	RETAINING WALL REMOVAL (PORTION), LOCATION B	LS	1	$ 30,000.00	$ 30,000.00	0%
93	600130C	RETAINING WALL REMOVAL (PORTION), LOCATION C	LS	1	$ 105,000.00	$ 105,000.00	0%
94	600130R	RETAINING WALL REMOVAL (PORTION), LOCATION D	LS	1	$ 60,000.00	$ 60,000.00	0%
95	610108	18" ALTERNATIVE PIPE CULVERT	LF	170	$ 200.00	$ 34,000.00	0%
96	610300	CONCRETE BACKFILL (PIPE TRENCH)	CY	20.2	$ 125.00	$ 2,525.00	0%
97	650014	18" REINFORCED CONCRETE PIPE	LF	270	$ 181.00	$ 48,870.00	0%
98	650018	24" REINFORCED CONCRETE PIPE	LF	1470	$ 200.00	$ 294,000.00	1%
99	652316	24" REINFORCED CONCRETE PIPE (CLASS III, RUBBER GASKET J(	LF	280	$ 250.00	$ 70,000.00	0%
100	665023	24" CORRUGATED STEEL PIPE (.079" THICK)	LF	64	$ 200.00	$ 12,800.00	0%
101	665036	36" CORRUGATED STEEL PIPE (.079" THICK)	LF	13	$ 350.00	$ 4,550.00	0%
102	681132	GEOCOMPOSITE DRAIN	SQFT	1480	$ 3.00	$ 4,440.00	0%
103	700617	DRAINAGE INLET MARKER	EA	2	$ 163.00	$ 326.00	0%
104	703211	12" CORRUGATED STEEL PIPE RISER (.079" THICK)	LF	10	$ 500.00	$ 5,000.00	0%
105	703217	18" CORRUGATED STEEL PIPE RISER (.079" THICK)	LF	42	$ 350.00	$ 14,700.00	0%

BID PRICES AND AMOUNTS

Item Num	Low Bidder OHL USA, Inc.			Second Bidder Walsh Construction Co.			Third Bidder Griffith Company		
	Unit Price	Total	% VAR of EE	Unit Price	Total	% VAR of EE	Unit Price	Total	% VAR of EE
1	$7,500.00	$7,500.00	-25%	$1,000.00	$1,000.00	-90%	$3,300.00	$3,300.00	-67%
2	$10,000.00	$10,000.00	0%	$9,000.00	$9,000.00	-10%	$24,000.00	$24,000.00	140%
3	$5,200.00	$1,300,000.00	-39%	$1,500.00	$375,000.00	-82%	$575.00	$143,750.00	-93%
4	$20,000.00	$20,000.00	-20%	$34,450.00	$34,450.00	38%	$20,000.00	$20,000.00	-20%
5	$220,000.00	$220,000.00	-10%	$265,000.00	$265,000.00	8%	$655,000.00	$655,000.00	167%
6	$12,600.00	$12,600.00	-84%	$185,000.00	$185,000.00	141%	$200,000.00	$200,000.00	161%
7	$92.00	$276.00	-29%	$200.00	$600.00	54%	$111.00	$333.00	-15%
8	$2.25	$382.50	-55%	$2.00	$340.00	-60%	$4.50	$765.00	-10%
9	$0.28	$13,356.00	-30%	$0.25	$11,925.00	-38%	$0.28	$13,356.00	-30%
10	$45.00	$270.00	-25%	$50.00	$300.00	-17%	$50.00	$300.00	-17%
11	$2.25	$2,047.50	-50%	$2.00	$1,820.00	-56%	$5.60	$5,096.00	24%
12	$27,000.00	$27,000.00	-61%	$40,000.00	$40,000.00	-43%	$103,000.00	$103,000.00	47%
13	$15.00	$282,000.00	15%	$18.00	$338,400.00	38%	$13.50	$253,800.00	4%
14	$7,800.00	$23,400.00	95%	$9,000.00	$27,000.00	125%	$10,000.00	$30,000.00	150%
15	$3.90	$73,320.00	15%	$4.00	$75,200.00	18%	$2.88	$54,144.00	-15%
16	$23,000.00	$23,000.00	-61%	$100,000.00	$100,000.00	71%	$15,000.00	$15,000.00	-74%
17	$7,500.00	$7,500.00	25%	$1,750.00	$1,750.00	-71%	$3,500.00	$3,500.00	-42%
18	$260.00	$2,340.00	-48%	$250.00	$2,250.00	-50%	$560.00	$5,040.00	12%
19	$420.00	$12,600.00	-87%	$200.00	$6,000.00	-94%	$280.00	$8,400.00	-91%
20	$2,100.00	$4,200.00	5%	$500.00	$1,000.00	-75%	$900.00	$1,800.00	-55%
21	$3.60	$16,128.00	6%	$7.00	$31,360.00	106%	$3.75	$16,800.00	10%
22	$0.70	$13,860.00	-18%	$1.00	$19,800.00	18%	$0.73	$14,454.00	-14%
23	$50.00	$1,000.00	117%	$10.00	$200.00	-57%	$32.00	$640.00	39%
24	$200.00	$14,000.00	-24%	$300.00	$21,000.00	14%	$280.00	$19,600.00	6%
25	$3.04	$18,179.20	1%	$5.00	$29,900.00	67%	$3.15	$18,837.00	5%
26	$3.04	$17,419.20	-28%	$4.00	$22,920.00	-6%	$4.00	$22,920.00	-6%
27	$5,600.00	$16,800.00	27%	$10,000.00	$30,000.00	127%	$7,600.00	$22,800.00	73%
28	$140,000.00	$140,000.00	539%	$150,000.00	$150,000.00	585%	$20,000.00	$20,000.00	-9%
29	$43,000.00	$43,000.00	-9%	$30,000.00	$30,000.00	-36%	$15,000.00	$15,000.00	-68%
30	$0.20	$5,300.00	-43%	$0.15	$3,975.00	-57%	$0.20	$5,300.00	-43%
31	$54,000.00	$54,000.00	116%	$20,000.00	$20,000.00	-20%	$25,000.00	$25,000.00	0%
32	$25,000.00	$25,000.00	400%	$150,000.00	$150,000.00	2900%	$10,000.00	$10,000.00	100%
33	$20,000.00	$20,000.00	100%	$2,000.00	$2,000.00	-80%	$5,000.00	$5,000.00	-50%
34	$2.60	$10,816.00	-57%	$4.00	$16,640.00	-33%	$5.00	$20,800.00	-17%
35	$45,000.00	$45,000.00	-10%	$56,000.00	$56,000.00	12%	$58,000.00	$58,000.00	16%
36	$29.00	$324,800.00	4%	$25.00	$280,000.00	-11%	$32.00	$358,400.00	14%
37	$42.00	$9,576.00	-53%	$65.00	$14,820.00	-28%	$90.00	$20,520.00	0%
38	$75.00	$510,300.00	-35%	$56.00	$381,024.00	-51%	$76.00	$517,104.00	-34%
39	$37.00	$16,687.00	-63%	$35.00	$15,785.00	-65%	$82.00	$36,982.00	-18%
40	$25.00	$112,925.00	-64%	$34.00	$153,578.00	-51%	$90.00	$406,530.00	29%
41	$55.00	$32,065.00	-63%	$95.00	$55,385.00	-37%	$103.00	$60,049.00	-31%
42	$5.00	$136,500.00	-79%	$20.00	$546,000.00	-17%	$2.06	$56,238.00	-91%
43	$2,525.00	$2,525.00	-75%	$2,500.00	$2,500.00	-75%	$3,000.00	$3,000.00	-70%
44	$0.61	$12,688.00	-47%	$0.60	$12,480.00	-48%	$0.64	$13,312.00	-44%
45	$0.03	$4,950.00	-70%	$0.03	$4,950.00	-70%	$0.04	$6,600.00	-60%
46	$3.05	$23,576.50	-24%	$3.80	$29,374.00	-5%	$3.30	$25,509.00	-18%
47	$0.07	$11,550.00	-30%	$0.07	$11,550.00	-30%	$0.08	$13,200.00	-20%
48	$0.05	$8,250.00	-67%	$0.05	$8,250.00	-67%	$0.06	$9,900.00	-60%
49	$50.50	$102,515.00	1%	$50.00	$101,500.00	0%	$53.00	$107,590.00	6%
50	$0.04	$6,600.00	-80%	$0.04	$6,600.00	-80%	$0.05	$8,250.00	-75%
51	$16.50	$68,640.00	-59%	$37.00	$153,920.00	-8%	$38.00	$158,080.00	-5%
52	$72.00	$93,600.00	-10%	$72.00	$93,600.00	-10%	$64.40	$83,720.00	-20%
53	$150.00	$276,000.00	-32%	$260.00	$478,400.00	18%	$189.00	$347,760.00	-14%
54	$3,000.00	$69,000.00	1100%	$525.00	$12,075.00	110%	$3,400.00	$78,200.00	1260%
55	$1,570.00	$3,297.00	-22%	$1,200.00	$2,520.00	-40%	$1,400.00	$2,940.00	-30%
56	$120.00	$265,200.00	0%	$105.00	$232,050.00	-13%	$110.00	$243,100.00	-8%
57	$114.00	$90,060.00	-12%	$105.00	$82,950.00	-19%	$108.00	$85,320.00	-17%
58	$9.00	$1,170.00	-10%	$5.05	$656.50	-50%	$13.00	$1,690.00	30%
59	$9.00	$1,980.00	-10%	$5.05	$1,111.00	-50%	$13.00	$2,860.00	30%
60	$9.00	$6,210.00	-10%	$5.05	$3,484.50	-50%	$13.00	$8,970.00	30%
61	$2,900.00	$7,250.00	123%	$750.00	$1,875.00	-42%	$900.00	$2,250.00	-31%
62	$0.65	$42,315.00	-68%	$1.65	$107,415.00	-18%	$0.78	$50,778.00	-61%
63	$2.70	$5,616.00	-73%	$1.75	$3,640.00	-83%	$3.65	$7,592.00	-64%
64	$5.20	$20,540.00	-65%	$5.85	$23,107.50	-61%	$3.80	$15,010.00	-75%
65	$295.00	$1,802,450.00	5%	$275.00	$1,680,250.00	-2%	$275.00	$1,680,250.00	-2%
66	$7.30	$49,129.00	-27%	$4.06	$27,323.80	-59%	$9.60	$64,608.00	-4%
67	$40.00	$116,800.00	-78%	$60.00	$175,200.00	-67%	$21.50	$62,780.00	-88%
68	$9.00	$80,820.00	13%	$3.50	$31,430.00	-56%	$3.55	$31,879.00	-56%
69	$5,745.00	$189,585.00	62%	$3,000.00	$99,000.00	-15%	$7,500.00	$247,500.00	111%
70	$92.00	$421,452.00	2%	$65.00	$297,765.00	-28%	$78.00	$357,318.00	-13%
71	$82.00	$353,092.00	-9%	$65.00	$279,890.00	-28%	$82.00	$353,092.00	-9%
72	$45.00	$814,500.00	-18%	$42.00	$760,200.00	-24%	$45.00	$814,500.00	-18%
73	$1,300.00	$949,000.00	-48%	$850.00	$620,500.00	-66%	$1,033.00	$754,090.00	-59%
74	$30.00	$41,700.00	-45%	$66.00	$91,740.00	20%	$71.00	$98,690.00	29%
75	$1,300.00	$80,600.00	-48%	$1,400.00	$86,800.00	-44%	$1,800.00	$111,600.00	-28%
76	$800.00	$14,400.00	60%	$1,100.00	$19,800.00	120%	$820.00	$14,760.00	64%
77	$600.00	$120,000.00	-45%	$1,000.00	$200,000.00	-9%	$1,150.00	$230,000.00	5%
78	$2,000.00	$42,000.00	82%	$1,700.00	$35,700.00	55%	$336.00	$7,056.00	-69%
79	$445.00	$1,997,605.00	-32%	$560.00	$2,513,840.00	-14%	$517.00	$2,320,813.00	-20%
80	$1,350.00	$83,025.00	-55%	$2,980.00	$183,270.00	-1%	$2,500.00	$153,750.00	-17%
81	$1,100.00	$3,740.00	-45%	$990.00	$3,366.00	-51%	$1,050.00	$3,570.00	-48%
82	$12.00	$197,256.00	-20%	$13.00	$213,694.00	-13%	$27.00	$443,826.00	80%
83	$51.00	$2,907.00	70%	$36.00	$2,052.00	20%	$85.00	$4,845.00	183%
84	$0.96	$53,165.76	-13%	$1.15	$63,688.15	5%	$2.00	$110,762.00	82%
85	$1.00	$505,451.00	-9%	$1.15	$581,268.65	5%	$1.30	$657,086.30	18%
86	$2.60	$4,167.80	117%	$3.00	$4,809.00	150%	$2.35	$3,767.05	96%
87	$4.60	$225,998.00	-8%	$4.00	$196,520.00	-20%	$4.60	$225,998.00	-8%
88	$0.75	$36,847.50	50%	$0.50	$24,565.00	0%	$0.70	$34,391.00	40%
89	$9,700.00	$29,100.00	223%	$6,000.00	$18,000.00	100%	$9,000.00	$27,000.00	200%
90	$15,000.00	$15,000.00	114%	$10,000.00	$10,000.00	43%	$29,000.00	$29,000.00	314%
91	$140,000.00	$140,000.00	40%	$150,000.00	$150,000.00	50%	$115,000.00	$115,000.00	15%
92	$46,000.00	$46,000.00	53%	$12.00	$12.00	-100%	$75,000.00	$75,000.00	150%
93	$150,000.00	$150,000.00	43%	$150,000.00	$150,000.00	43%	$143,000.00	$143,000.00	36%
94	$90,000.00	$90,000.00	50%	$85,000.00	$85,000.00	42%	$53,000.00	$53,000.00	-12%
95	$38.00	$6,460.00	-81%	$128.00	$21,760.00	-36%	$103.00	$17,510.00	-49%
96	$150.00	$3,030.00	20%	$350.00	$7,070.00	180%	$333.00	$6,726.60	166%
97	$80.00	$21,600.00	-56%	$120.00	$32,400.00	-34%	$97.00	$26,190.00	-46%
98	$85.00	$124,950.00	-58%	$127.00	$186,690.00	-37%	$98.00	$144,060.00	-51%
99	$110.00	$30,800.00	-56%	$129.00	$36,120.00	-48%	$100.00	$28,000.00	-60%
100	$165.00	$10,560.00	-18%	$187.00	$11,968.00	-7%	$161.00	$10,304.00	-20%
101	$540.00	$7,020.00	54%	$569.00	$7,397.00	63%	$533.00	$6,929.00	52%
102	$3.50	$5,180.00	17%	$2.00	$2,960.00	-33%	$25.00	$37,000.00	733%
103	$35.00	$70.00	-79%	$350.00	$700.00	115%	$320.00	$640.00	96%
104	$360.00	$3,600.00	-28%	$263.00	$2,630.00	-47%	$255.00	$2,550.00	-49%
105	$510.00	$21,420.00	46%	$280.00	$11,760.00	-20%	$265.00	$11,130.00	-24%

