


Memorandum

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To: BRUCE DE TERRA
Division Chief
Division of Transportation Programming

DARA WHEELER
Division
Division of Chief Rail and Mass Transportation

RAY ZHANG
Division Chief
Division of Local Assistance

From: ALICE M. LEE 
Chief
External Audits — Contracts
Independent Office of Audits and Investigations

Date: December 28, 2017

File: P2545-0029
P2535-0080
P2525-0038
P2525-0039
P2525-0021
P2525-0022

**Subject: AUDIT OF ORANGE COUNTY TRANSPORTATION AUTHORITY
PROPOSITION 1B PROJECTS**

Attached is the audit report pertaining to the audit performed on the following Proposition 1B (Prop 1B) projects:

<u>Project Name</u>	<u>Project number</u>	<u>P Number</u>	<u>Amount Audited</u>
Sand Canyon Name Grade Separation	0000020636	P2545-0029	\$6,457,051.00
Oso Parkway Widening	1213000168	P2535-0080	\$1,204,000.00
Tustin Ave and Rose Drive Overcrossing	1200020282	P2525-0039	\$18,245,598.00
Placentia Ave Undercrossing	1200020072	P2525-0022	\$9,299,039.00
Orangethrope Ave Grade Crossing	1200020231	P2525-0038	N/A ¹
Kraemer Blvd Undercrossing	1200020248	P2525-0021	N/A ¹

N/A¹ = Not applicable; project expenditures were not audited

The projects' implementing agency is Orange County Transportation Authority. The projects were funded using Proposition 1 B Highway - Railroad Crossing Safety Account funds, Trade Corridors Improvement funds, and State-Local Partnership Program Account funds.

As required by the Governor's Executive Order S-02-07 and SB88, the expenditures of bond proceeds and outcomes are subject to audit. The audit was performed by the Department of Finance on behalf of Caltrans. Deputy Directive 100-R1, "Departmental Responses to Audit Reports" cites responsibilities of Division Chiefs relative to audits performed. The audit disclosed the following findings:

- Incorrect Reporting of Project Benefits/Outcomes - The project benefits/outcomes approved by Caltrans/CTC were not adequately reported in the Final Delivery Reports.
- Final Delivery Reports Not Submitted Timely - The Final Delivery Reports for projects 0000020636, 1200020248, and 1200020072 were not submitted to Caltrans within six months of the projects becoming operable (construction contract acceptance date).

Please provide the Independent Office of Audits and Investigations a Corrective Action Resolution (CAR) on the audit finding within 90 days of this memorandum's date and reference the project numbers above on the CAR.

If you have any questions, please contact Elena Guerrero, Acting Audit Manager, at (916) 323-7954.

Attachment

cc: Stephen Maller, Deputy Director, California Transportation Commission
Rick Guevel, Associate Deputy Director, California Transportation Commission
Teri L. Anderson, Assistant Deputy Director, California Transportation Commission
Coco Briseno, Deputy Director, Planning and Modal Programs
Doris M. Alkebulan, Prop 1B Specialist, Transportation Programming
Carlos Ruiz, Rail Transportation Manager I, Division of Rail and Mass Transportation
Antonio Cano, Sr. Transportation Engineer, Division of Transportation Planning
Sharon Bertozzi, Sr. Transportation Engineer, Division of Local Assistance
Carmen Wills, Audit Liaison, Division of Local Assistance
Elena Guerrero, Acting Audit Manager, Audits and Investigations



Orange County Transportation Authority

Proposition 1B Bond Programs

Project Numbers 0000020636, 1213000168, 1200020231,
1200020282, 1200020248, and 1200020072

Report No. 17-2660-039
October 2017

Team Members

Jennifer Whitaker, Chief
Cheryl L. McCormick, CPA, Assistant Chief
Jon G. Chapple, CPA, Manager
Angie Williams, Supervisor
Josh Mortimer, Lead
Lakeisha Gulley
Jedediah Thompson

Final reports are available on our website at <http://www.dof.ca.gov>

You can contact our office at:

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Office of State Audits and Evaluations
915 L Street, 6th Floor
Sacramento, CA 95814
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DEPARTMENT OF
FINANCE

