



AGENDA

Regional Planning and Highways Committee Meeting

Committee Members

Mark A. Murphy, Chairman
Barbara Delgleize, Vice Chair
Lisa A. Bartlett
Shawn Nelson
Miguel Pulido
Todd Spitzer
Michelle Steel

Orange County Transportation Authority
Headquarters
550 South Main Street
Board Room – Conf. Room 07
Orange, California

Monday, November 5, 2018 at 10:30 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 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 Committee 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.

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

Pledge of Allegiance

Director Nelson

1. Public Comments

Special Calendar

There are no Special Calendar matters.



Consent Calendar (Items 2 through 6)

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

2. Approval of Minutes

Approval of the minutes of the Regional Planning and Highways Committee meeting of October 1, 2018.

3. Amendment to Cooperative Agreements with the Cities of Costa Mesa, Fountain Valley, Huntington Beach, and Westminster for the Interstate 405 Improvement Project

Dennis Mak/James G. Beil

Overview

On March 14, 2016, the Orange County Transportation Authority Board of Directors approved Cooperative Agreement Nos. C-5-3612, C-5-3613, C-5-3614, and C-5-3615 with the cities of Costa Mesa, Fountain Valley, Huntington Beach, and Westminster, respectively, for city services required during design-build implementation of the Interstate 405 Improvement Project. These cooperative agreements need to be amended to provide reimbursement for pavement mitigation costs for city streets used for signed, long-term detour routes during construction.

Recommendations

- A. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 1 to Cooperative Agreement No. C-5-3612 between the Orange County Transportation Authority and the City of Costa Mesa, in the amount of \$661,981, to provide reimbursement for pavement mitigation on city streets used for signed, long-term detour routes during construction. This will increase the maximum obligation of the cooperative agreement to a total value of \$1,006,881.
- B. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 1 to Cooperative Agreement No. C-5-3613 between the Orange County Transportation Authority and the City of Fountain Valley, in the amount of \$657,008, to provide reimbursement for pavement mitigation on city streets used for signed, long-term detour routes during construction. This will increase the maximum obligation of the cooperative agreement to a total value of \$1,632,708.



3. (Continued)

- C. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 1 to Cooperative Agreement No. C-5-3614 between the Orange County Transportation Authority and the City of Huntington Beach, in the amount of \$682,737, to provide reimbursement for pavement mitigation on city streets used for signed, long-term detour routes during construction. This will increase the maximum obligation of the cooperative agreement to a total value of \$1,278,937.
- D. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 1 to Cooperative Agreement No. C-5-3615 between the Orange County Transportation Authority and the City of Westminster, in the amount of \$623,888, to provide reimbursement for pavement mitigation on city streets used for signed, long-term detour routes during construction. This will increase the maximum obligation of the cooperative agreement to a total value of \$1,823,888.

4. Amendment to Cooperative Agreement with the Orange County Flood Control District for the Railroad Grade Separation Projects Ross Lew/James G. Beil

Overview

On May 25, 2010, the Orange County Transportation Authority entered into a cooperative agreement with the Orange County Flood Control District for project support services for the railroad grade separation projects located at Placentia Avenue, Kraemer Boulevard, Orangethorpe Avenue, Tustin Avenue/Rose Drive, and Lakeview Avenue. Staff requests authorization to execute an amendment to this cooperative agreement for additional utility easement costs and additional project support services necessary to close out the right-of-way phase.

Recommendation

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 6 to Cooperative Agreement No. C-9-0570 between the Orange County Transportation Authority and the Orange County Flood Control District, in the amount of \$300,000, for additional project support services and utility easement costs for the railroad grade separation projects located at Orangethorpe Avenue, Tustin Avenue/Rose Drive, and Lakeview Avenue, and to extend the term of the agreement through August 31, 2019. This will increase the cooperative agreement value to \$880,000.



5. California Department of Transportation Freeway Service Patrol Program Fund Transfer Agreements
Patrick Sampson/Jennifer L. Bergener

Overview

The Orange County Transportation Authority is the administering agency for the Freeway Service Patrol program in Orange County. Funding for the Freeway Service Patrol program is provided annually from the California Department of Transportation through the State Highway Account. The Road Repair and Accountability Act of 2017, also known as Senate Bill 1, established additional funding for the Freeway Service Patrol program. The estimated funding to be available for fiscal years 2017-18 and 2018-19 is \$7,328,377. Funding agreements are necessary to facilitate the transfer of funds to the Orange County Transportation Authority for the continuance of the Freeway Service Patrol program.

Recommendations

- A. Authorize the Chief Executive Officer to negotiate and execute Cooperative Agreement No. C-8-2011 between the Orange County Transportation Authority and the California Department of Transportation for fiscal year 2018-19 Freeway Service Patrol Program State Highway Account funding in the amount of \$2,472,405.
- B. Authorize the Chief Executive Officer to negotiate and execute Cooperative Agreement No. C-8-1871 between the Orange County Transportation Authority and the California Department of Transportation for fiscal year 2017-18 Freeway Service Patrol Program Senate Bill 1 funding in the amount of \$2,619,972.
- C. Authorize the Chief Executive Officer to negotiate and execute Cooperative Agreement No. C-8-2012 between the Orange County Transportation Authority and the California Department of Transportation for fiscal year 2018-19 Freeway Service Patrol Program Senate Bill 1 funding of approximately \$2,236,000.

6. Capital Programming Update
Ben Ku/Kia Mortazavi

Overview

The Orange County Transportation Authority uses various funding sources to advance or implement projects. Several grade separation and transit projects have accomplished project milestones and require funding revisions. These funding revisions result in a shift of funds to other ready-to-go highway and transit projects to meet the state funding deadlines.

6. (Continued)

Recommendations

- A. Authorize the use of up to \$26.991 million in Proposition 1B Trade Corridors Improvement Funds for the Interstate 5 Improvement Project (State Route 73 to Oso Parkway) from the OC Bridges projects (\$5.002 million), San Juan Creek Bridge Project (\$15.739 million), and unprogrammed funding (\$6.250 million), contingent on the approval of the California Transportation Commission.
- B. Authorize the use of up to \$1.512 million in Proposition 1B Transit System Safety, Security, and Disaster Response Account funding from the 2017 Video Surveillance System Upgrade Project for the 2017 Transit Security and Operations Center, contingent on the approval of the California Office of Emergency Services.
- C. Authorize staff to process all necessary amendments to the Federal Transportation Improvement Program and execute or amend all necessary agreements to facilitate the above actions, including Cooperative Agreement No. C-8-1960 between the Orange County Transportation Authority and the California Department of Transportation.

Regular Calendar

7. Final 2018 Long-Range Transportation Plan

Greg Nord/Kia Mortazavi

Overview

The Long-Range Transportation Plan provides the vision for Orange County's regional transportation system over the next 20+ years. The final plan has been prepared, incorporating input received through public review of the draft document as appropriate. Based on public input, minor modifications were made to the project list, and the results remain consistent with the draft document. With direction from the Board of Directors, the final plan will be submitted to the Southern California Association of Governments as input to the 2020 Regional Transportation Plan and Sustainable Communities Strategy that is currently in development.

Recommendation

Direct staff to submit the final 2018 Long-Range Transportation Plan to the Southern California Association of Governments as input to the 2020 Regional Transportation Plan and Sustainable Communities Strategy.



Discussion Items

8. Update on State Route 91 Improvement Project from State Route 57 to State Route 55

Jeannie Lee/James G. Beil

Staff will provide an update on the State Route 91 Improvement Project from State Route 57 to State Route 55.

9. Chief Executive Officer's Report

10. Committee Members' Reports

11. Closed Session

There are no Closed Session items scheduled.

12. Adjournment

The next regularly scheduled meeting of this Committee will be held at **10:30 a.m. on Monday, December 3, 2018**, at the Orange County Transportation Authority Headquarters, 550 South Main Street, Board Room - Conference Room 07, Orange, California.



MINUTES

Regional Planning and Highways Committee Meeting

Committee Members Present

Mark A. Murphy, Chairman
Barbara Delgleize, Vice Chair
Lisa A. Bartlett
Shawn Nelson
Miguel Pulido
Michelle Steel

Staff Present

Darrell E. 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
OCTA Staff and Members of the General Public

Committee Members Absent

Todd Spitzer

Call to Order

The October 1, 2018 regular meeting of the Regional Planning and Highways Committee was called to order by Committee Chairman M. Murphy at 10:34 a.m.

Pledge of Allegiance

Board of Directors (Board) Chairwoman Bartlett led in the Pledge of Allegiance.

1. Public Comments

No public comments were received.

Special Calendar

2. Intercounty Planning Update

Darrell Johnson, Chief Executive Officer (CEO), provided opening remarks and introduced Kurt Brotcke, Director of Strategic Planning, Orange County Transportation Authority (OCTA).

Mr. Brotcke and special guests, Manjeet Ranu, Senior Executive Officer and Philbert Wong, Senior Manager, Transportation Planning, Los Angeles County (LA) Metropolitan Transportation Authority (Metro), presented three separate PowerPoint presentations on intercounty planning efforts as follows:



2. (Continued)

Mr. Brotcke, OCTA, presented on the following:

- Context;
- 2040 Orange County Population Density;
- Bus Passenger Boarding Density;
- 2040 High-Frequency Transit Network;
- 2015 Intercounty Commuting;
- 2015 Work Destinations of OC Residents to LA and within Orange County (OC);
- 2015 Work Destinations of LA Residents to OC;
- Metrolink Rail and Express Bus Routes;
- Regional Express Lanes Plans; and
- Intercounty Planning Areas.

Mr. Ranu, LA Metro, presented on the following:

- LA Metro's Transportation Policy & Planning;
- Overview;
- Introduction;
- Policy Initiatives;
- Metro Vision 2028: Goals;
- Metro Vision 2028: Specific Outcomes;
- Long Range Transportation Plan (LRTP) Update;
- LRTP Framework;
- Bus Rapid Transit Vision & Principles Study;
- The Twenty-Eight by '28 Initiative;
- Future Transit Corridors;
- West Santa Ana Branch Light Rail Transit (LRT);
- Gold Line Phase 2 LRT Branched Extension: Whittier and South El Monte;
- Interstate 5 (I-5) Freeway Improvements; and
- I-5 South Construction Projects.

Committee Vice Chair Delgleize inquired on the projects LA Metro is working on to connect OC and LA. Mr. Ranu responded that there are several projects being worked on, including work on several LRT lines, freeway improvements, revamping its bus network, and improving rapid transportation to enhance connectivity.



2. (Continued)

Director Nelson asked for an update on the two-mile gap on the Green Line (east side), which does not connect to the Amtrak Metrolink Line and a discussion ensued as follows:

- LA Metro is working on improving connections to Amtrak Metrolink, as well as to the Los Angeles International Airport (LAX).
- The Southern California Association of Governments has the east side connection study on hold pending the City of Norwalk completing local studies, and LA Metro continues seek possibilities to accelerate project delivery.
- Currently, Riverside, San Bernardino, and Orange County commuters cannot access rail services to LAX.
- The OCTA Board can reach out to LA Metro's Board for possible resources to move the project along.

Mr. Wong, LA Metro, presented on the following:

- ExpressLanes –
 - Background,
 - Performance,
 - Benefits,
 - Strategic Plan (Network Expansion); and
- Next Steps.

Director Nelson expressed his concerns related to LA Metro's switchable transponders and how these do not interface with the 91 Express Lanes and the OC Toll Roads. Mr. Wong reported that the LA Metro Board has requested other means of tolling be studied, and a pilot project is being planned. A lengthy discussion ensued.

Committee Chairman M. Murphy stated that he agreed with Director Nelson's comments on the challenges with the switchable transponders and thanked the LA Metro planners for their work. He added that ultimately, each agency's Board makes final determinations and decisions.

Board Chairwoman Bartlett stated that, with Federal inoperability, something standardized should come into place for all toll roads, toll lanes, and express lanes, and inquired on future technology being contemplated by LA Metro.

Mr. Wong discussed the various types of technology being contemplated, and Mr. Johnson, CEO, discussed inoperability challenges related to toll policy.



Consent Calendar (Items 3 through 6)

3. Approval of Minutes

A motion was made by Director Nelson, seconded by Committee Vice Chair Delgleize, and declared passed by those present, to approve the minutes of the Regional Planning and Highways Committee meeting of September 6, 2018.

Director Pulido was not present to vote on this item.

4. Active Transportation Program Local Project Prioritization Methodology

A motion was made by Director Nelson, seconded by Committee Vice Chair Delgleize, and declared passed by those present, to approve the Active Transportation Program local project prioritization methodology for the 2019 Active Transportation Program and future calls for projects.

Director Pulido was not present to vote on this item.

5. Grant Award for the Pedestrian and Bicycle Safety Program

A motion was made by Director Nelson, seconded by Committee Vice Chair Delgleize, and declared passed by those present, to adopt Orange County Transportation Authority Resolution No. 2018-120 authorizing the Chief Executive Officer, or designee, to accept the State of California Office of Traffic Safety award, and to negotiate and execute grant-related agreements and documents with the California Office of Traffic Safety.

Director Pulido was not present to vote on this item.

6. Cooperative Agreement with the California Department of Transportation for the Interstate 5 Widening Project Between State Route 73 and Oso Parkway

This item was pulled by Board Chairwoman Bartlett who expressed her appreciation for the project moving forward as this section of the freeway is very congested on a daily basis. She stated that widening this area will significantly improve mobility.



MINUTES

Regional Planning and Highways Committee Meeting

6. (Continued)

A motion was made by Board Chairwoman Bartlett, seconded by Committee Vice Chair Delgleize, and declared passed by those present, to authorize the Chief Executive Officer to negotiate and execute Cooperative Agreement No. C-8-1960 between the Orange County Transportation Authority and California Department of Transportation, in the amount of \$133,289,000, comprised of a construction capital share of \$112,008,000, and a construction management services share of \$21,281,000, for Segment 1 of the Interstate 5 widening project between State Route 73 and Oso Parkway.

Director Pulido was not present to vote on this item.

Regular Calendar

7. **Contract Change Order for Additional Design and Construction Efforts for the Interstate 405 Improvement Project Between State Route 73 and Interstate 605**

Jeff Mills, Program Manager, Interstate 405 Improvement Project, provided an overview of the project and summarized the proposed changes for additional design and construction efforts identified since the execution of the contract with OC 405 Partners as follows:

- Required width of six city bridges that cross over the freeway with no ramp connections.
- Construction changes to minimize right-of-way (ROW) impacts to ROW limits and property interests.
- Revised design concept at Ellis Avenue on-ramp to southbound Interstate 405.
- Four miscellaneous items that address issues that arose during the design phase of the project.

A motion was made by Board Chairwoman Bartlett, seconded by Committee Vice Chair Delgleize, and declared passed by those present, to authorize the Chief Executive Officer to negotiate and execute Contract Change Order No. 13 to Agreement No. C-5-3843 between the Orange County Transportation Authority and OC 405 Partners, a joint venture, in the amount of \$8,560,556, for additional design and construction efforts for the Interstate 405 Improvement Project between State Route 73 and Interstate 605.

Director Pulido was not present to vote on this item.



8. Amendment to Agreement for Additional Program Management Consultant Services for the Interstate 405 Improvement Project Between State Route 73 and Interstate 605

Jeff Mills, Program Manager, Interstate 405 Improvement Project, provided an overview and summarized the proposed amendment for additional program management consultant (PMC) services as follows:

- Changes to the original scope of work (SOW) addressing several contractual compliance items.
- SOW's design period time extension related to submittal metering and other factors.
- Increased PMC document control and project control support needed to process and document the increased number of design and construction submittals.
- Additional PMC engineering support during the design-builder's final design development.

A discussion ensued regarding:

- The \$48 million in savings noted in the Staff Report related to PMC value engineering studies are primarily due to savings for ROW acquisitions and utility relocations.
- This is a design-build project, which allows for ROW requirements to evolve after the design-build contract execution, versus a design-bid-build project where design is performed and ROW is acquired before the project is bid.
- The contract change order savings amount on Agenda Item 7, related to construction changes to minimize ROW impacts, on today's Agenda and the savings amount noted under Agenda Item 8 are completely separate.
- The project, including ROW, will take an extensive time to close out, and although OCTA is identifying savings in some areas, staff is not recommending adjusting OCTA's Budget as there are several years left on the project and it will take time after that to go through the full closeout of all project activities.

A motion was made by Board Chairwoman Bartlett, seconded by Director Nelson, and declared passed by those present, to authorize the Chief Executive Officer to negotiate and execute Amendment No. 18 to Agreement No. C-2-1513 between the Orange County Transportation Authority and Parsons Transportation Group, Inc., in the amount of \$39,762,000, for additional program management consultant services for the Interstate 405 Improvement Project between State Route 73 and Interstate 605. The amendment will increase the maximum cumulative obligation of the agreement to a total contract value of \$132,802,186.

Director Pulido was not present to vote on this item.



Discussion Items

9. Project Update - Interstate 5/EI Toro Road Interchange Project

Darrell Johnson, CEO, provided opening remarks and introduced Lisa Ramsey, Office Chief of Program and Project Management, California Department of Transportation (Caltrans) District 12. Ms. Ramsey provided an update on the progress update on the Interstate 5/EI Toro Road Interchange Project (Project) and a PowerPoint presentation on this item as follows:

- Project Location;
- Problems & Solutions;
- Option 1 Intersection Modification;
- Option 2 Flyover;
- Option 3 Diverging Diamond;
- Option 4 Hook Ramp;
- Progress;
- Public Outreach & Noticing; and
- Environmental Phase Schedule.

Board Chairwoman Bartlett reported that approximately half of the Laguna Hills Mall has been torn down and the Irvine Spectrum has implemented and opened-up \$200 million of experiential retail, which is in direct competition with what the Laguna Hills Mall area. She inquired if Caltrans is working in conjunction with the Laguna Hills Mall developer in order to not interfere with the Project and vice-versa.

Ms. Ramsey responded that throughout the whole design process, Caltrans staff has been working with the City and the City is aware of all the proposals that are coming along and is working with the developer. In addition, Caltrans has reached out to the developer but has been unable to make direct contact.

No action was taken on this discussion item.

10. Chief Executive Officer's Report

Darrell E. Johnson, CEO, reported on the following:

- Slater Avenue Bridge
 - Demolition started this past weekend, and everything went smoothly.
 - Another full freeway closure will take place this Saturday evening from 11:00 p.m. to 8:00 a.m.



MINUTES

Regional Planning and Highways Committee Meeting

10. (Continued)

- Resource Management Plans
 - The remaining Resource Management Plans have been finalized, and all seven plans for the OCTA preserves are now complete.
- OC Flex
 - After the October 10th Board meeting, the OC Flex pilot program van will be at the OCTA Headquarters, providing an opportunity for all to see the van and take photographs to commemorate the launch of the service. The service starts on October 15th in Huntington Beach and Westminster, and on October 20th in Laguna Niguel, Mission Viejo, and Aliso Viejo.

11. Committee Members' Reports

There were no Committee Members' reports.

12. Closed Session

A Closed Session was not conducted at this meeting.

13. Adjournment

The meeting adjourned at 11:50 a.m.

The next regularly scheduled meeting of this Committee will be held at **10:30 a.m. on Monday, November 5, 2018**, at the Orange County Transportation Authority Headquarters, 550 South Main Street, Board Room - Conference Room 07, Orange, California.

ATTEST


Olga Prado
Assistant Clerk of the Board

Mark A. Murphy
Committee Chairman



November 5, 2018

To: Regional Planning and Highways Committee

From: Darrell E. Johnson, Chief Executive Officer 

Subject: Amendment to Cooperative Agreements with the Cities of Costa Mesa, Fountain Valley, Huntington Beach, and Westminster for the Interstate 405 Improvement Project

Overview

On March 14, 2016, the Orange County Transportation Authority Board of Directors approved Cooperative Agreement Nos. C-5-3612, C-5-3613, C-5-3614, and C-5-3615 with the cities of Costa Mesa, Fountain Valley, Huntington Beach, and Westminster, respectively, for city services required during design-build implementation of the Interstate 405 Improvement Project. These cooperative agreements need to be amended to provide reimbursement for pavement mitigation costs for city streets used for signed, long-term detour routes during construction.

Recommendations

- A. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 1 to Cooperative Agreement No. C-5-3612 between the Orange County Transportation Authority and the City of Costa Mesa, in the amount of \$661,981, to provide reimbursement for pavement mitigation on city streets used for signed, long-term detour routes during construction. This will increase the maximum obligation of the cooperative agreement to a total value of \$1,006,881.
- B. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 1 to Cooperative Agreement No. C-5-3613 between the Orange County Transportation Authority and the City of Fountain Valley, in the amount of \$657,008, to provide reimbursement for pavement mitigation on city streets used for signed, long-term detour routes during construction. This will increase the maximum obligation of the cooperative agreement to a total value of \$1,632,708.

Amendment to Cooperative Agreements with the Cities of Costa Mesa, Fountain Valley, Huntington Beach, and Westminster for the Interstate 405 Improvement Project **Page 2**

- C. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 1 to Cooperative Agreement No. C-5-3614 between the Orange County Transportation Authority and the City of Huntington Beach, in the amount of \$682,737, to provide reimbursement for pavement mitigation on city streets used for signed, long-term detour routes during construction. This will increase the maximum obligation of the cooperative agreement to a total value of \$1,278,937.
- D. Authorize the Chief Executive Officer to negotiate and execute Amendment No. 1 to Cooperative Agreement No. C-5-3615 between the Orange County Transportation Authority and the City of Westminster, in the amount of \$623,888, to provide reimbursement for pavement mitigation on city streets used for signed, long-term detour routes during construction. This will increase the maximum obligation of the cooperative agreement to a total value of \$1,823,888.

Discussion

The Orange County Transportation Authority (OCTA), in cooperation with the California Department of Transportation, and the corridor cities of Costa Mesa, Fountain Valley, Huntington Beach, Seal Beach, and Westminster (Corridor Cities), is implementing the Interstate 405 (I-405) Improvement Project between State Route 73 (SR-73) and Interstate 605 (I-605) (Project). The Project will add one general purpose lane from Euclid Street to I-605, consistent with Measure M2 (M2) Project K, and will add an additional lane in each direction that will combine with the existing high-occupancy vehicle lane to provide dual express lanes in each direction of I-405 from SR-73 to I-605, otherwise known as the 405 Express Lanes.

On March 14, 2016, the OCTA Board of Directors (Board) approved cooperative agreements with the Corridor Cities to provide funding for agreed-to city services during the design-build implementation of the Project. The reimbursement to each corridor city includes costs for review and approval of plans, specifications, and reports; oversight of construction inspection services for each city's facilities; review and acceptance of the transportation management plan (TMP); traffic engineering; and police services during the design and construction of the Project (Attachments A through D). The agreements also provided for reimbursement for pavement mitigation on the corridor city streets used for signed, long-term detour routes during construction. Specific dollar amounts were not included at the time because the TMP was not yet approved, and the pavement mitigation costs had not been quantified.

Staff reported to the Board at that time that amendments to these cooperative agreements would be brought back for Board approval when the costs for pavement mitigation based on the approved TMP were developed and mutually agreed upon with the Corridor Cities.

The TMP, which identifies city-approved signed, long-term detour routes, was approved on November 16, 2017. Subsequently, a pavement study based on the approved TMP and forecasted construction traffic was completed. The study identified the pre-Project pavement conditions of the detour routes and forecasted the Project-related pavement impacts to the detour routes and the associated mitigation costs, which have been mutually agreed to with the Corridor Cities. The reimbursement for pavement mitigation will be made to each city as a lump sum payment upon execution of the proposed amendment to each city's cooperative agreement.

During negotiations to determine the pavement mitigation amounts included in these amendments, the Corridor Cities collectively expressed concern regarding the potential of signed, long-term detour routes experiencing pavement damage beyond the levels anticipated under these amendments. To address this concern, language is incorporated into these amendments to allow for the post-construction assessment of detour routes, on a case by case basis, to determine if unanticipated and excessive pavement damage has occurred, which requires repair above and beyond what was originally anticipated. If excessive pavement damage is determined and verified after construction, future amendments would be brought to the Board for approval to cover additional pavement mitigation costs, as applicable and mutually agreed upon.

Attachments E through H to this report depict the revised reimbursement amounts for each corridor city. The proposed amendments will be funded from the Project contingency and will not increase the total Project estimate of \$1.9 billion.

Fiscal Impact

Funding for these amendments to the cooperative agreements is included in the proposed OCTA's Fiscal Year 2018-19 Budget, Capital Programs Division, accounts 0017-9084-FK101-0I2 and 0017-9017-A9510-0I2, and will be funded with local M2 funds.

Amendment to Cooperative Agreements with the Cities of Costa Mesa, Fountain Valley, Huntington Beach, and Westminster for the Interstate 405 Improvement Project **Page 4**

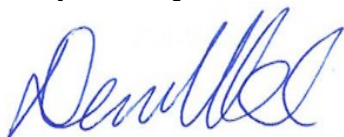
Summary

Staff requests Board approval for the Chief Executive Officer to negotiate and execute Amendment No. 1 to Cooperative Agreement Nos. C-5-3612, C-5-3613, C-5-3614, and C-5-3615 with the cities of Costa Mesa, Fountain Valley, Huntington Beach, and Westminster, in the amounts of \$661,981, \$657,008, \$682,737, and \$623,888, respectively, to provide reimbursement for pavement mitigation on corridor city streets used for signed, long-term freeway detours during Project construction.

Attachments

- A. City of Costa Mesa, Cooperative Agreement No. C-5-3612 Fact Sheet
- B. City of Fountain Valley, Cooperative Agreement No. C-5-3613 Fact Sheet
- C. City of Huntington Beach, Cooperative Agreement No. C-5-3614 Fact Sheet
- D. City of Westminster, Cooperative Agreement No. C-5-3615 Fact Sheet
- E. Revised City of Costa Mesa Maximum Reimbursement for City Services
- F. Revised City of Fountain Valley Maximum Reimbursement for City Services
- G. Revised City of Huntington Beach Maximum Reimbursement for City Services
- H. Revised City of Westminster Maximum Reimbursement for City Services

Prepared by:



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Approved by:



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Executive Director, Capital Programs
(714) 560-5646



Virginia Abadessa
Director, Contracts Administration and
Materials Management
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**City of Costa Mesa
Cooperative Agreement No. C-5-3612 Fact Sheet**

1. March 14, 2016, Cooperative Agreement No. C-5-3612, \$344,900, approved by the Board of Directors (Board).
 - To provide city services, including plan review and approval of plans, specifications, reports, and the traffic management plan, and oversight of construction and detour inspection services; traffic engineering and police services; and allow for future amendment for repairs to city street pavements impacted by signed, long-term detour routes for the Interstate 405 Improvement Project (Project).
2. November 12, 2018, Amendment No. 1 to Cooperative Agreement No. C-5-3612, \$661,981, pending Board approval.
 - To provide reimbursement for pavement mitigation on city streets used for signed, long-term detour routes during Project construction.

Total committed to City of Costa Mesa after approval of Amendment No. 1 to Cooperative Agreement No. C-5-3612: \$1,006,881.

**City of Fountain Valley
Cooperative Agreement No. C-5-3613 Fact Sheet**

1. March 14, 2016, Cooperative Agreement No. C-5-3613, \$975,700, approved by the Board of Directors (Board).
 - To provide city services, including plan review and approval of plans, specifications, reports, and the traffic management plan, and oversight of construction and detour inspection services; traffic engineering and police services; and allow for future amendment for repairs to city street pavements impacted by signed, long-term detour routes for the Interstate 405 Improvement Project (Project).
2. November 12, 2018, Amendment No. 1 to Cooperative Agreement No. C-5-3613, \$657,008, pending Board approval.
 - To provide reimbursement for pavement mitigation on city streets used for signed, long-term detour routes during Project construction.

Total committed to City of Fountain Valley after approval of Amendment No. 1 to Cooperative Agreement No. C-5-3613: \$1,632,708.

**City of Huntington Beach
Cooperative Agreement No. C-5-3614 Fact Sheet**

1. March 14, 2016, Cooperative Agreement No. C-5-3614, \$596,200, approved by the Board of Directors (Board).
 - To provide city services, including plan review and approval of plans, specifications, reports, and the traffic management plan, and oversight of construction and detour inspection services; traffic engineering and police services; and allow for future amendment for repairs to city street pavements impacted by signed, long-term detour routes for the Interstate 405 Improvement Project (Project).
2. November 12, 2018, Amendment No. 1 to Cooperative Agreement No. C-5-3614, \$682,737, pending Board approval.
 - To provide reimbursement for pavement mitigation on city streets used for signed, long-term detour routes during Project construction.

Total committed to City of Huntington Beach after approval of Amendment No. 1 to Cooperative Agreement No. C-5-3614: \$1,278,937.

**City of Westminster
Cooperative Agreement No. C-5-3615 Fact Sheet**

1. March 14, 2016, Cooperative Agreement No. C-5-3615, \$1,200,000, approved by the Board of Directors (Board).
 - To provide city services, including plan review and approval of plans, specifications, reports, and the traffic management plan, and oversight of construction and detour inspection services; traffic engineering and police services; and allow for future amendment for repairs to city street pavements impacted by signed, long-term detour routes for the Interstate 405 Improvement Project (Project).
2. November 12, 2018, Amendment No. 1 to Cooperative Agreement No. C-5-3615, \$623,888, pending Board approval.
 - To provide reimbursement for pavement mitigation on city streets used for signed, long-term detour routes during Project construction.

Total committed to City of Westminster after approval of Amendment No. 1 to Cooperative Agreement No. C-5-3615: \$1,823,888.

REVISED**CITY OF COSTA MESA****MAXIMUM REIMBURSEMENT FOR CITY SERVICES**

<i>Item No.</i>	<i>Description of City Services</i>	<i>Maximum Reimbursement Amount</i>
1	Review and approval of plans, specifications, and other pertinent engineering plans and reports, Traffic Management Plan review and concurrence, and construction oversight inspection services related to city facilities.	\$202,500
2	Traffic engineering and detour inspection	\$78,700
3	Police services (including overtime costs)	\$63,700
4	Pavement mitigation	\$661,981
	TOTAL MAXIMUM REIMBURSEMENT	\$1,006,881

REVISED**CITY OF FOUNTAIN VALLEY****MAXIMUM REIMBURSEMENT FOR CITY SERVICES**

<i>Item No.</i>	<i>Description of City Services</i>	<i>Maximum Reimbursement Amount</i>
1	Review and approval of plans, specifications, and other pertinent engineering plans and reports, Traffic Management Plan review and concurrence, and construction oversight inspection services related to city facilities.	\$572,900
2	Traffic engineering and detour inspection	\$222,600
3	Police services (including overtime costs)	\$180,200
4	Pavement mitigation	\$657,008
	TOTAL MAXIMUM REIMBURSEMENT	\$1,632,708

REVISED**CITY OF HUNTINGTON BEACH
MAXIMUM REIMBURSEMENT FOR CITY SERVICES**

<i>Item No.</i>	<i>Description of City Services</i>	<i>Maximum Reimbursement Amount</i>
1	Review and approval of plans, specifications, and other pertinent engineering plans and reports, Traffic Management Plan review and concurrence, and construction oversight inspection services related to city facilities.	\$350,100
2	Traffic engineering and detour inspection	\$136,000
3	Police services (including overtime costs)	\$110,100
4	Pavement mitigation	\$682,737
	TOTAL MAXIMUM REIMBURSEMENT	\$1,278,937

REVISED**CITY OF WESTMINSTER****MAXIMUM REIMBURSEMENT FOR CITY SERVICES**

<i>Item No.</i>	<i>Description of City Services</i>	<i>Maximum Reimbursement Amount</i>
1	Review and approval of plans, specifications, and other pertinent engineering plans and reports, Traffic Management Plan review and concurrence, and construction oversight inspection services related to city facilities.	\$595,000
2	Traffic engineering and detour inspection	\$231,000
3	Police services (including overtime costs)	\$374,000
4	Pavement mitigation	\$623,888
	TOTAL MAXIMUM REIMBURSEMENT	\$1,823,888



November 5, 2018

To: Regional Planning and Highways Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: Amendment to Cooperative Agreement with the Orange County Flood Control District for the Railroad Grade Separation Projects

Overview

On May 25, 2010, the Orange County Transportation Authority entered into a cooperative agreement with the Orange County Flood Control District for project support services for the railroad grade separation projects located at Placentia Avenue, Kraemer Boulevard, Orangethorpe Avenue, Tustin Avenue/Rose Drive, and Lakeview Avenue. Staff requests authorization to execute an amendment to this cooperative agreement for additional utility easement costs and additional project support services necessary to close out the right-of-way phase.

Recommendation

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 6 to Cooperative Agreement No. C-9-0570 between the Orange County Transportation Authority and the Orange County Flood Control District, in the amount of \$300,000, for additional project support services and utility easement costs for the railroad grade separation projects located at Orangethorpe Avenue, Tustin Avenue/Rose Drive, and Lakeview Avenue, and to extend the term of the agreement through August 31, 2019. This will increase the cooperative agreement value to \$880,000.

Discussion

The Orange County Transportation Authority (OCTA), in cooperation with the BNSF Railway, the cities of Anaheim, Fullerton, and Placentia, and the Orange County Flood Control District (OCFCD), has constructed five railroad grade separation projects to separate vehicular traffic from rail traffic to alleviate traffic congestion and enhance safety at the existing grade crossings along the Orangethorpe railroad corridor located at Placentia Avenue, Kraemer Boulevard, Orangethorpe Avenue, Tustin Avenue/Rose Drive, and Lakeview Avenue.

The original cooperative agreement with OCFCD was executed on May 25, 2010, to define specific roles and responsibilities and to reimburse OCFCD for providing project support services during design and construction of the five railroad grade separation projects.

With the completion of construction of the Orangethorpe Avenue and Tustin Avenue/Rose Drive railroad grade separation projects in October 2016, and the Lakeview Avenue railroad grade separation project in June 2017, staff is completing right-of-way closeout activities for these projects. The closeout effort includes coordination with the OCFCD for eight utility easements that cross the Atwood Channel, which is owned by OCFCD. The eight utility easements were included in Amendment No. 5 to Cooperative Agreement No. C-9-0570. Appraisals of the easements were performed subsequent to the amendment, and the resultant appraised values are higher than anticipated. Additional funding of \$145,000 is requested for the utility easements based on the appraisals. In order for OCFCD staff to complete close out of the three projects beyond the term of the cooperative agreement, funding of \$155,000 is requested for these additional administrative services required from OCFCD.

OCTA staff will continue to oversee the OCFCD's project support efforts and monitor the OCFCD's adherence to the agreed upon scope of services and estimated cost.

Proposed Amendment No. 6 to Cooperative Agreement No. C-9-0570, in the amount of \$300,000, is for increased appraisal values of the utility easements and additional project support services for the railroad grade separation projects located at Orangethorpe Avenue, Tustin Avenue/Rose Drive, and Lakeview Avenue, for a total agreement value of \$880,000 (Attachment A).

Fiscal Impact

Funding for the project is included in OCTA's Fiscal Year 2018-19 Budget, Capital Programs Division, accounts 0017-7831-SO204-QKC, 0017-7831-SO205-QKC, and 0017-7831-SO206-QKC, and is funded with Measure M2 funds. This additional funding request can be accommodated in the OC Bridges Railroad Grade Separation Program funding plan update approved by the Board of Directors on November 14, 2016.

Summary

Staff requests Board of Directors' approval for the Chief Executive Officer to negotiate and execute Amendment No. 6 to Cooperative Agreement No. C-9-0570 with the Orange County Flood Control District, in the amount of \$300,000, for increased appraisal values and additional project support services for the railroad grade separation projects, and to extend the term of the cooperative agreement through August 31, 2019.

Attachment

- A. Orange County Flood Control District, Cooperative Agreement No. C-9-0570 Fact Sheet

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Virginia Abadessa
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**Orange County Flood Control District
Cooperative Agreement No. C-9-0570 Fact Sheet**

1. May 25, 2010, Cooperative Agreement No. C-9-0570, \$200,000, approved by the Chief Executive Officer.
 - Orange County Flood Control District (OCFCD) to provide project support services for the five railroad grade separation projects located at Placentia Avenue, Kraemer Boulevard, Orangethorpe Avenue, Tustin Avenue/Rose Drive, and Lakeview Avenue.
2. August 13, 2012, Amendment No. 1 to Cooperative Agreement No. C-9-0570, \$200,000, approved by the Board of Directors (Board).
 - OCFCD to provide additional project support services, including plan reviews for the five railroad grade separation projects.
3. December 16, 2013, Amendment No. 2 to Cooperative Agreement No. C-9-0570, \$20,000, approved by the Contracts Administration and Materials Management (CAMM) Department.
 - OCFCD to provide additional project support services, including plan reviews for the five railroad grade separation projects.
4. July 30, 2014, Amendment No. 3 to Cooperative Agreement No. C-9-0570, \$20,000, approved by CAMM Department.
 - OCFCD to provide additional project support services, including plan reviews for the five railroad grade separation projects.
5. November 20, 2014, Amendment No. 4 to Cooperative Agreement No. C-9-0570, \$20,000, approved by CAMM Department.
 - OCFCD to provide additional project support services, including plan reviews for the five railroad grade separation projects.
6. June 12, 2017, Amendment No. 5 to Cooperative Agreement No. C-9-0570, \$120,000, approved by the Board.
 - OCFCD to provide additional project support services, including plats, legal descriptions, appraisal reviews, project closeout administrative services, and estimated easement costs for three railroad grade separation projects.
 - Extend the term by an additional 24 months through August 31, 2018.

7. November 12, 2018, Amendment No. 6 to Cooperative Agreement No. C-9-0570, \$300,000, pending Board approval.
 - OCFCD to provide additional project support services, including plats, legal descriptions, appraisal reviews, project closeout administrative services, and increased appraisal values for three railroad grade separation projects.
 - Extend the term by an additional 12 months through August 31, 2019.

Total committed to OCFCD after approval of Amendment No. 6 to Cooperative Agreement No. C-9-0570: \$880,000.



November 5, 2018

To: Regional Planning and Highways Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: California Department of Transportation Freeway Service Patrol Program Fund Transfer Agreements

Overview

The Orange County Transportation Authority is the administering agency for the Freeway Service Patrol program in Orange County. Funding for the Freeway Service Patrol program is provided annually from the California Department of Transportation through the State Highway Account. The Road Repair and Accountability Act of 2017, also known as Senate Bill 1, established additional funding for the Freeway Service Patrol program. The estimated funding to be available for fiscal years 2017-18 and 2018-19 is \$7,328,377. Funding agreements are necessary to facilitate the transfer of funds to the Orange County Transportation Authority for the continuance of the Freeway Service Patrol program.

Recommendations

- A. Authorize the Chief Executive Officer to negotiate and execute Cooperative Agreement No. C-8-2011 between the Orange County Transportation Authority and the California Department of Transportation for fiscal year 2018-19 Freeway Service Patrol Program State Highway Account funding in the amount of \$2,472,405.
- B. Authorize the Chief Executive Officer to negotiate and execute Cooperative Agreement No. C-8-1871 between the Orange County Transportation Authority and the California Department of Transportation for fiscal year 2017-18 Freeway Service Patrol Program Senate Bill 1 funding in the amount of \$2,619,972.

- C. Authorize the Chief Executive Officer to negotiate and execute Cooperative Agreement No. C-8-2012 between the Orange County Transportation Authority and the California Department of Transportation for fiscal year 2018-19 Freeway Service Patrol Program Senate Bill 1 funding of approximately \$2,236,000.

Discussion

The Orange County Freeway Service Patrol (FSP) program is a partnership between the California Department of Transportation (Caltrans), California Highway Patrol (CHP), and the Orange County Transportation Authority (OCTA). In November 1992, the FSP program began providing peak-hour assistance to stranded motorists along Orange County freeways to reduce congestion. The FSP program is designed to provide timely assistance to motorists with disabled vehicles and timely response to other incidents that leave debris on the freeways.

In addition to peak-hour service on all freeways, FSP provides midday service on Interstate 5 (I-5), Interstate 405, State Route 22 (SR-22), State Route 55 (SR-55), State Route 57 (SR-57), and State Route 91 (SR-91) in central Orange County. The FSP program also provides weekend service on SR-91 from SR-55 to the Riverside County Line, on SR-22 from Harbor Boulevard to SR-55, including the I-5/SR-57 interchange, and on I-5 in South Orange County, as well as off-peak hour service in certain designated construction zones.

OCTA is the administering agency for the FSP program in Orange County and is responsible for procuring services necessary for the operation of the FSP program. Caltrans allocates \$25 million to statewide FSP programs annually, through the State Highway Account (SHA). After applying a deduction for required CHP oversight, SHA funds are allocated to each local FSP agency based on a formula defined in California Streets and Highways Code, section 2562.1. Allocation percentages change from year to year based on calculations used to measure congestion within the region, the number of active FSP programs statewide, and FSP program ability to provide matching funds to accept the entire allocation.