Average of Bid Amounts

Item Num	Unit Price	Total	% of Total	% VAR of EE
1	$3,933.33	$3,933.33	0%	-61%
2	$14,333.33	$14,333.33	0%	43%
3	$2,425.00	$606,250.00	2%	-71%
4	$24,816.67	$24,816.67	0%	-1%
5	$380,000.00	$380,000.00	1%	55%
6	$132,533.33	$132,533.33	1%	73%
7	$134.33	$403.00	0%	3%
8	$2.92	$495.83	0%	-42%
9	$0.27	$12,879.00	0%	-33%
10	$48.33	$290.00	0%	-19%
11	$3.28	$2,987.83	0%	-27%
12	$56,666.67	$56,666.67	0%	-19%
13	$15.50	$291,400.00	1%	19%
14	$8,933.33	$26,800.00	0%	123%
15	$3.59	$67,554.67	0%	6%
16	$46,000.00	$46,000.00	0%	-21%
17	$4,250.00	$4,250.00	0%	-29%
18	$356.67	$3,210.00	0%	-29%
19	$300.00	$9,000.00	0%	-91%
20	$1,166.67	$2,333.33	0%	-42%
21	$4.78	$21,429.33	0%	41%
22	$0.81	$16,038.00	0%	-5%
23	$30.67	$613.33	0%	33%
24	$260.00	$18,200.00	0%	-1%
25	$3.73	$22,305.40	0%	24%
26	$3.68	$21,086.40	0%	-13%
27	$7,733.33	$23,200.00	0%	76%
28	$103,333.33	$103,333.33	0%	372%
29	$29,333.33	$29,333.33	0%	-38%
30	$0.18	$4,858.33	0%	-48%
31	$33,000.00	$33,000.00	0%	32%
32	$61,666.67	$61,666.67	0%	1133%
33	$9,000.00	$9,000.00	0%	-10%
34	$3.87	$16,085.33	0%	-36%
35	$53,000.00	$53,000.00	0%	6%
36	$28.67	$321,066.67	1%	2%
37	$65.67	$14,972.00	0%	-27%
38	$69.00	$469,476.00	2%	-40%
39	$51.33	$23,151.33	0%	-49%
40	$49.67	$224,344.33	1%	-29%
41	$84.33	$49,166.33	0%	-44%
42	$9.02	$246,246.00	1%	-62%
43	$2,675.00	$2,675.00	0%	-73%
44	$0.62	$12,826.67	0%	-46%
45	$0.03	$5,500.00	0%	-67%
46	$3.38	$26,153.17	0%	-15%
47	$0.07	$12,100.00	0%	-27%
48	$0.05	$8,800.00	0%	-64%
49	$51.17	$103,868.33	0%	2%
50	$0.04	$7,150.00	0%	-78%
51	$30.50	$126,880.00	0%	-24%
52	$69.47	$90,306.67	0%	-13%
53	$199.67	$367,386.67	1%	-9%
54	$2,308.33	$53,091.67	0%	823%
55	$1,390.00	$2,919.00	0%	-31%
56	$111.67	$246,783.33	1%	-7%
57	$109.00	$86,110.00	0%	-16%
58	$9.02	$1,172.17	0%	-10%
59	$9.02	$1,983.67	0%	-10%
60	$9.02	$6,221.50	0%	-10%
61	$1,516.67	$3,791.67	0%	17%
62	$1.03	$66,836.00	0%	-49%
63	$2.70	$5,616.00	0%	-73%
64	$4.95	$19,552.50	0%	-67%
65	$281.67	$1,720,983.33	7%	1%
66	$6.99	$47,020.27	0%	-30%
67	$40.50	$118,260.00	0%	-78%
68	$5.35	$48,043.00	0%	-33%
69	$5,415.00	$178,695.00	1%	53%
70	$78.33	$358,845.00	1%	-13%
71	$76.33	$328,691.33	1%	-15%
72	$44.00	$796,400.00	3%	-20%
73	$1,061.00	$774,530.00	3%	-58%
74	$55.67	$77,376.67	0%	1%
75	$1,500.00	$93,000.00	0%	-40%
76	$906.67	$16,320.00	0%	81%
77	$916.67	$183,333.33	1%	-17%
78	$1,345.33	$28,252.00	0%	22%
79	$507.33	$2,277,419.33	9%	-22%
80	$2,276.67	$140,015.00	1%	-24%
81	$1,046.67	$3,558.67	0%	-48%
82	$17.33	$284,925.33	1%	16%
83	$57.33	$3,268.00	0%	91%
84	$1.37	$75,871.97	0%	25%
85	$1.15	$581,268.65	2%	5%
86	$2.65	$4,247.95	0%	121%
87	$4.40	$216,172.00	1%	-12%
88	$0.65	$31,934.50	0%	30%
89	$8,233.33	$24,700.00	0%	174%
90	$18,000.00	$18,000.00	0%	157%
91	$135,000.00	$135,000.00	1%	35%
92	$40,337.33	$40,337.33	0%	34%
93	$147,666.67	$147,666.67	1%	41%
94	$76,000.00	$76,000.00	0%	27%
95	$89.67	$15,243.33	0%	-55%
96	$277.67	$5,608.87	0%	122%
97	$99.00	$26,730.00	0%	-45%
98	$103.33	$151,900.00	1%	-48%
99	$113.00	$31,640.00	0%	-55%
100	$171.00	$10,944.00	0%	-15%
101	$547.33	$7,115.33	0%	56%
102	$10.17	$15,046.67	0%	239%
103	$235.00	$470.00	0%	44%
104	$292.67	$2,926.67	0%	-41%
105	$351.67	$14,770.00	0%	0%