EDMUND G. BROWN JR. • GOVERNOR

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Transmitted via e-mail

October 27, 2017

Ms. Alice M. Lee, Chief
External Audits—Contracts, Audits and Investigations
California Department of Transportation
1304 O Street, Suite 200
Sacramento, CA 95814

Dear Ms. Lee:

Final Report—Orange County Transportation Authority, Proposition 1B Audit

The California Department of Finance, Office of State Audits and Evaluations, has completed its audit of the Orange County Transportation Authority's (OCTA) Proposition 1B funded projects listed below:

<u>Project Number</u>	<u>P Number</u>	<u>Project Name</u>
0000020636	P2545-0029	Sand Canyon Grade Separation
1213000168	P2535-0080	Oso Parkway Widening
1200020231	P2525-0038	Orangethorpe Avenue Grade Crossing
1200020282	P2525-0039	Tustin Avenue and Rose Drive Overcrossing
1200020248	P2525-0021	Kraemer Boulevard Undercrossing
1200020072	P2525-0022	Placentia Avenue Undercrossing

The enclosed report is for your information and use. OCTA's response to the report findings and our evaluation of the response are incorporated into this final report. This report will be placed on our website.

If you have any questions regarding this report, please contact Jon Chapple, Manager, or Angie Williams, Supervisor, at (916) 322-2985.

Sincerely,

Jennifer Whitaker, Chief
Office of State Audits and Evaluations

Enclosure

cc: Ms. Elena Guerrero, Acting Audit Manager, External Audits—Contracts, Audits and Investigations, California Department of Transportation
Mr. Michael Hennessey, Chairman, Orange County Transportation Authority Board of Directors
Mr. Darrell Johnson, Chief Executive Officer, Orange County Transportation Authority
Ms. Janet Sutter, Executive Director of Internal Audit, Orange County Transportation Authority

BACKGROUND, SCOPE AND METHODOLOGY

BACKGROUND

California voters approved the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 (Proposition 1B) for \$19.925 billion. These bond proceeds finance a variety of transportation programs. Although the bond funds are made available to the California Transportation Commission (CTC) upon appropriation by the Legislature, CTC allocates these funds to the California Department of Transportation (Caltrans) to implement various programs.¹

CTC awarded \$6.6 million of Proposition 1B Highway-Railroad Crossing Safety Account (HRCSA) funds to the Orange County Transportation Authority (OCTA) for the Sand Canyon Grade Separation project (0000020636), which lowered Sand Canyon Avenue below the rail line. CTC also awarded \$1.2 million of Proposition 1B State Local Partnership Program (SLPP) funds to OCTA for the Oso Parkway Widening project (1213000168), which widened Oso Parkway from six to eight lanes from Interstate I-5 and Country Club Drive in the City of Mission Viejo.

Additionally, CTC awarded \$103 million of Proposition 1B Trade Corridors Improvement Fund (TCIF) funds to OCTA for the Orangethorpe Avenue Grade Crossing (1200020231), Tustin Avenue and Rose Drive Overcrossing (1200020282), Kraemer Boulevard Undercrossing (1200020248), and Placentia Avenue Undercrossing (1200020072) projects. Projects 1200020248 and 1200020072 are for the construction of underpasses below the main rail lines while projects 1200020231 and 1200020282 are for the construction of overpasses over the main rail line.² OCTA was required to provide a dollar-for-dollar match of local funds for projects 1213000168, 1200020282, and 1200020072. Construction for these projects is complete.

SCOPE

As requested by Caltrans, the California Department of Finance, Office of State Audits and Evaluations, audited the projects described in the Background section of this report. The audit periods for the projects are identified in Appendix A.

PROGRAM DESCRIPTION¹

HRCSA: \$250 million of bond proceeds made available to the HRCSA to finance completion of high-priority grade separation and railroad crossing safety improvements.

SLPP: \$1 billion of bond proceeds made available to the SLPP to finance a variety of eligible transportation projects nominated by applicant transportation agencies. For an applicant transportation agency to receive bond funds, Proposition 1B requires a dollar-for-dollar match of local funds.

TCIF: \$2 billion of bond proceeds made available to the TCIF to finance infrastructure improvements along corridors that have a high volume of freight movement.

