



BOARD AGENDA

Orange County Transportation Authority Board Meeting
Orange County Transportation Authority Headquarters
Board Room - Conference Room 07-08
550 South Main Street
Orange, California
Monday, January 8, 2018 at 9:00 a.m.

Any person with a disability who requires a modification or accommodation in order to participate in this meeting should contact the OCTA Clerk of the Board, telephone (714) 560-5676, no less than two (2) business days prior to this meeting to enable OCTA to make reasonable arrangements to assure accessibility to this meeting.

Agenda Descriptions

The agenda descriptions are intended to give members of the public a general summary of items of business to be transacted or discussed. The posting of the recommended actions does not indicate what action will be taken. The Board of Directors may take any action which it deems to be appropriate on the agenda item and is not limited in any way by the notice of the recommended action.

Public Comments on Agenda Items

Members of the public may address the Board of Directors regarding any item. Please complete a speaker's card and submit it to the Clerk of the Board or notify the Clerk of the Board the item number on which you wish to speak. Speakers will be recognized by the Chairman at the time the agenda item is to be considered. A speaker's comments shall be limited to three (3) minutes.

Public Availability of Agenda Materials

All documents relative to the items referenced in this agenda are available for public inspection at www.octa.net or through the Clerk of the Board's office at the OCTA Headquarters, 600 South Main Street, Orange, California.

Call to Order

Invocation

Director Steel

Pledge of Allegiance

Director Winterbottom



BOARD AGENDA

Special Calendar

Orange County Transportation Authority Special Calendar Matters

1. Administration of the Oath of Office to Returning Orange County Transportation Authority Board of Directors

Oath of office will be administered to returning Board Members Laurie Davies, Barbara Delgleize, Steve Jones, Al Murray, and Tom Tait.

2. Election of Orange County Transportation Authority Board Chair

3. Election of Orange County Transportation Authority Vice Chair

4. 2017 Year In Review

Consent Calendar (Items 5 through 15)

All matters on the Consent Calendar are to be approved in one motion unless a Board Member or a member of the public requests separate action on a specific item.

Orange County Transportation Authority Consent Calendar Matters

5. Approval of Minutes

Approval of the Orange County Transportation Authority and affiliated agencies' regular meeting minutes of December 11, 2017.

6. Internal Audit Policy

Janet Sutter

Overview

A revised Internal Audit Policy has been prepared to better define the roles and responsibilities of the Internal Audit Department and management as they relate to follow-up reviews of outstanding recommendations. The Internal Audit Policy includes the procedures and protocols for the conduct and reporting of internal audit activities.

Recommendation

Direct staff to implement the Internal Audit Policy, as revised.



BOARD AGENDA

7. Orange County Transportation Authority, Proposition 1B Bond Programs
Janet Sutter

Overview

The California Department of Finance has conducted an audit of Proposition 1B funds awarded to the Orange County Transportation Authority for Sand Canyon Grade Separation, Orangethorpe Avenue Grade Crossing, Tustin Avenue and Rose Drive Overcrossing, Kraemer Boulevard Undercrossing, Placentia Avenue Undercrossing, and Oso Parkway Widening. The audit report includes two observations related to the reporting of project benefits and timely submission of Final Delivery Reports.

Recommendation

Receive and file as an information item.

8. Amendment to Agreement for Internet Service
Michael Beerer/Andrew Oftelie

Overview

On June 2, 2014, the Orange County Transportation Authority entered into an agreement with CenturyLink, Inc. (formerly TW Telecom and L3 Communications LLC) to provide internet connectivity services for a five-year term effective September 1, 2014 through August 31, 2019. An amendment to the existing agreement is needed for increased internet bandwidth.

Recommendation

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 3 to Agreement No. C-4-1396 between the Orange County Transportation Authority and CenturyLink, Inc., in the amount of \$32,000, to provide increased internet bandwidth. This will increase the maximum obligation of the agreement to a total contract value of \$129,786.



BOARD AGENDA

9. Agreements for Investment Management Services

Rodney Johnson/Andrew Oftelie

Overview

Consultant services are needed to provide investment management services of the Orange County Transportation Authority's \$1.3 billion of operating monies in the short-term portfolio. Proposals were received in accordance with the Orange County Transportation Authority's procurement procedures for professional and technical services. Board of Directors' approval is requested to select firms to provide investment management services.

Recommendations

- A. Approve the selection of Chandler Asset Management, Inc.; Logan Circle Partners, L.P.; Payden & Rygel; and PFM Asset Management LLC, as the firms to provide investment management services in the aggregate amount of \$8,995,608.
- B. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-7-1813 between the Orange County Transportation Authority and Chandler Asset Management, Inc., to provide investment management services for a five-year initial term effective through December 31, 2022, with two, two-year option terms.
- C. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-7-2062 between the Orange County Transportation Authority and Logan Circle Partners, L.P., to provide investment management services for a five-year initial term effective through December 31, 2022, with two, two-year option terms.
- D. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-7-2063 between the Orange County Transportation Authority and Payden & Rygel, to provide investment management services for a five-year initial term effective through December 31, 2022, with two, two-year option terms.
- E. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-7-2064 between the Orange County Transportation Authority and PFM Asset Management LLC, to provide investment management services for a five-year initial term effective through December 31, 2022, with two, two-year option terms.



BOARD AGENDA

9. (Continued)

- F. Approve the selection of US Bancorp Asset Management, Inc.; State Street Global Advisors; and Western Asset Management Company, as the firms to be placed on a secondary list of on-call firms to provide investment management services.

10. Fiscal Year 2017-18 First Quarter Budget Status Report

Anthony Baruch/Andrew Oftelie

Overview

The Orange County Transportation Authority's staff has implemented the fiscal year 2017-18 budget. This report summarizes the material variances between the budget and actual revenues and expenses through the first quarter of fiscal year 2017-18.

Recommendation

Receive and file as an information item.

11. Fiscal Year 2017-18 First Quarter Grant Reimbursement Status Report

Rene I. Vega/Andrew Oftelie

Overview

The Quarterly Grant Reimbursement Status Report summarizes grant activities for the Orange County Transportation Authority Board of Directors. This report focuses on activity for the period of July through September 2017.

Recommendation

Receive and file as an information item.



BOARD AGENDA

- 12. Update on the Loan Agreements with the Cities of Anaheim, Buena Park, Placentia, and the West Orange County Water Board**
Sam Kaur/Andrew Oftelie

Overview

The Orange County Transportation Authority Board of Directors has authorized loan agreements with the cities of Anaheim, Buena Park, Placentia, and the West Orange County Water Board. Per Board of Directors direction, staff will provide annual updates on the status of the agreements.

Recommendation

Receive and file as an information item.

Orange County Transit District Consent Calendar Matters

- 13. Transit Division Performance Measurements Report for the First Quarter of Fiscal Year 2017-18**
Johnny Dunning, Jr. /Beth McCormick

Overview

The Orange County Transportation Authority operates fixed-route bus and demand-response paratransit service throughout Orange County and into neighboring counties. This report summarizes the performance measures for the transit services provided during the first quarter of fiscal year 2017-18. These performance measures gauge the safety, courtesy, reliability, and overall quality of the public transit services provided.

Recommendation

Receive and file as an information item.



BOARD AGENDA

Orange County Local Transportation Authority Consent Calendar Matters

14. Amendment to Agreement for Project Management Consultant Services for Rail Programs

Dinah Minter/James G. Beil

Overview

On August 12, 2013, the Orange County Transportation Authority Board of Directors approved an agreement with Mott MacDonald, LLC, to provide program management consultant services to support program management and delivery of rail programs. An amendment to the existing agreement is needed for the consultant to continue providing these services for rail programs.

Recommendation

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 8 to Agreement No. C-3-1587 between the Orange County Transportation Authority and Mott MacDonald, LLC, in the amount of \$1,125,156, for continued program management consultant support services for rail programs. This will increase the maximum cumulative payment obligation of the agreement to a total contract value of \$7,320,512.

15. Project V Community-Based Transit Circulators Program Ridership Report

Christina Moore/Kia Mortazavi

Overview

Measure M2 establishes a competitive program through Project V to fund local transit services that complement regional transit. Since inception, the Orange County Transportation Authority Board of Directors approved 23 projects for a total of \$36.5 million in Project V funds. A ridership report on Project V services currently operating is provided for information purposes.

Recommendation

Receive and file as an information item.



BOARD AGENDA

Regular Calendar

Orange County Transportation Authority Regular Calendar Matters

16. Central Harbor Boulevard Transit Corridor Study

Eric Carlson/Kia Mortazavi

Overview

In August 2015, the Orange County Transportation Authority initiated the Central Harbor Boulevard Transit Corridor Study to analyze transit options in the Harbor Boulevard corridor. The study scope was amended in October 2016 to also evaluate transit connections between the Anaheim Resort and the Anaheim Regional Transportation Intermodal Center. In February 2017, 12 draft conceptual alternatives were presented for review and comment, and this update presents the results of the conceptual alternatives analysis.

Recommendations

- A. Direct staff to offer presentations of the study results to the city councils in the study area, and return to the Board of Directors with a status report when completed.
- B. Direct staff to continue to work with technical staff from each of the corridor cities and the California Department of Transportation to identify key issues that would need to be addressed during any subsequent study efforts.

Discussion Items

17. Public Comments

At this time, members of the public may address the Board of Directors regarding any items within the subject matter jurisdiction of the Board of Directors, but no action may be taken on off-agenda items unless authorized by law. Comments shall be limited to three (3) minutes per speaker, unless different time limits are set by the Chairman subject to the approval of the Board of Directors.



BOARD AGENDA

- 18. Chief Executive Officer's Report**
- 19. Directors' Reports**
- 20. Closed Session**

A Closed Session will be held as follows:

Pursuant to Government Code Section 54956.9(d)(1) – Existing Litigation. City of Seal Beach v. State of California Department of Transportation, et al., San Diego Superior Court Case No. 37-2016-00021062.

- 21. Adjournment**

The next regularly scheduled meeting of this Board will be held at **9:00 a.m. on Monday, January 22, 2018**, at the Orange County Transportation Authority Headquarters, 550 South Main Street, Board Room - Conference Room 07-08, Orange, California.

SUPPLEMENTAL INFORMATION



Clerk of the Board of Supervisors

333 W. Santa Ana Blvd., Suite 465
Santa Ana, CA 92701
(714) 834-2206 ** FAX (714) 834-4439
Robin.Stieler@ocgov.com

Robin Stieler
Clerk of the Board

November 6, 2017

Laurena Weinert, Clerk of the Board
Orange County Transportation Authority
LWeinert@octa.net

Dear Laurena:

On November 2, 2017, the Orange County City Selection Committee met with the purpose of filling vacancies on several Boards, Commissions and Committees. Some of the positions considered for appointment were to the Orange County Transportation Authority. After careful consideration, the City Selection Committee was able to make the following appointments:

1st District Representative (One City/One Vote)

Steve Jones, Mayor, City of Garden Grove
Phone: 714-813-0752
Email: jones4gg@gmail.com

2nd District Representative (Population Weighted)

Barbara Delgleize, Mayor, Huntington Beach
Phone: 714-421-0103
Email: barbara.delgleize@surfcity-hb.org

3rd District Representative (One City/One Vote)

Al Murray, Council Member, City of Tustin
Phone: 714-785-7510
Email: AlMurrayTustin@gmail.com

4th District Representative (Population Weighted)

Tom Tait, Mayor, City of Anaheim
Phone: 714-403-1804
Email: ttait@anaheim.net

5th District Representative (Population Weighted)

Laurie Davies, Council Member, City of Laguna Niguel

Phone: 949-370-5255

Email: LDavies@CityofLagunaNiguel.org

These appointments begin January 1, 2018 and expire December 31, 2019.

If you have any questions regarding the appointment process or the appointments made by the City Selection Committee, please feel free to contact me.

Sincerely,



Jamie Ross, Deputy Orange County Clerk of the Board

Secretary, Orange County City Selection Committee

Phone: 714-834-2206

Email: Jamie.Ross@ocgov.com

cc: Steve Jones, Mayor, City of Garden Grove
Barbara Delgleize, Mayor, City of Huntington Beach
Al Murray, Council Member, City of Tustin
Tom Tait, Mayor, City of Anaheim
Laurie Davies, Council Member, City of Laguna Niguel

Minutes of the
Orange County Transportation Authority
Orange County Transit District
Orange County Local Transportation Authority
Orange County Service Authority for Freeway Emergencies
Board of Directors Meeting

Call to Order

The December 11, 2017 regular meeting of the Orange County Transportation Authority (OCTA) and affiliated agencies was called to order by Chairman Hennessey at 9:07 a.m. at the OCTA Headquarters, 550 South Main Street, Board Room – Conference Room 07-08, Orange, California.

Roll Call

Following the Invocation and Pledge of Allegiance, the Clerk of the Board noted a quorum was present, with the following Directors in attendance:

Directors Present: Michael Hennessey, Chairman
Lisa A. Bartlett, Vice Chair
Barbara Delgleize
Andrew Do
Lori Donchak
Steve Jones
Mark A. Murphy
Richard Murphy
Shawn Nelson
Miguel Pulido
Tim Shaw
Tom Tait
Gregory T. Winterbottom
Ryan Chamberlain, Governor's Ex-Officio Member

Directors Absent: Laurie Davies
Al Murray
Todd Spitzer
Michelle Steel

Also Present: Darrell Johnson, Chief Executive Officer
Ken Phipps, Deputy Chief Executive Officer
Laurena Weinert, Clerk of the Board
Olga Prado, Assistant Clerk of the Board
James Donich, General Counsel
Members of the Press and the General Public

Special Calendar

Orange County Transportation Authority Special Calendar Matters

1. Presentation of Resolution of Appreciation for Employee of the Month for November 2017

Darrell Johnson, Chief Executive Officer (CEO), presented the OCTA Resolution of Appreciation No. 2017-088 to Mary Shavaliel, Administration, Employee of the Month for November 2017.

2. Presentation of Resolutions of Appreciations for Employee of the Month for December 2017

Darrell Johnson, CEO, presented the OCTA Resolutions of Appreciation Nos. 2017-089, 2017-090, and 2017-091 to Michelle Peoples, Coach Operator; Quy Nguyen, Maintenance; and Angela Sun, Administration, as Employees of the Month for December 2017.

Consent Calendar (Items 3 through 12)

Orange County Transportation Authority Consent Calendar Matters

3. Approval of Minutes

A motion was made by Director Winterbottom, seconded by Director Nelson, and declared passed by those present, to approve the Orange County Transportation Authority and affiliated agencies' regular meeting minutes of November 27, 2017.

Vice Chair Bartlett and Director Pulido were not present to vote on this item.

4. Proposed 2018 Board of Directors Meetings Calendar

A motion was made by Director Winterbottom, seconded by Director Nelson, and declared passed by those present, to approve the Orange County Transportation Authority and affiliated agencies 2018 Board of Directors meetings calendar.

Vice Chair Bartlett and Director Pulido were not present to vote on this item.

5. Conflict of Interest Code and 2017 Annual Statement of Economic Interests Filing

A motion was made by Director Winterbottom, seconded by Director Nelson, and declared passed by those present, to direct the Clerk of the Board to distribute and monitor the 2017 Annual Statement of Economic Interests - Form 700 to Members of the Board of Directors and designated positions, to be filed by April 1, 2018.

Vice Chair Bartlett and Director Pulido were not present to vote on this item.

6. 2018 Technical Steering Committee Membership

A motion was made by Director Winterbottom, seconded by Director Nelson, and declared passed by those present, to approve the proposed 2018 Technical Steering Committee membership.

Vice Chair Bartlett and Director Pulido were not present to vote on this item.

Orange County Local Transportation Authority Consent Calendar Matters

7. Approval to Release Invitation for Bids for Construction of the Right-of-Way Slope Stabilization Project

A motion was made by Director Winterbottom, seconded by Director Nelson, and declared passed by those present, to approve the release of Invitation for Bids 7-2047 for construction of the railroad right-of-way slope stabilization project.

Vice Chair Bartlett and Director Pulido were not present to vote on this item.

8. Comprehensive Transportation Funding Programs Semi-Annual Review - September 2017

A motion was made by Director Winterbottom, seconded by Director Nelson, and declared passed by those present, to approve adjustments to the Comprehensive Transportation Funding Programs projects and Local Fair Share funds.

Due to a potential conflict of interest, Director Tait did not participate or vote on this item.

Vice Chair Bartlett and Director Pulido were not present to vote on this item.

9. Measure M2 Quarterly Progress Report for the Period of July 2017 Through September 2017

A motion was made by Director Winterbottom, seconded by Director Nelson, and declared passed by those present, to receive and file as an information item.

Vice Chair Bartlett and Director Pulido were not present to vote on this item.

10. Fiscal Year 2017-18 Measure M2 Annual Eligibility Review

A motion was made by Director Winterbottom, seconded by Director Nelson, and declared passed by those present, to approve all local jurisdictions as conditionally eligible for Measure M2 net revenues for fiscal year 2017-18, and direct staff to return with eligibility findings for local jurisdictions, pending the adoption and submittal of fiscal year 2016-17 expenditure reports by local jurisdictions.

Due to a potential conflict of interest, Director Tait did not participate or vote on this item.

Vice Chair Bartlett and Director Pulido were not present to vote on this item.

11. Measure M2 Environmental Cleanup Program Updates and Next Steps

A motion was made by Director Winterbottom, seconded by Director Nelson, and declared passed by those present, to direct staff to return in early 2018 with updated Environmental Cleanup Program funding guidelines for a 2018 call for projects.

Vice Chair Bartlett and Director Pulido were not present to vote on this item.

12. Measure M2 Environmental Mitigation Program Update

A motion was made by Director Winterbottom, seconded by Director Nelson, and declared passed by those present, to receive and file as an information item.

Vice Chair Bartlett and Director Pulido were not present to vote on this item.

Regular Calendar

Orange County Local Transportation Authority Regular Calendar Matters

13. Interstate 405 Improvement Project Update

Jeff Mills, Program Manager, and Christina Byrne, Acting Department Manager for Public Outreach, provided a PowerPoint presentation for this item as follows:

- Project Location and Key Features;
- Project Travel Time Benefits;
- Background;
- Project Update;
- Ellis Avenue/Euclid Street Interchange;

13. (Continued)

- Preliminary Bridge Construction Timeline;
- Public Outreach Update; and
- Next Steps.

A discussion ensued regarding:

- On December 19th, staff will present the onramp redesign to the City of Fountain Valley City Council.
- One week ago, Mr. Johnson, CEO, and OCTA staff met with Fountain Valley's City Manager and two Council Members about the onramp redesign.
- Staff has provided outreach to the communities along the corridor and will increase the efforts.

No action was taken on this receive and file as an information item.

14. Approval to Release Invitation for Bids for Construction of the OC Streetcar Project

Darrell Johnson, CEO, provided opening comments, and Jim Beil, Executive Director of Capital Programs, provided a report for this item as follows:

- The OC Streetcar (Streetcar) Project design is completed and ready to be advertised for construction bids.
- The engineer's estimate for construction is \$141.6 million.
- Work is to be completed 850 days after issuance of the notice to proceed.
- Construction of the Streetcar Project route is complex.
- Highlighted the other timelines regarding the Streetcar Project.
- During construction, the contractor is required to maintain access to businesses, residences, and etcetera.
- The contractor pre-qualification process is underway and the deadline submission due date is December 19th.
- Last Friday, three contractor teams were notified about meeting the pre-qualification requirements.
- Only pre-qualified contractors will be invited to submit a bid for construction.
- In May 2018, staff will seek Board approval to award the construction contract.

14. (Continued)

A discussion ensued regarding:

- The cities' of Garden Grove and Santa Ana positive partnership for the Streetcar Project.
- The Streetcar Project is a good example of using Measure M2 (M2) funding to leverage obtaining other funding sources.
- Staff is confident with the estimated construction costs.
- The construction contractors bid list has a good pool of contractors.

A motion was made by Director Jones, seconded by Director Delgleize, and declared passed by those present, to approve the release of Invitation for Bids 7-1904 for construction of the OC Streetcar project.

Directors M. Murphy and Tait voted in opposition.

Orange County Transportation Authority Regular Calendar Matters

15. Proposed State Route 241/91 Express Lanes Tolloed Connector Update

Darrell Johnson, CEO, opened with comments and referenced the handouts provided at the dais to the Board of Directors (Board), and Kia Mortazavi, Executive Director of Planning, provided a PowerPoint presentation for this item as follows:

- State Route 91 (SR-91) Corridor Vicinity Map;
- 91 Corridor Actions;
- Proposed Project Scope;
- SR-91 Eastbound Configuration with Proposed Tolloed 241/91 Connector;
- Complexity of Traffic Movements;
- Regional Considerations;
- SR-91 Corridor Implications;
- Performance Summary;
- Operational Considerations;
- Other Options; and
- Recommended Actions.

15. (Continued)

Public comments were heard from:

1. Mike Kraman, CEO, Transportation Corridor Agencies (TCA), commented that the 241/91 Express Lanes tolled connector project is an example of a regional mobility project that will enhance the regional toll network, and specially a toll road and express lane connector.

Mr. Kraman stated that the data presented and staff recommendations are based on old assumptions, data, and analysis, and since the Riverside County Transportation Commission (RCTC) 91 Express Lanes project is built, this is an opportunity to go forward with the project.

Mr. Kraman provided his concerns and comments on Attachments B and D of the Staff Report. In addition, he stated that the technical meetings associated with new data collection and analysis have begun and include staff from the California Department of Transportation (Caltrans) Districts 8 and 12 OCTA, RCTC, and TCA.

Mr. Kraman concluded that in response to the recommendations is for TCA, as a sponsoring agency, to update its draft technical reports and study, as well as to be included with Caltrans, OCTA, and RCTC in studying this corridor. He requested that the Board modify staff's recommendation to request TCA to continue to collect and analyze the RCTC 91 Express Lanes post-opening data, before continuing to finalize the environmental document and final design.

2. John Standiford, Deputy Executive Director, RCTC, commented that RCTC supports staff's recommendation. In addition, he also stated that RCTC is concerned about the eastbound commute that is a general purpose lanes and express lanes issue for the entire corridor. Mr. Standiford concluded that RCTC is ready to work with all the agencies involved with this project.

Director Donchak asked Mr. Standiford if RCTC supports staff's recommendations and if RCTC received a response from TCA to the letter dated November 28, 2017, that is referenced in Attachment E of the Staff Report.

Mr. Standiford responded that RCTC supports staff's recommendations and recently received a response from TCA. He also stated that the "do no harm" approach is what RCTC used with OCTA when RCTC developed its portion of the 91 Express Lanes. He stated his desire for all agencies to take the "do no harm" approach for the SR-91 corridor.

15. (Continued)

Director Chamberlain addressed Mr. Standiford as follows:

- Does RCTC support staff's recommendations to work solely between OCTA and RCTC.
- To either work on alternatives in the SR-91 corridor, or to work with Caltrans, TCA, OCTA, and RCTC to evaluate the SR-91 corridor.
- Would RCTC oppose an amendment to the recommendations to include Caltrans District 8 and 12 in the discussions.
- If there is an opportunity to add a sixth lane, what is RCTC's opinion on whether to accelerate the sixth lane.

Mr. Standiford responded that:

- RCTC has been involved with many of the technical discussions regarding this project.
- As this Project moves forward, RCTC is ready to work with all the agencies.
- RCTC supports staff's recommendations.
- There is no official RCTC position, if there was an amendment to the recommendation to include Caltrans Districts 8 and 12.
- Ongoing communications would be helpful.
- If there are opportunities to increase traffic capacity on the 91 corridor, RCTC would like to review if the sixth lane is feasible.

A lengthy discussion ensued regarding:

- This item makes explicit OCTA's position in regards to protecting the success on the 91 corridor by using the "do no harm" approach.
- For the past five years, the 91 corridor commuters have experienced extreme construction fatigue.
- Continue to study this project that would benefit the cities of Anaheim, Yorba Linda, and other areas of the region.
- Director Tait's inquired if Caltrans looked into the traffic analysis for this connector project, and Director Chamberlain responded that Caltrans has reviewed it extensively.
- Director Chamberlain stated that Caltrans does not agree with staff's recommendations and provided comments about the Project's overall benefits as noted in Attachment B of the Staff Report.
- Communication between the agencies and stakeholders is needed.
- Pause and engage all the stakeholders, as well as include Caltrans.
- Update all data and analyze all solutions that consider regional mobility, as well as review the entire footprint of the 91 corridor.
- RCTC is in the process of conducting a major study of the SR-91 and Interstate 15 corridors.

15. (Continued)

- OCTA and RCTC are responsible for the performance of the SR-91 corridor.
- Page 5 of the Staff Report lists potential solutions.
- Concerns about:
 - Cut through in the cities of Anaheim and Orange;
 - Not having a set of reliable reports;
 - Process;
 - Stantec data; and
 - Operations of the project.
- The toll revenues are not included in the Staff Report.

Chairman Hennessey noted for the record a written comment, provided as a handout to the Board, from the SR-91 Advisory Committee Chairman, Al Murray, about a discussion with SR-91 Advisory Committee Vice Chair, Karen Spiegel, and City of Corona Mayor about concerns for this project.

A motion was made by Director M. Murphy, seconded by Director Tait, to remove Recommendation A, and approve Recommendation B, with the clarification that it is in coordination and planning with the State Route 91 corridor agencies (Caltrans, OCTA, and TCA) along with RCTC as follows:

Direct staff to work with the Riverside County Transportation Commission and the State Route 91 corridor agencies to evaluate opportunities to advance State Route 91 corridor congestion relief projects.

A substitute motion was made by Director Donchak, seconded by Director Pulido, and declared passed by those present, to:

- A. Direct staff to request Transportation Corridor Agencies to defer all work on the State Route 241/91 Express Lanes connector given the regional mobility impacts.
- B. Direct staff to work with the Riverside County Transportation Commission to evaluate opportunities to advance State Route 91 corridor congestion relief projects.

Director Chamberlain provided his comments about not including Caltrans in the substitute motion, as Caltrans does system-wide transportation planning in Orange County.

A discussion ensued and Director Donchak amended the substitute motion to include Caltrans in Recommendation B and Director Pulido concurred.

15. (Continued)

The amended substitute motion made by Director Donchak, seconded by Director Pulido, was declared passed by those present, to:

- A. Direct staff to request Transportation Corridor Agencies to defer all work on the State Route 241/91 Express Lanes connector given the regional mobility impacts.
- B. Direct staff to work with the Riverside County Transportation Commission and California Department of Transportation to evaluate opportunities to advance State Route 91 corridor congestion relief projects.

Directors Delgleize, M. Murphy, and Tait opposed the vote.

Discussion Items

16. OC Bridges Railroad Grade Separation Completion

Ross Lew, Program Manager, and Tresa Oliveri, Community Relations Officer, provided a PowerPoint presentation for this item as follows:

- Program Overview;
- Project Timeline;
- Funding;
- Public Outreach; and
- A video was shown.

The Board, previous Boards, and staff were thanked of all their efforts on the OC Bridges Program.

Director Shaw requested the number of people employed, and Director Donchak requested a safety summary for the OC Bridges Program.

No action was taken on this information item.

17. Public Comments

Public comments were heard from:

1. Almeta Carter, Teamsters Local 952 (Teamsters), commented that Teamsters is looking forward to negotiating a fair contract.
2. Bruce Senator, bus and ACCESS rider, commented on issues when using the OC App to purchase the disabled reduced fare and the OCTA telephone tree automated system.

Mr. Johnson, CEO, responded that staff will connect with Mr. Senator about the OC App purchasing issues. In addition, Chairman Hennessey asked to update the Board on how the OC App and telephone tree issues were addressed.

3. Art Aguilera, Coach Operator and Teamsters Union Steward, provided his transportation work background and commented that OCTA coach operators cannot make a good living wage.
4. Gerald Allen, Teamsters Union Steward at the Santa Ana Base, provided his transportation work background and commented that Teamsters is looking for fair contract negotiations.
5. Patrick Kelly, Teamsters Representative, complimented the Board for its public service and accomplishments. Mr. Kelly stated that Teamsters has been in negotiations with OCTA since early spring 2017, currently going into mediations, and looking for a fair contract with no disruption of service.
6. Andrew Smith, Coach Operator, commented that he has worked at OCTA for approximately 20 years. In addition, he asked the Board to recognize the coach operators by providing a fair contract.
7. Robert Bennett, Teamsters Representative, commented that he has worked for OCTA for approximately 17 years. In addition, he asked the Board to recognize the excellent work of the coach operators, as well as requested a fair and respectable contract.
8. Cassandra Walker, Coach Operator, commented that she has been an employee with OCTA for 30 years and the coach operators want a fair contract.

18. Chief Executive Officer's Report

Darrell Johnson, CEO, reported that:

- On Thursday, December 7th, Congress voted to extend the fiscal year 2017 appropriations levels to December 22nd in order to avoid a potential government shutdown. In addition, he stated that this prevents federal programs to tap into higher Fixing America's Surface Transportation Act authorized levels for fiscal year 2018 that began in October 1st. Staff will continue to follow this issue, and the Board will be updated on the progress.
- Last week, the Women In Transportation (WTS) hosted its annual awards gala, and OCTA was presented the Rosa Parks Diversity Leadership Award for all its various diversity initiatives. Chairman Hennessey and Director Murray were thanked for attending the awards gala.
- Chairman Hennessey commented on the WTS Rosa Parks Diversity Leadership Award.
- On Friday, December 15th, OCTA will host its 25th Annual Stuff-A-Bus Toy Drive, along with ABC7 and Southern California firefighters, at the Honda Center from 4:30 a.m. to 6:30 p.m.
- For the 16th consecutive year, OCTA will offer free bus rides on New Year's Eve to encourage people not to drink and drive. In addition, OCTA is in the process of rolling out a marketing campaign to promote the free bus service on New Year's Eve.

19. Directors' Reports

Director Chamberlain reported that at the WTS awards gala, Caltrans District 12 received the innovative transportation project of the year award for Caltrans' transportation network systems plan. He feels proud of Orange County and the regional partners in striving for innovation mobility.

20. Closed Session

A Closed Session was held as follows:

- A. Pursuant to Government Code Section 54956.9(d)(1) – Conference with Legal Counsel – Existing Litigation. Estate of Richard Collins, et al., v. Orange County Transportation Authority, et al. OCSC Case No. 30-2016-00844677.

20. (Continued)

- B. Pursuant to Government Code Section 54956.9(d)(1) - Conference with Legal Counsel - Existing Litigation, Zia Gao, et al. v. Orange County Transportation Authority, et al., OCSC Case No. 30-2015-00814633.
- C. Pursuant to Government Code Section 54957.6 to discuss negotiations with Teamsters Local 952 regarding the coach operators. The lead negotiator for the Orange County Transportation Authority is Maggie McJilton, Executive Director of Human Resources and Organizational Development, and for Teamsters Local 952 is Patrick Kelly or his designee.

There was no report out for the Closed Session items.

21. Adjournment

The meeting adjourned at 11:20 a.m.

The next regularly scheduled meeting of this Board will be held at **9:00 a.m. on Monday, January 8, 2018**, at the Orange County Transportation Authority Headquarters, 550 South Main Street, Board Room – Conference Room 07-08, Orange, California.

ATTEST:

Laurena Weinert
Clerk of the Board

Michael Hennessey
OCTA Chairman



COMMITTEE TRANSMITTAL

January 8, 2018

To: Members of the Board of Directors
From: Laurena Weinert, Clerk of the Board
Subject: Internal Audit Policy

Finance and Administration Committee Meeting of December 13, 2017

Present: Directors Do, Hennessey, Jones, and R. Murphy
Absent: Directors Pulido, Spitzer, and Steel

Committee Vote

This item was passed by the Members present.

Committee Recommendation

Direct staff to implement the Internal Audit Policy, as revised.



December 13, 2017

To: Finance and Administration Committee

From: Darrell Johnson, Chief Executive Officer

Janet Sutter, Executive Director
Internal Audit Department

Subject: Internal Audit Policy

Overview

A revised Internal Audit Policy has been prepared to better define the roles and responsibilities of the Internal Audit Department and management as they relate to follow-up reviews of outstanding recommendations. The Internal Audit Policy includes the procedures and protocols for the conduct and reporting of internal audit activities.

Recommendation

Direct staff to implement the Internal Audit Policy, as revised.

Background

The Internal Audit Department (Internal Audit) of the Orange County Transportation Authority (OCTA) is an independent appraisal function whose purpose is to examine and evaluate OCTA's projects, programs, operations, and activities to assist management and the Board of Directors in the effective discharge of their duty to safeguard the assets of OCTA and ensure those assets are used in an efficient and effective manner.

The Internal Audit Policy (Policy) was originally developed to clarify the roles, responsibilities, and protocols for audit activities within OCTA. On October 25, 2017, the Finance and Administration Committee provided direction to Internal Audit to enhance procedures to ensure more detailed and escalated reporting of audit recommendations that remain outstanding over twelve months.

Discussion

The Policy has been enhanced to include requirements for more detailed and escalated reporting of the status of outstanding audit recommendations. Specifically, each quarterly update to the Internal Audit Plan includes an exhibit reflecting the status of implementation of outstanding audit recommendations which are reviewed by Internal Audit every six months until satisfactorily addressed by management. The Policy now includes reporting to the Chief Executive Officer any audit recommendations outstanding over 12 months and inclusion of management's explanation for the delay, along with an estimate as to the percentage progress toward completion. Audit recommendations involving outside agencies that remain outstanding over 12 months without progress will be reported to the Finance and Administration Committee during presentation of the quarterly update.

Summary

The Internal Audit Policy has been revised to better define the roles and responsibilities of Internal Audit and management as they relate follow-up reviews of outstanding recommendations.

Attachment

A. Internal Audit Policy

Prepared by:



Janet Sutter
Executive Director, Internal Audit
714-560-5591



Executive Office

Chief Executive Officer

INTERNAL AUDIT POLICY

Policy#: EO-IA-220.01-INTERNAL

Origination 03/01/2009

Revised Date: 10/25/2017

I. PURPOSE

The purpose of this policy is to establish the methods, guidelines and accountability for the Orange County Transportation Authority's (OCTA) Internal Audit Department.

II. ORGANIZATIONAL UNITS AFFECTED

This policy applies to all OCTA employees.

The Executive Director of Internal Audit is responsible for the administration of this policy; OCTA's Chief Executive Officer is responsible for ensuring cooperation between the Internal Audit Department and management in the execution of this policy. Management is responsible for establishing and enforcing adequate internal controls, responding to audit findings and recommendations, and the timely implementation of corrective action related to deficiencies identified in audit reports.

III. POLICY

It is the policy of OCTA to establish, maintain, and support an Internal Audit Department for the purpose of independent appraisal of OCTA operations. The Internal Audit Department will examine and evaluate financial, administrative, and operational activities of OCTA and supply management with information and recommendations to assist them in effective and efficient control of OCTA assets and operations. The Internal Audit Department will report the results of its activities to management and the Board of Directors (Board) to assist in the effective discharge of their fiduciary responsibilities. Internal Audit will refer to this policy at the outset of each audit engagement.

IV. DEFINITIONS

Not applicable.

V. PROCEDURE**A. Implementation of Policy**

The Executive Director of Internal Audit will implement this policy through activities including, but not limited to, the following:

1. Developing and executing a risk-based annual audit plan that incorporates evaluations of OCTA's internal accounting and operating controls, its safeguarding of assets, its compliance with contracts, laws and regulations, and its compliance with established OCTA policies and procedures.
2. Provide reports on the results of all audit activities to management and the Board.

Executive Office
INTERNAL AUDIT POLICY

Policy#: EO-IA-220.01-INTERNAL

Origination Date: 03/01/2009

Revised Date: 10/25/2017

3. Provide reports of quarterly audit activity to the Board, including the status of the implementation of all audit recommendations, as follows:
 - a. Audit recommendations related to OCTA operating divisions and/or outside agencies that remain outstanding over 12 months will be reported to the Chief Executive Officer, and will be detailed in the next quarterly audit plan update to the F&A Committee. For recommendations outstanding over 12 months, management's explanation for the delay in implementation, and an estimate as to the percentage progress towards completion, will be added to the quarterly audit plan update.
 - b. Audit recommendations involving outside agencies that remain outstanding over 12 months without progress, will include additional detail in the next quarterly audit plan update to include management's explanation for the delay in implementation and an estimate as to the percentage progress towards completion. Also, these items will be specifically outlined to the Finance and Administration Committee during presentation of the quarterly audit plan update.
 - c. The status of recommendations related to annual financial statement audits will be provided by the independent financial statement audit firm each year.
4. Conducting ad-hoc reviews at the request of the Board, or other investigations or examinations related to fraud, illegal acts, violations of provisions of contracts or grant agreements, waste or abuse.
5. Coordinate and monitor audits by external auditors, including those conducted by independent financial statement auditors and state and federal officials.
6. Comply with Government Auditing Standards, as prescribed by the Comptroller General of the United States, and all other relevant and authoritative audit guidance.
7. Develop and maintain Internal Audit Department policies and procedures that comply with Government Auditing Standards.
8. Manage a professional audit staff with sufficient knowledge, skills, experience, and professional credentials to maintain compliance with Government Auditing Standards.
9. Develop and monitor a quality assurance program for the Internal Audit Department and contracting for a triennial Quality Assurance (Peer) Review of the Internal Audit Department.
10. Assist the Finance and Administration Committee of the Board in fulfilling its audit oversight responsibilities, as specified in "Audit Responsibilities of the Finance and Administration Committee" affirmed annually by the Board.

Executive Office
INTERNAL AUDIT POLICY

Policy#: EO-IA-220.01-INTERNAL

Origination Date: 03/01/2009

Revised Date: 10/25/2017

B. Audit Protocols in Executing Annual Audit Plan

In executing its annual audit plan, the Internal Audit Department will employ protocols designed to clarify and provide consistency to the audit process. These protocols are in no way meant to restrict audit objectives, scope or access to records or information.

1. **Audit Notification Memorandum:** An introductory memorandum from Internal Audit will be prepared and sent to the executive director responsible for the project or program subject to audit. The introductory memorandum will:
 - a. Identify the project, program, or activities to be audited;
 - b. Identify the preliminary audit objectives
 - c. Inform the recipient that an entrance conference will be scheduled
2. **Planning:** During the planning process, the auditor will gain an understanding of the project or program to be audited. Planning, also referred to as survey work, includes review of relevant policies and procedures, contracts and financial information. Planning also includes interviews of key personnel. Planning is designed to assess risk and controls and define audit objectives and scope. Audit objectives reflect Internal Audit's goals in conducting the audit and may include elements such as ensuring adequate internal controls exist to protect OCTA assets, ensuring that there is compliance with agreement terms, or ensuring that a program is carried out in an efficient and effective manner. Audit scope refers to the nature, timing and extent of detailed tests of underlying transactions.
3. **Entrance Conference:** An entrance conference will be scheduled. Invitations will be extended to the executive director or his/her designee, the department manager, and any relevant staff (collectively, audit participants). The purpose of the entrance conference is to:
 - a. Introduce Internal Audit Department staff members who will perform the audit
 - b. Identify the project or program contact person with whom Internal Audit will work
 - c. Identify key documents or other information related to the project or program
 - d. Discuss preliminary audit objectives, scope and/or other areas of concern
 - e. Discuss audit timing and the final audit reporting process
4. **Audit Fieldwork:** Audit fieldwork generally includes detailed tests of internal controls and transactions. During the course of conducting fieldwork, Internal Audit Department staff will advise the Executive Director of Internal Audit of any significant findings or concerns, including those which will require a significant deviation from, or additions to, the planned objectives or scope of the audit. Internal Audit will communicate such scope changes or significant findings to management.

Executive Office
INTERNAL AUDIT POLICY

Policy#: EO-IA-220.01-INTERNAL

Origination Date: 03/01/2009

Revised Date: 10/25/2017

5. **Draft Report:** A preliminary draft audit report will be circulated to all audit participants prior to the exit conference. Draft reports are considered unofficial working papers, subject to revisions and will, therefore, remain restricted, in use and distribution, to the Internal Audit Department and audit participants.
 6. **Exit Conference:** An exit conference will be held with audit participants. The purpose of the exit conference is to:
 - a. Confirm the accuracy of all information presented in the draft report
 - b. Determine if pertinent information and data has been considered
 - c. Answer questions about the recommendations and findings
 - d. Discuss proposed revisions or changes
 - e. Discuss the audit responses and identify an agreed upon due date for responses to be provided
 - f. Discuss input or suggestions regarding the audit process
 7. **Final Draft:** Following the exit conference, agreed-upon revisions will be made to the draft report and the report will be re-circulated to audit participants.
 8. **Responses to Recommendations:** Responses to audit recommendations will be prepared by management and submitted to Internal Audit. In general, responses should state whether or not management agrees with the findings and recommendations. Responses should be specific as to what changes will be implemented and target completion dates for implementation should also be provided. The Chief Executive Officer will be advised of any significant findings and recommendations for which there is disagreement between management and Internal Audit concerning fact, finding, or recommendation.
 9. **Report Distribution:** Responses to audit recommendations will be incorporated into the final draft report and the audit report will be issued to all audit participants.
 10. **The Executive Director of Internal Audit** will prepare and circulate a draft staff report to management, along with the date the audit report will be included on the Finance and Administration Committee agenda.
- C. Follow-Up Reviews and Ad-hoc Audit Requests**
- Follow-up audits, generally conducted six months after the issuance of an audit report, and every six months thereafter until all recommendations have been satisfactorily addressed, will include a notification memorandum and periodic closeout memorandums addressed to management. Memorandums related to audit recommendations that have not been adequately addressed by management after 12 months will be copied to the Chief Executive Officer and the circumstances detailed in the following quarterly audit plan update to the F&A Committee.

Executive Office
INTERNAL AUDIT POLICY

Policy#: EO-IA-220.01-INTERNAL

Origination Date: 03/01/2009

Revised Date: 10/25/2017

From time to time, management or the Board of Directors may request ad-hoc audits or reviews of projects, programs or activities. Protocols for such audits or reviews will be consistent with those enumerated above. Reports issued pursuant to these requests will be provided to the Finance and Administration Committee and included in Internal Audit's quarterly reports to the Board of Directors.

D. Fraud, Illegal Acts, Violations of Provisions of Contracts or Grant Agreements, Waste or Abuse Investigations

Government Auditing Standards prescribe internal auditors' responsibilities for considering fraud, illegal acts, violations of provisions of contracts or grant agreements, waste or abuse during their planning for, and execution of, audits. The Internal Audit Department will conduct investigations of all identified or alleged instances of fraud, illegal acts, violations, waste or abuse and document the disposition in audit workpaper files. Where Internal Audit concludes, based on sufficient, appropriate evidence, that fraud, illegal acts, significant violations of provisions of contracts or grant agreements, or significant abuse either has occurred or is likely to have occurred, the matter(s) will be reported to management, Chief Executive Officer, and/or the Board of Directors, as appropriate, for suitable action.

The Internal Audit Department will be responsible for managing OCTA's Fraud Hotline. All reported instances of fraud, illegal acts, violations of provisions of contracts or grant agreements, waste or abuse will be investigated and disposition documented in the Ethicspoint system and hard copy files maintained by Internal Audit. Internal Audit will communicate results of these investigations to management, Chief Executive Officer, and/or the Board of Directors as appropriate under the circumstances.

E. Independence and Record Access

As a means of ensuring independence, the Internal Audit Department will report to the Chief Executive Officer and Board. Internal Audit shall have full, free, and unrestricted access to all operations, records, property, and personnel within OCTA.

All employees will cooperate fully in making available material or information requested by an internal auditor.

The Internal Audit Department shall have no authority over, or responsibility for, any of the activities audited, and shall not perform any functions that might require subsequent audit.

The Board has authorized the Internal Audit Department to perform, or sanction others to perform, internal audits within OCTA. Therefore, only personnel within the Internal Audit Department should be referred to as internal auditors and only their work should be referred to as internal audit activities. OCTA employees performing work involving review and verification of various aspects of OCTA operations should not be referred to as auditors and their work should not be referred to as audits or audit activities.

Executive Office
INTERNAL AUDIT POLICY

Policy#: EO-IA-220.01-INTERNAL

Origination Date: 03/01/2009

Revised Date: 10/25/2017

All external audits of OCTA will be coordinated through or with the Executive Director of Internal Audit, including audits conducted by state, federal, or local officials. From time to time, the Internal Audit Department will retain the services of audit consultants to supplement internal audit staff and assist with internal audits and reviews. Audit consultants will be selected using OCTA's approved procurement process, and will comply with this policy.

The Contracts Administration and Materials Management Department will ensure that provision is made in all contracts and agreements for examinations by Internal Audit of the counterparty's books and records relating to such contracts and agreements.

VI. EXCEPTIONS

Not applicable.

VII. PROVISIONS AND CONDITIONS

Not applicable.

VIII. RELATED DOCUMENTS

Not applicable.

END OF POLICY



COMMITTEE TRANSMITTAL

January 8, 2018

To: Members of the Board of Directors
From: Laurena Weinert, Clerk of the Board
Subject: Orange County Transportation Authority, Proposition 1B Bond Programs

Finance and Administration Committee Meeting of December 13, 2017

Present: Directors Do, Hennessey, Jones, and R. Murphy
Absent: Directors Pulido, Spitzer, and Steel

Committee Vote

This item was passed by the Members present.

Committee Recommendation

Receive and file as an information item.



December 13, 2017

To: Finance and Administration Committee

From: Darrell Johnson, Chief Executive Officer
Janet Sutter, Executive Director
Internal Audit

Subject: Orange County Transportation Authority, Proposition 1B Bond Programs

Overview

The California Department of Finance has conducted an audit of Proposition 1B funds awarded to the Orange County Transportation Authority for Sand Canyon Grade Separation, Orangethorpe Avenue Grade Crossing, Tustin Avenue and Rose Drive Overcrossing, Kraemer Boulevard Undercrossing, Placentia Avenue Undercrossing, and Oso Parkway Widening. The audit report includes two observations related to the reporting of project benefits and timely submission of Final Delivery Reports.

Recommendation

Receive and file as an information item.

Background

The Orange County Transportation Authority (OCTA) was awarded a total of \$110.8 million in Proposition 1B Program funds for the Sand Canyon Grade Separation Project, Orangethorpe Avenue Grade Crossing, Tustin Avenue and Rose Drive Overcrossing, Kraemer Boulevard Undercrossing, Placentia Avenue Undercrossing, and Oso Parkway Widening project.

Under an agreement with the California Department of Transportation (Caltrans), the Department of Finance (DOF) performs audits to determine whether expenditures were incurred and reimbursed in compliance with the executed project agreements, Caltrans program guidelines, and applicable state and federal regulations, whether outputs were consistent with the project scopes and

schedules, and whether outcomes were achieved and adequately reported in Final Delivery Reports (FDR's).

The audit was conducted on-site beginning in February 2017, and a final report was issued on October 27, 2017.

Discussion

The DOF concluded that expenditures were incurred and reimbursed in compliance with executed agreements, Caltrans guidelines, and applicable state and federal regulations; however, the DOF outlined two observations related to reporting of project benefits/outcomes and timeliness of FDR's.

First, the DOF reported that project benefits/outcomes outlined in the FDR's for two projects were not accurate. Follow-up with the DOF and Caltrans confirmed this conclusion to be misstated. Rather, DOF noted that the baseline agreements for two grade separation projects included specific estimates of emissions reductions developed by the Air Quality Management District (AQMD); however, FDR's only included general statements confirming that emissions were reduced. The DOF recommended that supplemental FDR's be submitted which reflect post-project emission metrics. Management disagreed and noted that guidelines do not require project sponsors to report specific metrics and explained that the regional model used to produce estimates changes over time and, therefore, would not be comparable to estimates derived several years prior. Management explained that project benefits are consistent with the baseline agreement and are self-evident because idling vehicles no longer wait for trains to pass. Further, the AQMD has consistently recognized the air quality benefits of grade separation projects. Internal Audit staff agrees with management's response and contacted Caltrans regarding the matter. Caltrans advised that a supplemental FDR with the existing assertions as to emissions reductions would be acceptable. OCTA staff have indicated that these FDR's will be resubmitted.

DOF also reported that FDR's for three projects were not submitted within six months of the projects becoming operable, as required. OCTA staff acknowledged the delay in submissions and agreed to file timely in the future.

Summary

The DOF has conducted an audit of Proposition 1B funds awarded to OCTA for the following projects: Sand Canyon Grade Separation, Orangethorpe Avenue Grade Crossing, Tustin Avenue and Rose Drive Overcrossing, Kraemer Boulevard Undercrossing, Placentia Avenue Undercrossing, and Oso Parkway Widening.

Attachment

- A. California Department of Finance Office of State Audits and Evaluations, Orange County Transportation Authority Proposition 1B Bond Programs Project Numbers 0000020636, 1213000168, 1200020231, 1200020282, 1200020248, and 1200020072

Prepared by:



Janet Sutter
Executive Director, Internal Audit
714-560-5591



Orange County Transportation Authority

Proposition 1B Bond Programs

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

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:

California Department of Finance
Office of State Audits and Evaluations
915 L Street, 6th Floor
Sacramento, CA 95814
(916) 322-2985



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.

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.

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.

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



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CHIEF EXECUTIVE OFFICE

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

Ms. Jennifer Whitaker
October 12, 2017
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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,



Darrell Johnson
Chief Executive Officer

DJ:jes

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.



COMMITTEE TRANSMITTAL

January 8, 2018

To: Members of the Board of Directors
From: Laurena Weinert, Clerk of the Board
Subject: Amendment to Agreement for Internet Service

Finance and Administration Committee Meeting of December 13, 2017

Present: Directors Do, Hennessey, Jones, and R. Murphy
Absent: Directors Pulido, Spitzer, and Steel

Committee Vote

This item was passed by the Members present.

Committee Recommendation

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 3 to Agreement No. C-4-1396 between the Orange County Transportation Authority and CenturyLink, Inc., in the amount of \$32,000, to provide increased internet bandwidth. This will increase the maximum obligation of the agreement to a total contract value of \$129,786.



December 13, 2017

To: Finance and Administration Committee
From: Darrell Johnson, Chief Executive Officer
Subject: Amendment to Agreement for Internet Service

Overview

On June 2, 2014, the Orange County Transportation Authority entered into an agreement with CenturyLink, Inc. (formerly TW Telecom and L3 Communications LLC) to provide internet connectivity services for a five-year term effective September 1, 2014 through August 31, 2019. An amendment to the existing agreement is needed for increased internet bandwidth.

Recommendation

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 3 to Agreement No. C-4-1396 between the Orange County Transportation Authority and CenturyLink, Inc., in the amount of \$32,000, to provide increased internet bandwidth. This will increase the maximum obligation of the agreement to a total contract value of \$129,786.