VARIANCE FROM AVERAGE OF BIDS

Item Num	OHL USA, Inc.			Walsh Construction Co.			Griffith Company		
	Unit Price	Total	% VAR to AVE	Unit Price	Total	% VAR to AVE	Unit Price	Total	% VAR to AVE
1	$3,566.67	$3,566.67	91%	($2,933.33)	($2,933.33)	-75%	($633.33)	($633.33)	-16%
2	($4,333.33)	($4,333.33)	-30%	($5,333.33)	($5,333.33)	-37%	$9,666.67	$9,666.67	67%
3	$2,775.00	$693,750.00	114%	($925.00)	($231,250.00)	-38%	($1,850.00)	($462,500.00)	-76%
4	($4,816.67)	($4,816.67)	-19%	$9,633.33	$9,633.33	39%	($4,816.67)	($4,816.67)	-19%
5	($160,000.00)	($160,000.00)	-42%	($115,000.00)	($115,000.00)	-30%	$275,000.00	$275,000.00	72%
6	($119,933.33)	($119,933.33)	-90%	$52,466.67	$52,466.67	40%	$67,466.67	$67,466.67	51%
7	($42.33)	($127.00)	-32%	$65.67	$197.00	49%	($23.33)	($70.00)	-17%
8	($0.67)	($113.33)	-23%	($0.92)	($155.83)	-31%	$1.58	$269.17	54%
9	$0.01	$477.00	4%	($0.02)	($954.00)	-7%	$0.01	$477.00	4%
10	($3.33)	($20.00)	-7%	$1.67	$10.00	3%	$1.67	$10.00	3%
11	($1.03)	($940.33)	-31%	($1.28)	($1,167.83)	-39%	$2.32	$2,108.17	71%
12	($29,666.67)	($29,666.67)	-52%	($16,666.67)	($16,666.67)	-29%	$46,333.33	$46,333.33	82%
13	($0.50)	($9,400.00)	-3%	$2.50	$47,000.00	16%	($2.00)	($37,600.00)	-13%
14	($1,133.33)	($3,400.00)	-13%	$66.67	$200.00	1%	$1,066.67	$3,200.00	12%
15	$0.31	$5,765.33	9%	$0.41	$7,645.33	11%	($0.71)	($13,410.67)	-20%
16	($23,000.00)	($23,000.00)	-50%	$54,000.00	$54,000.00	117%	($31,000.00)	($31,000.00)	-67%
17	$3,250.00	$3,250.00	76%	($2,500.00)	($2,500.00)	-59%	($750.00)	($750.00)	-18%
18	($96.67)	($870.00)	-27%	($106.67)	($960.00)	-30%	$203.33	$1,830.00	57%
19	$120.00	$3,600.00	40%	($100.00)	($3,000.00)	-33%	($20.00)	($600.00)	-7%
20	$933.33	$1,866.67	80%	($666.67)	($1,333.33)	-57%	($266.67)	($533.33)	-23%
21	($1.18)	($5,301.33)	-25%	$2.22	$9,930.67	46%	($1.03)	($4,629.33)	-22%
22	($0.11)	($2,178.00)	-14%	$0.19	$3,762.00	23%	($0.08)	($1,584.00)	-10%
23	$19.33	$386.67	63%	($20.67)	($413.33)	-67%	$1.33	$26.67	4%
24	($60.00)	($4,200.00)	-23%	$40.00	$2,800.00	15%	$20.00	$1,400.00	8%
25	($0.69)	($4,126.20)	-18%	$1.27	$7,594.60	34%	($0.58)	($3,468.40)	-16%
26	($0.64)	($3,667.20)	-17%	$0.32	$1,833.60	9%	$0.32	$1,833.60	9%
27	($2,133.33)	($6,400.00)	-28%	$2,266.67	$6,800.00	29%	($133.33)	($400.00)	-2%
28	$36,666.67	$36,666.67	35%	$46,666.67	$46,666.67	45%	($83,333.33)	($83,333.33)	-81%
29	$13,666.67	$13,666.67	47%	$666.67	$666.67	2%	($14,333.33)	($14,333.33)	-49%
30	$0.02	$441.67	9%	($0.03)	($883.33)	-18%	$0.02	$441.67	9%
31	$21,000.00	$21,000.00	64%	($13,000.00)	($13,000.00)	-39%	($8,000.00)	($8,000.00)	-24%
32	($36,666.67)	($36,666.67)	-59%	$88,333.33	$88,333.33	143%	($51,666.67)	($51,666.67)	-84%
33	$11,000.00	$11,000.00	122%	($7,000.00)	($7,000.00)	-78%	($4,000.00)	($4,000.00)	-44%
34	($1.27)	($5,269.33)	-33%	$0.13	$554.67	3%	$1.13	$4,714.67	29%
35	($8,000.00)	($8,000.00)	-15%	$3,000.00	$3,000.00	6%	$5,000.00	$5,000.00	9%
36	$0.33	$3,733.33	1%	($3.67)	($41,066.67)	-13%	$3.33	$37,333.33	12%
37	($23.67)	($5,396.00)	-36%	($0.67)	($152.00)	-1%	$24.33	$5,548.00	37%
38	$6.00	$40,824.00	9%	($13.00)	($88,452.00)	-19%	$7.00	$47,628.00	10%
39	($14.33)	($6,464.33)	-28%	($16.33)	($7,366.33)	-32%	$30.67	$13,830.67	60%
40	($24.67)	($111,419.33)	-50%	($15.67)	($70,766.33)	-32%	$40.33	$182,185.67	81%
41	($29.33)	($17,101.33)	-35%	$10.67	$6,218.67	13%	$18.67	$10,882.67	22%
42	($4.02)	($109,746.00)	-45%	$10.98	$299,754.00	122%	($6.96)	($190,008.00)	-77%
43	($150.00)	($150.00)	-6%	($175.00)	($175.00)	-7%	$325.00	$325.00	12%
44	($0.01)	($138.67)	-1%	($0.02)	($346.67)	-3%	$0.02	$485.33	4%
45	($0.00)	($550.00)	-10%	($0.00)	($550.00)	-10%	$0.01	$1,100.00	20%
46	($0.33)	($2,576.67)	-10%	$0.42	$3,220.83	12%	($0.08)	($644.17)	-2%
47	($0.00)	($550.00)	-5%	($0.00)	($550.00)	-5%	$0.01	$1,100.00	9%
48	($0.00)	($550.00)	-6%	($0.00)	($550.00)	-6%	$0.01	$1,100.00	13%
49	($0.67)	($1,353.33)	-1%	($1.17)	($2,368.33)	-2%	$1.83	$3,721.67	4%
50	($0.00)	($550.00)	-8%	($0.00)	($550.00)	-8%	$0.01	$1,100.00	15%
51	($14.00)	($58,240.00)	-46%	$6.50	$27,040.00	21%	$7.50	$31,200.00	25%
52	$2.53	$3,293.33	4%	$2.53	$3,293.33	4%	($5.07)	($6,586.67)	-7%
53	($49.67)	($91,386.67)	-25%	$60.33	$111,013.33	30%	($10.67)	($19,626.67)	-5%
54	$691.67	$15,908.33	30%	($1,783.33)	($41,016.67)	-77%	$1,091.67	$25,108.33	47%
55	$180.00	$378.00	13%	($190.00)	($399.00)	-14%	$10.00	$21.00	1%
56	$8.33	$18,416.67	7%	($6.67)	($14,733.33)	-6%	($1.67)	($3,683.33)	-1%
57	$5.00	$3,950.00	5%	($4.00)	($3,160.00)	-4%	($1.00)	($790.00)	-1%
58	($0.02)	($2.17)	0%	($3.97)	($515.67)	-44%	$3.98	$517.83	44%
59	($0.02)	($3.67)	0%	($3.97)	($872.67)	-44%	$3.98	$876.33	44%
60	($0.02)	($11.50)	0%	($3.97)	($2,737.00)	-44%	$3.98	$2,748.50	44%
61	$1,383.33	$3,458.33	91%	($766.67)	($1,916.67)	-51%	($616.67)	($1,541.67)	-41%
62	($0.38)	($24,521.00)	-37%	$0.62	$40,579.00	61%	($0.25)	($16,058.00)	-24%
63	$0.00	$0.00	0%	($0.95)	($1,976.00)	-35%	$0.95	$1,976.00	35%
64	$0.25	$987.50	5%	$0.90	$3,555.00	18%	($1.15)	($4,542.50)	-23%
65	$13.33	$81,466.67	5%	($6.67)	($40,733.33)	-2%	($6.67)	($40,733.33)	-2%
66	$0.31	$2,108.73	4%	($2.93)	($19,696.47)	-42%	$2.61	$17,587.73	37%
67	($0.50)	($1,460.00)	-1%	$19.50	$56,940.00	48%	($19.00)	($55,480.00)	-47%
68	$3.65	$32,777.00	68%	($1.85)	($16,613.00)	-35%	($1.80)	($16,164.00)	-34%
69	$330.00	$10,890.00	6%	($2,415.00)	($79,695.00)	-45%	$2,085.00	$68,805.00	39%