¹ Excerpts were obtained from the bond accountability website <https://bondaccountability.dot.ca.gov/>

² Excerpts were obtained from the Project Programming Requests.

The audit objectives were to determine whether:

- Proposition 1B expenditures were incurred and reimbursed in compliance with the executed project agreements, Caltrans/CTC's program guidelines, and applicable state and federal regulations cited in the executed agreements.
- Deliverables/outputs were consistent with the project scopes and schedules.
- Benefits/outcomes, as described in the executed project agreements or approved amendments, were achieved and adequately reported in the Final Delivery Reports.

For projects 1200020231 and 1200020248, our audit did not include the first bulleted audit objective stated above because Caltrans recently performed a fiscal review of these projects. Our audit scope was limited to determining whether deliverables/outputs were consistent with the project scopes and schedules, and whether benefits/outcomes, as described in the executed project agreements or approved amendments, were achieved and adequately reported in the Final Delivery Reports.

At the time of our site visits in February 2017, construction for projects 0000020636, 1200020231, and 1200020282 was complete. However, since OCTA had not submitted the Final Delivery Reports for these projects at the time of our audit, we did not evaluate whether project benefits/outcomes were achieved or adequately reported. Instead, we evaluated whether there was a system in place to report actual project benefits/outcomes.

We did not assess the efficiency or effectiveness of program operations.

OCTA's management is responsible for ensuring accurate financial reporting; compliance with project agreements, state and federal regulations, and applicable program guidelines; and the adequacy of its job cost system to accumulate and segregate reasonable, allocable, and allowable expenditures. CTC and Caltrans are responsible for the state-level administration of the programs.

METHODOLOGY

To achieve the audit objectives, we performed the following procedures:

For All Projects

- Examined the project files, project agreements, program guidelines, and applicable policies and procedures.
- Evaluated whether project deliverables/outputs were met by reviewing supporting documentation and conducting site visits to verify project existence.
- Evaluated whether project deliverables/outputs were completed on schedule by reviewing project files, project agreements or approved amendments, and Final Delivery Reports.

For Projects 0000020636, 1213000168, 1200020282, and 1200020072

- Reviewed procurement records to ensure compliance with applicable local and state procurement requirements.
- Selected a sample of expenditures to determine if they were project-related, properly incurred, authorized, and supported.
- Reviewed a sample of contract change orders to ensure they were within the scope of the projects, properly approved, and supported.
- Reviewed accounting records, progress payments, cancelled checks, and electronic fund transfer documents.
- Evaluated whether other revenue sources were used to reimburse expenditures already reimbursed with bond funds.

For Projects 1213000168, 1200020248, and 1200020072

- Determined whether project benefits/outcomes were achieved by comparing actual project benefits/outcomes in the Final Delivery Reports with the expected project benefits/outcomes described in the executed project agreements or approved amendments.
- Evaluated whether a sample of project benefits/outcomes were adequately reported in the Final Delivery Reports by reviewing supporting documentation.

For Projects 0000020636, 1200020231, and 1200020282

- Evaluated whether there is a system in place to report actual project benefits/outcomes.

For Projects 1213000168, 1200020282, and 1200020072

- Verified the match requirement was met.

In conducting our audit, we obtained an understanding of internal control, including any information systems controls that we considered significant within the context of our audit objectives. We assessed whether those controls were properly designed, implemented, and operating effectively. Deficiencies in internal control that were identified during our audit and determined to be significant within the context of our audit objectives are included in this report.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Proposition 1B expenditures were incurred and reimbursed in compliance with the executed project agreements, Caltrans/CTC's program guidelines, and applicable state and federal regulations cited in the executed agreements. In addition, except as noted in Finding 2, project deliverables/outputs were consistent with the project scopes and schedules. Although each of the projects were behind schedule, OCTA appropriately informed Caltrans and CTC of the delays.

Also, except as noted in Finding 1, project benefits/outcomes were adequately reported in the Final Delivery Reports, and OCTA achieved the expected benefits/outcomes as described in the project agreements or approved amendments. For projects 0000020636, 1200020231, and 1200020282, there is a system in place to report actual benefits/outcomes, although OCTA does not always accurately report information as noted in Finding 1. The *Summary of Projects Reviewed* is presented in Appendix A.