Local programs are required to provide a 25 percent local funding match to the state program funding using local funds. Local match funds are provided using Orange County Service Authority for Freeway Emergency (SAFE) funds and Measure M2 (M2) funds. SAFE is funded through a one dollar California Department of Motor Vehicles fee for all vehicles registered in Orange County. M2 is funded through a one-half cent sales tax on goods purchased in Orange

County. To provide the FSP service outlined above, OCTA provides a higher match than is required.

The SHA allocation for the Orange County FSP program for fiscal year (FY) 2018-19 is \$2,472,405, requiring a local match of \$618,102 from OCTA. Total FY 2018-19 funding, including both the SHA allocation and the local match, is \$3,090,507, and OCTA will have until June 30, 2021, to be reimbursed from this funding source for program expenditures.

In April 2017, the Governor of California signed the Road Repair and Accountability Act of 2017 (SB1) into law. The SB1 legislative package provides an additional \$25 million annually for California FSP programs. SB1 funding can be used to support FSP program activities in three specific categories: inflation relief, new or expanded service, and for CHP support.

The Orange County FSP program SB1 allocation for FY 2017-18 is \$1,244,321 for inflation relief, \$991,890 for new or expanded service, and \$383,761 for CHP support. Inflation relief and new or expanded service funds require a 25 percent local match, \$559,053, which will be provided from local SAFE funds. CHP support funding is provided as a pass-through to the CHP for FY 2017-18. Future SB1 CHP support funding will be provided through a direct agreement between Caltrans and the CHP. Total FY 2017-18 SB1 funding, including the local match, is \$3,178,025. OCTA will have until June 30, 2020, to be reimbursed from this source for program expenditures.

The Orange County FSP program SB1 allocation for FY 2018-19 is still being determined, but is expected to be approximately \$2,236,000 for combined inflation relief and new or expanded service funding. The required 25 percent match for inflation relief and new or expanded service is approximately \$559,000, and will be funded from local SAFE and M2 funds. Total FY 2018-19, SB1 funding, including the local match, will be approximately \$2,795,000. OCTA will have until June 30, 2021, to be reimbursed from this source for program expenditures.

A history of funding for FSP from FY 2008-09 through FY 2018-19, including match requirements and contributions made to FSP from the Orange County local SAFE funds, as well as annual SHA funding and local match funds utilized for the FSP program, is shown in Attachment A.

Beginning in December 2018, the Orange County FSP program will deploy new expanded service on the east end of SR-91 and on SR-57 using SB1 funds for new or expanded service. This expanded service is fully funded for a period of four years, through SB1. Should these funds become unavailable for future use

on the FSP program, staff will return to the Board of Directors (Board) with a recommendation for service modification and/or programming of alternative funding sources.

To access the funding outlined above, new agreements between OCTA and Caltrans are required. Staff has developed these agreements in coordination with Caltrans and is seeking Board approval to allow the Chief Executive Officer to negotiate and execute three separate agreements for FY 2017-18 and FY 2018-19 allocations.


Summary

The FSP program provides valuable services by assisting motorists with disabled vehicles and removing congestion-causing debris from freeway traffic lanes. Funding for the FSP program is provided through a combination of sources, including Caltrans directed SHA funds, newly available SB1 funds, local SAFE funds, and M2 funds. New funding agreements are required to continue the program.

Attachment

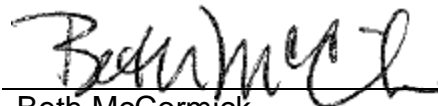
- A. California Department of Transportation (Caltrans) Freeway Service Patrol (FSP) Funding, Fiscal Year 2008-09 to Fiscal Year 2018-19

Prepared by:

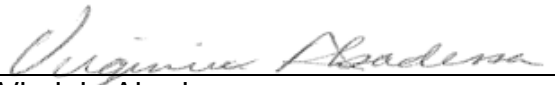


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California Department of Transportation (Caltrans) Freeway Service Patrol (FSP) Funding Fiscal Year 2008-09 to Fiscal Year 2018-19

Fiscal Year	Caltrans Allocation *				Local Match Requirement			Total FSP Cost	OCTA Match **	OCTA Match %
	State Highway Account (SHA)Funding	Senate Bill 1 (SB1) Inflation Relief Funding	SB1 Expansion Funding ***	Total Caltrans Funding	SHA Match Requirement	SB1 Match Requirement	Total Local Agency Match Requirement			
2009	\$2,977,208.00			\$2,977,208.00	\$744,302.00		\$744,302.00	\$5,408,123.69	\$2,430,915.69	82%
2010	\$2,981,608.00			\$2,981,608.00	\$745,402.00		\$745,402.00	\$4,510,977.78	\$1,529,369.78	51%
2011	\$2,964,805.00			\$2,964,805.00	\$741,202.00		\$741,202.00	\$4,699,657.89	\$1,734,852.89	59%
2012	\$2,594,099.00			\$2,594,099.00	\$648,525.00		\$648,525.00	\$4,659,823.84	\$2,065,724.84	80%
2013	\$2,631,554.00			\$2,631,554.00	\$657,889.00		\$657,889.00	\$5,605,637.75	\$2,974,083.75	113%
2014	\$2,578,644.00			\$2,578,644.00	\$652,767.00		\$652,767.00	\$5,104,285.24	\$2,525,641.24	98%
2015	\$2,707,013.00			\$2,707,013.00	\$676,754.00		\$676,754.00	\$5,022,967.73	\$2,315,954.73	86%
2016	\$2,704,902.00			\$2,704,902.00	\$676,226.00		\$676,226.00	\$5,251,035.68	\$2,546,133.68	94%
2017	\$2,615,022.00			\$2,615,022.00	\$653,756.00		\$653,756.00	\$5,464,750.97	\$2,849,728.97	109%
2018	\$2,550,433.00	\$1,244,321.48	\$991,890.02	\$4,786,644.50	\$637,609.00	\$559,052.88	\$1,196,661.88	\$5,747,893.20	\$1,953,138.72	77%
2019	\$2,472,405.00	\$1,244,200.00	\$991,800.00	\$4,708,405.00	\$618,102.00	\$559,000.00	\$1,177,102.00	\$5,747,893.20	\$2,031,288.20	82%

* Caltrans SHA and SB1 Funds are available for use over three fiscal years. FY 2018 SB1 Expansion Funds are not available for use until FY 2019. FY 2019 SB1 allocation is estimated based on FY 2018 allocation, actual allocation amount is yet to be determined.

** Measure M2 funds became available to FSP in FY 2012, and are included as part of OCTA local match.



November 5, 2018

To: Regional Planning and Highways Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: Capital Programming Update

Overview

The Orange County Transportation Authority uses various funding sources to advance or implement projects. Several grade separation and transit projects have accomplished project milestones and require funding revisions. These funding revisions result in a shift of funds to other ready-to-go highway and transit projects to meet the state funding deadlines.

Recommendations

- A. Authorize the use of up to \$26.991 million in Proposition 1B Trade Corridors Improvement Funds for the Interstate 5 Improvement Project (State Route 73 to Oso Parkway) from the OC Bridges projects (\$5.002 million), San Juan Creek Bridge Project (\$15.739 million), and unprogrammed funding (\$6.250 million), contingent on the approval of the California Transportation Commission.
- B. Authorize the use of up to \$1.512 million in Proposition 1B Transit System Safety, Security, and Disaster Response Account funding from the 2017 Video Surveillance System Upgrade Project for the 2017 Transit Security and Operations Center, contingent on the approval of the California Office of Emergency Services.
- C. Authorize staff to process all necessary amendments to the Federal Transportation Improvement Program and execute or amend all necessary agreements to facilitate the above actions, including Cooperative Agreement No. C-8-1960 between the Orange County Transportation Authority and the California Department of Transportation.

Background

The Orange County Transportation Authority (OCTA) programs federal, state, and local funds based on the Board of Directors (Board)-approved Capital Programming Policies (Attachment A).

As projects progress through development, project costs change, external agency requirements may limit the anticipated use of funds, savings may result, or additional funding may be required. OCTA regularly reports on specific project costs through the quarterly Capital Action Plan (CAP), which highlights project costs, schedules, and status. Programming and revenue changes are updated periodically to match these costs and are included in the Capital Funding Program (CFP [Attachment B]). The attachment includes all proposed changes in this staff report, along with a summary of funding for all of OCTA's capital projects.

Discussion

The CAP lists highway, grade separation, rail, and facility projects, and includes a funding at completion estimate, as well as key milestones. Programming staff, in coordination with the project managers, use the CAP, as well as quarterly reports for the Operations Division, to make funding adjustments for projects that have met key milestones, such as completion of final environmental approval, 65 percent design, 95 percent design, contract award, and close out. Recommendations may also be suggested to ensure the funds are being utilized efficiently for projects.

Proposition 1B Trade Corridor Improvement Funding (TCIF)

The OC Bridges Program includes seven railroad grade separation projects along the Orangethorpe Avenue railroad corridor in the cities of Anaheim, Fullerton, and Placentia. These projects include grade separations at the Lakeview Avenue, Kraemer Boulevard, Orangethorpe Avenue, Placentia Avenue, Raymond Avenue, State College Boulevard, and Tustin Avenue/Rose Drive. The Kraemer Boulevard grade separation and the Placentia Avenue grade separation have both been fully closed out. The other five projects are open to traffic and nearing close-out. Adjustments to the Proposition 1B TCIF funding are recommended to reprogram TCIF funds that cannot be used on the five active OC Bridges projects to the Interstate 5 (I-5) Improvement Project from State Route 73 (SR-73) to Oso Parkway (Segment 1).

Overall, the OC Bridges projects are funded with multiple federal and state funding programs, as well as Measure M Project O. A portion of the funding for each grade separation is provided from TCIF. In November 2016, staff prepared and presented to the Board a comprehensive analysis of the programmed revenues and determined that despite the cost increase, state policy limitation on

the TCIF reimbursement ratio that was assigned to these projects meant that the projects could not access \$18.895 million in TCIF.

Due to project closeout calculations, there are additional changes in TCIF funding for five of the grade separations. They are as follows:

TCIF Grade Separation	Board-Approved TCIF (\$ millions)	Proposed TCIF (\$ millions)	TCIF Adjustment (\$ millions)
State College Boulevard	\$32.057	\$32.800	(\$0.743)
Orangethorpe Avenue	\$34.520	\$30.324	\$4.196
Lakeview Avenue	\$26.924	\$27.520	(\$0.596)
Tustin Avenue/Rose Drive	\$25.473	\$22.962	\$2.511
Raymond Avenue	\$10.034	\$10.400	(\$0.366)
Total	\$129.008	\$124.006	\$5.002

On July 10, 2017, the Board had approved the use of \$12.645 million of the \$18.895 million OC Bridges projects available (leaving \$6.250 million unprogrammed) for the San Juan Creek Bridge Project. This project will replace the existing 100-year old railroad bridge over the San Juan Creek in San Juan Capistrano. The San Juan Creek Bridge Project was previously approved for \$3.094 million in TCIF. Construction was initially expected to begin in early 2019, but the project construction start has been delayed to May 2020 due to the federal environmental document approval process. TCIF Guidelines require a project to start construction by December 2019. Consequently, this project is no longer eligible for the \$15.739 million in TCIF previously programmed to the project by the Board (\$12.645 million from OC Bridges projects and \$3.094 million in previously programmed TCIF savings).

In order to assure the use of TCIF for OCTA projects, it is recommended to use the \$15.739 million in TCIF from the San Juan Creek Bridge Project, \$5.002 million in additional TCIF adjustments from the OC Bridges projects, and the \$6.250 million in unprogrammed funding, totaling \$26.991 million for the I-5 Improvement Project. OCTA is seeking approval to use all of the available TCIF funds on the I-5 Improvement Project from SR-73 to Oso Parkway (Segment 1) to reduce Measure M needed on this project and maximize use of external dollars. This project also includes SB 1 (Chapter 5, Statutes of 2017) Local Partnership Program (LPP) funds, contingent on the results of the November 6, 2018, election, the TCIF may need to be used to backfill the loss of SB 1 funds currently committed to this project. Additionally, staff will work with the California Department of Transportation to amend Cooperative Agreement No. C-8-1960 accordingly. More information will be provided in a separate November 26, 2018, staff report.

The I-5 Improvement Project from SR-73 to Oso Parkway (Segment 1) will add one general purpose lane in each direction from SR-73 to Oso Parkway, provide operational improvements, and reconstruct several interchanges. It is the only project that meets the timing and eligibility requirements of the TCIF program, and using TCIF for this project is consistent with OCTA's programming policies to use all fund sources to fulfill the commitments outlined in the Measure M Next 10 Plan. The project is currently funded with State Transportation Improvement Program Funds, SB 1 LPP, Surface Transportation Block Grant Program and Measure M2.

This action will leave a funding gap for the San Juan Creek Bridge Project and the OC Bridges projects. The San Juan Creek Bridge Project cost estimate is currently being updated. Once final costs are available, staff will return to the Board with a proposal to fully fund the project. Staff will also return at a future Board meeting with final close out of the OC Bridges grade separation projects. It is anticipated that additional programming actions will be required to backfill the inaccessible TCIF, contingent on final reimbursement of costs from federal funds and proceeds from the sale of excess properties.

Additional information on these projects and all of the projects discussed in this staff report is provided (Attachment C).

Proposition 1B Transit System Security Disaster and Response Account (TSSSDRA)

OCTA has Video Surveillance Systems (VSS) at various facilities in the cities of Anaheim, Irvine, and Orange. The VSS were outdated and surpassed their useful life. Proposition 1B TSSSDRA funding was programmed to replace these systems, but due to revised cost estimates, an anticipated \$1.512 million of TSSSDRA will not be needed on the projects.

Staff is proposing to reprogram the \$1.512 million in TSSSDRA savings to the Transit Security Operations Center (TSOC) Project to support the costs associated with purchasing the identified property required for the project. TSOC will house the OCTA transit police, operations support, and central communications systems.

The use of TSSSDRA funds for TSOC is consistent with the Board-approved Capital Programming Policy regarding the use of TSSSDRA funds to support capital projects that enhance the safety, security, and emergency response capabilities of transit.

With Board approval, the CFP will be updated to reflect the current programming changes. A list of Board actions, which directed capital funds towards OCTA capital projects over the last six months, is provided (Attachment D).

Summary

With the objective of ensuring that OCTA projects are fully funded and consistent with the Board-approved CAP, OCTA is seeking Board approval to reprogram \$26.991 million in TCIF to the I-5 Improvement Project from SR-73 to Oso Parkway and \$1.512 million in TSSSDRA funds to the TSOC project.

Attachments

- A. Existing Capital Programming Policies by Fund Source, Adopted May 2017
- B. Capital Funding Program Report
- C. Capital Programming Update Project Descriptions
- D. List of Board of Directors Reports with Programming Actions, June 2018 – October 2018

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**Existing Capital Programming Policies by Fund Source
Adopted May 2017**

Funding Source	Measure M2 (M2) Programming Policies
M2 Programs	
Projects A-M (Freeway projects on Interstate 5, State Route 22, State Route 55, State Route 57, State Route 91, Interstate 405, and Interstate 605)	Use projects A-M M2 funding consistent with the M2 Transportation Investment Plan, the Next 10 Plan, and subsequent Board of Directors (Board)-approved plans and updates to the M2 Program. Program funds to projects through formal programming actions.
Freeway Environmental Mitigation Program (Tied to Projects A-M)	Utilize five percent net revenues derived from M2 funding for projects A-M consistent with the M2 Transportation Investment Plan, the Next 10 Plan, and subsequent Board-approved plans and updates to the M2 Program. Program funds to projects through Board approval actions for needed environmental mitigation projects.
Project N (Freeway Service Patrol)	Use Project N funds for the Freeway Service Patrol Program. Funds are programmed through the annual budget process.
Project O (Regional Capacity Program) and Project P (Regional Signal Synchronization Program)	Use Project O and Project P M2 funding, consistent with the M2 Transportation Investment Plan, and consistent with the Comprehensive Transportation Funding Programs (CTFP) Guidelines. Program funds to projects through the cyclical CTFP call for projects (call) programming recommendations.
Project Q (Local Fair Share Program)	Use Project Q M2 funds consistent with the M2 Transportation Investment Plan. Funds are programmed through the annual budget but actual disbursements may be adjusted based on the formula distribution of funds.
Project R (High-Frequency Metrolink Service)	Use Project R M2 funding consistent with the M2 Transportation Investment Plan, the Next 10 Plan, with the Comprehensive Business Plan, and subsequent Board-approved plans and updates, to the M2 Program. Program funds to projects through formal programming actions.
Project S (Transit Extensions to Metrolink) and Project T (Metrolink Gateways)	Use Project S and Project T M2 funding, consistent with the M2 Transportation Investment Plan, and consistent with CTFP Guidelines. Program funds to projects through a call.
Project U (Expand Mobility Choices for Seniors and Persons with Disabilities)	Use Project U M2 funds, consistent with the M2 Transportation Investment Plan, the Comprehensive Business Plan, and subsequent Board-approved plans and updates to the M2 Program. Funds are programmed through the annual budget process.
Project V (Community-Based Transit Circulators) and Project W (Safe Transit Stops)	Use Project V and Project W M2 funding, consistent with the M2 Transportation Investment Plan and consistent with CTFP Guidelines. Program funds to projects through the CTFP call.

Existing Capital Programming Policies by Fund Source Adopted May 2017

Project X (Environmental Cleanup)	<p>Use Project X M2 funding consistent with the M2 Transportation Investment Plan and consistent with CTFP Guidelines. Program funds to projects through the CTFP call.</p> <p>The Environmental Cleanup Program consists of two programs. The Tier 1 Grant Program is designed to mitigate the more visible forms of pollution. Tier 1 consists of funding for equipment purchases and upgrades to existing catch basins and related devices such as screens, filters, and inserts. The Tier 2 Grant Program consists of funding regional, multi-jurisdictional, and capital-intensive projects, such as constructed wetlands, detention/infiltration basins, and bioswales.</p>
Funding Source/Agency	State and Federal Programming Policies
All State and Federal Fund Sources	First priority of all funding sources is to fulfill commitments to Next 10 and/or Next 10 projects, specifically M2 projects, and to maintain existing the Orange County Transportation Authority's assets in a state of good repair. Consideration will also be given to use state and federal funds for projects that are complementary to M2 projects, and that share the program goals to reduce congestion, strengthen the economy, and improve the quality of life. All fund sources must be programmed through formal programming actions.
State	
State Transportation Improvement Program (STIP)/California Transportation Commission (CTC)	Use of STIP funds for M2 freeway, commuter rail, fixed-guideway projects, planning/programming, and complementary activities which seek an equitable balance between freeways and transit capital and are consistent with state goals.
Proposition 1A/CTC	All funds are programmed.
Proposition 1B – Competitive Programs Funding/CTC	Maximize the Orange County allocations consistent with each program and ensure the receipt of allocated funds.
Proposition 1B Public Transportation Modernization, Improvement, and Service Enhancement Account/California Department of Transportation (Caltrans)	Use Public Transportation Modernization, Improvement, and Service Enhancement funds for commuter rail improvements and to fund existing STIP - Public Transit Administration projects (approximately \$60 million) currently programmed in the 2010 STIP and for eligible OC Bridges projects.
Proposition 1B State-Local Partnership Program (SLPP)/CTC	Use of SLPP for local streets and roads and freeway construction projects, contingent on matching funds availability. Seek equitable balance between freeways and local streets and roads.
Proposition 1B – Transit System Safety, Security and Disaster Response Account (TSSSDRA)/California Governor's Office of Emergency Services	Use TSSSDRA to support capital projects that enhance the safety, security, and emergency response capabilities of transit.

Existing Capital Programming Policies by Fund Source Adopted May 2017

Proposition 116 (CTC)	Use cost savings for commuter or intercity rail capital improvement projects along the Metrolink corridor (between the cities of Buena Park and San Clemente) that are funded with Measure M1 and M2 funds on a first-come, first-served basis.
Cap-and-Trade (Formula) – Low Carbon Transit Operations Program (LCTOP)/Caltrans	Use LCTOP for transit operations or capital for expansion of bus transit service, fare reduction programs, and other bus and commuter rail transit efforts that increase ridership and reduce greenhouse gas (GHG) emissions, where 50 percent of the funds provide benefit for passengers in disadvantaged communities. Funds generated from commuter rail service in Orange County may be used in Orange County for the expansion of commuter rail service, fare reduction programs for commuter rail, and other eligible commuter rail efforts that increase ridership and reduce GHG emissions.
Cap-and-Trade (Competitive) – Transit and Intercity Rail Capital Program (TIRCP)/ California State Transportation Agency	Use TIRCP for capital projects that expand bus and rail service to increase ridership and for projects that improve the integration between bus and rail systems. Projects must also reduce GHG emissions.
Cap-and-Trade (Competitive) – Affordable Housing and Sustainable Communities Program (AHSC)/Strategic Growth Council	Use AHSC for fixed-guideway and transit corridor projects that serve disadvantaged communities and reduce GHG emissions. *Note – In the guidelines, a transit project must be paired with an affordable housing project for Transit Oriented Development Program funds.
California Freight Investment Program (CFIP)	Use of CFIP funds first for eligible M2 Program projects which meet the requirements and goals of the program, then fund other eligible priority Orange County projects.
Funding Source/Agency	State and Federal Programming Policies
State	
Active Transportation Program (ATP) – Southern California Association of Governments (SCAG) Regional Selection (Formula)/CTC/SCAG	Set-asides: Bicycle and pedestrian projects up to a ten percent set-aside and contingent on ready-to-go projects as submitted through competitive calls.
Federal	
Congestion Mitigation and Air Quality (CMAQ)/Caltrans for Federal Highways Administration (FHWA)	<p>Increase priority of M2 fixed-guideway projects. Use CMAQ funding for:</p> <ul style="list-style-type: none"> • M2 fixed-guideway and/or M2 high-occupancy vehicle or high-occupancy toll operational improvements, • as match to leverage funding for OC Bridges grade separation projects, • vanpool program and rideshare services, • other rail and bus transit capital projects, • traffic light synchronization projects, and • new or expanded bus transit operations (three years of CMAQ funding may be used for the first five years). <p>Set-asides: Bicycle and pedestrian projects up to a ten percent set-aside and contingent on ready-to-go projects as submitted through competitive calls.</p>

Existing Capital Programming Policies by Fund Source Adopted May 2017

Surface Transportation Block Grant (STBG) Program - Formerly the Regional Surface Transportation Program/Caltrans for FHWA	Use STBG funds for M2 Freeway Program (consistent with Next 10 priorities), grade separations, and local streets and roads.
Transportation Alternatives Program (TAP) – CTC/SCAG through ATP	Use 100 percent of annual TAP apportionment for bicycle and pedestrian projects through a competitive call to local agencies. Currently these funds are administered by the state through the ATP. See above.
National Highway Freight Program	Currently these funds are administered by the state through the CFIP. See above.
Federal Transit Administration (FTA) Section 5309 Fixed-Guideway Capital Investment Grants (“New Starts”)/FTA	Prioritize M2 fixed-guideway projects that are following project development requirements consistent with the “New Starts” and/or “Small Starts” process.
FTA Section 5307 Formula/FTA	<p>Use funds in the following order:</p> <ol style="list-style-type: none"> (1) preventive maintenance, (2) capital cost of contracting, and (3) bus replacement. <p>Set-Asides: up to twenty percent for paratransit operating assistance, one percent for transit security (unless funded using local, state, or other federal funds), percent of funds generated by rail operations to be used for rail operations and capital projects.</p>
FTA Section 5310 Formula Funds/FTA	Use funds for eligible enhancements to paratransit capital and operations.
FTA Section 5337 Formula Funds/FTA	Use funds for commuter rail rehabilitation/renovation projects and for capital projects that maintain and/or replace equipment and facilities to keep the commuter rail system in a state of good repair and for preventive maintenance. Use funds generated by bus transit for bus transit capital maintenance.
FTA Section 5339 Formula Funds/FTA	<p>Use funds in the following order:</p> <ol style="list-style-type: none"> (1) bus replacement, (2) capital maintenance, and (3) other bus capital projects as identified in the bus capital plan.



Capital Funding Program Report

Pending Board of Directors (Board) Approval - November 26, 2018

Bus Transit Project

Project Title	M Code	Total Funding	State Funds		Federal Funds		Local Funds		
			STIP/Other	State Bonds	RSTP/CMAQ	Other Fed.	M1	M2	Local - Other
Go Local - Step 1	S	\$5,730					\$5,730		
Mobile Ticketing Equipment	S	\$4,036	\$2,482						\$1,554
Project V Community Circulators	V	\$35,089						\$35,089	
Project W Safe Transit Stops (City)	W	\$1,207						\$1,207	
Project W Safe Transit Stops (OCTA)	W	\$370						\$370	
10 Zero Emission Hydrogen Fuel Cell Buses		\$12,914	\$5,607						\$7,307
ACCESS and fixed-route radio systems upgrade		\$22,465		\$16,239			\$4,775		\$1,451
Associated Transportation Improvements		\$556					\$556		
Bus replacement - articulated alternative fuel buses (60')		\$31,105			\$22,250		\$8,855		
Bus replacement (40' and ACCESS)		\$149,009			\$29,198		\$68,139		\$51,672
Capital cost of contracting (ACCESS and contracted fixed-route contracts)		\$474,865					\$189,946		\$284,919
Central Harbor Transit Study		\$641	\$97		\$544				
Engine rebuild		\$16,294					\$14,824		\$1,470
Five Hydrogen Fuel Cell Bravo! Buses		\$5,412	\$4,330		\$1,082				
FTA Section 5310 Enhanced Mobility of Seniors & Individuals with Disabilities		\$3,657					\$3,657		
FTA Section 5316 Jobs Access and Reverse Commute		\$13,962					\$13,962		
FTA Section 5317 New Freedom		\$6,388					\$6,388		
Goldenwest Transportation Center parking structure		\$4,000			\$3,400				\$600
Goldenwest Transportation Center surface lot		\$2,000		\$1,200					\$800
Heating Ventilation Unit Replacements		\$448	\$67				\$381		
I-Shuttle Replacement Buses		\$6,600	\$5,673						\$927
Mobile Source Air Pollution Reduction Review Committee County Transportation Commission Partnership Program		\$2,319	\$176						\$2,143
Non-fixed-route paratransit operations assistance		\$240,952					\$48,486		\$192,466
OCTA Transit Security & Operations Center ¹		\$7,772		\$7,772					
Preventive maintenance - including salaries and benefits (includes ATN & Laguna Beach)		\$212,133					\$212,133		
Rideshare/vanpool		\$6,732			\$6,732				
Six Bravo! 529 Buses		\$3,595	\$3,046		\$549				
Three Planning Studies		\$1,050			\$647				\$403
Transit Security Program		\$3,997		\$3,997					
Transit System Study Pilot Project		\$6,000			\$6,000				
Vanpool Program - capital lease		\$12,838			\$12,838				
VSS Upgrades at OCTA Facilities – Santa Ana, Garden Grove, Anaheim, & Irvine Bases and Administration ²		\$1,588		\$628			\$960		
Bus Transit Project Totals		\$1,295,724	\$21,478	\$29,836	\$83,240	\$573,062	\$5,730	\$36,666	\$545,712

State Funding Total	\$51,314
Federal Funding Total	\$656,302
Local Funding Total	\$588,108
Total Funding (000's)	\$1,295,724

Board Actions:

1. Capital Programming Update: authorize the use of up to \$1.512 million in TSSSDRA, from 2017 VSS Upgrade Project.
2. Capital Programming Update: Decrease TSSSDRA by \$1.512 million in TSSSDRA for the OCTA Transit Security and Operations Center.



Capital Funding Program Report

Pending Board of Directors (Board) Approval - November 26, 2018

Local Road Project

Project Title		M Code	Total Funding	State Funds		Federal Funds		Local Funds		
				STIP/Other	State Bonds	RSTP/CMAQ	Other Fed.	M1	M2	Local - Other
State-Local Partnership Program (SLPP) Formula Grant Call		M1/Q	\$54,445		\$24,945			\$1,280	\$27,249	\$971
Measure M2 Project O Regional Capacity Program Call for Projects		O	\$254,629		\$22,979				\$231,650	
Raymond Avenue Grade Separation ¹		O	\$125,599		\$91,533				\$26,350	\$7,716
SR-57 Truck Climbing Lane Phase I- Lambert Road Interchange Improvement		O	\$121,500	\$74,705			\$7,719		\$19,254	\$19,822
M2 Project P Regional Signal Synchronization Program Call		P	\$86,217	\$6,845					\$79,372	
M2 Project Q Fair Share Program (FY 16-17 through FY 21-22)		Q	\$341,947						\$341,947	
Measure M2 Project X Environmental Clean Up		X	\$43,214						\$43,214	
Active Transportation Program - Regional Call			\$45,711	\$92		\$311	\$39,928			\$5,380
Active Transportation Projects			\$17,784	\$15,650						\$2,134
ARRA Transportation Enhancements			\$6,833							\$2,284
Arterial Pavement Management Program			\$50,888			\$19,930		\$500		\$30,958
Atlanta Avenue Widening			\$4,160			\$2,278				\$1,882
Bicycle Corridor Improvement Program			\$33,975			\$28,323				\$5,652
Bristol Street Widening			\$44,750							\$44,750
Local Agency American Reinvestment and Recovery Act of 2009 Rehab Projects			\$32,369				\$32,369			
M1 Combined Transportation Funding Program (CTFP)			\$34,000					\$34,000		
SCAG Sustainability Planning Grants			\$720				\$671			\$49
Traffic Signal Improvements			\$15,000	\$12,000						\$3,000
Transportation Enhancement Activities			\$22,172				\$15,628			\$6,544
Del Obispo Widening		M1	\$6,419			\$3,740				\$2,679
Local Road Project Totals			\$1,342,332	\$109,292	\$139,457	\$54,582	\$100,364	\$35,780	\$769,036	\$133,821

State Funding Total	\$248,749
Federal Funding Total	\$154,946
Local Funding Total	\$938,637
Total Funding (000's)	\$1,342,332

Local Road Project Completed

Project Title		M Code	Total Funding	State Funds		Federal Funds		Local Funds		
				STIP/Other	State Bonds	RSTP/CMAQ	Other Fed.	M1	M2	Local - Other
Grand Avenue Widening, 1st Street to 4th Street		O	\$12,537			\$6,708				\$5,829
Kraemer Boulevard Grade Separation		O	\$63,462	\$1,460	\$15,513	\$22,044			\$22,613	\$1,832
Lakeview Avenue Grade Separation 2		O	\$107,998		\$27,520	\$35,411	\$9,709		\$24,783	\$10,575
Orangethorpe Avenue Grade Separation 3		O	\$104,404		\$30,324	\$38,240	\$18,600		\$14,543	\$2,697
Placentia Grade Separation along SS of Orangethorpe		O	\$64,444	\$6,040	\$27,346				\$27,356	\$3,702
State College Grade Separation 4		O	\$97,712		\$34,785	\$27,376	\$13,290		\$11,243	\$11,018
Tustin Ave/Rose Drive Grade Separation 5		O	\$95,743		\$22,962	\$53,376			\$17,642	\$1,763
M2 Fair Share State-Local Partnership Grant Program		Q	\$7,032		\$3,516				\$3,516	



Capital Funding Program Report

Local Road Project Completed

Project Title	M Code	Total Funding	State Funds		Federal Funds			Local Funds		
			STIP/Other	State Bonds	RSTP/CMAQ	Other Fed.	M1	M2	Local - Other	
Antonio Parkway Widening		\$32,553			\$15,499				\$17,054	
Firestone Boulevard Widening at Artesia Boulevard		\$2,468			\$2,059				\$409	
I-5 at La Paz Interchange Improvements	M1	\$8,942			\$2,800		\$1,792		\$4,350	
Imperial Highway Smart Streets	M1	\$1,900		\$200			\$200		\$1,500	
Traffic Light Synchronization Program (TLSP), County Wide - Proposition 1B	M1	\$8,000		\$4,000			\$4,000			
Local Road Project Totals			\$7,500	\$166,166	\$203,513	\$41,599	\$5,992	\$121,696	\$60,729	

State Funding Total	\$173,666
Federal Funding Total	\$245,112
Local Funding Total	\$188,417
Total Funding (000's)	\$607,195

Board Actions:

1. Capital Programming Update: Increase TCIF by \$0.366 million.
2. Capital Programming Update: Increase TCIF by \$0.596 million.
3. Capital Programming Update: Decrease TCIF by \$4.196 million.
4. Capital Programming Update: Increase TCIF by \$0.743 million.
5. Capital Programming Update: Decrease TCIF by \$2.511 million.



Capital Funding Program Report

Pending Board of Directors (Board) Approval - November 26, 2018

Rail Project

Project Title		State Funds		Federal Funds			Local Funds		Local - Other	
		STIP/Other	State Bonds	RSTP/CMAQ	Other Fed.	M1	M2			
	Fullerton Transportation Center Parking Expansion Project	M1/R	\$33,667	\$11,250	\$11,035			\$9,718		\$1,664
	Orange Transportation Center Parking Structure	M1/R	\$33,175	\$13,762		\$4,073	\$3,298	\$1,850	\$420	\$9,772
	Sand Canyon Avenue Grade Separation Project	M1/R	\$61,962		\$28,104	\$10,536		\$3,116	\$5,352	\$14,854
	OC Streetcar (Proposed New Starts)	M1/S	\$299,342	\$25,518		\$54,465	\$162,213		\$57,146	
	OC Streetcar Preliminary Studies and Environmental	M1/S	\$7,014				\$341	\$4,977	\$554	\$1,142
	Anaheim Canyon Station Improvements	R	\$27,906			\$25,413			\$2,000	\$493
	Control Point at 4th Street	R	\$4,000				\$4,000			
	Future Video Surveillance Systems	R	\$217				\$174			\$43
	Laguna Niguel to San Juan Capistrano Passing Siding	R	\$30,830	\$6,000	\$1,928	\$22,347				\$555
	Metrolink Preventive Maintenance Capitalized Operation	R	\$14,374				\$14,374			
	Metrolink Rehabilitation/Renovation - fiscal years 2011-12 to 2022-23	R	\$139,180				\$139,180			
	Metrolink Station and Track Improvements, and Rehabilitation	R	\$2,230				\$1,784			\$446
	Placentia Commuter Rail Station	R	\$34,825	\$2,500	\$400	\$50			\$8,000	\$23,875
	Positive Train Control (Metrolink)	R	\$39,916		\$34,190		\$5,726			
	San Juan Creek Bridge Replacement 1	R	\$38,371		\$2,966		\$18,491		\$1,175	\$15,739
	Slope Stabilization Laguna Niguel-Lake Forest	R	\$5,168				\$4,834		\$334	
	State College Grade Separation (LOSSAN)	R	\$79,284		\$46,000				\$33,284	
	Ticket Vending Machines	R	\$6,857							\$6,857
	Video Surveillance Systems at Commuter Rail Stations	R	\$4,493		\$140		\$3,594			\$759
	M2 Project S Transit Extensions to Metrolink (Rubber Tire)	S	\$733						\$733	
Rail Project Totals			\$863,544	\$59,030	\$124,763	\$116,884	\$358,009	\$19,661	\$108,998	\$76,199

State Funding Total	\$183,793
Federal Funding Total	\$474,893
Local Funding Total	\$204,858
Total Funding (000's)	\$863,544

Rail Project Completed

Project Title		M Code	Total Funding	State Funds		Federal Funds		Local Funds		
				STIP/Other	State Bonds	RSTP/CMAQ	Other Fed.	M1	M2	Local - Other
Laguna Niguel-Mission Viejo Station Parking Improvements and Expansion (ADA Ramps)		M1/R	\$5,177			\$2,800	\$732	\$1,645		
Metrolink Grade Crossing Safety Improvements (OCX)		M1/R	\$80,618		\$18,250			\$7,600	\$30,710	\$24,058
Metrolink Rolling Stock		M1/R	\$158,009		\$36,300	\$42,230	\$35,390	\$44,089		
Metrolink Service Track Expansion		M1/R	\$119,957		\$51,399			\$68,558		
M2 Project S Fixed-Guideway Anaheim Rapid Connection		M1/S	\$9,924				\$1,516	\$6,000	\$1,286	\$1,122
Anaheim Regional Intermodal Transportation Center (ARTIC) Construction		M1/T	\$184,164	\$29,219		\$33,250	\$40,754	\$43,900	\$35,291	\$1,750
Fullerton Transportation Station Expansion Planning, Environmental PSR		M1/T	\$0			\$0		\$0		
Santa Ana Grade Separation Planning and Environmental PSR		M1/T	\$1,333			\$1,180		\$153		



Capital Funding Program Report

Rail Project Completed

Project Title		M Code	Total Funding	State Funds		Federal Funds		Local Funds		
		M1/T		STIP/Other	State Bonds	RSTP/CMAQ	Other Fed.	M1	M2	Local - Other
Santa Ana Transportation Station Planning and Environmental PSR			\$1,003			\$888		\$115		
17th Street Grade Separation Environmental		R	\$2,476						\$2,476	
Control Point Stadium Crossover		R	\$6,490		\$3,245		\$3,245			
LOSSAN Corridor Grade Separations PSR in Anaheim, Orange, and Santa Ana		R	\$2,699						\$2,699	
Metrolink Grade Crossing Safety Improvements ROW		R	\$3,025						\$3,025	
North Beach Crossings Safety Enhancements		R	\$348		\$166				\$182	
Rail Crossing Signal Lights and Pedestrian Gates		R	\$252		\$252					
Rail Station Platform Safety Improvements (Fullerton, Irvine, and Tustin)		R	\$553		\$553					
Safety Repairs for San Clemente Pier Station		R	\$122		\$122					
San Clemente Beach Trail Crossings Safety Enhancements		R	\$4,999		\$2,170				\$2,251	\$578
Transit Rail Security (Monitors, Fencing, Video Surveillance)		R	\$163		\$163					
Go Local		S	\$7,730					\$7,730		
ARTIC Environmental, ROW, Program Management Support, Site Plan		M1	\$41,369					\$8,869		\$32,500
Fiber Optics Installation (Metrolink)		M1	\$24,600		\$12,300		\$10,903	\$1,397		
Laguna Niguel-Mission Viejo Station Parking Expansion (South Lot)		M1	\$4,135		\$695			\$3,440		
Tustin Rail Station Parking Expansion		M1	\$15,390	\$1,100	\$7,181			\$7,109		
Rail Project Totals			\$674,536	\$30,319	\$132,796	\$80,348	\$92,540	\$200,605	\$77,920	\$60,008
Board Actions:										
1. Capital Programming Update: Decrease TCIF by \$15.739 million. Local Other increased as placeholder for future action.										
State Funding Total			\$163,115							
Federal Funding Total			\$172,888							
Local Funding Total			\$338,533							
Total Funding (000's)			\$674,536							

Board Actions:

1. Capital Programming Update: Decrease TCIF by \$15.739 million. Local Other increased as placeholder for future action.