70	$13.67	$62,607.00	17%	($13.33)	($61,080.00)	-17%	($0.33)	($1,527.00)	0%
71	$5.67	$24,400.67	7%	($11.33)	($48,801.33)	-15%	$5.67	$24,400.67	7%
72	$1.00	$18,100.00	2%	($2.00)	($36,200.00)	-5%	$1.00	$18,100.00	2%
73	$239.00	$174,470.00	23%	($211.00)	($154,030.00)	-20%	($28.00)	($20,440.00)	-3%
74	($25.67)	($35,676.67)	-46%	$10.33	$14,363.33	19%	$15.33	$21,313.33	28%
75	($200.00)	($12,400.00)	-13%	($100.00)	($6,200.00)	-7%	$300.00	$18,600.00	20%
76	($106.67)	($1,920.00)	-12%	$193.33	$3,480.00	21%	($86.67)	($1,560.00)	-10%
77	($316.67)	($63,333.33)	-35%	$83.33	$16,666.67	9%	$233.33	$46,666.67	25%
78	$654.67	$13,748.00	49%	$354.67	$7,448.00	26%	($1,009.33)	($21,196.00)	-75%
79	($62.33)	($279,814.33)	-12%	$52.67	$236,420.67	10%	$9.67	$43,393.67	2%
80	($926.67)	($56,990.00)	-41%	$703.33	$43,255.00	31%	$223.33	$13,735.00	10%
81	$53.33	$181.33	5%	($56.67)	($192.67)	-5%	$3.33	$11.33	0%
82	($5.33)	($87,669.33)	-31%	($4.33)	($71,231.33)	-25%	$9.67	$158,900.67	56%
83	($6.33)	($361.00)	-11%	($21.33)	($1,216.00)	-37%	$27.67	$1,577.00	48%
84	($0.41)	($22,706.21)	-30%	($0.22)	($12,183.82)	-16%	$0.63	$34,890.03	46%
85	($0.15)	($75,817.65)	-13%	$0.00	$0.00	0%	$0.15	$75,817.65	13%
86	($0.05)	($80.15)	-2%	$0.35	$561.05	13%	($0.30)	($480.90)	-11%
87	$0.20	$9,826.00	5%	($0.40)	($19,652.00)	-9%	$0.20	$9,826.00	5%
88	$0.10	$4,913.00	15%	($0.15)	($7,369.50)	-23%	$0.05	$2,456.50	8%
89	$1,466.67	$4,400.00	18%	($2,233.33)	($6,700.00)	-27%	$766.67	$2,300.00	9%
90	($3,000.00)	($3,000.00)	-17%	($8,000.00)	($8,000.00)	-44%	$11,000.00	$11,000.00	61%
91	$5,000.00	$5,000.00	4%	$15,000.00	$15,000.00	11%	($20,000.00)	($20,000.00)	-15%
92	$5,662.67	$5,662.67	14%	($40,325.33)	($40,325.33)	-100%	$34,662.67	$34,662.67	86%
93	$2,333.33	$2,333.33	2%	$2,333.33	$2,333.33	2%	($4,666.67)	($4,666.67)	-3%
94	$14,000.00	$14,000.00	18%	$9,000.00	$9,000.00	12%	($23,000.00)	($23,000.00)	-30%
95	($51.67)	($8,783.33)	-58%	$38.33	$6,516.67	43%	$13.33	$2,266.67	15%
96	($127.67)	($2,578.87)	-46%	$72.33	$1,461.13	26%	$55.33	$1,117.73	20%
97	($19.00)	($5,130.00)	-19%	$21.00	$5,670.00	21%	($2.00)	($540.00)	-2%
98	($18.33)	($26,950.00)	-18%	$23.67	$34,790.00	23%	($5.33)	($7,840.00)	-5%
99	($3.00)	($840.00)	-3%	$16.00	$4,480.00	14%	($13.00)	($3,640.00)	-12%
100	($6.00)	($384.00)	-4%	$16.00	$1,024.00	9%	($10.00)	($640.00)	-6%
101	($7.33)	($95.33)	-1%	$21.67	$281.67	4%	($14.33)	($186.33)	-3%
102	($6.67)	($9,866.67)	-66%	($8.17)	($12,086.67)	-80%	$14.83	$21,953.33	146%
103	($200.00)	($400.00)	-85%	$115.00	$230.00	49%	$85.00	$170.00	36%
104	$67.33	$673.33	23%	($29.67)	($296.67)	-10%	($37.67)	($376.67)	-13%
105	$158.33	$6,650.00	45%	($71.67)	($3,010.00)	-20%	($86.67)	($3,640.00)	-25%

Spread (High Minus Low)

Price Spread	Amount Spread	% Total Ave.	Item Num
$6,500.00	$6,500.00	0%	1
$15,000.00	$15,000.00	0%	2
$4,625.00	$1,156,250.00	5%	3
$14,450.00	$14,450.00	0%	4
$435,000.00	$435,000.00	2%	5
$187,400.00	$187,400.00	1%	6
$108.00	$324.00	0%	7
$2.50	$425.00	0%	8
$0.03	$1,431.00	0%	9
$5.00	$30.00	0%	10
$3.60	$3,276.00	0%	11
$76,000.00	$76,000.00	0%	12
$4.50	$84,600.00	0%	13
$2,200.00	$6,600.00	0%	14
$1.12	$21,056.00	0%	15
$85,000.00	$85,000.00	0%	16
$5,750.00	$5,750.00	0%	17
$310.00	$2,790.00	0%	18
$220.00	$6,600.00	0%	19
$1,600.00	$3,200.00	0%	20
$3.40	$15,232.00	0%	21
$0.30	$5,940.00	0%	22
$40.00	$800.00	0%	23
$100.00	$7,000.00	0%	24
$1.96	$11,720.80	0%	25
$0.96	$5,500.80	0%	26
$4,400.00	$13,200.00	0%	27
$130,000.00	$130,000.00	1%	28
$28,000.00	$28,000.00	0%	29
$0.05	$1,325.00	0%	30
$34,000.00	$34,000.00	0%	31
$140,000.00	$140,000.00	1%	32
$18,000.00	$18,000.00	0%	33
$2.40	$9,984.00	0%	34
$13,000.00	$13,000.00	0%	35
$7.00	$78,400.00	0%	36
$48.00	$10,944.00	0%	37
$20.00	$136,080.00	1%	38
$47.00	$21,197.00	0%	39
$65.00	$293,605.00	1%	40
$48.00	$27,984.00	0%	41
$17.94	$489,762.00	2%	42
$500.00	$500.00	0%	43
$0.04	$832.00	0%	44
$0.01	$1,650.00	0%	45
$0.75	$5,797.50	0%	46
$0.01	$1,650.00	0%	47
$0.01	$1,650.00	0%	48
$3.00	$6,090.00	0%	49
$0.01	$1,650.00	0%	50
$21.50	$89,440.00	0%	51
$7.60	$9,880.00	0%	52
$110.00	$202,400.00	1%	53
$2,875.00	$66,125.00	0%	54
$370.00	$777.00	0%	55
$15.00	$33,150.00	0%	56
$9.00	$7,110.00	0%	57
$7.95	$1,033.50	0%	58
$7.95	$1,749.00	0%	59
$7.95	$5,485.50	0%	60
$2,150.00	$5,375.00	0%	61
$1.00	$65,100.00	0%	62
$1.90	$3,952.00	0%	63
$2.05	$8,097.50	0%	64
$20.00	$122,200.00	0%	65
$5.54	$37,284.20	0%	66
$38.50	$112,420.00	0%	67
$5.50	$49,390.00	0%	68
$4,500.00	$148,500.00	1%	69
$27.00	$123,687.00	0%	70
$17.00	$73,202.00	0%	71
$3.00	$54,300.00	0%	72
$450.00	$328,500.00	1%	73
$41.00	$56,990.00	0%	74
$500.00	$31,000.00	0%	75
$300.00	$5,400.00	0%	76
$550.00	$110,000.00	0%	77
$1,664.00	$34,944.00	0%	78
$115.00	$516,235.00	2%	79
$1,630.00	$100,245.00	0%	80
$110.00	$374.00	0%	81
$15.00	$246,570.00	1%	82
$49.00	$2,793.00	0%	83
$1.04	$57,596.24	0%	84
$0.30	$151,635.30	1%	85
$0.65	$1,041.95	0%	86
$0.60	$29,478.00	0%	87
$0.25	$12,282.50	0%	88
$3,700.00	$11,100.00	0%	89
$19,000.00	$19,000.00	0%	90
$35,000.00	$35,000.00	0%	91
$74,988.00	$74,988.00	0%	92
$7,000.00	$7,000.00	0%	93
$37,000.00	$37,000.00	0%	94
$90.00	$15,300.00	0%	95
$200.00	$4,040.00	0%	96
$40.00	$10,800.00	0%	97
$42.00	$61,740.00	0%	98
$29.00	$8,120.00	0%	99
$26.00	$1,664.00	0%	100
$36.00	$468.00	0%	101
$23.00	$34,040.00	0%	102
$315.00	$630.00	0%	103
$105.00	$1,050.00	0%	104
$245.00	$10,290.00	0%	105