Finding 1: Incorrect Reporting of Project Benefits/Outcomes

The project benefits/outcomes approved by Caltrans/CTC were not adequately reported in the Final Delivery Reports. Specifically, OCTA reported benefits for emissions reduction that were different than those approved in the baseline agreements for projects 1200020248 and 1200020072. The baseline agreements for these projects required reductions in specific emissions, such as a reduction in CO of 2.82 kg/day. OCTA was unaware of the requirement to report specific emissions reduction and instead reported a general statement that idling vehicle emissions were reduced.

TCIF Guidelines, section 17, states that within six months of the project becoming operable, the implementing agency will provide a Final Delivery Report to CTC on the scope of the completed project, including performance outcomes derived from the project as compared to those described in the project baseline agreement. Incomplete information on the Final Delivery Report decreases the transparency of the project outcomes and prevents CTC from reviewing the success of the projects based on the agreed upon projected benefits/outcomes.

Recommendations:

- A. Read and review program guidelines to ensure a clear understanding of the requirements.
- B. Submit a Supplemental Final Delivery Report listing the pre and post comparable benefits and outcomes relating to emissions reduction. Additionally, ensure future Final Delivery Reports have comparable pre and post benefits/outcomes.

Finding 2: Final Delivery Reports Not Submitted Timely

The Final Delivery Reports for projects 0000020636, 1200020248, and 1200020072 were not submitted to Caltrans within six months of the projects becoming operable (construction contract acceptance date). The Final Delivery Report for project 0000020636 was due July 2016 and was not submitted to Caltrans until February 2017.¹ The Final Delivery Reports for projects 1200020248 and 1200020072 were due June 2015 and were not submitted until October 2016.

According to OCTA, the Final Delivery Reports were delayed to ensure the reports would include all final expenditures and project deliverables. OCTA was not aware that a Supplemental Final Delivery Report could be submitted to include revised expenditures and project deliverables. Late submission of reports decreases transparency of the status of a project and prevents Caltrans/CTC's ability to timely review the completed project's scope, final costs, project schedule, and performance outcomes.

The HRCSA Program Guidelines (2010), section 15, and TCIF Program Guidelines, section 17, require a Final Delivery Report within six months after the projects become operable. The guidelines state a project becomes operable at the end of the construction phase when the construction contract is accepted. For all these projects, the construction contracts have been accepted.

Recommendations:

- A. Read and review program guidelines to ensure a clear understanding of the requirements.
- B. Submit all Proposition 1B project Final Delivery Reports to Caltrans within six months of the projects becoming operable.

¹ The Final Delivery Report for project 0000020636 was not available during our audit fieldwork; however, Caltrans confirmed receipt of the report in February 2017.

APPENDIX A

The following acronyms are used throughout Appendix A.

- California Department of Transportation: Caltrans
- California Transportation Commission: CTC
- Orange County Transportation Authority: OCTA
- Burlington Northern and Santa Fe Railway: BNSF
- Highway-Railroad Crossing Safety Account: HRCSA
- State Local Partnership Program: SLPP
- Trade Corridors Improvement Fund: TCIF

Summary of Projects Reviewed

Project Number	Expenditures Reimbursed	Project Status	Expenditures In Compliance	Deliverables/ Outputs Consistent	Benefits/ Outcomes Achieved	Benefits/ Outcomes Adequately Reported	Page
0000020636	\$6,457,051	C	Y	Y	N/A ²	N/A ²	A-1
1213000168	\$1,204,000	C	Y	Y	Y	Y	A-2
1200020231	N/A ¹	C	N/A ¹	Y	N/A ²	N/A ²	A-3
1200020282	\$18,245,598	C	Y	Y	N/A ²	N/A ²	A-4
1200020248	N/A ¹	C	N/A ¹	Y	P	P	A-5
1200020072	\$9,299,039	C	Y	Y	P	P	A-6

Legend

C = Complete

Y = Yes

P = Partial

N/A¹ = Not applicable; project expenditures were not audited

N/A² = Not applicable; Final Delivery Reports have not been submitted

Project Number: 0000020636

Project Name: Sand Canyon Grade Separation

Program Name: HRCSA

Project Description: The project lowered Sand Canyon Avenue under the Southern California Regional Rail Authority Railway to provide a grade separated crossing. The improvements also included the realignment and widening of the roadway from four to six lanes from the southbound I-5 off-ramp to Laguna Canyon.