Capital Funding Program Report

Pending Board of Directors (Board) Approval - November 26, 2018 State Highway Project

Project Title		M Code		State Funds			Federal Funds			Local Funds		
				Total Funding	STIP/Other	State Bonds	RSTP/CMAQ	Other Fed.	M1	M2	Local - Other	
I-5 from SR-55 to SR-57, Add 1 HOV lane each direction		A		\$39,052			\$33,743			\$5,309		
I-5 (I-405 to SR-55) capacity enhancement		B		\$33,000	\$12,628		\$15,372			\$5,000		
I-5 from SR-73 to El Toro Road Landscaping/Replacement Planting		C		\$12,245	\$6,000					\$6,245		
I-5 Widening (Alicia to El Toro) Seg 3		C		\$179,480	\$79,299		\$49,897			\$50,284		
I-5 Widening (Oso to Alicia) Segment 2		C		\$205,695			\$55,597			\$150,098		
I-5 Widening (SR-73 to Oso) Segment 1		C		\$215,440	\$91,977	\$26,991	\$28,167			\$68,305		
I-5 at Los Alisos / El Toro: add ramps		D		\$4,400			\$4,400					
SR-55 (I-5 to SR-91)		F		\$5,000			\$5,000					
SR-55 OC Central Corridor Improvements from I-405 to I-5		F		\$410,932	\$80,000		\$103,805	\$46,800		\$110,327	\$70,000	
SR-57 Orangewood to Katella		G		\$2,500			\$2,500			\$250		
SR-57 Truck Climbing Aux Lane: Lambert - LA County Line		G		\$4,300	\$4,050					\$2,000		
SR-91 (SR-57 to SR-55) Operational Improvements		I		\$9,000			\$7,000			\$1,135,651	\$628,930	
I-405 from SR-73 to I-605 Improvements		K		\$1,900,000	\$82,000	\$7,771	\$35,000	\$10,648				
I-405 (I-5 to SR-55)		L		\$8,000			\$8,000					
I-405 s/b Aux. Lane - University to Sand Canyon and Sand Canyon to SR-133		L		\$2,328	\$2,328							
I-605/ Katella Interchange		M		\$1,824						\$1,824		
241/91 Express Lanes (HOT) Connector				\$33,728								
SR-74 widening, Calle Entradero-City/County line				\$42,694	\$5,513						\$33,728	
SR-74 widening, City/County line to Antonio Parkway				\$40,905	\$10,000		\$5,285				\$37,181	
State Highway Project Totals				\$3,150,523	\$373,795	\$34,762	\$353,766	\$57,448		\$1,535,293	\$795,459	

State Funding Total	\$408,557
Federal Funding Total	\$411,214
Local Funding Total	\$2,330,752
Total Funding (000's)	\$3,150,523

State Highway Project Completed

Project Title	M Code	Total Funding	State Funds		Federal Funds		Local Funds			
			STIP/Other	State Bonds	RSTP/CMAQ	Other Fed.	M1	M2	Local - Other	
I-5 HOV lane each direction s/o PCH to San Juan Creek Rd.	C	\$70,658		\$20,789	\$11,796				\$38,073	
I-5 HOV lanes: s/o Avenida Pico to s/o Vista Hermosa	C	\$90,441	\$43,735		\$31,741	\$1,600			\$13,365	
I-5 HOV, HOV lanes from s/o Av. Vista Hermosa to s/o PCH	C	\$71,100	\$46,779		\$13,472				\$10,849	
I-5/Route 74 Interchange Landscaping/Replacement Planting	D	\$1,440	\$688			\$752				
I-5/SR-74 Interchange Improvements	D	\$80,300	\$48,683	\$24,109				\$2,500		\$5,008
SR- 57 n/b widening, Katella Avenue to Lincoln Avenue - Landscaping	G	\$2,172							\$2,172	
SR- 57 N/B widening, SR-91 to Yorba Linda Boulevard- Landscaping	G	\$946							\$946	
SR-57 n/b widening, Yorba Linda to Lambert Road landscaping	G	\$1,193							\$1,193	
SR-91 WB connect existing auxiliary lanes, I-5 to SR-57	H	\$62,977		\$27,227					\$35,750	



Capital Funding Program Report

State Highway Project Completed

Project Title		M Code	Total Funding	State Funds		Federal Funds		Local Funds		
				STIP/Other	State Bonds	RSTP/CMAQ	Other Fed.	M1	M2	Local - Other
SR-91 WB connecting existing auxiliary lanes, I-5 to SR-57- Landscaping		H	\$2,290							
SR-91 WB (SR-55 - Tustin Interchange) Improvements		I	\$43,753	\$15,753	\$14,000				\$2,290	
SR-91 eastbound widening, SR-241 to SR-71		J	\$57,773				\$45,911		\$14,000	
SR-91 w/b Rte 91/55 - e/o Weir Replacement Planting		J	\$2,898	\$2,898					\$6,942	\$4,920
SR-91 Widening, SR-55 to Gypsum Canyon (Weir/SR-241)		J	\$76,993	\$22,250	\$54,045				\$698	
SR-57 n/b widening, Katella Avenue to Lincoln Avenue		M1/G	\$35,827		\$24,127				\$11,700	
SR-57 N/B widening, SR-91 to Yorba Linda Boulevard		M1/G	\$51,354		\$39,475				\$11,879	
SR-57 N/B widening, Yorba Linda to Lambert Road		M1/G	\$52,871		\$41,250				\$11,621	
I-405/SR-22/I-605 HOV Connector - Landscaping			\$4,600			\$4,600				
I-5 at Jamboree off ramp and auxiliary lane			\$8,485	\$8,485						
I-5 S/B AT OSO PKWY EXIT LANE & INTRCHANGE IMPROV			\$22,872	\$22,773						\$99
SR-55 Continuous Access HOV restriping environmental			\$1,500							\$1,500
SR-90 Imperial Hwy Enhancement & Mitigation Planting			\$1,669	\$1,669						
HOV Connectors from I-405 and I-605		M1	\$173,091		\$135,430	\$14,787		\$16,200		\$6,674
HOV Connectors from SR-22 to I-405		M1	\$115,878			\$64,375	\$49,625	\$1,878		
State Highway Project Totals			\$1,033,081	\$213,713	\$380,452	\$140,771	\$97,888	\$20,578	\$161,478	\$18,201

State Highway Project Totals

State Funding Total	\$594,165
Federal Funding Total	\$238,659
Local Funding Total	\$200,257
Total Funding (000's)	\$1,033,081

Board Actions:

1. Capital Programming Update: Authorize the use of \$26.991 in TCIF to replace Measure M or SB 1 LPP Funds.

Project Notes:

2. Environmental Document Completed. Increase M2 by \$0.624 million to match Capital Action Plan.

Please note the following projects were completed and closed-out and have been removed from the Capital Funding Program: I-5 San Clemente Avenida Vaquero soundwall, I-5 soundwall at El Camino Real, I-5 Camino Capistrano interchange improvements, SR-55 s/b aux. lanes Dyer Road to MacArthur Boulevard (environmental), and I-5 at Gene Autry Way (west) - HOV drop ramps.

Acronyms

ADA - Americans with Disabilities Act
ARRA - American Recovery and Reinvestment Act
ARTIC - Anaheim
ATN - Anaheim Transportation Network
Aux - Auxiliary
Call - Call for Projects
CMAQ - Congestion Mitigation Air Quality Improvement Program
FTA - Federal Transportation Authority
FY - Fiscal Year
HOT - High-Occupancy Toll
HOV - High-Occupancy Vehicle
I-405 - Interstate 405
I-5 - Interstate 5
I-605 - Interstate 605
LA - Los Angeles
LOSSAN - San Diego-Los Angeles-San Louis Obispo
M1 - Measure M1
M2 - Measure M2
NB - Northbound
OC - Orange County
OCTA - Orange County Transportation Authority

OCX - Orange County Crossings
PCH - Pacific Coast Highway
PSR - Project Study Report
ROW - Right-of-Way
RSTP - Regional Surface Transportation Program
S/O - South of
SB - Southbound
SCAG - Southern California Association of Governments
SR-133 - State Route 133
SR-241 - State Route 241
SR-55 - State Route 55
SR-57 - State Route 57
SR-71 - State Route 71
SR-73 - State Route 73
SR-74 - State Route 74
SR-90 - State Route 90
SR-91 - State Route 91
SS - Southside
STIP - State Transportation Improvement Program
VSS - Video Surveillance System
WB - Westbound

Capital Programming Update Project Descriptions

Grade Separations

Descriptions of the five grade separations are provided below. Staff will return at a future date with final costs.

Raymond Avenue

The project was completed May 14, 2018 and includes construction of a vehicular underpass on Raymond Avenue at the Burlington Northern and Santa Fe (BNSF) railroad crossing, between Walnut Avenue and Ash Avenue in the City of Fullerton. The project lowered Raymond Avenue under Valencia Drive. Two bridge structures were constructed, one for the railroad and one for vehicular traffic. The project includes connector roads on the west side of Raymond Avenue to provide access to Valencia Drive and Truslow Avenue.

The total project is supported by \$112.190 million in State Proposition 1B Trade Corridor Improvement Funds (TCIF), Public Transportation Modernization, Improvement, and Service Enhancement (PTMISEA), and Transit System Safety, Security, and Disaster Response Account (TSSSDRA) funds, Measure M2 (M2), a portion of surplus property and rental income, BNSF, and Metropolitan Water District (MWD) funds.

State College Boulevard

The project was completed March 8, 2018 and constructed a grade separation on State College Boulevard at the BNSF railroad tracks from Santa Fe Avenue at the northerly terminus and approximately 700' south of Valencia Drive at the southerly terminus in the City of Fullerton. The grade separation provides an underpass for vehicular traffic on State College Boulevard and lowered State College Boulevard below the BNSF mainline rail lines. A rail bridge was constructed for the two existing mainline tracks with space for a third track.

The total project is supported by \$74.644 million in State Proposition 1B TCIF, PTMISEA, TSSSDRA funds, M2, a portion of surplus property and rental income, BNSF, and MWD funds.

Tustin Avenue/Rose Drive

The project was completed October 26, 2016 and constructed an overcrossing grade separation over the BNSF mainline tracks and includes the raising of Tustin Avenue/Rose Drive 24 feet above the BNSF mainline rail lines in the cities of Anaheim and Placentia. A bridge was constructed that spans over Orangethorpe Avenue, the BNSF, and Orange County Flood Control right-of-way. A modified loop-type connector road was also constructed to convey vehicles from Rose Drive back to Orangethorpe Avenue. A temporary bypass road was constructed to maintain traffic service during construction.

The total project is supported by \$86.381 million in State Proposition 1B TCIF, M2, utility relocation reimbursement, BNSF, and Regional Surface Transportation Program (RSTP)/Surface Transportation Block Grant (STBG) funds.

Capital Programming Update Project Descriptions

Orangethorpe Avenue

The project was completed October 26, 2016 and includes the construction of a roadway overpass between 600 feet west of Carbon Creek and 400 feet east of Taub Lane, in the cities of Anaheim and Placentia. The overcrossing project included construction of a roadway overpass with the BNSF mainline tracks to remain at grade. Two additional structures were required for Chapman Avenue and Miller Street to connect to the elevated Orangethorpe Avenue. The existing intersection of Orangethorpe Avenue and Chapman Avenue was eliminated and replaced with a bridge separating the two streets. Chapman Avenue now crosses under Orangethorpe Avenue and reconnects to Orangethorpe Avenue at Traub Lane.

The total project is supported by \$104.182 million in State Proposition 1B TCIF, M2, utility relocation reimbursement, BNSF, RSTP/STBG, Congestion Mitigation and Air Quality Improvement Program (CMAQ) and Federal Demonstration funds.

Lakeview Avenue

The project was completed June 5, 2017 and raised Lakeview Avenue 24 feet above the BNSF mainline tracks between Orchard Drive to the north and Eisenhower Circle to the south in the cities of Anaheim and Placentia. A bridge was constructed that spans over Orangethorpe Avenue, the BNSF, and Orange County Flood Control right-of-way. A modified loop type connector road was also constructed to move vehicles from Lakeview Avenue back to Orangethorpe Avenue. Improvements to adjoining streets and commercial driveways were also part of the project.

The total project is supported by \$87.873 million in State Proposition 1B TCIF, a portion of surplus property, M2, utility relocation reimbursement, BNSF, RSTP/STBG, CMAQ, and Federal Demonstration funds.

Video Surveillance Systems

OCTA has video surveillance systems (VSS) at various facilities in the cities of Anaheim, Garden Grove, Irvine, Orange, and Santa Ana. The VSS are currently outdated and have surpassed their useful life. Proposition 1B Transit System Safety, Security, and Disaster Response Account (TSSSDRA) funding was used to replace these systems, but due to project savings, an anticipated \$1.512 million of TSSSDRA will not be needed for the projects.

After the proposed Board of Directors (Board) action, the total project will be funded with \$1.588 million in TSSSDRA and Federal Transit Administration (FTA) Section 5307 funds.

Transit Security and Operations Center (TSOC)

OCTA is proposing to reprogram the TSSSDRA savings to the TSOC project to rebuild TSOC due to the seismic conditions of the current facility, which cannot be retrofitted to achieve the continuous operations standards required of essential facilities in California. TSOC houses the OCTA transit police, operations support, and central communications

Capital Programming Update Project Descriptions

systems, and provides disaster response transportation to move people, goods, emergency personnel, and equipment in the aftermath of a disaster.

After the proposed Board action, the proposed funding through the right-of-way phase is \$7.272 million in TSSSDRA funding. Future federal, state and/or local funds will be required to complete the project.

San Juan Creek Bridge Replacement

This project will replace the existing 100-year old railroad bridge over San Juan Creek in San Juan Capistrano. The existing bridge foundation does not meet current design standards and the bridge itself does not meet current railroad design load standards. The new bridge will improve the load and storm capacity, increase safety and reduce maintenance needs. The new bridge will be built on the western side of the existing bridge to minimize interruption to passenger and freight train services.

Current available funding for the \$38.371 million project is \$22.077 million in FTA Section 5337, federal earmarks, future Proposition 116, TSSSDRA and M2. Staff will return to the Board at a future meeting with a plan to fully fund the project.

Interstate 5 (I-5) Improvements from State Route 73 (SR-73) to Oso Parkway (Segment 1)

The proposed I-5 Segment 1 project will add a general-purpose lane in each direction between SR-73 and Oso Parkway (approximately 2.2 miles), reconstruct the Avery Parkway Interchange, reconstruct ramps at Avery Parkway, Crown Valley Parkway, and Oso Parkway, and construct auxiliary lane improvements. Segment 1 is part of a larger project to improve I-5 between SR-73 and El Toro Road, programmed in three phases.

Currently, this stretch of the I-5 corridor has insufficient capacity to handle existing and projected future (2045) travel demand in the project area. The lack of capacity leads to congestion both during weekdays as well as during weekends and holidays.

It is anticipated the project will improve the reliability of the freeway by reducing travel time through the 2.2-mile project segment by up to ten minutes during the AM peak and three minutes during the PM peak by year 2045. Most of the reduction in travel time is attributed to the expected increase in average speed from 26 MPH to 32 MPH on northbound I-5 during the AM peak. Other anticipated project benefits include 9.8 million person-hours saved annually and an annual reduction of 36.6 Tons CO₂ emissions.

After the proposed Board action, the total project will be funded with \$215.440 million in State Proposition 1B TCIF, STIP, SB 1 (Chapter 5, Statutes of 2017), Local Partnership Program, STBG, and M2.

**List of Board of Directors Reports with Programming Actions
June 2018 – October 2018**

Date	Report Title	Fund Source(s) Affected
6/11/18	Capital Programming Update	M2, STBG, FTA5307, RSTP
6/11/18	Comprehensive Transportation Funding Programs - 2018 Project O and Project P - Call for Projects Programming Recommendations	M2, LPP
6/11/18	Public Hearing on Orange County Transportation Authority's Fiscal Year 2018-19 Budget and Personnel and Salary Resolution	FTA5307, FTA 5339b, M2, LTF, SB 1, STA, Fares, Toll Revenues,
6/11/18	Comprehensive Transportation Funding Programs Semi-Annual Review – March 2018	M2, Project O, P and V
6/11/18	Orange County Transportation Authority State and Federal Grant Programs – Update and Recommendations	CMAQ
6/25/18	2018 Measure M2 Community-Based Transit Circulators (Project V) Call for Projects Programming Recommendations	M2, Project V
7/19/18	OC Streetcar Revised Funding Plan	M2
8/13/18	SB 1 (Chapter 5, Statutes of 2017) Local Partnership Program Formula Funding Program Recommendations for Fiscal Year 2019-20	LPP
8/13/18	Acceptance of State Competitive Grants	Adaptation Planning, CURE, Sustainable Communities
8/13/18	SB 1 (Chapter 5, Statutes of 2017) State of Good Repair Program Recommendations for Fiscal Year 2018-19 Funds	SB 1 SGR
8/13/18	Agreement for On-Call Property Maintenance Services for Orange County Transportation Authority-Owned Properties	LTF, CURE
9/10/18	Comprehensive Transportation Funding Programs – Measure M2 Environmental Cleanup Program Revised 2018 Tier 1 Projects	M2
10/8/18	Grant Award for the Pedestrian and Bicycle Safety Program	COTS

Acronyms:

CMAQ – Congestion Mitigation and Air Quality Improvement Program

COTS – California Office of Traffic Safety

CURE – Commuter Urban Rail Endowment

FTA – Federal Transit Administration

LPP – Local Partnership Program

LTF – Local Transportation Funds

M2 – Measure M2

RSTP – Regional Surface Transportation Program

SGR – State of Good Repair

STA – State Transit Assistance

STBG – Surface Transportation Block Grant



November 5, 2018

To: Regional Planning and Highways Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: Final 2018 Long-Range Transportation Plan

Overview

The Long-Range Transportation Plan provides the vision for Orange County's regional transportation system over the next 20+ years. The final plan has been prepared, incorporating input received through public review of the draft document as appropriate. Based on public input, minor modifications were made to the project list, and the results remain consistent with the draft document. With direction from the Board of Directors, the final plan will be submitted to the Southern California Association of Governments as input to the 2020 Regional Transportation Plan and Sustainable Communities Strategy that is currently in development.

Recommendation

Direct staff to submit the final 2018 Long-Range Transportation Plan to the Southern California Association of Governments as input to the 2020 Regional Transportation Plan and Sustainable Communities Strategy.

Background

The Long-Range Transportation Plan (LRTP) is a long-term visioning document that analyzes anticipated demographic and travel demand growth in consideration of established priorities, projected revenue limitations, and emerging issues and technologies. The LRTP is updated every four years to adjust for changing conditions, as well as to coincide with the Orange County Transportation Authority's (OCTA) input into the Southern California Association of Governments' (SCAG) Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS). Regionally significant transportation projects cannot proceed through the project development process without being included in the RTP/SCS.

The comprehensive technical work to prepare the LRTP was complemented by a two-phase outreach effort that was conducted from February 2017 through September 2018. This included a pre-draft element (Phase One) and a post-draft element (Phase Two). Phase One began in February 2017 to engage the public-at-large, elected officials, local jurisdiction staff, advocacy groups, and industry professionals. Discussions were conducted in the context of OCTA's commitment to Measure M2 (M2), along with information related to 2040 demographic, financial, and travel conditions.

The results of the Phase One outreach effort were considered in the development of the draft 2018 LRTP that was presented to the Board of Directors (Board) and approved for public review on August 13, 2018. At that time, Phase Two of the outreach effort was initiated. Comments were accepted through September 28, 2018, that resulted in only minor updates to the financially constrained Trend 2040 project list. A summary of the input received and how it has been incorporated into the final 2018 LRTP is provided below.

Discussion

The final 2018 LRTP, *Designing Tomorrow*, and executive summary (Attachment A) have been prepared and are ready for submittal to SCAG as input for the 2020 RTP/SCS, pending Board direction. Two 2040 scenarios are analyzed in *Designing Tomorrow*, including the 2040 no build (reflecting how the 2015 transportation network performs based on 2040 travel demand) and Trend 2040 (reflecting financially constrained improvements that can be made by 2040). Additionally, *Designing Tomorrow* includes a list of conceptual projects that could eventually be part of the financially constrained scenario, as well as two discussion scenarios which consider changes that could come from innovations and potential policy decisions in the coming years.

From 2015 to 2040, it is projected that an additional 1.7 million daily person trips will occur in Orange County, a more than 12 percent increase from 2015. This increase in travel demand is due to anticipated socioeconomic growth that is outside the control of OCTA. These forecasts, developed by the Center for Demographic Research at California State University, Fullerton, estimate increases of over 300,000 residents and 275,000 jobs in Orange County by 2040.

The 2040 no build scenario reflects how this socioeconomic growth would impact the 2015 transportation system. This helps highlight the transportation challenges presented by travel demand increases over the next 20+ years. One challenge of note is the projected 66 percent increase in vehicle hours of delay due to congestion. Fortunately, Orange County voters had the foresight to

establish the M2 local sales tax to fund transportation investments that improve upon the 2040 no build scenario.

In addition, OCTA has undertaken many planning efforts in recent years which identify priorities, projects, and programs that address many of Orange County's transportation needs. These efforts include major investment studies, the OC Transit Vision, regional bikeway plans, and the Next 10 Plan. These represent many years of research, design work, coordination, cost and benefit analysis, and public input that have gone into planning for mobility in Orange County.

The M2 Investment Plan and associated Next 10 Plan make up the cornerstone of the Trend 2040 scenario. Trend 2040 also draws from improvements recommended by the other planning efforts discussed above, to the extent that they are financially feasible and consistent with the LRTP's established goals of delivering on commitments, expanding transportation system choices, improving system performance, and supporting sustainability. Other projects that would likely contribute toward the LRTP goals, but that do not have identified funding and/or require additional refinement, are reserved for the financially unconstrained conceptual scenario.

The table below highlights how projected growth in travel demand between 2015 and 2040 impact the transportation system. In short, Trend 2040 does well to mitigate increases in travel demand due to projected socioeconomic growth.

2015-2040 Travel Demand Growth Impacts

Metrics (daily)	2015 Base Year	2040 No Build	Trend 2040
Vehicle hours of congestion delay	330,619	547,996	378,138
Vehicle hours traveled	2,170,289	2,566,486	2,448,203
Delay as a percent of travel time	15.2%	21.4%	15.4%
Transit trips	149,000	165,000	174,000
Freeways – AM peak average speed (mph)	38.3	36.2	39.7
Arterials – AM peak average speed (mph)	25.7	24.3	25.9

mph – miles per hour

The public input received through the comprehensive outreach effort played a key role in preparing the draft document and refining the final 2018 LRTP. As noted above, Phase One of the outreach effort provided input into the development of the draft 2018 LRTP. Phase Two built upon Phase One by gathering feedback on the draft document for consideration in preparing the final 2018 LRTP. A summary of Phase Two is provided below, while details are included in the Public Outreach Report (Attachment B).

Phase Two included a variety of activities designed to solicit public input from a broad spectrum of people including a website/online survey (1,230 respondents), telephone town hall (956 callers participated for at least five minutes), quantitative survey (2,525 respondents), comment cards/online commenting (110 comments received), social media campaign, pop-up events (seven events), video, art and photo contest, and public open house (70 attendees). These opportunities engaged the general public, transportation professionals/organizations, business and community leaders, elected officials, city/county officials, diverse community leaders, influential Orange County leaders, transit/rideshare users, OCTA's public committees, students, and environmental groups. Through this engagement, key themes listed below were identified, which are generally consistent with those identified in Phase 1.

Keep Orange County Moving

- Synchronize signals and maintain local roads.
- Improve freeway performance.

Expand Transit Options

- Explore opportunities for new transit services.

Use a Balanced Investment Approach

- Invest in improvements across all modes to relieve congestion.

Comments received mostly supported projects and activities identified in the draft 2018 LRTP. Therefore, refinements made for the final 2018 LRTP did not significantly change the projects or results. Many comments highlight important issues that go beyond the proposed Trend 2040 improvements and that require further study. These issues reinforced the importance of the Short-Term Action Plan (Attachment C), which identifies activities to be undertaken by staff over the next four years. The activities are grouped into the following four categories.

- Orange County Planning Activities,
- Regional Planning Activities,
- Emerging Issues, and
- Transportation Outreach and Education.

The results of these activities will be incorporated into the next LRTP, in 2022, to help steer the continued development of Orange County's transportation system. It should also be noted that the Short-Term Action Plan includes activities addressing priced-managed lanes, the 2028 Olympics, and emerging technologies and services – all of which are anticipated to be major topics of discussion during the development of SCAG's 2020 RTP/SCS.

In addition to the public input summarized above, eight comment letters were also received from state and local agencies and organizations, which are included in the Public Outreach Report. The comment letters generally supported the LRTP, but also requested additional data (such as PM peak speeds and additional mapping data) and clarifications on topics of specific interest to the individual agencies and organizations. The final 2018 LRTP addresses many of the requests by incorporating additional language and data that add clarity and highlight partnerships and benefits.

Some letters requested consideration of additional projects for inclusion in the financially constrained Trend 2040 scenario. These included a project to underground utilities and add bikeways and sidewalks on Laguna Canyon Road, as well as the southern extension of State Route 241 (SR-241). The Laguna Canyon Road project currently lacks identified funding to be included in the Trend 2040 project list. As for the southern extension of SR-241, Transportation Corridor Agencies (TCA) are evaluating nine concepts along several different corridors, some of which overlap existing or planned Measure M2 improvements included in Trend 2040. Each of the concepts must be studied in more detail to understand potential impacts involving nearby communities and responsible agencies, as noted in letters and comments received during the public review period. While some comments supported the SR-241 extension, most identified concerns or opposition, including letters from the California Coastal Commission and a collection of conservation groups.

For the reasons described above, and to limit potential challenges to SCAG's RTP/SCS, these projects will remain in the conceptual project listing within the 2018 LRTP for the time being. Including these proposed projects in the conceptual project list does not slow the project development process. Studies will be able to proceed related to the project approval and environmental document phase.

The final 2018 LRTP also adds language discussing conditions under which OCTA would consider moving these projects to Trend 2040. For the Laguna Canyon Road project, the LRTP cites the need for the City of Laguna Beach to secure additional funding through their proposed tax measure that is on the November 2018 ballot. As for the extension of SR-241, funding may not be a concern, but the LRTP cites the need for TCA to identify a preferred corridor, as

suggested in the City of Mission Viejo's comment letter. OCTA also requests that TCA demonstrate support from responsible agencies and affected communities prior to OCTA considering the project for inclusion in any financially constrained project list.

Summary

The final 2018 LRTP, Designing Tomorrow, has been prepared. This LRTP incorporates input received during the public review period and proposes a Short-Term Action Plan that identifies efforts to be pursued by staff over the next four years. The results of these efforts will be considered in developing the next LRTP for 2022. With direction from the Board, staff will submit the final 2018 LRTP to SCAG as input for the 2020 RTP/SCS.

Attachments

- A. Designing Tomorrow, 2018 Long-Range Transportation Plan, Executive Summary, November 2018
- B. Designing Tomorrow, 2018 Long-Range Transportation Plan, Public Outreach Report, September 2018
- C. 2018 Long-Range Transportation Plan, Short-Term Action Plan

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DESIGNING TOMORROW

2018 LONG-RANGE TRANSPORTATION PLAN

Executive Summary

November 2018

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Executive Summary

2018 Long-Range Transportation Plan

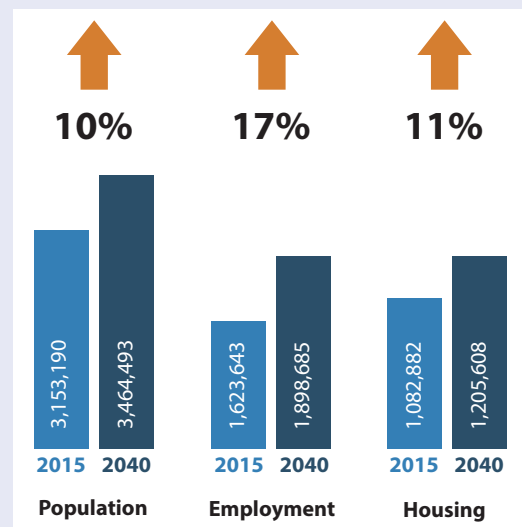
Executive Summary

The Orange County Transportation Authority (OCTA) was created in 1991 through the consolidation of seven separate transportation planning agencies. Since that time, Orange County has transformed from a Los Angeles bedroom community to a vibrant, independent economy of its own. OCTA played a major role in this growth by keeping residents and commuters moving throughout Orange County's 34 cities and the unincorporated County areas. This is exemplified through successful implementation and operation of transportation projects and services over the years, including well over 1 billion bus passenger trips, approximately 62 million Metrolink passenger trips, in excess of 200 miles of freeway lanes constructed, and 2,000 synchronized traffic signals.

In order to accommodate future growth in population, employment, and housing, OCTA must continue to improve upon the existing transportation system. Within this setting, transportation leaders have worked with the general public and partner agencies to develop *Designing Tomorrow*, Orange County's long-range transportation plan to keep its transportation systems operating efficiently, effectively, and in keeping with the needs and desires of its residents.

2040 No Build Conditions

Analysis by the Center for Demographic Research shows Orange County's population, employment, and housing are expected to continue growing for the foreseeable future. To understand how much of an impact the projected growth will have on the transportation system, OCTA analyzed a scenario referred to as 2040 No Build. This scenario considers how the transportation system would operate in 2040 if no investments or changes were made after 2015. The result showed that without additional transportation improvements, the percent of time spent in traffic will increase 41 percent as average speeds decline on Orange County's highways and roadways by approximately six percent. The performance of this 2040 No Build scenario is shown below in comparison to 2015 conditions.



TRANSPORTATION SYSTEM PERFORMANCE SUMMARY (2015 TO 2040)

Performance Metric	2015 Base Year	2040 No Build
Delay as a percent of travel time	15.2%	21.4%
Freeways - AM peak average speed (mph)	38.3 miles per hour	36.2 miles per hour
Arterials - AM peak average speed (mph)	25.7 miles per hour	24.3 miles per hour

Note: AM peak refers to the period between 6AM and 9AM

What is a Long-Range Transportation Plan (LRTP)?

Designing Tomorrow, OCTA's vision for mobility over the next 20+ years, is known as a long-range transportation plan. Orange County's long-range transportation plan is updated every four years to reflect changing demographics, economic trends, and mobility needs. It also serves as Orange County's input into regional planning efforts for southern California.

The Southern California Association of Governments (SCAG) is required by the state of California and the federal government to develop a Regional Transportation Plan/Sustainable Communities Strategy, also every four years. Orange County's transportation projects must be included in the Southern California Regional Transportation Plan/Sustainable Communities Strategy in order to be eligible for federal and state funding, and to progress through design and construction.

Establishing the Framework for the Long-Range Transportation Plan

Creating transportation solutions for the future requires developing and analyzing a range of scenarios, and ultimately defining a preferred transportation plan. The plan must take into account the many challenges facing a county that is continuing to grow. *Designing Tomorrow* does just that – it contains a set of goals that considers financial constraints, shifting interest in modes of transportation, and environmental regulations. It also supports exploring opportunities that come with the emergence of new technology and innovation that could substantially change the face of transportation in the next 20+ years.

Challenges

- High Cost of Housing
- Limited Land for System Expansion
- Transportation Funding Uncertainties
- Evolving Transit Market
- Disruptive Technologies
- Challenging Emission Standards

Goals

- Deliver on Commitments
- Improve System Performance
- Expand System Choices
- Support Sustainability

The 2040 Improvement Plan

The growing travel demand highlighted in the 2040 No Build scenario is addressed through a financially-constrained multi-modal strategy in the Trend 2040 scenario. This scenario delivers on OCTA's commitments, improves system performance, expands transportation choices, supports sustainability, and aligns with stakeholder input. A listing of the Trend 2040 projects is shown in the tables on the following pages.

TREND 2040 PROJECT LIST - HIGHWAY PROJECTS

Corridor	Description	Regular Lanes	HOV Lanes	Express Lanes	Toll Roads	Inter-change
Measure M Projects						
I-5	Project A – Add one HOV in each direction from SR-55 to SR-57, plus auxiliary lanes as needed		X			
I-5	Project B – Add one regular lane NB from truck bypass on-ramp to SR-55; Add one regular lane SB from SR-55 to Alton Parkway; improve merging	X				
I-5	Project C – Add one regular lane in each direction from SR-73 to Alicia Parkway, and one HOV lane each in direction from Alicia Parkway to El Toro Road, and improve La Paz Road and Avery Parkway interchanges	X	X			X
I-5**	Project C – Add one HOV in each direction from Pacific Coast Highway to Avenida Pico, and reconfigure interchange at Avenida Pico		X			X
I-5	Project D – Improve access and merging in the vicinity of El Toro Road					X
SR-55	Project F – Add one regular lane and one HOV lane in each direction from I-405 to I-5, and fix chokepoints	X	X			
SR-55	Project F – Add one regular lane in each direction and fix chokepoints from I-5 to SR-22; make other operational improvements from I-5 to SR-91	X				
SR-57	Project G – Add one regular lane NB between Orangewood Avenue and Katella Avenue	X				
SR-57	Project G – Add one NB truck climbing lane from Lambert Road to Los Angeles County line	X				
SR-91**	Project H – Add one regular lane WB from I-5 to SR-57	X				
SR-91**	Project I – Add one regular lane WB from SR-55 to Tustin Avenue	X				

*Under construction

**Completed since 2015

NB - Northbound

SB - Southbound

EB - Eastbound

WB - Westbound

TREND 2040 PROJECT LIST - HIGHWAY PROJECTS CONTINUED

Corridor	Description	Regular Lanes	HOV Lanes	Express Lanes	Toll Roads	Inter-change
Measure M Projects						
SR-91	Project I – Add one regular lane EB from SR-57 to SR-55; add one regular lane WB from SR-57 NB connector to State College Boulevard; improve interchanges and merging from Lakeview Avenue to Raymond Avenue	X				
SR-91	Project J – Add one regular lane in each direction from SR-241 to county line	X				
I-405*	Project K – Add one regular lane each direction from I-605 to SR-73 and provide additional capital improvements	X				
I-405	Project L – Add one regular lane in each direction from I-5 to SR-55, and add SB auxiliary lane from SR-133 to Irvine Center Drive	X				
I-605	Project M – Improve interchange at Katella Avenue					X
	Project N – Freeway Service Patrol					
Additional Projects						
I-5	Add one HOV lane in each direction from SR-57 to SR- 91		X			
I-5	Add one HOV lane in each direction from Avenida Pico to San Diego County line		X			
I-5	Barranca Parkway HOV interchange improvement - Add SB HOV on-ramp and northbound HOV off-ramp					X
SR-57	Interchange Improvement at Lambert Road					X
SR-73	Add one HOV lane in each direction from MacArthur Boulevard to I-405		X			
SR-91	Construct overcrossing and interchange at Fairmont Boulevard					X
SR-91	Express Lanes - Operations and maintenance					
I-405*	Add one express lane in each direction from I-605 to SR-73, convert existing HOV to HOT, and provide additional capital improvements			X		
I-405	Add auxiliary lanes from University Drive to Sand Canyon Ave, and from Sand Canyon Ave to SR-133	X				

*Under construction
 **Completed since 2015

NB - Northbound
 SB - Southbound

EB - Eastbound
 WB - Westbound

TREND 2040 PROJECT LIST - HIGHWAY PROJECTS CONTINUED

Corridor	Description	Regular Lanes	HOV Lanes	Express Lanes	Toll Roads	Inter-change
Additional Projects						
I-405	Express Lanes – Operations and maintenance					
	Motorist services (511 service and call box network)					
Projects from Partner Agencies						
SR-241 SR-261 SR-133	Build out to three to four toll lanes in each direction from SR-91 to I-5 (via SR-261 and SR-133), plus climbing and auxiliary lanes				X	
SR-241	Build out to four to five toll lanes in each direction, plus climbing and auxiliary lanes, south of SR-133				X	
SR-73	Build out to four toll lanes in each direction, plus climbing and auxiliary lanes				X	
SR-133	Add new interchange at Trabuco Road/Great Park Boulevard (North Irvine Transportation Mitigation Program)				X	X
SR-241	Add Express Lane Connector to SR-91 Express Lanes			X	X	X
SR-91	RCTC to add one regular lane from county line to SR-71	X				

TREND 2040 PROJECT LIST - STREETS AND ROADS

Corridor	Description
Measure M Projects	
Countywide	Project O – Master Plan of Arterial Highways build out
Grade Separations**	Project O – Grade separations along BNSF corridor at Raymond Ave and State College Boulevard
Countywide	Project P – Signal synchronization program
Additional Projects	
Countywide	Arterial Pavement Rehab
Grade Separations	Along LOSSAN corridor at 17th Street, State College, and Santa Ana Boulevard
Countywide	OC Bikeways

*Under construction

**Completed since 2015

TREND 2040 PROJECT LIST - TRANSIT

Description
Measure M Projects
Project R – Metrolink Capital – Supports service increase from 54 to 86 weekday trains
Project R – Metrolink Service Expansion Program station improvements
Project S – OC Streetcar
Project U – Senior Mobility Program
Project U – Senior Non-Emergency Medical Transportation Program
Project W – Safe Transit Stops
Additional Projects
OC Bus 360° – Bus Efficiency Strategy
North Harbor Corridor – High-quality transit between Cal State Fullerton and the Santa Ana Regional Transportation Center
17th/Westminster & Bristol Corridor – High-quality transit between the Goldenwest Transportation Center and the University of California, Irvine
South Harbor Corridor – High-quality transit between 17th/Westminster and Hoag Hospital Newport Beach
Bristol & State College Corridor – High-quality transit between Brea Mall and Downtown Santa Ana
Beach Corridor – High-quality transit between Fullerton Park-and-Ride and Downtown Huntington Beach
La Palma Corridor – High-quality transit between Hawaiian Gardens and Anaheim Canyon Station
McFadden & Bolsa Corridor – High-quality transit between Goldenwest Transportation Center and Larwin Square
Main Corridor – High-quality transit between Anaheim Regional Transportation Intermodal Center and the South Coast Plaza Park-and-Ride
Chapman Corridor – High-quality transit between Hewes and Beach
Interstate 5 Corridor – Freeway BRT between Fullerton Park-and-Ride and Mission Viejo/Laguna Niguel Metrolink Station
State Route 55 Corridor – Freeway BRT between Santa Ana Regional Transportation Center and Hoag Hospital Newport Beach
Metrolink Operations (increase from 54 to 86 weekday trains)
OC Flex – On-demand shared-ride microtransit service
LOSSAN – Laguna Niguel to San Juan Capistrano rail passing siding
Transit Security and Operations Center
Vanpool

TREND 2040 PROJECT LIST - OTHER

Description
Measure M Projects
Project X – Transportation-related water quality program
Additional Projects
Bond Interest

The Trend 2040 scenario can be delivered within the revenues projected between 2019 and 2040, which amount to approximately \$43.4 billion. The majority of these funds (68 percent) are local sources, while state sources comprise 22 percent and federal sources make up the remaining 10 percent. The allocation of these funds was prioritized to deliver on commitments that include: completion of OC Go (also known as Measure M - Orange County's one-half cent sales tax for transportation, administered by OCTA); non-OC Go projects that have secured support and funding; as well as maintaining existing infrastructure, transit service levels, and motorist services programs. Delivering on these commitments requires about 84 percent of the available revenues.

PROPOSED TREND 2040 EXPENDITURE BY MODE

Mode	Expenditure	% of Total Cost
Transit Projects	\$18,103,197	42%
Highway Projects	\$9,646,352	22%
Local Projects	\$14,169,720	33%
Other (OC Go Environmental Programs, Bond Interest, etc.)	\$1,471,467	3%

Note: Additional investments in highway safety and maintenance projects are made by the state through the State Highway Operation and Protection Program.

Trend 2040 also includes "additional projects" (as noted in the preceding tables) that go beyond the commitments described above. These projects use the remaining 16 percent, or approximately \$7 billion, of projected funding. These discretionary funds were used to fund projects and services that further address the 2018 long-range transportation plan goals and challenges. These projects are typically selected from plans that have been publicly vetted, such as the OC Transit Vision, Regional Bikeways plans, Metrolink Strategic Plan, and locally preferred alternatives from OCTA's major investment studies.

Changing Carpool Lane Standards

The performance of the carpool lane system in Orange County is a challenge, in that it must comply with federal performance standards that are not being met today. To meet these standards, the California Department of Transportation (Caltrans) is considering exercising its authority to make operational changes that would increase the number of passengers required to three or more. Additionally, Caltrans and neighboring counties are planning to have many of these carpool lanes allow vehicles with fewer than three passengers to also use the carpool lanes for a fee. Since a significant amount of funding is at stake if the federal standards are not met, *Designing Tomorrow* evaluated the options, as shown in the chart below. It was determined that, based on what OCTA knows today, the most reasonable option is to assume that the carpool lane system will likely operate as carpool/tolled express lanes by 2040. Therefore, this was assumed in the analysis of the Trend 2040 scenario.

CARPOOL LANE PERFORMANCE SUMMARY

Metrics	Carpool 2+	Carpool 3+	Express Toll
Meets federal performance standards	✗	✓	✓
Managed lane capacity used during morning drive time	70%	30%	60%
Findings summary	Does not meet federal standard due to overuse.	Meets federal standard, but underused.	Meets federal standard and doubles use compared to carpool 3+

Achieving the Goals and Performance

Trend 2040 keeps promises made to voters through OC Go and meets the long-range transportation plan goal of **delivering on commitments**. The performance metrics below indicate that the efficiency of the Orange County transportation system improves significantly under the Trend 2040 scenario, nearly matching the 2015 Base Year despite a 10 percent increase in population and a 17 percent increase in employment. Therefore, Trend 2040 is meeting the goal of **improved system performance**. Additionally, Trend 2040 supports the goal of **expanding system choices** by investing in development of transit, active transportation, and rideshare options. Finally, Trend 2040 can be accomplished within the funds projected to be available between now and 2040, making the plan **financially sustainable** for OC taxpayers. It also includes system maintenance programs and programs to improve the quality of life for Orange County residents such as land acquisition and environmental mitigation projects that not only provide open space but also offset greenhouse gas emissions. Thus, Trend 2040 achieves financial, infrastructural, and environmental sustainability.