Discussion

The Orange County Transportation Authority's (OCTA) current internet infrastructure has both inbound and outbound internet connectivity centralized at its administrative office in the City of Orange, which provides network backhaul through AT&T Switched Ethernet service to all remote base locations and any future base locations, including the Orange County streetcar maintenance and storage facility. Internet connectivity is centralized to provide integrated security and minimize costs associated with providing internet service to staff at all locations.

Due to increasing demands on OCTA's internet service from software as a service initiatives, overall increase in demand from changes in OCTA's security posture, such as live on board video, along with the overall increase in usage from OCTA's user base, it has become necessary that OCTA substantially increase its bandwidth to the internet to keep pace with the level of innovation

already taken place and with future planned and unplanned innovations. Currently, OCTA's peak internet bandwidth loads are regularly exceeding its current bandwidth of 150Mbps. As a consequence, OCTA's users experience increased wait times, slow performance, and longer times to perform essential functions. Upgrading OCTA's internet bandwidth to 1Gbps will help to reduce these symptoms and increase the overall productivity and security of this service.

Procurement Approach

This procurement was originally handled in accordance with OCTA's Board of Directors (Board)-approved procedures for professional and technical services. The original agreement was awarded on a competitive basis by the Contracts Administration and Materials Management Department for a five-year term.

The agreement was awarded, in the amount of \$85,032, on a fixed monthly-fee basis. This agreement was previously amended as described in Attachment A. The term of the agreement is through August 31, 2019.

It has become necessary to amend the current agreement for increased internet bandwidth. This amendment increases the internet bandwidth from 150Mbps to 1Gbps, at an increase of \$32,000 to the maximum cumulative payment obligation, bringing the total contract value to \$129,786. The amount of \$32,000 for this proposed Amendment No. 3 is deemed fair and reasonable as the increase in bandwidth is much greater when compared to the increase in the monthly internet cost.

Fiscal Impact

This project was approved in OCTA's Fiscal Year 2013-14 Budget, Finance and Administration Division, Account 1284-7643-A5352-QFV.

Summary

Based on the information provided, staff recommends the Board authorize the Chief Executive Officer to negotiate and execute Amendment No. 3 to Agreement No. C-4-1396 with CenturyLink, Inc., in the amount of \$32,000, to provide increased internet bandwidth through August 31, 2019.

Attachment

A. CenturyLink, Inc. Agreement No. C-4-1396 Fact Sheet

Prepared by:



Michael Beerer
Section Manager,
Information Systems Department
714-560-5352

Approved by:



Andrew Oftelie
Executive Director,
Finance and Administration
714-560-5649



Virginia Abadessa
Director, Contracts Administration and
Materials Management
714-560-5623

ATTACHMENT A

CenturyLink, Inc. Agreement No. C-4-1396 Fact Sheet

1. June 2, 2014, Agreement No. C-4-1396, \$85,032, approved by the Contracts Administration and Materials Management (CAMM) Department.
 - Agreement for consultant to provide 100Mbps managed internet service effective September 1, 2014 through August 31, 2019.
2. June 13, 2016, Amendment No. 1 to Agreement No. C-4-1396, \$0.00, approved by the CAMM Department.
 - Amendment to change company's name from TW Telecom to Level 3 Communications LLC.
3. January 3, 2017, Amendment No. 2 to Agreement No. C-4-1396, \$12,754, approved by the CAMM Department.
 - Amendment to increase internet service bandwidth from 100Mbps to 150Mbps.
4. January 8, 2018, Amendment No. 3 to Agreement No. C-4-1396, \$32,000, pending approval by the Board of Directors.
 - Amendment to increase internet service bandwidth from 150Mbps to 1Gbps and change the company's name from Level 3 Communications LLC to CenturyLink, Inc.

Total committed to CenturyLink, Inc., Agreement No. C-4-1396: \$129,786.



COMMITTEE TRANSMITTAL

January 8, 2018

To: Members of the Board of Directors
From: Laurena Weinert, Clerk of the Board
Subject: Agreements for Investment Management Services

Finance and Administration Committee Meeting of December 13, 2017

Present: Directors Do, Hennessey, Jones, and R. Murphy
Absent: Directors Pulido, Spitzer, and Steel

Committee Vote

This item was passed by the Members present.

Committee Recommendations

- A. Approve the selection of Chandler Asset Management, Inc.; Logan Circle Partners, L.P.; Payden & Rygel; and PFM Asset Management LLC, as the firms to provide investment management services in the aggregate amount of \$8,995,608.
- B. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-7-1813 between the Orange County Transportation Authority and Chandler Asset Management, Inc., to provide investment management services for a five-year initial term effective through December 31, 2022, with two, two-year option terms.
- C. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-7-2062 between the Orange County Transportation Authority and Logan Circle Partners, L.P., to provide investment management services for a five-year initial term effective through December 31, 2022, with two, two-year option terms.
- D. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-7-2063 between the Orange County Transportation Authority and Payden & Rygel, to provide investment management services for a five-year initial term effective through December 31, 2022, with two, two-year option terms.



COMMITTEE TRANSMITTAL

Page Two

- E. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-7-2064 between the Orange County Transportation Authority and PFM Asset Management LLC, to provide investment management services for a five-year initial term effective through December 31, 2022, with two, two-year option terms.
- F. Approve the selection of US Bancorp Asset Management, Inc.; State Street Global Advisors; and Western Asset Management Company, as the firms to be placed on a secondary list of on-call firms to provide investment management services.



December 13, 2017

To: Finance and Administration Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Agreements for Investment Management Services

Overview

Consultant services are needed to provide investment management services of the Orange County Transportation Authority's \$1.3 billion of operating monies in the short-term portfolio. Proposals were received in accordance with the Orange County Transportation Authority's procurement procedures for professional and technical services. Board of Directors' approval is requested to select firms to provide investment management services.

Recommendations

- A. Approve the selection of Chandler Asset Management, Inc.; Logan Circle Partners, L.P.; Payden & Rygel; and PFM Asset Management LLC, as the firms to provide investment management services in the aggregate amount of \$8,995,608.
- B. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-7-1813 between the Orange County Transportation Authority and Chandler Asset Management, Inc., to provide investment management services for a five-year initial term effective through December 31, 2022, with two, two-year option terms.
- C. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-7-2062 between the Orange County Transportation Authority and Logan Circle Partners, L.P., to provide investment management services for a five-year initial term effective through December 31, 2022, with two, two-year option terms.

- D. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-7-2063 between the Orange County Transportation Authority and Payden & Rygel, to provide investment management services for a five-year initial term effective through December 31, 2022, with two, two-year option terms.
- E. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-7-2064 between the Orange County Transportation Authority and PFM Asset Management LLC, to provide investment management services for a five-year initial term effective through December 31, 2022, with two, two-year option terms.
- F. Approve the selection of US Bancorp Asset Management, Inc.; State Street Global Advisors; and Western Asset Management Company, as the firms to be placed on a secondary list of on-call firms to provide investment management services.

Discussion

The Orange County Transportation Authority's (OCTA) portfolio totals \$1.4 billion as of September 30, 2017. The portfolio currently is divided into two actively managed portfolios: the liquid portfolio for immediate cash needs and the short-term portfolio, approximately \$1.3 billion for future budgeted expenditures. OCTA's Board of Directors (Board) has approved the use of an extended portfolio; however, the Board has not allocated OCTA funds. Additionally, OCTA may issue debt resulting in a bond proceeds portfolio that may require active portfolio management.

There are currently four investment management firms (Manager) that actively invest OCTA's \$1.3 billion of operating monies in the short-term portfolio within the parameters of the OCTA Investment Policy. Each Manager invests approximately \$325 million measured against the Bank of America Merrill Lynch, one-three year Treasury Index and the Bank of America Merrill Lynch, one-three year AAA-A United States Corporate and Government Index benchmarks. The Bank of America Merrill Lynch, one-five year Treasury Index and the Bank of America Merrill Lynch, one-five year AAA-A U.S. Corporate and Government Index are used for the extended portfolio.

Each Manager provides a broad range of services and resources in addition to the daily management of OCTA funds. Each Manager is expected to provide a highly skilled investment team along with a compliance and trading system that monitors all OCTA trading activity to ensure compliance with the OCTA Investment Policy and California Government Code Sections 53601. All securities and subsequent transactions are held in OCTA custody accounts at Union Bank.

Within OCTA's four custody accounts with Union Bank, each Manager settles all trades through its respective account. Managers do not have the ability to execute cash transactions from the accounts. In addition to each Manager monitoring their own compliance, OCTA uses a web-based portfolio management system provided by Clearwater Analytics, Inc. to track all activity, monitor compliance and create investment reports.

Procurement Approach

This procurement was handled in accordance with OCTA's Board-approved procedures for professional and technical services. In addition to cost, many other factors are considered in an award for professional and technical services. Award is recommended to the firm (or firms) offering the most comprehensive proposals considering such factors as qualifications of the firm, staffing and project organization, prior experience with similar projects, technical expertise in the field, approach to the work plan, as well as cost and price.

On July 24, 2017, Request for Proposals (RFP) 7-1813 was issued electronically on CAMM NET. The procurement was advertised on July 24 and 31, 2017, in a newspaper of general circulation. A pre-proposal conference took place on August 8, 2017, with 11 attendees representing 11 firms. Two addenda were issued to make available the pre-proposal conference registration sheets and presentation, as well as to provide responses to questions received.

On August 23, 2017, 24 proposals were received. Prior to the evaluation committee meeting, all contractual exceptions and/or deviations submitted by the proposers were reviewed. Standish Mellon Asset Management Company (Standish) submitted several contractual exceptions and/or deviations, two of which were deemed non-negotiable, and the firm was provided with the opportunity to retract the items. Standish did not retract one of the two exceptions/deviations; therefore, the firm's proposal was not included as part of the evaluation process.

The procurement sought to establish a primary list of firms for contract award, as well as a secondary list of on-call firms to perform investment management services. Establishing a secondary list of on-call firms is needed to provide assurance that OCTA will have a professional and qualified pool of investment managers to choose from in case one or more firms on the primary list were to be terminated for reasons such as compliance violations or conflict of interest. Should the need arise to utilize a firm from the secondary list of on-call firms, a competitive procurement process would be initiated among the firms on the secondary list of on-call firms in order to select one firm for contract award to be placed on the primary list.

An evaluation committee composed of staff from Contracts Administration and Materials Management, Treasury/Toll Roads, Accounting and Financial Reporting, and Financial Planning and Analysis departments, as well as a representative from the Riverside County Transportation Commission met to review the remaining 23 proposals. The proposals were evaluated based on the following Board-approved evaluation criteria and weights:

- Qualifications of the Firm 30 percent
- Staffing and Project Organization 30 percent
- Work Plan 20 percent
- Fees 20 percent

Several factors were considered in developing the criteria weights. Qualifications of the firm, as well as staffing and project organization were both weighted highest at 30 percent to ensure the firms have relevant experience managing similar investment portfolios and qualified staff that have in-depth knowledge of investment management and global economics. Work plan and fees were both weighted 20 percent to ensure the firm demonstrated understanding of OCTA's investment policy and clearly described their approach towards investment management, as well as to ensure the proposed fees are competitive and reasonable for the services provided.

The evaluation committee reviewed and discussed the remaining 23 proposals based on the evaluation criteria. Twelve firms were short-listed and invited to interview to establish the primary and secondary list of firms. The 12 firms are listed below in alphabetical order:

Firm and Location

BlackRock, Inc.
New York, New York

Chandler Asset Management, Inc. (Chandler)
San Diego, California

JP Morgan Asset Management
San Francisco, California

Logan Circle Partners (Logan)
Philadelphia, Pennsylvania

Miles Capital
West Des Moines, Iowa

Morgan Stanley Investment Management
New York, New York

Payden & Rygel (P&R)
Los Angeles, California

PFM Asset Management LLC (PFM)
Los Angeles, California

State Street Global Advisors (State Street)
San Francisco, California

US Bancorp Asset Management, Inc. (US Bancorp)
Minneapolis, Minnesota

Wells Capital Management, Inc.
San Francisco, California

Western Asset Management Company (Western Asset)
Pasadena, California

The evaluation committee interviewed the 12 firms on October 11 and 12, 2017. The interviews consisted of a presentation to discuss the firms' qualifications and proposed team. The firms' key team members had an opportunity to present qualifications and respond to the evaluation committee's questions. Questions were asked relative to the firms' experience performing similar services, procedures for maintaining compliance, and approach to investment management. Finally, each team was asked specific clarification questions related to their proposal. After considering the responses to the questions asked during the interviews, the evaluation committee adjusted the preliminary scores for the 12 short-listed firms resulting in a change to the ranking.

Based on the evaluation of the written proposals and interviews, the evaluation committee recommends Chandler, Logan, P&R, and PFM for consideration to be placed on the primary list of firms for contract award. The evaluation committee also recommends US Bancorp, State Street, and Western Asset to be placed on the secondary list of on-call firms in case one or more firms on the primary list were to be terminated. The following is a brief summary of the evaluation results.

Qualifications of the Firm

All firms recommended to participate in either the primary or secondary list of firms are qualified to provide investment management services.

Each of the four firms recommended for the primary list demonstrated prior experience investing California short-term portfolio funds for local public agencies, including the Los Angeles County Metropolitan Transportation Authority, Transportation Corridor Agencies, San Diego County Regional Transportation Commission, and OCTA. Each firm demonstrated its capabilities to provide back-up systems, disaster recovery, and a business continuity plan to ensure all critical investment and compliance functions continue in the event of a disruption in normal operations.

Staffing and Project Organization

All firms recommended to participate in either the primary or secondary list of firms proposed qualified staff with relevant expertise to provide the services described in the scope of work.

The four firms recommended for the primary list proposed experienced investment management teams with extensive expertise in actively managing fixed income assets in discretionary accounts for public agencies. The project organization structure proposed by the four recommended firms included a dedicated account manager and a highly-experienced team of portfolio managers assigned to OCTA's investment portfolio. In addition, each firm's staffing proposal included an appropriate average number of accounts per portfolio manager and a detailed process for how portfolio managers are informed of the developments relevant to the management of local government funds.

Work Plan

All firms recommended to participate in either the primary or secondary list of firms met the requirements of the RFP, and each firm discussed its approach to managing OCTA's portfolio.

The work plan proposed by each of the four recommended firms for the primary list provided a detailed approach to performing the investment management services, including research and origination of investment ideas, investment philosophy for public agency clients and OCTA's short duration fixed-income portfolio, and management of interest rate risk. The firms also demonstrated an

in-depth and thorough process in reviewing portfolios to ensure compliance with OCTA's Investment Policy.

Fees

Pricing scores were based on a formula, which assigned the highest score to the firm with the lowest total projected fee and scored the other proposals' total projected fees based on their relation to the lowest total projected fee. The total projected fee proposed by the four firms on the primary list are competitive as compared to the total projected fee for all proposing firms.

Procurement Summary

Based on the evaluation of the written proposals and the information obtained during the interviews, the evaluation committee recommends selection and award of Chandler, Logan, P&R, and PFM as the primary firms to provide investment management services. These teams included staff that are highly-qualified and have prior experience performing relevant investment management services for public agencies. The four firms delivered comprehensive proposals and presented interviews that were responsive to all the requirements of the RFP.

Additionally, the evaluation committee recommends US Bancorp, State Street, and Western Asset to be placed on the secondary list of on-call firms should one or more firms on the primary list be terminated.

Fiscal Impact

The project was approved in OCTA's Fiscal Year 2017-18 Budget, Finance and Administration, Account 1230-A5400-27515.

Summary

Staff recommends the Board authorize the Chief Executive Officer to negotiate and execute agreements with Chandler Asset Management, Inc.; Logan Circle Partners, L.P.; Payden & Rygel; and PFM Asset Management LLC, as the firms to provide investment management services, in the aggregate amount of \$8,995,608 for a five-year initial term, with two, two-year option terms.

Additionally, staff recommends the Board approve the selection of US Bancorp Asset Management, Inc.; State Street Global Advisors; and Western Asset Management Company, as the firms to be placed on a secondary list of on-call firms to provide investment management services.

Attachments

- A. Review of Proposals – RFP 7-1813 Investment Management Services
- B. Proposal Evaluation Criteria Matrix (Short-Listed Firms) – RFP 7-1813 Investment Management Services
- C. Contract History for the Past Two Years – RFP 7-1813, Investment Management Services

Prepared by:



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Review of Proposals
RFP 7-1813 Investment Management Services
Presented to Finance and Administration Committee - December 13, 2017
24 proposals were received, 23 proposals were evaluated, 12 firms were interviewed, 4 firms are being recommended.

Overall Ranking	Proposal Score	Firm & Location	Sub-Contractors	Evaluation Committee Comments	Total Projected Fee and Basis Points (bps)
1	88	Chandler Asset Management, Inc. San Diego, California	None	Excellent qualifications and experience providing investment management services. Demonstrated an excellent understanding of project requirements. Proposed an experienced project team. Good work plan addressing all the elements of the scope of work. Good references. Comprehensive responses to interview questions reflecting depth of experience and knowledge. Proposed competitive pricing.	\$1,597,050 5.46 bps
2	87	Payden & Rygel Los Angeles, California	None	Excellent qualifications and experience providing investment management services. Demonstrated an excellent understanding of project requirements. Proposed an experienced project team. Good work plan addressing all the elements of the scope of work. Good references. Comprehensive responses to interview questions reflecting depth of experience and knowledge. Consistent with current pricing for similar services.	\$3,150,000 10.8 bps
3	86	PFM Asset Management LLC Los Angeles, California	None	Extensive qualifications and experience providing investment management services. Demonstrated an excellent understanding of project requirements. Proposed an experienced project team. Good work plan addressing all the elements of the scope of work. Good references. Comprehensive responses to interview questions reflecting depth of experience and knowledge. Proposed competitive pricing.	\$1,822,275 6.23 bps
4	85	Logan Circle Partners Philadelphia, Pennsylvania	None	Extensive qualifications and experience providing investment management services. Demonstrated an excellent understanding of project requirements. Proposed an experienced project team. Good work plan addressing all the elements of the scope of work. Good references. Comprehensive responses to interview questions reflecting depth of experience and knowledge. Proposed competitive pricing.	\$3,188,250 10.9 bps

Evaluation Panel:

Internal
Contracts Administration and Materials Management (1)
Treasury/Toll Roads (1)
Accounting and Financial Reporting (1)
Financial Planning & Analysis (1)
External
Riverside County Transportation Commission (1)

Proposal Criteria

Qualifications of the Firm
Staffing and Project Organization
Work Plan
Cost and Price

Weight Factors

30%
30%
20%
20%

PROPOSAL EVALUATION CRITERIA MATRIX (Short-Listed Firms)
RFP 7-1813 INVESTMENT MANAGEMENT SERVICES

FIRM: CHANDLER ASSET MANAGEMENT						Weights	Overall Score
Evaluator Number	1	2	3	4	5		
Qualifications of Firm	4.0	4.0	4.0	4.5	4.5	6	25.2
Staffing/Project Organization	4.0	4.0	4.5	4.5	4.5	6	25.8
Work Plan	4.0	4.0	4.0	4.5	4.5	4	16.8
Fee	5.0	5.0	5.0	5.0	5.0	4	20.0
Overall Score	84.0	84.0	87.0	92.0	92.0		88

FIRM: PAYDEN & RYSEL						Weights	Overall Score
Evaluator Number	1	2	3	4	5		
Qualifications of Firm	4.5	5.0	5.0	5.0	5.0	6	29.4
Staffing/Project Organization	4.5	4.5	5.0	5.0	4.5	6	28.2
Work Plan	4.5	5.0	5.0	5.0	5.0	4	19.6
Fee	2.5	2.5	2.5	2.5	2.5	4	10.0
Overall Score	82.0	87.0	90.0	90.0	87.0		87

FIRM: PFM ASSET MANAGEMENT LLC						Weights	Overall Score
Evaluator Number	1	2	3	4	5		
Qualifications of Firm	4.0	4.5	4.0	4.5	4.0	6	25.2
Staffing/Project Organization	4.5	4.5	4.0	4.5	4.5	6	26.4
Work Plan	4.0	4.0	4.0	4.5	4.0	4	16.4
Fee	4.4	4.4	4.4	4.4	4.4	4	17.6
Overall Score	84.6	87.6	81.6	89.6	84.6		86

FIRM: LOGAN CIRCLE PARTNERS						Weights	Overall Score
Evaluator Number	1	2	3	4	5		
Qualifications of Firm	4.5	4.5	4.5	4.5	4.5	6	27.0
Staffing/Project Organization	4.5	5.0	5.0	4.5	4.5	6	28.2
Work Plan	5.0	5.0	5.0	4.5	5.0	4	19.6
Fee	2.5	2.5	2.5	2.5	2.5	4	10.0
Overall Score	84.0	87.0	87.0	82.0	84.0		85

FIRM: US BANCORP ASSET MANAGEMENT, INC.						Weights	Overall Score
Evaluator Number	1	2	3	4	5		
Qualifications of Firm	4.0	3.5	4.0	4.0	4.0	6	23.4
Staffing/Project Organization	3.5	3.5	4.0	3.5	4.0	6	22.2
Work Plan	4.0	3.5	4.0	4.0	4.0	4	15.6
Fee	5.0	5.0	5.0	5.0	5.0	4	20.0
Overall Score	81.0	76.0	84.0	81.0	84.0		81

FIRM: STATE STREET GLOBAL ADVISORS						Weights	Overall Score
Evaluator Number	1	2	3	4	5		
Qualifications of Firm	4.5	4.0	4.5	4.5	4.5	6	26.4
Staffing/Project Organization	4.0	3.5	4.0	4.0	4.0	6	23.4
Work Plan	4.5	3.0	5.0	4.5	4.5	4	17.2
Fee	3.4	3.4	3.4	3.4	3.4	4	13.6
Overall Score	82.6	70.6	84.6	82.6	82.6		81

FIRM: WESTERN ASSET MANAGEMENT COMPANY						Weights	Overall Score
Evaluator Number	1	2	3	4	5		
Qualifications of Firm	4.5	4.0	4.5	4.5	4.0	6	25.8
Staffing/Project Organization	4.5	4.5	4.5	4.0	4.0	6	25.8
Work Plan	4.5	4.0	5.0	4.5	5.0	4	18.4
Fee	2.4	2.4	2.4	2.4	2.4	4	9.6
Overall Score	81.6	76.6	83.6	78.6	77.6		80

FIRM: WELLS CAPITAL MANAGEMENT, INC.						Weights	Overall Score
Evaluator Number	1	2	3	4	5		
Qualifications of Firm	4.0	4.0	4.0	4.5	4.0	6	24.6
Staffing/Project Organization	4.0	3.5	4.0	4.0	4.0	6	23.4
Work Plan	4.0	3.5	4.0	4.0	4.0	4	15.6
Fee	3.2	3.2	3.2	3.2	3.2	4	12.8
Overall Score	76.8	71.8	76.8	79.8	76.8		76

FIRM: MILES CAPITAL						Weights	Overall Score
Evaluator Number	1	2	3	4	5		
Qualifications of Firm	3.5	3.5	3.0	4.0	3.0	6	20.4
Staffing/Project Organization	3.5	3.5	3.0	3.5	3.0	6	19.8
Work Plan	3.5	3.0	3.5	4.0	3.0	4	13.6
Fee	5.0	5.0	5.0	5.0	5.0	4	20.0
Overall Score	76.0	74.0	70.0	81.0	68.0		74

FIRM: MORGAN STANLEY INVESTMENT MANAGEMENT						Weights	Overall Score
Evaluator Number	1	2	3	4	5		
Qualifications of Firm	3.5	4.0	3.5	3.5	3.5	6	21.6
Staffing/Project Organization	3.5	4.0	4.0	3.5	4.0	6	22.8
Work Plan	3.5	3.5	4.0	3.0	4.0	4	14.4
Fee	3.5	3.5	3.5	3.5	3.5	4	14.0
Overall Score	70.0	76.0	75.0	68.0	75.0		73

FIRM: BLACKROCK, INC.						Weights	Overall Score
Evaluator Number	1	2	3	4	5		
Qualifications of Firm	3.5	4.0	4.0	4.5	4.0	6	24.0
Staffing/Project Organization	3.5	3.5	3.5	4.5	4.0	6	22.8
Work Plan	3.5	3.5	3.5	4.0	3.5	4	14.4
Fee	2.6	2.6	2.6	2.6	2.6	4	10.4
Overall Score	66.4	69.4	69.4	80.4	72.4		72

FIRM: JP MORGAN ASSET MANAGEMENT						Weights	Overall Score
Evaluator Number	1	2	3	4	5		
Qualifications of Firm	4.5	4.0	4.5	4.0	4.0	6	25.2
Staffing/Project Organization	4.0	3.5	4.0	3.5	3.5	6	22.2
Work Plan	4.0	3.5	4.5	3.5	4.0	4	15.6
Fee	2.1	2.1	2.1	2.1	2.1	4	8.4
Overall Score	75.4	67.4	77.4	67.4	69.4		71

Range of scores for non-short-listed firms was 39 to 63.

CONTRACT HISTORY FOR THE PAST TWO YEARS
RFP 7-1813 Investment Management Services

Prime and Subconsultants	Contract No.	Description	Contract Start Date	Contract End Date	Subconsultant Amount	Total Contract Amount
Chandler Asset Management, Inc.						
Contract Type: Time and Expense	None	N/A	N/A	N/A	\$	-
Subconsultants: None						
					Subtotal: \$	
Peyden & Rygel						
Contract Type: Time and Expense	C-9-9302	Investment Management Services	January 5, 2000	-	N/A	\$ 5,150,625
Subconsultants: None						
					Subtotal: \$	5,150,625
PFM Asset Management LLC						
Contract Type: Time and Expense	None	N/A	N/A	N/A	\$	-
Subconsultants: None						
					Subtotal: \$	
Logan Circle Partners						
Contract Type: Time and Expense	C-0-1784	Investment Management Services for Bond Proceeds	March 28, 2011	March 31, 2016	N/A	\$ 250,000
Subconsultants: None						
					Subtotal: \$	250,000



COMMITTEE TRANSMITTAL

January 8, 2018

To: Members of the Board of Directors
From: Laurena Weinert, Clerk of the Board
Subject: Fiscal Year 2017-18 First Quarter Budget Status Report

Finance and Administration Committee Meeting of December 13, 2017

Present: Directors Do, Hennessey, Jones, and R. Murphy
Absent: Directors Pulido, Spitzer, and Steel

Committee Vote

This item was passed by the Members present.

Committee Recommendation

Receive and file as an information item.



December 13, 2017

To: Finance and Administration Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Fiscal Year 2017-18 First Quarter Budget Status Report

Overview

The Orange County Transportation Authority's staff has implemented the fiscal year 2017-18 budget. This report summarizes the material variances between the budget and actual revenues and expenses through the first quarter of fiscal year 2017-18.

Recommendation

Receive and file as an information item.

Background

The Board of Directors (Board) approved the Orange County Transportation Authority (OCTA) Fiscal Year 2017-18 Budget on June 12, 2017. The approved budget itemized the anticipated revenues and expenses necessary to deliver OCTA's transportation programs and projects.

The balanced budget as originally approved by the Board in June was \$1.29 billion. Sources of funds were comprised of \$1.06 billion in current fiscal year revenues and \$232.6 million in use of prior year designations. Uses of funds were comprised of \$1.15 billion of current fiscal year expenditures and \$142.7 million of designations.

The Board approved one amendment in the first quarter increasing the expense budget by \$3.6 million. The amendment was approved on September 25, 2017, to support the new upcoming Bravo! bus route 529, and increased the maximum obligation for Agreement C-4-1280 with New Flyer of America, Inc., by \$3.6 million, exercising an option to purchase six, 40-foot, low floor compressed natural gas buses painted with the Bravo! branding.

Discussion

Staff monitors and analyzes revenues and expenditures versus the working budget. The Quarterly Budget Status Report (Attachment A) provides a summary level overview of staffing levels and explanations for material budget-to-actual variances within each pertinent OCTA program. The OCTA programs included in Attachment A are Bus, 91 Express Lanes, Commuter Rail, Motorist and Taxi Services, and Measure M2 (M2).

Total salaries and benefits underran the first quarter budget by \$2.4 million. This is primarily due to vacancies OCTA-wide. As a result, an underrun can be expected to continue, but can change slightly throughout the year based on future net vacancies.

Bus Program operating revenues were on track coming in within one percent of the budget. Bus Program operating expenses underran the budget by 7.3 percent or \$4 million primarily due to staffing vacancies, as well as lower than anticipated operating costs associated with paratransit service, contracted fixed-route service, and the Vanpool Program. Capital revenues and expenses exceeded the budget by approximately \$0.05 million. These variances are the direct result of having finalized the purchase of 25 alternative fuel coach operator relief vehicles earlier than anticipated.

The 91 Express Lanes experienced high utilization in the first quarter and received 21.7 percent or \$2.4 million more operating revenues than budgeted. Actual operating expenses were in alignment coming in within 1.9 percent of the budget.

The Rail Program operating and capital revenues were in alignment with the budget. However, the first quarter payment related to the Metrolink operating subsidy was posted at the beginning of the second quarter and is the driver for the variance within operating expenses through the first quarter.

Revenue for the Motorist Services Program was in alignment with the budget expenses through the quarter and had a minor underrun related to time and expense items.

Sales tax revenue advances for the Local Transportation Authority (LTA) M2 Program and Local Transportation Fund (LTF) Transit Program grew by 1.93 percent and 1.71 percent year-over-year, respectively. Although the growth rates for advances for the first three months are below the budgeted growth rates of 3.3 percent for the M2 Program and 2.4 percent for the Transit Program, the actual amount of sales tax receipts for the first quarter will not be finalized until mid-December when OCTA receives the first quarter “true-up” payment. The

amount of the true-up payment varies significantly from quarter to quarter and is therefore difficult to forecast.

Advances for both LTA M2 Program sales tax revenue and LTF Transit Program sales tax revenue underran the budget by \$0.9 million and \$0.3 million, respectively, through the first quarter of the fiscal year based on advances.

Table 1 - First Quarter LTA and LTF Sales Tax Revenue						
	Budget		Actual		\$ Variance	% Variance
LTA	\$	70,613,504	\$	69,676,000	\$ (937,504)	-1.33%
LTF	\$	37,079,040	\$	36,828,300	\$ (250,740)	-0.68%

Summary

Overall, sales tax revenue advances for the LTA M2 Program and LTF Transit Program grew by 1.93 percent and 1.71 percent year-over-year in comparison to the budgeted growth rates of 3.3 percent and 2.4 percent, respectively. However, in total OCTA revenues overran the budget by \$17 million. This is primarily due to OCTA receiving more grant, fare, and toll revenues than anticipated. Furthermore, expenses underran the budget by \$37 million.

Attachment

- A. Quarterly Budget Status Report First Quarter of Fiscal Year 2017-18

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Approved by:

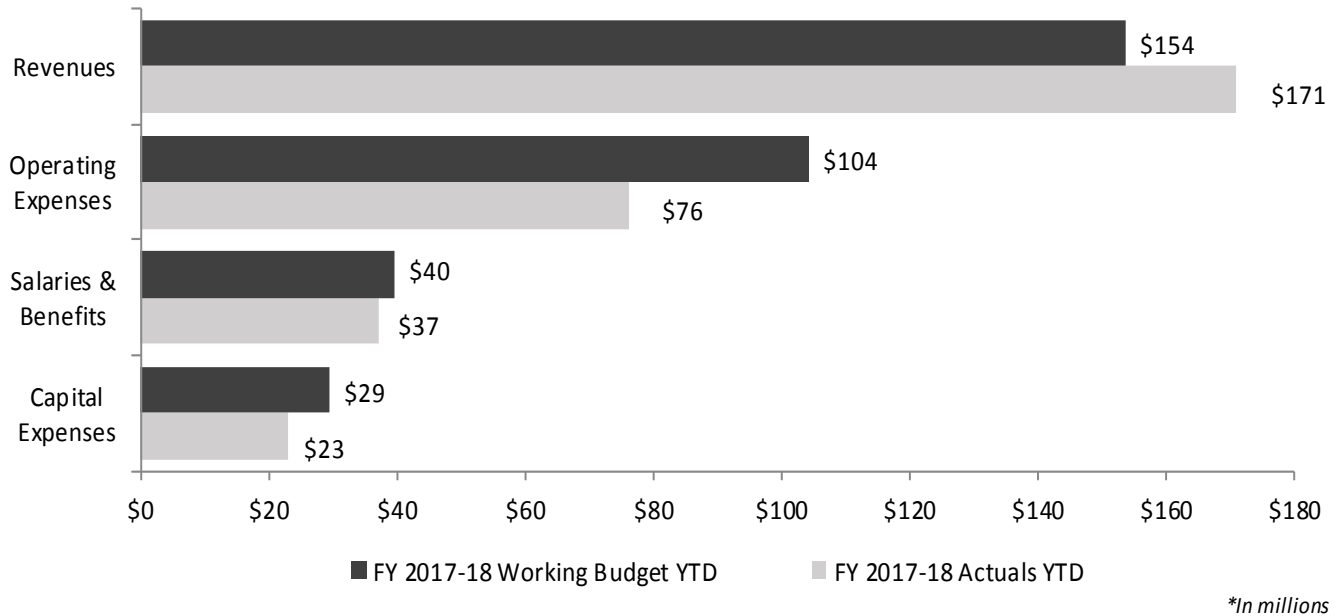


Andrew Oftelie
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Quarterly Budget Status Report

First Quarter of Fiscal Year 2017-18



STAFFING

A staffing plan of 1,346.5 full-time equivalent positions was approved by the Board of Directors (Board) for fiscal year (FY) 2017-18. At the end of the first quarter 1,287.5 of these positions were filled, representing a vacancy rate of 4.4 percent.

Staffing Description	Budget	Filled	Vacant	% Vacancy
Coach Operators	643.0	631.0	12.0	1.9%
Maintenance	171.0	152.0	19.0	11.1%
TCU	37.0	36.0	1.0	2.7%
<i>Union Subtotal</i>	851.0	819.0	32.0	3.8%
Transit Support	169.5	161.5	8.0	4.7%
Other Administrative	326.0	307.0	19.0	5.8%
<i>Administrative Subtotal</i>	495.5	468.5	27.0	5.4%
Total OCTA	1,346.5	1,287.5	59.0	4.4%

In both cases, the underruns are primarily driven by vacant positions that are anticipated to be filled throughout the FY.

	Budget	Actual	\$ Variance	% Variance
Transit	\$ 26,146	\$ 24,899	\$ 1,247	4.8%
General Fund	13,407	12,391	1,015	7.6%
Total	\$ 39,553	\$ 37,290	\$ 2,263	5.7%

PROGRAM VARIANCES

Year-to-date material variances are listed by program. All dollar amounts in tables are shown in thousands.

TOTAL SALARIES AND BENEFITS

Total actual salaries and benefits of \$37.3 million were approximately \$2.2 million under the budget of \$39.6 million. This variance is due to a \$1.2 million underrun in the Transit Program salaries and benefits and a \$1 million underrun in the General Fund salaries and benefits.

Bus Program

	Budget	Actual	\$ Variance	% Variance
Operating				
Revenues	\$ 53,652	\$ 54,200	\$ 548	1.0%
Expenses	55,270	51,230	4,040	7.3%
Net Operating	\$ (1,618)	\$ 2,970		
Capital				
Revenues	76	127	51	68.0%
Expenses	76	127	(51)	-68.0%
Net Capital	\$ -	\$ -		

Operating Revenue:

The overrun in revenues is primarily due to the sale of alternative fuel credits (\$0.3 million) and fare revenues (\$0.2 million). These revenues are slightly offset by the underruns in Local Transportation Fund (LTF) Bus Program sales tax revenue (\$0.3 million). However, the actual amount of sales tax receipts for the first quarter will not be finalized until mid-December when OCTA receives the first quarter "true-up" payment.

The variance pertaining to alternative fuel credits is due to greater than anticipated revenue from the sale of the credits. Alternative fuel credits are sold regularly throughout the FY, and based on current trends, staff anticipates this revenue source will continue to overrun the budget throughout the FY.

Fare revenue experienced an overrun compared to the budget. This is due to a lower than anticipated decrease in fixed-route boardings year-over-year of 3.7 percent compared to the budgeted decrease of 6.5 percent.

LTF sales tax advances grew by 1.71 percent year-over-year compared to the budgeted growth rate of 2.4 percent. This resulted in an underrun of \$0.3 million, or 0.68 percent compared to the budget. However, the actual amount of LTF sales tax revenue for the first quarter will not be finalized until

mid-December when OCTA receives the first quarter "true-up" payment.

LTF Bus Program Sales Tax Revenue

	Budget	Actual	\$ Variance	% Variance
Revenue	\$ 37,079	\$ 36,828	\$ (251)	-0.68%

Operating Expenses: The \$4 million underrun in Transit operating expenses is primarily attributable to salaries and benefits (\$1.2 million), transit recurring operational costs (\$0.9 million), paratransit service (\$0.5 million), contracted fixed-route services (\$0.3 million), and the Vanpool Program (\$0.2 million).

Salaries and benefits underran the budget by \$1.2 million. This is primarily due to vacant positions. The vacancy rate is 3.8 percent for Transit union employees and 4.7 percent for Transit administrative employees, compared to budgeted vacancy rates of 0.7 percent and 3 percent, respectively.

The underrun of \$0.9 million in recurring operational costs can primarily be attributed to time and expense based line items for consumables such as shop supplies, parts, bus cleaning, equipment maintenance, etc. The time and expense services are utilized on an as-needed basis.

The underruns in paratransit service, contracted fixed-route service, and the Vanpool Program can be attributed to timing of vendor invoices. Invoices were received, however final approval of the invoices were finalized at the beginning of the second quarter.

Capital Revenues and Expenses: Capital revenues and expenses exceeded the budget by approximately \$0.5 million. This variance is the result of having finalized the purchase of 25 alternative fuel coach operator relief vehicles earlier than anticipated.

Rail Program

	Budget	Actual	\$ Variance	% Variance
Operating				
Revenues	\$ 9,920	\$ 9,919	\$ (1)	0.0%
Expenses	9,670	987	8,683	89.8%
Net Operating	\$ 250	\$ 8,932		
Capital				
Revenues	-	-	-	0.0%
Expenses	18,680	19,531	(851)	-4.6%
Net Capital	\$ (18,680)	\$ (19,531)		

Operating Expenses: Commuter Rail operating expenses underran the budget by \$8.7 million. The underrun is primarily due to the timing of a payment to Metrolink for OCTA's portion of the Metrolink operating subsidy. The payment was expected to occur in the first quarter, but did not occur until early in the second quarter of the FY.

Net Capital: As shown in the table above, capital revenues were budgeted \$18.7 million less than capital expenses related to the Orange Metrolink Station parking structure project. As reflected in OCTA's annual budget, grant revenues associated with capital expenditure are anticipated in the second quarter.

Capital Expenses: Commuter Rail capital expenses overran by \$0.9 million. This is primarily due to the construction contract for the Laguna Niguel/Mission Viejo station which whose budget originally approved and encumbered in FY 2015-16. However, the remaining balance of the contract was re-encumbered in the current fiscal year causing the overrun.

91 Express Lanes Program

	Budget	Actual	\$ Variance	% Variance
Operating				
Revenues	\$ 11,014	\$ 13,409	\$ 2,395	21.7%
Expenses	4,093	4,017	76	1.9%
Net Operating	\$ 6,920	\$ 9,391		
Capital				
Revenues	313	277	(35)	-11.3%
Expenses	313	277	35	11.3%
Net Capital	\$ -	\$ -		

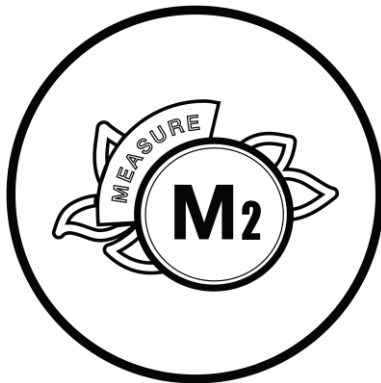
Operating Revenues: The 91 Express Lanes operating revenues overran the budget by \$2.4 million. The overrun can be attributed to greater than anticipated non-toll revenues (\$0.9 million), toll revenues from Transportation Corridor Agencies (\$0.8 million), and toll revenue from the 91 Express Lanes (\$0.6 million). The overrun in non-toll revenue is due to higher violation fees than anticipated. The overrun in toll revenue is the result of higher than anticipated trips on the toll lanes, 4.1 million compared to the budgeted amount of 4 million trips. This is in part due to the extension of the 91 Express Lanes into Riverside County which opened last FY with higher demand than anticipated.

Operating Expenses: The 91 Express Lanes operating expenses were in alignment with the budget for the first quarter.

Motorist Services Program

	Budget	Actual	\$ Variance	% Variance
Operating				
Revenues	\$ 3,379	\$ 3,383	\$ 4	0.1%
Expenses	1,176	887	289	24.6%
Net	\$ 2,203	\$ 2,496		
Capital				
Revenues	-	-	-	0.0%
Expenses	-	-	-	0.0%
Net	\$ -	\$ -		

Operating: Expenses for the Motorist Services Program underran the budget due to recurring time and expense items that did not impact services.

M2 Program**M2 Program Sales Tax Revenue**

	Budget	Actual	\$ Variance	% Variance
Revenue	\$ 70,614	\$ 69,676	\$ (938)	-1.33%

Revenues: LTA sales tax advances grew by 1.93 percent year-over-year in comparison to the budgeted growth rate of 3.3 percent. This resulted in an underrun of \$0.9 million, or 1.33 percent compared to the budget. However, the amount of sales tax receipts for the first quarter will not be finalized

until mid-December when OCTA receives the first quarter "true-up" payment.

Mode	Budget	Actual	\$ Variance	% Variance
Freeways	\$ 12,664	\$ 2,911	\$ (9,753)	-77.0%
Streets & Roads	30,424	20,850	(9,573)	-31.5%
Transit	3,072	1,028	(2,045)	-66.5%
Administration	2,234	1,334	(900)	-40.3%
Debt Service	10,509	10,509	(0)	0.0%
Total	\$ 58,903	\$ 36,632	\$ (22,271)	-37.8%

Expenditures: Measure M2 Program expenditures underran the budget by \$22.3 million. Freeways contributed \$9.8 million to the underrun, primarily due to time and expense type activities on the Interstate 405 Improvement Project, and landscape construction timing on the State Route 57 freeway. Streets and Roads contributed \$9.6 million to the underrun due to lower than anticipated project payment requests from the cities and county. Transit contributed \$2 million to the underrun, primarily due to lower than anticipated Project V community based shuttle bus payments to the cities. Administration expenditures contributed \$0.9 million to the underrun primarily due to later than anticipated procurement of M2 Program support contracts.



COMMITTEE TRANSMITTAL

January 8, 2018

To: Members of the Board of Directors
From: Laurena Weinert, Clerk of the Board
Subject: Fiscal Year 2017-18 First Quarter Grant Reimbursement Status Report

Finance and Administration Committee Meeting of December 13, 2017

Present: Directors Do, Hennessey, Jones, and R. Murphy
Absent: Directors Pulido, Spitzer, and Steel

Committee Vote

This item was passed by the Members present.

Committee Recommendation

Receive and file as an information item.



December 13, 2017

To: Finance and Administration Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Fiscal Year 2017-18 First Quarter Grant Reimbursement Status Report

Overview

The Quarterly Grant Reimbursement Status Report summarizes grant activities for the Orange County Transportation Authority Board of Directors. This report focuses on activity for the period of July through September 2017.

Recommendation

Receive and file as an information item.

Discussion

The Orange County Transportation Authority (OCTA) has secured grant funding from federal and state grant agencies to deliver programs, projects, and services to improve mobility in Orange County. The use of these funds is consistent with capital programming policies approved by the OCTA's Board of Directors (Board). The Quarterly Grant Reimbursement Status Report summarizes awarded/executed, current, and closed grant agreements.

Awarded/Executed Grant Agreements:

During the first quarter, OCTA awarded/executed four formula grants and one discretionary grant which are summarized below.

Fiscal Year (FY) 2012-13 – FY 2016-17 Section 5307 Flexible Funding Programs, Congestion Mitigation and Air Quality Program (CMAQ): Federal Transit Administration (FTA)

OCTA executed a grant agreement with the FTA to secure \$31.6 million in federal formula flex funds. These are CMAQ funds that are transferred from Federal Highway Administration (FHWA) to FTA for transit related grants. The total amount of the formula flex funds is a cumulative amount from multiple program years that range from FY 2012-13 to FY 2016-17. These funds will be used to

support construction costs for the Orange Parking Structure and Laguna Niguel-San Juan Capistrano Rail Passing Siding. In addition, funds will also support design work for the OC Streetcar.

FY 2012-13 and FY 2013-14 Section 5310 Enhanced Mobility of Seniors & Individuals with Disabilities: FTA and California Department of Transportation (Caltrans)

OCTA executed an agreement with Caltrans to secure \$0.6 million in federal competitive funds. These federal funds provide grant opportunities for local public agencies and non-profit organizations to help meet the special transportation needs of seniors and individuals with disabilities. As authorized by the OCTA Board, these funds will be used to develop and implement a Mobility Management Program that includes a Travel Training Program and Specialized Transportation Services Information and Referral Project. Toll credits will be used to meet the 20 percent local match and OCTA anticipates grant funds will cover program costs for 24 to 36 months.

FY 2015-16 Proposition 1B Transit System Safety, Security, & Disaster Response Account, California Transit Security Grant Program, California Transit Assistance Fund (CTSGP-CTAF): California Office of Emergency Services (Cal OES)

OCTA received approval from the Cal OES to secure \$3.5 million in CTSCP-CTAF grant funds to support eligible transit system safety, security, and disaster response projects. The projects include; Raymond Avenue Grade Separation, OCTA Transit Security & Operations Center, and video surveillance system upgrades at OCTA bases. The projects were selected based on several factors, including program eligibility, project readiness, overall funding need, and expenditure within the grant performance periods, which end on March 31, 2019.

FY 2016-17 Low Carbon Transit Operations Program (LCTOP): Caltrans

OCTA executed an agreement with Caltrans to secure \$1.7 million in LCTOP formula funds. As authorized by the Board, these funds will be utilized towards the purchase of 557 bicycle racks and a bus pass pilot program for Santa Ana College.

FY 2016-17 & FY 2017-18 Major Event Transportation Grant: Mobile Source Air Pollution Reduction Review Committee (MSRC)

OCTA secured \$0.5 million in grant funds awarded by the MSRC to support the direct operating costs of the Angels Express service for the FY 2016-17 and FY 2017-18 baseball seasons. OCTA will partner with the Angels Baseball and the Southern California Regional Rail Authority to provide express Metrolink rail

service to serve all weekday evening home games that start at 7:07 PM. The in-kind local match contribution will be provided in the form of OCTA staff time, marketing costs, fare and admission discounts, and farebox revenue as allowed by the grant program.

Current Grant Agreements:

OCTA's FTA formula grant agreements total 14, and FTA discretionary grant agreements total three. The total FTA formula and discretionary grant agreements amount to \$329.2 million. The total amount reimbursed through the first quarter under these grant agreements is \$270.2 million, leaving a balance of \$59 million (Attachment A).

The 14 FTA formula grant agreements have a total federal amount of \$311.3 million. A total of \$259.3 million has been reimbursed, leaving a balance of \$52 million. The balance of these 14 FTA formula grant agreements will primarily fund the OC Streetcar, Orange Parking Structure, fixed-route bus procurements, rideshare and vanpool programs, the Laguna Niguel/San Juan Capistrano passing siding project and rail rehabilitation projects.

The three FTA discretionary grant agreements have a total federal amount of \$17.9 million. A total of \$10.9 million has been reimbursed, leaving a balance of \$7 million. The balance of these three FTA discretionary grant agreements will primarily fund a new control point at 4th Street on the OCTA-owned railroad right-of-way (ROW), as well as slope stabilization improvements on the railroad ROW from the City of Laguna Niguel to the City of Lake Forest. The balance will also fund security camera surveillance systems for commuter rail stations located in the cities of Anaheim, Laguna Niguel/Mission Viejo, Orange, and Placentia.

OCTA also has 50 state and FHWA formula grant agreements (Attachment B) and ten state discretionary grant agreements (Attachment C).

The 50 state and FHWA formula grant agreements total \$388.7 million. The total amount reimbursed through the first quarter under these other grant agreements is \$266 million, leaving a balance of \$122.7 million.

The ten state discretionary grant agreements total \$4.7 million. A total of \$0.2 million of these discretionary grant agreements has been reimbursed, leaving a balance of \$4.5 million. These state discretionary grant agreements have a defined grant expiration date. Project expenses must be fully paid and reimbursed prior to the grant agreement expiration date. Staff anticipates each of the remaining balances to be fully reimbursed prior to the grant agreement expiration date.

Combined, the state and FHWA formula and discretionary grants total \$393.4 million. The total amount reimbursed across all these grant agreements equals \$266.2 million, leaving a remaining balance of \$127.2 million.

Grant Agreements Pending Close-out:

There are five grant agreements totaling \$93.6 million which are pending close-out in the first quarter of FY 2017-18. All invoices for these grant agreements have been submitted to the external funding agency for reimbursement and OCTA is pending final payment and/or approval of close-out documentation. OCTA Board approved reprogramming \$0.4 million of remaining funds from the Sand Canyon Grade Separation Project to the San Juan Creek Bridge Project on July 2017. These grant agreements are summarized in Attachment D.

Closed Grant Agreements:

There are five grant agreements totaling \$13.6 million that were closed out in the first quarter of FY 2017-18. OCTA's participating eligible costs related to the Proposition 1B State Local Partnership Program (SLPP) funded projects were lower than anticipated totaling \$2 million. Therefore, OCTA sought the maximum SLPP funds available and this 5-year funding program has reached its sunset. These grant agreements are summarized in Attachment E.

Summary

This report provides an update of the grant agreement funded activities for the first quarter of FY 2017-18, July through September 2017. Staff recommends this report be received and filed as an information item.