Bid Results for Project RCTC - SR-91 CORRIDOR OPERATIONS PROJECT (IFB NO. 20-31-069-00)

Issued on 05/21/2020
Bid Due on July 2, 2020 2:00 PM (Pacific)

Yellow items are >$100k below Engineer's Estimate

ENGINEER'S ESTIMATE

Item Num	Item Code	Description	Unit	Quantity	Unit Price	Total	% of EE
106	707117	36" PRECAST CONCRETE PIPE INLET	LF	5.1	$ 650.00	$ 3,315.00	0%
107	710102	ABANDON CULVERT (LF)	LF	190	$ 97.00	$ 18,430.00	0%
108	710262	CAP INLET	EA	9	$ 1,900.00	$ 17,100.00	0%
109	710136	REMOVE PIPE (LF)	LF	1190	$ 113.00	$ 134,470.00	1%
110	710150	REMOVE INLET	EA	20	$ 1,500.00	$ 30,000.00	0%
111	710260	REMOVE CONCRETE (CHANNEL)	CY	180	$ 168.00	$ 30,240.00	0%
112	730020	MINOR CONCRETE (CURB) (CY)	CY	20	$ 1,200.00	$ 24,000.00	0%
113	730040	MINOR CONCRETE (GUTTER) (LF)	LF	770	$ 40.00	$ 30,800.00	0%
114	731502	MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)	CY	20	$ 930.00	$ 18,600.00	0%
115	731504	MINOR CONCRETE (CURB AND GUTTER)	CY	16	$ 1,000.00	$ 16,000.00	0%
116	731516	MINOR CONCRETE (DRIVEWAY)	CY	3	$ 1,200.00	$ 3,600.00	0%
117	731519	MINOR CONCRETE (STAMPED CONCRETE)	SQFT	19000	$ 10.00	$ 190,000.00	1%
118	731710	REMOVE CONCRETE CURB (LF)	LF	140	$ 35.00	$ 4,900.00	0%
119	731820	REMOVE CONCRETE SIDEWALK AND DRIVEWAY	CY	3	$ 380.00	$ 1,140.00	0%
120	731840	REMOVE CONCRETE (CURB AND GUTTER)	LF	2580	$ 17.00	$ 43,860.00	0%
121	750001	MISCELLANEOUS IRON AND STEEL	LB	16831	$ 2.50	$ 42,077.50	0%
122	780435	PREPARE AND PAINT CONCRETE	SQFT	19700	$ 7.00	$ 137,900.00	1%
123	800310	CHAIN LINK FENCE (TYPE CL-3.5)	LF	360	$ 50.00	$ 18,000.00	0%
124	800360	CHAIN LINK FENCE (TYPE CL-6)	LF	62	$ 75.00	$ 4,650.00	0%
125	803050	REMOVE CHAIN LINK FENCE	LF	520	$ 10.00	$ 5,200.00	0%
126	803060	REMOVE GATE	EA	3	$ 2,000.00	$ 6,000.00	0%
127	801360A	SWING BARRIER GATE	EA	1	$ 25,000.00	$ 25,000.00	0%
128	801362A	REMOVABLE BOLLARD	EA	5	$ 2,000.00	$ 10,000.00	0%
129	810120	REMOVE PAVEMENT MARKER	EA	3120	$ 1.30	$ 4,056.00	0%
130	810170	DELINEATOR (CLASS 1)	EA	500	$ 50.00	$ 25,000.00	0%
131	810230	PAVEMENT MARKER (RETROREFLECTIVE)	EA	2220	$ 3.30	$ 7,326.00	0%
132	820130	OBJECT MARKER	EA	3	$ 55.00	$ 165.00	0%
133	820270	REMOVE ROADSIDE SIGN (WOOD POST)	EA	1	$ 160.00	$ 160.00	0%
134	820280	REMOVE ROADSIDE SIGN (METAL POST)	EA	2	$ 160.00	$ 320.00	0%
135	820300	REMOVE ROADSIDE SIGN (STRAP AND SADDLE BRACKET METH	EA	1	$ 160.00	$ 160.00	0%
136	820320	REMOVE METAL POST	EA	11	$ 150.00	$ 1,650.00	0%
137	820360	REMOVE SIGN PANEL	EA	4	$ 500.00	$ 2,000.00	0%
138	820510	RESET ROADSIDE SIGN (ONE POST)	EA	1	$ 400.00	$ 400.00	0%
139	820610	RELOCATE ROADSIDE SIGN	EA	4	$ 400.00	$ 1,600.00	0%
140	820650	RELOCATE SIGN PANEL	EA	2	$ 200.00	$ 400.00	0%
141	820710	FURNISH LAMINATED PANEL SIGN (1"-TYPE A)	SQFT	960	$ 25.00	$ 24,000.00	0%
142	820750	FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-UNFRAMED)	SQFT	18	$ 15.00	$ 270.00	0%
143	820760	FURNISH SINGLE SHEET ALUMINUM SIGN (0.080"-UNFRAMED)	SQFT	56	$ 15.00	$ 840.00	0%
144	820840	ROADSIDE SIGN - ONE POST	EA	5	$ 400.00	$ 2,000.00	0%
145	820860	INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)	EA	1	$ 200.00	$ 200.00	0%
146	820870	INSTALL SIGN OVERLAY	SQFT	25	$ 50.00	$ 1,250.00	0%
147	832005	MIDWEST GUARDRAIL SYSTEM	LF	1240	$ 30.00	$ 37,200.00	0%
148	832070	VEGETATION CONTROL (MINOR CONCRETE)	SQYD	560	$ 83.00	$ 46,480.00	0%
149	839521	CABLE RAILING	LF	836	$ 25.00	$ 20,900.00	0%
150	839543	TRANSITION RAILING (TYPE WB-31)	EA	2	$ 5,000.00	$ 10,000.00	0%
151	839581	END ANCHOR ASSEMBLY (TYPE SFT)	EA	2	$ 1,000.00	$ 2,000.00	0%
152	839584	ALTERNATIVE IN-LINE TERMINAL SYSTEM	EA	2	$ 4,500.00	$ 9,000.00	0%
153	839632A	ALTERNATIVE CRASH CUSHION SYSTEM	EA	1	$ 25,000.00	$ 25,000.00	0%
154	839640	CONCRETE BARRIER (TYPE 60MS)	LF	3680	$ 130.00	$ 478,400.00	2%
155	839642	CONCRETE BARRIER (TYPE 60MC)	LF	360	$ 250.00	$ 90,000.00	0%
156	839643	CONCRETE BARRIER (TYPE 60MD)	LF	1220	$ 90.00	$ 109,800.00	0%
157	839741A	CONCRETE BARRIER (TYPE 836SV Mod)	LF	1760	$ 450.00	$ 792,000.00	3%
158	839744	CONCRETE BARRIER (TYPE 836 MODIFIED)	LF	2146	$ 110.00	$ 236,060.00	1%
159	839749	CONCRETE BARRIER (TYPE 842 MODIFIED)	LF	34	$ 125.00	$ 4,250.00	0%
160	839752	REMOVE GUARDRAIL	LF	3570	$ 10.00	$ 35,700.00	0%
161	839774	REMOVE CONCRETE BARRIER	LF	390	$ 30.00	$ 11,700.00	0%
162	840623	6" THERMOPLASTIC TRAFFIC STRIPE (ENHANCED WET NIGHT V	LF	64100	$ 0.70	$ 44,870.00	0%
163	846007	6" THERMOPLASTIC TRAFFIC STRIPE (ENHANCED WET NIGHT V	LF	34400	$ 1.00	$ 34,400.00	0%
164	846009	8" THERMOPLASTIC TRAFFIC STRIPE (ENHANCED WET NIGHT V	LF	10300	$ 1.00	$ 10,300.00	0%
165	846010	8" THERMOPLASTIC TRAFFIC STRIPE (ENHANCED WET NIGHT V	LF	13400	$ 1.00	$ 13,400.00	0%
166	846012	THERMOPLASTIC CROSSWALK AND PAVEMENT MARKING (ENH	SQFT	1380	$ 5.00	$ 6,900.00	0%
167	846020	REMOVE PAINTED TRAFFIC STRIPE	LF	47100	$ 0.40	$ 18,840.00	0%
168	846025	REMOVE PAINTED PAVEMENT MARKING	SQFT	1050	$ 1.40	$ 1,470.00	0%
169	846030	REMOVE THERMOPLASTIC TRAFFIC STRIPE	LF	108000	$ 0.40	$ 43,200.00	0%
170	870009	MAINTAINING EXISTING TRAFFIC MANAGEMENT SYSTEM ELEN	LS	1	$ 4,300.00	$ 4,300.00	0%
171	847198	CONTRAST STRIPE THERMOPLASTIC	LF	131000	$ 0.70	$ 91,700.00	0%
172	870200A	MODIFYING LIGHTING SYSTEM	LS	1	$ 1,150,000.00	$ 1,150,000.00	4%
173	872002	TEMPORARY SIGNAL SYSTEMS	LS	1	$ 63,000.00	$ 63,000.00	0%
174	870600A	MODIFYING TRAFFIC MONITORING STATION SYSTEM	LS	1	$ 115,000.00	$ 115,000.00	0%
175	871200A	MODIFYING ELECTRONIC TOLL AND TRAFFIC MANAGEMENT SY	LS	1	$ 89,000.00	$ 89,000.00	0%
176	999990	MOBILIZATION	LS	1	$ 2,326,000.00	$ 2,326,000.00	9%
						$ 25,583,978.80	
						Variance to low bid	