Taking a closer look at the performance of the Trend 2040 scenario as compared with the 2040 No Build, the percent of travel time in traffic is reduced 28 percent, while freeway and arterial speeds increase 10 percent and nearly 7 percent, respectively. Additionally, transit trips are projected to increase approximately 6 percent.

TRANSPORTATION SYSTEM PERFORMANCE SUMMARY

Metrics (daily)	2015 Base Year	2040 No Build	Trend 2040
Delay as a percent of travel time	15.2%	21.4%	15.4%
Transit trips	149,000	165,000	174,000
Freeways - AM peak average speed (mph)	38.3	36.2	39.7
Arterials - AM peak average speed (mph)	25.7	24.3	25.9

Note: Trend 2040 assumes managed lanes are operated as carpool/tolled Express Lanes by 2040

Designing in a Changing World

Advancing technologies and services, ranging from on-demand and remote transportation options to car-and bike-sharing to autonomous vehicles, are already operational or expected to be a part of the transportation landscape in the not-too-distant future. As groundbreaking technologies and services offer new transportation possibilities, they will significantly change travel behavior and patterns, and in turn, greatly impact the infrastructure and support systems needed to keep Orange County residents mobile.

Given this reality, a 20-year transportation plan must acknowledge that change related to new technologies is inevitable. Therefore, *Designing Tomorrow* includes two “discussion scenarios” to explore a sample of many possible futures that may take shape by 2040. The first is the Innovation scenario that considers potential impacts of certain technological innovations on travel behavior, in addition to the Trend 2040 investments and assumptions. The second is the Policy scenario, which builds on the Innovation scenario to also consider how policy changes being discussed at the state and regional levels could further influence travel behavior and leverage some of the technological innovations.

When comparing the performance of the Innovation discussion scenario to Trend 2040, it appears that autonomous vehicles, telecommuting technologies, and on-demand ridehailing services may not provide a focused benefit to the transportation system. Except for average freeway speeds, all other performance measures worsen under the Innovation scenario: arterial speeds decline, transit trips drop, and there is greater delay in travel times. This is primarily due to the assumption that autonomous vehicles will be accessible to many individuals who cannot operate vehicles today, as well as the introduction of zero-occupant trips, which together increase vehicle miles traveled and congestion while reducing transit ridership. However, if policies are put in place to maximize the impact of technology on travel behavior, the performance measures show better outcomes.

Examples of policies that leverage innovations could include: allowing autonomous vehicles to access carpool lanes, like today’s clean air vehicle policy; providing telecommuting incentives to businesses; and policies that support ridesharing, including additional park-and-ride lots. Additionally, policies that are more independent from innovations can also substantially influence travel behavior. These could include mileage-based user fees, priced parking, and policies that enhance land use diversity and connectivity with active transportation facilities and transit services. The Policy scenario adds assumptions to the Innovation scenario that are intended to represent the types of policies described above. When comparing the Policy discussion scenario with Trend 2040, system performance improves significantly: there is a nearly 30 percent decrease in travel time delay, and freeway and arterial speeds increase by approximately 9 percent and 8 percent, respectively.

This highlights the important role policy will play to help guide how innovations should be implemented, as well as the level of direct impact policy can have on travel behavior. The development of these influential innovations and policies will continue to be monitored by OCTA for further discussion, as noted in the Short-Term Action Plan.

TRANSPORTATION SYSTEM PERFORMANCE SUMMARY

Metrics (daily)	Trend 2040	Innovation	Policy
Delay as a percent of travel time	15.4%	16.9%	11.7%
Transit trips	174,000	171,000	170,000
Freeways - AM peak average speed (mph)	39.7	39.8	43.1
Arterials - AM peak average speed (mph)	25.9	25.4	28.0

Future Efforts

In closing, *Designing Tomorrow* outlines several conceptual projects that go beyond the Trend 2040 financially constrained scenario that may further achieve the goals of the plan. As these conceptual projects become defined and refined through stakeholder input and environmental analyses, OCTA may consider including them in the financially constrained scenario of future LRTPs.

CONCEPTUAL PROJECT LIST

Description
Local Arterial Projects
Crown Valley Parkway – I-5 to Greenfield Drive lane additions beyond MPAH
Cabot Road – Paseo de Colinas to Camino Capistrano lane additions beyond MPAH
Harbor Boulevard/Ball Road gradeseparated intersection
Harbor Boulevard – Warner Avenue to 17th Street lane additions beyond MPAH
Laguna Canyon Road* – El Toro Road to Canyon Acres Drive
OC Intersections Assessment recommendations
MPAH Complete Streets Assessment recommendations
OC Active recommendations
Countywide Communications Study (ITS) recommendations
Highway Projects
Ortega Highway – Operational Improvements
I-5 – Avenida Pico to Avenida Vaquero truck lane
Freeway Chokepoints (TBD)
Direct access ramps (TBD) – Managed lane and high-capacity transit support
SR-55 - Improve access and merging in the vicinity of Meats Avenue
Transit Projects
Metrolink expansion (increase from 86 to 98 weekday trains)
Other Projects
OC Goods Movement Study recommendations
Projects from Partner Agencies
SR-73/Glenwood intersection improvement (Phase III) - TCA
FTC South – SR-241/Oso Parkway to I-5 (San Diego) – TCA

**Note: Contingent on voter approval of a local sales tax supporting the Laguna Canyon Road project, OCTA will include it in Orange County's financially constrained submittal for the 2020 RTP/SCS*

Designing Tomorrow also identifies several short-term activities to keep OCTA moving forward by continuing to plan and evolve by working with partner agencies, engaging Orange County communities, and integrating emerging innovations and policies.

2018 LRTP SHORT-TERM ACTION PLAN

Activity	Description
Orange County Planning Activities	
Coordination with Local Partner Agencies	Continue dialogue with local jurisdictions, Caltrans District 12, TCA, local transit operators, and other local agencies as needed to further intra-county connectivity.
South Orange County Mobility	Identify multi-modal transportation needs and opportunities in South Orange County.
Corridor Studies & Improvements	Conduct studies evaluating the feasibility of multi-modal corridor enhancements.
OC Transit Vision Feasibility Studies	Study options to improve transit service and connectivity along corridors identified through the OC Transit Vision.
Transit Support Services	Establish a long-term plan for Orange County transit supportive services, such as OC Flex, Vanpools, and Park & Rides.
Managed Lane Studies	Identify operational enhancements to the HOV network and criteria for potential expansion of priced managed lanes.
Freeway Chokepoints	Develop long-term freeway chokepoint improvement strategies, assuming OC Go is fully implemented.
Signal Synchronization	Support local initiatives to maintain and modernize signal synchronization corridors countywide.
Transportation Demand Management (TDM)	Study opportunities for new or expanded TDM projects.
Active Transportation Investments	Continue evaluating Orange County's Active Transportation needs, develop long-term plans, and implement programs that address data collection, data management, and safety education.
Sustainable Transportation Strategies	Coordination with partner agencies on implementation of sustainability strategies.
Joint Development Studies	Evaluate opportunities for joint developments at OCTA transit terminals to improve transit facilities and connectivity with employment/housing.
Asset Management	Monitor maintenance needs for existing and new facilities and equipment. Update fleet plans to address zero-emission bus requirements.
Adaptation Planning	Study infrastructure needs and develop recommendations
Traffic Model Update	Update Orange County Traffic Analysis Model to incorporate latest socioeconomic data
Regional Planning Activities	
Coordination with Regional Partner Agencies	Continue dialogue with SCAG, SANDAG, County Transportation Commissions, SCAQMD, Caltrans, and other regional agencies as needed to further inter-county connectivity.

2018 LRTP SHORT-TERM ACTION PLAN CONTINUED

Activity	Description
Regional Planning Activities	
Trade Corridors/Goods Movement	Coordinate primarily through SCAG and Metro to plan for projected growth in regional goods movement.
2020 RTP/SCS	Participate in the development of the 2020 RTP/SCS and initiate dialogue with SCAG and local jurisdictions.
2028 Olympics	Coordinate with Metro on preparations for the 2028 Olympics
Metro Countywide ExpressLanes Strategic Plan	Continue dialogue with Metro and appropriate agencies to identify impacts to, and opportunities for, connectivity with Orange County's transportation network.
San Diego's I-5 HOT Lane Project	Continue dialogue with SANDAG and appropriate agencies to identify impacts to, and opportunities for, connectivity with Orange County's transportation network.
West Santa Ana Branch/ Pacific Electric Right-of-Way	Continue dialogue with Metro and appropriate agencies to identify impacts to, and opportunities for, connectivity with Orange County's transportation network.
Gold Line Eastern Extension – Phase 2	Continue dialogue with Metro and appropriate agencies to identify impacts to, and opportunities for, connectivity with Orange County's transportation network.
LOSSAN/Green Line Connection	Participate in SCAG's effort to identify impacts to, and opportunities for, connectivity. Metro is the lead agency for planning, constructing, and operating major transit capital investments in Los Angeles County such as this connection.
Emerging Issues	
Monitor New Technology	Monitor developing technologies and their potential impacts on transportation (e.g., autonomous vehicles, alternative fuels, and smart phone applications).
Connected Infrastructure Needs Assessment	Study infrastructure needs and identify opportunities to implement and/or complement emerging transportation technologies.
State and Federal Regulation	Monitor state and federal legislation/regulations.
State and Federal Funding	Identify strategies and opportunities to access and leverage State and federal funding.
Transportation Outreach and Education	
Active Transportation Safety	Seek opportunities to enhance public outreach and education related to active transportation safety.
Transit Use and Trip Planning	Explore new approaches to increase use of modes other than single occupant vehicles, including enhanced transit and active transportation facilities, public education, and incentives.

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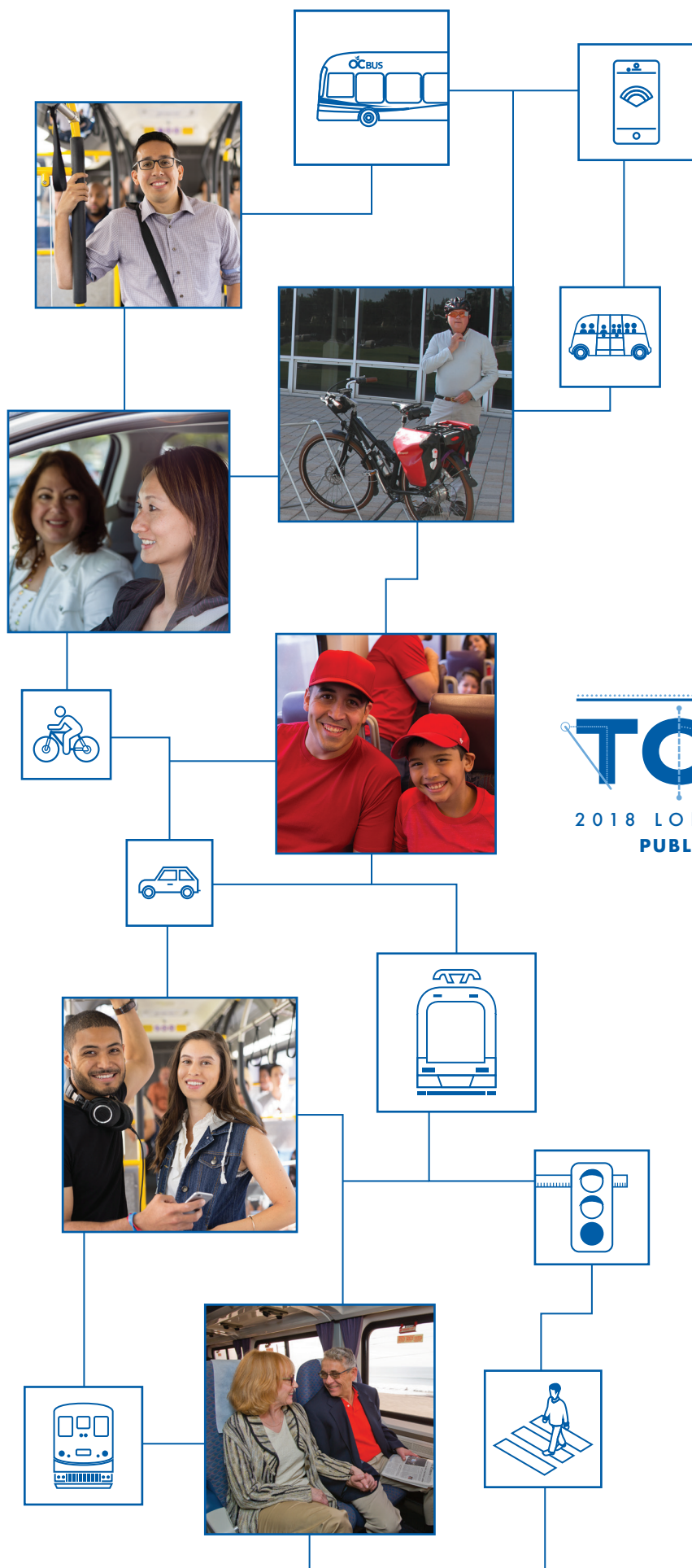
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DESIGNING TOMORROW

2018 LONG-RANGE TRANSPORTATION PLAN



ORANGE COUNTY TRANSPORTATION AUTHORITY



DESIGNING TOMORROW

2018 LONG-RANGE TRANSPORTATION PLAN
PUBLIC OUTREACH REPORT, SEPTEMBER 2018

DESIGNING
TOMORROW
2018 LONG-RANGE TRANSPORTATION PLAN
PUBLIC OUTREACH REPORT, SEPTEMBER 2018

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Public Outreach Report

Background

The Orange County Transportation Authority is updating its Long-Range Transportation Plan (LRTP or Plan), looking ahead to the year 2040. As part of the process, a comprehensive public outreach program was designed to elicit public comment from a variety of sources, including the general public, elected officials, local jurisdictions, business leaders, transportation professionals, and diversity leaders.

The goals of the LRTP are to assess the performance of the transportation system over a 20+ year horizon, and to identify the projects that best address the needs of the system based on expected population growth, housing, and employment growth, while taking forecast financial assumptions into account at the same time. The LRTP provides both a financially constrained plan, which considers funding limitations and an unconstrained plan, which contains a vast array of potential improvements should additional funding sources become available.

Phase One – Provide Context and Identify Priorities

Public Outreach Objectives

The key objectives of Phase One included informing and educating key audiences about evolving demographics and transportation options, key issues and challenges while obtaining input to shape the draft transportation plan that reflected the public's feedback and priorities.

Outreach Tactics

Phase One included a variety of activities designed to solicit public input from a broad spectrum of people including: focus groups, website/online survey, social media campaign, stakeholder meetings/workshops, and leadership meetings.

Outreach Audiences

The LRTP impacts all of Orange County, therefore, targeted audiences were both broad and comprehensive including general public, transportation professionals/organizations, business and community leaders, elected officials, city/county officials, diverse community leaders, influential Orange County leaders, transit/rideshare users, OCTA's public committees, students, and environmental community.

More than 11,000 people provided direct feedback via the online survey and through participation in outreach meetings.

Phase One Key Findings

Generally, there was acknowledgement by key stakeholders there is a need to address the current key issues that will likely affect travel demand, services and infrastructure needs moving forward. In addition, it is vital to identify new and emerging innovative and technological trends.

Key Themes

Following are the key themes that came out of the stakeholder meetings, focus groups, leadership meetings and online survey responses:

- Keep Orange County Moving – The public and stakeholders are looking for congestion relief on local streets and freeways
- Expand Transit Options – Although public input indicates cars continue to be the number one choice of travel, there is growing interest in offering expanded transit options in Orange County
- Be Innovative – It's important that OCTA effectively monitors and engages in the implementation of emerging technologies

Phase One Summary

The Phase One outreach efforts met the goal of informing and educating the public about the LRTP's key issues and challenges OCTA is facing when planning for the future of transportation. The overall feedback indicated the public and stakeholders want to see further improvements to relieve congestion on freeways and local streets. There is growing interest in offering expanded transit options and the feedback further indicates that monitoring and engaging in the implementation of emerging technologies is vital.

Phase Two – Educate the Public and Seek Feedback on the Plan

Public Outreach Objectives

Moving into Phase Two, momentum was built upon the outreach conducted in Phase One and the input received from stakeholders. The objectives of Phase Two were:

- Inform and educate key audiences about the transportation options and key issues and challenges
- Gather input from target audiences on key Plan elements

Outreach Tactics

Phase Two included a variety of activities designed to solicit public input from a broad spectrum of people including: website/online survey, telephone town hall, quantitative survey, social media campaign, pop-up events, video, art and photo contest, and public open house.

Outreach Audiences

The LRTP affects all of Orange County, therefore, targeted audiences were both broad and comprehensive including general public, transportation professionals/organizations, business and community leaders, elected officials, city/county officials, diverse community leaders, influential Orange County leaders, transit/rideshare users, OCTA's public committees, students, and environmental community. The following is a list of stakeholders that were partners in helping notify the public about the release of the Draft LRTP and invite them to provide feedback on the plan:

External Stakeholders

- All 34 Orange County cities
- Association of California Cities – Orange County
- Board of Supervisors
- California Department of Transportation – District 12
- County of Orange
- John Wayne Airport
- League of California Cities
- Metrolink
- Mobility 21
- Orange County Business Council
- Orange County chambers of commerce
- Orange County libraries
- South Coast Metro
- Spectrumotion
- Universities
- Women in Transportation Seminar – Orange County

Internal Stakeholders

- OC Bus Customers
- Interstate 405 Improvement Project Database
- Citizens Advisory Committee
- Taxpayer Oversight Committee
- Diverse Community Leaders Group
- Environmental Cleanup Allocation Committee
- Environmental Oversight Committee
- Special Needs Advisory Committee
- Teen Council
- Rideshare and Vanpool Programs Employers

Partner agencies:

- California Department of Transportation
- Los Angeles County Metropolitan Transportation Authority
- Riverside County Transportation Commission
- San Bernardino County Transportation Authority
- San Diego Association of Governments
- Southern California Association of Governments
- Transportation Corridor Agencies

Key Themes

During Phase Two, the public was able to provide direct input via two surveys, a telephone town hall (two sessions) and the public open house. Throughout all platforms, participants acknowledge the importance of reducing congestion and improving travel conditions.

Following are the key themes that came out of the surveys, telephone town hall and public open house:

- **Keep Orange County Moving** – Respondents are looking for congestion relief on local streets and freeways. Signal synchronization and maintenance/repair concerns continue to be a top priority. Respondents at the public open house voiced the need for freeway improvements.
- **Expand Transit Options** – Although public input indicates cars continue to be the number one choice of travel, there is growing interest in offering expanded transit options in Orange County
- **Do Everything** – Respondents were provided the opportunity to share input on a variety of transportation options. Many indicated support for more transit options, more rail service, increased bus service, more bike paths and more technology enhancements to improve the transportation experience.

Outreach Strategies

Phase Two included a variety of activities and strategies to educate the public about transportation options, key issues and challenges, gather input on plan elements and measure support for the Plan. Coordinated messaging to the public focused on “Four Ways to Participate:” an online survey, telephone town halls, community open house, and art and photo contest. Other outreach strategies are also identified in this section.

Four Ways to Participate

MetroQuest Survey - The MetroQuest online survey was launched by OCTA on August 13 and was open for public comment for seven (7) weeks closing on September 28, 2018. The survey was an online platform for Orange County residents to provide their feedback on potential transportation improvements and to let OCTA know how they get around Orange County. 1,230 surveys were completed with a 67% completion rate. 55% of the surveys were completed via the web platform and 45% were completed via the mobile platform. The complete MetroQuest survey results are included as *Appendix A*.

Telephone Town Hall - A forum was conducted via telephone on September 12 allowing participants to call-in and learn about the Plan from OCTA executive leaders and ask questions in a live, one-hour format. Two calls were conducted: one in north county and one in south county and both included a Spanish simulcast.

Community Open House - As a project finale to showcase the LRTP, a community open house was held at OCTA headquarters on September 22, 2018 with 70 people in attendance. This event served not only as a countywide open invitation for the public to learn about the plan but was also an opportunity to raise awareness and share information about other ongoing projects, including OC Streetcar and OC Active. The event was advertised with a focus on being family-friendly, and included train rides, treats, face painting and other fun activities available to guests. The Plan was summarized in a presentation format on electronic smartboards. Team members shared details about the Plan while reviewing screens, videos and other attachments on the smartboard. The public was able to provide comments via the MetroQuest survey and comment cards at the open house. Details about the event and participating agencies and organizations are included in *Appendix B*.

Art and Photo Contest - An Art and Photo contest was designed to encourage Orange County students to showcase their talents with the themes explored in the Plan. The contest was open to all Orange County schools from kindergarten to college/university in four age categories. The contest themes include:

- The Future of Transportation
- A Smooth Ride Ahead (highway or road improvements)
- All Aboard (rail technologies)
- Blue Skies Ahead (air quality)
- People Power or Human Power (bicycles, walking and skateboards)
- The Wheels on the Bus (transit)

Public online voting of 12 entries was encouraged with final voting at the public open house. First, second, and third place winners were selected in the categories and awarded gift cards. The entries were also displayed at the public open house. The entries and the Art and Photo contest flyer promoting the contest is included in *Appendix C*.

Additional Outreach Strategies

- Attitudinal and Awareness Survey – OCTA's 2018 survey included questions to help inform OCTA's development of the 2018 Plan. The survey was conducted in June 2018 and included 2,525 randomly selected Orange County adult residents. The survey followed a mixed-method design that employed multiple recruiting methods (telephone and email) and multiple data collection methods (telephone and online). The interviews averaged 18 minutes in length and were conducted in English, Spanish, and Vietnamese. The survey results focusing on the Plan are included as *Appendix D*.
- Informational Video – A two-minute information video was created to clearly explain the purpose and need for the plan while highlighting ways for the public to provide input. A shorter 20-second version was created for social media sharing.
- Pop-Up Events - To promote the online survey, the project team staffed seven (7) project booths at large community events and Metrolink stations throughout the county. At each event, the project team provided an overview of the project, informed the public about the Art and Photo Contest, and promoted the community open house. The primary objective was encouraging participation in the MetroQuest survey. Participants had the option of taking the survey online on a tablet provided or by hard copy. The project team displayed OCTA branded giveaways to attract more visitors to the booth and incentivize survey completion. For a complete list of survey locations, please see *Appendix E*.
- Social Media Campaign/Notification – A social media campaign accompanied by more traditional notification efforts were key elements in seeking public comment on the Plan. Both social media and traditional tactics were employed to ensure far-reaching communication efforts. The following is an overview of all tactics implemented.

- Social Media Toolkit – A toolkit with a menu of graphics and accompanying content for use on Facebook, Instagram, Twitter, eblast and newsletters was created for use by cities, government agencies, non-profits and other organizations. The toolkit also included a link to the project video with content to promote the video. The social media tool kit is included as *Appendix F*.
- Website – The project website, www.OCTA.net/LRTP provided an overview of the Plan as well as the project video to provide viewers with an easy-to-understand overview of the project. The website received 20,136 views. Also included on the page were details and links on the “Four Ways to Participate:”
 - Online survey – link to the MetroQuest survey
 - Telephone Town Hall – details on participating and then following the town halls, recordings of both town halls in north and south county.
 - Community Open House – details on the September 22 Community Open House including a PDF link with event details.
 - Art and Photo Contest – details on the contest including a link to vote online.
- Facebook – Four advertisements and one post were developed to share and promote the Plan and participation. One post highlighted the four ways to participate, while four paid advertisements highlighted each of the “Four Ways to Participate:” online survey, telephone town hall, community open house, and art and photo contest. All posts were boosted to ensure further reach. The paid advertisements began the week of August 20 and the four elements were timed to coincide with the element milestones. The advertisement and posts are included as *Appendix G*.
- Eblast – Three eblasts were created and distributed to the Plan stakeholder database as well as other appropriate external and internal stakeholders as previously identified reaching nearly 7,000 stakeholders each time. The first eblast identified the “Four Ways to Participate,” the second eblast promoted the telephone town halls and the third eblast promoted the community open house. The three eblasts are included as *Appendix H*.
- On the Move Blogs – OCTA publishes a blog with brief articles highlighting key initiatives. For the Plan, five separate announcements were published highlighting “Four Ways to Participate.” The announcements/articles included in the blog are in *Appendix I*.
- Orange County Register Online Advertisement – An online advertisement on the Orange County Register’s website promoting the community open house event was published from Saturday, September 15 through Saturday, September 22 with over 50,000 impressions during the one-week advertising run. The online advertisement is included as *Appendix J*.
- Postcard – A hard-copy postcard was designed to inform the public on the “Four Ways to Participate.” The postcard was distributed at pop-up events and copies provided to area businesses and libraries throughout Orange County.

As part of the extended outreach, public access venue locations were identified to assist with supplemental outreach and included senior and community centers in every city throughout the county. Bundles of post cards were mailed to these locations with requested placement in areas of high traffic volume for public viewing. The postcard is included as *Appendix K*.

Results

MetroQuest Survey

The qualitative survey was launched by OCTA to create an online platform for Orange County residents to provide their feedback on potential transportation improvements and let OCTA know how they travel around Orange County. The survey is included as *Appendix L*. The survey research utilizes a nonprobability sample, which means that results cannot be considered representative of the total population of interest. Informal research methods such as this are useful to explore a group's opinions and views, allowing for the collection of rich and verifiable data. This data can reveal information that may warrant further study and is often a cornerstone for the generation of new ideas.

Based on survey results, the majority of the 1,230 survey respondents (66%) drive a car alone as their main mode of transportation, followed by carpooling (14%). Expanding bus/train services was the highest ranked transportation improvement priority for respondents which shows an increasing interest for transit services in the County. Rail options, including commuter and light rail, are the most popular transit options. Strong support for signal synchronization and connecting signals with cars were among other noteworthy results of the survey. The following are the survey key findings:

Transportation Priorities:

Survey respondents were asked to pick the top three strategies to be included in the LRTP. Expanding bus and train services is both the most popular and the most important priority for the respondents. This is followed up by signal synchronization and better maintenance/repair of the freeways and arterial roads.

1. Expand bus/train service
2. Signal synchronization
3. Better maintenance/repair

Technology:

Survey respondents were asked if they would or would not support connecting traffic signals to cars so drivers could be alerted of traffic ahead of time. A total of 78% supported the idea.

When survey respondents were also asked if they would or would not support a mileage-based fee to help manage growth in trips and congestion, there was minimal support. Only 29% supported the idea.

Transit Priorities:

Survey respondents were asked to pick their top transit options. Commuter train and streetcar/light rail were the highest transit priorities for respondents followed by bus rapid transit.

1. Commuter Train (22%)
2. Streetcar/Light Rail (21%)
3. Bus Rapid Transit [less stops] (18%)
4. Special events express shuttles (16%)
5. On-demand shared ride community shuttles (14%)
6. Bus (9%)

Managed Lanes:

Survey respondents were asked which of the following three strategies they would support to keep carpool lanes flowing during peak periods. The majority of respondents support requiring at least 3 people in a vehicle to qualify for the carpool lane rather than adding more lanes.

- Require at least 3 people in a vehicle in order to qualify for the carpool lane, but also allow single or two-person vehicles the opportunity to use the carpool lane for a fee (39%)
- Require at least 3 people in a vehicle in order to qualify for the carpool lane (35%)
- Build additional carpool lanes on freeways, even if it is very expensive and may require purchasing private properties to widen the freeway (26%)

Bike Improvement Priorities:

Survey respondents were asked how to best improve bicycling in Orange County. The top three options were close to equally distributed as seen below:

1. Adding bike lanes (29%)
2. Improving street signage and pavement markings (28%)
3. Maintaining existing facilities (24%)
4. Developing bike-share programs (19%)

Travel Behavior:

Survey respondents were asked about their main mode of transportation. The majority of respondents drive alone, followed by carpooling/vanpooling and bus transit. Only 3% of respondents selected active transportation (biking and walking).

1. Drive alone (66%)
2. Carpool/Vanpool (15%)
3. Bus (8%)
4. Metrolink/Amtrak (4%)
5. Bike (2%)
6. On-demand service (2%)
7. Other (2%)
8. Walk (1%)
9. Paratransit (0.04%)

Public Comments

A total of 110 comments and eight letters were received during the public comment period. The comments were submitted via online comment forms, during the Telephone Town Hall and at the open house. All comments are included as *Appendix M*.

The majority of comments were related to:

- Expanding bus service throughout the County
- Adding more Metrolink service and possible light rail transit options
- Improving freeways to meet increased population demand
- Considering how autonomous vehicles can be incorporated into the system
- Incorporating more ride sharing services and technology into the plan
- Opposing additional toll roads

Telephone Town Hall

A live, one-hour telephone forum was conducted both in North County and South County and was presented in English and Spanish. The OCTA presenters included CEO Darrell Johnson, Executive Director of Planning Kia Mortazavi and Chairwoman Lisa Bartlett representing South County and Vice Chair Tim Shaw representing North County. The Telephone Town Hall was promoted via the OCTA website, media, OCTA blog, e blasts and social media. More than 20 questions were asked and ranged from topics related to streetcar expansion, signal synchronization, safety on busses and on the roads for EMTs, rail system improvements and bus service. The following is how many people participated in the two forums:

- A total reach of 6,558 callers listened for a least 1+ minutes.
- 956 callers listened for more than 5 minutes.
- A total of 385 callers participated for the entirety of the two calls.

Attitudinal and Awareness Survey

Every few years, OCTA conducts an Attitudinal & Awareness Survey to gather data on Orange County residents' awareness, perceptions, and priorities with respect to OCTA as well as the projects, programs, and services it provides. A portion of the 2018 survey was used to gather input about OCTA's development of the Plan. The survey included 2,525 respondents.

The survey results indicate that Orange County residents have clear preferences with respect to the projects they think should be prioritized in the Plan. At the top of the list were fixing potholes and repairing roadways (91% high or medium priority) and projects that had a direct connection to reducing traffic congestion, including fixing freeway bottlenecks at interchanges, merge areas, and on/off ramps (90%), synchronizing traffic signals on major roadways (87%), and widening freeways, where possible (80%).

Transit and rideshare improvements were also prioritized by residents, including increasing and expanding commuter rail service on Metrolink and Amtrak (74%), increasing and expanding bus services (70%), increasing carpool, vanpool, and rideshare programs (65%), adding faster express bus services (62%), adding streetcar services in areas with high potential ridership (60%), and creating on-demand shared ride community shuttles (57%).

Residents also prioritized projects that would support active transportation, including improving and repairing the network of sidewalks (65%) and improving the network of bike paths (52%).

When compared to the other projects tested, residents were less apt to prioritize improvements related to carpool lanes, toll roads, and autonomous vehicles. Specifically, less than 4-in-10 respondents rated as a high or medium priority adding carpool lanes to toll roads (36%), enhancing infrastructure to accommodate autonomous, driverless vehicles (35%), and adding toll lanes on existing highways (28%).

Phase Two Summary

The feedback received indicates an interest by the public and stakeholders to see further improvements to relieve congestion on freeways and local streets with a growing interest in providing more transit options as an additional means of helping travelers move throughout Orange County. The feedback further indicates it is important to prepare for current and emerging technologies as improvements are considered.

Appendix A

MetroQuest Survey

Overview

The MetroQuest survey was launched by OCTA to create an online platform for Orange County residents to provide their feedback on potential transportation improvements and let OCTA know how they get around Orange County.

The qualitative MetroQuest survey was launched by OCTA to create an online platform for Orange County residents to provide their feedback on potential transportation improvements and let OCTA know how they travel around Orange County. The survey began on August 13, 2018 and closed seven weeks later on September 28, 2018. 1,230 surveys were completed with a completion rate of 67%. 55% of surveys were completed on the web, while 45% of surveys were completed on mobile devices.

The survey research utilizes a nonprobability sample, which means that results cannot be considered representative of the total population of interest. Informal research methods such as this are useful to explore a group's opinions and views, allowing for the collection of rich and verifiable data. This data can reveal information that may warrant further study and is often a cornerstone for the generation of new ideas.

Emerging Themes

Based on survey results, the majority of survey respondents (66%) drive a car alone as their main mode of transportation, followed by carpooling (14%). Expanding bus/train services was the highest ranked transportation improvement priority for respondents which shows an increasing interest for transit services in the County. Rail options, including commuter and light rail, are the most popular transit options. Strong support for signal synchronization and connecting signals with cars were among other noteworthy results of the survey. The following are the survey key findings:

Transportation Priorities

Survey respondents were asked to pick the top three strategies to be included in the LRTP. Expanding bus and train services is both the most popular and the most important priority for the respondents. This is followed up by signal synchronization and better maintenance/repair of the freeways and arterial roads.

Most Popular Transportation Priorities:

1. Expand bus/train service (*ranked 603 times*)
2. Signal synchronization (*ranked 553 times*)
3. Better maintenance/repair (*ranked 508 times*)
4. Expand technology use (*ranked 357 times*)
5. Widen freeways and streets (*ranked 306 times*)
6. Improve bikeways and sidewalks (*ranked 289 times*)
7. Increase rideshare (*ranked 193 times*)
8. Add tolled express lanes (*ranked 93 times*)

Technology

Survey respondents were asked if they would or would not support connecting traffic signals to cars so drivers could be alerted of traffic ahead of time. A total of 78% supported the idea.

When survey respondents were also asked if they would or would not support a mileage-based fee to help manage growth in trips and congestion, there was minimal support. Only 29% supported the idea.

1. Support connecting traffic signals with cars so you can get alerted of traffic congestion
 - a. Yes (78%)
 - b. No (22%)
2. Support a mileage-based fee to help manage growth in trips and congestion
 - a. No (71%)
 - b. Yes (29%)

Transit Priorities

Survey respondents were asked to pick their top transit options. Commuter train and streetcar/light rail were the highest transit priorities for respondents followed by bus rapid transit.

1. Commuter Train (22%)
2. Streetcar/Light Rail (21%)
3. Bus Rapid Transit [less stops] (18%)
4. Special events express shuttles (16%)
5. On-demand shared ride community shuttles (14%)
6. Bus (9%)

Managed Lanes

Survey respondents were asked which of the following three strategies they would support to keep carpool lanes flowing during peak periods. The majority of respondents support requiring at least 3 people in a vehicle to qualify for the carpool lane rather than adding more lanes.

1. Require at least 3 people in a vehicle in order to qualify for the carpool lane, but also allow single or two-person vehicles the opportunity to use the carpool lane for a fee (39%)
2. Require at least 3 people in a vehicle in order to qualify for the carpool lane (35%)
3. Build additional carpool lanes on freeways, even if it is very expensive and may require purchasing private properties to widen the freeway (26%)

Bike Improvement Priorities

Survey respondents were asked how to best improve bicycling in Orange County. The top three options were close to equally distributed as seen below:

1. Adding bike lanes (29%)
2. Improving street signage and pavement markings (28%)
3. Maintaining existing facilities (24%)
4. Developing bike-share programs (19%)

Appendix A

Public Outreach Report

Long Range Transportation Plan (LRTP)

MetroQuest Survey Overview

Travel Behavior

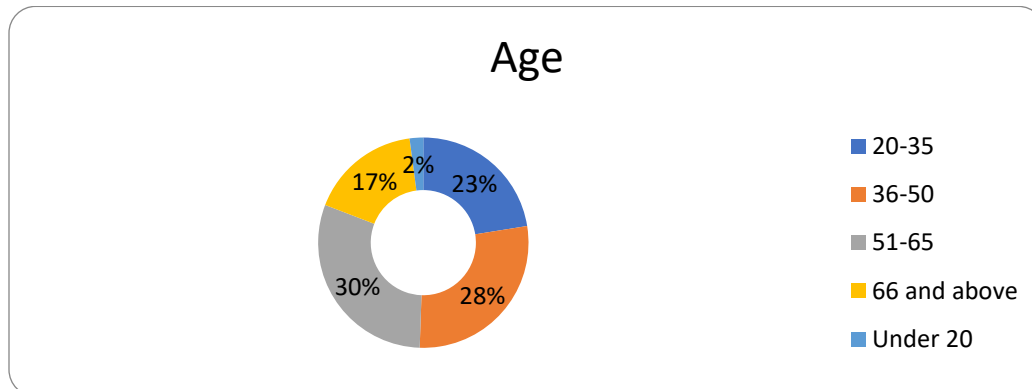
Survey respondents were asked about their main mode of transportation. The majority of respondents drive alone, followed by carpooling/vanpooling and bus transit. Only 3% of respondents selected active transportation (biking and walking).

1. Drive alone (66%)
2. Carpool/Vanpool (15%)
3. Bus (8%)
4. Metrolink/Amtrak (4%)
5. Bike (2%)
6. On-demand service (2%)
7. Other (2%)
8. Walk (1%)
9. Paratransit (0.04%)

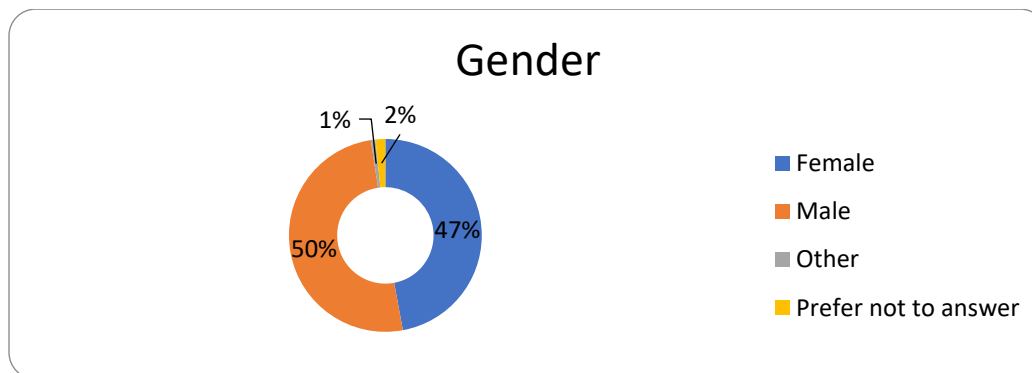
Demographics

The majority of respondents are age 36 or older and the gender ratio was close to evenly split.

Age



Gender



Appendix A

Public Outreach Report

Long Range Transportation Plan (LRTP)

MetroQuest Survey Overview

Top Home Zip Codes

Of the 885 respondents who completed the zip code section, 98% were from Orange County.

1. 92673 (165) – San Clemente
2. 92672 (80) – San Clemente
3. 92694 (21) – Ladera Ranch/Rancho Mission Viejo
4. 92626 (18) – Costa Mesa
5. 92630 (18) – Lake Forest
6. 92675 (18) – San Juan Capistrano
7. 92646 (17) – Huntington Beach
8. 92805 (15) – Anaheim
9. 92806 (15) – Anaheim
10. 92683 (14) – Westminster
11. 92688 (14) – Rancho Santa Margarita

Appendix **B**

Community Open House Event

Appendix B
Public Outreach Report
Long Range Transportation Plan (LRTP)
Community Open House Overview

Community Open House Overview

As a project finale to showcase the LRTP, a community open house was held at OCTA headquarters on September 22, 2018. This event served not only as a countywide open invitation for the public to learn about the Plan but was also an opportunity to raise awareness and share information about other ongoing projects, including OC Streetcar and OC Active. The event was advertised with a focus on being family-friendly, and included train rides, treats, face painting and other fun activities available to guests. General details for the event are below.

Date	Meeting Location	Number of Stations	Number of Attendees
Saturday, September 22, 2018 9:00 am – 12:00 pm	OCTA Headquarters Outdoor Motor Court 550 S. Main Street Orange, CA	17	70+



Event Activities and Vendor

In addition to the LRTP related stations, an effort was made to contact and invite vendors that had a connection to transportation. Booth partners and corresponding activities for this event included the following:

- Lime Scooters

This station was set-up in a cordoned off section of the parking garage and provided visitors an opportunity to test drive the company's signature motorized scooters. This booth also provided Lime branded promotional giveaway items.



- Selman Chevrolet Electric Vehicle Display

This booth consisted of a local dealership display of the Chevy Bolt electric vehicle. Information was also provided on other Chevrolet products and local dealer contacts.

- OC Transit Police

Two OC Transit deputies were on-hand to distribute information related to rail safety for National Rail Safety month during September. The popular K-9 unit was also present and greeted many excited young visitors.

- OC Active

As one of the designated passport stops, this booth had a live project survey, branded promotional items and ice cream treats for each visitor. Staff provided an overview of the OC Active project while soliciting input on preferences and use of walking and bicycle facilities in Orange County.

- OC Bus

An OC Bus was on display and open for the public to tour. A large display map of OCTA bus routes allowed visitors to see the span of service. The bus operator was on hand throughout the entire event to answer questions and share service information.