Attachments

- A. First Quarter Grant Reimbursement Status Report, July through September 2017, Federal Transit Administration Formula and Discretionary Grant Agreements
- B. First Quarter Grant Reimbursement Status Report, July through September 2017, State and Federal Highway Administration Formula Grant Agreements
- C. First Quarter Grant Reimbursement Status Report, July through September 2017, State Discretionary Grant Agreements
- D. First Quarter Grant Reimbursement Status Report, July through September 2017, Grant Agreements Pending Close-out
- E. First Quarter Grant Reimbursement Status Report, July through September 2017, Closed Grant Agreements

Prepared by:



Rene I. Vega
Section Manager,
Revenue and Grants Administration
714-560-5702

Approved by:



Andrew Oftelie
Executive Director,
Finance and Administration
714-560-5649

**First Quarter Grant Reimbursement Status Report
July through September 2017**

Federal Transit Administration Formula and Discretionary Grant Agreements						
	FEDERAL FISCAL YEAR (FFY)	GRANT NUMBER	FEDERAL AMOUNT	FEDERAL AMOUNT REIMBURSED	REMAINING BALANCE	EXPIRATION DATE
FTA Section 5307 - Urbanized Area Formula Grant Program						
1	2012	CA-90-Y942	\$ 57,746,965	\$ 54,908,289	\$ 2,838,676	June 2019
2	2013	CA-90-Z027	53,878,507	53,382,389	496,118	June 2018
3	2014	CA-90-Z174	55,129,189	54,687,131	442,058	June 2018
4	2015	CA-2016-032	55,400,721	53,099,176	2,301,545	December 2018
FTA Section 5307 Grant Subtotal			\$ 222,155,382	\$ 216,076,985	\$ 6,078,397	
FTA Section 5307 - Federal Funds flexed from the Federal Highway Administration (FHWA):						
5	2010	CA-95-X131	\$ 2,102,650	\$ 1,327,949	\$ 774,701	April 2018
6	2012	CA-95-X180	4,260,000	3,753,973	506,027	December 2018
7	2012	CA-95-X210	12,669,000	8,220,327	4,448,673	June 2019
8	2012	CA-95-X254	5,657,000	3,125,702	2,531,298	June 2018
9	2014	CA-95-X286	6,621,000	4,554,965	2,066,035	September 2018
10	2017	CA-2017-072	31,567,405	3,684,001	27,883,404	June 2021
FTA Section 5307 Flexed Grant Subtotal			\$ 62,877,055	\$ 24,666,917	\$ 38,210,138	
FTA Section 5310 - Enhanced Mobility of Seniors & Individuals with Disabilities Grant Program						
11	2013	64AM16-00157	\$ 630,416	\$ 0	\$ 630,416	March 2019
FTA Section 5310 Grant Subtotal			\$ 630,416	\$ 0	\$ 630,416	
FTA Section 5316 - Jobs Access and Reverse Commute (JARC) Grant Program						
12	2009	CA-37-X113	\$ 13,962,488	\$ 9,224,131	\$ 4,738,357	September 2019
FTA Section 5316 Grant Subtotal			\$ 13,962,488	\$ 9,224,131	\$ 4,738,357	
FTA Section 5317 - New Freedoms Grant Program						
13	2009	CA-57-X038	\$ 6,387,801	\$ 6,307,446	\$ 80,355	September 2018
FTA Section 5317 Grant Subtotal			\$ 6,387,801	\$ 6,307,446	\$ 80,355	
FTA Section 5337 - State of Good Repair Grant Program						
14	2016	CA-2016-096	\$ 5,261,812	\$ 3,055,309	\$ 2,206,503	December 2018
FTA Section 5337 Grant Subtotal			\$ 5,261,812	\$ 3,055,309	\$ 2,206,503	
Federal Transit Administration Formula Grants Total			\$ 311,274,954	\$ 259,330,788	\$ 51,944,166	

**First Quarter Grant Reimbursement Status Report
July through September 2017**

Federal Transit Administration Formula and Discretionary Grant Agreements						
	FEDERAL FISCAL YEAR (FFY)	GRANT NUMBER	FEDERAL AMOUNT	FEDERAL AMOUNT REIMBURSED	REMAINING BALANCE	EXPIRATION DATE
FTA Section 5309 - Discretionary Capital Grant Program						
15	2007	CA-04-0078	\$ 7,021,300	\$ 5,730,473	\$ 1,290,827	December 2018
16	2009	CA-04-0122	4,845,999	3,934,803	911,196	December 2020
17	2012	CA-05-0269	6,000,000	1,177,170	4,822,830	March 2020
FTA Section 5309 Grant Subtotal			\$ 17,867,299	\$ 10,842,446	\$ 7,024,853	
Federal Transit Administration Discretionary Grants Total			\$ 17,867,299	\$ 10,842,446	\$ 7,024,853	
Total Federal Transit Administration Formula and Discretionary Grant Agreements			\$ 329,142,253	\$ 270,173,234	\$ 58,969,019	

Funding Source Notes:

FTA Section 5307 - Urbanized Area Formula Grant Program: Funds are used to fund preventive maintenance, capital cost of contracting, and to purchase revenue vehicles, facility modifications, and bus-related equipment.

FTA Section 5310 - Enhanced Mobility of Seniors & Individuals with Disabilities Grant Program: Formula funding to states for the purpose of assisting nonprofit groups in meeting the transportation needs of the elderly and persons with disabilities.

FTA Section 5316 - Jobs Access and Reverse Commute (JARC) Grant Program: Grants provide funds to support new transit services and to establish mobility management programs to assist low-income individuals.

FTA Section 5317 - New Freedoms Grant Program: Grants provide funds to support new transit services and establish mobility management programs to enhance access for persons with disabilities.

FTA Section 5337 - State of Good Repair Grant Program: A formula-based State of Good Repair program dedicated to repairing and upgrading the nation's rail transit systems along with high-intensity motor bus systems that use high-occupancy lanes.

FTA Section 5309 - Discretionary Capital Grant Program: Grants provide for projects that improve efficiency and coordination of transportation systems.

First Quarter Grant Reimbursement Status Report

July through September 2017

State and Federal Highway Administration Formula Grant Agreements

	FISCAL YEAR (FY)	PROJECT	GRANT AMOUNT	AMOUNT REIMBURSED	REMAINING BALANCE	EXPIRATION DATE
Active Transportation Program (ATP)						
1	2017	Orange County Active Transportation Plan	\$ 280,000	\$ 24,509	\$ 255,491	April 2019
ATP Subtotal			\$ 280,000	\$ 24,509	\$ 255,491	
Federal Highway Administration Grant Program - Congestion Mitigation & Air Quality (CMAQ)						
2	2010	Orangethorpe Ave Grade Separation (ROW)	\$ 27,504,000	\$ 23,605,790	\$ 3,898,210	June 2019
3	2011	Lakeview Ave Grade Separation (ROW)	6,532,000	6,532,000	0	June 2019
4	2012	I-5 HOV Segment 1, Ave Pico to Vista Hermosa (PS&E)	4,246,000	3,384,194	861,806	June 2018
5	2012	I-5 HOV Segment 2, Vista Hermosa to PCH (PS&E)	3,687,000	2,011,992	1,675,008	June 2019
6	2012	I-5 HOV Segment 3, PCH to San Juan Creek Rd (PS&E)	2,067,000	1,537,112	529,888	June 2019
7	2012	Lakeview Ave Grade Separation (ROW Utility Relocation)	3,135,862	60,901	3,074,961	June 2019
8	2013	I-5 HOV Segment 1, Ave Pico to Vista Hermosa (ROW)	8,000,000	4,009,067	3,990,933	June 2018
9	2015	I-5 from the Orange/San Diego County Line to Avenida Pico (PA/ED)	450,000	98,344	351,656	June 2020
10	2015	I-5, SR-55 to SR-57 (PS&E)	2,800,000	1,988,933	811,067	June 2020
CMAQ Subtotal			\$ 58,421,862	\$ 43,228,333	\$ 15,193,529	
Federal Highway Administration Grant Program - Regional Surface Transportation Program (RSTP)						
11	2011	Tustin Ave / Rose Dr Grade Separation Project (ROW Utility Relocation)	\$ 2,254,000	\$ 0	\$ 2,254,000	June 2019
12	2011	Tustin Ave / Rose Dr Grade Separation Project (ROW)	21,494,000	19,594,690	1,899,310	June 2019
13	2012	Lakeview Ave Grade Separation (ROW)	11,527,563	11,527,563	0	June 2019
14	2012	Tustin Ave / Rose Dr Grade Separation Project (Construction)	8,700,440	7,941,426	759,014	June 2019
15	2013	I-5, I-405 to SR-55 (PA/ED)	8,000,000	4,298,998	3,701,002	June 2018
16	2014	I-5 Segment 2, Oso Pkwy to Alicia Pkwy (PS&E)	10,000,000	8,831,179	1,168,821	June 2019
17	2015	I-405, I-5 to SR-55 (PA/ED)	8,000,000	4,320,528	3,679,472	June 2020
18	2015	I-5 Segment 1, SR-73 to Oso Pkwy (PS&E)	9,101,000	6,187,445	2,913,555	June 2020
19	2015	I-5 Segment 3, Alicia Pkwy to El Toro Rd (PS&E)	8,044,000	4,957,652	3,086,348	June 2020
20	2015	SR-91, SR-57 to SR-55 (PA/ED)	7,000,000	1,477,392	5,522,608	June 2020
21	2016	SR-57, Orangewood to Katella Ave (PA/ED)	2,500,000	788,563	1,711,437	June 2021
22	2017	SR-55, I-5 to SR-91 (PS&E)	5,000,000	0	5,000,000	June 2022
RSTP Subtotal			\$ 101,621,003	\$ 69,925,436	\$ 31,695,567	
Federal Highway Administration Grant Program - State Transportation Block Grant (STBG)						
23	2016	I-405, SR-73 to I-605 (Construction)	\$ 1,000	\$ 0	\$ 1,000	June 2021
STBG Subtotal			\$ 1,000	\$ 0	\$ 1,000	

ATTACHMENT B

First Quarter Grant Reimbursement Status Report

July through September 2017

State and Federal Highway Administration Formula Grant Agreements

	FISCAL YEAR (FY)	PROJECT	GRANT AMOUNT	AMOUNT REIMBURSED	REMAINING BALANCE	EXPIRATION DATE
Federal Highway Administration Grant Program - Traffic Congestion Relief Program (TCRP)						
24	2011	Kraemer Blvd Grade Separation (Construction)	\$ 1,462,000	\$ 0	\$ 1,462,000	June 2019
TCRP Subtotal			\$ 1,462,000	\$ 0	\$ 1,462,000	
Low Carbon Transit Operations Program (LCTOP) - California Department of Transportation (CALTRANS)						
25	2016	Bus Buy - 40' buses for Bravo!	\$ 3,046,000	\$ 0	\$ 3,046,000	June 2019
26	2017	Bus Bicycle Racks	752,825	0	752,825	June 2019
27	2017	Fare Discount - Fixed Route	900,000	94,237	805,763	June 2019
CAP & TRADE LCTOP Subtotal			\$ 4,698,825	\$ 94,237	\$ 4,604,588	
Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) Demonstration Funds						
28	2009	I-405, SR-73 to I-605 (PS&E)	\$ 439,371	\$ 439,371	\$ 0	June 2018
29	2012	Orangethorpe Ave Grade Separation (Construction)	18,600,000	16,270,617	2,329,383	June 2019
30	2013	I-405, SR-73 to I-605 (PS&E)	1,871,573	1,871,573	0	June 2018
SAFETEA-LU Demo Subtotal			\$ 20,910,944	\$ 18,581,561	\$ 2,329,383	
Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) Demonstration Funds						
31	2013	I-405, SR-73 to I-605 (PS&E)	\$ 6,549,820	\$ 6,549,820	\$ 0	June 2018
SAFETEA-LU Demo Subtotal			\$ 6,549,820	\$ 6,549,820	\$ 0	
SAFETEA-LU: Projects of National and Regional Significance (PNRS)						
32	2013	Lakeview Ave Grade Separation (Construction)	\$ 9,709,030	\$ 6,954,405	\$ 2,754,625	June 2019
SAFETEA-LU-PNRS Subtotal			\$ 9,709,030	\$ 6,954,405	\$ 2,754,625	
State Proposition 1B California Transit Security Grant Program (CTSGP): Transit System Safety, Security & Disaster Response Account (TSSSDRA)						
33	2014	State College Blvd Grade Separation (Construction)	\$ 1,506,069	\$ 0	\$ 1,506,069	March 2018
34	2015	Raymond Ave Grade Separation Project (Construction)	200,000	0	200,000	March 2018
35	2015	State College Blvd Grade Separation (Construction)	478,931	0	478,931	March 2018
36	2015	Transit Security Operation Center (PS&E)	2,741,643	0	2,741,643	March 2018
37	2015	Video Surveillance System Upgrades (Construction)	100,000	0	100,000	March 2018
38	2016	Raymond Ave Grade Separation Project (Construction)	200,000	0	200,000	March 2019
39	2016	Transit Security Operation Center (PA/ED)	3,180,574	0	3,180,574	March 2019
40	2016	Video Surveillance System Upgrades (Construction)	140,000	0	140,000	March 2019
PROP 1B TSSSDRA Subtotal			\$ 8,547,217	\$ 0	\$ 8,547,217	
State Proposition 1B: Public Transportation Modernization, Improvement, and Service Enhancement Account (PTMISEA)						
41	2015	Fullerton Transportation Center Elevator Project (Construction)	\$ 500,000	\$ 393,537	\$ 106,463	August 2020
42	2015	Raymond Ave Grade Separation Project (Construction)	43,008,102	29,555,680	13,452,422	August 2020
PROP 1B PTMISEA Subtotal			\$ 43,508,102	\$ 29,949,217	\$ 13,558,885	

First Quarter Grant Reimbursement Status Report

July through September 2017

State and Federal Highway Administration Formula Grant Agreements						
	FISCAL YEAR (FY)	PROJECT	GRANT AMOUNT	AMOUNT REIMBURSED	REMAINING BALANCE	EXPIRATION DATE
State Proposition 1B: State-Local Partnership Program (SLPP)						
43	2013	La Pata Ave. Phase 1 (Construction)	\$ 5,110,000	\$ 994,059	\$ 4,115,941	June 2018
PROP 1B SLPP Subtotal			\$ 5,110,000	\$ 994,059	\$ 4,115,941	
State Proposition 1B: Trade Corridor Improvement Fund (TCIF)						
44	2011	Kraemer Blvd Grade Separation (Construction)	\$ 15,513,000	\$ 14,632,720	\$ 880,280	June 2019
45	2011	Placentia Ave Grade Separation (Construction)	9,550,000	9,299,039	250,961	June 2019
46	2012	Orangethorpe Ave Grade Separation (Construction)	41,632,000	26,613,098	15,018,902	June 2019
47	2012	Tustin Ave / Rose Dr Grade Separation Project (Construction)	30,862,000	21,455,738	9,406,262	June 2019
48	2013	Lakeview Ave Grade Separation (Construction)	27,628,157	17,713,988	9,914,169	June 2019
PROP 1B TCIF Subtotal			\$ 125,185,157	\$ 89,714,583	\$ 35,470,574	
State Transportation Improvement Plan (STIP) Programming, Planning & Monitoring (PPM)						
49	2016	PPM Program	\$ 831,000	\$ 0	\$ 831,000	December 2018
50	2017	PPM Program	1,899,000	0	1,899,000	December 2019
STIP PPM Subtotal			\$ 2,730,000	\$ 0	\$ 2,730,000	
Total State and Federal Highway Administration Formula Grant Agreements			\$ 388,734,960	\$ 266,016,159	\$ 122,718,800	

First Quarter Grant Reimbursement Status Report
July through September 2017

State Discretionary Grant Agreements						
	FISCAL YEAR (FY)	PROJECT	GRANT AMOUNT	AMOUNT REIMBURSED	REMAINING BALANCE	EXPIRATION DATE
Air Quality Management District (AQMD) Grant Program and Mobile Source Air Pollution Reduction Review Committee (MSRC) / Transportation Control Measure Partners						
1	2015	Mobile Ticketing	\$ 1,553,657	\$ 0	\$ 1,553,657	June 2018
2	2016	Bus Rehab & Repower - 40' buses	1,470,000	0	1,470,000	March 2019
3	2017	Angels Express Train Service	503,272	0	503,272	April 2019
MSRC Subtotal			\$ 3,526,929	\$ 0	\$ 3,526,929	
State Highway Account - Sustainable Communities						
4	2017	Active Transportation Count	\$ 177,000	\$ 0	\$ 177,000	February 2019
SHA-SC Subtotal			\$ 177,000	\$ 0	\$ 177,000	
Systemic Safety Analysis Reporting Program						
5	2016	Systemic Safety Analysis Report	\$ 315,000	\$ 0	\$ 315,000	September 2021
SSARP Subtotal			\$ 315,000	\$ 0	\$ 315,000	
Transit Security Grant Program (TSGP) - State Office of Homeland Security						
6	2015	Update OCTA's Security and Emergency Plans	\$ 100,000	\$ 21,256	\$ 78,744	August 2018
7	2015	VIPR and Counter Terrorism Team Operations	115,500	115,500	0	August 2018
8	2015	Vulnerability Assessment of OCTA's Industrial Control and Communications	300,000	17,280	282,720	August 2018
9	2016	Update OCTA's Security and Emergency Plans	70,000	0	70,000	August 2019
10	2016	VIPR and Counter Terrorism Team Operations	70,000	30,955	39,045	August 2019
TSGP Subtotal			\$ 655,500	\$ 184,991	\$ 470,509	
Total State Discretionary Grant Agreements			\$ 4,674,429	\$ 184,991	\$ 4,489,438	

**First Quarter Grant Reimbursement Status Report
July through September 2017**

Grant Agreements Pending Close-out						
	FISCAL YEAR (FY)	FUNDING SOURCE	PROJECT	GRANT AMOUNT	AMOUNT REIMBURSED	REMAINING BALANCE
1	2016	FTA Section 5307	FTA CA-2016-116	\$ 56,269,958	\$ 56,269,955	\$ 3
2	2017	OTS	Active Transportation Video Series	50,000	50,000	0
3	2010	PROP 116	Sand Canyon Ave Grade Separation (Construction)	22,004,000	21,574,222	429,778
4	2010	PROP 1B HRCSA	Sand Canyon Ave Grade Separation (Construction)	6,618,000	6,618,000	0
5	2010	RSTP	Sand Canyon Ave Grade Separation (Construction)	8,665,741	8,665,741	0
Total Grant Agreements Pending Close-out				\$ 93,607,699	\$ 93,177,918	\$ 429,781

**First Quarter Grant Reimbursement Status Report
July through September 2017**

Closed Grant Agreements						
	FISCAL YEAR (FY)	FUNDING SOURCE	PROJECT	GRANT AMOUNT	AMOUNT REIMBURSED	REMAINING BALANCE
1	2012	PROP 1B SLPP	Bristol St. Widening - 3rd St. to Civic Ctr. (Construction)	\$ 3,120,000	\$ 1,873,586	\$ 1,246,414
2	2013	PROP 1B SLPP	Brookhurst St Improvements, Ball to Katella (Construction)	3,393,000	2,963,135	429,865
3	2013	PROP 1B SLPP	Cow Camp Road - Segment 1 (Construction)	4,160,000	3,914,374	245,626
4	2013	PROP 1B SLPP	Harbor Blvd and Adams St. Improvements (Construction)	1,482,000	1,387,168	94,832
5	2015	STIP PPM	PPM Program	1,445,000	1,445,000	0
Total Closed Grants				\$ 13,600,000	\$ 11,583,263	\$ 2,016,736



COMMITTEE TRANSMITTAL

January 8, 2018

To: Members of the Board of Directors

From: Laurena Weinert, Clerk of the Board

Subject: Update on the Loan Agreements with the Cities of Anaheim, Buena Park, Placentia, and the West Orange County Water Board

Finance and Administration Committee Meeting of December 13, 2017

Present: Directors Do, Hennessey, Jones, and R. Murphy
Absent: Directors Pulido, Spitzer, and Steel

Committee Vote

This item was passed by the Members present.

Committee Recommendation

Receive and file as an information item.



December 13, 2017

To: Finance and Administration Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Update on the Loan Agreements with the Cities of Anaheim, Buena Park, Placentia, and the West Orange County Water Board

Overview

The Orange County Transportation Authority Board of Directors has authorized loan agreements with the cities of Anaheim, Buena Park, Placentia, and the West Orange County Water Board. Per Board of Directors direction, staff will provide annual updates on the status of the agreements.

Recommendation

Receive and file as an information item.

Background

City of Anaheim

In July 2012, Orange County Transportation Authority (OCTA) entered into a purchase and sale agreement of \$32.5 million with the City of Anaheim (Anaheim) selling real property to enable the construction of the Anaheim Regional Transportation Intermodal Center. Anaheim provided \$1 million as down payment into escrow, with the remaining \$31.5 million to be paid over a 13-year period. The interest rate on the loan is set at a fixed-interest rate of two percent, with the interest portion of the loan to be paid in the final two years of the loan period. Anaheim uses its Measure M2 (M2) Local Fair Share (LFS) funds to repay the loan, and the funds are automatically deducted from Anaheim's bi-monthly LFS payments. OCTA started withholding LFS payments in July 2012. Should Anaheim become ineligible to receive LFS, or if the LFS funds are insufficient to meet the scheduled payment, California Highway Users Tax Account funds would be utilized to make the payments.

City of Buena Park

In April 2016, OCTA entered into a purchase and sale agreement of \$1.04 million with the City of Buena Park (Buena Park) selling excess parcel remnants from the Interstate 5 freeway widening project. Buena Park provided \$514,000 as a down payment. Per the agreement, Buena Park will pay the balance over a five-year period with the balance secured by a deed of trust. Buena Park is scheduled to make annual payments of \$105,200 beginning one year after the escrow date of April 16, 2016. The interest calculation is based on OCTA's actual short-term investment portfolio earnings rate for the prior 12-month period, and resets annually.

City of Placentia

In February 2010, OCTA entered into an agreement with the City of Placentia (Placentia) for \$4.1 million providing financial assistance to Placentia. The loan amount of \$4.1 million is to be repaid over a 19-year period that began July 1, 2011. The interest rate on the loan is based on OCTA's actual short-term investment portfolio earnings rate for the prior 12-month period, and resets annually. Placentia uses its M2 LFS funds to repay the loan, and the funds are automatically deducted from Placentia's bi-monthly LFS payments. The agreement allows OCTA to withhold 30 percent of Placentia's LFS funds beginning in fiscal year (FY) 2011-12. Placentia's contribution increases by one percentage point each FY thereafter until the advance is fully repaid. Should Placentia become ineligible to receive LFS, it would be required to pledge other appropriate funding.

West Orange County Water Board

In October 2017, OCTA entered into a reimbursement agreement with the West Orange County Water Board (WOCWB) for up to \$4.7 million for the relocation of the pipeline facility for Interstate 405 widening project pursuant to Streets and Highways Code Section 706, which allows for a loan if a utility suffers from a hardship due to a required relocation for a highway project. An amendment to the agreement was approved by the OCTA Board of Directors (Board) on November 27, 2017, to increase the loan amount by \$1.3 million to accommodate additional costs and higher bids received by the WOCWB. Per the terms identified in the agreement, the interest rate is equal to the State of California Surplus Money Investment Fund with a not-to-exceed ten-year repayment structure. As of November 30, 2017, OCTA has not made any payments to the WOCWB. When the first payment is sent to WOCWB, a repayment plan will be established per the terms identified in the agreement.

Discussion

OCTA continues to withhold payments from M2 LFS funds to repay the loans established with the cities of Anaheim and Placentia. The first annual payment from Buena Park has also been received by OCTA. OCTA will continue to follow the terms identified in all loan agreements by withholding payments and invoicing cities as applicable. The beginning balance, amount collected, and outstanding balance for each loan can be found on Attachment A.

Summary

The Orange County Transportation Authority Board of Directors has authorized loan agreements with the cities of Anaheim, Buena Park, Placentia, and the WOCWB. The cities of Anaheim, Buena Park, and Placentia are making payments per their respective agreements. OCTA has not made any payments under the WOCWB agreement, and staff is currently working to amend the agreement to increase the loan amount by \$1.3 million per Board direction.

Attachment

A. Status of Loan Agreements

Prepared by:



Sam Kaur
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Revenue and Grants
(714) 560-5889

Approved by:



Andrew Oftelie
Executive Director,
Finance and Administration
(714) 560-5649

Status of Loan Agreements

Borrower	Description	Time Frame	Beginning Balance	Amount Collected/ Withheld	Outstanding Balance
City of Anahiem	Purchase and Sale Agreement	July 2012 - November 2017	\$ 32,500,000	\$14,250,000	\$18,250,000
City of Buena Park	Purchase and Sale Agreement	April 2016 - November 2017	\$ 1,040,000	\$623,337	\$420,800
City of Placentia	Loan Agreement	February 2010- November 2017	\$ 4,100,000	\$1,516,912	\$2,979,236
West Orange County Water Board	Reimbursement Agreement for Utility Relocation	October 2017 - November 2017	\$ 6,000,000	0	\$6,000,000



COMMITTEE TRANSMITTAL

January 8, 2018

To: Members of the Board of Directors

From: Laurena Weinert, Clerk of the Board

Subject: Transit Division Performance Measurements Report for the First Quarter of Fiscal Year 2017-18

Transit Committee Meeting of December 14, 2017

Present: Directors Do, Jones, Murray, Pulido, Shaw, Tait, and Winterbottom

Absent: None

Committee Vote

Following the discussion, no action was taken on this receive and file information item.

Staff Recommendation

Receive and file as an information item.



December 14, 2017

To: Transit Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Transit Division Performance Measurements Report for the First Quarter of Fiscal Year 2017-18

Overview

The Orange County Transportation Authority operates fixed-route bus and demand-response paratransit service throughout Orange County and into neighboring counties. This report summarizes the performance measures for the transit services provided during the first quarter of fiscal year 2017-18. These performance measures gauge the safety, courtesy, reliability, and overall quality of the public transit services provided.

Recommendation

Receive and file as an information item.

Background

The Orange County Transportation Authority (OCTA) operates a countywide network of local, community, rail connector, and express bus routes serving over 5,000 bus stops. Fixed-route service operates in a 798 square mile area, serving more than three million residents in 34 cities and unincorporated areas, with connections to transit service in Orange, Los Angeles, and Riverside counties. Fixed-route bus service operated by OCTA is referred to as directly-operated fixed-route service (DOFR), while routes operated under contract are referred to as contracted fixed-route service (CFR). OCTA also operates a federally mandated paratransit service (ACCESS), which is a shared-ride program available for people unable to use the regular fixed-route bus service because of functional limitations. Performance measures for both the fixed-route and the ACCESS program are summarized and reported quarterly.

Discussion

This report summarizes the performance measurements through the first quarter of fiscal year (FY) 2017-18. The report looks at performance standards for transit system safety, courtesy, and reliability in the areas of preventable vehicle accidents, customer complaints, on-time performance (OTP), and miles between road calls (MBRC). Along with these metrics, industry-standard measurements are tracked to assess OCTA transit operations; these measurements are ridership, productivity, farebox recovery ratio, subsidy per boarding, and cost per revenue vehicle hour. In an effort to maintain transparency with the public, these reports are shared on the Transit dashboard found on the OCTA website and are reported to the Board of Directors on a quarterly basis.

Safety – Maintaining a good safety record is one of the most important standards measured, and all three modes of service (DOFR, CFR, ACCESS) continue to exhibit strong performance in this area, exceeding accident frequency standards.

Customer Service – One of OCTA's goals is to ensure all transit services meet performance standards, and that customers receive high-quality service. DOFR, CFR, and ACCESS services continued to exceed the standard through the first quarter.

Reliability – For OTP, overall, the system was within 0.5 percent of the standard, with DOFR service performing at approximately 0.3 percent shy of the standard and CFR performing within one percent of the standard. ACCESS performed above the standard in the first quarter.

MBRC is the measure used for vehicle reliability. Through the first quarter, ACCESS exceeded the standard while DOFR and CFR service were below the standard. However, DOFR and CFR services showed improvement compared to the same quarter last year by 4.4 percent and nearly 19 percent, respectively.

Ridership and Productivity – Through the first quarter, ridership and productivity for total fixed-route and ACCESS services exceeded the budgeted projection. The OC Bus 360° Plan adjustments implemented in October 2016 continue to show improved ridership and productivity on those routes modified as part of the plan. Routes improved in October 2016 showed an increase in average weekday ridership, up 16.4 percent over the same quarter in FY 2016-17. Routes reduced or eliminated in October 2016 have shown a 44 percent increase in productivity, as measured by boardings per revenue vehicle hour, when compared to the first quarter of FY 2016-17. OCTA staff continues to

monitor the impact of these changes on route performance and identify other strategies for implementation to address system wide performance.

Farebox Recovery Ratio – A minimum farebox recovery ratio (FRR) of 20 percent for all service is required by the California Transportation Development Act (TDA) in order for transit agencies to receive their full share of state sales tax available for public transit purposes. The passage of Senate Bill 508 in October 2015 allows transit agencies to include local funds when calculating their TDA FRR. These local funds consist of property tax revenue, advertising revenue, and Measure M fare stabilization. While OCTA's traditional passenger FRR, now referred to as National Transit Database FRR, came in under 20 percent through the first quarter, after incorporating the local funds, the FRR exceeded the TDA requirement of 20 percent.

Subsidy per Boarding – When considered route by route, this measure may be used to compare the performance of routes within the system relative to the cost effectiveness of each route. The type of route influences the subsidy per boarding, for example, longer distance routes with fewer stops (i.e., express routes) likely have a higher subsidy per boarding when compared to local routes that have frequent stops allowing passengers to board and alight more often, which turns seats over to multiple riders compared to a longer distance route. On a single route, subsidy per boarding may vary during the service day, with lower subsidies per boarding during peak travel times and higher subsidies per boarding at other times. This measure is helpful when considering opportunities to improve overall system performance. The attached report includes two sets of charts, one sorted by subsidy per boarding and one sorted by boardings; other route level data is also provided. When considering adjustments to the overall service plan, this information is critical to the development of the plan.

Operating Cost per Revenue Vehicle Hour – This is one of the industry standards used to measure the cost efficiency of transit service. Through the first quarter, DOFR and ACCESS service operated at a lower cost than prior year actuals for this measure. CFR service operated four and one-half percent higher.

This report also provides information on unclassified revenue, contractor performance, and quarterly ridership and productivity trends related to service adjustments implemented under the OC Bus 360° Service Plan in October 2016.

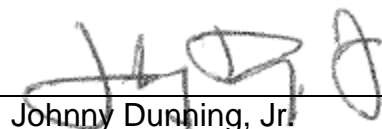
Summary

Through the first quarter of FY 2017-18, the ACCESS program showed good performance in all areas. Fixed-route services also achieved the safety and customer service standards. DOFR and CFR services were below the standard with respect to reliability; however, the performance of both services notably improved compared to the first quarter of FY 2016-17. Staff continues to take actions to maintain continuous quality improvement in service reliability. Additionally, the service changes implemented in October 2016 under the OC Bus 360° Plan continue to show signs of improvement in ridership and productivity. Staff continues to monitor key indicators, manage the service contracts pursuant to contract requirements, and work to identify other strategies to improve overall system performance.

Attachment

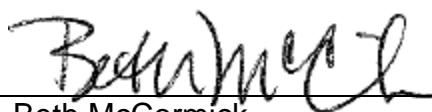
- A. Transit Division Performance Measurements, Fiscal Year 2017-18 First Quarter Report

Prepared by:



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Manager, Scheduling and Customer
Advocacy
(714) 560-5710

Approved by:



Beth McCormick
General Manager, Transit Division
714-560-5694

Transit Division Performance Measurements



Fiscal Year 2017-18
First Quarter Report

About This Report

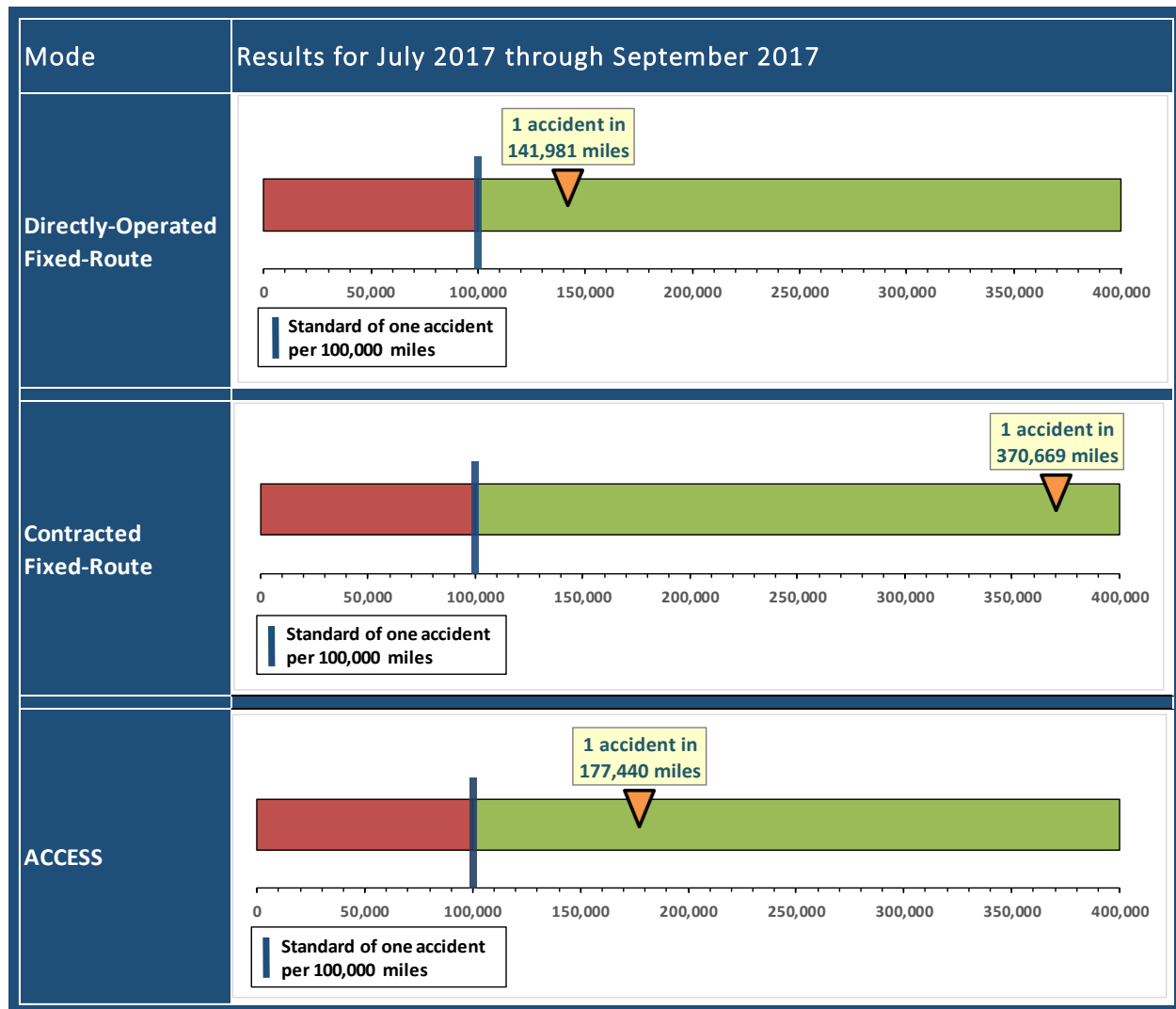
The Orange County Transportation Authority (OCTA) operates a countywide network of local, community, rail connector, and express bus routes serving over 5,000 bus stops. OCTA also operates federally-mandated paratransit service (ACCESS), a shared-ride program available for people unable to use the regular fixed-route bus service because of functional limitations. Fixed-route bus service operated by OCTA is referred to as directly-operated fixed-route (DOFR) service, while routes operated under contract are referred to as contracted fixed-route (CFR) service. The ACCESS program is a contract-operated demand-response service mandated by the Americans with Disabilities Act that is complementary to the fixed-route service and predominately accounts for the overall paratransit services operated by OCTA. These three services make up the bus transit system and are evaluated by the performance measurements summarized in this report.

This report tracks transit system safety, courtesy, and reliability in the areas of preventable vehicle accidents, customer complaints, on-time performance (OTP), and miles between road calls (MBRC). Along with these metrics, industry-standard measurements are tracked to assess OCTA transit operations; these measurements are ridership, productivity, farebox recovery ratio (FRR), and cost per revenue vehicle hour (RVH). Graphs accompany the details of each indicator showing the standards or goals and the values for the current reporting period. The following sections provide performance information for DOFR, CFR, and ACCESS services.

Safety: Preventable Vehicle Accidents

Preventable vehicle accidents are counts of incidents concerning physical contact between vehicles used for public transit and other vehicles, objects, or pedestrians, where a coach operator failed to do everything reasonable to prevent the accident. Safety is a top priority in the delivery of public transit services. The safety standard for DOFR, CFR, and ACCESS services is no more than one vehicle accident per 100,000 miles.

All three modes of service exceeded the safety standard through the first quarter of fiscal year (FY) 2017-18.

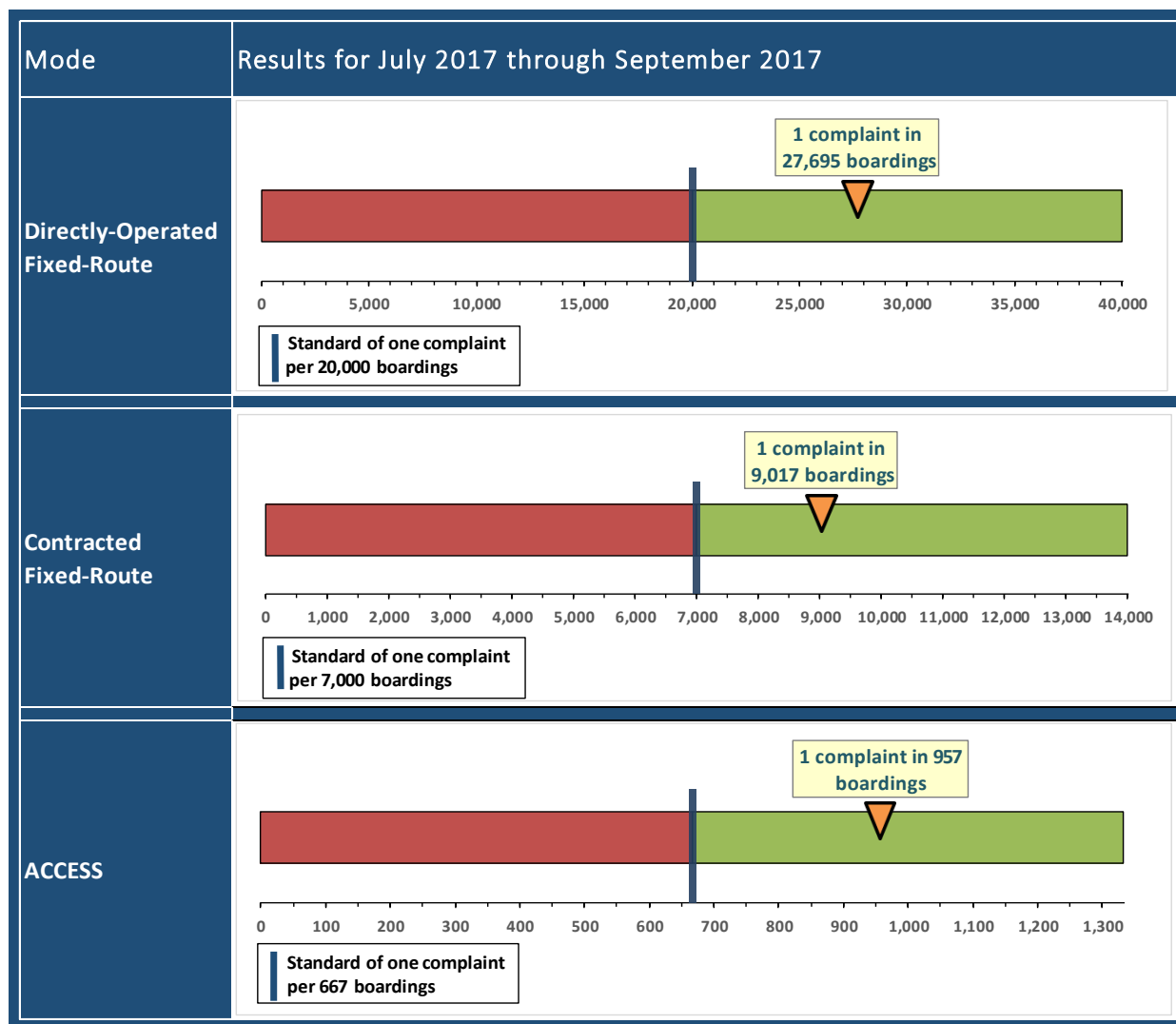


Courtesy: Customer Complaints

Customer complaints are counts of incidents when a rider reports dissatisfaction with the service. The standard adopted by OCTA for DOFR service is no more than one customer complaint per 20,000 boardings; the contractual standard for CFR service is no more than one complaint per 7,000 boardings; and the contractual standard for ACCESS is no more than one complaint per 667 boardings.

All three modes of service exceeded the courtesy standard through the first quarter of FY 2017-18.

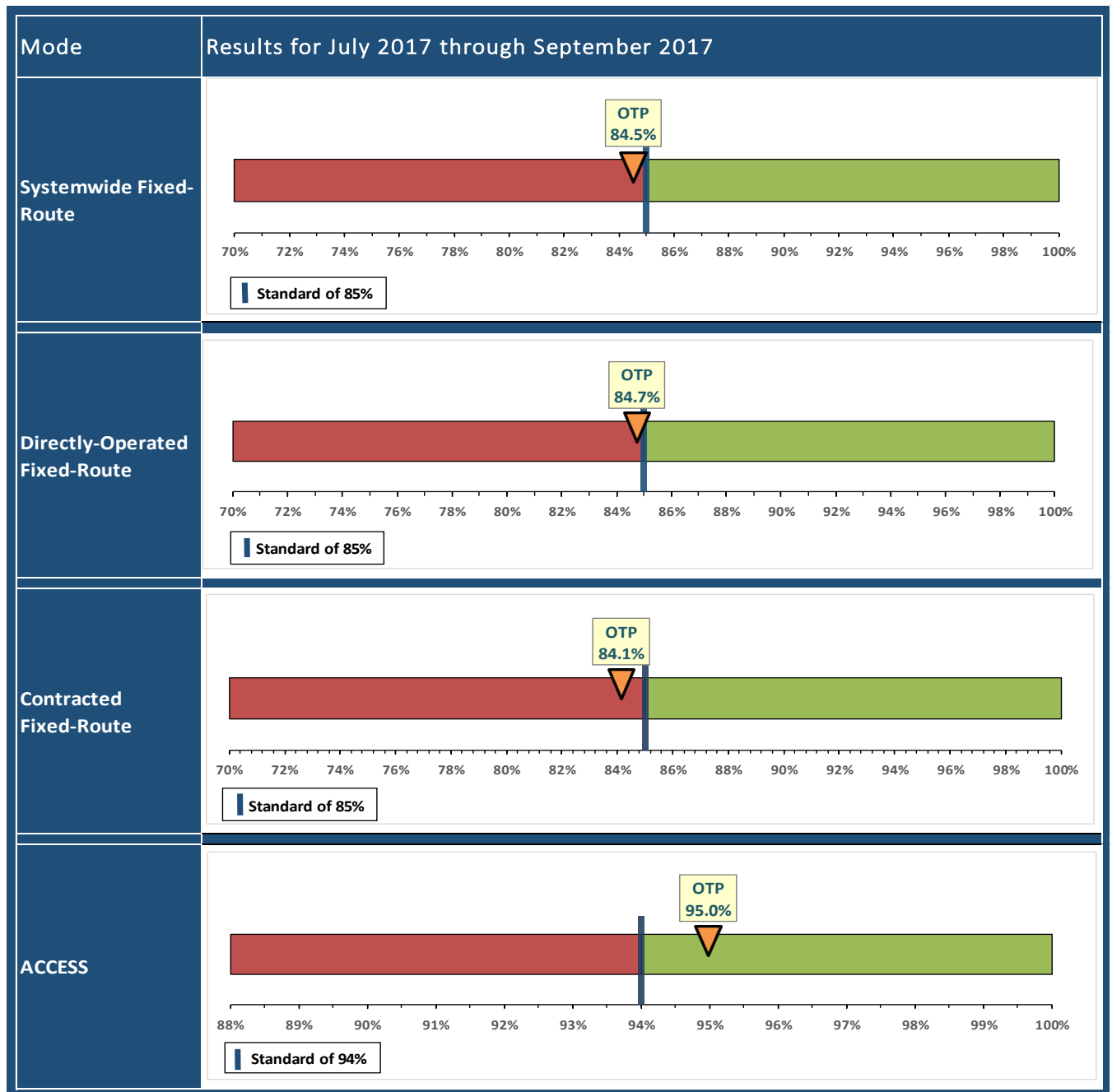
For CFR service, OCTA staff continues to review customer comments weekly with our service provider to identify areas for improvement and tracking of action plans developed to ensure OTP performance levels are maintained at one complaint per 7,000 boardings. The practices and procedures implemented by OCTA and our service provider were key for CFR service meeting courtesy standards.



Reliability: On-Time Performance

OTP is a measure of performance evaluating a revenue vehicle's adherence to a planned schedule. For fixed-route service, a trip is considered on-time if it departs the time-point no more than five minutes late. OCTA's system standard for OTP is 85 percent. For ACCESS service, OTP is a measure of performance evaluating a revenue vehicle's adherence to a scheduled pick-up time for transportation on a demand-response trip. A trip is considered on-time as long as the vehicle arrives within a 30-minute window. The ACCESS OTP standard is 94 percent.

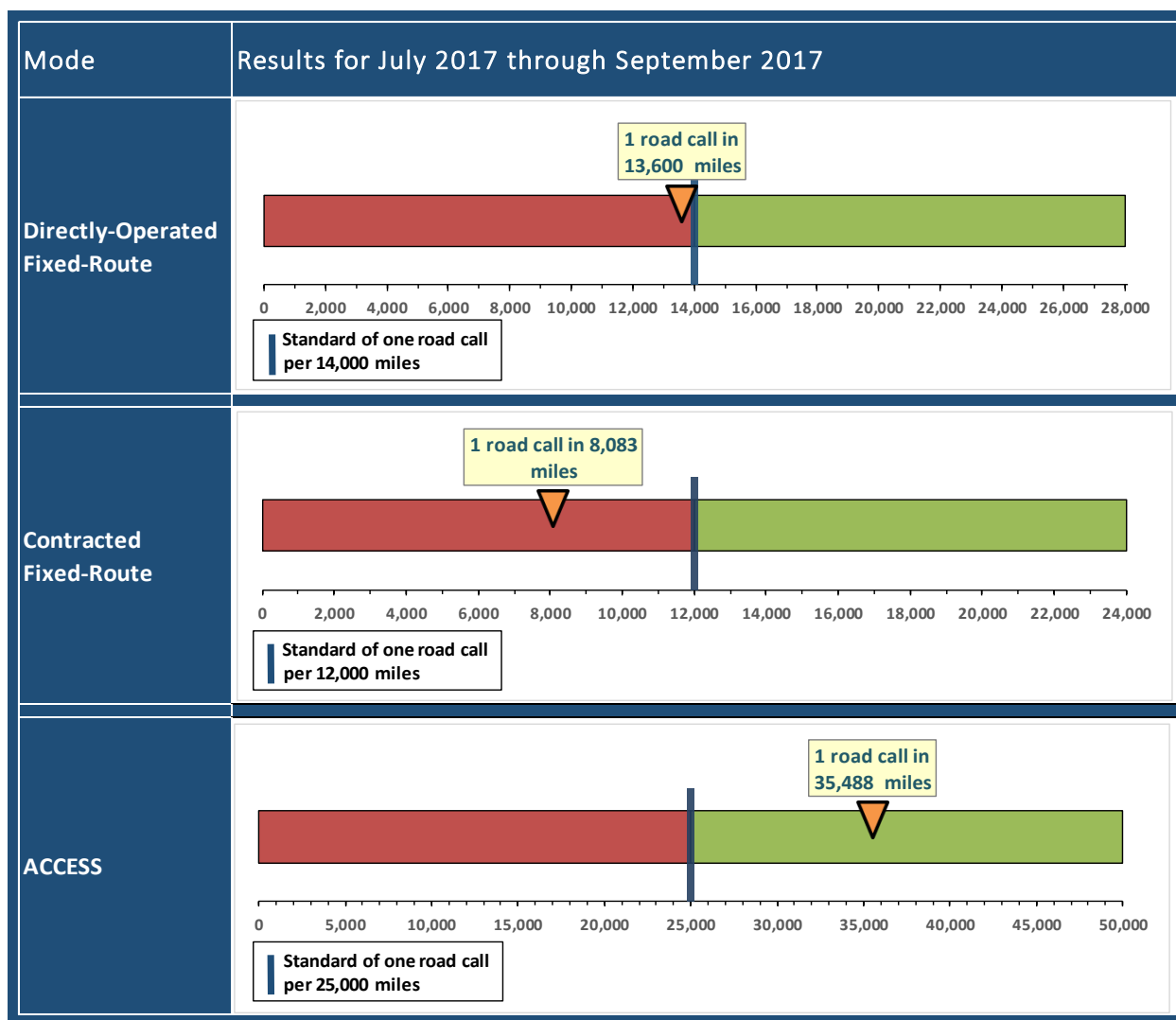
Through the first quarter of FY 2017-18, systemwide fixed-route OTP was 84.5 percent, over a percent better than last quarter and over the same quarter last year. OTP for the DOFR service dropped by two-tenths of a percent from 84.9 percent to 84.7 percent, slightly below the 85 percent standard. CFR service, trending closer to the 85 percent standard, improved notably by 3.1 percent over last quarter and 2.1 percent over the same quarter last year. OCTA staff continued to work closely with the contract operator to improve OTP. Actions taken included identifying low performing routes, enhanced management counseling with coach operators, and adding performance indicator standards to safety meeting agendas. These actions were instrumental in increasing OTP by 3.1 percent from the previous quarter. ACCESS service operated at an OTP rate above the standard, at 95 percent.



Reliability: Miles Between Road Calls

MBRC is a vehicle reliability performance indicator that measures the average distance in miles that a transit vehicle travels before failure of a vital component forces removal of the vehicle from service. Valid mechanical road calls usually cause a delay in service. The standard adopted by OCTA for DOFR service is 14,000 MBRC; the contractual standard for CFR service is 12,000 MBRC; and the contractual standard for ACCESS is 25,000 MBRC.