Audit Period: January 1, 2014 through July 31, 2015¹

Project Status: Construction is complete.

Schedule of Proposition 1B Expenditures

Proposition 1B Expenditures	Reimbursed
Construction	\$3,356,514
Construction Engineering	3,100,537
Total Proposition 1B Expenditures	\$6,457,051

Audit Results:

Compliance—Proposition 1B Expenditures

Proposition 1B expenditures were incurred and reimbursed in compliance with the executed project agreements, Caltrans/CTC's program guidelines, and applicable state and federal regulations cited in the executed agreements.

Deliverables/Outputs

The construction phase of the project was completed in January 2016. At the time of our site visit in February 2017, project deliverables/outputs were consistent with the project scope. However, the project was behind schedule and completed 36 months late. OCTA appropriately updated Caltrans and CTC of the delay. Additionally, the project Final Delivery Report was due in July 2016 and was not submitted to Caltrans until February 2017.

Benefits/Outcomes

Actual benefits/outcomes could not be confirmed since the Final Delivery Report had not been reviewed by Caltrans as of March 2017, our audit fieldwork completion date. Caltrans confirmed receipt of the report in February 2017. Although there is a system in place to report actual project benefits/outcomes, OCTA does not always accurately report information as noted in Finding 1.

¹ The audit period end date reflects the billing period end date of the last reimbursement claim submitted to Caltrans.

Project Number: 1213000168

Project Name: Oso Parkway Widening

Program Name: SLPP

Project Description: The project widened Oso Parkway from six to eight lanes from 1-5 to Country Club Drive, relocated utilities, curbs and sidewalks, modified Oso Creek crossing, installed a retaining wall on the south side of Oso Parkway, modified traffic signals, adjusted the grade of street cross section and profile to accommodate the street widening, and improved medians and parkways.

Audit Period: October 3, 2013 through October 23, 2015²

Project Status: Construction is complete.

Schedule of Proposition 1B Expenditures

Proposition 1B Expenditures	Reimbursed
Construction	\$1,204,000
Total Proposition 1B Expenditures	\$1,204,000

Audit Results:

Compliance–Proposition 1B Expenditures

Proposition 1B expenditures were incurred and reimbursed in compliance with the executed project agreements, Caltrans/CTC's program guidelines, and applicable state and federal regulations cited in the executed agreements. Additionally, the match requirement was met.

Deliverables/Outputs

The construction phase of the project was completed in December 2015. At the time of our site visit in February 2017, project deliverables/outputs were consistent with the project scope. However, the project was behind schedule and completed six months late. OCTA appropriately updated Caltrans and CTC of the delay.

Benefits/Outcomes

Project benefits/outcomes were adequately reported in the Final Delivery Report. Additionally, OCTA achieved the expected benefits/outcomes as described in the executed project agreement or approved amendments.

Expected Benefits/Outcomes	Actual Benefits/Outcomes	Benefits/Outcomes Achieved
The improvements will add capacity and relieve traffic congestion. The Level of Service (LOS) is expected to improve to C with a volume/capacity (V/C) ratio of 0.748. Without the project, LOS is expected to remain at E with a V/C ratio of 0.998.	The improvements have added capacity and relieved congestion. The LOS improved to C with a V/C ratio of 0.728.	Yes

² Ibid.

Project Number: 1200020231

Project Name: Orangethorpe Avenue Grade Separation

Program Name: TCIF

Project Description: Construct a roadway overpass over the mainline rail tracks at Orangethorpe Avenue. The project was designed to improve safety due to the elimination of conflicts between trains and vehicles.

Audit Period: September 13, 2012 through October 26, 2016³

Project Status: Construction is complete.

Audit Results:

Deliverables/Outputs

The construction phase of the project was completed in October 2016. At the time of our site visit in February 2017, project deliverables/outputs were consistent with the project scope. However, the project was behind schedule and completed four months late. OCTA appropriately updated Caltrans and CTC of the delay.