- OC Health Care Agency

A county health educator staffed the booth providing several engaging activities were available, including an egg drop demonstration which underscored the importance of wearing a helmet while bike riding. A prize wheel and promotional giveaways were also provided.



- OC Parks

Staff from OC parks provided information on the park system and local trails, including upcoming planned improvements across the region. Small give-away items were also on hand.

- OC Streetcar

Construction will begin soon for this project and visitors were asked to provide their vote for the branding design of the streetcar. This booth was also a designated passport stop and water bottles were distributed as part of the stamp reward.



- Waze

This booth was specifically promoting the Waze carpool program. Branded promotional giveaway items were also available, including T-shirts and bags.

- LRTP - Future of Transportation Interactive Screens

The Plan was summarized in a presentation format on three electronic smartboards. Team members shared details about the Plan while reviewing screens, videos and other attachments on the smartboard to provide a visual explanation of the Plan to the public.



- LRTP Transportation Survey

The public had the opportunity to complete an online survey. The online platform for Orange County residents provided a portal to receive feedback on potential transportation improvements and provide travel mode preferences and use.

Visitors to the LRTP Interactive Screens and Survey receive passport stamps and bags of kettle corn for their participation in these activities.

In addition to the stations, OCTA also sponsored the following free activity booths:

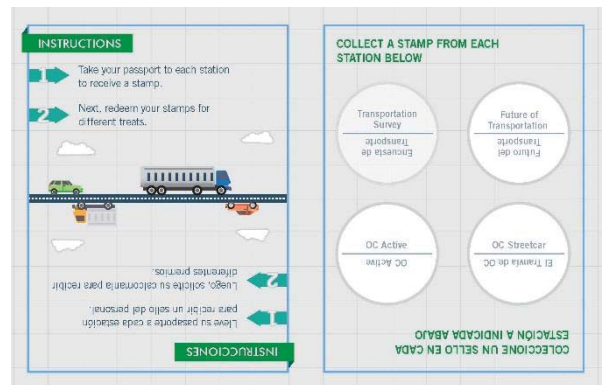
- Face Painting
- Train Rides
- Art Photo Contest Voting Station
- Sidewalk Chalk Art
- Coloring/Sticker Booth
- Kettle Korn
- Water Station
- Ice Cream Station



Day of Event Activities

Upon arrival, guests were directed to a registration booth in the center of the event space, where they received a warm welcome and event passport document. They were encouraged to visit all the booths and activities, but the passport was designed to direct attention to four designated areas:

- Future of Transportation Screens
- Transportation Survey
- OC Streetcar
- OC Active



At each station, participants could provide their input on projects and were given a passport stamp and treat in exchange for their visit. Many of those attending brought their children with them and were excited to visit the face painting booth, take a ride on the train, tour an OC bus, meet the OC Transit K-9 unit and show their artistic side with the coloring and chalk stations. Adults also had fun taking a spin using a Lime scooter, learning about Waze carpool program and receiving information on Chevrolet's latest electric vehicle. On average, visitors stayed for over an hour engaging with staff and enjoying the event.



FREE FAMILY EVENT

LONG RANGE TRANSPORTATION PLAN OPEN HOUSE

Saturday, September 22 • 9 a.m. – Noon
OCTA Parking Lot, 550 South Main Street, Orange

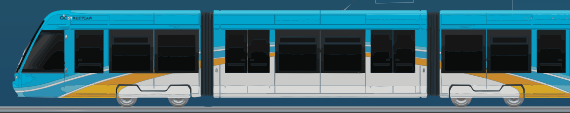
TRANSPORTATION BOOTHS

- Chevrolet®
- Waze Carpool
- Lime Scooters
- Transit Police

INTERACTIVE BOOTHS

- Bike Activities
- Face Painting & Coloring
- Train Rides
- Obstacle Course

You and your family are invited for a morning of fun activities and to learn about the Long Range Transportation Plan, OCTA's 20-year blueprint for transportation improvements in Orange County.



For questions, contact: **Marissa Espino** at ext. 5607

Appendix C

Art & Photo Contest Summary

Appendix C

Public Outreach Report

Long Range Transportation Plan (LRTP)

Art and Photo Contest Overview

Art and Photo Contest Overview

The Orange County Transportation Authority held an Art and Photo contest to provide Orange County students an outlet to showcase themes explored in the Plan. The contest was open to all Orange County schools from Kindergarten to College/University. To split up prizes based on grade, four grade level categories were developed. The grade categories were K-6 (Elementary), 7-8 (Middle School), 9-12 (High School) and College/University. Participants were asked to follow themes explored in the LRTP which included:

- ***The Future of Transportation*** – The sky is the limit! Share your vision for transportation in Orange County
- ***A Smooth Ride Ahead*** - Let's make the roads less bumpy and congested through highway or road improvements
- ***All Aboard*** - Boarding the train to the future using rail technologies (High-Speed, Light Rail, Commuter Rail) to move more people
- ***Blue Skies Ahead*** – Improving our air quality through transportation
- ***People Power* or *Human Power***- Moving Orange County with non-motorized transportation, including bicycles, walking and skateboards
- ***The Wheels on the Bus*** - Hop on the bus to improve and create new transit options and experiences

The contest opened for online submission on August 13 and closed on September 10, 2018. Students were encouraged to submit entries via a Typeform form and attach their artwork as a graphic file. Twelve entries were submitted online. Eight of the entries were from K-6 students, three from 9-12 and one from a college/university. No 7-8 grade students submitted an entry. Following the deadline, the public was asked to vote for their favorite submission online at the OCTA LRTP website and participants at the community open house also voted by sticker dot voting.

Notification

To promote the contest, an email notification was sent to 899 schools in Orange County. The email blast provided an overview of the contest and how to submit. Flyers were mailed to 50 different community organizations promoting the contest. OCTA sent an email notification to their database about the art contest. The project team, identified seven schools within a two-mile radius of OCTA and drop off flyers to each school to send home with the students. The flyer was sent home with 4,970 students.

OCTA promoted the contest via their social media channels. At the start of the contest, a social media post was featured on the Facebook page.

Appendix C

Public Outreach Report

Long Range Transportation Plan (LRTP)

Art and Photo Contest Overview

Winners

Following the LRTP Community Open House on September 22, 2018 the contest winners were notified. The winners for each grade category were:

Grades K-6

1. Maisha Ingraham
2. Lina Nazar
3. Ahmad Mezher

Grades 9-12

1. Jessica Lee
2. Bailey Pettey
3. Marion Flores

University/College

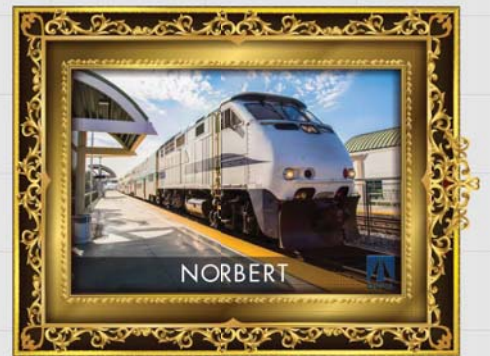
1. Norbert Tsi

The first-place award was a \$200 gift card, second-place was \$100 gift card and third-place was \$50.

DESIGNING
TOMORROW
LONG RANGE TRANSPORTATION PLAN
ART AND PHOTO CONTEST



DESIGNING
TOMORROW
LONG RANGE TRANSPORTATION PLAN
ART AND PHOTO CONTEST



DESIGNING TOMORROW

2018 LONG RANGE TRANSPORTATION PLAN

The Long Range Transportation Plan (LRTP) is a 20-year blueprint for transportation improvements in Orange County.

ARTWORK AND PHOTO CONTEST



OCTA is seeking innovative, creative and interesting artwork and photos from students that showcases themes explored in the Long Range Transportation Plan. For contest rules and ideas, visit www.octa.net/LRTP.



CONTEST THEMES

AWARDS



The Future of Transportation - The sky is the limit! Share your vision for transportation in Orange County



A Smooth Ride Ahead - Let's make the roads less congested through highway or road improvements



All Aboard - Boarding the train to the future using rail technologies



Blue Skies Ahead - Improving our air quality through transportation



People Power - Moving Orange County with non-motorized transportation, including bicycles and walking



The Wheels on the Bus - Hop on the bus to improve and create new transit options and experiences

First Place – A \$200 gift card

Second Place - A \$100 gift card

Third place – A \$50 gift card

Awards will be presented to students in each grade level category (grades K-6, 7-8, 9-12 and university/college).

All entries submitted become the property of the Orange County Transportation Authority and may be reprinted.

Participants will need to submit all entries as graphic files to OCTA by filling out the form at tinyurl.com/LRTPContest by **August 31, 2018**.



Appendix **D**

Attitudinal & Awareness Survey

ATTITUDINAL & AWARENESS SURVEY SUMMARY REPORT

PREPARED FOR
OCTA



AUGUST 31, 2018



TRUENORTH
RESEARCH

1592 N COAST HIGHWAY 101
ENCINITAS CA 92024
760.632.9900 WWW.TN-RESEARCH.COM



INTRODUCTION

The Orange County Transportation Authority (OCTA) is the county transportation agency responsible for planning, funding, and delivering transportation improvements in Orange County—including freeway, street, and transit systems. As part of OCTA’s commitment to enhancing customer satisfaction by understanding, connecting with, and serving its diverse communities and partners, the Authority periodically conducts an *Attitudinal & Awareness Survey* to gather data on Orange County residents’ awareness, perceptions, and priorities with respect to OCTA as well as the projects, programs, and services it provides.

From the outset, the *Attitudinal & Awareness Survey* has been designed to track opinions on key questions and performance metrics over time, as well as provide an opportunity for OCTA to gather information on topics of particular interest to OCTA at the time of the survey. The 2018 survey followed this same approach, with certain question series tracked from prior studies, and others new to the 2018 survey to help inform OCTA’s development of the 2018 Long Range Transportation Plan (LRTP).

By collecting and analyzing current opinion data and comparing the results to prior related surveys where appropriate, this study provides OCTA with statistically reliable information that can be used to make sound, strategic decisions in a variety of areas—including establishing regional priorities, project and program development/evaluation, planning, and public communications.

GOALS OF STUDY To assist in this effort, OCTA selected True North Research to design the research plan and conduct the study. Broadly defined, the 2018 survey was designed to:

- Measure awareness and perceptions of OCTA.
- Gather input on priorities and strategies for the 2018 Long Range Transportation Plan (LRTP).
- Profile residents’ travel behavior and their use of the transportation system in Orange County.
- Identify the sources residents primarily use for information about news and events in Orange County and assess their satisfaction with OCTA’s communication efforts.
- Measure public awareness of Measure M and OC Go.
- Gather relevant demographic and background information.

OVERVIEW OF METHODOLOGY A full description of the methodology used for this study is included later in this report (see *Methodology* on page 48). In brief, a total of 2,525 randomly selected Orange County adult residents participated in the survey between June 17 and June 30, 2018. The survey followed a mixed-method design that employed multiple recruiting methods (telephone and email) and multiple data collection methods (telephone and online). The interviews averaged 18 minutes in length and were conducted in English, Spanish, and Vietnamese. The results presented in this report are representative at the countywide level, as well as within the five Supervisorial Districts identified in Figure 1 on the next page.



LONG RANGE TRANSPORTATION PLAN

Over the next 20 years, Orange County's population is expected to increase by 10% and the number of people employed in the County is expected to increase by 17%. These changes will naturally lead to greater traffic congestion unless improvements are made to the County's transportation system. To help ensure that Orange County's transportation system is prepared for these changes and to relieve traffic congestion, OCTA is in the process of updating the Long Range Transportation Plan (LRTP).

The general goals of the 2018 LRTP are to assess the performance of the transportation system over a 20+ year horizon and identify the projects that best address the needs of the system based on expected population, housing, and employment growth while taking forecast financial assumptions into account at the same time. In other words, the LRTP will identify priority projects, improvements, and mobility strategies to improve the transportation system, keep people moving, and relieve traffic congestion, while keeping a realistic view of financial constraints.

LONG RANGE TRANSPORTATION PLAN PRIORITIES To help inform the LRTP update, the 2018 survey asked residents to prioritize among a list of 15 transportation projects and strategies shown in Figure 17 on the next page. The format of Question 7 was straightforward: after informing respondents that there are a variety of projects and strategies that *could* be part of the Long Range Transportation Plan, respondents were asked whether each project shown in Figure 17 should be a high, medium, or low priority—or if the project should not be included in the Plan? To encourage respondents to prioritize, they were reminded that not all of the projects can be high priorities.

As shown in Figure 17 on the next page, Orange County residents have clear preferences with respect to the projects they think should be prioritized in the Long Range Transportation Plan. At the top of the list were fixing potholes and repairing roadways (91% high or medium priority) and projects that had a direct connection to reducing traffic congestion, including fixing freeway bottlenecks at interchanges, merge areas, and on/off ramps (90%), synchronizing traffic signals on major roadways (87%), and widening freeways, where possible (80%).

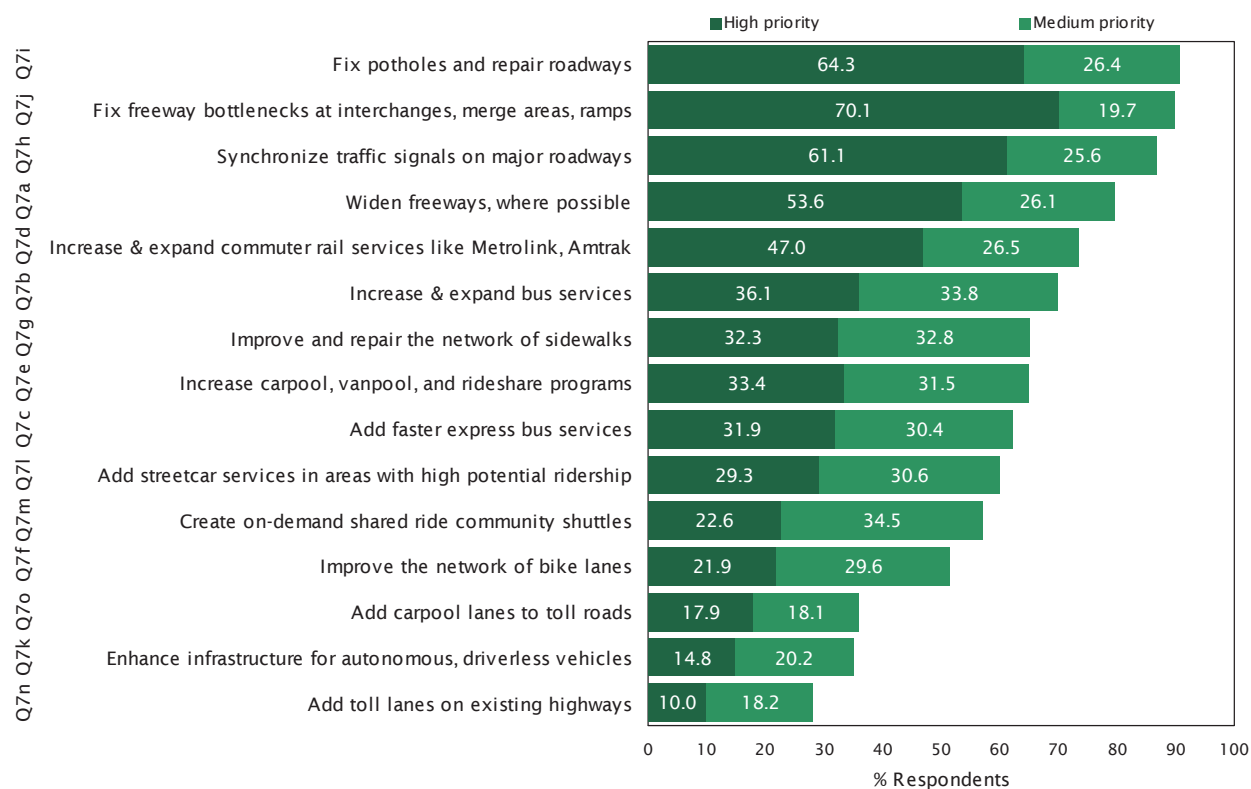
Transit and rideshare improvements were also prioritized by residents, including increasing and expanding commuter rail service including Metrolink and Amtrak (74%), increasing and expanding bus services (70%), increasing carpool, vanpool, and rideshare programs (65%), adding faster express bus services (62%), adding streetcar services in areas with high potential ridership (60%), and creating on-demand shared ride community shuttles (57%).

A majority of residents also prioritized projects that would support active transportation, including improving and repairing the network of sidewalks (65%) and improving the network of bike paths (52%).

At the other end of the spectrum, residents were less apt to prioritize improvements related to carpool lanes, toll roads, and autonomous vehicles. Specifically, less than 4-in-10 respondents rated as a high or medium priority adding carpool lanes to toll roads (36%), enhancing infrastructure to accommodate autonomous, driverless vehicles (35%), and adding toll lanes on existing highways (28%).

Question 7 As I read the following list of projects and strategies that could be part of the Long Range Transportation Plan, please indicate whether you think it should be a high priority, a medium priority, or a low priority. If you think that a project or strategy should not be part of the Plan, please say so. Please keep in mind that due to limited funds, not all of the items can be high priorities.

FIGURE 17 TRANSPORTATION PRIORITIES



Tables 4-6 on the next page show how the percentage of respondents who rated each potential project or strategy as a *high* priority varied by primary transportation mode when traveling in Orange County, commuting to work or school at least times per week, and Supervisorial District. The top three priorities within each subgroup are highlighted in green.

The three top-rated projects for each subgroup generally followed the *overall* results within commute status subgroups, Supervisorial Districts, and among those whose primary mode was driving alone or carpool/vanpool. However, those who primarily used public transit or active transportation (bike/walk) to travel in Orange County expressed different priorities, with public transit users assigning a higher than average rating to increasing and expanding bus services and commuter rail services, and those who primarily walk or bike assigning the top three slots to increasing and expanding commuter rail services, adding faster express bus services, and improving and repairing the network of sidewalks. In addition, residents who commuted to school at least three times per week assigned a much higher than average high-priority rating to adding faster express bus services.

TABLE 4 TRANSPORTATION PRIORITIES BY OVERALL & PRIMARY MODE (SHOWING % HIGH PRIORITY)

	Overall	Primary Mode (Q10)			
		Drive alone	Carpool / Vanpool	Public transit	Bike / Walk
Fix freeway bottlenecks at interchanges, merge areas, and on/off ramps	70.1	70.3	71.1	67.6	48.3
Fix potholes and repair roadways	64.3	63.8	67.6	60.4	52.3
Synchronize traffic signals on major roadways	61.1	63.8	60.4	52.1	43.6
Widen freeways, where possible	53.6	53.8	58.0	45.5	17.9
Increase & expand commuter rail services including Metrolink and Amtrak	47.0	45.9	43.2	60.8	71.3
Increase & expand bus services	36.1	32.9	30.7	75.7	36.7
Increase carpool, vanpool, and rideshare programs	33.4	30.4	37.2	32.0	39.9
Improve and repair the network of sidewalks	32.3	25.2	37.2	50.6	60.9
Add faster express bus services	31.9	29.6	26.4	51.7	65.8
Add streetcar services in areas with high potential ridership	29.3	29.7	26.6	32.0	25.8
Create on-demand shared ride community shuttles	22.6	21.2	23.8	28.7	31.1
Improve the network of bike lanes	21.9	19.4	21.1	24.6	54.9
Add carpool lanes to toll roads	17.9	13.8	21.3	26.7	10.7
Enhance infrastructure to accommodate autonomous, driverless vehicles	14.8	16.4	12.5	13.3	10.9
Add toll lanes on existing highways	10.0	8.8	12.0	14.6	10.0

TABLE 5 TRANSPORTATION PRIORITIES BY COMMUTE 3+ TIMES PER WEEK & DISTRICT

	Commute 3+ Times Per Week (Q12)			
	Yes, work	Yes, school	Tele-commute	No work, school
Fix freeway bottlenecks at interchanges, merge areas, and on/off ramps	73.0	65.5	69.2	67.7
Fix potholes and repair roadways	61.8	57.8	67.7	74.5
Synchronize traffic signals on major roadways	61.6	52.9	66.8	63.9
Widen freeways, where possible	55.5	43.9	54.6	55.1
Increase & expand commuter rail services including Metrolink and Amtrak	49.7	48.5	41.4	41.1
Increase & expand bus services	34.4	50.2	23.8	38.7
Increase carpool, vanpool, and rideshare programs	32.3	40.1	25.7	37.4
Improve and repair the network of sidewalks	29.9	42.3	28.9	35.7
Add faster express bus services	30.6	53.2	22.8	29.2
Add streetcar services in areas with high potential ridership	29.6	30.4	26.9	28.7
Create on-demand shared ride community shuttles	22.1	21.4	21.0	25.8
Improve the network of bike lanes	19.2	31.8	22.2	25.5
Add carpool lanes to toll roads	17.9	12.9	14.4	22.0
Enhance infrastructure to accommodate autonomous, driverless vehicles	15.7	9.9	13.7	15.3
Add toll lanes on existing highways	8.9	15.8	8.8	11.2

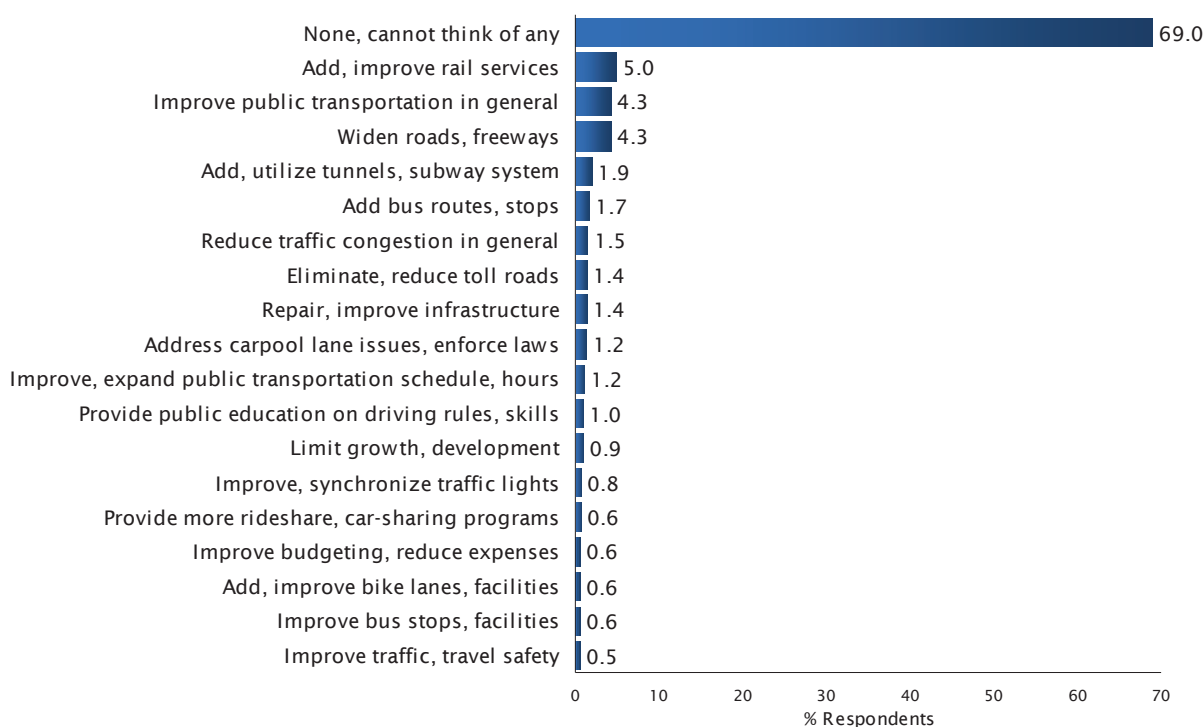
TABLE 6 TRANSPORTATION PRIORITIES BY DISTRICT (SHOWING % HIGH PRIORITY)

	District				
	One	Two	Three	Four	Five
Fix freeway bottlenecks at interchanges, merge areas, and on/off ramps	64.1	73.2	76.3	67.2	70.9
Fix potholes and repair roadways	65.2	64.8	62.4	67.1	61.1
Synchronize traffic signals on major roadways	52.5	65.8	61.3	61.0	66.7
Widen freeways, where possible	56.8	48.9	51.5	55.3	55.6
Increase & expand commuter rail services including Metrolink and Amtrak	46.1	47.5	45.6	43.8	53.0
Increase & expand bus services	37.1	37.8	34.9	40.2	28.9
Increase carpool, vanpool, and rideshare programs	38.2	30.4	29.1	39.7	27.9
Improve and repair the network of sidewalks	41.4	36.1	25.9	30.8	24.6
Add faster express bus services	39.3	29.9	28.8	34.3	25.2
Add streetcar services in areas with high potential ridership	29.5	28.5	26.6	30.4	31.7
Create on-demand shared ride community shuttles	24.9	21.8	18.8	24.6	22.2
Improve the network of bike lanes	23.7	22.6	22.2	20.5	20.2
Add carpool lanes to toll roads	19.6	20.4	15.7	19.6	13.0
Enhance infrastructure to accommodate autonomous, driverless vehicles	12.9	13.5	15.2	16.0	17.1
Add toll lanes on existing highways	10.0	12.3	9.8	8.0	9.7

ADDITIONAL PRIORITIES? Recognizing that the list of projects and strategies tested in Question 7 was not exhaustive, Question 8 asked respondents to identify any projects or strategies *not* previously mentioned that they think should be a high priority for inclusion in the Long Range Transportation Plan. Question 8 was posed in an open-ended manner, which allowed respondents to mention any potential project or strategy that came to mind without being prompted by—or restricted to—a particular list of options. True North later reviewed the verbatim responses and grouped them into the categories shown in Figure 18. Categories that received less than 0.5% of responses are not shown.

Question 8 *Is there a project or strategy I didn't mention that you think should be a high priority for inclusion in the Long Range Transportation Plan?*

FIGURE 18 ADDITIONAL HIGH PRIORITY PROJECTS, STRATEGIES



More than two-thirds (69%) of residents indicated there were no additional high priority projects that should be included in the Long Range Transportation Plan, or that none came to mind. It is also noteworthy that the top specific responses to Question 8 simply repeated categories that had in fact been addressed in Question 7, including adding/improving rail services (5%), improving public transportation in general (4%), and widening roads/freeways (4%).

CARPOOL CONGESTION SOLUTIONS Federal regulations require carpool lanes on local freeways to operate at 45 miles per hour during peak periods. If local carpool lanes do not meet this performance standard, Orange County could lose federal funding for transportation projects or face other penalties. After providing the aforementioned background information to respondents, Question 9 presented three strategies being considered by Caltrans to keep car-

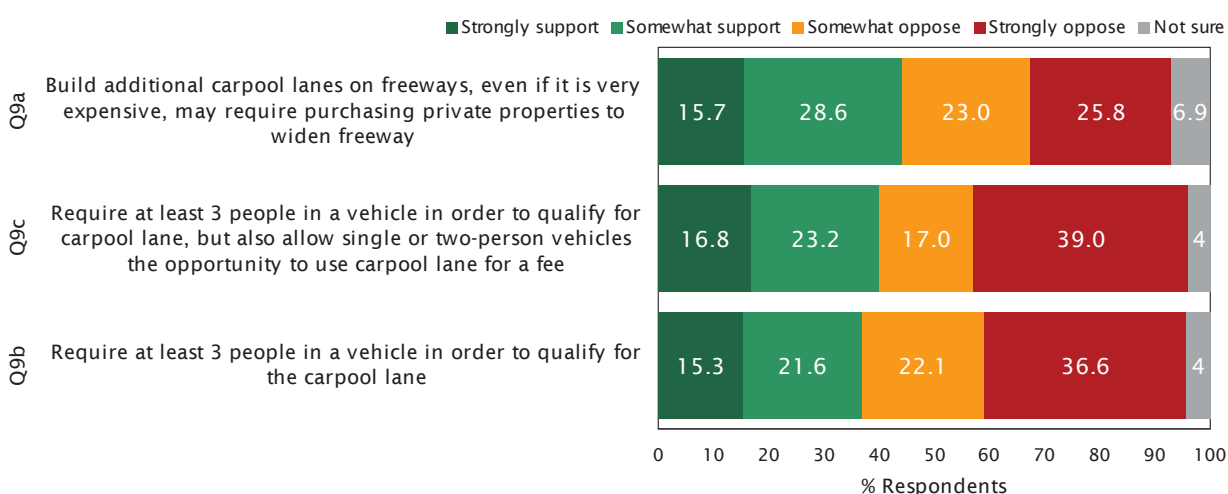
pool lanes flowing during peak periods and asked respondents whether they supported or opposed each strategy.

As shown in Figure 19, none of the approaches to reducing peak-period congestion in carpool lanes tested in Question 9 achieved majority support, and the levels of support for each strategy were more consistent than what one might expect. Although the general strategy of widening freeways to reduce traffic congestion is popular among Orange County residents (see *Transportation Priorities* on page 24), support for widening freeways to build additional *carpool* lanes on freeways is less so, especially when respondents are informed that it would be very expensive and may require purchasing private properties (44%). Requiring at least three people in a vehicle to use the carpool lane as a strategy to reduce peak-period congestion was somewhat less popular among survey participants (37%), although when combined with allowing single- or two-person vehicles the opportunity to use the carpool lanes for a fee (HOT lane), support ticked up to 40%.

In sum, although none of the strategies achieved majority support, it is notable that the most expensive approach for addressing congestion in carpool lanes (building additional carpool lanes) did not find substantially higher support than strategies that would accomplish the task far more cost-effectively (i.e., HOT lanes). Moreover, it is also important to keep in mind that even the most popular strategies for addressing carpool lane congestion are likely to find tepid support, at best, for the simple reason that the majority of adults are not regular users of carpool lanes. Those who do not use carpool lanes tend to exhibit less interest in making improvements to these lanes.

Question 9 *Federal regulations require that our local freeways include carpool lanes, and that the carpool lanes operate at 45 miles per hour during peak periods. If local carpool lanes do not meet this performance standard, Orange County could lose federal funding for transportation projects or face other penalties. To keep carpool lanes flowing during peak periods, there are several strategies being considered by Caltrans. As I read the following strategies, please indicate whether you would support or oppose each strategy.*

FIGURE 19 CARPOOL LANE STRATEGIES



Appendix E

Pop-Up Events

Appendix E

Public Outreach Report

Long Range Transportation Plan (LRTP)

Pop Up Events Overview

Pop-Up Events

To promote the online survey, the project team staffed seven (7) project booths at large community events and Metrolink stations throughout Orange County. At each event, the project team provided an overview of the project, informed the public about the Artwork and Photo Contest, and reminded residents about the community open house on September 22, 2018. The project team also promoted the MetroQuest survey and encouraged the public to take the survey. They had the option to take the survey online on an iPad provided or through hard copy. At each booth, project materials were available for visitors to take. The project team also displayed OCTA branded giveaways to attract more visitors to the booth and incentivize them to complete the survey. Please refer to the table below for a list of all the events attended for the project.

Event #	Date	Event	Location	Number of Surveys Completed
1	9/5/2018	Metrolink Fullerton Train Station Pop-Up Table	120 E Santa Fe Ave. Fullerton, CA 92832	8 surveys
2	9/8/2018	City of Westminster Dia de la Familia	7200 Plaza St. Westminster, CA 92683	14 surveys
3	9/10/2018	Metrolink Buena Park Train Station Pop-Up Table	8400 Lakeknoll Dr. Buena Park, CA 90621	4 surveys
4	9/12/2018	Metrolink Irvine Train Station Pop-Up Table	15215 Barranca Pkwy. Irvine, CA 92618	12 surveys
5	9/13/2018	Metrolink Tustin Train Station Pop-Up Table	2975 Edinger Ave. Tustin, CA 92780	8 surveys
6	9/18/2018	Metrolink San Juan Capistrano Train Station Pop-Up Table	26701 Verdugo St., San Juan Capistrano CA 92675	1 survey
7	9/20/2018	Metrolink San Clemente Train Station Pop-Up Table	1850 Avenida Estacion San Clemente, CA 92672	6 surveys

Appendix **F**

Social Media Toolkit

2018 Long Range Transportation Plan E-Communications Toolkit

Introduction

Orange County Transportation Authority (OCTA) is in the final phase of developing the 2018 Long Range Transportation Plan (LRTP). The LRTP is OCTA's plan in addressing travel needs for the next 20 years as the County grows in population, infrastructure, and employment.

For this final phase of the 2018 LRTP, we are seeking input from Orange County residents through Sept. 28. We would appreciate your help in sending out information to your constituents on how they can participate in planning our County's transportation future.

The tool kit below provides content that conveys brief information about the LRTP. You can easily copy and paste content that best resonates with your audience into your social media platforms, newsletters, and blogs. Please remember to tag @goOCTA in your social media posts (i.e. Facebook, Instagram, Twitter) so that we can easily track information sharing. The following link at octa.net/LRTP contains details on how your constituents can give us feedback.

Thank you for your help in promoting OCTA's Long Range Transportation Plan!

As of August 23, 2018

FACEBOOK

We have already created a ready to share Facebook post. Just click on the link, and hit share!

<https://www.facebook.com/32401940026/posts/10156364049490027/> .

Post shown below



As of August 23, 2018

INSTAGRAM

Image ready to post:



Caption:

Help OCTA shape the future of transportation in Orange County in four ways – survey, Telephone Town Hall, Family Open House, and/or art contest. #linkinbio*

*Please consider temporarily linking our Lrtp webpage to your Instagram account bio

1. Go on your profile
2. Click/ tap the “edit” button on the top right
3. Copy and Paste this link

<http://octa.net/Projects-and-Programs/Plans-and-Studies/Long-Range-Transportation-Plan/2018-LRTP/>

4. Click/ tap “done”
5. Post our photo
6. Hash tag #linkinbio (as in the caption above)

If not, you can caption your post

Help OCTA shape the future of transportation in Orange County in four ways – survey, Telephone Town Hall, Family Open House, and/or art contest by visiting octa.net/lrtp.

As of August 23, 2018

TWITTER

We already have a tweet up and ready. Just retweet our @goOCTA [post](#). Click on this “post” link, and hit the retweet button.



OR retweet by copy and pasting the url to the post which is
<https://twitter.com/goOCTA/status/1032380181682388992>

You can also embed our tweet and use your own caption. We would ask that you use @goOCTA in your caption if you do so.

As of August 23, 2018

SHARE OUR VIDEO!



Please consider sharing our [video](#), instead of an image, on Facebook, twitter, or any other means that would support it!

You can share the video itself by visiting the YouTube link and hitting the “share button” then choosing your preferred media, or copy and paste our link at <https://www.youtube.com/watch?v=GUhQaz9eLcA> .

Caption:

Help OCTA shape the future of transportation in Orange County in four ways – survey, Telephone Town Hall, Family Open House, art contest by visiting octa.net/lrtp

As of August 23, 2018

NEWSLETTERS/E-BLAST



Text:

Orange County Transportation Authority (OCTA) is now shaping the future of Orange County transportation! We're paving the way towards the year 2040 based on projected increases in population, housing, and employment. We need help from Orange County residents like you! What do you want your daily journey to look like?

Four Ways to participate:

- **Survey:** Give your input online, help us see OC through your eyes.
- **Art Contest:** Students! Show us your transportation vision, win up to \$200! *
- **Telephone Town Hall:** Share your ideas with the experts on Sept. 12
- **Family Open House:** Bring the whole family for a fun night on Sept. 22

* Art contest open to students K - college. See contest rules for details.

[\[Learn More Button\]](#)

Learn More leads to the LRTP website at <http://octa.net/Projects-and-Programs/Plans-and-Studies/Long-Range-Transportation-Plan/2018-LRTP/>

Appendix G

Facebook Advertisements and Posts



OCTA
 Sponsored ·

Like Page

Shape the future of transportation four ways – survey, phone call, community meeting, art contest. Choose one or all! Thank you.



OCTA.NET/LRTP
Designing Tomorrow with OCTA

Learn More

Like

Comment

Share



OCTA
 Sponsored ·

Like Page

Help shape the future of OCI On Sept. 12, talk directly to transportation experts without leaving home. We'll call you, or you can call us.



OCTA.NET/LRTP
Join Our Telephone Town Hall

Learn More

Like

Comment

Share



OCTA
 Sponsored ·

Like Page

Help us design a transportation plan for Orange County! Take our survey and share what's important to you.



OCTA.NET/LRTP
Take the 2018 Transportation Survey

Learn More

Like

Comment

Share



OCTA
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Like Page

Win prizes for your art and photos! Use your imagination and share transportation-themed images to win up to \$200.



OCTA.NET/LRTP
Design & Win

Learn More

Like

Comment

Share



OCTA
 Sponsored ·

Like Page

Bring the family for a fun look at the future of transportation Sept. 22 at our open house. See you there!



OCTA.NET/LRTP
Join our open house & provide your feedback

Learn More

Like

Comment

Share

Appendix **H**

Eblasts

Share



DESIGNING TOMORROW

2018 LONG RANGE TRANSPORTATION PLAN

OCTA is now shaping the future of Orange County transportation! We're paving the way towards the year 2040 based on projected increases in population, housing, and employment. We need help from Orange County residents like you! What do you want your daily journey to look like?

Four Ways to participate:

- **Survey:** Give your input online, help us see OC through your eyes.
- **Art Contest:** Students! Show us your transportation vision, win up to \$200!**
- **Telephone Town Hall:** Share your ideas with the experts on Sept. 12
- **Open House Title:** Bring the whole family for a fun night on Sept. 22

** Art contest open to ~~students~~ K - college. See contest rules for details.

LEARN MORE



Orange County
Transportation Authority

550 S. Main Street, PO Box 14184
Orange, CA 92863-1584, USA

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[View the email as a web page.](#)

Share



DESIGNING TOMORROW

2018 LONG RANGE TRANSPORTATION PLAN

Let's Talk about Transportation's Future at Our Telephone Town Hall

Your kindergartener today will be driving to work in 20 years.

What will their commute look like in the year 2040?

On Wednesday, Sept. 12, take the opportunity to talk to OCTA Chief Executive Officer, Darrell Johnson and other Orange County transportation leaders about OCTA's draft Long Range Transportation Plan (LRTP), a blueprint for the future of OC transportation that analyzes travel conditions based on projections for 2040.

Give your input on what the future of Orange County transportation should look like during our Telephone Town Hall.

[Register](#) online and we'll call you the day of the event.

You can also call us at the following numbers:

North County - 5:30 PM

South County - 7 PM

English 888-400-1932

Spanish 888-400-9342

Learn more about LRTP here:

LEARN MORE



Orange County
Transportation Authority

550 S. Main Street, PO Box
14184
Orange, CA 92863-1584, USA



Share



Enjoy Some Family Fun and Discuss the Future of Transportation

Bring your whole family to a free and fun open house this Saturday. We'll have activities for kids including train rides, face painting and bus and bike activities, as well as information about OCTA's draft [Long Range](#) Transportation Plan (LRTP), a blueprint for the future of OC transportation that analyzes travel conditions based on projections for 2040.

FAMILY OPEN HOUSE

Saturday, Sept. 22
9 AM to Noon
Orange County Transportation Authority
550 S. Main Street, Orange, CA 92868
Park in adjacent structure on Bedford Road

Learn more about LRTP here:

LEARN MORE



Orange County
Transportation Authority

550 S. Main Street, PO Box 14184
Orange, CA 92863-1584, USA

© 2018 Orange County Transportation Authority. All rights reserved. [Update Profile](#)

[View this email as a web page.](#)

Appendix I

OCTA Blogs



Events Showcase OC's Transportation Future

Thursday, September 20, 2018

Share

Tweet

Share

With a fun family open house this weekend and a Telephone Town Hall earlier in the month, Orange County residents have opportunities to make their voices heard about the future of transportation in Orange County.

Bring your whole family to a free and fun open house this Saturday, Sept. 22. We'll have activities for kids like train rides and face painting and information about transportation and the OCTA's draft Long Range Transportation Plan (LRTP), a blueprint for the future of OC transportation that analyzes travel conditions based on projections for 2040.

As part of OCTA's Telephone Town Hall, on Sept. 12 nearly 1,000 people participated in a phone call with a panel of experts about the future of transportation. OCTA Chief Executive Officer, Darrell Johnson and others answered multiple questions about OCTA's draft Long Range Transportation Plan (LRTP), a blueprint for the future of OC transportation that analyzes travel conditions based on projections for 2040.

Take a moment to [listen in](#).

You can also participate by taking an [online survey](#). Please let us know what transportation improvements are important to you and tell us how you get around Orange County. The survey closes on Sept. 28.

Learn more about the LRTP [here](#).