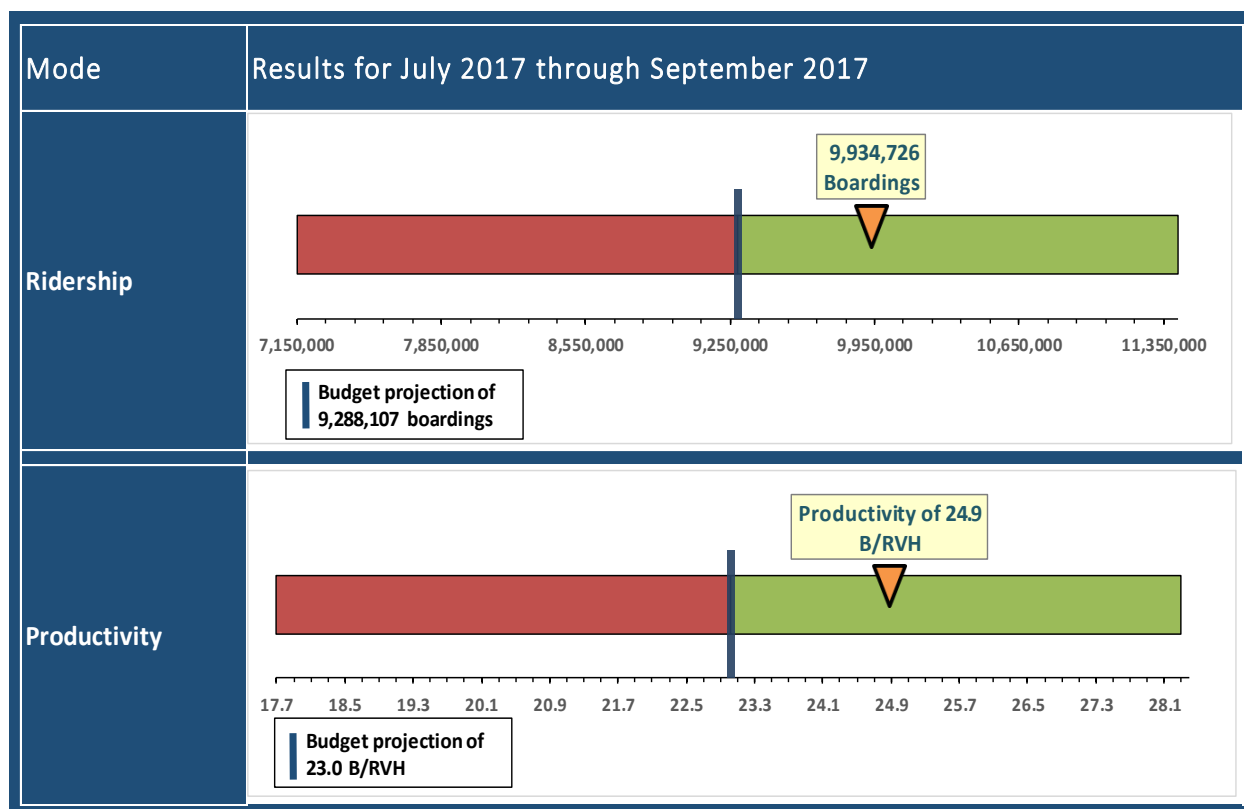
Through the first quarter of FY 2017-18, DOFR did not meet the standard for MBRC by 2.9 percent with 13,600, which is a 4.4 percent improvement over the same quarter last FY. A significant number of recent road calls are related to a defective coolant sensor in the new buses. Staff has tested two sensors and is working with the manufacturer to replace the defective sensors. CFR service improved by one percent over last quarter, but remains below the standard with 8,083 MBRC. The MBRC for ACCESS service came in at 35,488 miles, meeting the standard.



Ridership and Productivity – Fixed-Route

Ridership (or boardings) is the number of rides taken by passengers using public transit and is influenced by the weather, economy, and seasonal variations in demand. Productivity is an industry measure that counts the average number of boardings for each RVH that is operated. This metric is calculated by taking the boardings and dividing it by the number of RVH (B/RVH).

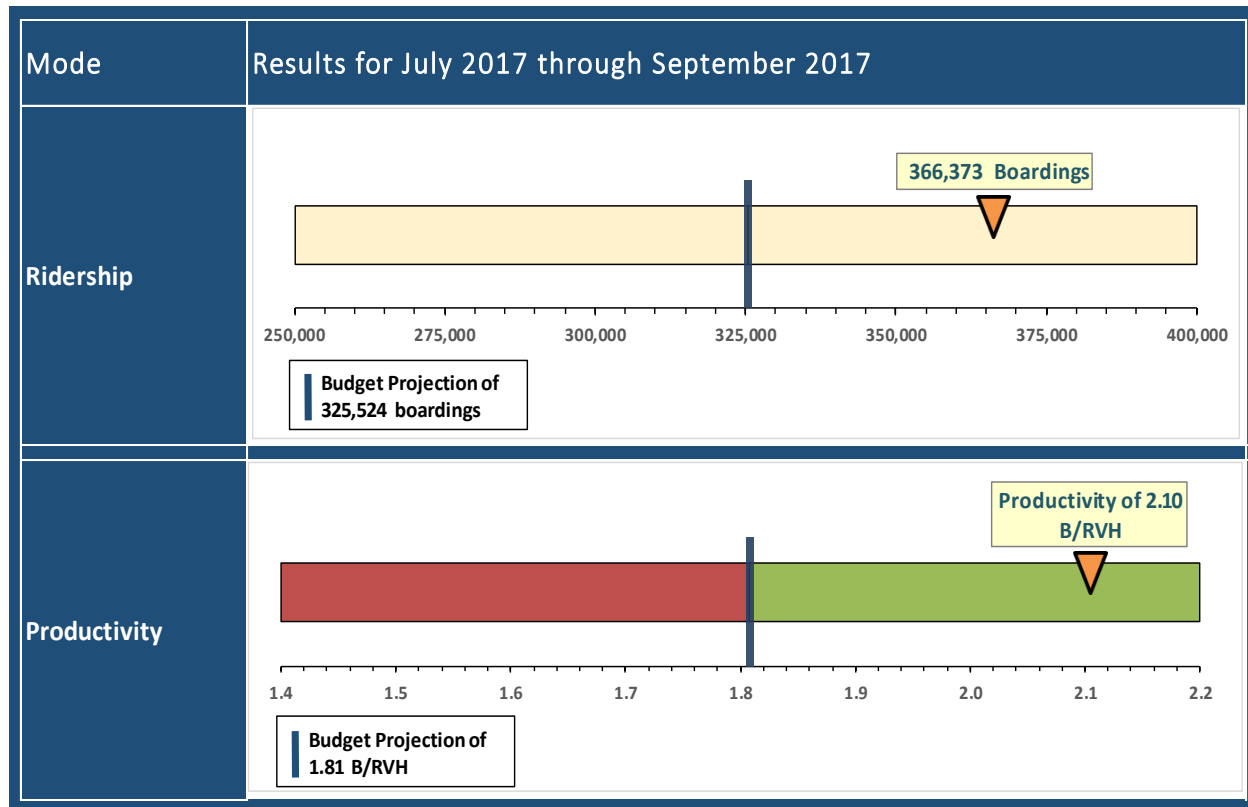
Through the first quarter of FY 2017-18, ridership and productivity for total fixed-route service exceeded the budgeted projection as the prolonged ridership decline appears to be slowing. Comparatively, ridership was down by 4.2 percent over the first quarter last year, but only down by 0.5 percent over the previous quarter (fourth quarter of FY 2016-17). Productivity was also down compared to the first quarter of last year and the previous quarter by 0.4 percent and 1.6 percent, respectively. The actions taken as part of the OC Bus 360° Plan initiated in June 2016, are having a sustained impact in slowing the ridership decline while improving service efficiency.



Ridership and Productivity – ACCESS

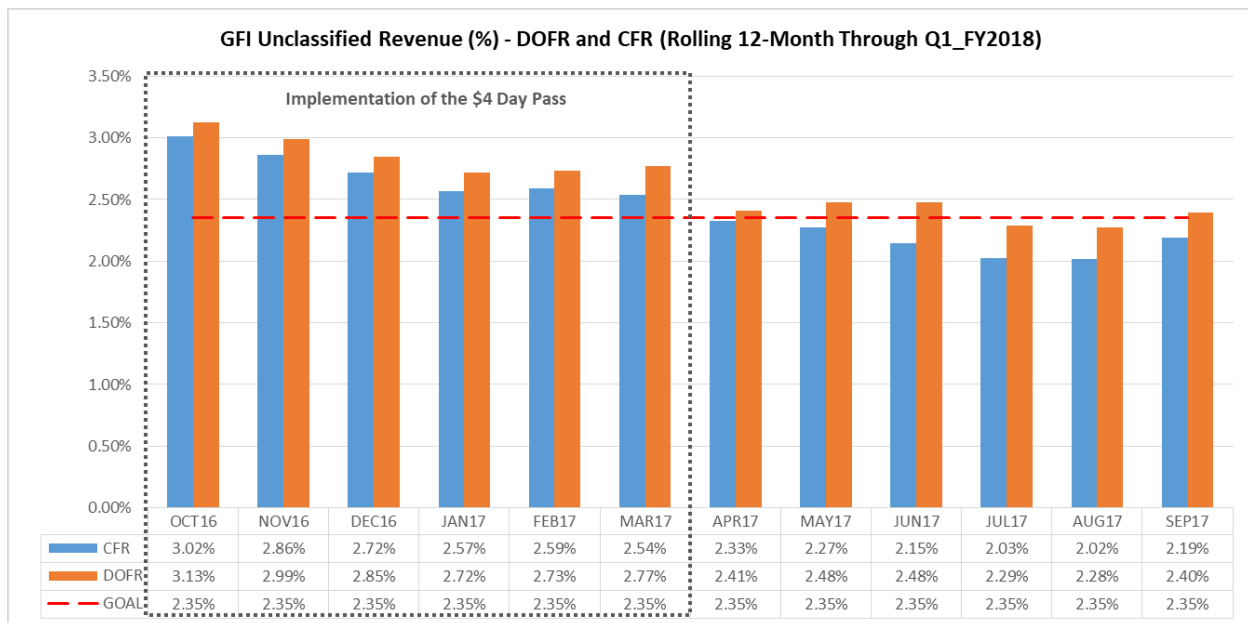
(Primary Service Provider and Supplemental Taxi)

Through the first quarter of FY 2017-18, ridership and productivity for ACCESS service continue to exceed projections.



Unclassified Revenue

Unclassified revenue, as reported here, is that revenue collected on all OCTA bus service that is not properly recorded through the farebox. This can occur through a variety of ways, including overpayment of fare or the incorrect input of fare information by the operator. The OCTA monthly standard or threshold for unclassified revenue is 2.35 percent or less. In the chart below, the monthly unclassified revenue for the last 12 months is presented by operator type. Over the last quarter, the average unclassified revenue for the DOFR service was slightly below the maximum at 2.32 percent, while the CFR service was significantly below 2.35 percent standard with an average unclassified revenue of 2.08 percent. Training campaigns were conducted at the DOFR bases during the last quarter to review/remind operators to avoid unclassified revenue through better use of the farebox.



Contractor Performance: Fixed-Route

Through the first quarter of FY 2017-18, the performance of CFR service was above standard for the measures of safety and courtesy. With respect to reliability, the performance of the contractor is below standard, but steadily improving. Table 1 below provides the penalties and incentives assessed to the contractor, by quarter. The paid incentives, a total of \$23,900, reflect the excellent performance related to safety and courtesy, while the penalties, a total of 95,900, indicate the improvement still needed with respect to reliability. The net penalty paid by the Contractor through Quarter 1 of FY 2017-18 is \$72,000.

Table 1: Performance Categories	FY18 Q1	FY18 Q2	FY18 Q3	FY18 Q4	FYTD 18
On-Time Performance	\$ (1,000)				\$ (1,000)
Valid Complaints: Per 7,000 boardings	\$ 8,900				\$ 8,900
Unreported Accident	\$ (15,000)				\$ (15,000)
Accident Frequency Ratio	\$ 15,000				\$ 15,000
Key Positions	\$ -				\$ -
CHP Terminal Inspections	\$ -				\$ -
Reports	\$ -				\$ -
Preventative Maintenance	\$ (26,900)				\$ (26,900)
Road Calls	\$ (12,700)				\$ (12,700)
Vehicle Damage: Per vehicle per day	\$ -				\$ -
Missed Trips	\$ (40,000)				\$ (40,000)
Prior Periods Adjustment	\$ (300)				\$ (300)
Total	\$ (72,000)	\$ -	\$ -	\$ -	\$ (72,000)

Contractor Performance: ACCESS

(Primary Service Provider and Supplemental Taxi)

As presented in this report, the overall performance of the contractor providing ACCESS service through the first quarter of FY 2017-18 is above standard for all measures. Table 2 below lists, by quarter, the penalties assessed to the ACCESS Service Contractor. Through the first quarter of FY 2017-18, there were no incentives awarded to the contractor, but a \$5,000 penalty was assessed for the untimely reporting of an accident (over 24 hours).

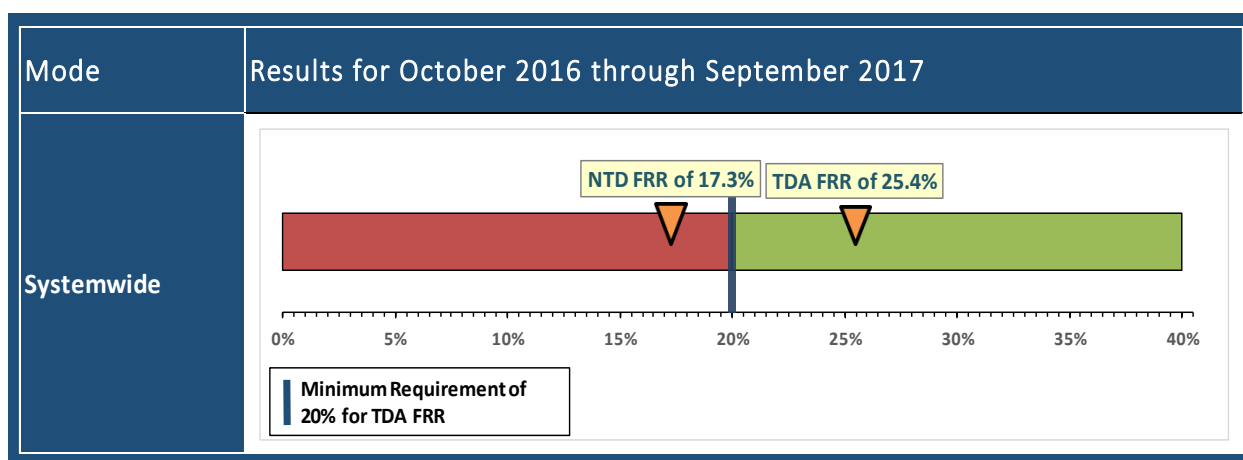
Table 2: Performance Categories	FY18 Q1	FY18 Q2	FY18 Q3	FY18 Q4	FYTD 18
Passenger Productivity	\$ -				\$ -
On-Time Performance	\$ -				\$ -
Customer Comments	\$ -				\$ -
Call Center Hold Times	\$ -				\$ -
Excessively Late Trips	\$ -				\$ -
Missed Trips	\$ -				\$ -
Unreported Accident	\$ (5,000)				\$ (5,000)
Road calls	\$ -				\$ -
Reports	\$ -				\$ -
Preventive Maintenance	\$ -				\$ -
Key Positions	\$ -				\$ -
CHP Terminal Inspections	\$ -				\$ -
Vehicle Damage	\$ -				\$ -
Prior Periods Adjustment	\$ -				\$ -
Total	\$ (5,000)	\$ -	\$ -	\$ -	\$ (5,000)

Farebox Recovery Ratio

FRR is a measure of the proportion of operating costs recovered by passenger fares, calculated by dividing the farebox revenue by total operating expenses. A minimum FRR of 20 percent for all service is required by the Transportation Development Act in order for transit agencies to receive the state sales tax available for public transit purposes.

In an effort to minimize seasonal fluctuations, data shown below reflects actuals over the last 12 months from October 2016 through September 2017.

FRR, based on the National Transit Database definition in which only passenger fares are included under revenue, did not meet the 20 percent goal. However, as a result of the passage of Senate Bill No. 508 (SB 508), OCTA was able to adjust the FRR to include local funds. SB 508 states, “If fare revenues are insufficient to meet the applicable ratio of fare revenues to operating cost required by this article, an operator may satisfy that requirement by supplementing its fare revenues with local funds. As used in this section, “local funds” means any non-federal or non-state grant funds or other revenue generated by, earned by, or distributed to an operator.” After incorporating property tax revenue, advertising revenue, and Measure M fare stabilization, the adjusted FRR was 25.4 percent.



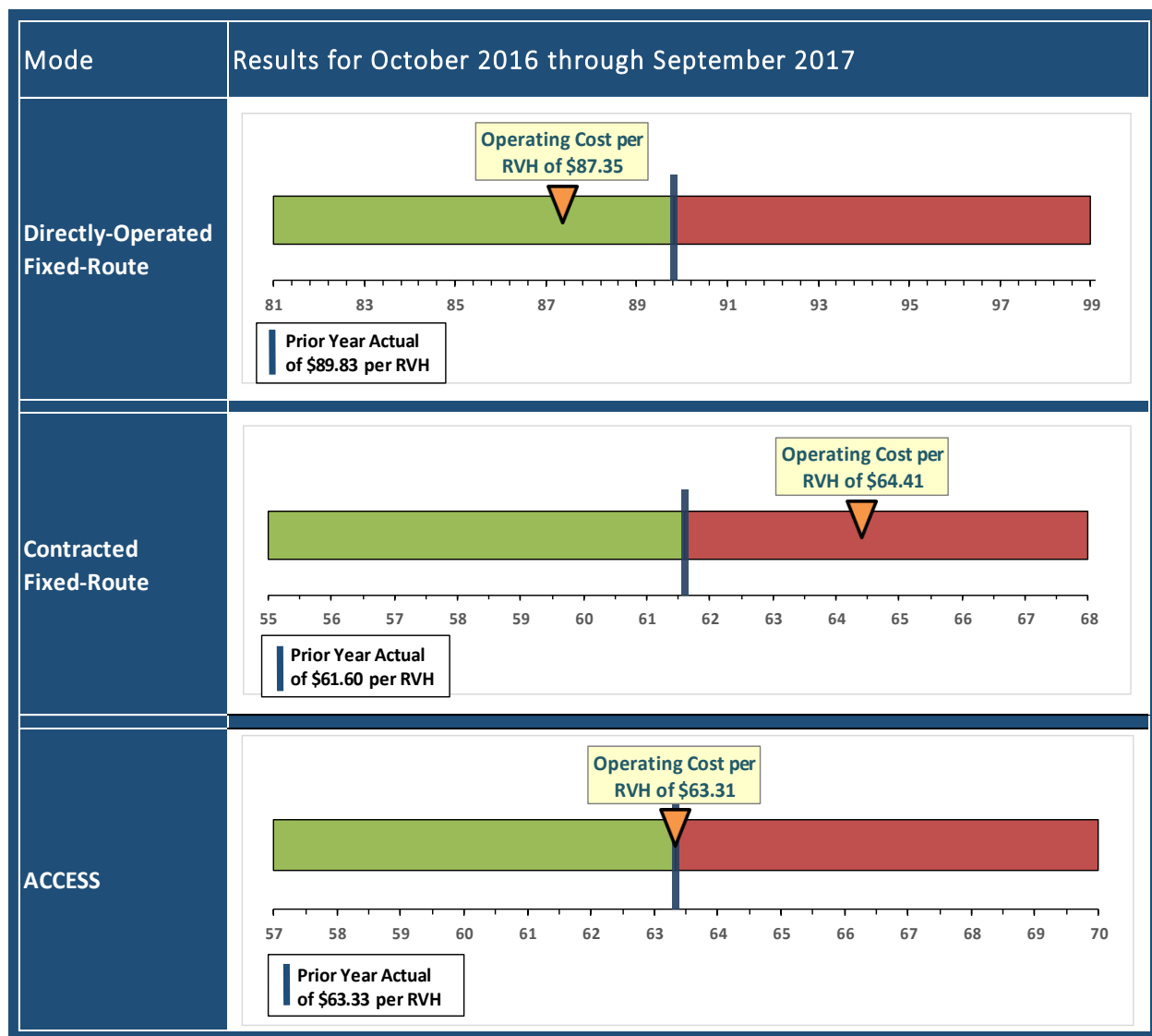
Note:

- National Transit Database(NTD) FRR consists of only passenger fares
- Transportation Development Act (TDA) FRR includes passenger fares, property tax revenue, advertising revenue and Measure M fare stabilization

Operating Cost per Revenue Vehicle Hour

Cost per RVH is one of the industry standards used to measure the cost efficiency of transit service. It is derived by dividing operating expenses by RVH. In order to provide a more comparable illustration, all metrics below are calculated based on direct operating cost, which excludes capital, general administrative, and other overhead costs.

Similar to the FRR, statistics below depict actuals over the last 12 months. DOFR service and ACCESS service both operated at a lower cost per RVH than the same 12 months period of the prior year. On the other hand, CFR service experienced a 4.6 percent increase in cost per RVH. This was associated with the increase in the contract rate for CFR service starting on July 1, 2017. In addition, three percent of the RVHs were shifted from DOFR service to CFR service from October 2016 to February 2017. The re-allocation of RVH caused an increase in the direct operating expenses and other associated direct overhead expenses for CFR service.



Performance Evaluation by Route

Continuing efforts are underway to better understand and address ridership trends. The OC Bus 360° Plan, approved by the Board of Directors in March 2016, and implemented over the last 19 months, included several strategies to stimulate fixed-route ridership. These strategies include targeted marketing, a discounted summer youth pass, development of a mobile ticketing application, re-branding the fixed-route fleet, and improved travel time through the use of express-type service on local routes. Major route adjustments were implemented in both June and October 2016 as part of the OC Bus 360° service plan. All adjustments to date under the plan were developed on the basis of route-level performance. Staff will continue to monitor the impact of these adjustments on ridership and productivity. Staff continues to consider other strategies to further improve service performance. Performance evaluation is important because it provides:

- A better understanding of where resources are being applied;
- A measure of how well services are being delivered;
- A measure of how well these services are used; and
- An objective basis for decisions regarding future service changes and service deployment.

The tables on the following pages summarize route-level performance through the first quarter in FY 2017-18. The first three tables present the route-level performance sorted by routes with the highest net subsidy per boarding to routes with a lower net subsidy per boarding, and the remaining three tables present the same information sorted by routes that have the highest boardings to routes with a lower level of boardings.

A route guide listing all of the routes and their points of origins and destinations is provided on the last page of this report. Route types are grouped by route numbers as follows:

- Routes 1 to 99: Local routes
- Routes 100 to 199: Community routes
- Routes 200 to 299: Intra-county express routes
- Routes 400 to 499: Stationlink routes
- Routes 500 to 599: Bravo! routes
- *Routes 600 to 699: Seasonal routes (these are not included on the following charts)*
- Routes 700 to 799: Inter-county express routes



OCTA Operating Statistics By Route for Local and Community Services (Sort by Subsidy per Boarding)
Fiscal Year 2017-18 Through Q1

Route	Zone	Submode	Farebox	Subsidy per Boarding	Direct Subsidy	Indirect Subsidy	"Capital Subsidy" Per Boarding	Revenue per Boarding	Boardings	CostVSH	Direct CostVSH	CostVSM	BoardVSH	VSH	Bus Count		
															40 FT	32 FT	60 FT
021	N	LCL	9.6%	\$ 10.37	\$ 5.35	\$ 3.63	\$ 1.39	\$ 0.95	17,952	\$ 100.87	\$ 64.70	\$ 7.24	10.15	1,768	3	-	-
001	S	LDL	9.8%	9.05	5.31	3.22	0.52	0.92	160,767	133.13	86.72	8.13	14.08	11,418	10	-	-
076	C	LDL	10.5%	8.50	4.85	2.94	0.71	0.92	23,479	125.39	81.07	10.67	14.41	1,630	2	-	-
085	S	COL	11.7%	8.32	4.51	3.06	0.75	1.01	22,281	93.62	63.15	7.49	10.91	2,042	2	-	-
178	C	LDL	10.6%	8.09	4.39	2.90	0.80	0.87	31,445	94.59	63.31	7.43	11.60	2,711	3	-	-
153	N	COL	11.3%	8.07	4.56	3.01	0.50	0.96	33,131	92.38	62.99	7.29	10.83	3,059	2	-	-
167	C	COL	11.7%	7.63	4.13	2.73	0.77	0.91	43,514	92.65	62.92	7.82	11.92	3,650	4	-	-
087	S	COL	13.2%	7.15	3.82	2.59	0.75	0.98	22,177	94.48	63.42	6.39	12.80	1,733	2	-	-
079	C	LCL	11.4%	6.89	3.79	2.57	0.53	0.82	94,470	92.82	63.00	8.14	12.93	7,306	6	-	-
177	S	LCL	14.6%	6.87	3.74	2.47	0.65	1.06	25,447	92.62	63.01	7.20	12.73	1,999	2	-	-
086	C	LCL	13.5%	6.29	3.38	2.29	0.63	0.89	39,550	92.92	63.03	7.16	14.19	2,788	3	-	-
083	C	LDL	13.9%	6.16	3.57	2.16	0.43	0.93	174,421	134.37	87.51	7.45	20.17	8,650	9	-	-
024	N	LDL	14.7%	6.16	3.36	2.28	0.53	0.97	31,454	92.14	62.83	7.50	13.95	2,254	2	-	-
082	S	LCL	18.8%	5.94	2.74	1.86	1.34	1.06	18,640	103.51	65.24	7.20	18.26	1,021	3	-	-
560	C	LCL	14.5%	5.80	3.25	1.97	0.58	0.89	186,097	134.65	87.17	11.30	22.05	8,441	13	-	-
143	N	COL	15.4%	5.78	3.26	2.15	0.36	0.98	46,516	92.51	62.97	8.18	14.45	3,219	2	-	-
072	C	COL	15.8%	5.37	3.13	1.89	0.35	0.94	117,576	125.86	81.49	10.03	21.12	5,567	5	-	-
037	N	COL	15.6%	5.35	3.12	1.89	0.35	0.93	265,676	152.73	98.84	10.72	25.76	10,315	11	-	-
150	C	LCL	17.6%	5.25	2.70	1.78	0.77	0.96	43,235	95.59	63.39	9.43	17.59	2,458	4	-	-
090	S	LCL	18.4%	5.15	2.69	1.82	0.64	1.01	78,076	100.35	64.66	6.54	18.17	4,297	6	-	-
091	S	LDL	20.0%	5.00	2.69	1.82	0.48	1.13	104,043	94.63	63.51	6.52	16.76	6,208	6	-	-
056	N	LCL	16.1%	5.00	2.86	1.73	0.40	0.88	105,373	127.32	87.32	11.78	23.25	4,532	5	-	-
050	N	LCL	15.7%	4.99	2.85	1.72	0.42	0.85	305,606	134.60	87.14	11.71	24.81	12,318	3	-	8
071	N	LDL	17.4%	4.97	2.71	1.63	0.43	0.96	175,415	93.32	63.16	7.47	16.98	10,331	9	-	-
129	N	LCL	18.5%	4.95	2.72	1.80	0.43	1.03	58,470	98.46	64.11	7.25	17.74	3,297	3	-	-
026	N	LDL	16.8%	4.93	2.71	1.83	0.39	0.91	106,174	93.33	63.01	9.30	17.12	6,202	5	-	-
054	N	LDL	16.9%	4.90	2.86	1.74	0.30	0.93	301,205	134.40	86.91	11.76	24.29	12,402	11	-	-
059	C	LDL	18.5%	4.85	2.56	1.71	0.55	0.98	136,302	98.73	64.13	7.87	18.71	7,285	9	-	-
055	C	LDL	19.0%	4.83	2.75	1.67	0.41	1.04	341,570	129.55	83.79	11.46	23.75	14,384	17	-	-
543	N	LCL	19.7%	4.11	2.34	1.42	0.35	0.92	286,354	132.90	86.06	11.38	28.36	10,098	12	-	-
030	N	LCL	19.6%	4.06	2.18	1.48	0.40	0.89	165,245	92.90	63.07	7.19	20.40	8,100	8	-	-
025	N	LCL	21.3%	4.02	2.21	1.50	0.31	1.00	108,493	93.56	63.18	7.77	19.87	5,460	4	-	-
089	S	LDL	22.1%	3.97	2.16	1.46	0.35	1.02	96,321	93.25	63.14	7.31	20.07	4,799	4	-	-
029	N	LCL	20.7%	3.90	2.25	1.37	0.28	0.94	517,456	133.92	86.71	11.44	29.36	17,626	13	-	3
047	C	LDL	22.1%	3.86	2.21	1.34	0.31	1.01	557,074	133.21	86.19	11.69	29.21	19,069	21	-	-
070	C	LDL	22.1%	3.82	2.01	1.36	0.45	0.96	240,126	96.93	63.91	7.80	22.42	10,708	13	-	-
033	N	LCL	20.9%	3.65	1.92	1.30	0.42	0.85	99,573	92.92	63.04	7.50	22.78	4,372	5	-	-
035	N	LDL	21.9%	3.63	1.86	1.26	0.50	0.88	215,819	97.48	63.87	8.09	24.33	8,871	13	-	-
057	C	LDL	22.4%	3.58	2.03	1.23	0.33	0.94	546,935	144.86	93.80	12.47	34.54	15,836	3	-	12
053X	C	LCL	22.0%	3.40	2.05	1.24	0.10	0.93	159,113	119.05	76.85	11.33	26.20	5,643	2	-	-
046	N	LCL	24.9%	3.35	1.73	1.17	0.46	0.96	164,452	93.25	63.09	8.04	24.21	6,794	9	-	-
057X	C	LCL	24.5%	3.23	1.79	1.08	0.36	0.93	276,608	119.24	77.04	10.57	31.35	8,828	1	-	7
053	C	LDL	24.3%	3.22	1.79	1.08	0.35	0.92	376,906	135.29	87.42	14.41	35.73	10,532	16	-	-
043	N	LDL	24.3%	3.22	1.88	1.14	0.20	0.97	541,026	136.18	87.97	12.54	34.16	15,837	13	-	-
060	C	LDL	22.7%	3.16	1.86	1.13	0.18	0.88	504,246	130.55	84.53	11.34	33.81	14,913	11	-	-
038	N	LDL	26.2%	2.87	1.51	1.03	0.33	0.90	303,704	94.52	63.38	7.68	27.46	11,060	12	-	-
066	C	LDL	26.6%	2.84	1.65	1.00	0.20	0.96	531,305	130.56	84.41	12.19	36.22	14,667	13	-	-
042	N	LCL	27.1%	2.60	1.41	0.96	0.23	0.88	402,978	94.64	63.38	8.46	29.10	13,846	11	-	-
064	C	LDL	27.4%	2.54	1.48	0.90	0.16	0.90	412,277	132.12	85.37	13.64	40.35	10,218	8	-	-
064X	C	LDL	28.4%	2.42	1.41	0.85	0.16	0.90	152,846	119.06	76.85	11.32	37.71	4,053	3	-	-

(1) Total bus count (528) is based on P1M weekday equipment requirements.
(2) Bus count for spares is estimated to be 89.
(3) Bus count for routes 53X, 57X and 64X are estimated based on total route 53, 57 and 64 equipment requirements.
(4) C under Zone is Central County, N is North County and S is South County.



OCTA Operating Statistics By Route for Express Service (Sort by Subsidy per Boarding)
Fiscal Year 2017-18 Through Q1

Route	Zone	Farebox	Subsidy per Boarding	Direct Subsidy	Indirect Subsidy	"Capital Subsidy" Per Boarding	Revenue per Boarding	Boardings	CostVSH	Direct CostVSH	CostVSM	BoardVSH	VSH	Bus Count		
														40 FT	32 FT	60 FT
216	S	1.2%	\$ 90.22	\$ 35.44	\$ 32.31	\$ 22.46	\$ 0.82	318	\$ 147.29	\$ 89.51	\$ 6.54	2.15	148	-	1	-
212	S	1.8%	46.68	18.43	16.80	11.44	0.66	1,249	132.20	78.36	6.76	3.68	339	-	2	-
211	C	1.6%	43.53	18.41	16.78	8.33	0.58	5,005	104.17	66.30	6.09	2.91	1,719	5	-	-
721	N	4.5%	38.28	21.59	12.41	4.28	1.60	5,847	192.45	126.48	7.30	5.41	1,082	3	-	-
213	N	2.5%	34.58	13.65	12.44	8.50	0.67	3,922	119.38	70.56	6.80	4.46	879	4	-	-
701	C	5.5%	32.27	17.36	9.98	4.93	1.58	5,066	232.91	152.88	9.66	8.05	629	3	-	-
206	C	3.8%	28.93	10.56	9.63	8.74	0.79	2,859	139.04	80.77	6.96	6.62	432	3	-	-
794	C	11.8%	28.92	11.94	10.89	6.09	3.05	8,204	156.60	102.01	5.96	6.05	1,356	6	-	-

(1) Total bus count (528) is based on PM weekday equipment requirements.

(2) Bus count for spares is estimated to be 89.

(3) Bus count for routes 53X, 57X and 64X are estimated based on total route 53, 57 and 64 equipment requirements.

(4) C under Zone is Central County, N is North County and S is South County.



OCTA Operating Statistics By Route for Stationlink Service (Sort by Subsidy per Boarding)
Fiscal Year 2017-18 Through Q1

Route	Zone	Farebox	Subsidy per Boarding	Direct Subsidy	Indirect Subsidy	"Capital Subsidy" Per Boarding	Revenue per Boarding	Boardings	CostVSH	Direct CostVSH	CostVSM	BoardVSH	VSH	Bus Count		
														40 FT	32 FT	60 FT
430	N	1.7%	\$ 67.90	\$ 26.36	\$ 26.37	\$ 15.17	\$ 0.91	942	\$ 118.82	\$ 68.01	\$ 13.95	2.22	425	-	2	-
490	S	3.8%	29.56	11.12	11.12	7.33	0.87	1,949	121.50	68.75	11.52	5.26	371	-	2	-
463	C	4.5%	20.66	7.26	7.26	6.14	0.69	6,784	117.95	68.15	10.94	7.76	875	5	-	-
411	N	2.6%	18.53	7.01	7.01	4.52	0.37	1,581	106.68	65.60	11.94	7.42	213	-	1	-
462	C	7.4%	11.62	4.25	4.25	3.12	0.68	5,341	112.45	66.86	15.58	12.26	436	2	-	-
473	C	11.6%	9.40	3.20	3.20	3.00	0.84	8,340	120.13	68.26	11.18	16.58	503	3	-	-
480	C	11.5%	9.19	3.34	3.34	2.51	0.87	6,632	117.74	68.16	10.15	15.60	425	2	-	-
453	N	13.2%	8.21	2.97	2.97	2.28	0.91	7,312	121.45	68.75	18.40	17.76	412	2	-	-
454	N	13.8%	7.88	2.76	2.76	2.36	0.88	10,574	122.20	68.75	16.93	19.07	554	3	-	-
472	C	14.2%	7.73	2.49	2.49	2.74	0.82	9,120	114.20	67.42	9.29	19.65	464	3	-	-

(1) Total bus count (528) is based on PM weekday equipment requirements.

(2) Bus count for spares is estimated to be 89.

(3) Bus count for routes 53X, 57X and 64X are estimated based on total route 53, 57 and 64 equipment requirements.

(4) C under Zone is Central County, N is North County and S is South County.



OCTA Operating Statistics By Route for Local and Community Services (Sort by Boardings)
Fiscal Year 2017-18 Through Q1

Route	Zone	Farebox	Subsidy per Boarding	Direct Subsidy	Indirect Subsidy	"Capital Subsidy" Per Boarding	Revenue per Boarding	Boardings	CostVSH	Direct CostVSH	CostVSM	BoardVSH	VSH	Bus Count		
														40 FT	32 FT	60 FT
047	C	22.1%	\$ 3.86	\$ 2.21	\$ 1.34	\$ 0.31	\$ 1.01	557,074	\$ 133.21	\$ 86.19	\$ 11.69	29.21	19,069	21	-	-
057	C	22.4%	3.58	2.03	1.23	0.33	0.94	546,935	144.86	93.80	12.47	34.54	15,836	3	-	12
043	N	24.3%	3.22	1.88	1.14	0.20	0.97	541,026	136.18	87.97	12.54	34.16	15,837	13	-	-
066	C	26.6%	2.84	1.65	1.00	0.20	0.96	531,305	130.56	84.41	12.19	36.22	14,667	13	-	-
029	N	20.7%	3.90	2.25	1.37	0.28	0.94	517,456	133.92	86.71	11.44	29.36	17,626	13	-	3
060	C	22.7%	3.16	1.86	1.13	0.18	0.88	504,246	130.55	84.53	11.34	33.81	14,913	11	-	-
064	C	27.4%	2.54	1.48	0.90	0.16	0.90	412,277	132.12	85.37	13.64	40.35	10,218	8	-	-
042	N	27.1%	2.60	1.41	0.96	0.23	0.88	402,978	94.64	63.38	8.46	29.10	13,846	11	-	-
063	C	24.3%	3.22	1.79	1.08	0.35	0.92	376,306	135.29	87.42	14.41	35.73	10,532	16	-	-
065	C	19.0%	4.83	2.75	1.67	0.41	1.04	341,570	129.55	83.79	11.46	23.75	14,384	17	-	-
060	N	15.7%	4.99	2.85	1.72	0.42	0.85	305,606	134.60	87.14	11.71	24.81	12,318	3	-	8
038	N	26.2%	2.87	1.51	1.03	0.33	0.90	303,704	94.52	63.38	7.68	27.46	11,060	12	-	-
064	N	16.9%	4.90	2.86	1.74	0.30	0.93	301,205	134.40	86.91	11.76	24.29	12,402	11	-	-
543	N	19.7%	4.11	2.34	1.42	0.35	0.92	286,354	132.90	86.06	11.38	28.36	10,098	12	-	-
057X	C	24.5%	3.23	1.79	1.08	0.36	0.93	276,808	119.24	77.04	10.57	31.35	8,828	1	-	7
037	N	15.6%	5.35	3.12	1.89	0.35	0.93	265,676	152.73	98.84	10.72	25.76	10,315	11	-	-
070	C	22.1%	3.82	2.01	1.36	0.45	0.96	240,126	96.93	63.91	7.80	22.42	10,708	13	-	-
035	N	21.9%	3.63	1.86	1.26	0.50	0.88	215,819	97.48	63.87	8.09	24.33	8,871	13	-	-
560	C	14.5%	5.80	3.25	1.97	0.58	0.89	186,097	134.65	87.17	11.30	22.05	8,441	13	-	-
071	N	17.4%	4.97	2.71	1.83	0.43	0.96	175,415	93.32	63.16	7.47	16.98	10,331	9	-	-
083	C	13.9%	6.16	3.57	2.16	0.43	0.93	174,421	134.37	87.51	7.45	20.17	8,650	9	-	-
030	N	19.6%	4.06	2.18	1.48	0.40	0.89	165,245	92.90	63.07	7.19	20.40	8,100	8	-	-
046	N	24.9%	3.35	1.73	1.17	0.46	0.96	164,452	93.25	63.09	8.04	24.21	6,794	9	-	-
001	S	9.8%	9.05	5.31	3.22	0.52	0.92	160,767	133.13	86.72	8.13	14.08	11,418	10	-	-
053X	C	22.0%	3.40	2.05	1.24	0.10	0.93	159,113	119.05	76.85	11.33	28.20	5,643	2	-	-
064X	C	28.4%	2.42	1.41	0.85	0.16	0.90	152,846	119.06	76.85	11.32	37.71	4,053	3	-	-
069	C	18.5%	4.85	2.56	1.74	0.55	0.98	136,302	98.73	64.13	7.87	18.71	7,285	9	-	-
072	C	15.8%	5.37	3.13	1.89	0.35	0.94	117,576	125.86	81.49	10.03	21.12	5,567	5	-	-
025	N	21.3%	4.02	2.21	1.50	0.31	1.00	108,493	93.56	63.18	7.77	19.87	5,460	4	-	-
026	N	16.8%	4.93	2.71	1.83	0.39	0.91	106,174	93.33	63.01	9.30	17.12	6,202	5	-	-
056	N	16.1%	5.00	2.86	1.73	0.40	0.88	105,373	127.32	82.32	11.78	23.25	4,532	5	-	-
091	S	20.0%	5.00	2.69	1.82	0.48	1.13	104,043	94.63	63.51	6.52	16.76	6,208	6	-	-
033	N	20.9%	3.65	1.92	1.30	0.42	0.85	99,573	92.92	63.04	7.50	22.78	4,372	5	-	-
089	S	22.1%	3.97	2.16	1.46	0.35	1.02	96,321	93.25	63.14	7.31	20.07	4,799	4	-	-
079	C	11.4%	6.89	3.79	2.57	0.53	0.82	94,470	92.82	63.00	8.14	12.93	7,306	6	-	-
090	S	18.4%	5.15	2.69	1.82	0.64	1.01	78,076	100.35	64.66	6.54	18.17	4,297	6	-	-
129	N	18.5%	4.95	2.72	1.80	0.43	1.03	58,470	98.46	64.11	7.25	17.74	3,297	3	-	-
143	N	15.4%	5.78	3.26	2.15	0.36	0.98	46,516	92.51	62.97	8.18	14.45	3,219	2	-	-
167	C	11.7%	7.63	4.13	2.73	0.77	0.91	43,514	92.65	62.92	7.82	11.92	3,650	4	-	-
150	C	17.6%	5.25	2.70	1.78	0.77	0.96	43,235	95.59	63.39	9.43	17.59	2,458	4	-	-
086	C	13.5%	6.29	3.38	2.29	0.63	0.89	39,550	92.92	62.92	7.16	14.19	2,788	3	-	-
153	N	11.3%	8.07	4.56	3.01	0.50	0.96	33,131	92.38	62.99	7.29	10.83	3,059	2	-	-
024	N	14.7%	6.16	3.36	2.28	0.53	0.97	31,454	92.14	62.83	7.50	13.95	2,254	2	-	-
178	C	10.6%	8.09	4.39	2.90	0.80	0.87	31,445	94.59	63.31	7.43	11.60	2,711	3	-	-
177	S	14.6%	6.87	3.74	2.47	0.65	1.06	25,447	92.62	63.01	7.20	12.73	1,999	2	-	-
076	C	10.5%	8.50	4.85	2.94	0.71	0.92	23,479	125.39	81.07	10.67	14.41	1,630	2	-	-
085	S	11.7%	8.32	4.51	3.06	0.75	1.01	22,271	93.62	63.15	7.49	10.91	2,042	2	-	-
087	S	13.2%	7.15	3.82	2.59	0.75	0.98	22,187	94.48	63.42	6.39	12.80	1,733	2	-	-
082	S	18.8%	5.94	2.74	1.86	1.34	1.06	18,640	103.51	65.24	7.20	18.26	1,021	3	-	-
021	N	9.6%	10.37	5.35	3.63	1.39	0.95	17,952	100.87	64.70	7.24	10.15	1,768	3	-	-

(1) Total bus count (528) is based on PM weekday equipment requirements.

(2) Bus count for spares is estimated to be 89.

(3) Bus count for routes 53X, 57X and 64X are estimated based on total route 53, 57 and 64 equipment requirements.

(4) C under Zone is Central County, N is North County and S is South County.



OCTA Operating Statistics By Route for Express Service (Sort by Boardings)

Fiscal Year 2017-18 Through Q1

Route	Zone	Farebox	Subsidy per Boarding	Direct Subsidy	Indirect Subsidy	"Capital Subsidy" Per Boarding	Revenue per Boarding	Boardings	CostVSH	Direct CostVSH	CostVSM	BoardVSH	VSH	Bus Count		
														40 FT	32 FT	60 FT
794	C	11.8%	\$ 28.92	\$ 11.94	\$ 10.89	\$ 6.09	\$ 3.05	8,204	\$ 156.60	\$ 102.01	\$ 5.96	6.05	1,356	6	-	-
721	N	4.5%	38.28	21.59	12.41	4.28	1.60	5,847	192.45	126.48	7.30	5.41	1,082	3	-	-
701	C	5.5%	32.27	17.36	9.98	4.93	1.58	5,066	232.91	152.88	9.66	8.05	629	3	-	-
211	C	1.6%	43.53	18.41	16.78	8.33	0.58	5,005	104.17	66.30	6.09	2.91	1,719	5	-	-
213	N	2.5%	34.58	13.65	12.44	8.50	0.67	3,922	119.38	70.56	6.80	4.46	879	4	-	-
206	C	3.8%	28.93	10.56	9.63	8.74	0.79	2,859	139.04	80.77	6.96	6.62	432	3	-	-
212	S	1.8%	46.68	18.43	16.80	11.44	0.66	1,249	132.20	78.36	6.76	3.68	339	-	2	-
216	S	1.2%	90.22	35.44	32.31	22.46	0.82	318	147.29	89.51	6.54	2.15	148	-	1	-

(1) Total bus count (528) is based on PM weekday equipment requirements.

(2) Bus count for spares is estimated to be 89.

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OCTA Operating Statistics By Route for Stationlink Service (Sort by Boardings)

Fiscal Year 2017-18 Through Q1

Route	Zone	Farebox	Subsidy per Boarding	Direct Subsidy	Indirect Subsidy	"Capital Subsidy" Per Boarding	Revenue per Boarding	Boardings	CostVSH	Direct CostVSH	CostVSM	BoardVSH	VSH	Bus Count		
														40 FT	32 FT	60 FT
454	N	13.8%	\$ 7.88	\$ 2.76	\$ 2.76	\$ 2.36	\$ 0.88	10,574	\$ 122.20	\$ 68.75	\$ 16.93	19.07	554	3	-	-
472	C	14.2%	7.73	2.49	2.49	2.74	0.82	9,120	114.20	67.42	9.29	19.65	464	3	-	-
473	C	11.6%	9.40	3.20	3.20	3.00	0.84	8,340	120.13	68.26	11.18	16.58	503	3	-	-
453	N	13.2%	8.21	2.97	2.97	2.28	0.91	7,312	121.45	68.75	18.40	17.76	412	2	-	-
463	C	4.5%	20.66	7.26	7.26	6.14	0.69	6,784	117.95	68.15	10.94	7.76	875	5	-	-
480	C	11.5%	9.19	3.34	3.34	2.51	0.87	6,632	117.74	68.16	10.15	15.60	425	2	-	-
462	C	7.4%	11.62	4.25	4.25	3.12	0.68	5,341	112.45	66.86	15.58	12.26	436	2	-	-
490	S	3.8%	29.56	11.12	11.12	7.33	0.87	1,949	121.50	68.75	11.52	5.26	371	-	2	-
411	N	2.6%	18.53	7.01	7.01	4.52	0.37	1,581	106.68	65.60	11.94	7.42	213	-	1	-
430	N	1.7%	67.90	26.36	26.37	15.17	0.91	942	118.82	68.01	13.95	2.22	425	-	2	-

(1) Total bus count (528) is based on PM weekday equipment requirements.

(2) Bus count for spares is estimated to be 89.

(3) Bus count for routes 53X, 57X and 64X are estimated based on total route 53, 57 and 64 equipment requirements.

(4) C under Zone is Central County, N is North County and S is South County.