BID PRICES AND AMOUNTS

Item Num	Low Bidder OHL USA, Inc. Unit Price	Total	% VAR of EE	Second Bidder Walsh Construction Co. Unit Price	Total	% VAR of EE	Third Bidder Griffith Company Unit Price	Total	% VAR of EE
106	$970.00	$4,947.00	49%	$670.00	$3,417.00	3%	$700.00	$3,570.00	8%
107	$35.00	$6,650.00	-64%	$45.00	$8,550.00	-54%	$41.00	$7,790.00	-58%
108	$3,350.00	$30,150.00	76%	$1,930.00	$17,370.00	2%	$1,800.00	$16,200.00	-5%
109	$30.00	$35,700.00	-73%	$22.00	$26,180.00	-81%	$21.00	$24,990.00	-81%
110	$940.00	$18,800.00	-37%	$12.00	$240.00	-99%	$1,200.00	$24,000.00	-20%
111	$80.00	$14,400.00	-52%	$60.00	$10,800.00	-64%	$136.00	$24,480.00	-19%
112	$670.00	$13,400.00	-44%	$1,275.00	$25,500.00	6%	$855.00	$17,100.00	-29%
113	$32.00	$24,640.00	-20%	$48.00	$36,960.00	20%	$56.00	$43,120.00	40%
114	$500.00	$10,000.00	-46%	$775.00	$15,500.00	-17%	$515.00	$10,300.00	-45%
115	$800.00	$12,800.00	-20%	$1,050.00	$16,800.00	5%	$1,100.00	$17,600.00	10%
116	$1,500.00	$4,500.00	25%	$1,350.00	$4,050.00	13%	$1,450.00	$4,350.00	21%
117	$8.70	$165,300.00	-13%	$20.00	$380,000.00	100%	$9.32	$177,080.00	-7%
118	$5.75	$805.00	-84%	$6.00	$840.00	-83%	$46.00	$6,440.00	31%
119	$265.00	$795.00	-30%	$250.00	$750.00	-34%	$1,100.00	$3,300.00	189%
120	$4.75	$12,255.00	-72%	$6.00	$15,480.00	-65%	$4.50	$11,610.00	-74%
121	$2.80	$47,126.80	12%	$2.00	$33,662.00	-20%	$1.75	$29,454.25	-30%
122	$2.50	$49,250.00	-64%	$2.75	$54,175.00	-61%	$2.17	$42,749.00	-69%
123	$19.55	$7,038.00	-61%	$2.00	$720.00	-96%	$21.00	$7,560.00	-58%
124	$56.00	$3,472.00	-25%	$55.00	$3,410.00	-27%	$59.00	$3,658.00	-21%
125	$11.45	$5,954.00	15%	$12.00	$6,240.00	20%	$11.75	$6,110.00	18%
126	$1,115.00	$3,345.00	-44%	$1,100.00	$3,300.00	-45%	$1,225.00	$3,675.00	-39%
127	$10,650.00	$10,650.00	-57%	$10,600.00	$10,600.00	-58%	$12,000.00	$12,000.00	-52%
128	$1,370.00	$6,850.00	-32%	$1,310.00	$6,550.00	-35%	$2,200.00	$11,000.00	10%
129	$0.90	$2,808.00	-31%	$0.85	$2,652.00	-35%	$1.10	$3,432.00	-15%
130	$69.70	$34,850.00	39%	$63.00	$31,500.00	26%	$50.00	$25,000.00	0%
131	$2.25	$4,995.00	-32%	$2.00	$4,440.00	-39%	$4.50	$9,990.00	36%
132	$93.00	$279.00	69%	$90.00	$270.00	64%	$96.00	$288.00	75%
133	$128.75	$128.75	-20%	$125.00	$125.00	-22%	$134.00	$134.00	-16%
134	$128.75	$257.50	-20%	$125.00	$250.00	-22%	$134.00	$268.00	-16%
135	$51.50	$51.50	-68%	$50.00	$50.00	-69%	$100.00	$100.00	-38%
136	$258.00	$2,838.00	72%	$150.00	$1,650.00	0%	$200.00	$2,200.00	33%
137	$858.00	$3,432.00	72%	$507.00	$2,028.00	1%	$1,000.00	$4,000.00	100%
138	$335.00	$335.00	-16%	$325.00	$325.00	-19%	$360.00	$360.00	-10%
139	$397.00	$1,588.00	-1%	$385.00	$1,540.00	-4%	$425.00	$1,700.00	6%
140	$3,540.00	$7,080.00	1670%	$1,825.00	$3,650.00	813%	$3,700.00	$7,400.00	1750%
141	$37.50	$36,000.00	50%	$28.00	$26,880.00	12%	$37.00	$35,520.00	48%
142	$11.33	$203.94	-24%	$11.00	$198.00	-27%	$12.00	$216.00	-20%
143	$11.85	$663.60	-21%	$11.50	$644.00	-23%	$12.00	$672.00	-20%
144	$406.00	$2,030.00	2%	$395.00	$1,975.00	-1%	$420.00	$2,100.00	5%
145	$149.00	$149.00	-26%	$140.00	$140.00	-30%	$150.00	$150.00	-25%
146	$43.00	$1,075.00	-14%	$25.50	$637.50	-49%	$42.00	$1,050.00	-16%
147	$29.00	$35,960.00	-3%	$28.50	$35,340.00	-5%	$30.00	$37,200.00	0%
148	$69.00	$38,640.00	-17%	$65.00	$36,400.00	-22%	$75.00	$42,000.00	-10%
149	$23.60	$19,729.60	-6%	$27.00	$22,572.00	8%	$25.00	$20,900.00	0%
150	$4,015.00	$8,030.00	-20%	$4,000.00	$8,000.00	-20%	$4,300.00	$8,600.00	-14%
151	$995.00	$1,990.00	-1%	$1,000.00	$2,000.00	0%	$1,080.00	$2,160.00	8%
152	$3,775.00	$7,550.00	-16%	$3,765.00	$7,530.00	-16%	$4,000.00	$8,000.00	-11%
153	$7,565.00	$7,565.00	-70%	$7,545.84	$7,545.84	-70%	$8,000.00	$8,000.00	-68%
154	$80.00	$294,400.00	-38%	$78.00	$287,040.00	-40%	$77.00	$283,360.00	-41%
155	$280.00	$100,800.00	12%	$250.00	$90,000.00	0%	$186.00	$66,960.00	-26%
156	$126.00	$153,720.00	40%	$80.00	$97,600.00	-11%	$80.00	$97,600.00	-11%
157	$230.00	$404,800.00	-49%	$600.00	$1,056,000.00	33%	$532.00	$936,320.00	18%
158	$75.00	$160,950.00	-32%	$145.00	$311,170.00	32%	$123.00	$263,958.00	12%
159	$120.00	$4,080.00	-4%	$275.00	$9,350.00	120%	$164.00	$5,576.00	31%
160	$8.85	$31,594.50	-12%	$10.00	$35,700.00	0%	$9.45	$33,736.50	-6%
161	$25.00	$9,750.00	-17%	$37.00	$14,430.00	23%	$61.00	$23,790.00	103%
162	$0.28	$17,948.00	-60%	$0.25	$16,025.00	-64%	$0.57	$36,537.00	-19%
163	$0.67	$23,048.00	-33%	$0.60	$20,640.00	-40%	$0.73	$25,112.00	-27%
164	$1.12	$11,536.00	12%	$1.00	$10,300.00	0%	$0.94	$9,682.00	-6%
165	$1.12	$15,008.00	12%	$1.00	$13,400.00	0%	$0.94	$12,596.00	-6%
166	$3.40	$4,692.00	-32%	$3.00	$4,140.00	-40%	$7.30	$10,074.00	46%
167	$0.23	$10,833.00	-43%	$0.20	$9,420.00	-50%	$0.45	$21,195.00	13%
168	$1.12	$1,176.00	-20%	$1.00	$1,050.00	-29%	$4.46	$4,683.00	219%
169	$0.17	$18,360.00	-58%	$0.15	$16,200.00	-63%	$0.45	$48,600.00	13%
170	$100.00	$100.00	-98%	$100.00	$100.00	-98%	$6,000.00	$6,000.00	40%
171	$0.45	$58,950.00	-36%	$0.40	$52,400.00	-43%	$0.21	$27,510.00	-70%
172	$1,030,000.00	$1,030,000.00	-10%	$940,000.00	$940,000.00	-18%	$1,000,000.00	$1,000,000.00	-13%
173	$94,000.00	$94,000.00	49%	$95,000.00	$95,000.00	51%	$122,000.00	$122,000.00	94%
174	$238,000.00	$238,000.00	107%	$240,000.00	$240,000.00	109%	$262,000.00	$262,000.00	128%
175	$157,000.00	$157,000.00	76%	$95,000.00	$95,000.00	7%	$104,000.00	$104,000.00	17%
176	$1,700,000.00	$1,700,000.00	-27%	$1,700,000.00	$1,700,000.00	-27%	$1,700,000.00	$1,700,000.00	-27%
		$18,886,963.15	-26.2%		$19,801,970.44	-22.6%		$19,898,025.70	-22.2%
			0.0%			4.8%			5.4%