Help Shape the Future of Transportation in Orange County

Wednesday, August 22, 2018

[Share](#) [Tweet](#) [Share](#)

Every four years, OCTA develops a blueprint for the future that examines the county's expected transportation needs, accounting for changes in demographics, the economy, and available funding.

Just released, the draft 2018 long range plan analyzes travel conditions based on projections for 2040, which assume a 10 percent growth in population, 11 percent growth in housing, and 17 percent growth in employment in Orange County.

The plan details projects and services aimed at accommodating the increasing need for transportation. It also explores how emerging innovations – including autonomous and electric vehicles and Transportation Network Companies such as Uber and Lyft – might impact transportation.

OCTA is asking the public to provide feedback on the draft plan. There are [four ways](#) you can offer input, including a telephone town hall on Sept. 12, a community open house on Sept. 22, and an online survey and K-college art contest, both available now. To learn more about the long-range plan and how to voice your opinion, [click here](#).



DESIGNING TOMORROW

2018 LONG RANGE TRANSPORTATION PLAN

Let's Talk about Transportation's Future during Our Telephone Town Hall

Wednesday, September 5, 2018

f Share

Twitter Tweet

StumbleUpon Stumble

Our kindergarteners today will be driving to work in 20 years.

What will their commute look like in the year 2040?

On Sept. 12, take the opportunity to talk to OCTA Chief Executive Officer, Darrell Johnson and other Orange County transportation leaders about OCTA's draft Long Range Transportation Plan (LRTP), a blueprint for the future of OC transportation that analyzes travel conditions based on projections for 2040.

Give your input on what the future of Orange County transportation should look like during our Telephone Town Hall.

[Register online](#) and we'll call you the day of the event.

You can also call us at the following numbers:

North County – 5:30 PM South County – 7 PM

English [888-400-1032](tel:888-400-1032) [888-400-1032](tel:888-400-1032)

Spanish [888-400-9342](tel:888-400-9342)

In addition to the Telephone Town Hall, there are three other way to provide input on the draft LRTP:

- Take an [online survey](#). Please take a few minutes to let us know what transportation improvements are important to you and tell us how you get around Orange County.
- Bring your whole family to a fun open house Sept. 22. We'll have activities for kids and information about transportation and the LRTP.
- Encourage the students in your life (kindergarten through college) to share artwork and photos that showcase themes related to the LRTP for a chance to win \$50, \$100, and \$200 gift cards.



Every four years, OCTA develops a blueprint for the future that examines the county's expected transportation needs, accounting for changes in demographics, the economy, and available funding. Just released, the draft 2018 Long Range Transportation Plan analyzes travel conditions based on projections for 2040. We'd like your input on the draft plan. Please take the time to take a survey, attend an open house, call in to a telephone town hall, or encourage students to participate in an art contest. Your feedback will help shape the future of Orange County transportation.



A handwritten signature in black ink, appearing to read 'Darrell Johnson'.

Darrell Johnson

Chief Executive Officer



On Sept. 12, you can help shape the future of transportation with a simple phone call by participating in OCTA's Telephone Town Hall. Call and talk to me or the other participating transportation leaders about the draft Long Range Transportation Plan (LRTP), a 20-year blueprint for transportation improvements in Orange County. It's an easy way to weigh in without leaving home. Check out the article on the Telephone Town Hall for more information. Talk to you on Sept. 12.



Darrell Johnson

Chief Executive Officer

Appendix J

Newspaper Advertisement

DESIGNING TOMORROW

2018 LONG RANGE TRANSPORTATION PLAN

JOIN US FOR A FAMILY FRIENDLY
COMMUNITY OPEN HOUSE

Free Activities

Treats for Kids

Saturday, September 22 from 9 a.m. - Noon
OCTA Headquarters - 550 S. Main Street, Orange, CA

Bring the whole family to learn about exciting
transportation plans for Orange County!

www.octa.net/LRTP



Appendix **K**

Postcard

DESIGNING TOMORROW

2018 LONG RANGE TRANSPORTATION PLAN

The Long Range Transportation Plan (LRTP) is a 20-year blueprint for transportation improvements in Orange County.

WHAT IS THE LRTP?



OCTA develops and delivers transportation solutions to enhance the quality of life and keep Orange County moving.



OCTA is planning ahead to 2040 to address increased population, housing and employment.



The LRTP will identify projects to improve roadways, transit and bike paths, while considering evolving technologies like autonomous vehicles and on-demand ridesharing.

AS WE MOVE FORWARD, OCTA WANTS YOUR INPUT.



Community Survey

Go to octaLRTP.com and tell us what you think!

Art Contest



Vote for your favorite photo or artwork at octa.net/LRTPart.



Social Media

Follow us on social media and visit us at community events.

facebook.com/goOCTA
 [@goOCTA](https://twitter.com/goOCTA)



Telephone Town Hall

Wednesday
September 12, 2018
North County - 5:30 PM
South County - 7 PM
English (888) 400-1932
Spanish (888) 400-9342
Register online: octa.net/tthm

Community Open House

Saturday
September 22, 2018
9 AM - Noon
OCTA Headquarters
550 S. Main Street
Orange, CA 92868



www.octa.net/LRTP



DESIGNING TOMORROW

2018 LONG RANGE TRANSPORTATION PLAN

El Plan de Transporte a Largo Plazo (LRTP, por sus siglas en inglés) es un plan de acción de 20 años para mejoras de transporte en el Condado de Orange.

¿QUÉ ES EL LRTP?



OCTA desarrolla y proporciona soluciones de transporte para mejorar la calidad de vida y mantener la movilidad en el Condado de Orange.



OCTA planea con anticipación para el 2040 considerando el aumento de la población, vivienda y empleos.



El LRTP identificará proyectos para mejorar carreteras, el transporte público y rutas para bicicletas, considerando la evolución de la tecnología, como los vehículos autónomos y la demanda de viajes compartidos.

A MEDIDA QUE AVANZAMOS, OCTA QUIERE CONOCER SUS OPINIONES.



Encuesta Comunitaria

¡Visite octaLRTP.com y cuéntenos qué opina!

Concurso de Arte



Vote por su foto u obra de arte favorita en octa.net/LRTPArt.



Redes Sociales

Síguenos en las redes sociales y visítenos en eventos comunitarios.

facebook.com/goOCTA
 [@goOCTA](https://twitter.com/goOCTA)

Reunión Telefónica

Miércoles
12 de septiembre de 2018
El norte del condado - 5:30 PM
El sur del condado - 7 PM
Inglés (888) 400-1932
Español (888) 400-9342
Regístrese en línea: octa.net/tthm

Open House Comunitario

Sábado
22 de septiembre de 2018
9 AM - Mediodía
OCTA Headquarters
550 S. Main Street
Orange, CA 92868



www.octa.net/LRTP



Appendix L

MetroQuest Survey Screenshots

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2018 LONG RANGE TRANSPORTATION PLAN

MetroQuest Online Engagement Tool

Introduction

WELCOME

Help us design a transportation plan for Orange County!

The Long Range Transportation Plan (LRTP) helps OCTA plan for the future of transportation by identifying the needed projects to improve County-wide mobility.

[Español](#) [Begin](#)

Orange County's population is anticipated to grow by 10 percent or about 311,000 by 2040, while employment is expected to grow by 17 percent or about 275,000 over that same time period.

2

3

4

5

PRIORITY RANKING

SURVEY

MAP MARKERS

WRAP UP

Improvements

WELCOME

2

3

4

5

PRIORITY RANKING

SURVEY

MAP MARKERS

WRAP UP

Order your top 3 items above this line

- Expand bus/train services
- Expand technology use
- Improve bikeway/sidewalk
- Increase rideshare
- Signal synchronization
- Add tolled express lanes
- Widen freeways & streets
- Better maintenance/repair

Let us know what transportation improvements are the most important to you. Drag your top 3 priorities above the line.

Please drag 3 of the items above the line in your preferred order.

DESIGNING TOMORROW

2018 LONG RANGE TRANSPORTATION PLAN

WELCOME

2 PRIORITY RANKING

3 Survey

What to do

Next Task

4 MAP MARKERS

5 WRAP UP

Technology

Transit

Managed Lanes

Bike

Travel Behavior

Technology

Traffic signals can be connected with cars with the right technology. Would you support connecting traffic signals with cars so you can get alerted of traffic congestion ahead of you?

Yes

No

Autonomous vehicles will make travel easier for many people which could lead to an increase in the number of car trips and congestion on local streets. Would you support a mileage-based fee to help manage growth in trips and congestion?

Yes

No

Next

WELCOME

2 PRIORITY RANKING

3 Survey

What to do

Next Task

4 MAP MARKERS

5 WRAP UP

Technology

Transit

Managed Lanes

Bike

Travel Behavior

Transit

Which transit options would you like to see most in Orange County? (choose 3)

☐ Bus

☐ Bus Rapid Transit (less stops)

☐ Streetcar/Light rail

☐ On-demand shared ride community shuttles

☐ Commuter Train

☐ Special events express shuttles

Next

DESIGNING TOMORROW

2018 LONG RANGE TRANSPORTATION PLAN

WELCOME

2 PRIORITY RANKING

3 Survey

What to do

Next Task

4 MAP MARKERS

5 WRAP UP

Technology

Transit

Managed Lanes

Bike

Travel Behavior

Managed Lanes

To keep carpool lanes flowing during peak periods, which strategy would you support?

- ☐ Build additional carpool lanes on freeways, even if it is very expensive and may require purchasing private properties to widen the freeway
- ☐ Require at least 3 people in a vehicle in order to qualify for the carpool lane
- ☐ Require at least 3 people in a vehicle in order to qualify for the carpool lane, but also allow single or two-person vehicles the opportunity to use the carpool lane for a fee

Next

WELCOME

2 PRIORITY RANKING

3 Survey

What to do

Next Task

4 MAP MARKERS

5 WRAP UP

Technology

Transit

Managed Lanes

Bike

Travel Behavior

Bike

How can we best improve bicycling in Orange County?

- ☐ Adding bike lanes
- ☐ Developing bike-share programs and facilities
- ☐ Improving street signage and pavement markings
- ☐ Maintaining existing facilities

Next

DESIGNING
TOMORROW

2018 LONG RANGE TRANSPORTATION PLAN

1

WELCOME

2

PRIORITY RANKING

3

SURVEY

4

MAP MARKERS

5

WRAP UP

?

What to do

→

Next Task

1

2

3

4

5

Technology

Transit

Managed Lanes

Bike

Travel Behavior

Travel Behavior

What form of transportation do you use most often when traveling in Orange County?

☐ Drive alone

☐ Carpool/Vanpool

☐ On demand services (ie. Uber or Lyft)

☐ Bus

☐ Paratransit

☐ Metrolink/Amtrak

☐ Bike

☒ Walk

☐ Other

→

Next

1

WELCOME

2

PRIORITY RANKING

3

SURVEY

4

MAP MARKERS

5

WRAP UP

?

What to do

➔

Next Task

Destinations

Please drag and drop at least 3 markers on the map.

Home

Work

School

Entertainment

Health Care

Recreation

Google

Dana Point

Map data ©2018 Google

Terms of Use

Report a map error

DESIGNING TOMORROW

2018 LONG RANGE TRANSPORTATION PLAN

←

2

3

4

5

WELCOME

PRIORITY RANKING

SURVEY

MAP MARKERS

WRAP UP

?

Thank you!

What to do

Final Questions (Optional)

What is your age?

What is your gender?


What is your home zip code?


Stay up to date by entering your email:

Thank You!

We appreciate your feedback. It will help us evaluate the transportation priorities and design a better system!

To learn more about the project, please visit our [website](#).





Appendix M

Submitted Comments



C: Exec Staff

RECEIVED
CEO OFFICE

SEP 06 2018

September 4, 2018

Darrell Johnson, Chief Executive Officer
Orange County Transportation Authority
P.O. Box 14184
Orange, CA 92863-1584

Dear Mr. Johnson:

The Draft Long-Range Transportation Plan (LRTP) currently includes a conceptual project along Laguna Canyon Road (SR-133) between El Toro Road and Canyon Acres Drive. This project is listed in the Conceptual Project List for Local Arterial Projects in your executive summary and on page 135 of the draft LRTP.

Even though this section of Laguna Canyon Road is owned and maintained by Caltrans, the City of Laguna Beach at its own expense (over \$650,000) completed a draft Project Study Report for the design and construction of utility undergrounding, sidewalks, pathways, bike lanes, and improved access to transit facilities. These proposed elements do not exist on the roadway today which makes the project a perfect fit for the goals of the LRTP regarding the shifting interest in modes of transportation.

In July 2018, the City applied for an Active Transportation Program grant for the next design phase of the project which is the preparation of the project approval and environmental document. This next step in the planning process also fits the goals of the LRTP for Active Transportation Investments through Orange County and Regional Planning Activities.

Laguna Canyon Road (SR-133) carries over 40,000 vehicles per day and certainly most of these trips simply pass through Laguna Beach. Laguna Canyon Road is truly a regional asset and therefore a regional responsibility. The proposed active transportation improvements on a State controlled highway are too significant for Laguna Beach to implement on its own.

With the information provided in the Active Transportation Program grant application and the draft Project Study Report, I encourage you to advance the Laguna Canyon Road – El Toro to Canyon Acres Drive project from the concept list to the project list.

Sincerely,

A handwritten signature in blue ink that reads "John Pietig".

John Pietig, City Manager



Office of Mayor and City Councilmembers

Phone: (949) 361-8322 Fax: (949) 361-8283

Website: <http://san-clemente.org>

E-mail: CityCouncil@san-clemente.org

Tim Brown, *Mayor*

Chris Hamm, *Mayor Pro Tem*

Kathy Ward, *Councilmember*

Lori Donchak, *Councilmember*

Steve Swartz, *Councilmember*

James Makshanoff, *City Manager*

September 5, 2018

Darrell Johnson

Chief Executive Officer

Orange County Transportation Authority

P.O. Box 14184

Orange, CA 92863-1584

RECEIVED
CEO OFFICE

SEP 07 2018

C: Exec Staff

Subject: Support for 2018 Long Range Transportation Plan

Dear Mr. Johnson:

This letter is to express the San Clemente City Council's support for the 2018 Long Range Transportation Plan. We appreciate OCTA's leadership and coordination to develop a forward-looking plan that will keep transportation systems within Orange County operating efficiently and effectively, with consideration for local needs and desires. In particular, the City of San Clemente supports the Trend 2040 Improvement Plan which reflects stakeholder input to improve system performance and expand transportation choices. The City also supports implementation of price-managed lanes when these are thoughtfully evaluated and coordinated by OCTA to determine where within the existing transportation network these would be most effective. Similarly, the City supports conversion of toll roads to freeways which include price-managed lanes to facilitate a seamless highway network within Orange County. Finally, we strongly support the recommended short-term action plan to study south Orange County mobility by identifying multi-modal transportation needs and opportunities. Given the evolution of the transportation climate with the emergence of disruptive services and technologies, travel conditions and assumptions contained in the South Orange County Major Investment Study completed over 10 years ago need to be addressed. OCTA's expertise in regional transportation planning is needed to lead this important effort to build consensus around a locally-preferred strategy for addressing mobility in south Orange County.

We support the 2018 Long Range Transportation Plan and look forward to continued collaboration with OCTA to keep our existing transportation systems operating as efficiently and effectively as possible for the benefit of all who rely on these important systems.

Sincerely,

Tim Brown
Mayor

Comments from Conservation Groups on OCTA's LRTP

September 21, 2018

Sent via email to: mespino@octa.net and gnord@octa.net

Mr. Darrell Johnson
Chief Executive Officer
Orange County Transportation Authority (OCTA)
550 S. Main St.
P.O. Box 14184
Orange, CA 92863-1584

Re: Comments on OCTA's Draft 2020 Long Range Transportation Plan

Dear Mr. Johnson:

Thank you for the opportunity to comment on the Orange County Transportation Authority's (OCTA) draft 2018 Long Range Transportation Plan (LRTP). The groups listed below represent thousands of members and environmental activists who care deeply about protecting Orange County's public lands and open spaces. This letter provides feedback on draft LRTP.

We appreciate the four goals listed in the Plan of: delivering on commitments, improved system performance, expanding system choices, and financial sustainability. Thank you for recognizing the importance of staying on top of new and emerging trends, be it related to ride sharing opportunities or technology-based mobility solutions. The process of completing an LRTP serves many purposes, from leveraging funding to identifying the goals of the voter-approved transportation sales tax measure to allowing flexibility with discretionary funds for future projects. The latter allows the Authority to be nimble as trends and technologies emerge, and as human behaviors related to transportation and goods movement change.

Policy changes at the state level have already impacted transportation, housing, sustainability, and planning goals locally and regionally. These will all impact—if they haven't already impacted—how OCTA provides for Orange County's mobility needs now and in the future, especially as it relates to topics such as promoting telecommuting incentives to business and advocating for policies that enhance land use diversity.

The 2018 LRTP Action Plan includes several activities worth commenting on:

1. South Orange County Mobility – Promoting mobility options in South Orange County, we believe, will eliminate the need for the Transportation Corridor Agency's proposed—and highly controversial—241 South Toll Road. We appreciate that on page 90, the "Beyond Commitments" outlines improving Interstate 5. Improvements there have the very real potential to prove the 241 South is an unneeded roadway.
2. Signal Synchronization – Light synchronization has proven beneficial throughout the County and adding this feature to existing congested roadways will keep traffic flowing. We believe continued implementation of signal synchronization will not only keep cars moving, but also provide the co-benefit of reduced vehicle emissions, which in turn helps meet the mandates of

AB 32 and SB 375. Less time at street lights also means there is a time savings—thus improving quality of life for system users.

3. Joint Development Studies – Creating improved transit terminals and connectivity will assist with local transit ridership and provide easier, environmentally friendlier, and more cost effective mobility options for communities across the county. Options that link housing and employment centers will be most effective and as infill projects occur—a rider base will exist to utilize the system.
4. 2028 Olympics – In the 1980s Southern California adopted policies to reduce traffic congestion on roadways and freeways in anticipation of the Olympics. These solutions (such as modified work schedules, improved transit connections, and telecommuting) provided not just temporary—but opportunities for permanent—solutions to our long term transportation congestion across the Southland. We support coordinating with LA Metro, but also encourage expanding that coordination to other transportation agencies in neighboring counties to set both short and long term goals as well as temporary and permanent goals for this unique opportunity.

Chapter 1: Orange County Today

It was not at all surprising to read that 79% of OC drivers commute to work *alone*. Perhaps additional incentives, carpool lots, outreach to businesses, or technological options (like a “ride share” app) may be promoted by OCTA. Funding opportunities may be also available from the Southern California Association of Governments (SCAG), or the state or federal government to provide capital for this endeavor.

We were pleased to see that OCTA has launched a real-time bus locator app. With the advance of technology and exponential use of smart phones—creating an app to inform bus users is a great investment and time saver.

Providing access to our park system and throughout our communities via trails and trail connectors is important. This provides residents and visitors with an additional alternative and active transportation options for getting from Point A to Point B. We continue to support construction of additional (but appropriately located) bikeways throughout the county.

Chapter 2: Orange County in 2040

Figures 2.1 and 2.2 indicate population density increases and changes between 2015 and 2040. It appears in several locations that protected natural lands have not been removed from the inventory of “growth” locations. For example, in Figure 2.1 it indicates additional projected growth in Brea, Placentia, Anaheim Hills, and Orange. In reality, quite a bit of the lands in Brea have already been recently developed, so those density allocations have already occurred there. Further, some of the lands showing an increase in population density are actually already protected as parkland. In one instance, lands projected for a change also include the Olinda Landfill, which is actually slated to become a regional park managed by OC Parks. Both of these figures should be updated for the final LRTP and should include the removal of the protected lands from these maps to set an accurate baseline condition and accurately portray where projected growth can actually occur. (See *Attachments 1 and 2*).

We recognize OCTA is not in the business of dictating housing policy, but the right type of stock certainly plays into traffic congestion especially from out-of-county trips. While there appears to be a trend of “insufficient housing” identified in the Plan, this may actually have to do with cost of the

housing and the cost of the *proposed* housing. Many of the projects being approved at the local and regional level include housing types in the multi-million-dollar category—far from what workers driving into Orange County likely can afford. Acknowledgement of this “on the ground” reality would be an added benefit to the Plan.

Chapter 3: Challenges and Goals

It was unfortunate to read that the sales tax measure’s revenue projections are substantially less than originally projected. We realize this can have cascading impacts across all Renewed Measure M2 (M2, now OC Go) project categories (freeways, streets and roads, and transit).

As indicated on page 73 of the Plan “While a fiscally sustainable plan is paramount, sustainability also applies to the quality and longevity of our infrastructure, and the importance of maintaining and enhancing the environment.” We support and encourage OCTA to apply the same comprehensive mitigation approach as was done with the M2 Project List for additional projects that are incorporated into OCTA’s expenditure plan. OCTA’s Environmental Mitigation Program (EMP) is a national model and the Authority should continue its forward thinking programs for the benefit of the environment, project delivery, budgets, and permitting—to name a few.

This part of Southern California is one of 20 global hotspots of biodiversity. This means our unique habitats and species are threatened with extinction due to development. Many species at risk are endemic—meaning they are species only found here. As projects move forward—especially those NOT captured by the EMP we ask that a comprehensive mitigation approach be implemented.

The concept of “microtransit” appears to be a good one. We hope through the OC Flex program that additional areas with low transit demand may be helped through this new opportunity.

With an eye towards sustainability across the board, we appreciate the goal to “Support Sustainability” and the objective to “explore environmental and emission reduction strategies.” The conservation community offers its support and partnership in this effort—especially as it relates to meeting the goals of SB 375 and the SCAG Regional Transportation Plan/Sustainable Community Strategy including the Natural and Farmlands Appendix objectives. Please reach out if there is a need and we will simultaneously keep you in mind for opportunities we see that may arise.

We agree—as the demographics of our population shift in age and health options—there will be an increased demand for something other than single occupant vehicles. Planning for those options now, would be wise and likely a well-received. Thank you for thinking forward on this item.

Chapter 4: The 2040 Solution

As the funding for the endowment for the EMP is built, we will continue to follow closely the future expenditures for the voter-approved acquisition, restoration, and management of natural lands. We certainly appreciate recognition that the program—and water quality program—will remain funded to meet the promises to voters.

To maintain consistency with the EMP documents, the map on page 87 should reflect the new Preserve names, which were revealed in February 2018 after an extensive OCTA outreach effort.

Figure 4.6 (MPAH Improvements – North County) indicates additional capacity being added along Carbon Canyon Road in Brea. This would have significant impacts on existing mitigation lands within Chino Hills State Park, not to mention it is part of an approved Habitat Conservation Plan area. Additionally, the roadway up Valencia west of Olinda Landfill proposes a connection at Tonner Canyon and the 57 Freeway in Brea. It is unclear the purpose of this road and what it aims to serve. It doesn't decrease commutes, but instead impacts a functioning 31-mile long Wildlife Corridor and destroys ridgelines protected in a settlement agreement above Tonner Hills. Consistent with previous LRTP comments we've made on the MPAH improvement list—these two projects should be removed from consideration.

Figure 4.7 (MPAH Improvements – South County) indicates a new road being added between Santiago Canyon Road to Riverside County in county territory. This connector road through the forest impacts OC Parks lands, potentially OCTA mitigation lands, the Cleveland National Forest, and other conservation lands. This project should be removed from consideration.

Figures 4.12 & 4.13 (2040 Bikeway Additions – North & South County) indicates new Class 1 and 2 bike routes that are likely not appropriate given the constraints or protections associated with the lands they are on or are adjacent to.

1. Carbon Canyon Road – Road constraints make this bike path infeasible on an already dangerous roadway.
2. Soquel Canyon – This bike lane appears to cut through OCTA's Eagle Ridge Preserve (protected by a state/federal Conservation Plan), Chino Hills State Park, a mitigation bank, and private property. There is no road in Soquel Canyon and it dead ends at the Aerojet facility in Chino Hills which is restricted to authorized visitors due to unexploded ordinance on site. This should be removed from the plan.
3. Live Oak Canyon Road – Road constraints make this bike path undesirable on an already dangerous roadway. This should be removed from the plan.

We urge completion and continued improvement of the proposed 66-mile, OC BikeLoop, especially the largest missing link, the "La Habra 2025 Centennial RailTrail," through downtown La Habra along the Union Pacific Railroad.

We are thankful the Plan acknowledges the EMP as being one way OCTA can contribute to improving our quality of life, but it also has the co-benefit of reducing greenhouse gases, reducing vehicle miles travelled, reducing lane congestion and traffic delays, and protecting threatened and endangered species—among many others. Thank you for recognizing this combination of benefits.

Three ideas missing from the Plan include: first, the incorporation of charging stations for electric vehicles at OCTA facilities such as park and ride lots. Second, the creation of improved transit stops that provide for better user experiences (including but not limited to shade structures, trash bins, landscaping, etc.) LA Metro has excellent examples of place based features incorporated into their stops. Third, opportunities for "on the go" options for system users (bikes, mopeds or vehicles) similar to the "car to go" and bike share systems. This gives residents that don't own vehicles one more option for mobility.

One of the catch phrases from the original Measure M was to deliver on commitments promised to voters—a slogan "promises made, promises kept" was later issued for M2. OCTA's credibility with

voters, residents, and visitors is important to its success in the future. We support your continued commitment to the voter-approved transportation sales tax.

OCTA's leadership in working towards a sustainable, carbon-cutting 2040 is important. We believe components in the LRTP allow flexibility, nimble responses, and a focus on mobility (especially transit). We also strongly urge OCTA to incorporate our comments—especially as it relates to baseline available land for population density or population change. Ensuring accurate maps is critical to evaluating the suite of options available. We will continue to work with you to achieve transportation initiatives that increase and improve public transit options, promote walkable and bikeable communities, and protect and enhance our natural lands.

Thank you for your consideration of these comments.

Very truly yours,

Amigos de Bolsa Chica
Cavity Conservation Initiative
Friends of Harbors, Beaches and Parks
Hills For Everyone
La Habra Vital Community Task Force
Laguna Greenbelt, Inc.
League of Women Voters of Orange Coast

Naturalist For You
Orange County Chapter of the California Native
Plant Society
Silverado-Modjeska Recreation and Park District
Southern California Bluebird Club
Women For Orange County

ATTACHMENTS:

1. Revised Figure 2.1 Population Density
2. Revised Figure 2.2 Population Change

FIGURE 2.1

- Protected Lands
- Landfill

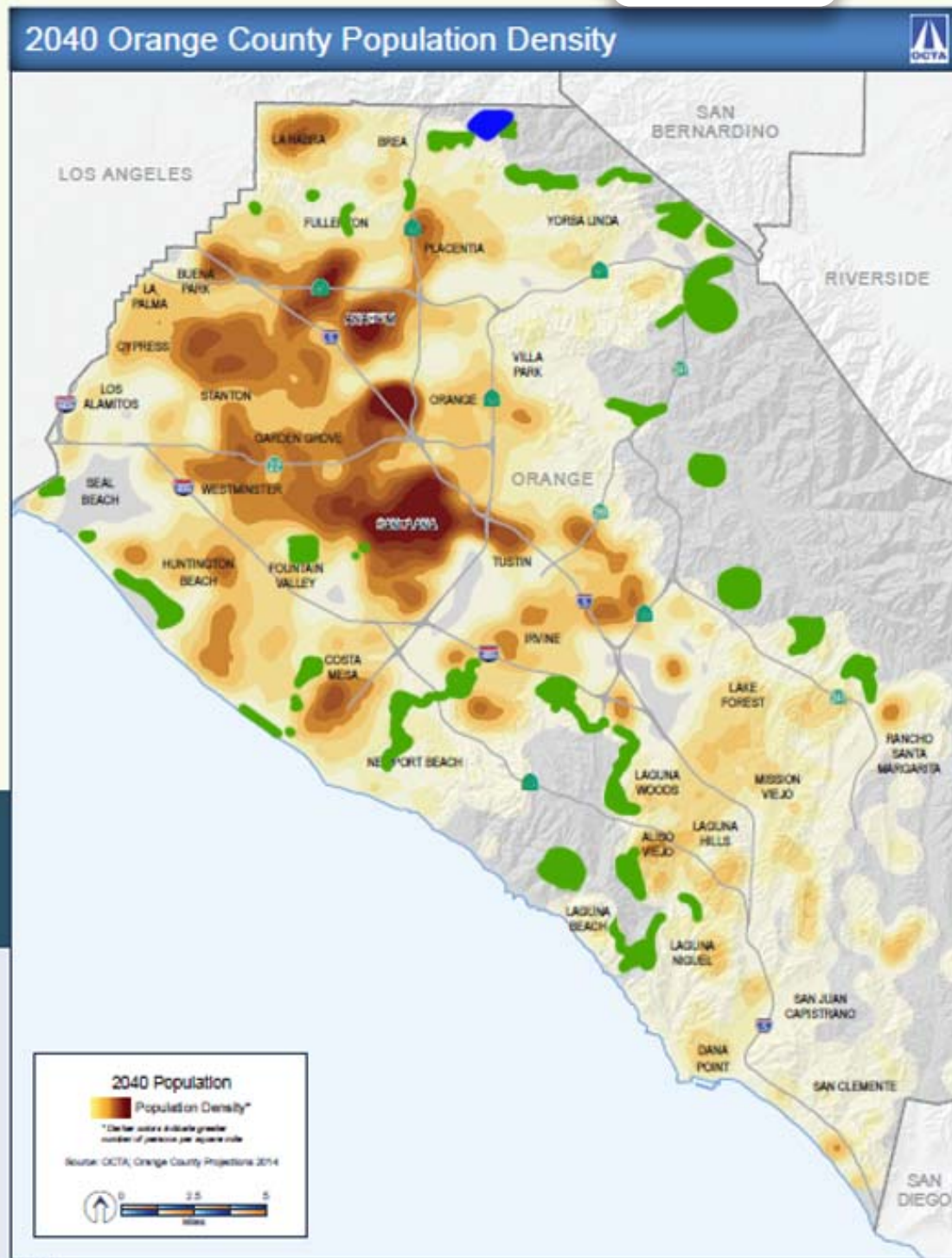
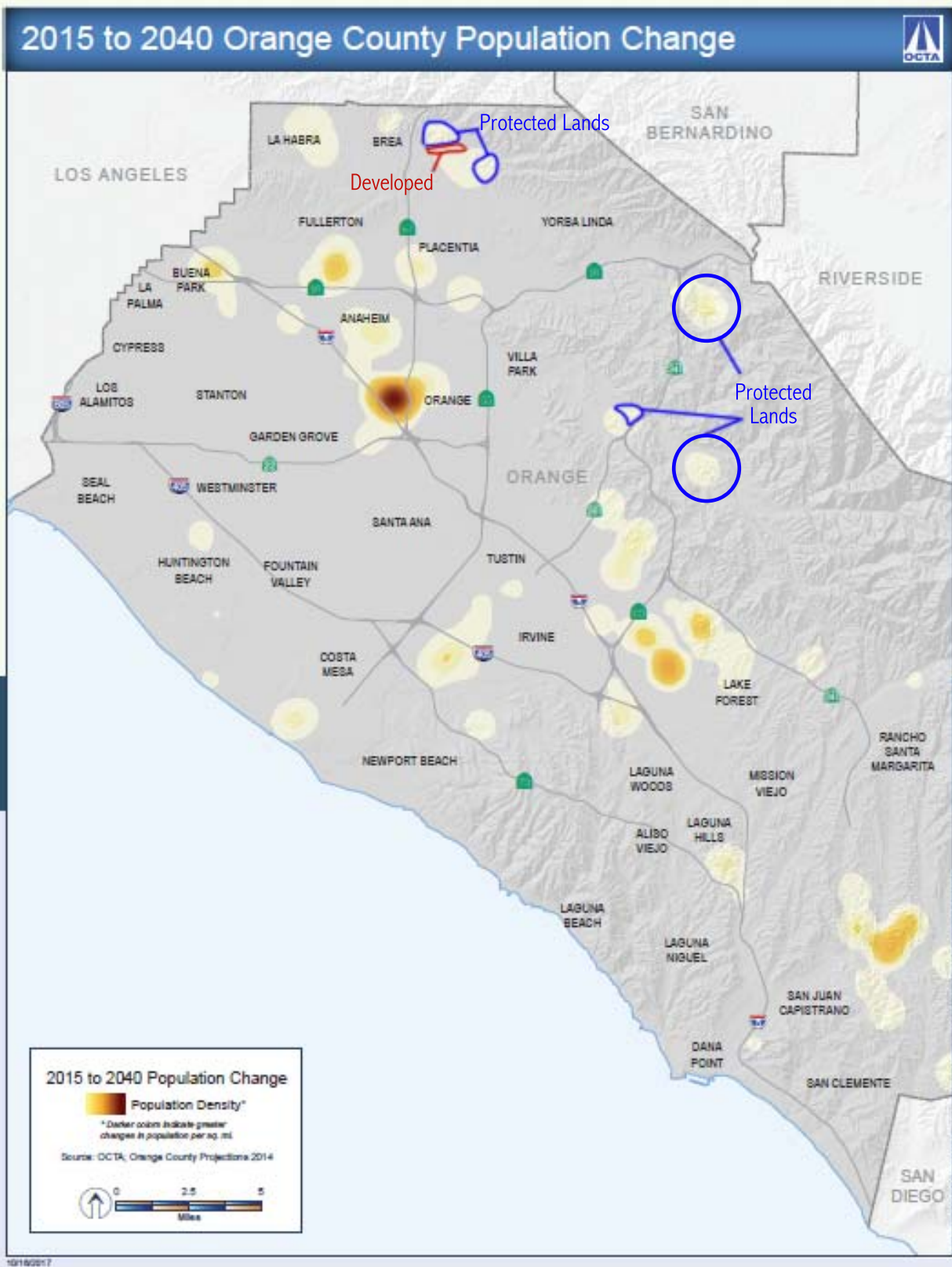


FIGURE 2.2





City of Mission Viejo

Public Works Department

Edward Sachs
Mayor

Greg Rath
Mayor Pro Tem

Wendy Bucknum
Council Member

Brian Goodell
Council Member

Trish Kelley
Council Member

September 27, 2018

The Honorable Lisa Bartlett, Chair
Orange County Transportation Authority
550 South Main Street
Orange, California 92868

Subject: **Draft 2018 Long-Range Transportation Plan**

Dear Chairwoman Bartlett,

Per the attached letter, dated August 2, 2018, the City of Mission Viejo previously submitted comments pertaining specifically to the LRTP's Short-Term Action Plan. In addition, the City respectfully submits the following comments regarding the subject document.

- The baseline does not appear to include projects already programmed/committed in the Federal Transportation Improvement Program (FTIP). Instead, these projects are included as part of the "Trend 2040" scenario, which tends to exaggerate the effectiveness of this LRTP. In past LRTPs, OCTA has included all of the FTIP's existing and programmed projects in the baseline.
- Similarly, demographic data should be derived from OCP-2018 rather than OCP-2014. In the past, OCTA has typically used the most updated data sets available and has required the same of local agencies. For consistency with the 2020 RTP, OCTA should utilize OCP-2018 updated data sets.
- The LRTP provides the 2040 baseline AM congestion maps for freeways and arterials, but it should also include baseline PM congestion maps, as well as "Trend 2040" AM/PM congestion maps to better illustrate the effectiveness of the LRTP.
- Given that M2 revenues are now expected to decline significantly relative to previous estimates and the very real possibility that SB1 may be repealed, how will projects be prioritized? If there are funding shortfalls, which projects will have to be eliminated and how will the elimination of those projects impact the effectiveness of the LRTP? How does the LRTP account for this scenario?
- The LRTP states that an increase in the number of personal vehicles has led to the decreased use of transit, yet it also states that transit trips are expected to increase by 6%. This seems inconsistent. How will an increase be achieved if the current trend is downward?



- Policy initiatives which have not yet been implemented should not be assumed in the analysis of transportation system performance. Such policy initiatives should be included only under the Conceptual Scenario.
- It is unclear whether the LRTP accounts for traffic on the toll roads. The toll roads carry a significant amount of traffic and, as in the 2014 LRTP, the impact of these roads should be reflected. In addition, the TCA currently has two major capital projects which will provide significant benefits. The SR241/91 Direct Connector should be included in the Short-Term Action Plan, and the SR241/I-5 effort in South Orange County should be moved from the unconstrained Conceptual Scenario of the LRTP to the constrained portion of the plan upon adoption of a preferred alignment by the TCA Foothill/Eastern Board of Directors.

Thank you for your consideration.

Sincerely,



MARK CHAGNON
Director of Public Works

Attachment

cc: Honorable Mark Murphy, Chair, Regional Planning and Highways
OCTA Board of Directors
Darrel Johnson, Chief Executive Officer, OCTA
City of Mission Viejo City Council
Dennis Wilberg, City Manager, City of Mission Viejo



City of Mission Viejo

Office of the City Manager

Edward Sachs
Mayor

Greg Rath
Mayor Pro Tem

Wendy Bucknum
Council Member

Brian Goodell
Council Member

Trish Kelley
Council Member

August 2, 2018

The Honorable Lisa Bartlett, Chair
Orange County Transportation Authority
550 S. Main Street
Orange, CA 92868

Dear Chairwoman Bartlett:

I am writing to you to state my concern with the Long Range Transportation Plan (LRTP) Draft as proposed by staff.

The draft LRTP contains a short-term action plan, the most significant aspect of it being a "South Orange County Mobility" study. Ostensibly, this is a proposed update to the 2008 South Orange County Major Investment Study (MIS). The only major project in the 2008 MIS that has yet to be completed is the SR241 extension. As you know, the City of Mission Viejo has worked alongside you and other South Orange County cities, Caltrans and OCTA on the current, TCA-led planning process for the SR241. To have OCTA now begin a brand new South Orange County process not only devalues the work we all have done for the past two years together, but it is also a waste of taxpayer dollars and an unnecessary duplication of efforts.

On page five of the staff report, that references the inclusion of a study of "South Orange County Mobility", staff also mischaracterizes the sentiment in South Orange County surrounding the current effort. Yes, one South Orange County city is unhappy with the process, but the City of Mission Viejo supports this process led by TCA, we have worked diligently with TCA through stakeholder meetings, public forums and technical meetings. In fact, our Mayor and Public Works Director participated in seven meetings over the course of 2016 where they sat alongside not only Mayors, Public Works Directors and City Managers from across South Orange County, but also OCTA principals Darrel Johnson, Kia Mortazavi and Kurt Brotke. All of these OCTA staff members actively participated in the current process and worked with TCA at every step, making presentations and answering questions.

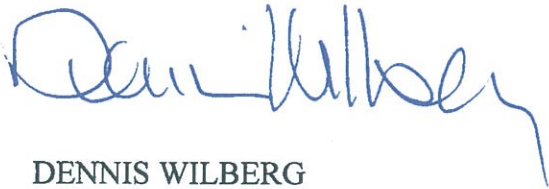
I reject the notion presented in the staff report that the current TCA planning effort has created "a level of unease among the surrounding communities and jurisdictions". The leadership and residents of Mission Viejo are eager to see the current TCA process move forward and call on OCTA leadership to do everything it can to encourage the completion of the current planning process.



August 2, 2018
The Honorable Lisa Bartlett, Chair
Long Range Transportation Plan (LRTP)
Page 2 of 2

Please ensure that any "South Orange County Mobility" study will not deter or delay the current planning process for the SR241. Mission Viejo's future mobility depends on greater North-South congestion relief seven days a week. We are eager to progress into the CEQA/NEPA process with TCA and Caltrans and look forward to an environmentally cleared, complete solution.

Sincerely,



DENNIS WILBERG
City Manager

C: Honorable Mark Murphy, Chair, Regional Planning and Highways
OCTA Board of Directors
Darrel Johnson, CEO, OCTA
Jennifer Cervantez, City Manager, Rancho Santa Margarita
City of Mission Viejo, City Council
Mark Chagnon, Public Works Director, City of Mission Viejo





September 27, 2018

Mr. Greg Nord, Section Manager
Long-Range Planning & Corridor Studies
Orange County Transportation Authority
550 S. Main Street
Orange, CA 92863

Subject: Draft 2018 Long Range Transportation Plan

Dear Mr. Nord:

The Transportation Corridor Agencies (TCA) have reviewed the draft subject plan and provide the following comments for consideration as you prepare the final document. As you know, TCA is a public joint powers authority that is comprised of member agencies who represent cities throughout Orange County. TCA Board members have the responsibility to provide oversight and input into policies that govern our agencies. To date, TCA has constructed 51 miles of publicly operated toll facilities throughout Orange County that represent 20-percent of the county's highways. Upon the opening of each section of TCA's projects, they are deeded to the State of California and represent nearly \$4 billion of newly constructed infrastructure to assist with local and regional mobility.