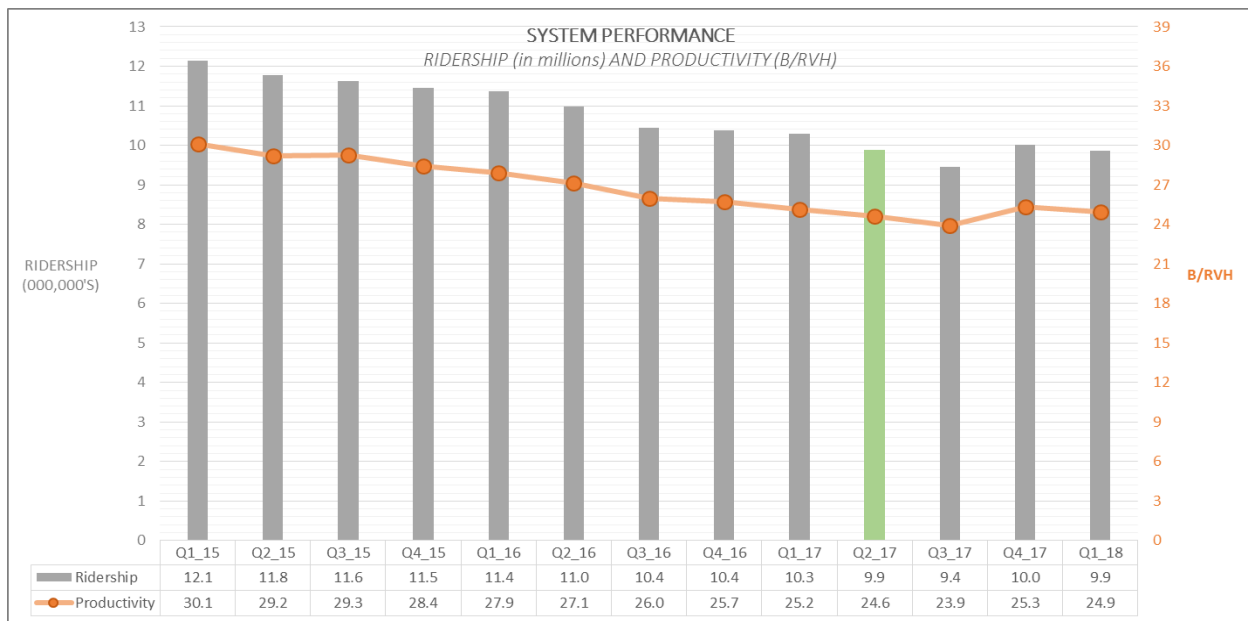
Route Reference Table

Route	Route Description	Main Street	Route Category
1	Long Beach - San Clemente	via Pacific Coast Hwy	LOCAL
21	Buena Park - Sunset Beach	via Valley View St/ Bolsa Chica Rd	LOCAL
24	Buena Park - Orange	via Malvern Ave/ Chapman Ave/ Tustin Ave	LOCAL
25	Fullerton - Huntington Beach	via Knott Ave/ Goldenwest St	LOCAL
26	Fullerton - Placentia	via Commonwealth Ave/ Yorba Linda Blvd	LOCAL
29	La Habra - Huntington Beach	via Beach Blvd	LOCAL
30	Cerritos - Anaheim	via Orangethorpe Ave	LOCAL
33	Fullerton - Huntington Beach	via Magnolia St	LOCAL
35	Fullerton - Costa Mesa	via Brookhurst St	LOCAL
37	La Habra - Fountain Valley	via Euclid St	LOCAL
38	Lakewood - Anaheim Hills	via Del Amo Blvd/ La Palma Ave	LOCAL
42	Seal Beach - Orange	via Seal Beach Blvd/ Los Alamitos Blvd/ Lincoln Ave	LOCAL
43	Fullerton - Costa Mesa	via Harbor Blvd	LOCAL
46	Los Alamitos - Orange	via Ball Road/ Taft Ave	LOCAL
47	Fullerton - Balboa	via Anaheim Blvd/ Fairview St	LOCAL
50	Long Beach - Orange	via Katella Ave	LOCAL
53/53X	Anaheim - Irvine	via Main St	LOCAL
54	Garden Grove - Orange	via Chapman Ave	LOCAL
55	Santa Ana - Newport Beach	via Standard Ave/ Bristol St/ Fairview St/ 17th St	LOCAL
56	Garden Grove - Orange	via Garden Grove Blvd	LOCAL
57/57X	Brea - Newport Beach	via State College Blvd/ Bristol St	LOCAL
59	Anaheim - Irvine	via Kraemer Blvd/ Glassell St/ Grand Ave/ Von Karman Ave	LOCAL
60	Long Beach - Tustin	via Westminster Ave/ 17th St	LOCAL
64/64X	Huntington Beach - Tustin	via Bolsa Ave/ 1st St	LOCAL
66	Huntington Beach - Irvine	via McFadden Ave/ Walnut Ave	LOCAL
70	Sunset Beach - Tustin	via Edinger Ave	LOCAL
71	Yorba Linda - Newport Beach	via Tustin Ave/ Red Hill Ave/ Newport Blvd	LOCAL
72	Sunset Beach - Tustin	via Warner Ave	LOCAL
76	Huntington Beach - John Wayne Airport	via Talbert Ave/ MacArthur Blvd	LOCAL
79	Tustin - Newport Beach	via Bryan Ave/ Culver Dr/ University Ave	LOCAL
82	Foothill Ranch - Rancho Santa Margarita	via Portola Pkwy/ Santa Margarita Pkwy	LOCAL
83	Anaheim - Laguna Hills	via 5 Fwy/ Main St	LOCAL
85	Mission Viejo - Laguna Niguel	via Marguerite Pkwy/ Crown Valley Pkwy	LOCAL
86	Costa Mesa - Mission Viejo	via Alton Pkwy/ Jeronimo Rd	LOCAL
87	Rancho Santa Margarita - Laguna Niguel	via Alicia Pkwy	LOCAL
89	Mission Viejo - Laguna Beach	via El Toro Rd/ Laguna Canyon Rd	LOCAL
90	Tustin - Dana Point	via Irvine Center Dr/ Moulton Pkwy/ Golden Lantern St	LOCAL
91	Laguna Hills - San Clemente	via Paseo de Valencia/ Camino Capistrano/ Del Obispo St	LOCAL
129	La Habra - Anaheim	via La Habra Blvd/ Brea Blvd/ Birch St/ Kraemer Blvd	COMMUNITY
143	La Habra - Brea	via Whittier Blvd/ Harbor Blvd/ Brea Blvd/ Birch St	COMMUNITY
150	Santa Ana - Costa Mesa	via Fairview St/ Flower St	COMMUNITY
153	Brea - Anaheim	via Placentia Ave	COMMUNITY
167	Orange - Irvine	via Irvine Ave/ Hewes St/ Jeffrey Rd	COMMUNITY
177	Foothill Ranch - Laguna Hills	via Lake Forest Dr/ Muirlands Blvd/ Los Alisos Blvd	COMMUNITY
178	Huntington Beach - Irvine	via Adams Ave/ Birch St/ Campus Dr	COMMUNITY
206	Santa Ana - Lake Forest Express	via 5 Fwy	EXPRESS BUS
211	Huntington Beach - Irvine Express	via 405 Fwy	EXPRESS BUS
212	Irvine - San Juan Capistrano Express	via 405 Fwy	EXPRESS BUS
213	Brea - Irvine Express	via 55 Fwy	EXPRESS BUS
216	San Juan Capistrano - Costa Mesa Express	via 405 Fwy	EXPRESS BUS
411	Anaheim Canyon Metrolink Station - Canyon Corporate Center	via Miraloma Ave/ La Palma Ave	STATIONLINK
430	Anaheim Regional Transportation Intermodal Center - Anaheim Resort Area	via Katella Ave/ Harbor Blvd/ Ball Rd	STATIONLINK
453	Orange Transportation Center - St. Joseph's Hospital	via Chapman Ave/ Main St/ La Veta Ave	STATIONLINK
454	Orange Transportation Center - Garden Grove	via Chapman Ave/ Metropolitan Dr	STATIONLINK
462	Santa Ana Regional transportation Center - Civic Center	via Santa Ana Blvd/ Civic Center Dr	STATIONLINK
463	Santa Ana Regional transportation Center - Hutton Centre	via Grand Ave	STATIONLINK
472	Tustin Metrolink Station - Irvine Business Complex	via Edinger Ave/ Red Hill Ave/ Campus Dr/ Jamboree Rd	STATIONLINK
473	Tustin Metrolink Station - U.C.I.	via Edinger Ave/ Harvard Ave	STATIONLINK
480	Irvine Metrolink Station - Lake Forest	via Alton Pkwy/ Bake Pkwy/ Lake Forest Dr	STATIONLINK
490	Laguna Niguel / Mission Viejo Metrolink Station - Aliso Viejo	via Crown Valley Pkwy/ Moulton Pkwy/ Aliso Viejo	STATIONLINK
543	Fullerton Transportation Center - Santa Ana	via Harbor Blvd	BRAVO
560	Santa Ana - Long Beach	via 17th St/ Westminster Blvd	BRAVO
701	Huntington Beach - Los Angeles Express	via 405 Fwy/ 605 Fwy/ 105 Fwy/ 110 Fwy	EXPRESS BUS
721	Fullerton - Los Angeles Express	via 110 Fwy/ 91 Fwy	EXPRESS BUS
794	Riverside / Corona - South Coast Metro Express	via 91 Fwy/ 55 Fwy	EXPRESS BUS

OC Bus 360° Plan: Performance to Date

The last series of approved bus service changes under the OC Bus 360° Plan were implemented in October 2016. Provided below is a series of charts that show overall system performance over the last 13 quarters and the impact of the route adjustments implemented in October 2016 (*marked by green bar on all charts*). In this review, performance is measured by change in average weekday boardings for routes that were improved and average B/RVH for routes that were reduced. This analysis is necessary and on-going to gauge the effectiveness of the recommended changes and overall plan.

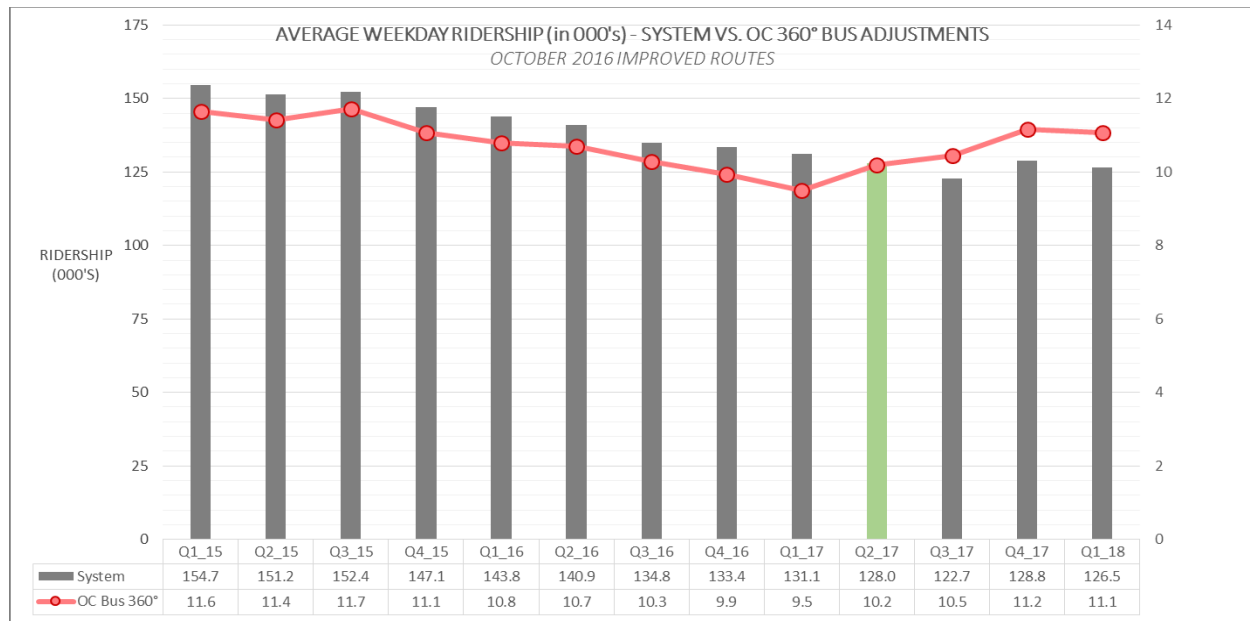
The trend of overall system ridership and productivity is provided on the following chart.



Ridership through the first quarter of FY 2017-18 continues to reflect a slowing of the ridership decline since the October 2016 Service Change Program.

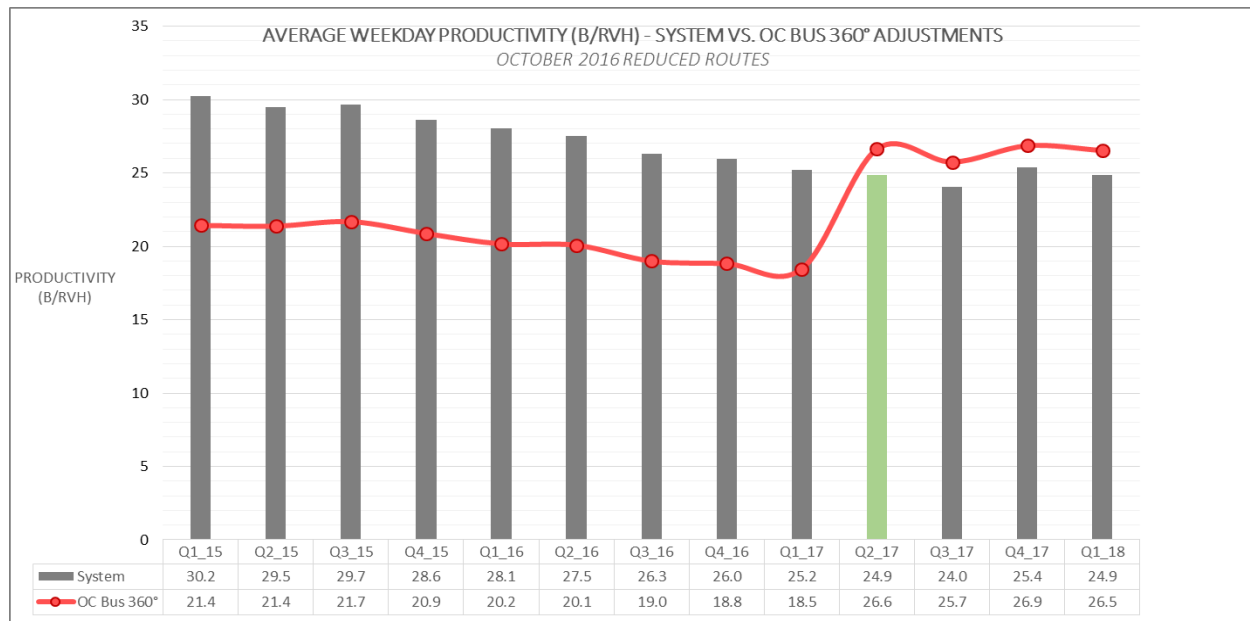
- **First Quarter ridership was 0.5 percent lower than the previous quarter**, and 4.2 percent lower than the first quarter of the last FY.
- **Quarterly ridership remains near 10 million**, approximately the same as when the October 2016 Service Change program was implemented.
- **Productivity (orange line in chart)** over the first quarter is consistent with the ridership, **dropping slightly** to just below 25 boardings per revenue vehicle hour, at 24.9 B/RVH.

The impact of the adjustments implemented under the OC Bus 360° Plan continue to yield positive trends. The following chart compares the system trend against the group of routes improved under the initiative. The performance on these specific routes, the red line on the chart, is consistent with the system-wide trend, a slight decrease of 0.9 percent with respect to average weekday ridership.



- During the first quarter of FY 2016-17, before the service changes, the total average weekday ridership on these routes was approximately 9,500 daily riders. During the first quarter of FY 2017-18, the average daily ridership on these routes were a reported 11,064, sustaining a significant increase of 16.4 percent.

Improved system and route productivity are the goals for services that are reduced or eliminated under the OC Bus 360° Plan. As of the first quarter of FY 2017-18, the services that were reduced remain more efficient than prior to the changes, though the boardings per RVH dropped by 1.2 percent. The impacts on productivity, immediate and more significant as they were, were sustained through the first quarter of the new FY. The following chart compares the system productivity trend against the productivity of the group of routes that were reduced/eliminated.



- Routes reduced under the plan in October 2016 continue to show improved efficiency through the first quarter of FY18
- First quarter productivity for these routes on the average weekday dropped in comparison to the previous quarter, but remains nearly 44 percent over the first quarter of last year.
- Through the first quarter of FY18, these reduced resources collect over 26 boardings per revenue vehicle hour, exceeding than the system average of 24.9 RVH.

Next Steps

Staff will continue to work with the operator of OCTA's CFR to improve service reliability. This includes on-going focus on the OTP plan and vehicle reliability.

The Planning, External Affairs, and Transit Divisions will continue to coordinate the development and implementation of strategies under the OC Bus 360° Plan that are innovative, including the launch of the Santa Ana College Pass Program and piloting a demand response service. Staff will continue to report on the impacts of these programs and service changes on an on-going basis as appropriate.



COMMITTEE TRANSMITTAL

January 8, 2018

To: Members of the Board of Directors

From: Laurena Weinert, ^{MS} Clerk of the Board

Subject: Amendment to Agreement for Project Management Consultant Services for Rail Programs

Transit Committee Meeting of December 14, 2017

Present: Directors Do, Jones, Murray, Pulido, Shaw, Tait, and Winterbottom

Absent: None

Committee Vote

This item was passed by the Members present.

Directors Jones and Pulido were not present to vote on this item.

Committee Recommendation

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 8 to Agreement No. C-3-1587 between the Orange County Transportation Authority and Mott MacDonald, LLC, in the amount of \$1,125,156, for continued program management consultant support services for rail programs. This will increase the maximum cumulative payment obligation of the agreement to a total contract value of \$7,320,512.



December 14, 2017

To: Transit Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Amendment to Agreement for Program Management Consultant Services for Rail Programs

Overview

On August 12, 2013, the Orange County Transportation Authority Board of Directors approved an agreement with Mott MacDonald, LLC, to provide program management consultant services to support program management and delivery of rail programs. An amendment to the existing agreement is needed for the consultant to continue providing these services for rail programs.

Recommendation

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 8 to Agreement No. C-3-1587 between the Orange County Transportation Authority and Mott MacDonald, LLC, in the amount of \$1,125,156, for continued program management consultant support services for rail programs. This will increase the maximum cumulative payment obligation of the agreement to a total contract value of \$7,320,512.

Discussion

The Orange County Transportation Authority (OCTA) Board of Directors (Board) selected Mott MacDonald, LLC (MM), to provide program management consultant (PMC) services to assist OCTA in overseeing and managing the planning, environmental, design, right-of-way, utility coordination, and construction of rail-related projects for the regional rail department.

As part of its services, MM provides staff resources to support the rail programs. MM provides functional support in the areas of project management, program planning, grant funding coordination and reporting, project controls, cost estimating, cost control, progress reporting, quality management, construction management support, contract management, engineering support, construction

planning, schedule delay and claims review, document control, and administrative expertise.

Since commencement of services under this agreement in February 2014, MM staff has been assigned project management duties and technical support responsibilities for track and signal projects, station improvements, new station development, and various phases of project development for future rail projects. In addition to project management duties anticipated at the time of the initial procurement of services, MM was tasked with the development of a Project Management Plan and a Construction Management Plan for the Rail Programs and Facilities Engineering Department to conform to Federal Transit Administration best practices. Document control procedures for use with Measure M2 projects were also established and implemented for the regional rail programs. These tasks required more resources from MM than originally contemplated under the existing MM agreement. Substantial resources were also allocated towards new PMC efforts, including OCTA's lead role of the Metrolink projects and the design alternatives and environmental evaluations for a rail/highway grade crossing in the City of San Juan Capistrano.

To continue required support for rail programs, an amendment to the agreement is necessary to increase the authorized funding amount. Staff intends to return to the Board in early 2018 to seek authorization to issue a request for proposals (RFP) for regional rail PMC services. Consistent with Board policy to leverage the use of external funding, the proposed RFP would require the agreement to be federalized, thereby reducing future use of local funding, where possible.

Procurement Approach

The procurement was handled in accordance with OCTA's Board-approved procedures for architectural and engineering services, which conform to both federal and state laws. The original agreement, awarded on August 12, 2013, was in the amount of \$6,000,356, and has been previously amended in accordance with Attachment A.

Staff requested a price proposal from MM to provide continued services. The proposal was reviewed by OCTA staff and found to be fair and reasonable for the work to be performed. Proposed Amendment No. 8 includes continued PMC services for rail programs in the amount of \$1,125,156, for a total contract value of \$7,320,512.

Fiscal Impact

The project was approved in OCTA's Fiscal Year 2017-18 Budget, Capital Programs, Regional Rail Account, 0017-7519-TR212-06P and is funded through local transportation funds.

Summary

Staff recommends Board approval for the Chief Executive Officer to negotiate and execute Amendment No. 8 to Agreement No. C-3-1587 with Mott MacDonald, LLC, in the amount of \$1,125,156, for program management consultant services for rail programs.

Attachment

A. Mott MacDonald, LLC, Agreement No. C-3-1587 Fact Sheet

Prepared by:



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Approved by:



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Virginia Abadessa
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**Mott MacDonald, LLC
Agreement No. C-3-1587 Fact Sheet**

1. August 12, 2013, Agreement No. C-3-1587, \$6,000,356, approved by the Board of Directors (Board).
 - Agreement was executed on February 17, 2014 to provide program management consultant (PMC) services for rail programs.
2. May 31, 2014, Amendment No. 1 to Agreement No. C-3-1587, \$0, approved by the Contracts Administration and Materials Management (CAMM) Department.
 - To revise the hourly rate schedule for subconsultant HDR Engineering, Inc., to add classifications and rate ranges.
3. October 6, 2014, Amendment No. 2 to Agreement No. C-3-1587, \$0, approved by the CAMM Department.
 - To revise the hourly rates for the prevailing wage classifications on the hourly rate schedule for subconsultant Project Design Consultants.
4. February 2, 2015, Amendment No. 3 to Agreement No. C-3-1587, \$0, approved by the CAMM Department.
 - To revise key personnel and the hourly rate schedule for replacement of the program/project manager.
5. June 15, 2015, Amendment No. 4 to Agreement No. C-3-1587, \$0, approved by the CAMM Department.
 - To revise key personnel and the hourly rate schedule for project personnel.
6. August 10, 2016, Amendment No. 5 to Agreement No. C-3-1587, \$0, approved by the CAMM Department.
 - To change the name of the prime consultant from Hatch Mott MacDonald to Mott MacDonald, LLC.
7. March 9, 2017, Amendment No. 6 to Agreement No. C-3-1587, \$0, approved by the CAMM Department.
 - To update other direct cost schedules.

8. August 21, 2017, Amendment No. 7 to Agreement No. C-3-1587, \$195,000, approved by the CAMM Department.

- For continued PMC services.

9. January 8, 2017, Amendment No. 8 to Agreement No. C-3-1587, \$1,125,156, pending Board approval.

Total commitment to Mott MacDonald, LLC after approval of Amendment No. 8 to Agreement No. C-3-1587: \$7,320,512.



COMMITTEE TRANSMITTAL

January 8, 2018

To: Members of the Board of Directors
From: Laurena Weinert, Clerk of the Board
Subject: Project V Community-Based Transit Circulators Program Ridership Report

Transit Committee Meeting of December 14, 2017

Present: Directors Do, Jones, Murray, Pulido, Shaw, Tait, and Winterbottom
Absent: None

Committee Vote

This item was passed by the Members present.

Directors Jones and Pulido were not present to vote on this item.

Committee Recommendation

Receive and file as an information item.



December 14, 2017

To: Transit Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Project V Community-Based Transit Circulators Program Ridership Report

Overview

Measure M2 establishes a competitive program through Project V to fund local transit services that complement regional transit. Since inception, the Orange County Transportation Authority Board of Directors approved 23 projects for a total of \$36.5 million in Project V funds. A ridership report on Project V services currently operating is provided for information purposes.

Recommendation

Receive and file as an information item.

Background

Project V is a competitive program under Measure M2 (M2) that provides funding to develop and implement local transit services. Services eligible for this program include community-based circulators, shuttles, trolleys, and demand-responsive services that complement regional bus and rail services, and better suit local needs in areas not adequately served by regional transit. This competitive program provides funding for both capital and operations. Year-round services and seasonal/special event shuttles are eligible to compete for funding.

The Orange County Transportation Authority (OCTA) Board of Directors (Board) approved six projects for \$9.8 million in Project V funds in June 2013. The Board subsequently approved \$26.7 million for 17 projects in June 2016. Local agencies must provide a minimum match of ten percent for the capital costs. M2 Project V contributions towards the operations costs are capped at a maximum of 90 percent of total service cost, or \$9 per boarding, whichever is less.

Consistent with the approved Project V Guidelines, all Project V-funded services must achieve a performance standard of six passenger boardings per revenue vehicle hour (B/RVH) within the first 12 months of operations, and must achieve the ten B/RVH within the first 24 months of operations, and maintain ten B/RVH every year thereafter.

In August 2015, the Board directed staff to provide ridership reports to the OCTA Transit Committee for active Project V services. This report includes ridership for the 17 projects in operation through September 2017. The remaining projects will be included in the ridership report as additional services begin.

Discussion

Through September 2017, 17 services were in operation using approved Project V grants. These services include a mixture of special event, fixed-route, and on-demand projects that meet a variety of community needs. In October 2017, the City of La Habra's community circulator was cancelled due to low productivity; and 16 services remain in operation today.

The special event services are especially successful. Productivity for the special event services averages approximately 21 B/RVH for this reporting period. For example, the cities of Laguna Beach, Newport Beach, and San Clemente ranged from 20 to 46 B/RVH, well exceeding their respective minimum performance standards.

The fixed-route services are not performing at the same level. For example, the Mission Viejo community circulator began service October 2016, and experienced difficulties meeting the minimum performance standard. The City of Mission Viejo has implemented route changes and additional marketing efforts to improve productivity and was able to meet the performance target in September 2017. The City of Mission Viejo must reach the performance target of ten B/RVH by October 2018. The City of Costa Mesa and the City of Huntington Beach services recently launched in July 2017 and ridership is expected to increase over time. OCTA staff will continue to monitor these services, as well as meet with city staff on ideas and concepts to improve productivity.

The City of San Clemente (San Clemente) is providing demand-responsive rideshare services along the area formerly served by OCTA bus routes 191 and 193. These two routes were eliminated as part of OC Bus 360° during the October 2016 service change. As this was the first project of this nature in Orange County, the Board approved this concept as a pilot program for two years. On October 9, 2016, San Clemente executed an agreement with LYFT, INC (Lyft) to provide on-demand rideshare services. OCTA staff is working with San Clemente and Lyft to obtain the necessary information to verify usage for this service.

The ridership information for Project V-funded services is provided in Attachment A. Staff will continue to work with the local agencies and monitor these services. The next update will be provided to the Board in June 2018.

Summary

A status report on Project V services is provided for information purposes. Information on additional projects services starting this year will be provided in future reports.

Attachments

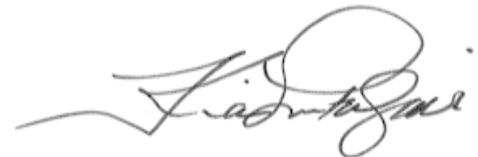
- A. Project V Services – Ridership Report
- B. Project V Services – Project Details

Prepared by:



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Approved by:



Kia Mortazavi
Executive Director, Planning
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Project V Services - Ridership Report

Agency	Service Description	Project V Funding	Service Type	Service Start Month/Year	¹ Boardings Per Revenue Vehicle Hour (B/RVH)
Costa Mesa	Local Circulator From Costa Mesa To Anaheim	\$ 2,790,638	Local Circulator	July 2017	1
Dana Point	Summer Trolley and Seasonal Shuttle	\$ 2,456,511	Seasonal Service	June 2015	16
Dana Point	Pacific Coast Highway and Special Event Trolley	\$ 905,968	Seasonal Service	June 2017	17
Huntington Beach	Holiday and Event Shuttle	\$ 93,287	Special Event	July 2015	12
Huntington Beach	Seasonal Local Transit Service	\$ 917,700	Seasonal Service	July 2017	2
La Habra ²	Local Community Circulator	\$ 1,719,839	Local Circulator	August 2014	6
La Habra	Special Event Service	\$ 96,810	Special Event	November 2016	7
Laguna Beach	Summer Weekend Trolley and Seasonal Service	\$ 3,559,860	Special Event	March 2015	34
Laguna Beach	Year Round and Seasonal Service	\$ 1,967,400	Year Round and Seasonal Service	July 2017	8
Lake Forest	Commuter Vanpool Service Irvine Station and Ossur	\$ 148,855	Commuter Service	July 2015	10
Lake Forest	Commuter Shuttle Service Irvine Station and Panasonic	\$ 1,226,862	Commuter Service	June 2017	21
Mission Viejo ³	Local Community Circulator	\$ 3,332,879	Local Circulator	October 2016	4
Newport Beach	Balboa Peninsula Seasonal Trolley	\$ 685,454	Seasonal Service	June 2017	20
County of Orange	Local Circulator and Special Event Service	\$ 2,041,547	Local Circulator and Special Event	June 2017	7
San Clemente	Summer Weekend Trolley and Seasonal Service	\$ 1,181,393	Seasonal and Special Event	May 2017	46
San Clemente ⁴	On-Demand Rideshare	\$ 914,400	Rideshare Service	October 2016	--
San Juan Capistrano	Summer Trolley Service	\$ 95,486	Seasonal and Special Event	June 2017	18

2017 Ridership reported for the period ending September 30, 2017.

1. Rounded to the nearest whole number.

2. This service has been cancelled by the City of La Habra effective October 2017, due to low productivity.

3. Mission Viejo has experienced an upward trend in boardings per revenue vehicle hour in recent months and achieved nine B/RVH in September.

4. The average ridership for this service cannot be confirmed at this time. Awaiting confirmation from the service provider, LYFT, INC.

Project V Services - Project Details

Costa Mesa (Local Circulator): Project V provides \$2.79 million in funding for capital costs, including bus stop improvements, signage, furniture and shelter upgrades, and operation costs over seven years. The service will connect the City of Costa Mesa (Costa Mesa) to the City of Anaheim Resort Area. The bus will circulate through the two cities picking up passengers at various hotels and attractions. Costa Mesa will provide a 10.74 percent match for the capital improvements and a minimum ten percent match for operations.

Dana Point (Seasonal Service): Project V provides over \$2.45 million over seven years for the capital and operational cost to provide summer trolley and seasonal shuttle services. The City of Dana Point (Dana Point) provides a match of 11 percent for capital improvements that cover the leasing cost of the vehicles. For the service, Dana Point provides a ten percent match in the first year of service, 20 percent in the second year, and 28.68 percent for the remaining years (fiscal years 2016-17-2021).

Dana Point (Seasonal Service): Project V provides \$905,968 to cover operational cost over seven years. Dana Point expanded their current Trolley Service adding stops at Costco, Ralphs and Albertsons Shopping Center, Senior Center, and Community Center, providing connections to cities of San Juan Capistrano and Laguna Niguel. New stop locations have been added to fill the service gaps of discontinued Orange County Transportation Authority (OCTA) bus routes 187 and 191. For the service, Dana Point provides at minimum an 11 percent match.

Huntington Beach (Special Event Shuttle): Project V provides \$93,287 for the Huntington Beach Holiday and Event Shuttle over seven years. The City of Huntington Beach (Huntington Beach) is paying a minimum 30 percent match, and the service cost is estimated to be \$12,000 per year. Services consist of operating five shuttles on the 4th of July between 8:00 am and 11:00 pm, and five shuttles during the U.S. Open Event from 8:00 am to 11:00 pm.

Huntington Beach (Seasonal Service): Project V provides \$917,700 in funding for capital costs including planned shuttle stop improvements, signage, amenities repair, and covers operation costs over seven years. This is a seasonal local transit service that will both supplement current OCTA services by providing additional connection opportunities to existing routes and provide local circulation connecting many of Huntington Beach's key destinations and target communities. The service will operate for approximately 12-14 hours per day. Huntington Beach provides at minimum a ten percent match.

La Habra (Local Circulator) Cancelled: Project V provides \$1.7 million over seven years for capital and operations costs, which includes the purchase of two buses and related bus stop amenities including shelters, benches, sidewalks, and curb and gutter ramps. La Habra Express Service provided weekday service within the City of La Habra (La Habra), with additional stops at St. Jude Medical Center and the Fullerton Transportation Center for approximately ten hours per day. In August 2015, the OCTA Board of Directors reduced La Habra's Project V funding due to the cancellation

Project V Services - Project Details

of one of the routes. La Habra match is at least ten percent. The service was unable to reach the required performance goal and was cancelled effective October 2017.

La Habra (Special Event Service): Project V provides \$96,810 in funds for La Habra Special Event Shuttle services for seven years. La Habra will provide ten percent in match, and service cost is estimated to be approximately \$15,000 per year. Service consists of operating three shuttles for the special events La Habra identified in their Project V application. The service operated for La Habra's Tamale Festival in November 2016 and the Citrus Fair in May 2017.

Laguna Beach (Special Event Service): Project V provides \$3.56 million in funding for vehicle purchase and operational cost over seven years. The City of Laguna Beach (Laguna Beach) started this service in 2015. The project provides seasonal service for 24 weekends through the year, and can increase up to 42 weekends based on the demand. This service operates on Fridays from 4:00 p.m. to 11:00 p.m., Saturdays from 9:00 a.m. to 11:00 p.m., and on Sundays from 11:00 a.m. to 8:00 p.m., with six trolleys on a fixed-route. Laguna Beach's match for this project is ten percent for the purchase of trolleys, 42 percent for the first year of service, and then 20 percent for the remaining time period.

Laguna Beach (Year Round and Seasonal Service): Project V provides \$1.97 million in funding for the purchase of one trolley, transportation technology systems, and operational cost over seven years. The service is a year-round weekend residential trolley service that supplements Laguna Beach's Project V-funded weekend trolley service along Pacific Coast Highway. Routes interconnect and meet at the Transit Depot on 20-30 minute intervals connecting to OCTA routes 1 and 89 and Laguna Beach's "Coastal" and "Canyon" routes during the summer festival season. The special event services will be provided for President's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Patriots Day Parade, Taste of Laguna, Rotary Car Show, Oak Street Halloween Festival, KX93.5 Fall Concert, Sawdust Winter Fantasy, Montage Holiday Tree Lighting, and Hospitality Night. For the service, Laguna Beach provides a ten percent match, at minimum.

Lake Forest (Commuter Service): Project V provides \$148,855 over seven years to support vanpool services for Ossur. The City of Lake Forest (Lake Forest) is providing a minimum match of ten percent. This service, which was implemented in 2015, runs two passenger shuttles between Metrolink Train Station and Ossur Americas.

Lake Forest (Commuter Service): Project V provides \$1.23 million in funding to cover operational cost over seven years. The service runs three passenger shuttles between Metrolink Train Station and Panasonic Avionics. This service operates 251 days of the year during the commute hours in the morning and afternoon. Lake Forest is providing a minimum match of ten percent.

Mission Viejo (Local Circulator): Project V provides \$3.33 million in funding for capital costs including bus stop shelters, signage, vehicle branding, and covers operational cost

Project V Services - Project Details

over seven years. The City of Mission Viejo (Mission Viejo) provides a minimum match of 30 percent for capital improvements and a minimum ten percent match for the operating costs. On behalf of Mission Viejo, OCTA started operating the service in October 2016. The local community circulator connects Laguna Niguel/Mission Viejo Metrolink Station, The Shops at Mission Viejo, Mission Hospital, Saddleback College, residential areas, community center, and Capistrano Valley High School. This service operates for approximately 12 hours a day during the week, Monday through Friday.

Newport Beach (Seasonal Service): Project V provides \$685,454 in funds over seven years for the capital and operational cost to operate the Balboa Peninsula Trolley. Capital improvements will cover the leasing cost of the vehicle and shuttle wrap. The service operates during the summer weekends connecting Hoag Hospital, Balboa Pier on the Balboa Peninsula via Pacific Coast Highway, Newport Boulevard and Balboa Boulevard. The service will operate for a total of 21 days, approximately 11-12 hours a day, and will also provide service for the 4th of July event. The City of Newport Beach is providing a minimum match of 12 percent.

County of Orange (Local Circulator and Special Event Service): Project V provides \$2.04 million in funding to cover operational cost over seven years. The local community transit circulator service connects Metrolink Stations at San Juan Capistrano and Laguna Niguel/Mission Viejo, Saddleback Community College, The Shops at Mission Viejo, Mission Hospital, and downtown San Juan Capistrano. Additional special event services provides connecting Sendero residential areas to the recreation center and commercial areas, as well as the Esencia recreation centers and Ladera commercial centers. The County of Orange is providing a minimum match of ten percent.

San Clemente (Seasonal and Special Event Service): Project V provides \$1.18 million in funding for the purchase of three trolley vehicles and operational cost over seven years. This service connects the new Outlets, San Clemente Pier, Metrolink Station, El Camino Real, and Avenida Del Mar. Service operates during the summer weekends on Fridays, Saturdays, and Sundays for approximately ten hours day and provides special event service on 4th of July, Memorial Day, and Labor Day. The minimum match is 11 percent.

San Clemente (Rideshare Service): Project V provides \$914,400 to support on demand rideshare services in The City of San Clemente (San Clemente). San Clemente provides a minimum match of ten percent. San Clemente contracted with LYFT, INC to implement a year-round rideshare program. The On Demand Rideshare Program service is provided within 500 feet of Route 191/193 bus stops previously served by OCTA.

San Juan Capistrano (Seasonal and Special Event Service): Project V provides \$95,486 for one year in capital and operational cost to operate the Summer Trolley Service. Service circulates throughout the City of San Juan Capistrano and connects to the City of Dana Point Summer Trolley Service. This service operates for 40 days throughout the year from June to September on Fridays, Saturdays, and Sundays, providing service for approximately five to 11 hours a day. The minimum match is ten percent.



COMMITTEE TRANSMITTAL

January 8, 2018

To: Members of the Board of Directors
From: Laurena Weinert, Clerk of the Board
Subject: Central Harbor Boulevard Transit Corridor Study

Transit Committee Meeting of December 14, 2017

Present: Directors Do, Jones, Murray, Pulido, Shaw, Tait, and Winterbottom
Absent: None

Committee Vote

This item was passed by the Members present.

Director Tait voted to oppose this item.

Director Do was not present to vote on this item.

Committee Recommendations

- A. Direct staff to offer presentations of the study results to the city councils in the study area, and return to the Board of Directors with a status report when completed.
- B. Direct staff to continue to work with technical staff from each of the corridor cities and the California Department of Transportation to identify key issues that would need to be addressed during any subsequent study efforts.



Committee Discussion

At the December 14, 2017 Transit Committee meeting, a lengthy discussion ensued and staff was asked to consider review of the 12 alternatives and to include it in the presentations to the corridor study city councils.

NOTE:

Corrections to Revised Attachment F are as follows:

- Page 11 (located near the top of page) should read:
“Copies of the meeting notices, flyers and emails blasts can found in appendices G and H.
- Page 12 (located at the bottom of the page) should read:
“A copy of the online survey and survey results are provided in Appendix H I.



December 14, 2017

To: Transit Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Central Harbor Boulevard Transit Corridor Study

Overview

In August 2015, the Orange County Transportation Authority initiated the Central Harbor Boulevard Transit Corridor Study to analyze transit options in the Harbor Boulevard corridor. The study scope was amended in October 2016 to also evaluate transit connections between the Anaheim Resort and the Anaheim Regional Transportation Intermodal Center. In February 2017, 12 draft conceptual alternatives were presented for review and comment, and this update presents the results of the conceptual alternatives analysis.

Recommendations

- A. Direct staff to offer presentations of the study results to the city councils in the study area, and return to the Board of Directors with a status report when completed.
- B. Direct staff to continue to work with technical staff from each of the corridor cities and the California Department of Transportation to identify key issues that would need to be addressed during any subsequent study efforts.

Background

Harbor Boulevard is one of the Orange County Transportation Authority's (OCTA) most productive transit corridors with eight percent of the countywide daily bus boardings. While OCTA operates a high frequency of service in the study area, much more could be done to improve the quality, convenience, and visibility of the service for residents, employees, and tourists alike. The study area is characterized by some of the highest population and employment densities in the county. Moreover, the Anaheim Resort is home to the county's largest employer (Disneyland), and is an international tourist destination that attracts 27 million annual visitors. Despite the large number of

daily visitors, existing OCTA bus routes serve a relatively small number of these trips. In addition, the Anaheim Transit Network system shuttles visitors and some employees between parking structures, hotels, and major attractions in the Anaheim Resort area. OCTA currently provides high frequency Bravo! service in the corridor with high ridership. Increasing transit ridership further requires more transit capacity and better travel times.

The Central Harbor Boulevard Transit Corridor Study (Harbor Study) evaluates 12 conceptual transit alternatives that include a variety of alignment, mode, and feature options in order to identify the concepts that offer the most significant transportation benefits and also receive the widest community support. The draft alternatives were presented to the OCTA Board of Directors (Board) in February 2017. The modes evaluated include enhanced bus, bus rapid transit (BRT), streetcar, and rapid streetcar. These transit modes cover a range of implementation costs and ridership levels.

For example, bus and BRT options would provide operational flexibility and lower implementation costs, while the streetcar options would attract more riders due to improved quality and comfort. Two study objectives were to estimate the ridership for these modes within the study area, and to estimate the travel time improvements that could be achieved by various modes and features. The rapid streetcar and BRT options would operate in a dedicated transit lane for at least 50 percent of the alignment.

The project development team included representatives from OCTA, the California Department of Transportation, and technical staff from each of the corridor cities (Anaheim, Fullerton, Garden Grove, and Santa Ana). Over the past two years, the team analyzed the study corridor and identified mobility needs, established evaluation criteria, developed 12 conceptual alternatives, and conducted two rounds of outreach to solicit feedback from the public and stakeholders.

Discussion

The summary of evaluation results are presented in two parts: (1) the performance evaluation and (2) city and community input. An executive summary (Attachment A) and maps of the alignments (Attachment B) are included in the attachments.

For the performance evaluation, a set of 24 evaluation criteria (Attachment C) was used to determine how each alternative performed in terms of ridership, cost-effectiveness, travel-time improvement, and ability to reduce vehicle miles traveled (VMT). The evaluation criteria was based on well defined and accepted planning practice. The performance metrics also indicated how well the conceptual alternatives were supported by local land uses, as well as how many physical constraints or land-use impacts there might be.

The planning-level benefits and impacts of the alternatives were evaluated for a future year (2035) and compared to a 2035 baseline scenario in which no capital or service improvements were made to the corridor. Any benefits that were measured above and beyond the baseline are considered the net benefits that result from project implementation. Planning-level cost estimates were developed for each alternative. These included both the capital costs needed to implement the project and the estimated increase to annual operating and maintenance costs. The cost estimates were used to evaluate cost-effectiveness for each alternative.

Below are the total scores for each conceptual alternative, ranked from highest to lowest.

Overall Performance Scores Based on 24 Evaluation Criteria

Alternative	Length (Miles)	Performance Score
H3: Harbor Rapid Streetcar ¹	8.0	74
H2: Harbor Long Streetcar	8.0	73
H5: Harbor Bus Rapid Transit ^{1*}	12.0	73
L1: Anaheim-Lemon Streetcar	8.5	68
L4: Anaheim-Lemon Bus Rapid Transit ^{1*}	12.5	66
L2: Anaheim-Lemon Rapid Streetcar ¹	8.5	65
K1: Harbor-Katella Streetcar	5.9	65
H1: Harbor Short Streetcar	3.4	64
K2: Katella + Anaheim-Lemon Enhanced Bus	10.5	57
L3: Anaheim-Lemon Enhanced Bus*	12.5	56
K3: Katella + Harbor Hybrid	10.5	56
H4: Harbor Enhanced Bus*	12.0	55

¹ Operates in a dedicated transit lane for approximately 50 percent of the alignment.

* Extends to MacArthur Boulevard, consistent with existing Bravo! Route 543 service area.

The three highest scoring projects all included Harbor Boulevard alignments, which provided direct connections between Harbor/Westminster (future terminus of the OC Streetcar), and the Fullerton Transportation Center (FTC). The next three highest scoring projects included Anaheim-Lemon alignments, which also made direct connections between Harbor/Westminster and the FTC. Ability to attract ridership was the most important factor in determining how well an alternative performed because ridership was considered in multiple criteria.

Ridership

In terms of ridership, the top performing alternatives included rapid streetcar, streetcar, and BRT alternatives that connected Harbor/Westminster and the FTC via Harbor Boulevard or Anaheim-Lemon. Ridership for the top performing alternatives is listed below.

Alternatives with Highest Estimated Ridership (See Attachment D for a complete list)

Alternative	Average Weekday Boardings	Per-Mile Boardings
H3: Harbor Rapid Streetcar ¹	15,200	1,900
H2: Harbor Long Streetcar	14,700	1,800
H5: Harbor Bus Rapid Transit ^{1*}	14,600	1,200
L2: Anaheim-Lemon Rapid Streetcar ¹	12,500	1,500
L4: Anaheim-Lemon Bus Rapid Transit ^{1*}	12,000	1,000
L1: Anaheim-Lemon Streetcar	11,300	1,300

¹ Operates in a dedicated transit lane for approximately 50 percent of the alignment.

* Extends to MacArthur Boulevard, consistent with existing Bravo! Route 543 service area.

The Harbor-Katella streetcar alignment, which connected Harbor/Westminster with the Anaheim Regional Transportation Intermodal Center via Disney Way, had an estimated 5,500 average weekday boardings, approximately 900 boardings per mile of service. This was comparatively lower than the other streetcar projects that operated on Harbor Boulevard or Anaheim-Lemon and connected to the FTC. The Ridership Summary Table (Attachment D) provides the ridership estimates for all alternatives.

Comparing the per-mile boardings by mode and alignment, the Harbor Boulevard alignments had the highest estimated per-mile boardings for both the bus rapid transit and the streetcar modes. The Anaheim-Lemon alignments had the next highest per-mile boardings for these modes. The enhanced bus alternatives averaged between 430 and 470 boardings per-mile.

Per-Mile Boardings by Mode and Alignment

Alignment	Enhanced Bus	BRT	Streetcar	Rapid Streetcar
Harbor to FTC	430	1,200	1,800	1,900
Anaheim-Lemon	430	1,000	1,300	1,500
Harbor to Katella	470	n/a	900	n/a

n/a – not applicable

Travel Time Improvement:

Travel time improvement was measured two ways: by estimating average decrease in travel time for trips taken between common destinations, and by estimating the improvement to the 2035 average operating speeds. For the best performing alternatives, the average decrease in travel time for trips to/from common destinations ranged from nine to 17 percent, compared to the 2035 baseline scenario:

- H5 Harbor BRT (16.7 percent),
- H3 Harbor Rapid Streetcar (15.1 percent),
- L4 Anaheim-Lemon BRT (12.8 percent),
- H4 Harbor Enhanced Bus (12.0 percent),
- H2 Harbor Long Streetcar (8.9 percent),
- L2 Anaheim-Lemon Rapid Streetcar (8.8 percent).

The other travel time improvement measure estimated the percentage improvement in 2035 average operating speeds (in miles per hour {mph}) compared to the 2035 no-build scenario. Below are the estimated changes in average operating speeds for the four long Harbor alternatives. Although the Harbor alignments performed slightly better than other alignments, the average operating speeds are indicative of those for each mode:

- H4 Harbor enhanced bus: improved from 14.9 to 16.4 mph (ten percent),
- H5 Harbor BRT: improved from 14.9 to 17.5 mph (17 percent),
- H2 Harbor long streetcar: improved from 10.4 to 13.2 mph (27 percent),
- H3 Harbor rapid streetcar: improved from 10.4 to 14.2 mph (36 percent).

While the change in mph may seem nominal at first glance, improvement in average operating speeds has significant implications for transit operating costs. A ten percent improvement in average operating speeds, for example, represents a ten percent decrease in the costs of operating that service.

Cost-Effectiveness

Cost-effectiveness was evaluated using four measures: (1) annual project cost per annual linked trip on the project, (2) annual project cost per new linked trip on the system, (3) farebox recovery ratio, and (4) financial feasibility. The Cost and Cost-Effectiveness Table (Attachment E) includes the cost information for each alternative, as well as the annual cost per annual linked trip on the project.

The BRT alternatives (which operated on Harbor and Anaheim-Lemon) achieved the highest overall cost-effectiveness ratings. They had the best combined cost-ratios for “cost per annual linked trips on project” and “cost per annual new system trips.” They also ranked among the top in farebox recovery and received high financial feasibility scores. The Harbor Rapid Streetcar, Anaheim-Lemon Enhanced Bus, and Katella + Anaheim-Lemon Enhanced Bus scored the next best for overall cost-effectiveness.

The Harbor BRT and Harbor Rapid Streetcar tied for the highest farebox recovery ratio (31 percent); followed by the Harbor Streetcar (30 percent), and the Anaheim-Lemon BRT (29 percent).

Land Use

For the land-use evaluation, population and employment densities, transit supportive land-use plans and zoning, percentage of affordable housing, economic development potential, reduced daily VMT, and physical constraints were all analyzed. While population and employment densities were fairly similar for all alternatives, the measures with the most significant differences were the reduced daily VMT and the physical constraints. The top performing alternatives for this measure reduced daily VMT by an estimated 102,000 to 104,000, compared to the No-Build scenario. While the short streetcar alignments (H1 and K1) generated much smaller daily VMT reductions due to the shorter alignments, they registered the best scores for physical constraints and potential land-use impacts. At the other end of the spectrum, the long streetcar alternatives on Harbor and Anaheim-Lemon had the highest estimated daily VMT reductions, but also encountered the most physical constraints. While most of the alternatives received similar scores overall, the Harbor BRT and Harbor Rapid Streetcar scored about a point higher than the rest of the field in this category.

Performance Evaluation Conclusion

Based on the performance evaluation there are five conceptual alternatives that have the potential to perform well, provide significant ridership benefits, and rate competitively against the Federal Transit Administration New Starts evaluation criteria. For the purposes of any further evaluation and analysis it is recommended that focus be narrowed to the following five alternatives:

- H3 Harbor Rapid Streetcar: from Harbor/Westminster to FTC,
- H2 Harbor Long Streetcar: from Harbor/Westminster to FTC,
- H5 Harbor BRT: from Harbor/MacArthur to FTC,
- L1 Anaheim-Lemon Streetcar: from Harbor/Westminster to FTC via Anaheim-Lemon,
- L4 Anaheim-Lemon BRT: from Harbor/MacArthur to FTC via Anaheim-Lemon.

City Input and Key Issues

Some of the key issues identified by the cities that would require additional analysis in the next study phase or would need to be addressed prior to more study include:

- Dedicated transit lanes - a thorough analysis of the benefits and impacts of dedicated transit lanes, as well as identification of performance measures for evaluating appropriate locations, is needed before city staff can consider these.
- Master Plan of Arterials and Highways (MPAH) Guidelines - the path and process for amending the MPAH plan to allow for a change in transit corridor status will need to be outlined and made available to city staff considering any changes to existing traffic operations.
- Center-running alignments with center stations - there is little support among the jurisdictions for center-running alignments with center stations due to the likelihood that this configuration would require additional right-of-way and reconfiguration of left-turn pockets to accommodate the stations.
- Harbor Boulevard constraints - a portion of Harbor Boulevard in northern Anaheim has not been built out to the full capacity and is limited to four traffic lanes in width. This is a potential physical constraint which must be considered with various improvement strategies. Because of the close proximity of the residences, this is also an area of increased community sensitivity sites must also be taken into consideration. For these reasons, further evaluation of both the Harbor and Anaheim-Lemon alignments is recommended.
- Underlying changes to bus service south of Westminster Avenue - with the implementation of some streetcar and bus alternatives a corresponding reduction in bus service frequencies on Harbor Boulevard south of Westminster Avenue is assumed. Staff from the City of Santa Ana (City) have indicated that this would be an issue of concern for the City.
- Evaluation of the streetcar mode option - the Anaheim City Council adopted a resolution in January 2017 stating opposition to a streetcar system in the City of Anaheim. Among the reasons stated in the resolution were concerns over the expense of a streetcar system, disruptions to traffic and potential added congestion, and lack of flexibility of the system. The City of Anaheim accounts for a considerable part of the project study area, and all 12 of the study alternatives travel into or through the city.

An important next step will be identifying the specific strategies and concepts that each city council is open to evaluating. The final round of outreach will take place after the January 2018 Board update and provide another opportunity to receive input from each city.

Community Input

The Public Outreach Summary Report (Attachment F {full report with appendices is available at www.octa.net/harbordocuments}) provides a summary of the public and stakeholder input that was received during the course of the study via four public open houses, two stakeholder working group meetings, online surveys, and on-board surveys. Some of the key points of the online survey were:

- The great majority of survey respondents (92 percent) supported making improvements to transit in the Harbor corridor.
- Rapid streetcar was the preferred mode option with 24 percent support, followed by enhanced bus (20 percent), BRT (17 percent), and streetcar (13 percent).
- Respondents were evenly split in their support of bus and streetcar mode options, with 37 percent supporting the enhanced bus and BRT options and 37 percent supporting the streetcar or rapid streetcar options.
- More respondents chose mode options that included a dedicated transit lane (41 percent).
- The most popular alignment choice was Harbor Boulevard (37 percent), followed by the Anaheim-Lemon alignment (20 percent), and the Katella + Anaheim-Lemon alignment (19 percent).

Next Steps

The next steps include offering council presentations to each of the corridor cities to receive comments. The team will continue to work with the corridor cities' staff to identify key issues to be addressed in the next study phase. The Harbor Study reports will be made available on the study webpage for public review and comment. Input received from the cities, public, and stakeholders will be incorporated into the final report and help inform next steps. The feedback received will be reported back to the Board.