Benefits/Outcomes

Actual benefits/outcomes have not been reported because the Final Delivery Report was not submitted to Caltrans as of March 2017 (report is not due until April 2017).⁴ Although there is a system in place to report actual project benefits/outcomes, OCTA does not always accurately report information as noted in Finding 1.

³ The audit period end date is the date project construction was completed, which is established by the contractor's completion of construction work (i.e., Notice of Completion).

⁴ Audit fieldwork for this project was completed in March 2017 and the Final Delivery Report had not been submitted to Caltrans as of this date.

Project Number: 1200020282

Project Name: Tustin Avenue and Rose Drive Overcrossing

Program Name: TCIF

Project Description: The project consisted of raising Tustin Avenue and Rose Drive above the BNSF mainline rail lines. The project included construction of a bridge over Orangethorpe Avenue and the BNSF and Orange County Flood Control right of way.

Audit Period: April 9, 2007 through May 25, 2016⁵

Project Status: Construction is complete.

Schedule of Proposition 1B Expenditures

Proposition 1B Expenditures	Reimbursed
Construction	\$16,409,731
Construction Engineering	1,835,867
Total Proposition 1B Expenditures	\$18,245,598

Audit Results:

Compliance—Proposition 1B Expenditures

Proposition 1B expenditures were incurred and reimbursed in compliance with the executed project agreements, Caltrans/CTC's program guidelines, and applicable state and federal regulations cited in the executed agreements. Additionally, the match requirement was met.

Deliverables/Outputs

The construction phase of the project was completed in October 2016. At the time of our site visit in February 2017, project deliverables/outputs were consistent with the project scope. However, the project was behind schedule and completed 14 months late. OCTA appropriately updated Caltrans and CTC of the delay.

Benefits/Outcomes

Actual benefits/outcomes have not been reported because the Final Delivery Report was not submitted to Caltrans as of March 2017 (report is not due until April 2017).⁶ Although there is a system in place to report actual project benefits/outcomes, OCTA does not always accurately report information as noted in Finding 1.

⁵ The audit period end date reflects the billing period end date of the last reimbursement claim submitted to Caltrans.

⁶ Audit fieldwork for this project was completed in March 2017 and the Final Delivery Report had not been submitted to Caltrans as of this date.

Project Number: 1200020248

Project Name: Kraemer Boulevard Undercrossing

Program Name: TCIF

Project Description: The project lowered Kraemer Boulevard below the BNSF mainline rail lines. The project also included the construction of a rail bridge for the two existing mainline tracks and space for a third track.

Audit Period: January 20, 2011 through December 25, 2014⁷

Project Status: Construction is complete.

Audit Results:

Deliverables/Outputs

The construction phase of the project was completed in December 2014. At the time of our site visit in February 2017, project deliverables/outputs were consistent with the project scope. However, the project was behind schedule and completed 15 months late. OCTA appropriately updated Caltrans and CTC of the delay. Additionally, the project Final Delivery Report was due in June 2015 and was not submitted to Caltrans until October 2016.

Benefits/Outcomes

The expected benefits/outcomes relating to safety, velocity, throughput, reliability, and congestion reduction were achieved and adequately reported in the Final Delivery Report. However, OCTA reported emission reduction metrics that were different than those described in the executed baseline agreement, as noted in Finding 1.

⁷ The audit period end date is the date project construction was completed, which is established by the contractor's completion of construction work (i.e., Notice of Completion).