The draft LRTP acknowledges the financial difficulties our county is facing with the decrease in anticipated revenues associated with OC Go (formerly known as Measure M2). To counter a continued decrease in local, state and federal funding, TCA supports the use of public-private partnerships to fund the improvements necessary to meet the county's current and future growth in housing and employment, as well as goods movement. TCA has successfully utilized this type of financing with its facilities and would like to continue its partnership with OCTA to implement the county's needed improvements to ensure seamless travel between the various facilities throughout the county, including the SR 241/91 Express Connector.

Given the large percentage of lane miles that The Toll Roads make up within the county and the critical role they provide for mobility, it is unclear if the draft document included these facilities as part of the analysis. Please explain if these facilities are included in the data presented and if so, how they were modeled. Furthermore, as part of TCA's FY19 Capital Improvement Plan, the highway improvements identified on page 82 for the SR 73, 133, 241 and 261 have been delayed. TCA is currently conducting a systemwide analysis to better inform our Agencies as to when these improvements will be needed. TCA will update OCTA once this analysis is complete and approved by our Board.

Additionally, within this same table identifying TCA CIP projects on page 82, the table is labeled as "Projects from External Agencies." TCA believes that OCTA is a transportation partner and any entity that works with OCTA, including TCA, Caltrans and any cities within Orange County should be viewed as such. Therefore, TCA suggests that this table be relabeled as "Projects from Partner Agencies."

The draft plan introduces various transportation improvement scenarios, including a discussion on the future use of The Toll Roads (page 127). Since the LRTP horizon year is 2040 and the toll road bonds will be paid off post-2040, it is premature and inappropriate for OCTA to include this type of Policy Scenario as part of the 2018 LRTP. Additionally, the future state of The Toll Roads is a decision that TCA will make in conjunction with Caltrans, the legal owner of SR 73, 133, 241 and 261. TCA requests that the final LRTP remove this discussion for the above stated reasons and re-run its analysis assuming The Toll Roads are a constant.

Finally, we support OCTA's assessment that as part of the LRTP's short-term activities plan, solutions to South Orange County's mobility need to be identified. TCA, in partnership with Caltrans, the County of Orange, the South County cities and OCTA, have been exploring various mobility ideas with local community input for the past few years. The information developed to date can be utilized by OCTA to assist meeting this short-term objective. TCA looks forward to the joint collaboration of our agencies as transportation partners to solve the transportation needs of our county. Any effort undertaken by OCTA should not delay the current TCA/Caltrans project development activities.

TCA thanks you for considering these comments and looks forward to the final version of the 2018 LRTP. Should you have any questions regarding this letter, please feel free to contact me directly at vmcfall@thetollroads.com or via telephone at (949) 754-3475.

Sincerely,

A handwritten signature in cursive script, appearing to read "V. McFall".

Valarie McFall
Chief Environmental Planning Officer

CALIFORNIA COASTAL COMMISSION

South Coast District Office
200 Oceangate, Suite 1000
Long Beach, CA 90802-4302
(562) 590-5071



September 28, 2018

Greg Nord
Orange County Transportation Authority
550 S. Main Street
P.O. Box 14184
Orange, CA 92863-1584

**RE: Designing Tomorrow, 2018 Draft Update to Orange County Transportation Authority
Long Range Transportation Plan – Coastal Commission Staff Comments**

Mr. Nord:

Coastal Commission staff appreciate the invitation to comment on the 2018 Draft Update to the Orange County Transportation Authority Long Range Transportation Plan (LRTP). We have reviewed the Draft LRTP and the background materials on the project webpage. One of the primary tenets of the Coastal Act is to protect and enhance public access to the coast, which requires a well-planned and interconnected public transportation system. The Framework section of the Draft LRTP indicates that the plan “contains a set of goals that considers financial constraints, shifting interest in modes of transportation, and environmental regulations.” The Trend 2040 Improvement Plan section of the Draft LRTP identifies future highway, local streets, and transit projects that “deliver OCTA’s commitments, improves system performance, expands transportation choices, supports sustainability, and aligns with stakeholder input.”

This plan update provides an opportunity to prioritize projects and programs which enhance both the public transportation system and coastal resources. Projects that accomplish both goals (e.g. passenger rail service expansions within existing rail corridors, managed lanes within existing highways, public trails and bikeways) should be prioritized within the funded Trend 2040 project list. Goals and priorities that will guide project planning and implementation are identified in the Draft LRTP. However, please note that the Coastal Act and jurisdictions’ Local Coastal Programs are the Coastal Commission’s standard of review for projects in the Coastal Zone. Following are six topics where Coastal Commission staff encourage enhancements to Fast Forward 2040 to provide greater consistency with coastal policies:

- 1) Coastal Act Policies on Marine Resources and Environmentally Sensitive Habitat Area.** The transportation corridors within Orange County bisect or are located directly adjacent to sensitive marine resources including coastal bluffs, coastal lagoons, and the Pacific Ocean. Impacts to these resources are restricted by Coastal Act policies. Except for certain specific instances, fill of a wetland or other coastal waters is prohibited (Section 30233), and the marine resources (Section 30230), water quality (Section 30231), and environmentally sensitive habitat areas (Section 3024) often associated with the coastal environment are also protected. Many of these coastal systems have already deteriorated due to historical transportation infrastructure development. Future transportation

improvements planned for the Coastal Zone should seek to ameliorate previous deterioration and enhance coastal resources.

Coastal Commission staff request that the Fast Forward 2040 document include specific reference to Coastal Act Chapter 3 policies requiring the preservation of coastal resources, including Coastal Act Section 30240 which states that development must be planned to protect environmentally sensitive habitat against significant disruption of habitat values. The LRTP should reference the preference for avoidance of impacts, rather than mitigation of impacts – specifically the Freeway Environmental Mitigation Program text on page 86 should be expanded. The map(s) on the following page should identify not only lands that are being acquired for mitigation but lands that are protected for habitat, recreation, and open space. The Coastal Zone boundary should be identified in that section or the previous section on cleanup and resource enhancement, along with the resource preservation policies of the Coastal Act.

The Coastal Commission has previously approved roadway expansion projects in sensitive coastal locations, but only where impacts to coastal resources were reduced to the minimum extent required in order to improve the public transportation system. For example, the Coastal Commission approved the San Diego North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program in June 2014, requiring impacts to coastal resources to be minimized, requiring mitigation for impacts to environmentally sensitive habitat at a ratio of 4:1, and requiring the provision of new rail trails and bike and pedestrian accessways in concert with expansion of roadways (primarily Interstate 5) and freight rail tracks. Improvements to Interstate 5 in the South Orange County Coastal Zone should be planned in the same manner in order to be consistent with the Coastal Act. The Additional Projects section of Trend 2040 describes a project to “add one HOV lane in each direction from Avenida Pico to San Diego County line;” this project should be expanded to include improvements to multi-modal options and environmental resources in the area where the highway impacts will occur.

Any potential SR 241 southern expansion/extension projects should either be clarified to identify an alignment outside of sensitive resource areas or removed from the LRTP. The project identified as “FTC South – SR-241/Oso Parkway to I-5 (San Diego) – TCA” on page 135 of the Plan is of particular concern, as the Coastal Commission in 2008 objected to a proposed SR 241 Foothill-South alignment, finding it inconsistent with the Coastal Act. On appeal, the U.S. Secretary of Commerce upheld the Commission’s objection. On November 10, 2016, the Foothill/Eastern Transportation Corridor Agency entered into a binding and enforceable contractual settlement agreement with a group of environmental organizations and the People of California.

Recital I of the Settlement Agreement states, in relevant part: “TCA is considering a mobility improvement project to address concerns regarding congestion on the Interstate 5 freeway in South Orange County. Mobility improvements would be conducted in a manner that would extend SR 241 utilizing an alignment that minimizes environmental and cultural resource impacts, is economically feasible and practicable, and is consistent with applicable state and federal environmental and cultural resources laws. To achieve these objectives, TCA will only build or fund an alignment that is located outside of the Avoidance Area, as defined in this Agreement.”

Coastal Commission staff note that Idea 8 (Extend La Pata to Cristianitos) and Idea 15 (Connect SR 241 to I-5 via Cristianitos Crossing), as displayed on the Get Moving Orange County website are not consistent with the Settlement Agreement because they would be located within the Avoidance Area. Therefore, the LRTP should more clearly identify an alignment for SR 241 that is consistent with the Coastal Act and the Settlement Agreement or remove reference to a southerly SR 241 expansion/extension.

- 2) **California State Rail Plan.** The Coastal Commission has previously approved transportation projects and programs that balance roadway expansion with provision of transportation alternatives including rail, bicycle corridors, and pedestrian access ways (e.g. the San Diego North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program). In its recent approval of the Santa Barbara 101 HOV Lane project, the Coastal Commission found that the roadway improvements were consistent with Coastal Act policies requiring maximum public access and a reduction in vehicle miles traveled (see Sections 30210 and 30253), based on the expectation that the region would contemporaneously be increasing passenger rail service and providing transportation alternatives.

The 2013 California State Rail Plan and the LOSSAN Corridorwide Strategic Implementation Plan (April 2012) reference a potential expansion of intrastate passenger rail service through implementation of a “Coast Daylight” train service, “proposed to initially operate with one daily round trip as an extension of the state-supported Pacific Surfliner service. Expansion of the Coast Daylight service to two daily round trips will be accomplished by adding a new overnight train between San Francisco and Los Angeles.” One goal of the Coast Daylight is to “increase the use of intercity passenger rail service as part of a multi-modal strategy identified in regional and county goals and plans.” The Draft 2018 California State Rail Plan website states: “Californians collectively take billions of trips to millions of destinations each year, and the state needs quality modal choices among cars, transit, air travel, and active transportation to efficiently move people and freight to their destinations.”

The LRTP should be consistent with Coastal Act requirements and State and County commitments to minimize vehicle miles traveled and prioritize funding and implementation of expanded passenger rail and alternative transportation options. The 2013 California State Rail Plan (Chapter 8 - Passenger Rail Improvements) identified many rail improvements for priority implementation. Infrastructure improvements necessary to facilitate faster and more frequent passenger/commuter rail service between Orange County and Los Angeles/San Diego should be included in the Trend 2040 project list, and the Metrolink expansion (increase from 54 to 86 weekday trains) should be identified as a priority. The potential increase to 98 weekday trains referenced on reference on page 135 should be supported by an analysis projecting increased riders and reduced VMT.

Potential infrastructure improvements to the LOSSAN rail corridor should be referenced. The Orange County Rail Infrastructure Defense Against Climate Change Plan should be referenced in the planning documents/context section of the LRTP – potentially on page 108.

- 3. Plan for Sea Level Rise.** Coastal Commission staff recommend incorporating sea level rise into the LRTP. Currently, the draft LRTP does not address sea level rise, associated coastal hazards, or their impacts on transportation infrastructure. Addressing these subjects is of critical importance for several reasons.

First, sea level rise will impact the viability and safety of transportation infrastructure along the shoreline, as well as the communities and coastal resources served by and surrounding that infrastructure. Because transportation infrastructure typically remains in place for many decades and influences development patterns that are similarly long-lasting, it is important to consider hazard conditions that could impact infrastructure over its anticipated functional life and plan accordingly. This information would likely impact the planning priorities, projects, and long term funding strategies outlined in the LRTP, particularly in relationship to infrastructure such as the Pacific Coast Highway and sections of railway that run along the coast. Without information on future hazard conditions, the OCTA may inadvertently make decisions that put its public investments or coastal resources at risk.

Additionally, ensuring that new coastal infrastructure is designed to adapt to the effects of sea level rise throughout its expected life is a principal concern of the Coastal Commission, as clarified through the Commission's Sea Level Rise Policy Guidance (2015) and through recent Commission actions on key infrastructure projects throughout California. As described in the Guidance, Coastal Act Section 30253 requires that new development minimize risks to life and property from hazards and assure stability and structural integrity without the use of a shoreline protective device. Thus, understanding the potential impacts of climate change and sea level rise is of critical importance in long-range planning efforts so that projects are not designed in a way that will put investments at risk from coastal hazards, and to ensure consistency with the Coastal Act.

The interaction between transportation infrastructure and rising sea levels can also impact resources such as public access, recreational areas, and other resources protected by the Coastal Act. In particular, beaches – which are an important component of Orange County's culture and tourism and recreational economies -- can be squeezed out when trapped between infrastructure and rising sea levels. A [2017 USGS study](#) showed that between about thirty to seventy percent of southern California beaches from Santa Barbara to San Diego may become completely eroded by 2100 under scenarios based on one to two meters of sea level rise meeting the armored footprint of existing beachfront development and/or sea cliffs.

The USGS research underscores the loss of sandy beaches that will occur in the future in response to armoring infrastructure along the edge of the rising sea. Transportation infrastructure on the Orange County shoreline coast often includes long stretches located along the first line or second line of development at the edge of the shoreline, including both the Pacific Coast Highway and railway infrastructure. Without long-term adaptation planning and preparation, rail and highway corridor owners are likely to request the placement of shoreline armoring on an emergency basis without consideration of long-term damage to coastal resources that will result. Thus, proactive planning that seeks ways to minimize impacts to coastal resources is critical for carrying out the mandate of the Coastal Act.

In recognition of the importance of this subject, many state directives, guidance documents, and regional planning documents have called for sea level rise to be included in planning processes.

- [Safeguarding California](#) (2018), the state's climate adaptation strategy, recognizes that "Climate change impacts from sea-level rise to storm surge and coastal erosion are imminent threats to highways, roads, bridge supports, airports at or near sea level, seaports, and some transit system and rail lines" (page 118) and calls for vulnerability assessments and adaptation planning at various scales.
- The State Ocean Protection Council stated in its [2018 Sea Level Rise Guidance](#) document that "California has an immediate opportunity to make smart, informed, and risk-based decisions that prepare our coastal and inland communities for change while ingrain sustainability, longevity, and resiliency into our planning, permitting, investment, development, transportation, and recreational decision." The document provides guidance and guiding principles for sea level rise planning work.
- The [California Transportation Plan 2040](#) calls for sea level rise adaptation planning, notably stating that: "Planning agencies need to address climate change-related vulnerabilities and incorporate climate change resiliency into their long-range transportation documents. This is encouraged to reduce the likelihood, magnitude, duration, and cost of disruptions associated with extreme weather and other effects of changing climactic conditions to the transportation system" (page 28). It includes a Recommendation, "Expand State and regional resilience planning and climate change impact studies of SLR, storm events, and other climate change indicators that affect the future of communities, infrastructure, and ecosystems" (page 110).
- The [2018 California State Rail Plan](#) calls for similar planning efforts, noting that "Coastal rail corridors are commonly the first, or second, line of development adjacent to the sea, particularly in central and southern California. If reactive, emergency-based hard-armoring measures are constructed to protect corridors in place, beach loss may result. Thoughtful, long-term adaptation planning for sea-level rise is necessary to identify alternatives, including relocation of corridors where opportunities to do so exist, that would protect transportation corridors as well as California's popular beaches and other coastal resources (page 224). The Plan highlights the OCTA portion of San Diego Line at San Clemente as a railway at risk from sea level rise (page 226).
- Caltrans has highlighted the importance of planning for sea level rise in its [2017 Regional Transportation Plan Guidelines for Metropolitan Planning Organizations](#).
- Regional and local transportation planning documents are incorporating climate change and sea level rise considerations into their actions. For example, the Metropolitan Planning Commission of the San Francisco Bay Area is taking steps to incorporate sea level rise into the 2020 update of its Regional Transportation Plan/Sustainable Communities Strategy.
- The Orange County Rail Infrastructure Defense Against Climate Change Plan, currently being developed by OCTA through an Adaptation Planning grant from Caltrans. The recommendations of that plan should guide future infrastructure investment decisions along the LOSSAN rail corridor.

Commission staff recommend that the OCTA conduct new or synthesize existing vulnerability assessment work to understand the potential future impacts to transportation infrastructure and coastal resources, and develop an adaptation strategy and identify projects to address those impacts to incorporate into the LRTP. Staff recommend that OCTA consult the following resources and coordinate with related planning processes:

- [State Sea Level Rise Guidance](#) (OPC 2018) – This document provides information on amounts of sea level rise to analyze in different planning contexts, recommending that extreme SLR scenarios be used in long range transportation planning processes. (“The H++ scenario may also be relevant to communities considering regional or general plans, climate action plans, local hazard mitigation plans, regional transportation plans, and other planning efforts, due to the interrelated nature of critical infrastructure, homes, businesses, etc.” page 24)
- [Sea Level Rise Policy Guidance](#) (CCC draft update 2018) – This document provides step by step guidance for conducting sea level rise vulnerability assessments and adaptation planning, and includes links to sea level rise tools such as the [COSMOS 3.0 model](#), example studies, and descriptions of potential adaptation strategies.
- Related planning processes
 - Caltrans District Climate Change Vulnerability Assessments – Caltrans is conducting climate change vulnerability assessments in each district and the Draft District 7 (Los Angeles and Ventura Counties) report has been released. The District 12 (Orange County) vulnerability assessment is being drafted. Commission staff recommend consulting the reports and coordinating to the extent possible with the District 12 effort. Such coordination could not only provide the needed vulnerability and adaptation information, but will also ensure consistency and synergy between the regional transportation planning efforts.
 - Other local efforts to understand and plan for sea level rise in vulnerability assessments and LCP updates, which are summarized in the Coastal Commission’s Vulnerability Synthesis Report and the [Orange County vulnerability snapshot](#).
 - Ongoing planning processes that could impact transportation infrastructure adaptation over time, such as the Programmatic EIR for realignment of rail in San Clemente

4. Public Access and Recreation. A pillar of the Coastal Act is the protection and provision of public access to, and along, the coast. Coastal Act sections 30210 and 30212 require that maximum opportunities for public access and recreation be provided in new development projects, consistent with public safety, private property rights, and natural resource protection. Additionally, Section 30252 dictates that new development should maintain and enhance public access through such actions as facilitating transit service, providing non-automobile options, and providing adequate parking. Accordingly, the Long Range Transportation Plan should reference coastal access as a priority in future transportation projects and decisions. Future projects should be analyzed for their potential to would maximize access to the coast, including options for non-motorized, bicycle, and pedestrian routes. This analysis should facilitate access to beaches and coastal areas from the inland portions of the region, as well as options for enhancing connections to public transit, the California Coastal Trail, the Coastal Rail Trail, and other visitor-serving recreational opportunities.

Page 74 of the LRTP celebrates the OC Loop, which includes a segment of the Coastal Trail along the southern segment. That section of the plan should identify Caltrans and the Coastal Commission as partner agencies working to enhance active transportation and complete the Coastal Trail. The LRTP should identify a project to plan, fund, and develop Coastal Trail projects as a priority. The project/program described as OC Active would encompass these priorities, but it should be moved to the committed/funded Trend 2040 project list. Other LRTP projects identified within the Coastal Zone should be evaluated for potential overlap and connection with the Coastal Trail.

5. **Concentration of Development.** Section 30250 of the Coastal Act generally requires that new development within the Coastal Zone be located within, contiguous with, or in close proximity to existing developed areas, and Section 30253 requires new development to be sited in a manner that will minimize energy consumption and vehicle miles travelled. In this way, the Coastal Act encourages smart growth patterns that recognize a strong urban-rural boundary to ensure protection of coastal resources. Accordingly, the LRTP should prioritize transportation investments which encourage jobs and housing to be concentrated in developed areas.

The California Air Resources Board (ARB) sets target for reduction of GHG emissions from passenger vehicles for the target years 2020 and 2035, consistent with SB 375. Executive Order B-30-15 sets a goal of reducing California's GHG emissions to 40 percent below 1990 levels by 2030 and the Executive Order S-3-05 sets a goal of reducing California's GHG emissions to 80 percent below 1990 levels by 2050. While the proposed LRTP includes more investment in transit and active transportation than any previous LRTP, it could do even more to prioritize and invest in public transit and active transportation projects to minimize vehicle miles traveled consistent with Coastal Act Section 30253. In general, Coastal Commission staff encourage a greater proportion of investment in transit, active transportation, and environmental enhancement projects (currently budgeted at approximately \$19B of the total \$42B in the funded Trend 2040 projects).

6. **Visual Resources.** Coastal Act Section 30251 states that the scenic and visual qualities of coastal areas should be considered and protected as a resource of public importance. Permitted development should be sited and designed to protect views to and along the ocean and scenic coastal areas. In order to preserve and enhance visual resources and scenic views of the coastal environment from Interstate 5 and scenic roadways adjacent to the coast, new bridge and highway projects should incorporate aesthetic see-through bridge rails at the lowest height necessary to guarantee safety, consistent with the bridge rails and barriers guidance previously developed by the Coastal Commission + Caltrans Road's Edge Subcommittee.

Additionally, special care should be taken to preserve visual resources and scenic views on State Scenic Highways, including but not limited to State Route 133 in Laguna Canyon and roadways in other scenic canyons and coastal segments.

Thank you for the opportunity to comment on the 2018 Draft Update to the Orange County Transportation Authority Long Range Transportation Plan. Coastal Commission staff look forward to future collaboration on improvements to the transportation system in Orange County, and appreciate the commitments presented within the LRTP to preserve and enhance environmental resources and active transportation. If you have any questions or concerns, please do not hesitate to contact me in the Coastal Commission's Long Beach office.

Sincerely,



Zach Rehm

Senior Transportation Program Analyst

Cc: Karl Schwing, Deputy Director for Orange County, CCC
Tami Grove, Statewide Development and Transportation Program Manager, CCC
Carey Batha, Statewide Planning Analyst, CCC

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*Making Conservation
a California Way of Life.*

September 28, 2018

Mr. Kia Mortazavi
Executive Director, Planning
Orange County Transportation Authority
P.O. Box 14184
Orange, CA 92863-1584

Dear Mr. Mortazavi:

The California Department of Transportation (Caltrans) District 12 appreciates the opportunity to review and comment on the Orange County Transportation Authority (OCTA) draft 2018 Long-Range Transportation Plan (LRTP). OCTA has done a great job reaching out to the community and developing the plan.

The role of Caltrans District 12 in reviewing the LRTP is to represent Caltrans policies and priorities of providing a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. Caltrans seeks consistency of this plan with the Southern California Association of Governments' (SCAG) Regional Transportation Plan, California Transportation Plan, and other State and Federal mandates.

Based on our review of the draft LRTP, we have the following comments:

1. Caltrans District 12 does not support raising HOV occupancy requirements to 3+ as a stand-alone strategy, but we do support the recommendations we made in our Orange County Managed Lanes Network Study. The objective of the study is to optimize system performance, maximize system productivity, enhance overall people throughput, provide additional travel choices and improve travel reliability. We are pleased that the draft LRTP has reflected Caltrans District 12 study recommendations.
2. Page 8: Revise the statement as follows, "transportation leaders have *worked with public agencies and the general public to develop the plan.*" The plan was not developed by the transportation leaders alone, and public participation is a significant part of the success.
3. Page 15: As the owner and operator of the State Highway System (SHS), Caltrans has the authority to make operational changes, such as occupancy requirement adjustment or conversion to HOT lanes to manage demand and meet Federal and State requirements.

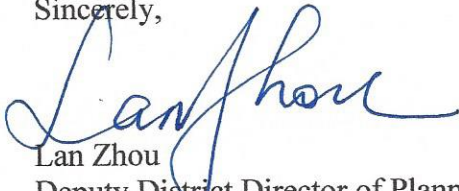
4. Page 16: Under Policy Scenario, transit trips were reduced. Please clarify and explain the reduction to avoid any potential misunderstanding about the importance of the transit program.
5. Page 17: Add "Orange County Managed Lanes Network Study recommendations" under "Other Projects."
6. Page 31: Add "Pavement" to the title of the chart to clearly demonstrate that the chart reflects the "Pavement Condition."
7. Page 35: Add "Local Roads Pavement Condition Index" to the chart title to differentiate this chart from the chart on page 31.
8. Page 42: Please explain why Class I bike lane miles have reduced from year 2009 to year 2013 throughout the county.
9. Page 64: Local OC Go sales tax revenue reduction results not only from the impact of the Great Recession but also from the rising of on-line shopping. However, the first sentence only stated the impact of the Great Recession.
10. Page 73: Include language pertaining to linking transit centers, Park and Ride lots and Direct Access Ramps with the expanded Managed Lanes network.
11. Page 74: Add a sentence about the coordination and collaboration with Caltrans District 12 on Pacific Coast Highway Study, Beach Blvd Study and Orange County Managed Lanes Network Study.
12. Page 90: Change the phrase from "carpool lanes" to "*managed* lanes" in the first paragraph.
13. Page 91: Revise the project description for the 3rd project in the list to read: I-5 add one Managed Lane in each direction from SR 57 to SR 91/LA County line.
14. Page 106: Modify the fourth sentence in the first paragraph to read: "...Caltrans is exploring different alternatives, including developing a price-managed lane network in Orange County to address degradation."
15. Page 107: Update the map to extend the northern limit of Managed Lane on I-5 from SR 91 to the LA County line.
16. There is no consideration given to the municipal and regional airports in the LRTP, and they are part of the transportation system.
17. More consideration should be given to goods movement, especially green freight to enhance economy and intermodal connectivity.
18. Safety is always the Department's top priority. Safety-related initiatives should be discussed and included in the LRTP.

OCTA has done a commendable job providing comprehensive and integrated transportation solutions for the public. We encourage OCTA's continued commitment in planning and implementation of Managed Lanes, expansion of light rail, incentives for carpools on toll roads and express lanes, enhancements to the bike/pedestrian network and Park and Ride program.

Mr. Mortazhavi
September 28, 2018
Page 3

Caltrans is committed to work with OCTA and all stakeholders to provide safe, efficient and sustainable transportation services to the public. If you have any questions, please contact me at (657) 328-6293.

Sincerely,

A handwritten signature in blue ink, appearing to read "Lan Zhou", is written over the printed name.

Lan Zhou
Deputy District Director of Planning and Local Assistance
Caltrans District 12

c: Gerardo De Santos, District Director (Acting)
Adnan Maiah, Deputy District Director of Capital Outlay Program and Single Focal Point
Dina El-Tawansy, Deputy District Director of Traffic Operations and Maintenance
Chris Flynn, Deputy District Director of Environmental Analysis

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*Making Conservation
a California Way of Life.*

October 1, 2018

Mr. Gregory Nord
Senior Transportation Analyst
Orange County Transportation Authority
P.O. Box 14184
Orange, CA 92863-1584

Dear Mr. Nord:

The California Department of Transportation (Caltrans) District 12 appreciates the opportunity to review and comment on the Orange County Transportation Authority (OCTA) Draft 2018 Long-Range Transportation Plan (LRTP). OCTA has done a great job reaching out to the community and developing the plan.

The role of Caltrans District 12 in reviewing regional transportation plans such as the LRTP is to represent Caltrans policies and priorities of providing a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. Caltrans seeks consistency of this plan with the Southern California Association of Governments' (SCAG) Regional Transportation Plan, California Transportation Plan, and other State and Federal mandates.

Based on our review of the Draft LRTP, we have the following comments:

1. The Draft LRTP uses A.M. Peak average speed as a performance metric. We recommend using P.M. Peak Hour(s) which generally depict a higher congestion level. In addition, please specify if the "peak" is a period or a particular "hour".
2. Page 14. Can the approximately \$7 billion of projected funding also be used for freeway improvements? Provide additional detail on the distribution of the spare \$7 billion. Please clarify for the reader.
3. Page 14. Consider repeating transportation improvement projects and programs, (OC Flex, Vision Zero, ATP Programs) wherever applicable. Reiterating these project/programs will help reinforce their importance and familiarize the public and partners with our efforts.
4. Page 15. Consider rewriting the sentence below to: To meet these standards, initiatives are being considered by the Department that may require an increase in the number of passengers required to three or more.
5. Page 15. As owner and operator of the SHS, the Department has the authority to make operational changes such as occupancy requirements or conversion to HOT lanes to manage demand, and meet Federal and State requirements.

6. Page 16. The values for Trend 2040 Freeway – A.M. average speed is inconsistent with the value provided on page 15.
7. Page 24. There is a large exchange of trips between Orange County and Los Angeles County. Please include a link to a listing of potential/proposed project to improve transit and transportation options in the border regions.
8. Page 31. Consider creating a graphic that outlines the multiple benefits of SB 1.
9. Page 41. Consider conducting transit corridor studies in the near future to evaluate the usability of transit services in proximity to Freeways.
10. Page 41. As Orange County continues to experience an increase in population, the Metrolink commuter rail services demand will also potentially increase. Consider studying/developing a county maintenance facility for the Metrolink trains servicing Orange County.
11. Page 42. Consider adding discussion of the Department’s Active Transportation Program as a funding source for local agencies.
12. Page 55. Please be consistent with the naming convention of the Baseline scenario. For example, switching from 2040 Baseline to Baseline 2040 to avoid potentially confusing the reader.
13. Page 56. Consider changing the last element in the legend of figure 2.6 from “More Congestion” to some quantifiable descriptor similar to the rest of the legend elements.
14. Page 71. Please add another bullet: Expansion current Managed Lane network.
15. Page 71. Consider addition of bullet: Support Managed Lane network growth and connectivity, including options that support choice.
16. Page 71. Please add bullet point: Include the Bicycle Corridor Improvement Program.
17. Page 71. Please include bullet: Potential expansion, additions and/or improvements to the Park and Ride system.
18. Page 71. Consider adding bullet: Support efforts to improve the travel time reliability of the existing Managed Lane network, and identify improved transit strategies utilizing the Managed Lane network.
19. Page 72. Consider adding following text to end of last sentence of first paragraph: “...to address HOV/Managed Lanes degradation, and improve travel time reliability and offer more choice.
20. Page 72. Consider potential for study on freight movement. Freeways such as I-5, SR 57 and SR 91 are major corridors for goods movement. Analysis on impacts of goods movement on performance would be beneficial.
21. Page 74. Consider referencing the State Rail Plan to stay consistent with statewide goals and regulations.
22. Page 76. In the first paragraph, consider including bicycle safety improvement programs and initiatives such as Vision Zero.
23. Page 84. Confirm construction of second HOV lane to I-5 between SR-55 and SR-57 is anticipated to begin in 2018. May have been moved out to early 2019 or beyond.
24. Page 85. Consider adding graphics for transit options that connect to the OC Streetcar.

Mr. Nord
October 1, 2018
Page 3

- 25. Page 86. Fourth sentence first paragraph may be incomplete sentence.
- 26. Page 86. Consider including language pertaining to Complete Streets measures.
- 27. Page 141. Confirm correct project limits under Additional Projects I-5 Add one HOV lane in each direction from SR-57 to SR-91.

OCTA has done a commendable job providing comprehensive and integrated planning solutions for the public. We encourage OCTA's continued commitment in planning and implementation of managed lanes, expansion of light rail and incentives for carpools on toll roads and express lanes, enhancements to the bike network, and Park and Ride program.

Caltrans is committed to work with OCTA and all stakeholders to provide the safest, efficient and sustainable transportation services to the public. If you have any questions, please contact me at (657) 328-6164.

Sincerely,



Scott Shelley
Branch Chief of Regional Planning, Intergovernmental Review, and Transit
District 12 Division of Planning

c: Marlon Regisford, Branch Chief of System Planning (Acting), & Policy & Technical Planning
Charles Larwood, Manager Transportation Planning, OCTA

OCTA LRTP COMMENT LETTERS MATRIX
September 2018

#	Agency	Comment/Request	Response
1	Coastal Commission	Include specific reference to Coastal Act Chapter 3 policies requiring the preservation of coastal resources, including Coastal Act Section 30240 which states that development must be planned to protect environmentally sensitive habitat against significant disruption of habitat values. The LRTP should reference the preference for avoidance of impacts, rather than mitigation of impacts – specifically the Freeway Environmental Mitigation Program text on page 86 should be expanded.	P. 94 - Added language: Additionally, all projects go through a public environmental analysis that identifies avoidance and minimization measures, potential impacts, and proposed mitigation measures that may include improvements to multi-modal options and that address policies related to environmental resources, including the Coastal Act Chapter 3, Section 30240.
2	Coastal Commission	Figure 4.3 should identify not only lands that are being acquired for mitigation but lands that are protected for habitat, recreation, and open space. The Coastal Zone boundary should be identified in that section or the previous section on cleanup and resource enhancement, along with the resource preservation policies of the Coastal Act.	Added map identifying Coastal Zone boundary and other protected lands in OC.
3	Coastal Commission	"add one HOV lane in each direction from Avenida Pico to San Diego County line;" this project should be expanded to include improvements to multi-modal options and environmental resources in the area where the highway impacts will occur.	See response to comment #1
4	Coastal Commission	The project identified as "FTC South – SR-241/Oso Parkway to I-5 (San Diego) – TCA" on page 135 of the Plan is of particular concern... Any potential SR 241 southern expansion/extension projects should either be clarified to identify an alignment outside of sensitive resource areas or removed from the LRTP.	P. 134 - Added language: One such project that was the subject of many public comments received throughout the development of this LRTP was the proposed extension of State Route 241, known as the Foothill Transportation Corridor (FTC) - South. The Transportation Corridor Agencies (TCA) are currently analyzing a number of alignment alternatives that avoid sensitive resource areas. Once TCA commits to a single alignment that successfully avoids sensitive resource areas, as well as gains support from responsible agencies and affected communities, OCTA would consider moving the project to the financially constrained (i.e. Trend 2040) scenario.
5	Coastal Commission	The 2013 California State Rail Plan (Chapter 8 - Passenger Rail Improvements) identified many rail improvements for priority implementation. Infrastructure improvements necessary to facilitate faster and more frequent passenger/commuter rail service between Orange County and Los Angeles/San Diego should be included in the Trend 2040 project list	P. 91 - Replaced "Support Metrolink Strategic Plan implementation" with "Support expansion of commuter and intercity rail services subject to financial constraints".
6	Coastal Commission	Metrolink expansion (increase from 54 to 86 weekday trains) should be identified as a priority. The potential increase to 98 weekday trains referenced on reference on page 135 should be supported by an analysis projecting increased riders and reduced VMT.	Noted
7	Coastal Commission	The Orange County Rail Infrastructure Defense Against Climate Change Plan should be referenced in the planning documents/context section of the LRTP – potentially on page 108.	P. 137 - Added: Adaptation Planning - Study infrastructure needs and develop recommendations

OCTA LRTP COMMENT LETTERS MATRIX
September 2018

8	Coastal Commission	Coastal Commission staff recommend incorporating sea level rise into the LRTP. Currently, the draft LRTP does not address sea level rise, associated coastal hazards, or their impacts on transportation infrastructure. Coastal Act Section 30253 requires that new development minimize risks to life and property from hazards and assure stability and structural integrity without the use of a shoreline protective device. ...proactive planning that seeks ways to minimize impacts to coastal resources is critical for carrying out the mandate of the Coastal Act. Commission staff recommend that the OCTA conduct new or synthesize existing vulnerability assessment work to understand the potential future impacts to transportation infrastructure and coastal resources, and develop an adaptation strategy and identify projects to address those impacts to incorporate into the LRTP. State Sea Level Rise Guidance Sea Level Rise Policy Guidance Caltrans District Climate Change Vulnerability Assessments (D12 in development)	P.73 - Added language to "Support Sustainability" paragraph: "OCTA will support efforts to comply with requirements for reducing emissions, avoiding impacts to natural resources, and protecting and maintaining infrastructure. Through coordination with partner agencies, funding will be secured to address these requirements to the extent feasible, while avoiding financial impacts to existing and planned services and projects."
9	Coastal Commission	Long Range Transportation Plan should reference coastal access as a priority in future transportation projects and decisions. The LRTP should identify a project to plan, fund, and develop Coastal Trail projects as a priority. The project/program described as OC Active would encompass these priorities, but it should be moved to the committed/funded Trend 2040 project list.	Trend 2040 includes a line item for all planned bikeways in Orange County. This can also be further addressed in the development of OC Active.
10	Coastal Commission	Page 74 of the LRTP celebrates the OC Loop, which includes a segment of the Coastal Trail along the southern segment. That section of the plan should identify Caltrans and the Coastal Commission as partner agencies working to enhance active transportation and complete the Coastal Trail.	P. 74 - Added reference to Caltrans and the Coastal Commission as partner agencies on the OC Loop.
11	Coastal Commission	the LRTP should prioritize transportation investments which encourage jobs and housing to be concentrated in developed areas. Coastal Commission staff encourage a greater proportion of investment in transit, active transportation, and environmental enhancement projects (currently budgeted at approximately \$19B of the total \$42B in the funded Trend 2040 projects).	Noted - This is addressed on P. 110
12	Coastal Commission	Coastal Act Section 30251 states that the scenic and visual qualities of coastal areas should be considered and protected as a resource of public importance. Permitted development should be sited and designed to protect views to and along the ocean and scenic coastal areas. In order to preserve and enhance visual resources and scenic views of the coastal environment from Interstate 5 and scenic roadways adjacent to the coast, new bridge and highway projects should incorporate aesthetic see-through bridge rails at the lowest height necessary to guarantee safety, consistent with the bridge rails and barriers guidance previously developed by the Coastal Commission + Caltrans Road's Edge Subcommittee. Additionally, special care should be taken to preserve visual resources and scenic views on State Scenic Highways, including but not limited to State Route 133 in Laguna Canyon and roadways in other scenic canyons and coastal segments.	Noted - will be considered at project level

OCTA LRTP COMMENT LETTERS MATRIX
September 2018

13	Caltrans D12	Page 8: Revise the statement as follows, "transportation leaders have worked with public agencies and the general public to develop Designing Tomorrow..."	P. 08 - incorporated suggested language.
14	Caltrans D12	Page 15: Caltrans has the authority to make operational changes to manage demand and meet Federal and State requirements.	P. 15 - Modified language: "To meet these standards, the California Department of Transportation (Caltrans) is considering to exercise its authority to make operational changes that would increase the number of passengers..."
15	Caltrans D12	Page 16: Please clarify why under the Policy scenario transit trips are reduced to avoid any potential misunderstanding about the importance of the transit program.	P. 16 - Modified language: "This is primarily due to the assumption that autonomous vehicles will be accessible to many individuals who cannot operate vehicles today, as well as the introduction of zero-occupant trips, which together increase vehicle miles traveled and congestion while reducing transit ridership."
16	Caltrans D12	Page 17: Add "Orange County Managed Lanes Network Study recommendations" under "Other Projects".	P. 137 already identifies "Managed Lane Studies" to "Identify operational enhancements to the HOV network and criteria for potential expansion of priced managed lanes."
17	Caltrans D12	Page 31: Add "Pavement" to the title of the chart to clearly demonstrate that the chart reflects the Pavement Condition.	P. 31 - Added suggested language
18	Caltrans D12	Page 35: Add "Local Roads Pavement Condition Index" to the chart title to differentiate this chart from the chart on page 31.	P. 35 - Added suggested language
19	Caltrans D12	Page 42: Please explain why Class I bike lane miles have reduced from year 2009 to year 2013 throughout the county.	Chart modified
20	Caltrans D12	Page 64: Local OC Go sales tax revenue reduction results not only from the impact of the Great Recession, but also from the rising of on-line shopping.	P. 64 already notes on-line shopping as a factor
21	Caltrans D12	Page 73: Include language pertaining to linking transit centers, park-and-ride lots, and direct access ramps with the expanded Managed Lanes Network	P. 73 - Modified language: "...a shuttle that takes passengers from a rail station to within walking distance of their work; improving links between managed lanes and park-and-ride lots; or the use of on-demand..."
22	Caltrans D12	Page 74: Add a sentence about the coordination and collaboration with Caltrans D12 on PCH study, Beach, and OC Managed Lanes Network Study.	P. 74 - Added suggested references
23	Caltrans D12	Page 90: Change the phrase from "carpool lanes" to "managed lanes" in the first paragraph	P. 90 - Added suggested language
24	Caltrans D12	Page 91: Revise the project description for the 3rd project in the list to read: I-5 add one Managed Lane in each direction from SR 57 to SR 91/LA County line	Historically, this project has terminated at SR 91. OCTA is willing to revisit the limits once Caltrans refines and evaluates alternatives through the ongoing PSR.
25	Caltrans D12	Page 106: Modify the fourth sentence in the first paragraph to read: "...Caltrans is exploring alternatives, including developing a price-managed lane network in Orange County, and OCTA is planning..."	P. 106 - Modified sentence
26	Caltrans D12	Page 107: Update the map to extend the northern limit of Managed Lanes on I-5 from SR 91 to the LA County Line.	P. 107 - Modified map
27	Caltrans D12	There is no consideration given to the municipal and regional airports in the LRTP, and they are part of the transportation system.	Noted
28	Caltrans D12	More consideration should be given to goods movement, especially green freight to enhance economy and intermodal connectivity.	Noted

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29	Caltrans D12	Safety is always the Department's top priority. Safety-related initiatives should be discussed and included in the LRTP.	Noted
30	Caltrans D12	Recommend using PM peak	Added PM performance maps and table to Appendix
31	Caltrans D12	Clarify if peak is period or hour	P. 08 - Added note to table: AM peak refers to the period between 6AM and 9AM
32	Caltrans D12	P. 14 - can the \$7 billion be used for freeway improvements?	They do go toward freeway improvements, which are listed on p. 11 under "Additional Projects"
33	Caltrans D12	P. 14 - Reiterate projects/programs to reinforce their importance	Noted
34	Caltrans D12	P. 15 - "To meet these standards, initiatives are being considered by the state that may require an increase in the number of persons required to three or more."	P. 15 - Modified sentence
35	Caltrans D12	P. 16 - Freeways - AM peak average speed is inconsistent with previous table.	P. 16 - corrected/updated table
36	Caltrans D12	P. 24 - Please list proposed projects to improve inter county travel between OC and LA	The purpose of this discussion is to highlight 2015 travel conditions.
37	Caltrans D12	P. 31 - Consider including a graphic highlighting SB1 benefits	SB1 is discussed in further detail on p. 65.
38	Caltrans D12	P. 41 - Consider transit studies to evaluate the benefit of transit in proximity to freeways	Transit studies are included in the project list and short-term action plan
39	Caltrans D12	P. 41 - Consider studying/developing a Metrolink maintenance facility in OC	Project list includes: Support expansion of commuter and intercity rail services subject to financial constraints
40	Caltrans D12	P. 42 - Consider discussing ATP as a funding source for local agencies	The purpose of this discussion is to document 2015 travel conditions
41	Caltrans D12	P. 55 - Keep scenario names consistent (Baseline 2040 v. 2040 Baseline v. 2040 No Build...)	Updated references to 2040 No Build
42	Caltrans D12	P. 57 - Consider quantifying "more congestion"	Not feasible within time restraints to finalize LRTP.
43	Caltrans D12	P. 71 - add bullet for "Expand Managed Lane Network"	It is not appropriate to modify the goals and objectives at this time, as they were developed with stakeholder input and presented to the OCTA Board of Directors early in the LRTP process to help guide the development of the LRTP.
44	Caltrans D12	P. 71 - Add bullet for "Support managed lane network growth and connectivity, including options that support choice"	
45	Caltrans D12	P. 71 - add bullet for "Include the Bicycle Corridor Improvement Program"	
46	Caltrans D12	P. 71 - add bullet for "Potential expansion, additions and/or improvements to the Park-&-Ride system"	
47	Caltrans D12	P. 71 - add bullet for "Support efforts to improve the travel time reliability of the existing managed lane network, and identify improved transit strategies utilizing the managed lane network"	
48	Caltrans D12	P. 72 - Consider add to the end of the first paragraph "...to address degradation of managed lane performance, improve travel time reliability, and offer more choices to the public."	P. 72 - Added suggested language
49	Caltrans D12	P. 72 - Consider potential for study on freight movement.	Additional freight considerations are noted in the Conceptual Project List and Short-Term Action Plan
50	Caltrans D12	P. 74 - Consider referencing the State Rail Plan	Modified project list: "Support expansion of commuter and intercity rail services subject to financial constraints"
51	Caltrans D12	P. 76 - In first paragraph, consider including bicycle safety improvement programs and initiatives such as Vision Zero	The Short-Term Action Plan includes an element addressing active transportation, including safety education.
52	Caltrans D12	P. 84 - Confirm construction of second HOV lane on I-5 between 55 and 57 is anticipated to begin in 2018	Confirmed.