The top ranked alternatives have the potential to provide significant transportation benefits and compete well in state and federal funding programs. As the county transit agency, OCTA cannot move alternatives forward without support from the cities. With Board approval, OCTA staff will be presenting the study results to the local city councils and the stakeholder working group for feedback. If sufficient support develops around a few alternatives, OCTA could recommend those be advanced to the next step of the process, which would be a detailed environmental review.

However, if consensus is not developed, OCTA may need to spend additional time discussing project concerns with cities and refining alternatives to develop sufficient support. OCTA may also consider making lower cost, lower impact transit improvements in the study area which are more under OCTA's direct control.

Summary

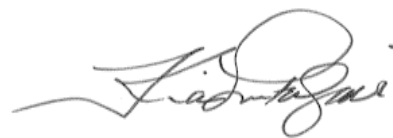
The project team has completed the conceptual alternatives evaluation for the Central Harbor Boulevard Transit Corridor Study. This report provides a summary of the performance evaluation results of the 12 draft conceptual alternatives and also provides a summary of the city and community input received to date. A final round of outreach is proposed, to present the evaluation results to each of the cities in the study area and to receive comments.

Attachments

- A. Central Harbor Boulevard Transit Corridor Study, Executive Summary, December 2017
- B. Maps of the Alignments
- C. Central Harbor Boulevard Transit Corridor Study, Evaluation Criteria
- D. Ridership Summary Table
- E. Cost and Cost-Effectiveness Table
- F. Orange County Transportation Authority, Central Harbor Boulevard Transit Corridor Study, Public Outreach Summary Report

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CENTRAL HARBOR BOULEVARD TRANSIT CORRIDOR STUDY



EXECUTIVE SUMMARY

DECEMBER 2017

Prepared by:



In association with:



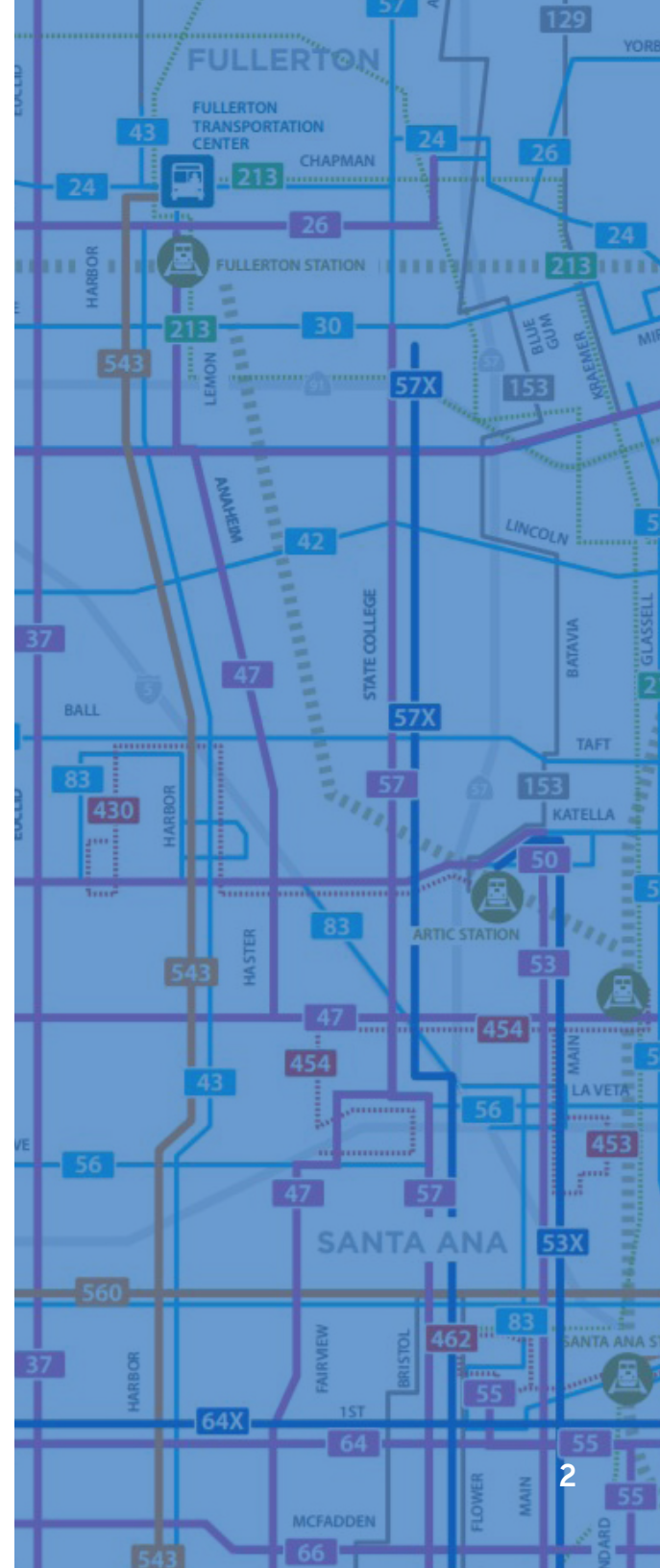
CENTRAL HARBOR BOULEVARD TRANSIT CORRIDOR STUDY
EXECUTIVE SUMMARY

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1 Background

Harbor Boulevard is Orange County's busiest north-south transit corridor. On a typical weekday, OCTA buses average more than 12,800 boardings up and down Harbor Boulevard. OCTA buses operating on the parallel Anaheim Boulevard/Lemon Street corridor collect an additional 9,200 average weekday boardings between the cities of Fullerton and Newport Beach. Additionally, buses operating along Katella Avenue collect over 4,200 boardings on an average weekday. The three corridors combined account for a significant share of OCTA's total ridership.



Harbor Boulevard

This study focuses on an eight-mile segment of Harbor Boulevard from the Fullerton Transportation Center (FTC) in Downtown Fullerton, through the cities of Anaheim and Garden Grove to Westminster Avenue, on the border of Garden Grove and the City of Santa Ana.



Anaheim Boulevard/Lemon Street

This study also considers connections along a parallel five-mile segment of Lemon Street and Anaheim Boulevard from the FTC in Downtown Fullerton to Katella Avenue in Anaheim.



Katella Avenue

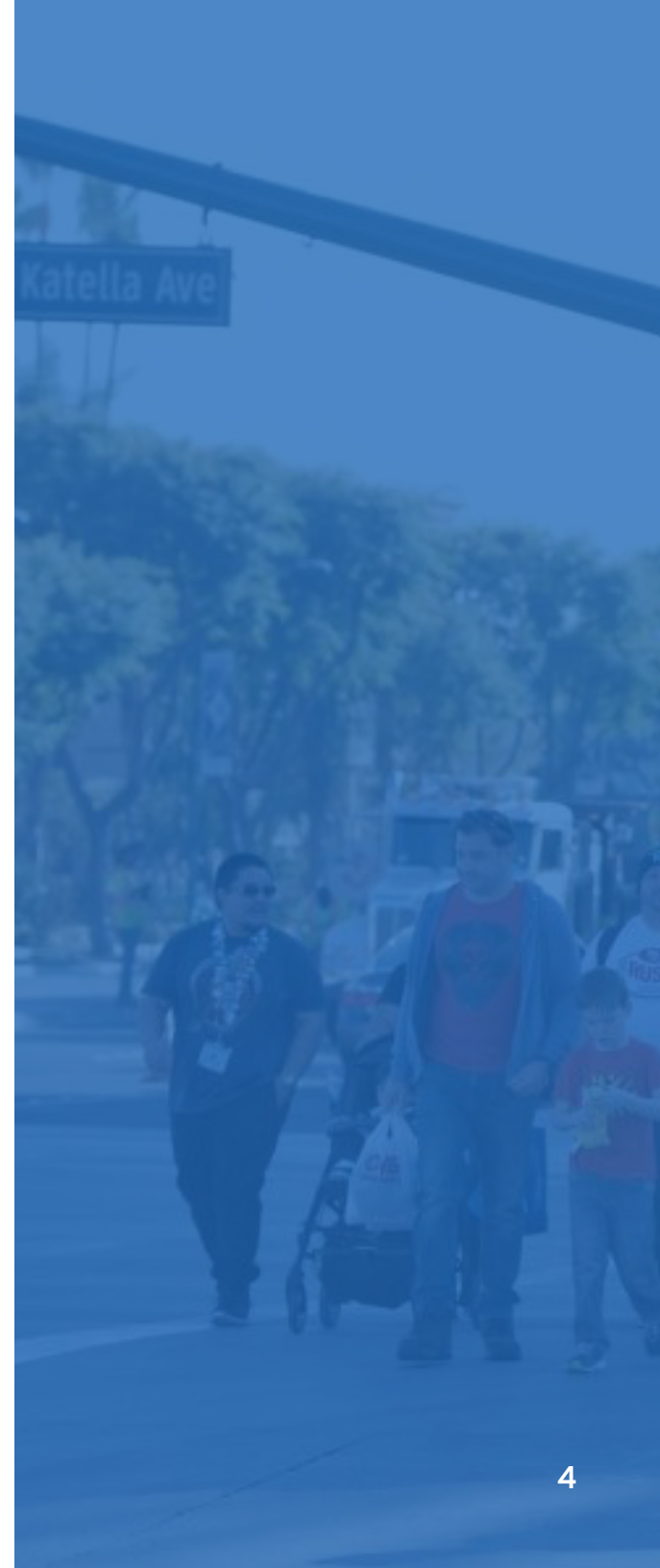
An additional 2.2-mile segment of Katella Avenue, from Harbor Boulevard to the Anaheim Regional Transportation Intermodal Center (ARTIC) in Anaheim's Platinum Triangle district has also been added for consideration in this study.



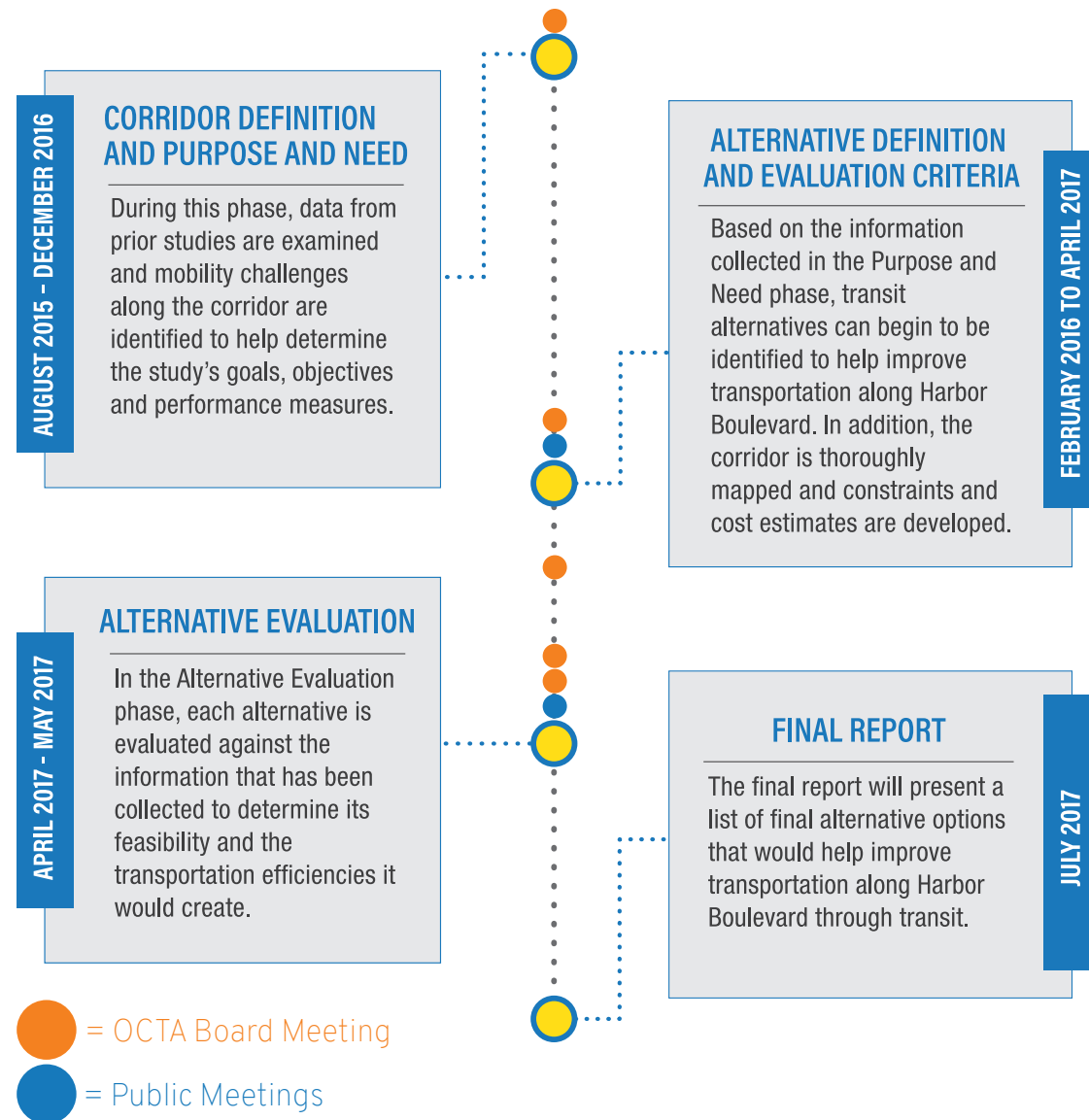
1.1 Study Goals

Since beginning the study in 2015, OCTA has worked in close coordination with the cities of Anaheim, Fullerton, Garden Grove, and Santa Ana to:

- 1. Analyze and develop strategies for improving transit along these important corridors.**
- 2. Establish goals, objectives, and evaluation criteria for evaluating transit improvements.**
- 3. Develop 12 project alternatives and evaluate each alternative against comprehensive criteria.**
- 4. Recommend next steps that serve OCTA's core mission of moving more people and supporting each corridor city's long-term plans.**



1.2 Study Timeline



In 2015, OCTA initiated the *Central Harbor Boulevard Transit Corridor Study* to analyze transit options along an eight-mile segment of Harbor Boulevard—Orange County's busiest north/south transit corridor.

The study was intended to analyze up to nine alternatives, including alignment, mode technology, stop locations, ridership/cost estimates, and feedback from stakeholders. This would allow OCTA and corridor cities to move forward and analyze a locally preferred alternative, prepare an environmental assessment, and seek further public participation during subsequent project phases.

In October 2016, the OCTA Board of Directors, per an agreement with the City of Anaheim, amended the scope of the *Central Harbor Boulevard Transit Corridor Study* to also evaluate three additional alternatives that provide connections between The Anaheim Resort® and the Anaheim Regional Transportation Intermodal Center (ARTIC).



2 Why Harbor?

2.1 Key Themes

Harbor Boulevard is an important north-south transit spine and is served by the highest-frequency bus service in the entire OCTA system.

Population densities and employment densities in the study area are double and triple the county averages.

Investments in the corridor ensure that resources are being placed where the demand is greatest.

Improvements on the corridor coincide with improvements on other major corridors such as Westminster Avenue.

Improvements also enhance connections to regional rail hubs in Fullerton, Anaheim, and Santa Ana.



2.2 Key Challenges

- 1. Performance:** Current traffic conditions limit the speed and reliability of transit service.
- 2. Land Uses:** Some land uses prioritize automobile access over transit and pedestrian options.
- 3. Connectivity:** Connections to and from major activity centers are often inconvenient and time-consuming.
- 4. Infrastructure:** The built-out nature of Harbor Boulevard means that most roads cannot be expanded to meet increased demand.
- 5. Mode Choice & User Experience:** For many trips, few modes are competitive with the automobile.
- 6. Cost:** OCTA must balance benefits with overall project costs to ensure the best use of public funds.



3 Alternatives

The study analyzes 12 alternatives across a combination of four modes and corridor options.

Mode Options

Enhanced Bus



- Shares lanes with other cars
- Receives priority at traffic signals and uses bypass lanes at select intersections
- Includes state-of-the-art stops with ticket machines
- Carries up to 70 people per bus
- Project Cost: \$

Bus-Rapid Transit



- Includes all Enhanced Bus features, but travels on a dedicated bus-only lane
- Carries around 120 people in a longer, 60-foot bus
- Project Cost: \$\$

Streetcar



- Shares lanes with cars but travels on its own track embedded in the road
- Powered by overhead wires
- Includes modern stops with ticket machines
- Carries up to 150 people per streetcar (3x as much as regular buses)
- Project cost: \$\$\$

"Rapid" Streetcar



- Includes all Streetcar features, but uses a dedicated streetcar-only lane
- Faster than a regular streetcar or bus
- Project Cost: \$\$\$\$

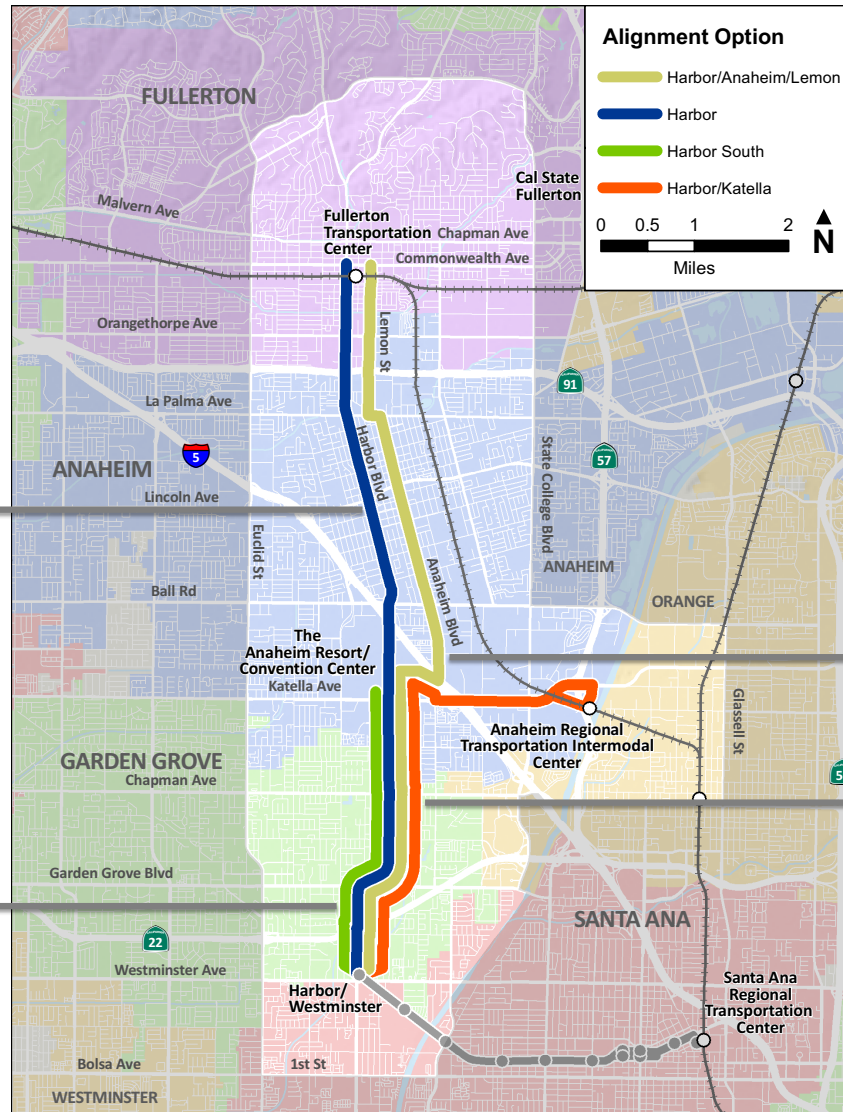
Four Alignment Options, Twelve Alternatives

HARBOR LONG

- H-2: Harbor Long Streetcar
- H-3: Harbor Rapid Streetcar
- H-4: Harbor Enhanced Bus
- H-5: Harbor Bus Rapid Transit

HARBOR SHORT

- H-1: Harbor Short Streetcar



ANAHEIM/LEMON

- L-1: Anaheim/Lemon Streetcar
- L-2: Anaheim/Lemon Rapid Streetcar
- L-3: Anaheim/Lemon Enhanced Bus
- L-4: Anaheim/Lemon BRT

KATELLA

- K-1: Katella Streetcar
- K-2: Katella+ Anaheim/Lemon Enhanced Bus
- K-3: Katella + Harbor Hybrid

4 Results

4.1 Evaluation Criteria

OCTA evaluated each of the 12 alternatives according to the criteria below.

Transit Performance

- *How long does it take to get to my destination?*
- *Is the bus or streetcar usually on time?*
- *Does it encourage more people to ride?*

Land Use

- *Does project complement nearby land uses?*
- *Does it support the local economy and help create jobs?*
- *Is it environmentally-friendly?*

Connectivity

- *Does the bus or streetcar take me to major destinations?*
- *Can I reach my destination within one transfer?*
- *Can I walk or ride my bike to/from a station?*

Corridor Constraints

- *Does the project affect our roads and traffic?*
- *Does it make our streets safer?*
- *Does it complement my neighborhood?*

Mode Choice/User Experience

- *Does the project encourage more people to ride transit and drive less?*
- *Does it benefit people without cars?*
- *Are stops/stations safe and attractive?*

Cost Effectiveness

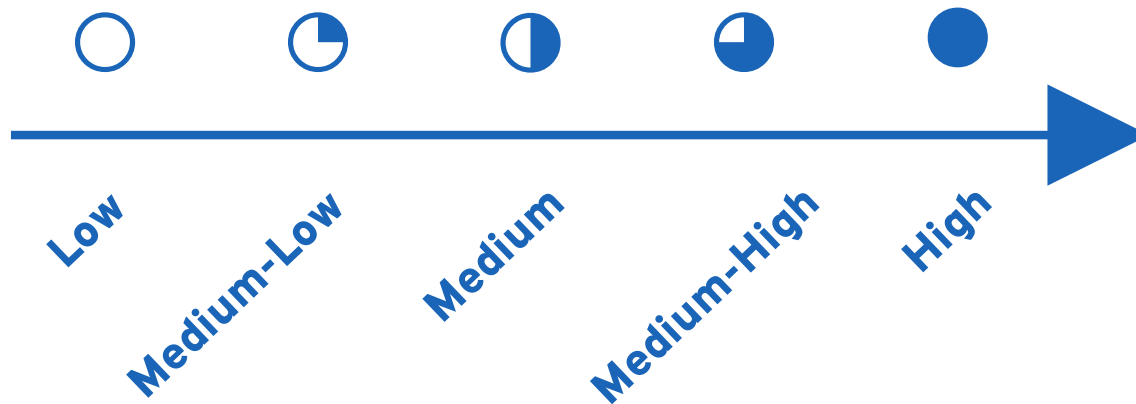
- *Is the project a good use of local public funds?*
- *Does it do a good job of balancing costs and benefits?*
- *Are there other sources of funding available?*

Community Support

OCTA will pursue a project that has broad support from public and all stakeholders.

4.2 Scoring Methodology

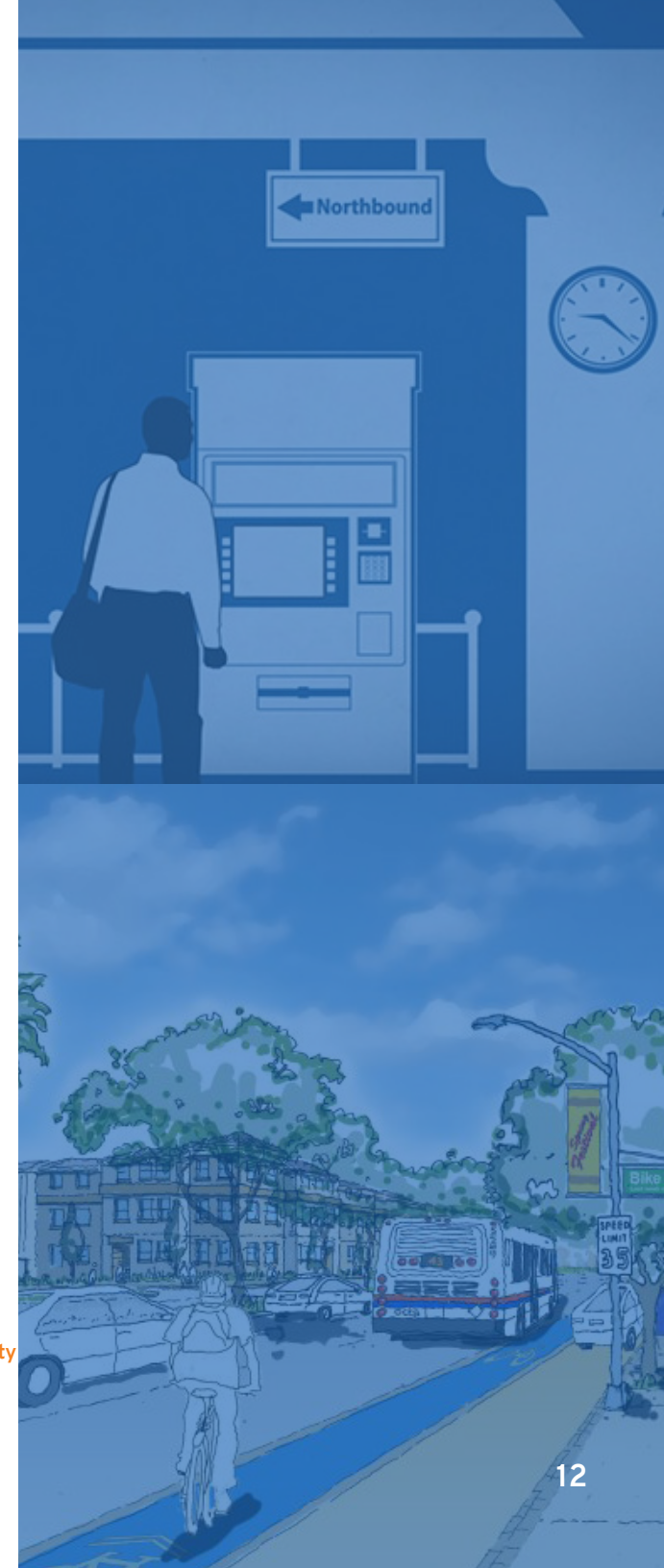
Each alternative received an overall score between 0 and 100, according to four qualitative and quantitative measures under the criterion on page 11.¹ The four scores under each criterion were aggregated on a scale from low to high, where "low" = 0 and "high" = 5.



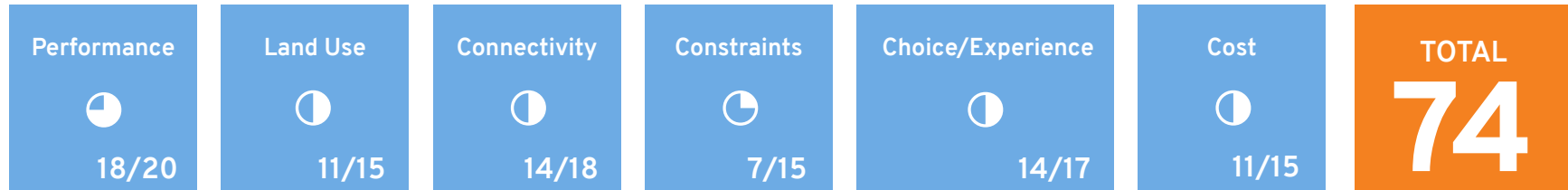
Each criteria was then weighted according to established preferences of the the corridor cities.

The following pages show a detailed scoring breakdown for each alternative ranked by their overall total score.

¹ Community support was factored in separately into the evaluation of alternatives. See next section for results from community surveys.



H-3: HARBOR RAPID STREETCAR



Capital Cost

\$690M

Net Operations & Maintenance Cost

\$1.9M

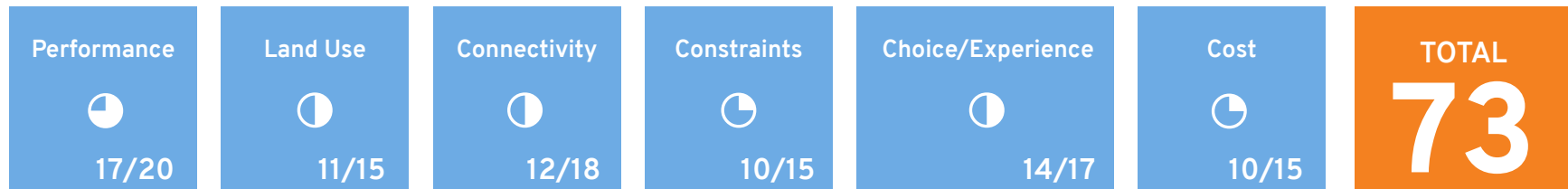
Boardings

15,200

Travel Time Savings

15%

H-2: HARBOR LONG STREETCAR



Capital Cost

\$610M

Net Operations & Maintenance Cost

\$3M

Boardings

14,700

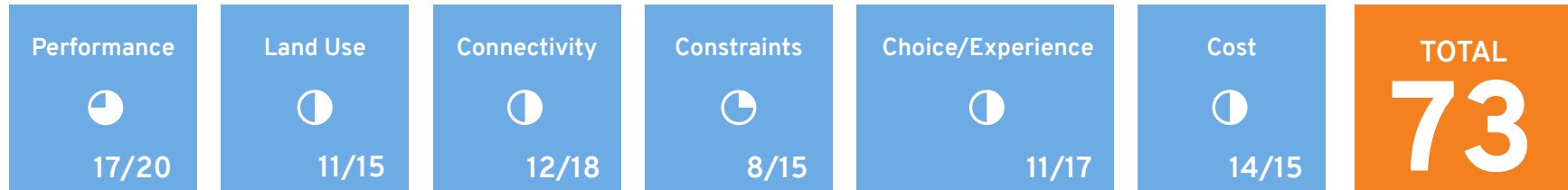
Travel Time Savings

9%

*Total scores and Harvey Ball ratings may vary slightly across alternative and criteria due to rounding and weighting.

** Net Operations & Maintenance costs per year.

H-5: HARBOR BUS RAPID TRANSIT



Capital Cost

\$230M

Net Operations & Maintenance Cost

\$1.1M

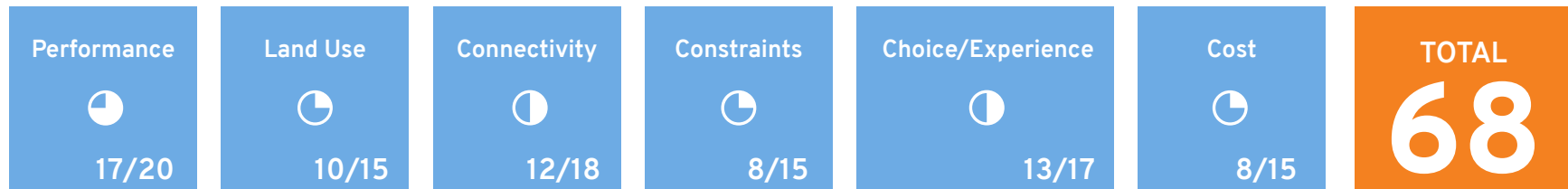
Boardings

14,600

Travel Time Savings

17%

L-1: ANAHEIM/LEMON STREETCAR



Capital Cost

\$660M

Net Operations & Maintenance Cost

\$4M

Boardings

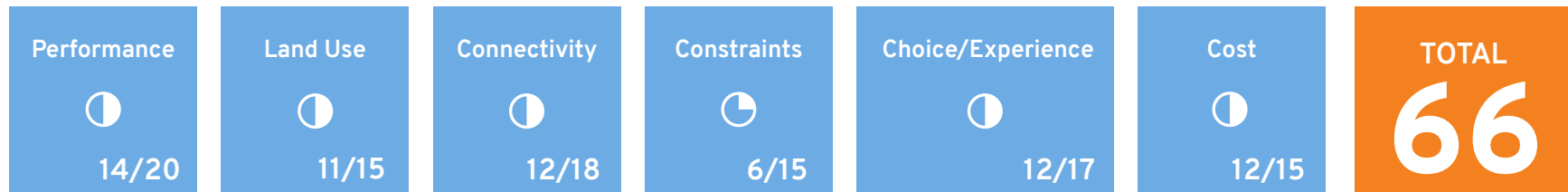
11,300

Travel Time Savings

2%

*Total scores and Harvey Ball ratings may vary slightly across alternative and criteria due to rounding and weighting.
 ** Net Operations & Maintenance costs per year.

L-4: ANAHEIM/LEMON BRT



Capital Cost

\$250M

Net Operations & Maintenance Cost

\$1.8M

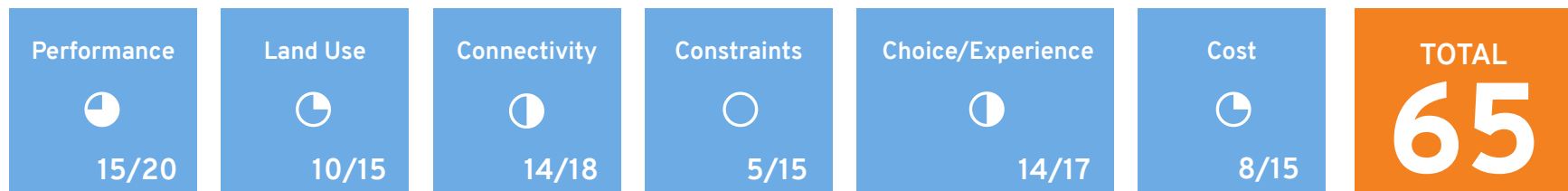
Boardings

12,000

Travel Time Savings

13%

L-2: ANAHEIM/LEMON RAPID STREETCAR



Capital Cost

\$740M

Net Operations & Maintenance Cost

\$3M

Boardings

12,500

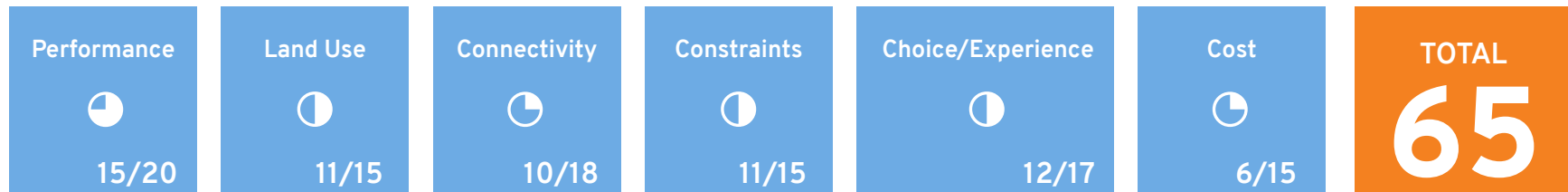
Travel Time Savings

9%

*Total scores and Harvey Ball ratings may vary slightly across alternative and criteria due to rounding and weighting.

**Net Operations & Maintenance costs per year.

K-1: KATELLA STREETCAR



Capital Cost

\$450M

Net Operations & Maintenance Cost

\$5.2M

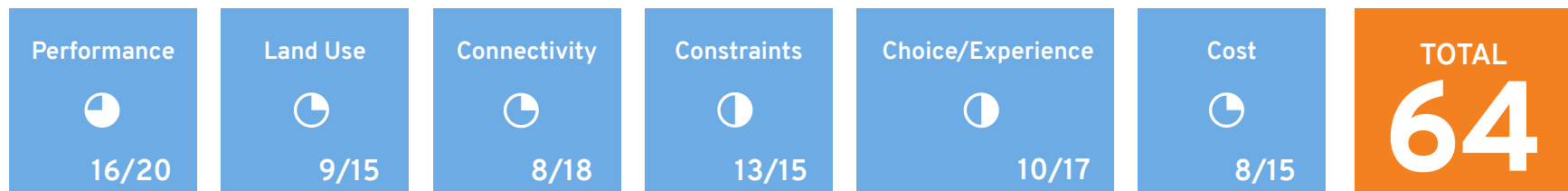
Boardings

5,500

Travel Time Savings

3%

H-1: HARBOR SHORT STREETCAR



Capital Cost

\$260M

Net Operations & Maintenance Cost

\$3.1M

Boardings

3,700

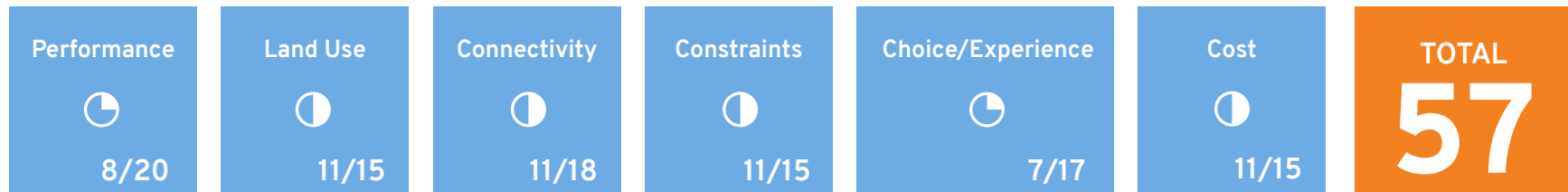
Travel Time Savings

3%

*Total scores and Harvey Ball ratings may vary slightly across alternative and criteria due to rounding and weighting.

** Net Operations & Maintenance costs per year.

K-2: KATELLA+ANAHEIM/LEMON ENHANCED BUS



Capital Cost

\$60M

Net Operations &
Maintenance Cost

\$1.7M

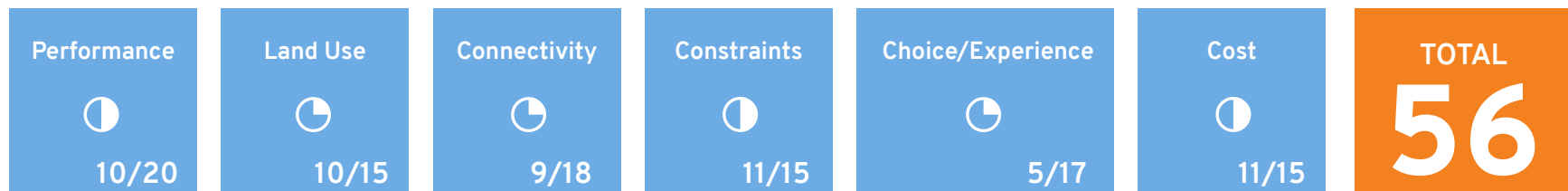
Boardings

4,900

Travel Time Savings

6%

L-3: ANAHEIM/LEMON ENHANCED BUS



Capital Cost

\$67M

Net Operations &
Maintenance Cost

\$1M

Boardings

5,400

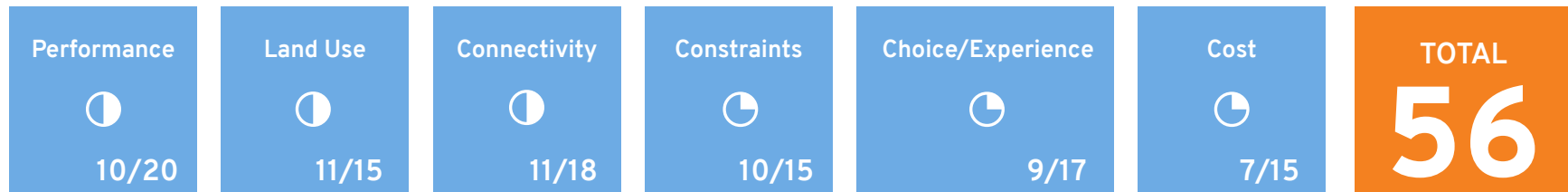
Travel Time Savings

7%

*Total scores and Harvey Ball ratings may vary slightly across alternative and criteria due to rounding and weighting.

**Net Operations & Maintenance costs per year.

K-3: KATELLA+HARBOR HYBRID



Capital Cost

\$300M

Net Operations & Maintenance Cost

\$3M

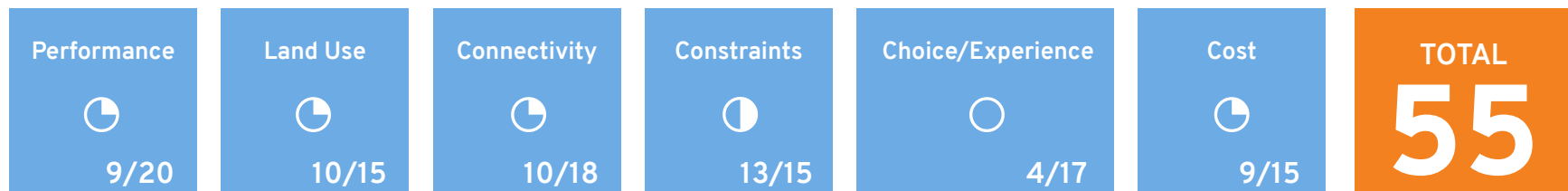
Boardings

7,000

Travel Time Savings

N/A

H-4: HARBOR ENHANCED BUS



Capital Cost

\$64M

Net Operations & Maintenance Cost

\$1M

Boardings

5,200



































Travel Time Savings

12%


* Total scores may vary slightly from sum of listed category scores due to weighting and rounding calculations.

** Net Operations & Maintenance costs per year.

Evaluation Results Summary

Alternative	Mode	Description	Transit Performance	Land Use	Connectivity	Constraints	Mode Choice/User Experience	Cost	Weighted Total
H-3	Rapid Streetcar	Harbor Rapid Streetcar from Harbor Blvd/Westminster Ave to FTC	 18	 11	 14	 7	 14	 11	74
H-2	Streetcar	Harbor Long Streetcar from Harbor Blvd/Westminster Ave to FTC	 17	 11	 12	 10	 14	 10	73
H-5	BRT	Harbor Bus Rapid Transit from Harbor Blvd/MacArthur Blvd to FTC	 17	 11	 12	 8	 11	 14	73
L-1	Streetcar	Anaheim/Lemon Streetcar from Harbor Blvd/Westminster Ave to FTC	 17	 10	 12	 8	 13	 8	68
L-4	BRT	Anaheim/Lemon Bus Rapid Transit from Harbor Blvd/MacArthur Blvd to FTC	 14	 11	 12	 6	 12	 12	66
L-2	Rapid Streetcar	Anaheim/Lemon Rapid Streetcar from Harbor Blvd/Westminster Ave to FTC	 15	 10	 14	 5	 14	 8	65
K-1	Streetcar	Katella Streetcar from Harbor Blvd/Westminster Ave to ARTIC	 15	 11	 10	 11	 12	 6	65
H-1	Streetcar	Harbor Short Streetcar from Harbor Blvd/Westminster Ave to Anaheim Resort	 16	 9	 8	 13	 10	 8	64
K-2	Bus	Katella + Anaheim/Lemon Enhanced Bus from Harbor Blvd/Westminster Ave to FTC, every other trip to ARTIC	 8	 11	 11	 11	 7	 11	57
L-3	Bus	Anaheim/Lemon Enhanced Bus from Harbor Blvd/MacArthur Blvd to FTC	 10	 10	 9	 11	 5	 11	56
K-3	Hybrid	Harbor Short Streetcar from Harbor Blvd/Westminster Ave to Anaheim Resort + Enhanced Bus from FTC to ARTIC via Anaheim/Lemon	 10	 11	 11	 10	 9	 7	56
H-4	Bus	Harbor Enhanced Bus from Harbor Blvd/MacArthur Blvd to FTC	 9	 10	 10	 13	 4	 9	55

Note: Individual subtotals may not equal weighted total due to rounding.

 Harbor Short
  Harbor Long
  Anaheim/Lemon
  Katella

4 Outreach

4.1 Outreach Activities



Open Houses: OCTA held two open houses each in February 2016 and March/April 2017, respectively. Approximately 50 stakeholders attended the open houses.

Stakeholder Workshops: OCTA held two stakeholder workshops, in January 2016 and March 2017. The workshops provided an opportunity for community leaders to provide early feedback. Approximately 40 leaders participated in both workshops.

OCTA Board of Directors: The OCTA Board of Directors provided input on the study during five regular monthly board meetings: Jul 2015, Jan 2016, Oct 2016, Feb 2017, and Mar 2017.

4.2 Public Feedback

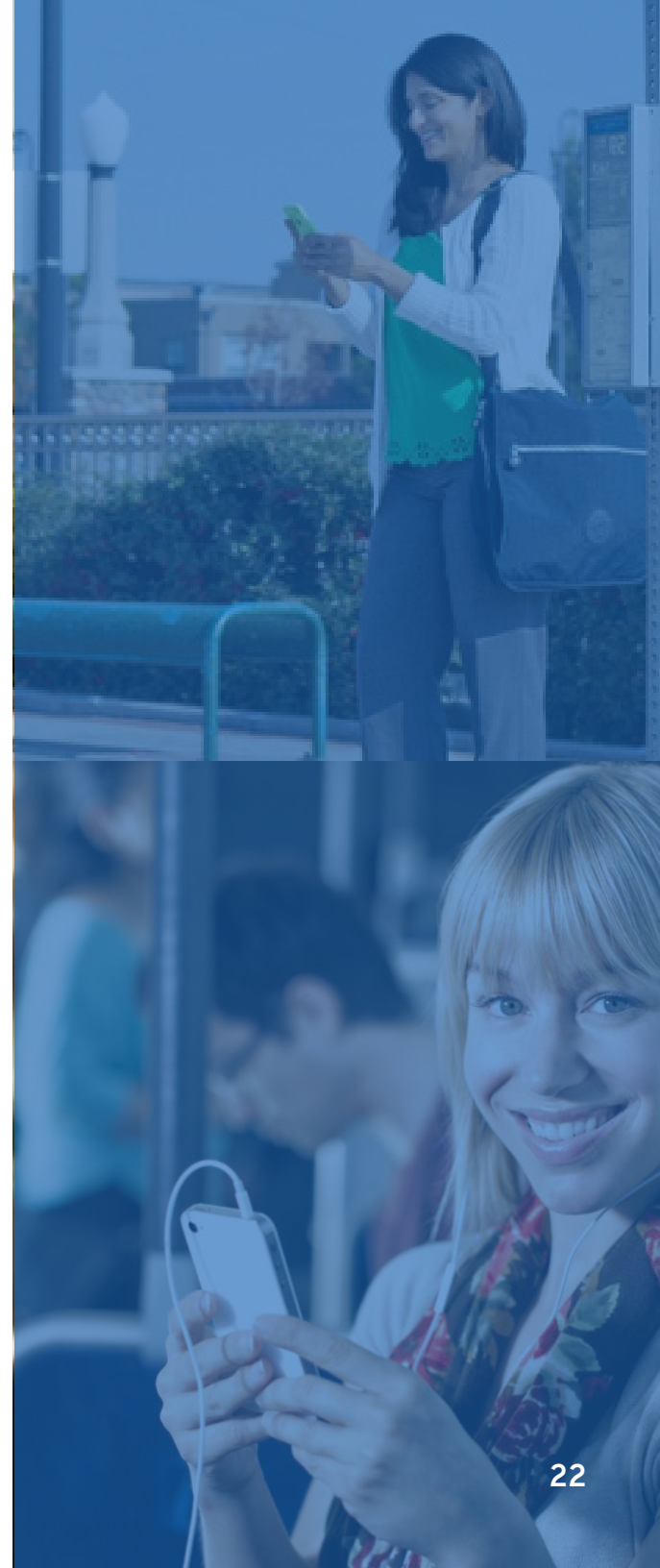
OCTA conducted two rounds of surveys in Winter 2016 and Spring 2017 to gauge the community's thoughts on the study. Surveys were conducted onboard OCTA buses and administered online. Respondents were asked to express a preference for mode and corridor. Over 1,000 responses were recorded. Below is a summary of results from the survey.

Mode Preference

- 24%** Rapid Streetcar
- 20%** Enhanced Bus
- 17%** BRT
- 13%** Streetcar
- 10%** Bus/Streetcar Hybrid

Corridor Preference

- 37%** Harbor "Long"
- 23%** Katella
- 20%** Anaheim-Lemon
- 2%** Harbor "Short"



5 NEXT STEPS

This Executive Summary presents the performance evaluation results for the *Central Harbor Boulevard Transit Corridor Study*. A total of twelve conceptual transit alternatives were evaluated against 24 evaluation criteria to help determine which alignments, modes, and features best met the study objectives. These results will be considered along with the city and community input received during the course of the study. This information will help inform decisions about potential advancement of a small group of alternatives into a subsequent study phase. The next study phase would likely include a detailed environmental review, public engagement, and selection of a preferred alternative.

A final round of outreach is proposed in early 2018, to present the evaluation results to each of the cities in the study area and to receive their comments. The study reports will also be available on the study webpage for public review and comment. The input received from the cities, public, and stakeholders will be incorporated into the Final Report and inform the study recommendations.

Study webpage: ***octa.net/harborgetinvolved***



Westminster Avenue looking south

Image Sources

All images are OCTA property unless listed below.