Project Benefits/Outcomes Category	Expected Benefits/Outcomes	Actual Benefits/Outcomes	Benefits/Outcomes Achieved
Safety	Grade separations completely separate automobiles and other traffic from trains, eliminating the potential for a grade crossing collision.	Eliminated: 1) At-grade crossing 2) Pedestrians walking across tracks 3) Emergency vehicle delays	Yes
Velocity	With the construction of the grade separation, vehicles traveling would be able to maintain a more consistent speed within this segment of the roadway because the delay and conflict associated with the at-grade crossing would be eliminated.	Improved railroad velocity by eliminating the potential for train versus vehicle/pedestrian collision.	Yes
Throughput	The annual Average Daily Traffic will increase from 23,100 to 30,500 in 2030. Current at-grade crossing throughput is forecasted to cause 6.5 hours of daily delay for trucks in 2030, a 178% increase of the existing condition.	Improved railroad throughput by eliminating the potential for train versus vehicle/pedestrian collision.	Yes
Reliability	The reliability of travel and goods movement at or near at-grade rail crossings is influenced by two factors: delay and safety. Delay due to the at-grade crossing would be eliminated and the separation of the railway from the roadway would improve safety resulting in increased reliability.	Improved railroad reliability by eliminating the potential for train versus vehicle/pedestrian collision.	Yes
Congestion Reduction	The existing total traffic delay (vehicle-hours/day) due to the rail crossing is 47.1 hours and this is expected to increase to 130.8 in 2030. The grade separation would eliminate the delay due to the rail crossing.	Reduced vehicle delays due to passing trains.	Yes
Emission Reduction	ROG Emission Benefits (0.2 kg/day) CO Emission Benefits (2.82 kg/day) NOx Emission Benefits (0.18 kg/day) PM Emission Benefits (0.02kg/day)	Not adequately reported.	No

Project Number: 1200020072

Project Name: Placentia Avenue Undercrossing

Program Name: TCIF

Project Description: Constructed a vehicle underpass for Placentia Avenue below the BNSF mainline rail lines. The project also included the construction of a rail bridge for a future third track.

Audit Period: January 20, 2011 through August 31, 2015⁸

Project Status: Construction is complete.

Schedule of Proposition 1B Expenditures

Proposition 1B Expenditures	Reimbursed
Construction	\$9,299,039
Total Proposition 1B Expenditures	\$9,299,039

Audit Results:

Compliance—Proposition 1B Expenditures

Proposition 1B expenditures were incurred and reimbursed in compliance with the executed project agreements, Caltrans/CTC's program guidelines, and applicable state and federal regulations cited in the executed agreements. Additionally, the match requirement was met.

Deliverables/Outputs

The construction phase of the project was completed in December 2014. At the time of our site visit in February 2017, project deliverables/outputs were consistent with the project scope. However, the project was behind schedule and completed 21 months late. OCTA appropriately updated Caltrans and CTC of the delay. Additionally, the project Final Delivery Report was due in June 2015 and was not submitted to Caltrans until October 2016.

Benefits/Outcomes

The expected benefits/outcomes relating to safety, velocity, throughput, reliability, and congestion reduction were achieved and adequately reported in the Final Delivery Report. However, OCTA reported emission reduction metrics that were different than those described in the executed Baseline Agreement, as noted in Finding 1.

⁸ The audit period end date reflects the billing period end date of the last reimbursement claim submitted to Caltrans.

Project Benefits/Outcomes Category	Expected Benefits/Outcomes	Actual Benefits/Outcomes	Benefits/Outcomes Achieved
Safety	Grade separations completely separate automobiles and other traffic from trains, eliminating the potential for a grade crossing collision.	Eliminated the at-grade crossing, pedestrians walking across tracks, and emergency vehicle delays.	Yes
Velocity	With the construction of the grade separation, vehicles traveling would be able to maintain a more consistent speed within this segment of the roadway because the delay and conflict associated with the at-grade crossing would be eliminated.	Improved railroad velocity by eliminating the potential for train versus vehicle/pedestrian collision.	Yes
Throughput	The Annual Average Daily Traffic will increase from 23,100 to 30,500 in 2030. Current at-grade crossing is forecasted to cause 4.9 hours of delays for trucks in 2030, a 159% increase of existing condition. Grade separation will eliminate conflict.	Improved railroad throughput by eliminating the potential for train versus vehicle/pedestrian collision.	Yes
Reliability	The reliability of travel and goods movement at or near at-grade rail crossings is influenced by two factors: delay and safety. Delay due to the at-grade crossing would be eliminated and the separation of the railway from the roadway would improve safety resulting in increased reliability.	Improved railroad reliability by eliminating the potential for train versus vehicle/pedestrian collision.	Yes
Congestion Reduction	The existing total traffic delay (vehicle-hours/day) due to the rail crossing is 37.6 hours and this is expected to increase to 97.2 in 2030. The grade separation would eliminate the delay due to the rail crossing.	Reduced vehicle delays due to passing trains.	Yes
Emission Reduction	ROG Emission Benefits (0.14 kg/day) CO Emission Benefits (1.99 kg/day) NOx Emission Benefits (0.13kg/day) PM Emission Benefits (0.01kg/day)	Not adequately reported.	No