Average of Bid Amounts

Item Num	Unit Price	Total	% of Total	% VAR of EE
106	$780.00	$3,978.00	0%	20%
107	$40.33	$7,663.33	0%	-58%
108	$2,360.00	$21,240.00	0%	24%
109	$24.33	$28,956.67	0%	-78%
110	$717.33	$14,346.67	0%	-52%
111	$92.00	$16,560.00	0%	-45%
112	$933.33	$18,666.67	0%	-22%
113	$45.33	$34,906.67	0%	13%
114	$596.67	$11,933.33	0%	-36%
115	$983.33	$15,733.33	0%	-2%
116	$1,433.33	$4,300.00	0%	19%
117	$12.67	$240,793.33	1%	27%
118	$19.25	$2,695.00	0%	-45%
119	$538.33	$1,615.00	0%	42%
120	$5.08	$13,115.00	0%	-70%
121	$2.18	$36,747.68	0%	-13%
122	$2.47	$48,724.67	0%	-65%
123	$14.18	$5,106.00	0%	-72%
124	$56.67	$3,513.33	0%	-24%
125	$11.73	$6,101.33	0%	17%
126	$1,146.67	$3,440.00	0%	-43%
127	$11,083.33	$11,083.33	0%	-56%
128	$1,626.67	$8,133.33	0%	-19%
129	$0.95	$2,964.00	0%	-27%
130	$60.90	$30,450.00	0%	22%
131	$2.92	$6,475.00	0%	-12%
132	$93.00	$279.00	0%	69%
133	$129.25	$129.25	0%	-19%
134	$129.25	$258.50	0%	-19%
135	$67.17	$67.17	0%	-58%
136	$202.67	$2,229.33	0%	35%
137	$788.33	$3,153.33	0%	58%
138	$340.00	$340.00	0%	-15%
139	$402.33	$1,609.33	0%	1%
140	$3,021.67	$6,043.33	0%	1411%
141	$34.17	$32,800.00	0%	37%
142	$11.44	$205.98	0%	-24%
143	$11.78	$659.87	0%	-21%
144	$407.00	$2,035.00	0%	2%
145	$146.33	$146.33	0%	-27%
146	$36.83	$920.83	0%	-26%
147	$29.17	$36,166.67	0%	-3%
148	$69.67	$39,013.33	0%	-16%
149	$25.20	$21,067.20	0%	1%
150	$4,105.00	$8,210.00	0%	-18%
151	$1,025.00	$2,050.00	0%	3%
152	$3,846.67	$7,693.33	0%	-15%
153	$7,703.61	$7,703.61	0%	-69%
154	$78.33	$288,266.67	1%	-40%
155	$238.67	$85,920.00	0%	-5%
156	$95.33	$116,306.67	0%	6%
157	$454.00	$799,040.00	3%	1%
158	$114.33	$245,359.33	1%	4%
159	$186.33	$6,335.33	0%	49%
160	$9.43	$33,677.00	0%	-6%
161	$41.00	$15,990.00	0%	37%
162	$0.37	$23,503.33	0%	-48%
163	$0.67	$22,933.33	0%	-33%
164	$1.02	$10,506.00	0%	2%
165	$1.02	$13,668.00	0%	2%
166	$4.57	$6,302.00	0%	-9%
167	$0.29	$13,816.00	0%	-27%
168	$2.19	$2,303.00	0%	57%
169	$0.26	$27,720.00	0%	-36%
170	$2,066.67	$2,066.67	0%	-52%
171	$0.35	$46,286.67	0%	-50%
172	$990,000.00	$990,000.00	4%	-14%
173	$103,666.67	$103,666.67	0%	65%
174	$246,666.67	$246,666.67	1%	114%
175	$118,666.67	$118,666.67	0%	33%
176	$1,700,000.00	$1,700,000.00	7%	-27%
		$19,528,986.43	-23.7%	
			3.4%	