Inside Cover: City of Garden Grove. September 2015. www.ci.garden-grove.ca.us/econdev/grove-district-new-website

Table of Contents: The Hornet. Fullerton College. 2013. <http://hornet.fullcoll.edu/new-bravo-buses-zip-through-harbor-blvd/>

Page 2, left to right:

Flickr user Jonathan Riley. January 2015. www.flickr.com/photos/125733295@N07/15820452853/in/photostream

Yiu, Chaffee. www.chaffeeuiu.com/photo/octa/octa-5634-47.jpg

CPTDB user "RagingRapid," October 2016. http://farm9.staticflickr.com/8577/29534197413_7c314c57ae_b.jpg

Page 3, bottom: Blogspot user "Gorgim," May 2011. <http://gorgim.blogspot.com/2011/05/>

Page 4: Marroquin, Art. OC Register. December, 2015. www.ocreger.com/2015/12/10/octa-to-consider-derailing-anaheim-streetcar/

Page 7: top to bottom:

"Up And Down" by Star and Anchor Design; "Briefcase" by Alex Auda Samora; "Give" by Joel Olson, "Direction Signs" AlfredoCreates.com; "Dot Chart" by Hea Poh Lin. All images licensed under CC BY 3.0 US

Page 8: Marroquin, Art. OC Register. December, 2015. www.ocreger.com/2015/12/10/octa-to-consider-derailing-anaheim-streetcar/

Page 9, left to right:

Flickr user "crown426," July 2013. www.flickr.com/photos/crown426/9281634508/

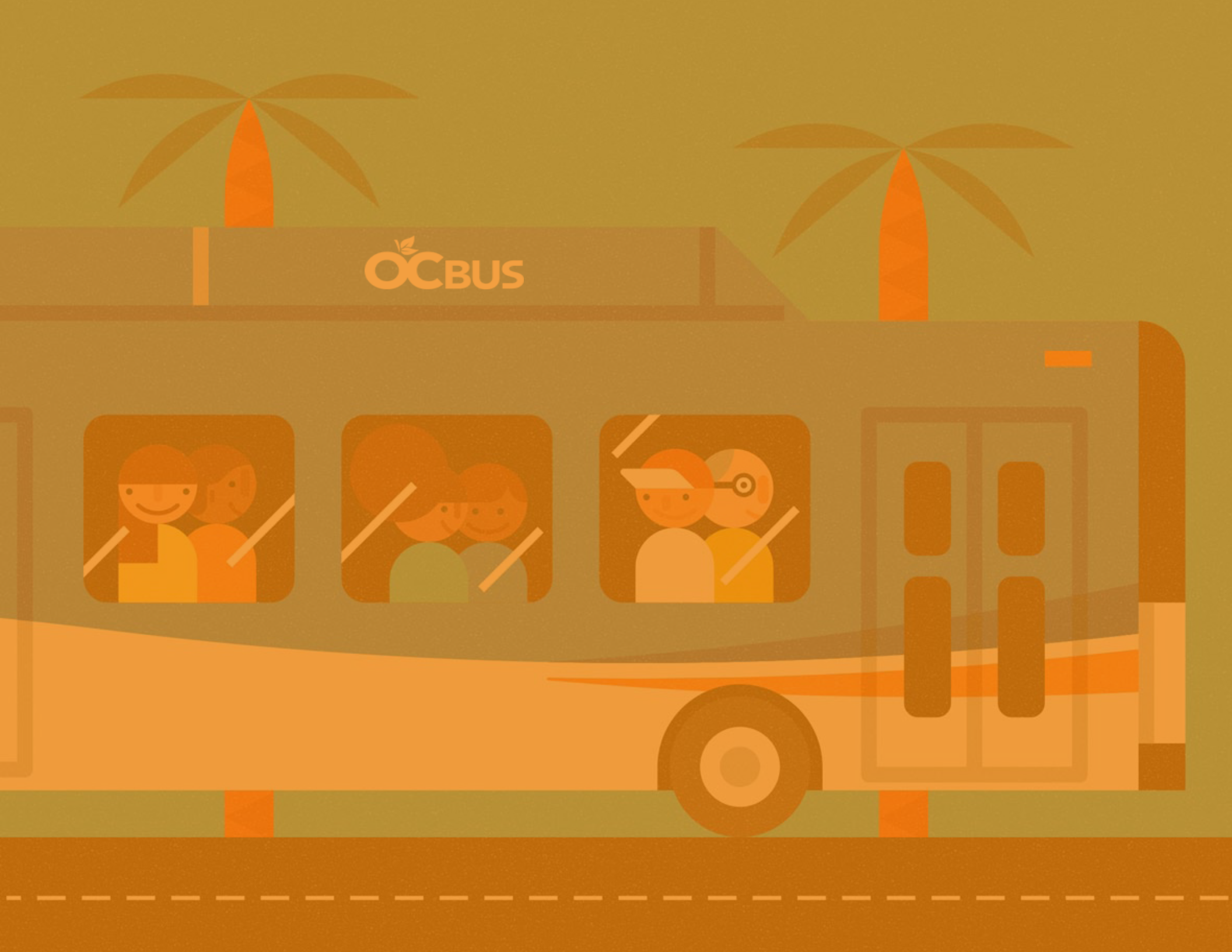
Flickr user "John Greenfield," October 2009. www.flickr.com/photos/24858199@N00/8664722908

Harrison, Mark. The Seattle Times. August 2015. http://static.seattletimes.com/wp-content/uploads/2015/08/145595_Trolley_mh372-1024x1024.jpg

Flickr user "Garrett," August 2011. www.flickr.com/photos/33970903@N02/6024098878

Page 12, bottom: City of Santa Ana, *Harbor Mixed Use Transit Corridor Specific Plan*. October 2014. www.santa-ana.org/harborplan/documents/web_HCP_Adopted_Oct2014.pdf

Page 22: City of Santa Ana, *Harbor Mixed Use Transit Corridor Specific Plan*. October 2014. www.santa-ana.org/harborplan/documents/web_HCP_Adopted_Oct2014.pdf





Maps of the Alignments

No Build Alternative

Alignment:

Harbor South	Anaheim/Lemon
Harbor North	Katella

Mode:

Enhanced Bus	Streetcar
Bus Rapid Transit	Rapid Streetcar

Changes to Bus Service:

Harbor Local 43	Anaheim/Lemon Local 47
Unchanged	Unchanged
Harbor Bravo! 543	Katella Local 50
Unchanged	Unchanged



H-1: Harbor Short Streetcar

Alignment:

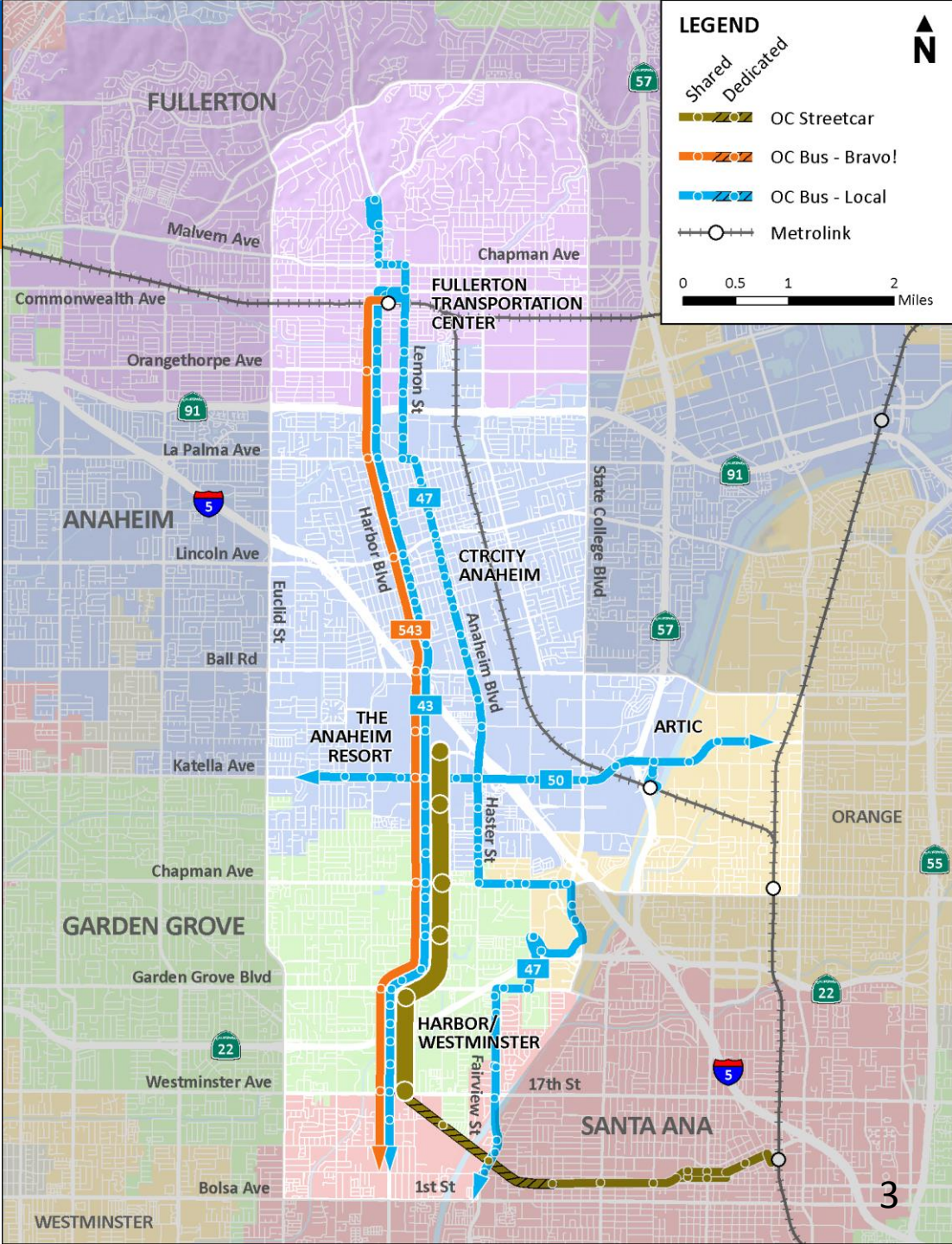
Harbor South	Anaheim/Lemon
Harbor North	Katella

Mode:

Enhanced Bus	Streetcar
Bus Rapid Transit	Rapid Streetcar

Changes to Bus Service:

Harbor Local 43	Anaheim/Lemon Local 47
Unchanged	Unchanged
Harbor Bravo! 543	Katella Local 50
Unchanged	Unchanged



H-2: Harbor Long Streetcar

Alignment:

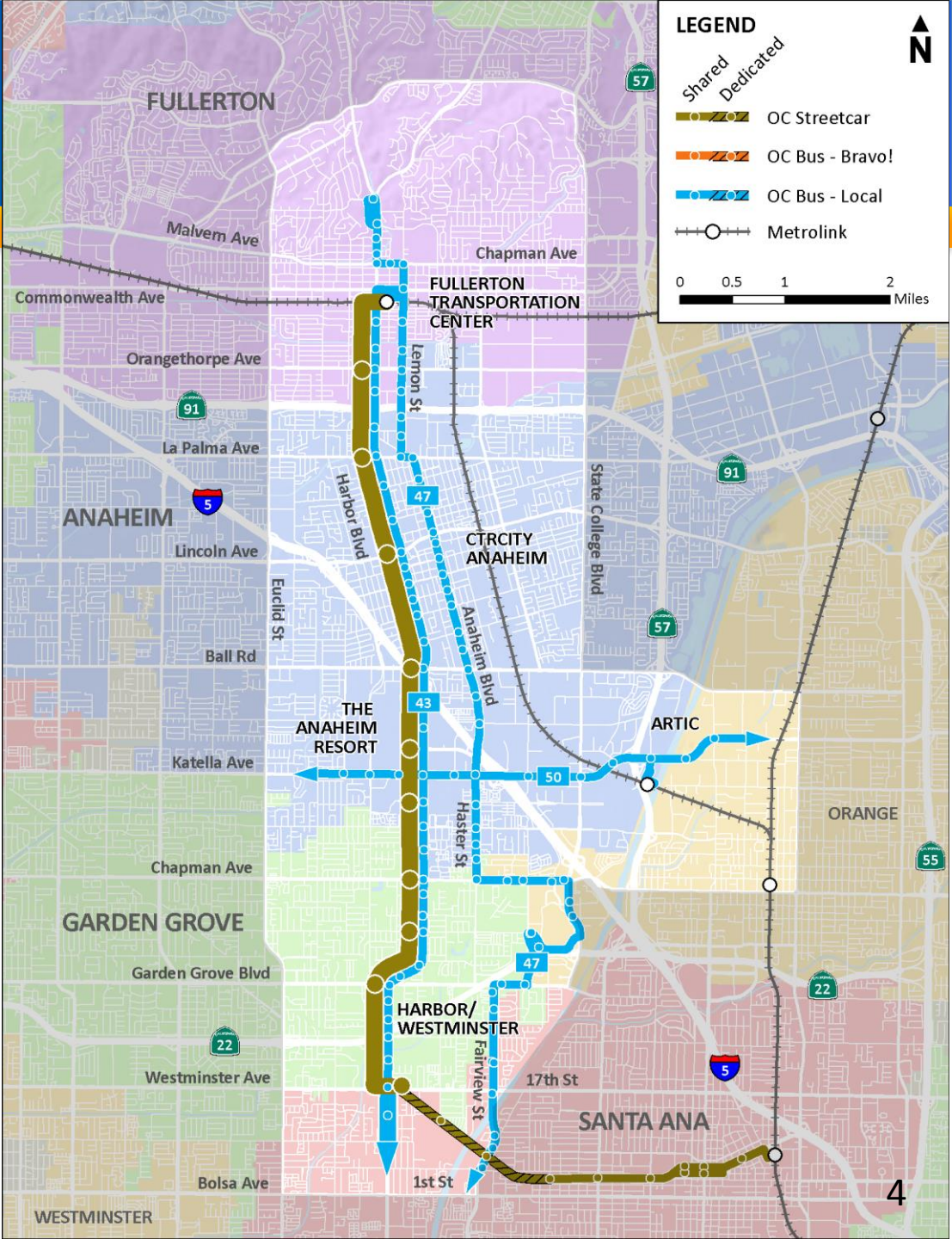
Harbor South	Anaheim/Lemon
Harbor North	Katella

Mode:

Enhanced Bus	Streetcar
Bus Rapid Transit	Rapid Streetcar

Changes to Bus Service:

Harbor Local 43	Anaheim/Lemon Local 47
Enhanced S of Westminster	Unchanged
Harbor Bravo! 543	Katella Local 50
Discontinued	Unchanged



H-3: Harbor Rapid Streetcar

Alignment:

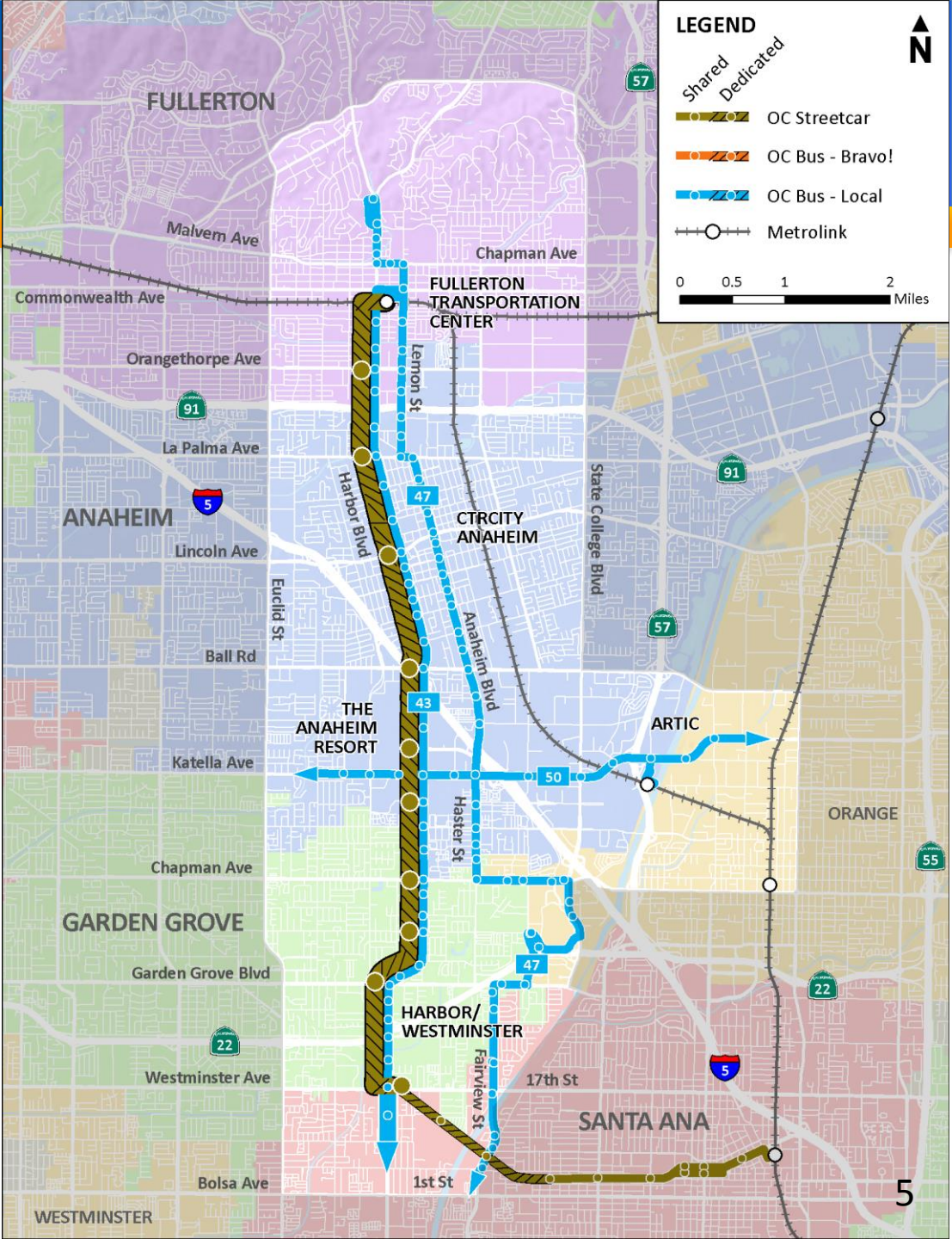
Harbor South	Anaheim/Lemon
Harbor North	Katella

Mode:

Enhanced Bus	Streetcar
Bus Rapid Transit	Rapid Streetcar

Changes to Bus Service:

Harbor Local 43	Anaheim/Lemon Local 47
Enhanced S of Westminster	Unchanged
Harbor Bravo! 543	Katella Local 50
Discontinued	Unchanged



H-4: Harbor Enhanced Bus

Alignment:

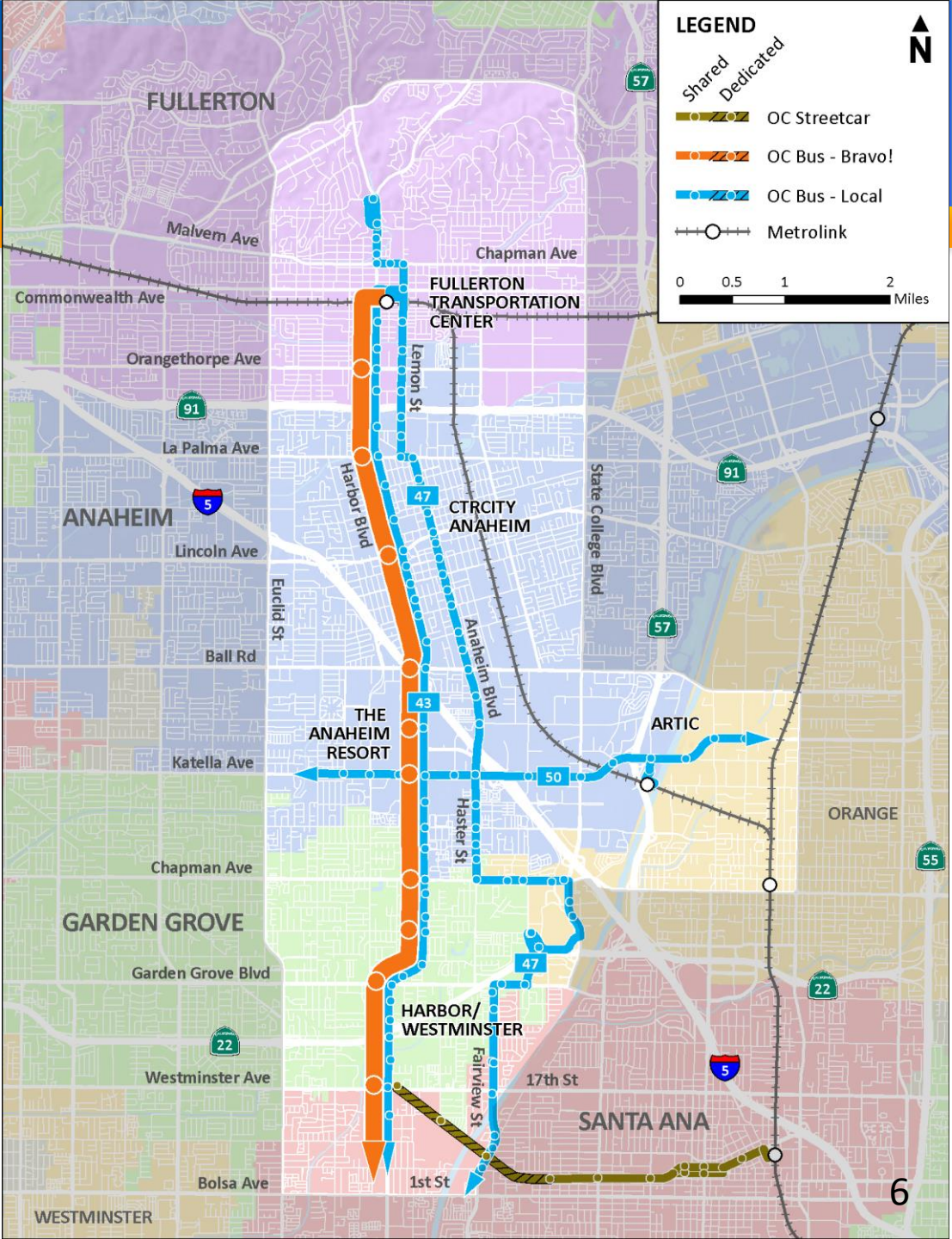
Harbor South	Anaheim/Lemon
Harbor North	Katella

Mode:

Enhanced Bus	Streetcar
Bus Rapid Transit	Rapid Streetcar

Changes to Bus Service:

Harbor Local 43	Anaheim/Lemon Local 47
Unchanged	Unchanged
Harbor Bravo! 543	Katella Local 50
Enhanced	Unchanged



H-5: Harbor Bus Rapid Transit

Alignment:

Harbor South

Anaheim/Lemon

Harbor North

Katella

Mode:

Enhanced Bus

Streetcar

Bus Rapid Transit

Rapid Streetcar

Changes to Bus Service:

Harbor Local 43

Anaheim/Lemon Local 47

Unchanged

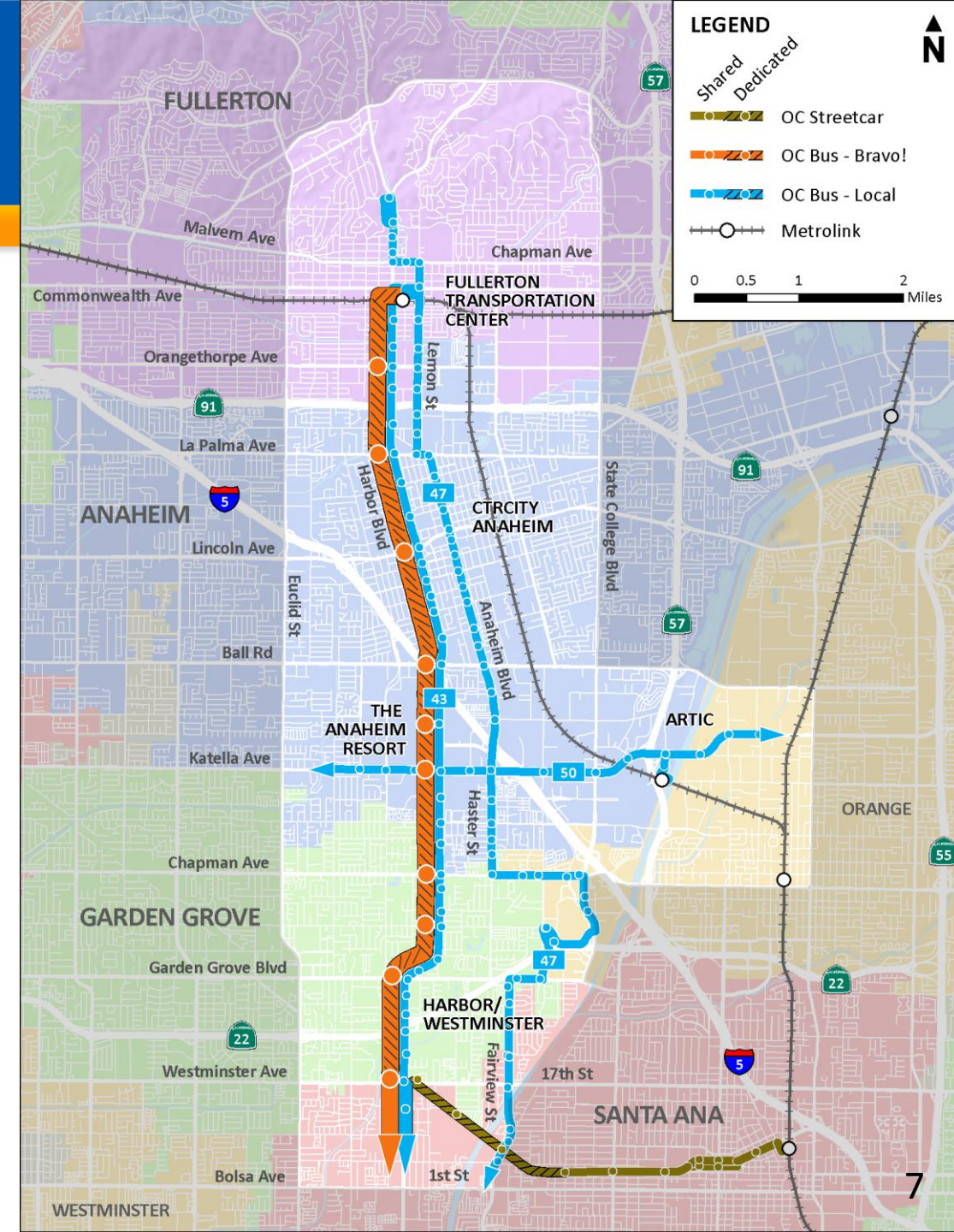
Unchanged

Harbor Bravo! 543

Katella Local 50

Discontinued

Unchanged



L-1: Anaheim/Lemon Streetcar

Alignment:

Harbor South

Anaheim/Lemon

Harbor North

Katella

Mode:

Enhanced Bus

Streetcar

Bus Rapid Transit

Rapid Streetcar

Changes to Bus Service:

Harbor Local 43

Anaheim/Lemon Local 47

Enhanced S of Westminster

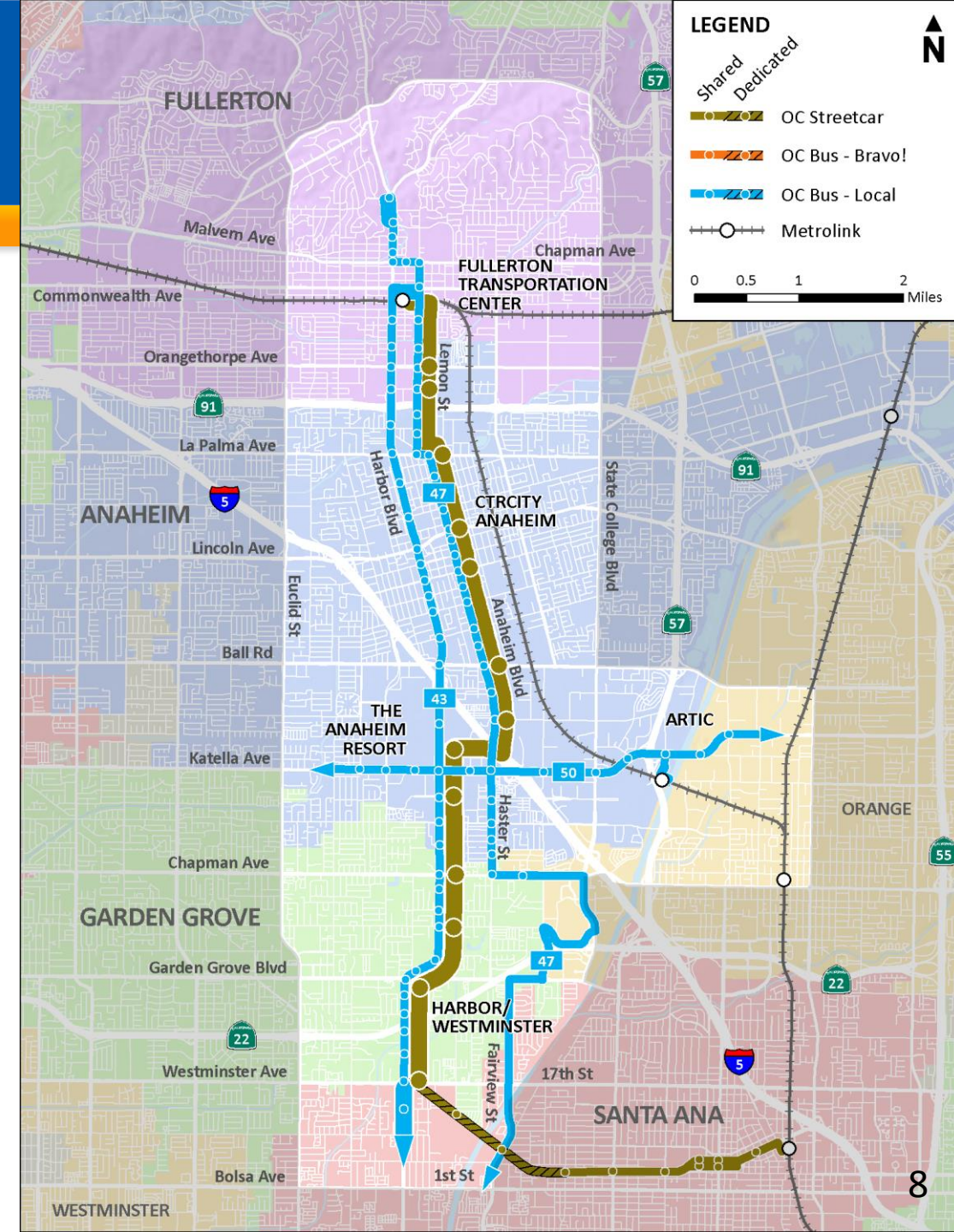
Unchanged

Harbor Bravo! 543

Katella Local 50

Discontinued

Unchanged



L-2: Anaheim/Lemon Rapid Streetcar

Alignment:

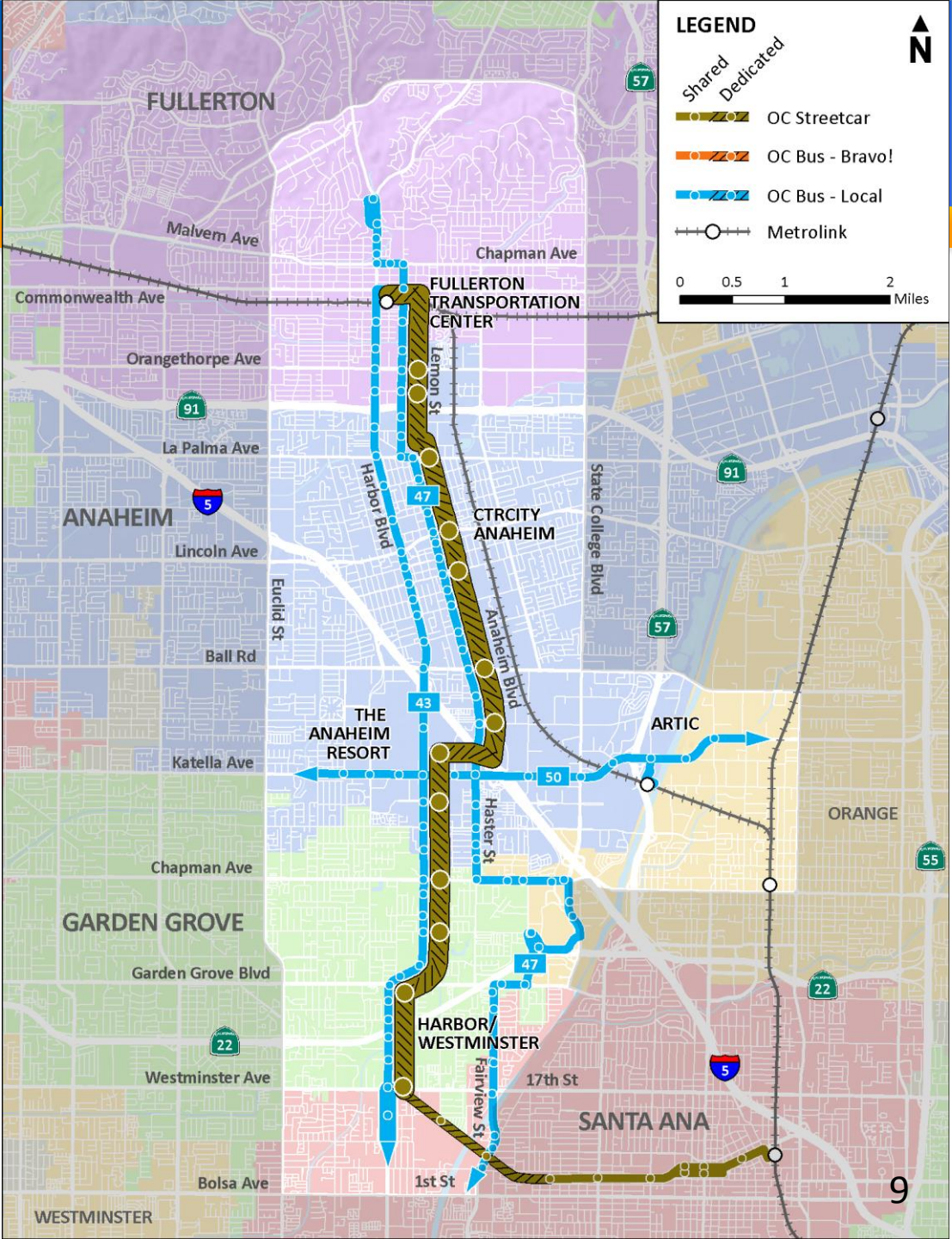
Harbor South	Anaheim/Lemon
Harbor North	Katella

Mode:

Enhanced Bus	Streetcar
Bus Rapid Transit	Rapid Streetcar

Changes to Bus Service:

Harbor Local 43	Anaheim/Lemon Local 47
Enhanced S of Westminster	Unchanged
Harbor Bravo! 543	Katella Local 50
Discontinued	Unchanged



L-3: Anaheim/Lemon Enhanced Bus

Alignment:

Harbor South

Anaheim/Lemon

Harbor North

Katella

Mode:

Enhanced Bus

Streetcar

Bus Rapid Transit

Rapid Streetcar

Changes to Bus Service:

Harbor Local 43

Anaheim/Lemon Local 47

Unchanged

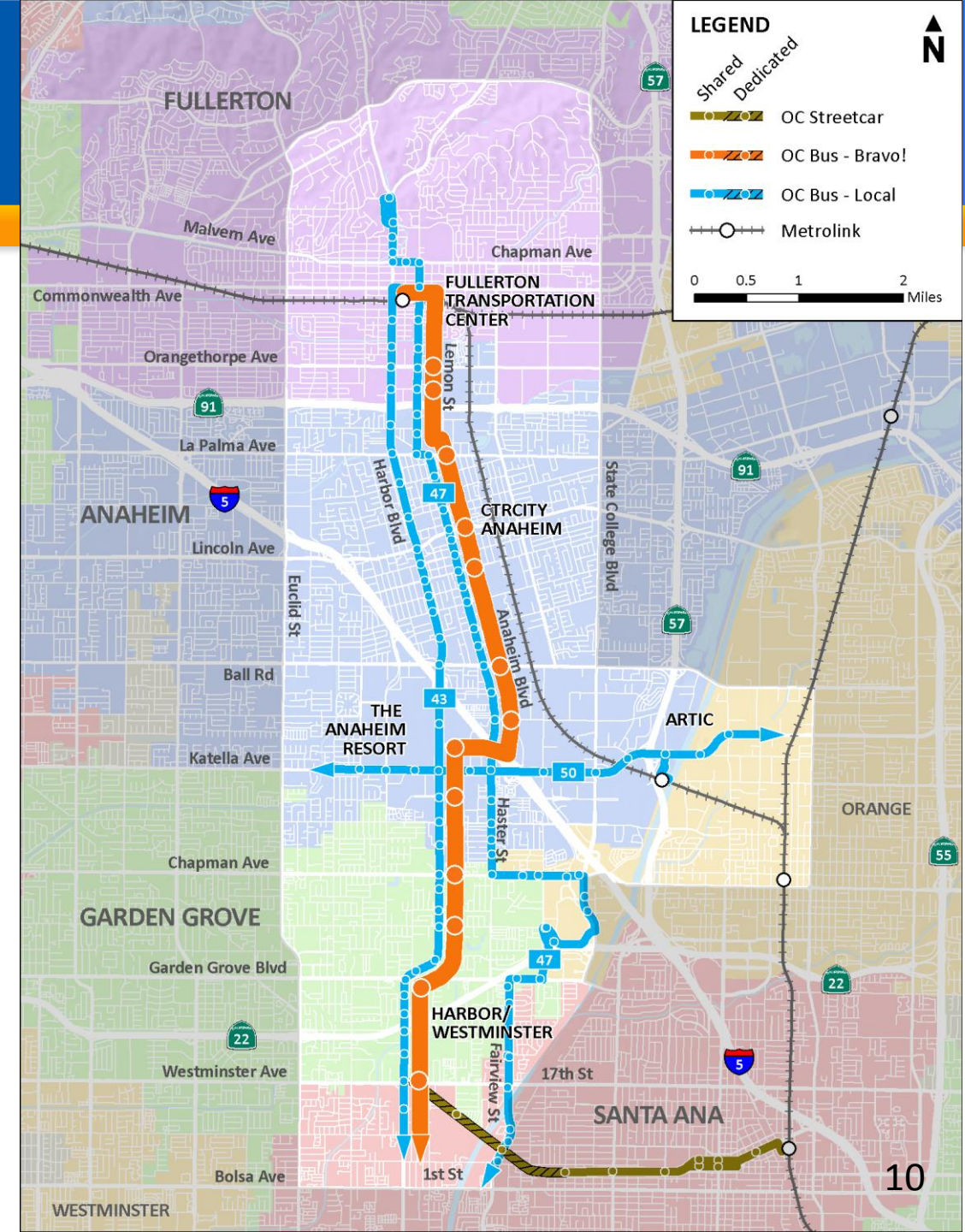
Unchanged

Harbor Bravo! 543

Katella Local 50

Enhanced / Rerouted

Unchanged



L-4: Anaheim/Lemon Bus Rapid Transit

Alignment:

Harbor South

Anaheim/Lemon

Harbor North

Katella

Mode:

Enhanced Bus

Streetcar

Bus Rapid Transit

Rapid Streetcar

Changes to Bus Service:

Harbor Local 43

Anaheim/Lemon Local 47

Unchanged

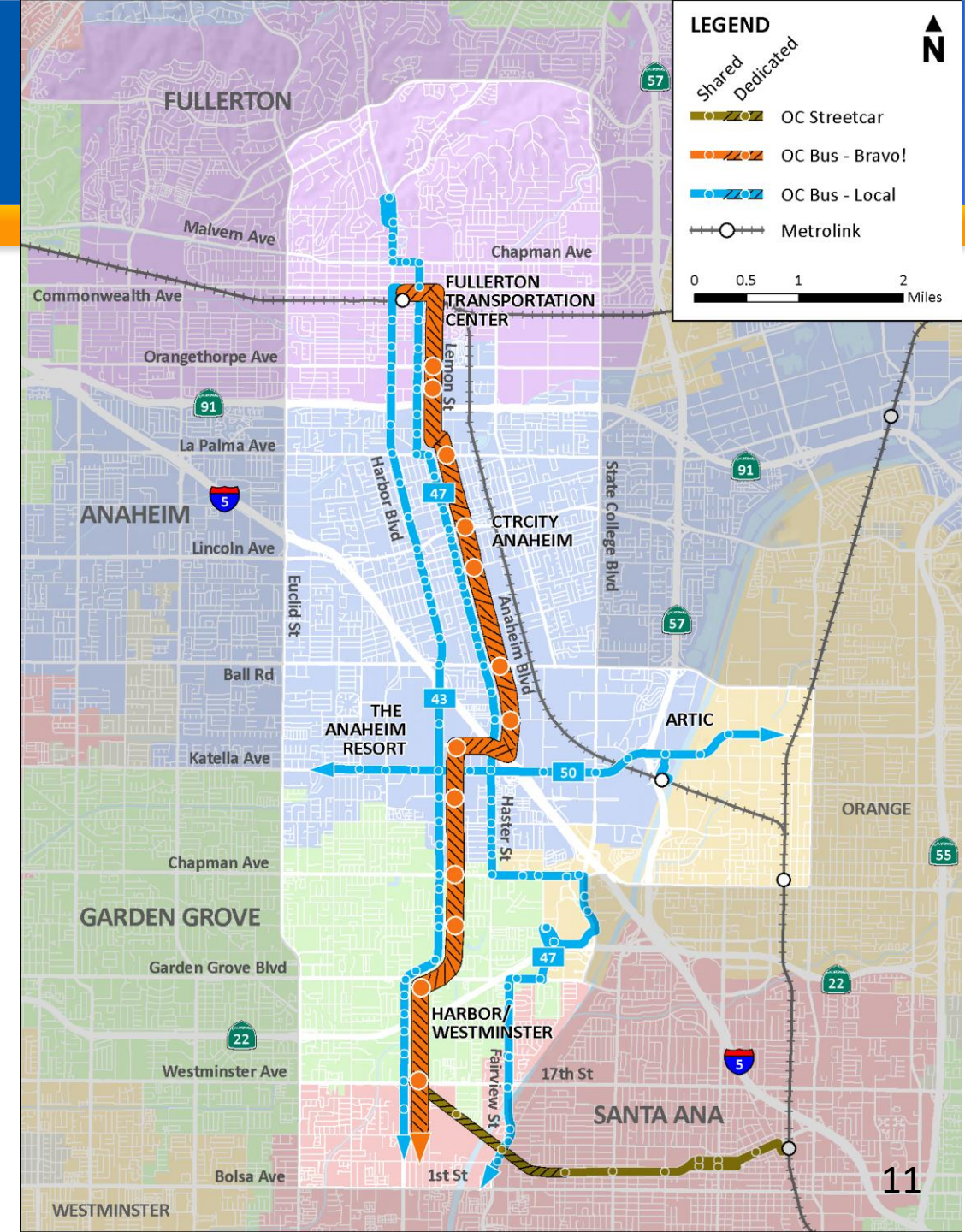
Unchanged

Harbor Bravo! 543

Katella Local 50

Discontinued

Unchanged



K-1: Harbor-Katella Streetcar

Alignment:

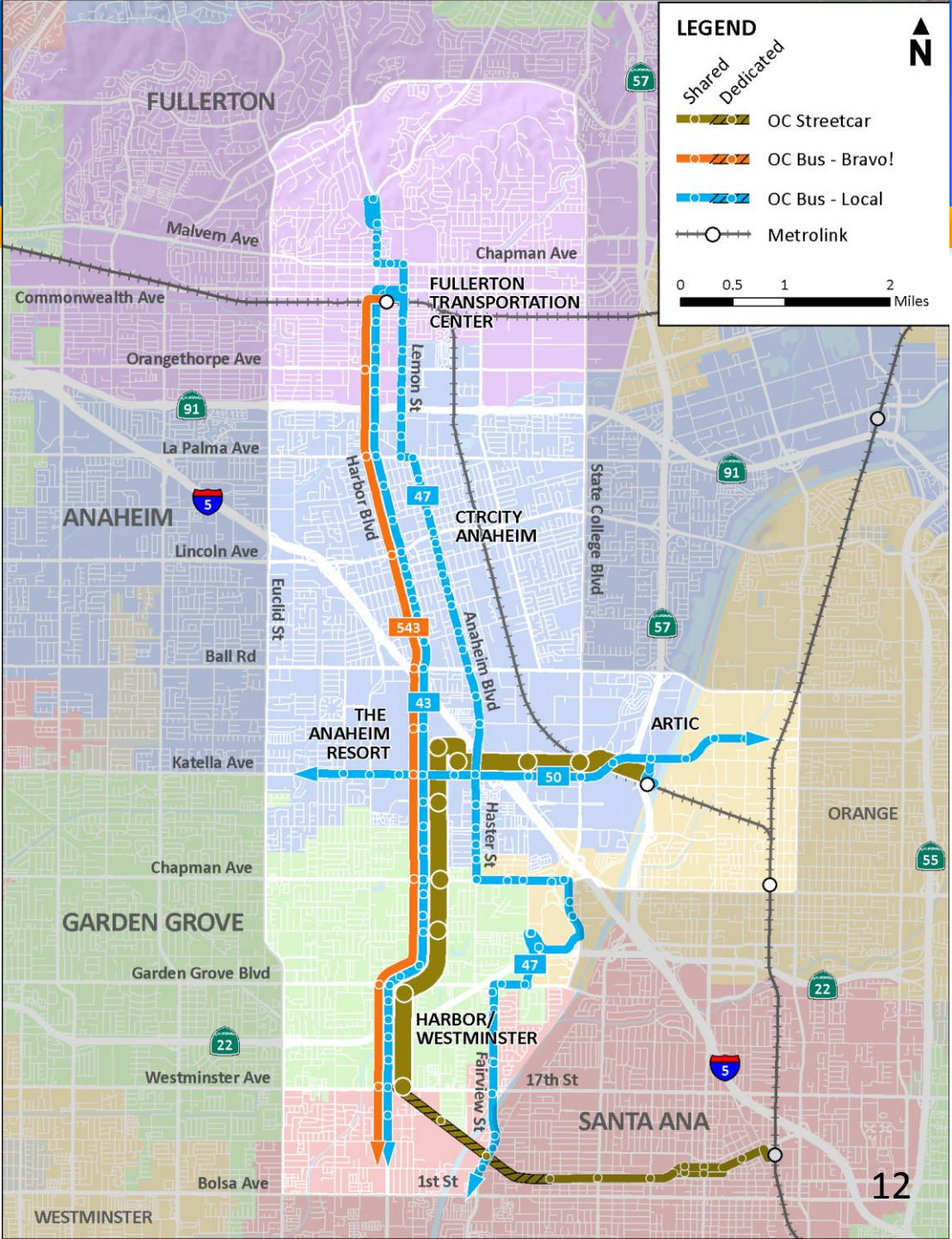
Harbor South	Anaheim/Lemon
Harbor North	Katella

Mode:

Enhanced Bus	Streetcar
Bus Rapid Transit	Rapid Streetcar

Changes to Bus Service:

Harbor Local 43	Anaheim/Lemon Local 47
Unchanged	Unchanged
Harbor Bravo! 543	Katella Local 50
Unchanged	Unchanged



K-2: Katella + Anaheim/ Lemon Enhanced Bus

Alignment:

Harbor South

Anaheim/Lemon

Harbor North

Katella

Mode:

Enhanced Bus

Streetcar

Bus Rapid Transit

Rapid Streetcar

Changes to Bus Service:

Harbor Local 43

Anaheim/Lemon Local 47

Enhanced S of Westminster

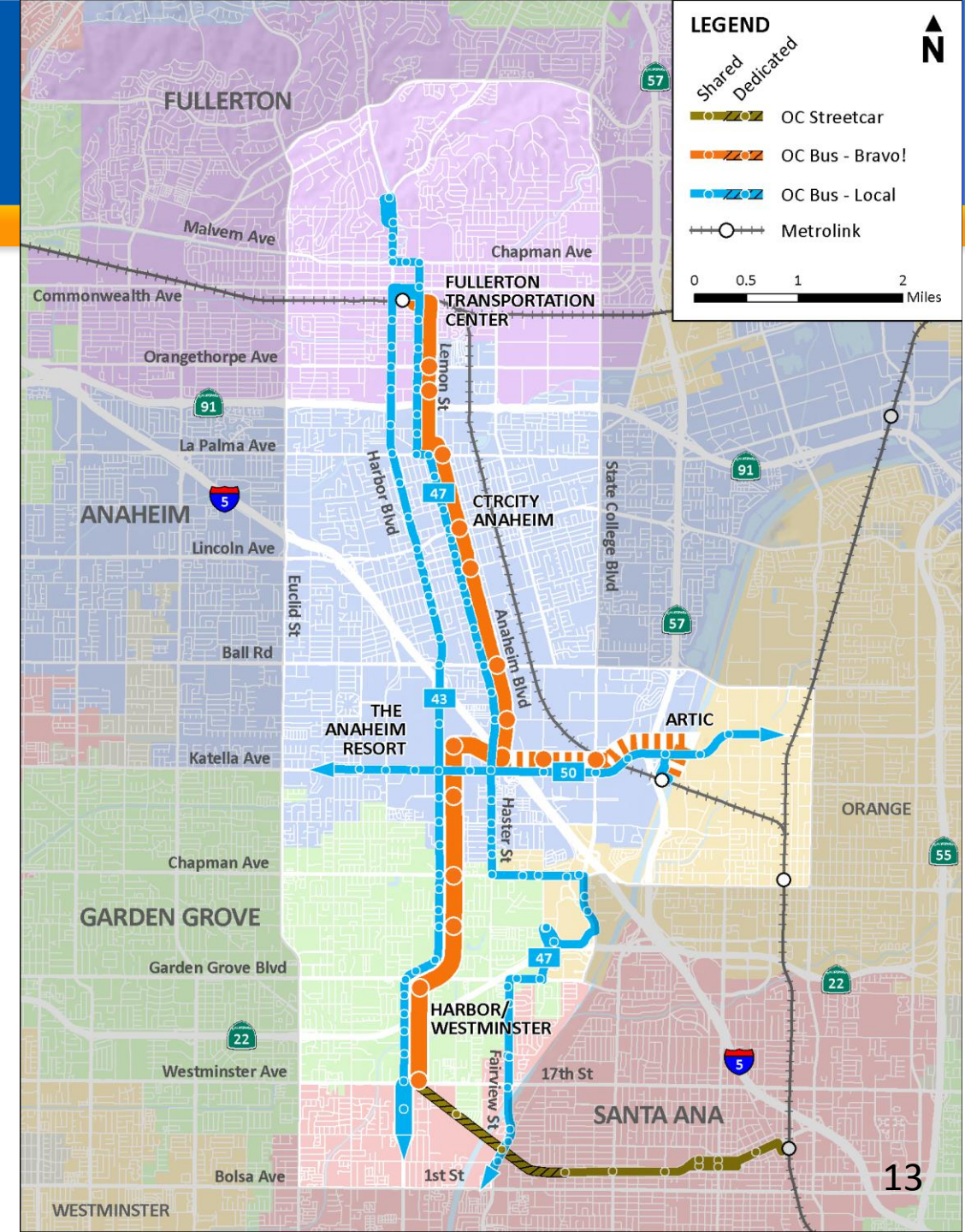
Unchanged

Harbor Bravo! 543

Katella Local 50

Enhanced / Rerouted

Unchanged



K-3: Katella + Harbor Hybrid

Alignment:

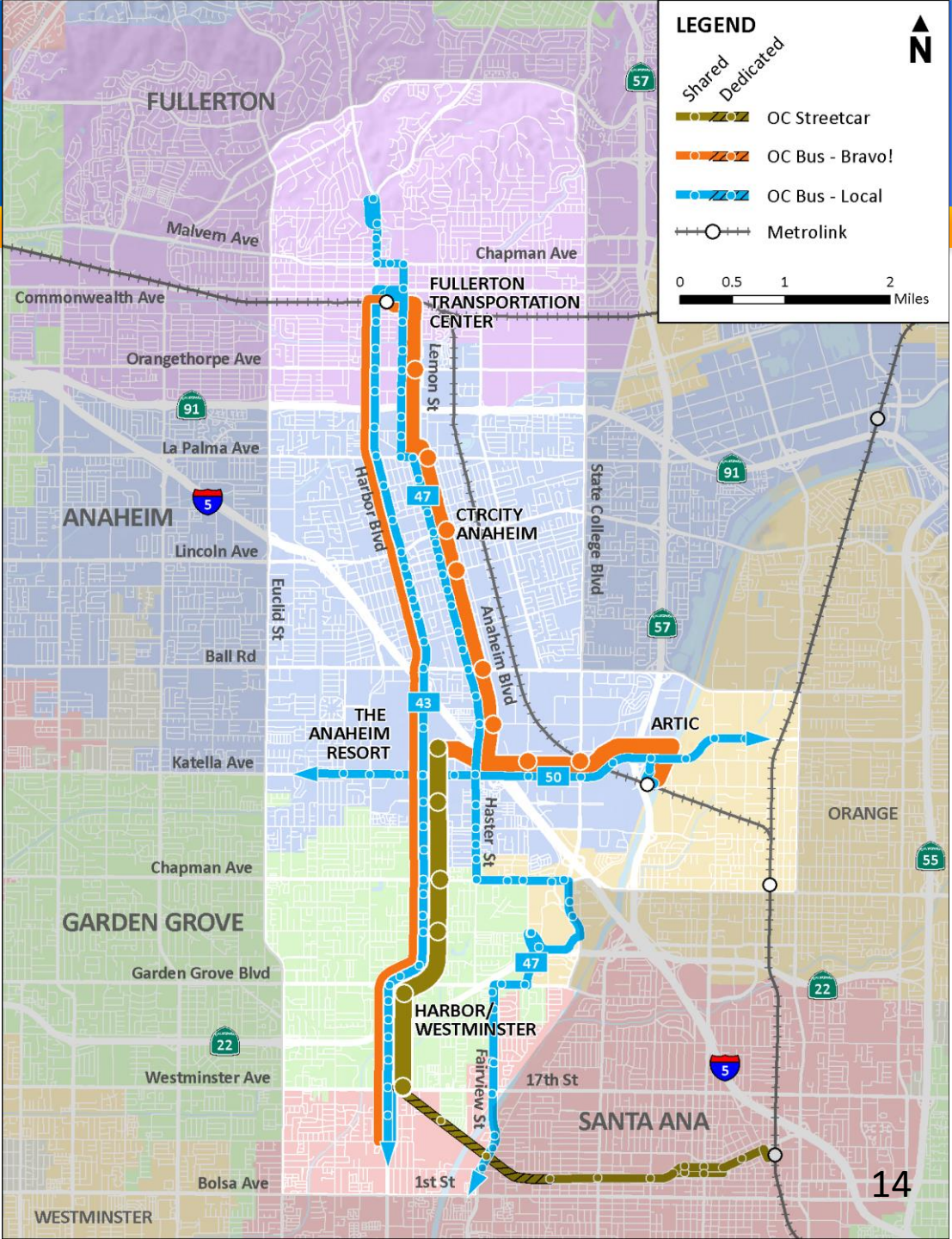
Harbor South	Anaheim/Lemon
Harbor North	Katella

Mode:

Enhanced Bus	Streetcar
Bus Rapid Transit	Rapid Streetcar

Changes to Bus Service:

Harbor Local 43	Anaheim/Lemon Local 47
Unchanged	Unchanged
Harbor Bravo! 543	Katella Local 50
Enhanced / Rerouted	Unchanged



Central Harbor Boulevard Transit Corridor Study Evaluation Criteria

#	Criteria
1. Transit Performance	
a	Average Transit Operating Speed
b	Person Throughput
c	Travel Time Reliability / On-Time Performance
d*	Congestion Relief - New Linked Project Trips
2. Land Use	
a*	Transit-Compatible Land Uses - Station Area Population / Employment Density
b*	Economic Development - Transit Supportive Plans and Policies
c*	Environmental Benefits and Impacts - Vehicle Miles Traveled - Related (Traffic, Air Quality)
d*	Other Environmental Benefits and Impacts (Noise, Historic, etc.)
3. Connectivity	
a	Activity Center Connectivity
b	Zero and One Transfer Rides
c*	Compliance with Long Range Regional Mobility Goals
d*	First / Last Mile Connections - Bike / Pedestrian Amenities and Linkages
4. Corridor Constraints	
a	Optimally Allocate Roadway Infrastructure
b	Overall Safety / Collision Hot Spots
c	Optimize Traffic Operations
d	Physical Corridor Constraints (Bridges, Rail Crossings, etc.)
5. Mode Choices / User Experience	
a	New Riders (System-Wide)
b	Mode Share
c*	Mobility Improvement - Linked Trips on Project
d	Station User experience / Level of Amenities
6. Cost-Effectiveness	
a*	Cost-Effectiveness - Capital + Operations and Maintenance Costs / Project Trips
b	Incremental Cost per New Transit Trip
c	Farebox Recovery
d	Financial Feasibility (Cost, Suitability for Funding, etc.)