RESPONSE



BOARD OF DIRECTORS

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Darrell Johnson
Chief Executive Officer

October 12, 2017

Ms. Jennifer Whitaker
Office of State Audits and Evaluations
915 L Street, 6th Floor
Sacramento, CA, 95814

Dear Ms. Whitaker:

The Orange County Transportation Authority (OCTA) appreciates the opportunity to comment on the draft report of the recent audit of Proposition 1B Bond Programs, Project Numbers 0000020636, 1213000168, 1200020231, 1200020282, 1200020248, and 1200020072. OCTA is pleased at the overall conclusion that Proposition 1B expenditures were incurred and reimbursed in compliance with the executed project agreements, California Department of Transportation and California Transportation Commission program guidelines, and applicable state and federal regulations. Also, we appreciate that the auditors agree that expected benefits/outcomes, as described in the project agreements, were achieved.

The report included two findings related to Final Delivery Reports (FDR's) for two projects, as follows:

First, the auditors indicated that the project benefits/outcomes included in the FDR's were not adequate because, rather than reporting specific emissions reduction metrics, the FDR included only general statements that idling vehicle emissions were reduced. The auditors have recommended that a supplemental FDR be submitted that reflects the post-project emission metrics as compared to those in the baseline agreement. The auditors cite Transportation Corridor Improvement Funding guidelines; however, these guidelines do not require project sponsors to quantify data or provide specific metrics. The baseline agreement included specific metrics that were estimates obtained from the Air Quality Management District (AQMD) at that time; however, the regional model used to produce these estimates changes over time. The estimates, therefore, are not comparable from year to year because the models are different. What is consistent, however, is AQMD's acknowledgement that grade separation projects provide regional air quality benefits. The FDR submitted, while it does not include metrics, includes confirmation that emissions from idling vehicles have been reduced by virtue of the fact that vehicles no longer wait for trains to pass. As such, project benefits are consistent with the baseline agreement, and there is no additional information to include. The submitted FDR also included

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descriptions of other benefits and outcomes such as safety enhancements, congestion reduction and velocity, throughput, and reliability improvements.

The auditors also pointed out that FDR's were not submitted within six months of the projects becoming operable, as required. OCTA management had delayed submitting the FDR's in an effort to ensure final expenditures and project deliverables were received before providing final report figures. However, in the future, FDR's will be filed within six months, and supplemental, revised FDR's will be filed as necessary to capture expenditures and project deliverables that are received after that timeframe.

If there are any additional questions or concerns, please contact Janet Sutter, Executive Director of Internal Audit, at (714) 560-5591, or jsutter@octa.net.

Sincerely,

A handwritten signature in blue ink, appearing to be 'DJ', with a long horizontal stroke extending to the right.

Darrell Johnson
Chief Executive Officer

DJ:jes

EVALUATION OF RESPONSE

OCTA's response to the draft report has been reviewed and incorporated into the final report. We acknowledge OCTA's willingness to implement our recommendations specific to Finding 2. In evaluating OCTA's response, we provide the following comments:

Finding 1: Incorrect Reporting of Project Benefits/Outcomes

OCTA disagrees that the emissions reduction portion of the benefits/outcomes reported in the Final Delivery Reports are not adequately reported for projects 1200020248 and 1200020072. OCTA states the TCIF guidelines do not require project sponsors to quantify data or provide specific measures, and that the grade separation projects provide regional air quality benefits. However, TCIF Guidelines, section 17, states that implementing agencies will provide a Final Delivery Report to CTC on the scope of completed projects, including performance outcomes derived from projects as compared to those described in project baseline agreements. For these two projects, the executed project agreements identified expected metrics relating to specific emissions reduction (i.e., a reduction in CO of 2.82). OCTA did not report these specific metrics in the Final Delivery Reports and instead reported a general statement that idling vehicle emissions were reduced. Therefore, our finding and recommendations remain unchanged.