VARIANCE FROM AVERAGE OF BIDS

Item Num	OHL USA, Inc. Unit Price	Total	% VAR to AVE	Walsh Construction Co. Unit Price	Total	% VAR to AVE	Griffith Company Unit Price	Total	% VAR to AVE
106	$190.00	$969.00	24%	($110.00)	($561.00)	-14%	($80.00)	($408.00)	-10%
107	($5.33)	($1,013.33)	-13%	$4.67	$886.67	12%	$0.67	$126.67	2%
108	$990.00	$8,910.00	42%	($430.00)	($3,870.00)	-18%	($560.00)	($5,040.00)	-24%
109	$5.67	$6,743.33	23%	($2.33)	($2,776.67)	-10%	($3.33)	($3,966.67)	-14%
110	$222.67	$4,453.33	31%	($705.33)	($14,106.67)	-98%	$482.67	$9,653.33	67%
111	($12.00)	($2,160.00)	-13%	($32.00)	($5,760.00)	-35%	$44.00	$7,920.00	48%
112	($263.33)	($5,266.67)	-28%	$341.67	$6,833.33	37%	($78.33)	($1,566.67)	-8%
113	($13.33)	($10,266.67)	-29%	$2.67	$2,053.33	6%	$10.67	$8,213.33	24%
114	($96.67)	($1,933.33)	-16%	$178.33	$3,566.67	30%	($81.67)	($1,633.33)	-14%
115	($183.33)	($2,933.33)	-19%	$66.67	$1,066.67	7%	$116.67	$1,866.67	12%
116	$66.67	$200.00	5%	($83.33)	($250.00)	-6%	$16.67	$50.00	1%
117	($3.97)	($75,493.33)	-31%	$7.33	$139,206.67	58%	($3.35)	($63,713.33)	-26%
118	($13.50)	($1,890.00)	-70%	($13.25)	($1,855.00)	-69%	$26.75	$3,745.00	139%
119	($273.33)	($820.00)	-51%	($288.33)	($865.00)	-54%	$561.67	$1,685.00	104%
120	($0.33)	($860.00)	-7%	$0.92	$2,365.00	18%	($0.58)	($1,505.00)	-11%
121	$0.62	$10,379.12	28%	($0.18)	($3,085.68)	-8%	($0.43)	($7,293.43)	-20%
122	$0.03	$525.33	1%	$0.28	$5,450.33	11%	($0.30)	($5,975.67)	-12%
123	$5.37	$1,932.00	38%	($12.18)	($4,386.00)	-86%	$6.82	$2,454.00	48%
124	($0.67)	($41.33)	-1%	($1.67)	($103.33)	-3%	$2.33	$144.67	4%
125	($0.28)	($147.33)	-2%	$0.27	$138.67	2%	$0.02	$8.67	0%
126	($31.67)	($95.00)	-3%	($46.67)	($140.00)	-4%	$78.33	$235.00	7%
127	($433.33)	($433.33)	-4%	($483.33)	($483.33)	-4%	$916.67	$916.67	8%
128	($256.67)	($1,283.33)	-16%	($316.67)	($1,583.33)	-19%	$573.33	$2,866.67	35%
129	($0.05)	($156.00)	-5%	($0.10)	($312.00)	-11%	$0.15	$468.00	16%
130	$8.80	$4,400.00	14%	$2.10	$1,050.00	3%	($10.90)	($5,450.00)	-18%
131	($0.67)	($1,480.00)	-23%	($0.92)	($2,035.00)	-31%	$1.58	$3,515.00	54%
132	$0.00	$0.00	0%	($3.00)	($9.00)	-3%	$3.00	$9.00	3%
133	($0.50)	($0.50)	0%	($4.25)	($4.25)	-3%	$4.75	$4.75	4%
134	($0.50)	($1.00)	0%	($4.25)	($8.50)	-3%	$4.75	$9.50	4%
135	($15.67)	($15.67)	-23%	($17.17)	($17.17)	-26%	$32.83	$32.83	49%
136	$55.33	$608.67	27%	($52.67)	($579.33)	-26%	($2.67)	($29.33)	-1%
137	$69.67	$278.67	9%	($281.33)	($1,125.33)	-36%	$211.67	$846.67	27%
138	($5.00)	($5.00)	-1%	($15.00)	($15.00)	-4%	$20.00	$20.00	6%
139	($5.33)	($21.33)	-1%	($17.33)	($69.33)	-4%	$22.67	$90.67	6%
140	$518.33	$1,036.67	17%	($1,196.67)	($2,393.33)	-40%	$678.33	$1,356.67	22%
141	$3.33	$3,200.00	10%	($6.17)	($5,920.00)	-18%	$2.83	$2,720.00	8%
142	($0.11)	($2.04)	-1%	($0.44)	($7.98)	-4%	$0.56	$10.02	5%
143	$0.07	$3.73	1%	($0.28)	($15.87)	-2%	$0.22	$12.13	2%
144	($1.00)	($5.00)	0%	($12.00)	($60.00)	-3%	$13.00	$65.00	3%
145	$2.67	$2.67	2%	($6.33)	($6.33)	-4%	$3.67	$3.67	3%
146	$6.17	$154.17	17%	($11.33)	($283.33)	-31%	$5.17	$129.17	14%
147	($0.17)	($206.67)	-1%	($0.67)	($826.67)	-2%	$0.83	$1,033.33	3%
148	($0.67)	($373.33)	-1%	($4.67)	($2,613.33)	-7%	$5.33	$2,986.67	8%
149	($1.60)	($1,337.60)	-6%	$1.80	$1,504.80	7%	($0.20)	($167.20)	-1%
150	($90.00)	($180.00)	-2%	($105.00)	($210.00)	-3%	$195.00	$390.00	5%
151	($30.00)	($60.00)	-3%	($25.00)	($50.00)	-2%	$55.00	$110.00	5%
152	($71.67)	($143.33)	-2%	($81.67)	($163.33)	-2%	$153.33	$306.67	4%
153	($138.61)	($138.61)	-2%	($157.77)	($157.77)	-2%	$296.39	$296.39	4%
154	$1.67	$6,133.33	2%	($0.33)	($1,226.67)	0%	($1.33)	($4,906.67)	-2%
155	$41.33	$14,880.00	17%	$11.33	$4,080.00	5%	($52.67)	($18,960.00)	-22%
156	$30.67	$37,413.33	32%	($15.33)	($18,706.67)	-16%	($15.33)	($18,706.67)	-16%
157	($224.00)	($394,240.00)	-49%	$146.00	$256,960.00	32%	$78.00	$137,280.00	17%
158	($39.33)	($84,409.33)	-34%	$30.67	$65,810.67	27%	$8.67	$18,598.67	8%
159	($66.33)	($2,255.33)	-36%	$88.67	$3,014.67	48%	($22.33)	($759.33)	-12%
160	($0.58)	($2,082.50)	-6%	$0.57	$2,023.00	6%	$0.02	$59.50	0%
161	($16.00)	($6,240.00)	-39%	($4.00)	($1,560.00)	-10%	$20.00	$7,800.00	49%
162	($0.09)	($5,555.33)	-24%	($0.12)	($7,478.33)	-32%	$0.20	$13,033.67	55%
163	$0.00	$114.67	1%	($0.07)	($2,293.33)	-10%	$0.06	$2,178.67	10%
164	$0.10	$1,030.00	10%	($0.02)	($206.00)	-2%	($0.08)	($824.00)	-8%
165	$0.10	$1,340.00	10%	($0.02)	($268.00)	-2%	($0.08)	($1,072.00)	-8%
166	($1.17)	($1,610.00)	-26%	($1.57)	($2,162.00)	-34%	$2.73	$3,772.00	60%
167	($0.06)	($2,983.00)	-22%	($0.09)	($4,396.00)	-32%	$0.16	$7,379.00	53%
168	($1.07)	($1,127.00)	-49%	($1.19)	($1,253.00)	-54%	$2.27	$2,380.00	103%
169	($0.09)	($9,360.00)	-34%	($0.11)	($11,520.00)	-42%	$0.19	$20,880.00	75%
170	($1,966.67)	($1,966.67)	-95%	($1,966.67)	($1,966.67)	-95%	$3,933.33	$3,933.33	190%
171	$0.10	$12,663.33	27%	$0.05	$6,113.33	13%	($0.14)	($18,776.67)	-41%
172	$40,000.00	$40,000.00	4%	($50,000.00)	($50,000.00)	-5%	$10,000.00	$10,000.00	1%
173	($9,666.67)	($9,666.67)	-9%	($8,666.67)	($8,666.67)	-8%	$18,333.33	$18,333.33	18%
174	($8,666.67)	($8,666.67)	-4%	($6,666.67)	($6,666.67)	-3%	$15,333.33	$15,333.33	6%
175	$38,333.33	$38,333.33	32%	($23,666.67)	($23,666.67)	-20%	($14,666.67)	($14,666.67)	-12%
176	$0.00	$0.00	0%	$0.00	$0.00	0%	$0.00	$0.00	0%
		($3,647.86)			$1,551.05			$2,096.81	

Spread (High Minus Low)

Price Spread	Amount Spread	% Total Ave.	Item Num
$300.00	$1,530.00	0%	106
$10.00	$1,900.00	0%	107
$1,550.00	$13,950.00	0%	108
$9.00	$10,710.00	0%	109
$1,188.00	$23,760.00	0%	110
$76.00	$13,680.00	0%	111
$605.00	$12,100.00	0%	112
$24.00	$18,480.00	0%	113
$275.00	$5,500.00	0%	114
$300.00	$4,800.00	0%	115
$150.00	$450.00	0%	116
$11.30	$214,700.00	1%	117
$40.25	$5,635.00	0%	118
$850.00	$2,550.00	0%	119
$1.50	$3,870.00	0%	120
$1.05	$17,672.55	0%	121
$0.58	$11,426.00	0%	122
$19.00	$6,840.00	0%	123
$4.00	$248.00	0%	124
$0.55	$286.00	0%	125
$125.00	$375.00	0%	126
$1,400.00	$1,400.00	0%	127
$890.00	$4,450.00	0%	128
$0.25	$780.00	0%	129
$19.70	$9,850.00	0%	130
$2.50	$5,550.00	0%	131
$6.00	$18.00	0%	132
$9.00	$9.00	0%	133
$9.00	$18.00	0%	134
$50.00	$50.00	0%	135
$108.00	$1,188.00	0%	136
$493.00	$1,972.00	0%	137
$35.00	$35.00	0%	138
$40.00	$160.00	0%	139
$1,875.00	$3,750.00	0%	140
$9.50	$9,120.00	0%	141
$1.00	$18.00	0%	142
$0.50	$28.00	0%	143
$25.00	$125.00	0%	144
$10.00	$10.00	0%	145
$17.50	$437.50	0%	146
$1.50	$1,860.00	0%	147
$10.00	$5,600.00	0%	148
$3.40	$2,842.40	0%	149
$300.00	$600.00	0%	150
$85.00	$170.00	0%	151
$235.00	$470.00	0%	152
$454.16	$454.16	0%	153
$3.00	$11,040.00	0%	154
$94.00	$33,840.00	0%	155
$46.00	$56,120.00	0%	156
$370.00	$651,200.00	3%	157
$70.00	$150,220.00	1%	158
$155.00	$5,270.00	0%	159
$1.15	$4,105.50	0%	160
$36.00	$14,040.00	0%	161
$0.32	$20,512.00	0%	162
$0.13	$4,472.00	0%	163
$0.18	$1,854.00	0%	164
$0.18	$2,412.00	0%	165
$4.30	$5,934.00	0%	166
$0.25	$11,775.00	0%	167
$3.46	$3,633.00	0%	168
$0.30	$32,400.00	0%	169
$5,900.00	$5,900.00	0%	170
$0.24	$31,440.00	0%	171
$90,000.00	$90,000.00	0%	172
$28,000.00	$28,000.00	0%	173
$24,000.00	$24,000.00	0%	174
$62,000.00	$62,000.00	0%	175
$0.00	$0.00	0%	176