*Starred criteria match Federal Transit Administration New Starts evaluation criteria

7. Community Input	
a	Description of Outreach Plan Activities including Dates and Times
b	Summary of Comments Received and Key Issues

Ridership Summary Table

Alternative	Average Weekday Boardings	Per-Mile Boardings	New Systemwide Boardings	Systemwide Increase (%)
H3: Harbor Long Rapid Streetcar ¹	15,200	1,900	15,500	9.8%
H2: Harbor Long Streetcar	14,700	1,800	15,200	9.6%
H5: Harbor Bus Rapid Transit ^{1*}	14,600	1,200	15,500	9.8%
L2: Anaheim-Lemon Rapid Streetcar ¹	12,500	1,500	12,000	7.6%
L4: Anaheim-Lemon Bus Rapid Transit ^{1*}	12,000	1,000	11,500	7.3%
L1: Anaheim-Lemon Streetcar	11,300	1,300	10,300	6.5%
K3: Katella + Harbor Hybrid	7,000	700	3,100	2.0%
K1: Harbor-Katella Streetcar*	5,500	900	7,500	4.7%
L3: Anaheim-Lemon Enhanced Bus*	5,400	430	400	0.3%
H4: Harbor Enhanced Bus*	5,200	430	500	0.3%
K2: Katella + Anaheim-Lemon Enhanced Bus	4,900	470	400	0.3%
H1: Harbor Short Streetcar*	3,700	1,100	7,500	4.7%

¹Operates in a dedicated transit lane for at least 50% of the alignment.

*Extends to MacArthur Boulevard, consistent with existing Bravol Route 543 service area.

Cost and Cost-Effectiveness Table

Alternative	Capital Cost (YOE\$) ²	Annual O&M Cost ³	Annual Linked Trips on Project	Annual Cost/Rider
H1: Harbor Short Streetcar	\$ 260,000,000	\$ 3,093,161	821,277	\$11.73
H2: Harbor Long Streetcar	\$ 610,000,000	\$ 2,973,797	3,261,832	\$5.58
H3: Harbor Long Rapid Streetcar ¹	\$ 690,000,000	\$ 1,942,744	3,377,764	\$5.54
H4: Harbor Enhanced Bus*	\$ 64,000,000	\$ 1,039,770	1,141,807	\$2.68
H5: Harbor Bus Rapid Transit ^{1*}	\$ 230,000,000	\$ 1,095,776	3,242,547	\$2.72
L1: Anaheim-Lemon Streetcar	\$ 660,000,000	\$ 4,004,851	2,504,395	\$8.18
L2: Anaheim-Lemon Rapid Streetcar ¹	\$ 740,000,000	\$ 2,973,797	2,780,814	\$7.60
L3: Anaheim-Lemon Enhanced Bus*	\$ 67,000,000	\$ 1,039,770	1,200,771	\$2.62
L4: Anaheim-Lemon Bus Rapid Transit ^{1*}	\$ 250,000,000	\$ 1,752,130	2,669,537	\$3.78
K1: Harbor-Katella Streetcar*	\$ 450,000,000	\$ 5,155,268	1,210,524	\$13.69
K2: Katella + Anaheim-Lemon Enhanced Bus	\$ 60,000,000	\$ 1,672,356	1,081,292	\$3.40
K3: Katella + Harbor Hybrid	\$ 300,000,000	\$ 2,990,736	1,545,685	\$6.89

¹Operates in a dedicated transit lane for at least 50% of the alignment.

*Extends to MacArthur Boulevard, consistent with existing Bravo! Route 543 service area.

²YOE assumes a 2025 implementation date.³Net Change in O&M from 2035 Baseline.

YOE - Year of expenditure

O&M - Operation and maintenance

Orange County Transportation Authority

Central Harbor Boulevard Transit Corridor Study

Public Outreach Summary Report



FULLERTON



ANAHEIM



GARDEN GROVE



SANTA ANA

EXECUTIVE SUMMARY

The Orange County Transportation Authority (OCTA) is charged with maintaining and improving the complex transportation network that serves the residents, workers and visitors in California's third largest county. As car travel is ever more constrained by the growing population and increasing development densities, OCTA is working to identify and study opportunities to enhance multi-modal transit solutions.

Few corridors are as uniquely positioned for consideration of a multi-modal transit approach as the portion of Harbor Boulevard that travels through the cities of Santa Ana, Garden Grove, Anaheim and Fullerton from Westminster Avenue to Chapman Avenue. Today, Harbor Blvd. bears the distinction of being a major north-south connector for car traffic, is one of the busiest bus corridors in the County and demonstrates a unique mix of small business, resort, residential, industrial, education and mobility features. Additionally, Harbor Blvd. at Westminster Ave. will serve as the terminus for the OC Streetcar, slated to enter construction in 2018.

With this in mind, in 2015, OCTA launched the Central Harbor Blvd. Transit Corridor Study to consider how transit could be improved and enhanced in this vital area. The public outreach for the study was conducted in two phases, Phase 1 focused on introducing the Study and its goals, and establishing the criteria that would be used to develop and consider preliminary alternatives including transit technologies and routes. Phase 2 provided additional details on transit technologies/modes and its features, and options related to route alignments both on and adjacent to Harbor Blvd. including the Anaheim/Lemon route and an east-west connection along Katella Ave. to/from the Anaheim Regional Transportation Intermodal Center (ARTIC) and packaged them into 12 preliminary alternatives for consideration.

OCTA developed a comprehensive outreach strategy to provide stakeholders with the choice to engage in the manner most convenient for them. The outreach team facilitated meetings focused on the Study via key stakeholder workshops and open house meetings, presented to stakeholders via city council presentations and speakers bureau engagements, and reached out to transit users on buses along the corridor and nearby Metrolink stations. In addition, OCTA conducted online and social media outreach emphasizing the option of feedback through online surveys, which combined yielded more than 1,000 responses.

KEY FINDINGS

The overall feedback confirmed that Harbor Blvd. should be a focus for transit improvements. Following are the key findings:

- Stakeholders could see the benefit of offering transit options that are more efficient and convenient.
- Transit mode preference was mixed with an almost even split between streetcar and bus options.
- Route preference also was mixed and dependent on stakeholders' individual mobility needs and interests. However, the online survey results indicated the Harbor Blvd. corridor from Westminster Ave. to the Fullerton Transportation Center was most preferred.
- Most important transit characteristics are frequency of service, travel time compared to other modes, and convenient service hours, respectively.
- Primary activities participated in the study area included working, dining, and shopping, respectively.
- Attracting non-transit users is dependent on significant improvements that make transit more competitive with the ease of car travel.
- Generally, stakeholders are interested and generally supportive of transit investment, but need more information on the alternatives being considered to better indicate future preferences.

STUDY BACKGROUND

Harbor Boulevard is Orange County's busiest north/south transit corridor, carrying approximately eight percent of countywide bus ridership through some of the most densely populated and diverse areas of the County. Throughout the region and in close proximity to this corridor, efforts to improve transit service and mobility connections are taking place. Directly adjacent to this study is the OC Streetcar, connecting the Santa Ana Regional Transit Center (SARTC) through downtown Santa Ana to a planned terminus in Garden Grove at the intersection of Harbor Blvd. and Westminster Ave. OC Streetcar is in the development phase with design activities under way and construction anticipated to start in spring 2018. At the northern end of the Harbor Blvd. study area, the City of Fullerton completed the College Connector Study to evaluate options to improve connections between the transportation center, Downtown Fullerton and local college campuses, most notably Fullerton College and California State University, Fullerton.

Given the current and planned transit service in the corridor, the Study – through technical evaluation and stakeholder engagement – identified numerous alternatives to improve mobility. The alternatives include alignment options both on and adjacent to Harbor Blvd. and consider a variety of transit technologies. The Study Team, through technical evaluation and stakeholder feedback, will narrow down the initial 12 alternatives and will continue to study and refine these options during the next year.

During the course of the Study, traditional outreach opportunities were combined with a digital communication and social media program in order to reach the diverse stakeholder population interested in the future of transit on Harbor Blvd. Outreach was conducted in two phases based upon the technical milestones; Phase 1 - introducing and defining the study and its evaluation criteria and Phase 2 - presenting draft alternatives, including: alignment and technology options. During each outreach phase, a key stakeholder workshop was convened, open house meetings hosted and online survey offered. Stakeholder feedback has helped shape and further develop the alternatives being considered.

Targeted stakeholder audiences included: elected officials; representatives from the environmental, business, education, community, faith, transit and tourism industries; neighborhood and community based groups; transit users; social media audiences; and the general public.

OUTREACH: PHASE 1

TACTICS

Public outreach efforts supporting the first phase of the Harbor Study focused on introducing stakeholders to the study, establishing expectations related to the goals of the study, highlighting areas of study and what they could expect to learn, and identifying opportunities for their feedback to be heard.

Study Overview:

- OCTA is committed to improving transit in the Harbor Blvd. study area.
- As Orange County continues to grow along Harbor Blvd. mobility options need to be considered.
- This study is the first step in determining the future of transit in the corridor; alternatives will be developed for further study and later environmental review.

Introducing the Harbor Study:

- Defining the Corridor:
 - Harbor Blvd. is a unique corridor connecting the cities of Santa Ana, Garden Grove, Anaheim and Fullerton (and beyond).
 - Reflects the diversity of Orange County, with significant population density, busiest bus corridor, land uses including: multi-family units, single family homes, historic properties, small businesses and resort properties.
- Study Goals and Objectives
 - Develop a set of alternatives to improve transit on Harbor Blvd.

- Purpose and Need
- Route Options and Transit Modes
 - Consider both a Harbor Blvd. only route and a hybrid route that travels north on Harbor Blvd. and then veers east to run parallel traveling north on Anaheim Blvd./Lemon St.
 - Identify the transit modes being considered, including bus, bus rapid transit and streetcar options
- Public Participation
 - Stakeholder feedback from partner cities, key stakeholder organizations and the public is important in shaping the alternatives to improve transit and mobility in the study area.

To best share the Phase 1 tactics, the following outreach activities took place:

- Key Stakeholder Workshop
- City Council Presentations
- Open House Meetings
- Speaker Bureau Presentations
- Online Survey
- Earned Media and Email Blasts

KEY STAKEHOLDER WORKSHOP

In an effort to engage a diverse group of stakeholders in the study process, OCTA hosted a Key Stakeholder Workshop (KSW) on January 28, 2016. The KSW provides an opportunity for community leaders to receive information in advance of the general public and provide early feedback. This helped the study team confirm assumptions, identify possible areas of concern and reach deeper into the community by asking participants to share information with their constituents. Specifically, participants are asked to assist OCTA by sharing information about upcoming public meetings and online survey opportunities, and are encouraged to schedule a Speakers Bureau presentation to provide their members with study information.

OCTA invited more than 75 leaders to participate in the KSW representing organizations from the following fields: business, tourism, education, faith, neighborhood/HOA, community, health, multicultural, etc. Invitees received both a letter via mail and email, as well as a follow up phone call(s) to solicit RSVP. Approximately 19 stakeholders participated.

During the meeting, the study was introduced and information supporting the tactics outlined earlier in this report was shared. A PowerPoint presentation was provided and stakeholders were encouraged to ask questions and provide feedback throughout the workshop. Feedback from the KSW focused on:

- Congestion challenges facing Harbor Blvd. today, lack of existing capacity to accommodate what's there now.
- Heavy pedestrian traffic delaying vehicle traffic in the Resort Area (Garden Grove and Anaheim).
- Improvements to enhance active transportation options.

The KSW invitee list, invitation letter, meeting agenda, PowerPoint presentation and meeting notes can be found in Appendix A.

OPEN HOUSES

OCTA hosted two open houses in February 2016 to provide the public with an opportunity to learn about the Study, ask questions and provide feedback.

OCTA is committed to conducting comprehensive public outreach programs that inform and engage stakeholders. Given the diversity of the corridor, a variety of noticing strategies were utilized to reach and engage interested stakeholders including: mailing notices, counter flyer distribution, on-bus noticing, emails blasts, social media, media coverage, and study and community partner resources.

A. Mailing of Notices

Bilingual (English and Spanish) postcard notices with additional text in Vietnamese and Korean offering language services were developed to publicize the Community Open Houses. Meeting notices were mailed to approximately 7,600 owner/occupants. Addresses were identified based on proximity to Harbor Boulevard, and the Lemon Avenue/Anaheim Boulevard corridor option.

B. Counter Distribution and Extended Notification Efforts

Bilingual (English and Spanish) meeting notices were distributed at the public counters of all four city halls (Santa Ana, Garden Grove, Anaheim and Fullerton). Additional notices were provided to the City of Santa Ana's Com-Link Council and the City of Anaheim's Central and West Neighborhood District meetings. Meeting flyers were also designed and distributed on buses serving the Harbor Boulevard Study Area.

The four partner cities, elected official district offices, and more than 100 key stakeholder organizations were asked for their support to promote the meetings as well as the online survey through their respective electronic communication tools, including websites, e-newsletters, social media sites, and membership e-blasts. Sample language was provided for possible e-blasts and/or newsletter articles, as well as Facebook posts. In addition, an announcement about the open houses took place at two Anaheim Neighborhood Services meetings in January.

C. E-Blasts/Social Media

The electronic version of the flyer was distributed via OCTA's *On the Move* Blog to more than 3,000 email contacts included in OCTA's stakeholder database. The notice was sent out two weeks in advance of the start of the Open Houses and a reminder notice was sent out prior to the meetings. The second e-blast distribution also included an additional 1,179 stakeholders identified as Harbor Boulevard bus riders during outreach conducted for OCTA's bus service changes.

OCTA's Facebook page was also utilized to build awareness for the project and the open houses, with posts on February 16, 18 and 22. Facebook ads were also created utilizing images of proposed transit technologies and key destinations. The ads linked back to information on the open house meetings and later to the online survey. 11,647 stakeholders had access to the ads and 209 clicked for more information.

Copies of the meeting notices, flyers, emails blasts, Facebook posts can be found in Appendix B.

Meeting Format

The two Open Houses took place from 5:00 to 8:00 p.m. and featured information stations staffed by project team members. Each meeting provided Spanish language support by having a bilingual technical and outreach team member available to engage with stakeholders. A looping PowerPoint presentation was displayed throughout the meeting. Approximately 25 stakeholders attended the meetings.

A virtual meeting was made available following the meetings via the OCTA website and featured the full complement of information boards and looping presentation. Open House location information is shown below.

Open House Locations

Community	Date	Location/Address
Fullerton	Wednesday, February 24, 2016	Fullerton Community Center 340 W. Commonwealth Fullerton, CA
Garden Grove	Thursday, February 25, 2016	Garden Grove High School 11271 Stanford Ave. Garden Grove, CA

Project team members staffed the information stations based on their technical expertise. An overview of the stations, PowerPoint and materials can be found in Appendix C.

Media Coverage

OCTA Media Relations drafted and distributed a press release (Appendix D) introducing the project and publicizing the open houses. The release was distributed to the following media outlets:

- Orange County Register
- Fullerton News Tribune
- Anaheim Bulletin
- La Habra Star/Brea Progress
- Patch.com
- Los Angeles Times
- Daily Pilot
- Huntington Beach Independent
- Voice of OC
- Nguoi Viet Daily News
- La Opinión
- Rumores
- Excelsior
- KPCC
- KCRW
- KFI
- KNX

ONLINE SURVEY

OCTA provided stakeholders with an online survey option so the public could participate, gather additional information from the website and provide their thoughts related to the Study's goal of developing transit options for Harbor Blvd.

A link to the online survey was shared via the study website, email blasts, on tablets at the open house meetings, distributed by ride share coordinators for large employers and via Facebook ads.

The online survey, was provided in English, Spanish and Vietnamese. The survey garnered 603 unique visits and 413 responses, which equates to a 68.5 percent completion rate. The majority of respondents were commuters, employees and/or residents within the study area, with more than 60 percent using transit on a daily, weekly or monthly basis. Out of these individuals, 69 percent were between the ages of 25 and 54.

Survey Results

The following is a summary of the feedback received via the online survey.

Topic	Responses		
Biggest challenges for transit in the study area	Transit/roadway performance (27%)	Mode choices (25%)	Connectivity (17%)
Average rating for mode option preferences (Out of 10)	7.07 for streetcar	6.60 for bus rapid transit	6.10 for limited-stop bus
Most important transit characteristics (Able to choose multiple)	Frequency of service (59%)	Travel time compared to other modes (54%)	Convenient service hours (52%)
Most important connection within the study area	Disneyland Resort (39%)	Downtown Anaheim (17%)	Fullerton Transportation Center (13%)
Major activities participated within the study area (Able to choose multiple)	Working (64%)	Dining (54%)	Shopping (38%)

A copy of the online survey is provided in Appendix E.

IMPORTANT CONSIDERATIONS OF PHASE 1 PUBLIC FEEDBACK

Feedback from the aforementioned outreach activities yielded the following themes:

- Improve connectivity of transit services locally and regionally, first/last mile connection particularly important
- Maintain or improve pedestrian and bicycle access in the corridor
- Provide efficient linkages to key destinations
- Make sure service is expanded to serve the hours of Disneyland and sporting events
- Signal synchronization between jurisdictions to improve traffic flow for all vehicles
- Address congestion during peak times on Harbor Blvd., including long waits at intersections and behind buses

OUTREACH: PHASE 2

TACTICS

Public outreach efforts supporting the second phase of the Harbor Study focused on sharing and receiving feedback on the 12 draft alternatives developed to improve transit in the Study area. To help stakeholders better differentiate their alternative preference, messaging is focused on the two main differentiating factors: route and transit technology.

Study Overview:

- Remained consistent with what is identified in Phase 1.

12 Alternatives:

- The Alignment Options:
 - Harbor Long - connecting from Westminster Ave. in the south to Chapman Ave. in the north
 - Harbor Short - connecting from Westminster Ave. in the south to the Resort area in Anaheim
 - Anaheim/Lemon - connecting from Harbor Blvd. at Westminster Ave. in the south then traveling east to travel north on Anaheim/Lemon to the Fullerton Station area
 - Katella - connecting from Harbor Blvd. at Westminster Ave. in the south then traveling east on Katella Avenue to ARTIC
 - Katella/Anaheim/Lemon - connecting from Harbor Blvd. at Westminster Ave. in the south then traveling east on Katella Avenue to ARTIC then traveling west to travel north on Anaheim/Lemon to the Fullerton Station area
- Transit Modes:
 - Enhanced Bus
 - Bus Rapid Transit
 - Streetcar
 - Rapid Streetcar
- Public Participation
 - Stakeholder feedback from partner cities, key stakeholder organizations, and the public is important in shaping the alternatives to improve transit and mobility in the study area.

To best share the Phase 1 tactics, the following outreach activities took place:

- Key Stakeholder Workshop
- City Council Presentations
- Open House Meetings
- Speaker Bureau Presentations
- Online Survey
- Earned Media and Email Blasts

KEY STAKEHOLDER WORKSHOP

The second Key Stakeholder Workshop (KSW) was convened on March 9, 2017. Approximately 100 key stakeholders were invited to participate in the KSW, including stakeholders invited to

participate in the first meeting and additional stakeholders identified as representing the Katella corridor area were added to the invitation list. 21 stakeholders participated.

To share the 12 Alternatives, a PowerPoint presentation was used and stakeholders were encouraged to review a roll plot of the study area and information boards displaying route and transit technology options. Stakeholders were encouraged to ask questions and provide feedback throughout the Workshop.

Feedback from the KSW focused on:

- Developing additional information to weigh the benefit of adding transit that could impact or reduce the number of lanes available for other vehicle traffic.
- Consider improving pedestrian and bicycle access and use.
- Explore elevated transit or pedestrian corridor, particularly in the Resort Area in Anaheim.
- Partner with law enforcement agencies to improve safety at existing and future transit stops.

The KSW invitee list, invitation email, meeting agenda, PowerPoint presentation, information boards, sign-in sheet and meeting notes can be found in Appendix F.

OPEN HOUSES

OCTA hosted two Open Houses on March 30 and April 5, 2017 to provide the public with a Study update and an opportunity to ask questions and provide feedback. The notification approach used for Phase 1 was duplicated for this round of meetings. With the addition of mailing notices to those owner/occupants located in proximity to the Lemon Ave./Anaheim Blvd. and Katella Ave. corridor options.

E-Blasts/Social Media

The electronic version of the flyer and online survey link was distributed via OCTA's *On the Move* Blog to more than 3,000 email contacts included in OCTA's stakeholder database. The notice was sent out two times: the first notice was shared over one month in advance of the start of the Open Houses on February 18, the second meeting notice was distributed again on March 21 as a reminder for the following week's meeting in Garden Grove. A separate e-blast to the Harbor database's 4,800 contacts comprised of past survey respondents, Anaheim Rapid Connection contacts and bus customers was distributed on March 22 and April 11.

Facebook ads were also created utilizing images of proposed transit technologies and key destinations. The ads linked back to information on the open houses and later to the online

survey. More than 6,000 stakeholders had access to the ads and more than 320 users “clicked” for more information.

Copies of the meeting notices, flyers and emails blasts can be found in appendices G and H.

Meeting Format

The two Open Houses took place from 5:00 to 7:00 p.m. and featured a large roll out of the (satellite) image of the corridor. Presentation boards focusing on the four route alignments and transit technologies were displayed and a comment station offered stakeholders the opportunity to complete the online survey, and/or a paper/electronic comment form. A presentation was provided and brief question and answer session took place. Team members were available to engage with stakeholders one-on-one throughout the meeting. Additionally, attendees were encouraged to indicate route, transit mode and origin/destination preferences using colored dot stickers; they were also invited to leave notes on the roll out for any location specific issues the study team should consider.

Unique to the meeting offered in Anaheim, a copy of the Anaheim City Council resolution opposing streetcar technology was available for stakeholders to review.

Since a presentation was provided, a Spanish language translator was available to assist non-English speakers. Approximately 25 stakeholders attended the meetings.

A virtual meeting was made available following the meetings via the OCTA website and featured the full complement of information boards and a presentation. Open House location information is shown below.

Open House Locations

Community	Date	Location/Address
Garden Grove	Thursday, March 30, 2017	Garden Grove Community Center 11300 Stanford Ave. Garden Grove, CA
Anaheim	Wednesday, April 5, 2017	Anaheim City Hall West Gordon Hoyt Conf. Rm. 201 S. Anaheim Blvd. Anaheim, CA

ONLINE SURVEY

Given the levels of response received during Phase 1 Outreach to the online survey, two surveys were developed for Phase 2 to share information about route and transit technology choice and solicit feedback. Two surveys were offered, a shorter version and a longer, more technical version that stakeholders could self-select based on their level of interest and time. A link to the online survey was shared via the open house notification efforts mentioned above, the study website, email blasts, on tablets at the open house meetings, rideshare coordinators for large employers, and Facebook ads. Online survey information was also shared with OCTA's Citizens Advisory Committee and Diversity Community Leaders Group during outreach presentations to both groups.

Survey Results

The survey garnered 683 responses, with 518 people completing the short survey and 165 respondents for the long survey. The overwhelming majority believe that transit should be improved and were evenly split between streetcar and bus, however rapid streetcar stood out as most preferred, as did the Harbor long route option.

Topic	Responses		
Mode preference	Rapid Streetcar (24%)	Enhanced Bus (20%)	Bus Rapid Transit (17%)
Route Preference	Harbor from Westminster Ave. to Chapman Ave (37%)	Harbor/Anaheim/ Lemon (20%)	Harbor/Katella/ Anaheim/Lemon (19%)
Most important transit characteristics (Able to choose multiple)*	Frequency of service (68%)	Hours of Operation (49%)	Overall Travel Time (41%)
How often transit is used	Never but would consider if improved (38%)	Daily (20%)	Weekly (9%)
Why travel along Harbor?	Work (26%)	Live (24%)	Commute (14%)
Major activities participated within the study area (Able to choose multiple)*	Dining (73%)	Working (63%)	Shopping/Recreational Activities (58%)

*Percentage of total respondents.

A copy of the online survey and survey results are provided in Appendix I.

TRANSIT USER OUTREACH

Transit users, especially those reliant on bus service, may face unique challenges to attend an open house meeting. To raise awareness for the Study and gather their valuable perspective on improving transit along the Harbor Blvd. Corridor, additional in person outreach was conducted on board several buses serving Harbor Blvd. and at the Fullerton Metrolink Station and ARTIC. Bus outreach was also supported by bilingual staff in Spanish and Vietnamese, study information shared and online surveys were completed.

ADDITIONAL OUTREACH

To supplement the programmed outreach activities, OCTA also provided briefings and presentations to interested stakeholders and organizations. The following activities took place during Phase 2 outreach, from January through July 2017.

Date	Organization
January 15, 2017	Anaheim City Council
February 28, 2017	Garden Grove City Council
March 9, 2017	OCTA Diversity Community Leaders Group
March 22, 2017	Anaheim Resort Transportation Board of Directors
April 1, 2017	Garden Grove Open Streets Event
April 18, 2017	Santa Ana City Council
April 18, 2017	OCTA Citizen's Advisory Committee

IMPORTANT CONSIDERATIONS OF PHASE 2 PUBLIC FEEDBACK

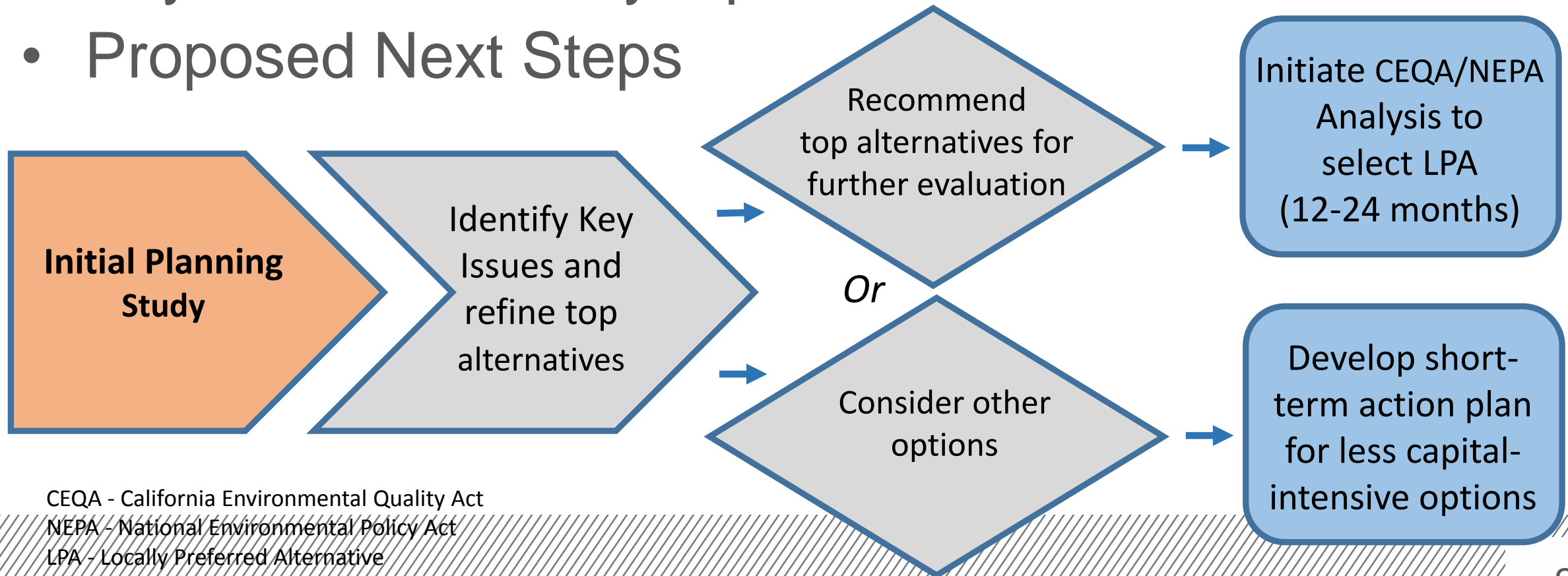
Feedback from these activities yielded the following themes, some reiterated from Phase 1:

- Improve connectivity of transit services locally and regionally, first/last mile connection particularly important
- Maintain or improve pedestrian and bicycle access in the corridor
- Provide efficient linkages to key destinations
- Expand hours of service
- Concern regarding balancing stop amenities with homeless challenges
- Signal synchronization between jurisdictions to improve traffic flow for all vehicles
- Address congestion during peak times on Harbor Blvd., including long waits at intersections and behind buses, and east-west traffic flow
- Technology preference indicates significant interest in both streetcar and bus options
- Route preference focused on north-south connections

Central Harbor Boulevard Transit Corridor Study

Today's Update

- Performance Results for the 12 Alternatives
- City and Community Input Received to Date
- Proposed Next Steps



Study Phases and Schedule

- | | |
|----------------------------|-----------------------------|
| • Purpose and Need | August 2015 - December 2016 |
| • Outreach 1 | February - April 2016 |
| • Alternatives Development | February 2016 - April 2017 |
| • Outreach 2 | February - April 2017 |
| • Alternatives Evaluation | April - September 2017 |
| • Draft Final Report | December 2017 |
| • Final Report | Early 2018 |

Mode/Feature Options

Enhanced Bus



- Shares lanes with other cars
- Receives priority at traffic signals and uses bypass lanes at intersections
- Includes state-of-the-art stops with ticket machines
- Carries around 70 people
- Project Cost: \$

Bus Rapid Transit



- Includes all Enhanced Bus features, but travels on a dedicated bus-only lane
- Carries around 120 people in a longer, 60-foot bus
- Project Cost: \$\$

Streetcar



- Shares lanes with cars but travels on its own track embedded in the road
- Powered by overhead wires
- Includes modern stops with ticket machines and allows riders to board from front or rear doors
- Carries up to 150 people (3x as much as regular buses)
- Project Cost: \$\$\$

"Rapid" Streetcar



- Includes all Streetcar features, but uses a dedicated streetcar-only lane
- Faster than a regular streetcar or bus
- Project Cost: \$\$\$\$

12 Conceptual Alternatives

HARBOR LONG

- H-2: Harbor Long Streetcar
- H-3: Harbor Rapid Streetcar
- H-4: Harbor Enhanced Bus
- H-5: Harbor Bus Rapid Transit (BRT)

HARBOR SHORT

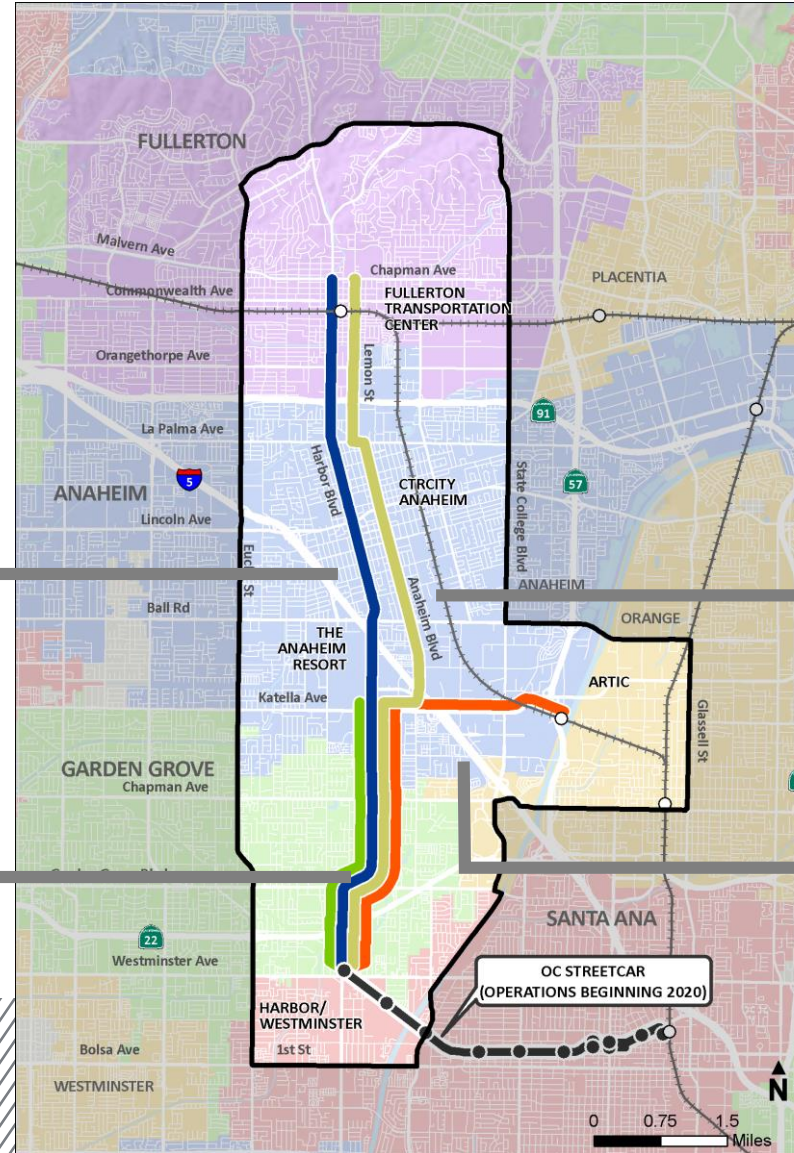
- H-1: Harbor Short Streetcar

ANAHEIM/LEMON

- L-1: Anaheim/Lemon Streetcar
- L-2: Anaheim/Lemon Rapid Streetcar
- L-3: Anaheim/Lemon Enhanced Bus
- L-4: Anaheim/Lemon BRT

KATELLA

- K-1: Katella Streetcar
- K-2: Katella+ Anaheim/Lemon Enhanced Bus
- K-3: Katella + Harbor Hybrid



Evaluation Criteria

- Transit Performance (20%)
- Land Use (15%)
- Connectivity (18%)
- Constraints (15%)
- Mode Choices/User Experience (17%)
- Cost-Effectiveness (15%)
- City and Community Input (Qualitative)

Evaluation Scores

ALTERNATIVE	DESCRIPTION	Average Score						Total Score ²
		Transit Performance	Land Use	Connectivity	Constraints	Choice/User Experience	Cost Effectiveness	
H3	Harbor Rapid Streetcar ¹	18	11	14	7	14	11	74
H2	Harbor Long Streetcar	17	11	12	10	14	10	73
H5	Harbor BRT ^{1*}	17	11	12	8	12	14	73
L1	Anaheim-Lemon Streetcar	17	10	12	8	13	8	68
L4	Anaheim-Lemon BRT ^{1*}	14	11	12	6	12	12	66
L2	Anaheim-Lemon Rapid Streetcar ¹	15	10	14	5	14	8	65
K1	Harbor-Katella Streetcar*	16	11	10	11	12	6	65
H1	Harbor Short Streetcar*	17	9	8	13	10	8	64
K2	Katella + Anaheim-Lem Enhanced Bus	7	11	11	11	7	11	57
L3	Anaheim-Lemon Enhanced Bus*	10	10	9	11	5	11	56
K3	Katella + Harbor Hybrid	9	11	11	10	9	7	56
H4	Harbor Enhanced Bus*	9	10	10	13	4	9	55

¹Operates in a dedicated transit lane for at least 50% of the alignment.

²Due to rounding, the total scores may not equal the sum of the category scores.

*Extends to MacArthur Boulevard, consistent with existing Bravo! Route 543 service area.

Technical Evaluation Summary

- Higher-capacity, higher-visibility modes offer significant ridership benefits and travel time improvements
 - Rapid streetcar, streetcar, and bus rapid transit
- Top five scoring alternatives:
 - H3 Harbor Rapid Streetcar
 - H2 Harbor Long Streetcar
 - H5 Harbor BRT
 - L1 Anaheim-Lemon Streetcar
 - L4 Anaheim-Lemon BRT

Technical Input on Alternatives

Key technical issues identified by city staff:

- Dedicated transit lanes
- Current and future street capacity (*Master Plan of Arterial Highways*)
- Center-running alignments with center stations – not supported
- Anaheim-Lemon as a viable transit corridor
- Underlying changes to bus service south of Westminster Avenue
- Consideration of complete streets concepts/avoidance of impacts to bike lanes

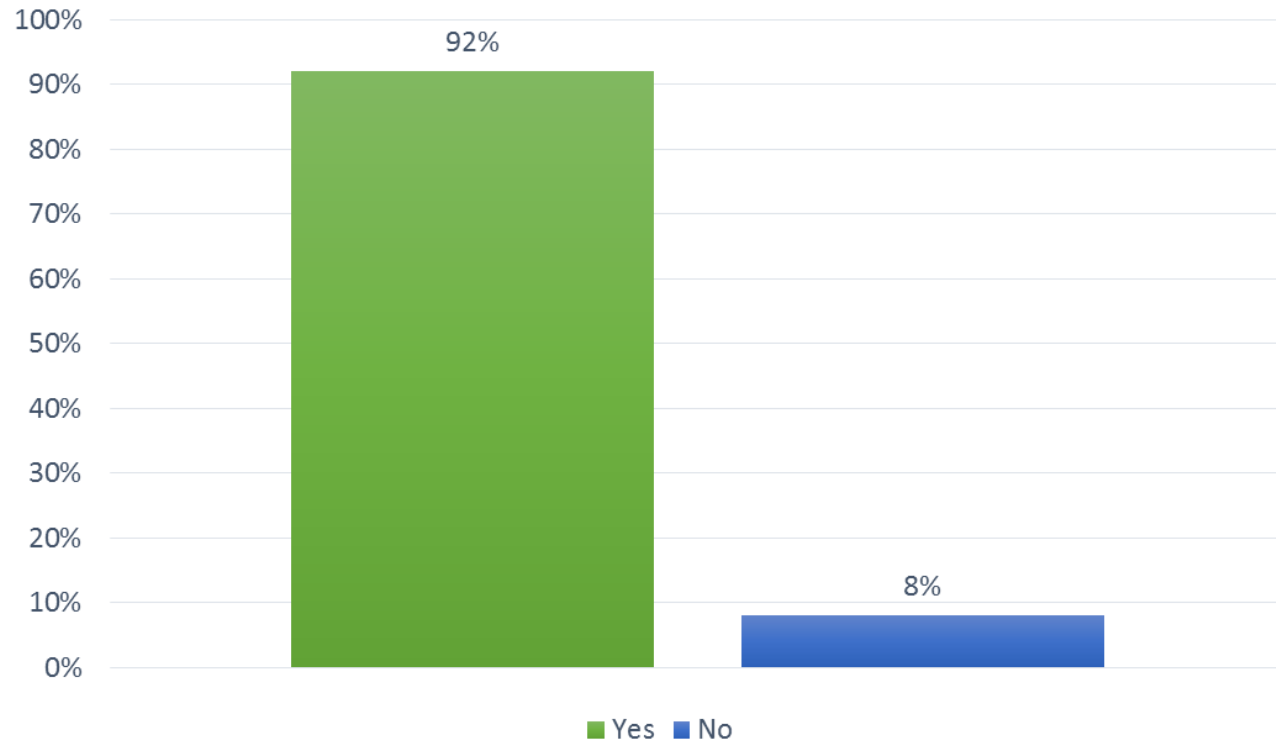
Council Input on Alternatives

- **Fullerton** –Requested a council presentation for January 2018
- **Anaheim** – Adopted Resolution in January 2017 stating opposition to a streetcar system
- **Garden Grove** – Council presentation provided in February, and general support for the study was noted
- **Santa Ana** – Council presentation provided in April, and general support for the study was noted

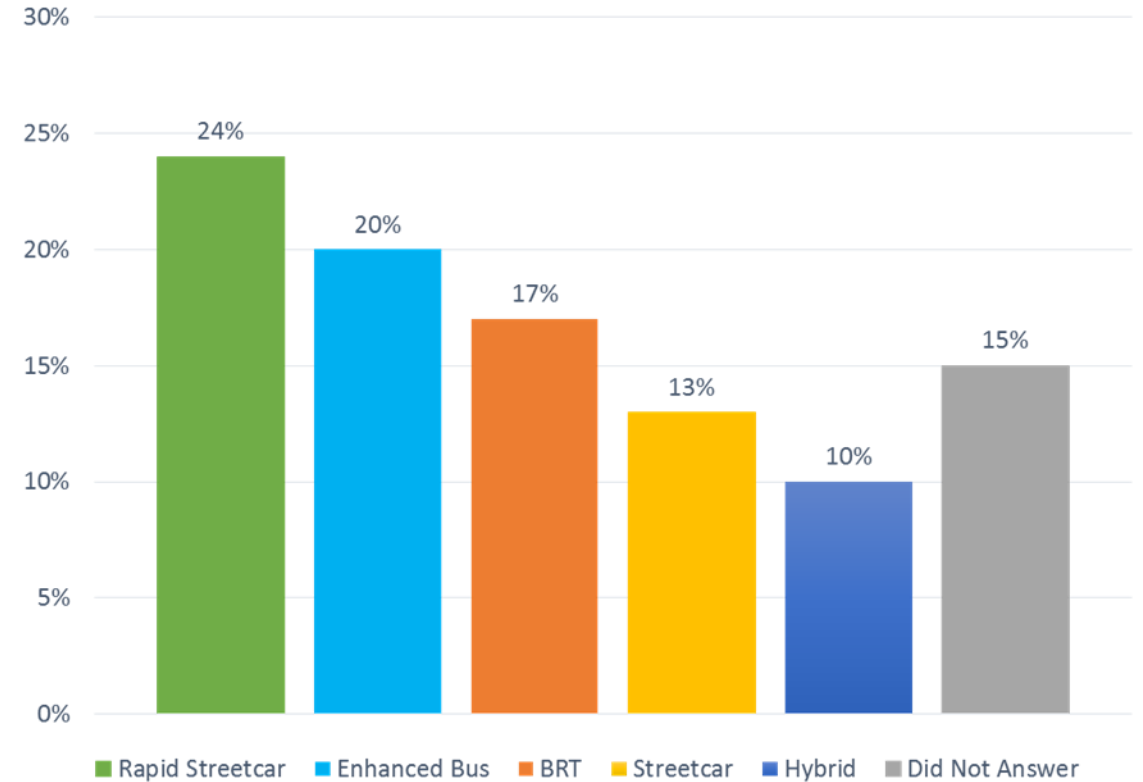
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Online Survey

Improvements to Transit Desired

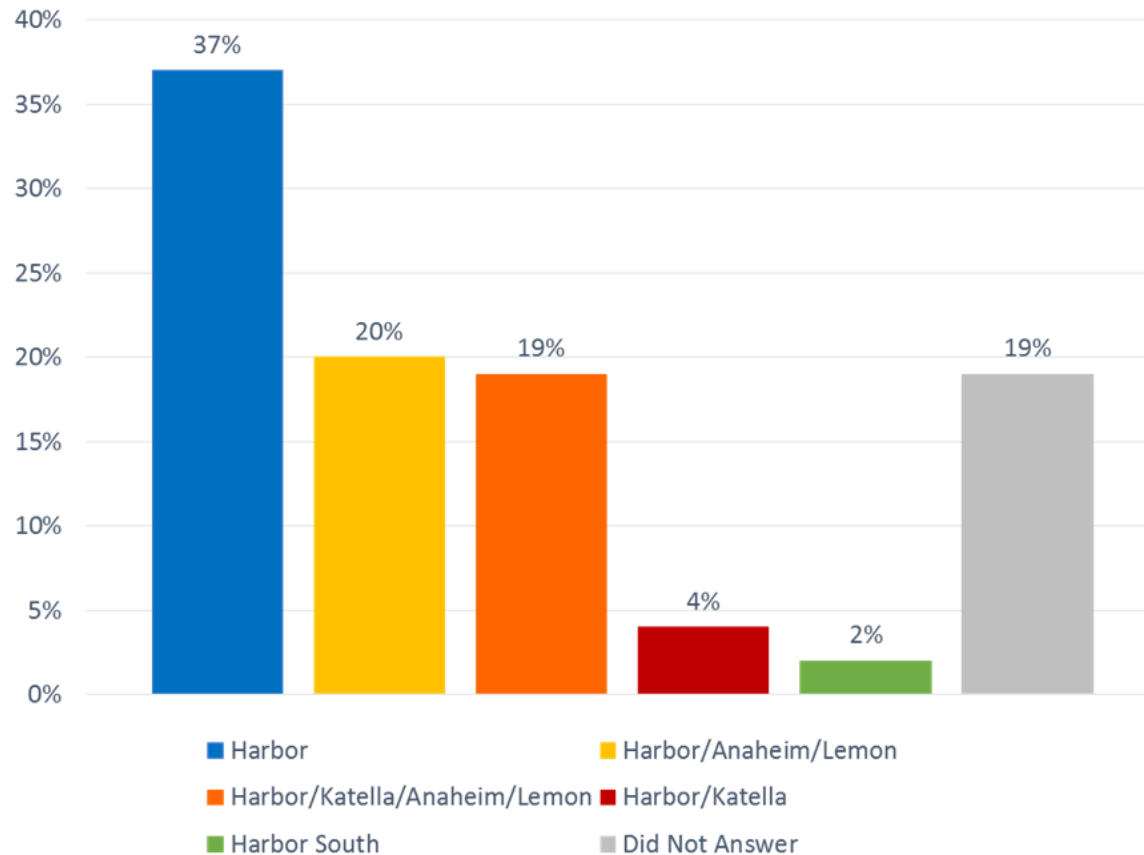


Mode Preference



Online Survey

Route Preference



Most Preferred Transit Characteristics

Frequency of Service	(68%)
Hours of Operation	(49%)
Overall Travel Time	(41%)
Stop Locations	(29%)
Cost to Ride	(28%)
Real-Time Information	(24%)

Next Steps

- A. Offer council presentations to each of the corridor cities for further input
- B. Continue to work with corridor cities technical staff to identify key issues for any subsequent efforts
- C. Finalize the report and incorporate feedback received from the cities, stakeholders, and public; and report feedback to the Board of Directors