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53	Caltrans D12	P. 85 - Consider graphic showing transit connections to OC Streetcar	Not feasible to develop within time constraints. P. 100 includes a map that provides some additional detail.
54	Caltrans D12	P. 86 - Fourth sentence first paragraph may be incomplete	Reference not clear
55	Caltrans D12	P. 86 - Consider including language pertaining to Complete Streets	Not appropriate within the Environmental Mitigation Program discussion
56	Caltrans D12	P. 141 - Confirm correct project limits under additional projects, I-5 add one HOV lane each direction from 57 to 91	Confirmed.
57	Conservation Groups	Perhaps additional incentives, carpool lots, outreach to businesses, or technological options (like a "ride share" app) may be promoted by OCTA.	P. 119 Added: "Transportation demand management strategies, such as the rideshare options described above, will continue to be studied and tested by OCTA as indicated in the Short-Term Action Plan in Chapter 6."
58	Conservation Groups	...some of the lands showing an increase in population density are actually already protected as parkland. ...these figures (2.1 and 2.2) should be updated for the final LRTP and should include the removal of the protected lands from these maps to set an accurate baseline condition and accurately portray where projected growth can actually occur. (See <i>Attachments 1 and 2</i>).	P. 50 - Added: "These maps illustrate general zones where development is likely to occur, but they do not represent specific development plans." See response to comment #2
59	Conservation Groups	Many of the projects being approved at the local and regional level include housing types in the multi-million-dollar category—far from what workers driving into Orange County likely can afford. Acknowledgement of this "on the ground" reality would be an added benefit to the Plan.	Noted - Local jurisdictions are beginning the Regional Housing Needs Assessment in coordination with SCAG. This effort will help to identify and plan for needed housing stock throughout the Southern California region. The results will be reflected in the next iteration of the LRTP.
60	Conservation Groups	As projects move forward—especially those NOT captured by the EMP we ask that a comprehensive mitigation approach be implemented.	Noted
61	Conservation Groups	To maintain consistency with the EMP documents, the map on page 87 should reflect the new Preserve names...	P. 87 - map updated
62	Conservation Groups	...additional capacity being added along Carbon Canyon Road in Brea. This would have significant impacts on existing mitigation lands within Chino Hills State Park, not to mention it is part of an approved Habitat Conservation Plan area. Additionally, the roadway up Valencia west of Olinda Landfill proposes a connection at Tonner Canyon and the 57 Freeway in Brea. It is unclear the purpose of this road and what it aims to serve. It doesn't decrease commutes, but instead impacts a functioning 31-mile long Wildlife Corridor and destroys ridgelines protected in a settlement agreement above Tonner Hills. Consistent with previous LRTP comments we've made on the MPAH improvement list—these two projects should be removed from consideration.	Noted - OCTA does not unilaterally make changes to the MPAH. Typically, the local jurisdictions will initiate amendments as needed, which go through a formal review process.
63	Conservation Groups	...new road being added between Santiago Canyon Road to Riverside County in county territory. This connector road through the forest impacts OC Parks lands, potentially OCTA mitigation lands, the Cleveland National Forest, and other conservation lands. This project should be removed from consideration.	Noted - OCTA does not unilaterally make changes to the MPAH. Typically, the local jurisdictions will initiate amendments as needed, which go through a formal review process.

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64	Conservation Groups	<p>Figures 4.12 & 4.13 (2040 Bikeway Additions – North & South County) indicates new Class 1 and 2 bike routes that are likely not appropriate given the constraints or protections associated with the lands they are on or are adjacent to.</p> <p>1. Carbon Canyon Road – Road constraints make this bike path infeasible on an already dangerous roadway.</p> <p>2. Soquel Canyon – This bike lane appears to cut through OCTA's Eagle Ridge Preserve (protected by a state/federal Conservation Plan), Chino Hills State Park, a mitigation bank, and private property. There is no road in Soquel Canyon and it dead ends at the Aerojet facility in Chino Hills which is restricted to authorized visitors due to unexploded ordinance on site. This should be removed from the plan.</p> <p>3. Live Oak Canyon Road – Road constraints make this bike path undesirable on an already dangerous roadway. This should be removed from the plan.</p>	<p>Noted - Similar to roadways, bikeways are implemented by local jurisdictions. As projects develop, impacts and safety will be assessed by the lead agencies.</p>
65	Conservation Groups	<p>(The EMP) also has the co-benefit of reducing greenhouse gases, reducing vehicle miles travelled, reducing lane congestion and traffic delays, and protecting threatened and endangered species—among many others.</p>	<p>P. 86 - Added references to co-benefits</p>
66	Conservation Groups	<p>Three ideas missing from the Plan include:</p> <p>1. The incorporation of charging stations for electric vehicles at OCTA facilities such as park and ride lots.</p> <p>2. The creation of improved transit stops that provide for better user experiences (including but not limited to shade structures, trash bins, landscaping, etc.) LA Metro has excellent examples of place based features incorporated into their stops.</p> <p>3. Opportunities for "on the go" options for system users (bikes, mopeds or vehicles) similar to the "car to go" and bike share systems. This gives residents that don't own vehicles one more option for mobility.</p>	<p>1) P. 111 Modified last sentence: "...and/or partnerships with cities or private sector to implement publicly accessible..."</p> <p>2) P. 81 identifies the OC Go Safe Transit Stop program (Project W), which provides funding for passenger amenities at the 100 busiest transit stops in Orange County and technology enhancements, such as real-time transit information.</p> <p>3) P. 118 has a "Ridesharing" discussion that discusses shared mobility products.</p>
67	City of Laguna Beach	<p>Advance the Laguna Canyon Road - El Toro to Canyon Acres Drive project from the concept list to the project list.</p>	<p>P. 135 - Added asterix to the Laguna Canyon project in the Conceptual Project List stating "Contingent on voter approval of a local sales tax supporting the Laguna Canyon Road project, OCTA will include it in Orange County's financially constrained submittal for the 2020 RTP/SCS"</p>
68	City of San Clemente	<p>Supports the draft 2018 LRTP</p>	<p>Noted</p>
69	City of Mission Viejo	<p>Baseline does not include FTIP</p>	<p>Noted - The Baseline approach is consistent with CEQA process and it is intended to simplify analysis of demographic growth on the transportation system.</p>
70	City of Mission Viejo	<p>Recommend use of OCP-2018</p>	<p>P. 137 - Added: Traffic Model Update - Update Orange County Traffic Analysis Model to incorporate latest socioeconomic data.</p>
71	City of Mission Viejo	<p>Recommend including Baseline and Trend 2040 PM congestion maps, in addition to AM.</p>	<p>Added PM performance maps and table to Appendix</p>

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72	City of Mission Viejo	How does the LRTP account for the potential loss of SB1 funds?	P. 89 - Added language: The primary impact of an SB 1 repeal would be to local roadway maintenance and existing transit service. While SB 1 helps to expedite planned capital projects, they are not necessarily dependent on those funds. If repealed, it is reasonable to assume that alternative sources could become available by 2040 that would allow the projects to proceed within the horizon of this LRTP.
73	City of Mission Viejo	How is transit ridership projected to increase if the current trend is downward?	The OC Bus 360 program is currently helping to reverse the decline in ridership. Also, by 2040 a projected 1.7 million additional daily person trips will occur, and Trend 2040 adds 400,000 hours of revenue service, so it is reasonable to assume that more transit trips would occur in 2040 as compared to 2015.
74	City of Mission Viejo	Policy initiatives which have not been implemented should not be assumed in the analysis of transportation system performance, except in the Conceptual scenario.	Innovation and Policy scenarios were developed in response to input received through development of the draft 2018 LRTP; they are not part of the financially constrained Trend 2040 plan; and, they are intended for discussion of issues deserving forethought. P. 116 - Modified language: In response to public input and recent trends, two scenarios have been developed to spark a discussion and explore a sample...
75	City of Mission Viejo	It is unclear whether the LRTP accounts for traffic on the toll roads.	P. 27 - Added language: While the Toll Roads are accounted for in analyses within this LRTP, congestion on these facilities was not reported because it is assumed that TCA would adjust tolls to maintain congestion-free facilities.
76	City of Mission Viejo	241/91 ELC should be included in the Short-term action plan	The 241/91 ELC is included in the Trend 2040 project list. The Short-Term Action Plan is primarily intended for planning studies that will identify additional needs and potential projects for the next LRTP (2022).
77	City of Mission Viejo	FTC-South should be included in Trend 2040 upon adoption of a preferred alignment by the TCA.	P. 134 - Added language - One such project that was the subject of many public comments received throughout the development of this LRTP was the proposed extension of State Route 241, known as the Foothill Transportation Corridor (FTC) - South. The Transportation Corridor Agencies (TCA) are currently analyzing a number of alignment alternatives that avoid sensitive resource areas. Once TCA commits to a single alignment that successfully avoids sensitive resource areas, as well as gains support from responsible agencies and affected communities, OCTA would consider moving the project to the financially constrained (i.e. Trend 2040) scenario.
78	City of Mission Viejo	The South Orange County Mobility Study should not deter or delay the current planning process for FTC-South.	Noted

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79	TCA	It is unclear whether the LRTP accounts for traffic on the toll roads.	<p>P. 27 - Added language: Orange County's network also includes the Toll Roads, which consist of state routes 73, 241, 133, and 261. These facilities were originally planned as freeways, but were financed through toll revenue bonds and developer impact fees. Until the bonds are paid and the toll roads are turned over to the state, vehicles are charged a fee that adjusts based on time of day.</p> <p>Toll Road maintenance and enforcement is the responsibility of Caltrans and the California Highway Patrol, respectively, while the Transportation Corridor Agencies (TCA) are responsible for operating the toll collection system. While the Toll Roads are accounted for in analyses within this LRTP, congestion on these facilities was not reported because it is assumed that TCA would adjust tolls to maintain congestion-free facilities.</p>
80	TCA	Widening projects on 73, 133, 241, and 261 have been delayed, and are currently undergoing analysis to determine when they will be needed	Noted - Until these projects are removed from the FTIP and other related planning documents, the LRTP will continue to assume that they will be implemented by 2040
81	TCA	Suggest relabeling "Projects from External Agencies" to "Projects from Partner Agencies"	Made suggested modification
82	TCA	It is premature and inappropriate for OCTA to include discussion of toll road bonds being paid off, and the analysis should be re-run assuming the Toll Roads are a constant.	The language addressing the toll roads recognizes that the transfer to Caltrans would "likely occur after 2040". Additionally, the Innovation and Policy scenarios were developed in response to input received through development of the draft 2018 LRTP; they are not part of the financially constrained Trend 2040 plan; and, they are intended for discussion of issues deserving forethought.
83	TCA	The South Orange County Mobility Study should not deter or delay the current planning process for FTC-South.	Noted

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#	Category	Comment	Response
	Environment/ Safety		
1	Environment/ Safety	<p>There are two overwhelming concerns that will affect our lives, and the lives of our children, grandchildren and future generations. They are to reduce the adverse effects of climate change, and to preserve what little is left in Southern California of the natural environment. About 23% of greenhouse gas (GHG) emissions in the U.S. are due to ground transportation, and much more must be done to reduce GHG emissions. It's good to see that the subject is reasonably well addressed. The other area is to preserve the natural environment (I'm tempted to write "our natural environment", but it's not ours). The Long Range Transportation Plan mentions the Freeway Environmental Mitigation Program, but you can't take land from neighborhoods and mitigate it by buying land somewhere else. You can't take away a family's backyard and then say that you bought the homeowner some other piece of land with the same area but 20 miles away. That's not mitigation. We must preserve the small amount of open land that we have left in Orange County that is close to neighborhoods. We can do this by improving the throughput of our current infrastructure. We must provide more public transportation and increase the capacity of our current road system. The private car is one of the most inefficient modes of transportation imaginable. There's a wave of new technology that will render the private car obsolete, and we'll be happy that we don't have to waste endless hours mindlessly keeping the vehicle between two sets of white striped lines on the freeway. We should, and must, embrace technology, but this report, while briefly outlining some of the available or soon to be available technologies, then manages to come up with every possible reason why these technologies should not be adopted. Chapter 1, Orange County Today, mentions that in 2015, 2,000 traffic signals were synchronized representing 540 miles of roads. Chapter 4, The 2040 Solution, Figure 4.8, shows that synchronization will be increased to 750 miles by 2040, although the authors don't state why it takes 25 years to synchronize 210 miles of road. Signal synchronization is not defined in the document.</p>	<p>OCTA takes very seriously Orange County's environment and safety of travelers. Every OCTA project goes through an environmental review process consistent with state and federal requirements. Additionally, state and federal design standards are followed to ensure the safety of travelers. Both environment and safety are further addressed by partner agencies such as the Southern California Association of Governments (SCAG) the California Department of Transportation. It should be noted that SCAG (the federally designated metropolitan planning agency for Orange, Los Angeles, San Bernardino, Riverside, Ventura, and Imperial Counties) is beginning development of the 2020 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), where state and federal goals for emissions and safety will be addressed for the Southern California region.</p>
2	Environment/ Safety	<p>Orange County's Long Range Transportation Plan must implement California's SB 32 statutory commitment to reduce greenhouse gas (GHG) emissions 40% below 1990 levels by 2030 and additional governor's executive order B-55-18 to achieve carbon neutrality by 2045. But what should be the foundation of the LRTP is given only passing reference in a graphic and no discussion on page 69. Transportation is the greatest emission sector in California at 41% (most recent data, from 2016), and if emissions from oil production and refining are included it represents fully half of California's GHG emissions. The LRTP needs to document Orange County's share of the state's GHG emissions and how OC proposes to reduce them. Two main actions to reduce Transportation GHG emissions from light and heavy vehicles are to drive less / reduce vehicle miles traveled (VMT) and to electrify vehicles. But the LRTP is primarily a list of highway expansion projects that will increase VMT. A key action to reduce VMT is to promote infill development, and to expand zero-emissions transit, biking, scooting, and walking to serve it, especially in jobs-rich and housing-poor areas like Orange County where the housing shortage and its resulting unaffordability (page 22) forces so many people to commute long distances like from San Bernardino and Riverside Counties (page 24). Although OCTA has limited influence over cities' land use decisions (page 110), it can certainly work closely with cities during planning of proposed higher-speed transit corridors. Incentive programs to encourage employees to use transit if reasonably available or to carpool (Transportation Demand Management) are also an easy and near-term tool to reduce VMT and traffic congestion. They're briefly cited on page 128 but given no elaboration as to how they could be expanded. Finally, OC's transit focus in current Measure M funding on further upgrades to the LOSSAN corridor should include rail electrification, and transit connections to its stations along major boulevard corridors should include both improved bus performance and electrification, but electrification is not mentioned in the LRTP.</p>	

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3	Environment/ Safety	<p>Safety should be one of the main goals of the LRTP, and should be listed on pg. 71. The LRTP needs a whole section on safety, complete with statistics on accidents (car, truck, car-truck, bicycle, pedestrian fatalities, train-auto, train-pedestrians, etc.) and descriptions of measures to reduce accidents. There is no mention of accidents at all in the whole LRTP document, except for discussion of how autonomous vehicles might reduce accidents and fatalities (pg. 120). However, this is mere speculation, and not yet proven. On pg. 19, active transportation safety is mentioned, but only in the context to "seek opportunities to enhance public outreach and education related to active transportation safety", and not in the context of physical infrastructure design and construction. The Active Transportation discussion sections on pgs. 42-44, 125 and 129 do not explicitly mention pedestrian safety, though do mention the need for improved pedestrian and bicycle infrastructure. OCTA needs to follow the example of Los Angeles with its Vision Zero goal of not traffic deaths or serious injuries by 2025: http://visionzero.lacity.org/ Emissions: Challenging Emission Standards, pg. 69 and pg. 111: Statewide and South Coast Air Basin emissions regulations and policies are discussed in the LRTP, including goals of reducing emissions and petroleum uses. However, in the entire LRTP document there is no mention of the current amount of transportation-related emissions in Orange County, by transportation mode source or type of emissions. This needs to be quantified with the latest data, along with the county's share of emissions within the South Coast Air Basin and the state of California. Transportation-related emissions are very important metric. How the LRTP will reduce these county-specific transportation emissions, along with predictions of future emissions reduction scenarios and strategies, needs to be addressed in detail. Challenging Emission Standards, pg. 69- there is commendable mention of "...required improved coordination of land use and transportation projects and established [emission] reduction targets for 2020 and 2035 that must be addressed in Regional Transportation Plans" and "...slowing the growth in the overall number of miles traveled by passenger vehicles, transitioning transit fleets to cleaner technologies, and promoting zero emission technologies". Cost of Fuel: Chapter 2- "Orange County in 2040" and Chapter 3- "Challenges and Goals" make no mention of likely future increased cost of fuel due to global price/availability, and how increased prices for gasoline or diesel would influence future driving behavior, or transportation mode preferences. Fossil fuels are a finite and scarce resource which will inevitably increase in price over the next few decades. If history is any guide, sudden global oil price shocks (1973 and 1979) or significant price increases (2002-2009) will happen again in the future. "Shifting or Changing the Costs of Driving", pg. 126 - there is no mention of possible future carbon taxes, which would increase the cost of hydrocarbon fuels such as petroleum, diesel or natural gas. Policy scenario assumption of "Cost of Driving", pg. 129 - by 2040 "The analysis assumes that implementation of pricing strategies will result in a 20 percent decrease in overall vehicle trips, which is roughly equivalent to a 17 percent decrease in vehicle miles traveled." With aggressive carbon taxation or dramatic increases in global hydrocarbon fuel prices, combined with dense multi-use development around transit hubs, there could be a decrease of overall vehicle trips much greater than 20 percent.</p>
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4	Environment/ Safety	The grade separation projects also provide tremendous safety benefits by completely separating the railroad tracks from automobile and pedestrian traffic. OCTA, working with LOSSAN and California High Speed Rail Authority, must do whatever possible to expedite the grade separation projects planned along the LOSSAN corridor, and between Fullerton Junction and Anaheim in particular. Rail Electrification: Electrified rail is the most energy-efficient way to move people and freight, while reducing highway congestion and emissions. It is faster, cleaner, quieter and more efficient overall than any other form of public transportation. Electric rail transit, whether in the form of heavy rail, elevated rail, subway, light rail or streetcar, needs to be a planning priority for OCTA. There is a great need to reduce emissions from the high number of diesel-powered trains passing through Orange County. These trains should be converted to run on electricity instead of diesel, in order to reduce the air pollution. Used successfully all over the world, electric locomotives produce zero emissions, are quieter, and have better acceleration than diesel locomotives. All-electric high speed rail passenger trains are already planned to serve Orange County, with the inauguration of the California High Speed Rail service. The co-utilization of electric rail infrastructure planned for the California High Speed Rail project by Metrolink trains should also be studied. In the future, electrification of other passenger and even freight trains will be an important way to reduce community impacts of increased train traffic through Orange County. Such reduction in pollution and noise would have the further effect of encouraging transit-oriented development of housing and businesses around stations along the line. Electric trains and buses would make transit-oriented development more attractive and successful. This is because with zero-emissions electric transit vehicles, life near transit stations is quieter and less polluted than with diesel or natural gas-powered buses and trains. The experience of rail electrification around the world is that commonly there is a "sparks effect". This well-documented phenomenon is the significant increase in ridership of passenger rail line that has been electrified. The reasons include electric trains being seen as more modern and attractive to ride, with faster, cleaner, quieter and smoother service. Electrification often goes hand in hand with a general overhaul and replacement of rail cars, station and track infrastructure, which all lead to better service quality. The 'sparks effect' has the effect of drawing more people out of their cars. A more used passenger rail system in turn benefits transit-oriented development of businesses and housing around rail stations. Electrification is not dependent on high speed rail to be effective or worthwhile. Metrolink and Amtrak Surfliner trains can be electrified years before the first intra-state high speed rail trains arrive, similar to what Caltrain is doing between San Francisco and San Jose.	
	Toll Roads/ Express Lanes		
5	Toll Roads/ Express Lanes	Long range transportation plans need to focus on what's best for the affected communities. Destroying homes and lives just so someone can get to the beach 5 minutes faster doesn't make sense.	The 2018 LRTP recognizes the many travel needs of Orange County residents and that there is not a single project or single strategy that will address all the needs. This is why the 2018 LRTP includes a diverse set of multi-modal investments, as well as a conceptual project list and a Short-Term Action Plan that recognize further study and outreach are needed prior to advancing the southern extension of State Route 241 or conversion of carpool lanes to tolled express lanes.
6	Toll Roads/ Express Lanes	Cannot simply build any more high speed roadways... cannot simply default to TCA to fail again on promise of a free 73 and unaccountable performance failures for finances, ridership, environment. LRTP starts by changing PRIORITIES NOW to make 73 FREE as promised to voters / taxpayers. LRTP starts by ACKNOWLEDGING State of Ca strategic plans for transportation that specifically direct reduction of VMT and GHG as the TOP transportation planning priorities, and by enforcing these NOW on TCA and any 241 extension OR "managed" (TAX) lane ideas. OCTA WILL be held accountable for VMT and GHG failures and will be savaged in the public for promoting any "managed lanes" for the severe, economically discriminatory TAX that it is. Leadership looks like courage to finally hold TCA accountable for 241 and 73 performance failures and making a TCA "180" degree turn NOW. Time for MULTI-MODAL, ACTIVE TRANSPORTATION, and NEW TECHNOLOGY.... NOT more TCA and TAXED USE managed lanes.	
7	Toll Roads/ Express Lanes	We are 20 years BEHIND on transportation technology and VMT and GHG and economic / social access to transportation... no more freeway/toll road and first act must be to immediately make 73 the free road it was promised / sold to be years ago. 241 extension and imposing managed lanes on free freeways would be criminal mismanagement. No new plans until these are corrected.	
8	Toll Roads/ Express Lanes	No toll roads or managed lanes. They are not needed anymore. All roads should be free. TCA should pay down the bonds and cease to exist - old technology has outlived its usefulness. Now they are justifying their corrupt existence by stealing from hard-working taxpayers.	
9	Toll Roads/ Express Lanes	Abolish TCA now!	

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10	Toll Roads/ Express Lanes	Please, no toll road over San Clemente and no managed lanes through San Clemente on the 5 freeway. The new expansion is fantastic and traffic jams are a thing of the past! La Pata is a very fast and direct arterial road. We do not need more <u>freeways or managed lanes in South Orange County</u> .
11	Toll Roads/ Express Lanes	We do not need the TCA , any toll roads, or managed lanes in San Clemente. Please don't disrupt and destroy a wonderful beach town. No need!
12	Toll Roads/ Express Lanes	Hello, I am opposed to any fee-for-use HOV lanes in Southern Orange County. I frequently drive on the 91 and AVOID these lanes as they rarely move quicker than the non-toll lanes - and I am in the HOV lane often with an EV.
13	Toll Roads/ Express Lanes	We are living in fast paced and everchanging world with an aging, technologically savy generation that has significantly impacted transportation demands and thus infrastructure needs. We do NOT need more roads, nor do we need more tolls, specifically not from an overreaching JPA such as the TCA who has failed the residents of Orange County for over 30 years. We understand that mobility is a significant issue, but we cannot continue to apply antiquated "solutions" to the problems associated with transportation. Instead, we must do better, get creative, and keep pace with the technological advances that will help traffic relief outside of building more and more roads. More roads does not equate to less traffic! As for tolls and toll roads or HOT lanes, these will NOT solve traffic problems — just look at ridership projections vs actual ridership! The TCA continues to fail to deliver what they originally promised and the residents of Orange County continue to be fed lies and false promises from a corrupt agency whose ultimate agenda is to make money, not ever make these revenue streams free! Enough is enough, not one more inch.
14	Toll Roads/ Express Lanes	We need better public transportation for the future. STOP BUILDING STUPID TOLL ROADS!!!! They are NOT the answer, now or ever. There are many better ways to transport people around. We cannot keep building expensive roads, especially when we can't afford it. Keep San Clemente beautiful, and keep the ugly, unnecessary toll roads OUT of San Clemente! Thank you.
15	Toll Roads/ Express Lanes	Good evening - I am wondering why the TCA is stepping on the OCTA's toes - what is South OC to do? The Tack has been studying traffic during the summer and on weekends while our freeway was under construction and La Pata not finished - the data they spent heavily on is useless and not accurate due to construction. We would like to see the remaining arterials built out - we would like things widened as needed - NO ONE WANTS A TOLL ROAD - no one wants toll lanes on the 5 freeway - the TCA's JPA Agreement is clear they can only build parallel to the 5 freeway - so I am not sure why money is being wasted on economic discrimination for Orange County. It would be great to have the car pools lanes not car pool during non rush hours times and free things up - it would be great to have more direct service train connections from North OC to South OC without the train switch in Laguna Niguel. The TCA owes 6.4 BILLION DOLLARS - tax payers have already bailed them out to the tune of 1.1 Billion Dollars. They collected 10 million in fees for people not using their transponders enough last year - 19 million in penalties in 2017 and 307 Million in the silent secret Development Fee Tax that the Board of Directors has not reviewed as the JPA agreement requires annually - instead is automagically increased. Orange County is not the TCA's piggy bank - they have no business talking about REGIONAL - that is your job. In addition making us pay for the TCA via these fees for 30 years it was to be for local area benefit - clear as day in the original agreement. They are trying to segment CEQA Again that is how dense this agency is. Please stop the madness and put your foot down. This is an agency run amok - this is the short list of grievances as it is late. Thank you for the time and care in Orange County.
16	Toll Roads/ Express Lanes	Toll lanes are not the answer, they unfairly charge Riverside county residents more. We can't afford to pay over \$25.00 one way to work, then over \$25.00 to go home.
17	Toll Roads/ Express Lanes	Long Range: 1st - Abolish TCA. Then, either reduce toll-fares to an affordable rate for everyone 24-7, on every TCA TL, and or, best yet; while abolishing the needless TCA, "Free" OC's 51-miles of toll roads, as was originally promised, turning them into freeways, which was what OC wanted in the first place. Freeing the toll roads, and abolishing TCA would be the single most important improvement to OC mobility EVER
18	Toll Roads/ Express Lanes	Please, NO MORE TOLL ROADS. We NEED MORE mass transit options. Those millions and possible billions of dollars could help our earth and our children's children.....Think like the SF BAY area - Trains, Bart, Most of us do not want to drive and if we had other options we would take them. By 2050 individual cars will not be the same - imagine... the freedom of efficient, economic and earth-wise transportation.
19	Toll Roads/ Express Lanes	Abolish TCA NOW!!!!

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20	Toll Roads/ Express Lanes	I believe that this effort by the TCA to run their toll road through the center of our city, a project that will destroy all that we, who have invested our money, hearts and efforts love, is a travesty. NO CITY should be victimized and desecrated, so that a group can justify their continued existence. This effort is a betrayal to every citizen of our city, a community RICH in heritage, topographical beauty, surfing culture, entertainment and a wonderful haven for families. Any efforts to aid traffic flow, should not cause the kind of harm to any one place that this project is proposing. It is an outrage.
21	Toll Roads/ Express Lanes	We do not need another toll road in South County - Arterial Roads need to be expanded to existing toll road. Car pool lanes should not have in and out areas should be continuous broken lines. Car pool should be two for single use need to charge. No trucks in any lanes except the two to far right No trucks in carpool lanes. Slow cars in Car Pool lanes sited for slowness. ;Better merging from entrances to road and better exits also. Continue lights at entrances. DISCONTINUE TO THE OC TRANSIT AUTHORITY - Use money for road improvements. Establish light rail to San Diego and LA More business offer carpool vans - shuttles for all games and events (free or very low fee.
22	Toll Roads/ Express Lanes	I believe additional toll roads are a waste of resources and will not contribute to lessen congestion in Orange County. Transit and rail options will be more effective.
23	Toll Roads/ Express Lanes	Promote legislation to 1. protect South Orange County from being destroyed by the Transportation Corridor Agency (TCA); 2. ensure the following: that there will be no toll road constructed within 1,500 feet of schools, that the powers of eminent domain be stripped from the TCA, that the TCA cannot build through already-mitigated land, already mitigated land can not be re-mitigated (This is clear violation of property rights. Mitigation land that OC developers paid handsomely for protect quality of life and aesthetics and cannot be re-mitigated. This would set a terrible precedent for Orange County.
24	Toll Roads/ Express Lanes	<p>Converting HOV lanes to Express Lanes imposes unnecessary Tolls and penalizes carpoolers, in favor of the affluent who can afford to pay. Express Lanes would replace HOV carpool vehicles that have multiple occupants, with vehicles that have only one occupant. To compare, consider an Express Lane with 30 cars and one occupant each versus an HOV Lane with 30 cars and 2 occupants each. Both are travelling from the same point A to point B. The HOV Lane will deliver twice as many individuals with half as many vehicles to the same endpoint with no Toll. The Express Lane will use twice as many vehicles to deliver the same number of individuals (30) to the same end point. This doubles the amount of toxic emissions, particulate matter, fuel consumption, and other negative impacts regarding safety and Air Quality (see p. 111). As the Federal Government may cause California to lower fuel efficiency and the Air Quality Standards to Federal Standards, up to 30% more toxic vehicular emissions could be allowed into the environment. To reduce toxic emissions, fewer vehicles in HOV lanes are preferred over double the number of vehicles in Express Lanes. [Higher costs to mitigate increased toxic emissions are not included in the LRTP]. Suggestions: Instead of converting HOV lanes to Express Lanes or HOT Lanes, HOV lanes should be opened up to regular lanes during non-peak and/or lower use times. This will offer more choices and will relieve traffic congestion in regular lanes. HOT and Express Lanes cause HOV carpool users who cannot afford to pay Tolls into regular lanes, increasing traffic congestion. Remove concrete barriers and no-crossing lines between HOV Lanes and regular traffic lanes to provide friendlier use to move in and out of the HOV lanes and over to regular lanes and freeway exits on the far right. Note: The stress of finding an opening out of the HOV lanes and the threat of getting a traffic ticket for having to cross over to a freeway exit from the limited number of opportunities to leave HOV lanes is another example of unfriendly use. The metrics chart (p. 15) does not include converting HOV lanes to regular lanes and it should. Please edit and include. Implementing the suggestions above could increase the use of carpool 3 + HOV use, which currently "meets federal standards, but is underused" (chart p. 106). The proposal for Caltrans to construct HOV lanes along the I-5 to San Diego and then convert them to HOT (Toll) lanes is unconscionable. Caltrans is not mandated to fund Toll Road Lanes and should not do so. The rationale for financial sustainability is specious (pp. 15, 106) as the TCA is up to \$6.2 Billion in debt and has not paid for toll roads previously constructed. Cost reviews in the LRTP do not include how the TCA plans to pay for the tremendous debt of past construction. Nor does the LRTP mention the failure of TCA commitment that previously constructed Toll Roads would be converted to "free" use by 2012. The TCA has a poor a record of cost projections. For example, the TCA's new Traffic Study Report (Valerie McFall, Chief Environmental Planning Officer August 2018), leaves out a substantial number of key construction elements in the Tables and Summary regarding Toll Road Option 14 (pp. 329-333). Costs of "takings" by eminent domain and anticipated litigation are also omitted from the LRTP and Traffic Study Report.</p>

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25	Toll Roads/ Express Lanes	My wife and I use the current free carpool lanes mostly to medical appointments and see our grandchildren. It would be a hardship if 3+ became the norm or if we had to pay what our taxes already pay for. Please, no more toll lanes or toll roads. Use the taxes we already voted for... Thank you
26	Toll Roads/ Express Lanes	DO NOT build ANY Toll Roads through South Orange County!
27	Toll Roads/ Express Lanes	No toll road thru san clemente is acceptable. It is a beautiful town that would be destroyed by routing a freeway anywhere within city limits.
28	Toll Roads/ Express Lanes	We need to use technology and any transportation improvements that Do Not Require The Use Of Eminent Domain. **Abolish The TCA" If It's All About Mobility Free The 73 Please help stop The TCA From Destroying South Orange County
29	Toll Roads/ Express Lanes	Hello OCTA Personnel, My wife and I lived in Newport Beach for over 25 year before moving to San Clemente in 2008. When the TCA began building the 73 toll road we both thought it was a good idea, but after decades of mismanagement and reckless disregard for dutifully paying down the project's bonds the tolls are still in place and rising. Fast forward to 2018 and this inept organization now wants to build another toll road connecting the 241 to the 5. The impact on the affected communities and the loss of homes and businesses this project would cause is not acceptable and much more research, public input and studying by non-TCA affiliated groups needs to take place before any plan is agreed upon. The TCA's track record and dubious use of lobbyists to promote/support the "need" for this project provide zero confidence any benefits claimed will ever be achieved. However, the unprecedented damage to communities, the quality of life and the environment will most certainly occur. The TCA has one mandate: to continue to exist so they can continue to extract vast amounts of developer fees and tolls. They need to be disbanded and the existing toll roads taken over by "reputable" organizations with solid track records like CalTrans and/or the OCTA. Our grassroots group has contacted the TCA numerous times pointing out the obvious errors and omissions in their work/efforts. These go unanswered or worse yet they just go right on disseminating misleading and often false information to press forward with their mandate to keep in existence. They pay themselves lavishly and spend money on lobbyists to keep the gravy train going. Enough is enough !! When the only tool you have is a toll road every project needs one !
30	Toll Roads/ Express Lanes	Please do not allow the TCA eminent domain to build toll lanes. We do not need our want toll lanes in San Clemente. Thank you for your support.
31	Toll Roads/ Express Lanes	I believe we can have a sound long term plan without destroying the city of San Clemente by putting a toll road through it. I know other northern cities like Mission Viejo and Laguna Niguel would not like to see a toll road put right through their cities. Make improvements with what we have. I know that taking the 73 onto the 91 at peak hours is a nightmare with a back up that actually takes longer than just sitting in the traffic on the 91. The same thing will happen with a toll road down south.
32	Toll Roads/ Express Lanes	I am very disturbed by the comments and information that I am reading on the Toll Roads even from the Toll Roads. It is clear that certain politicians are in the pocket of the Toll Roads and that this entity is attempting to justify its existence by purposefully obscuring the facts and trying to build something that is not needed. If there is nothing to build, all of the Toll Roads' employees jobs go away so it is a conflict of interest for any of them to be involved in any of the studies on whether another Toll Road is necessary.
33	Toll Roads/ Express Lanes	No tolls on existing taxpayer's freeways. We have already built and own them!!!! No 3+ passengers for HOV lanes. It's unrealistic.
34	Toll Roads/ Express Lanes	I strongly oppose any new Toll Road through established residential areas in south Orange County.
35	Toll Roads/ Express Lanes	Another toll road and expanded lanes is not the answer to solving traffic congestion. Ride sharing and making the current toll road that was not supposed to still be tolled at this point would ease traffic in Orange County. Do not destroy schools, parks, and homes for unnecessary tolls and expanded lanes, particularly in San Clemente!
36	Toll Roads/ Express Lanes	Hello, I am opposed to any fee-for-use HOV lanes in Southern Orange County. I frequently drive on the 91 and AVOID these lanes as they rarely move quicker than the non-toll lanes - and I am in the HOV lane often with an EV.
37	Toll Roads/ Express Lanes	I am writing to express my opposition to the proposed toll road through the City of San Clemente.

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38	Toll Roads/ Express Lanes	I am strongly opposed to any extension of the 241 south toll road through San Clemente. The Toll Roads, as a whole, are poor business propositions. Even the 73, which serves a real need, has been a money-sink for years and has required massive debt refinancing. A 241 extension would be far less profitable and therefore a major burden on the public, which would ultimately bear the cost of its failure. Additionally, I see no need at all for bulldozing properties in San Clemente or building freeway interchanges next to schools in order to accommodate the questionable need for this particular roadway. I encourage OCTA to consider other reasonable and appropriate traffic mitigation measures and not proceed with any extensions of the 241 South.
39	Toll Roads/ Express Lanes	Hi, We do not want or need any more toll roads in Orange county. They are a waste of money and use up our valuable land. Please help us stop any toll roads the TCA is planning.
40	Toll Roads/ Express Lanes	I am thoroughly against a toll road coming through San Clemente and adding traffic to our town. Our town is already fragmented by the freeway and air and noise pollution is already a problem here. Cramming a new multi level freeway down Pico is absurd. Instead, improved on-ramp metering would help immensely, especially at the Beach cities and las Ramblas north bound on ramps. Traffic is now fine through San Clemente and jams at the curve toward San Juan. Usually due to massive amounts of cars merging. Not always metered (Not just at rush hour) San Juan is adding 400 new homes at La Novia/Calle Rd. Cars will all dump on to the North bound 5. Bad land use/ traffic planning. Is that roundabout really going to handle that traffic? Better local traffic solutions will help freeway function. Ortega east bound and Rancho Viejo Rd. at morning rush hour could be improved by converting to a left and left/straight lane and changing light to all side movement. Straight and turn traffic at the same time. Traffic backs up dangerously there because there is not enough left turn lane (I am a Landscape Architect) Thank you.
41	Toll Roads/ Express Lanes	NO TOLL ROAD IN SAN CLEMENTE. Thanks :)
42	Toll Roads/ Express Lanes	OCTA - Please do not allow the TCA eminent domain to build toll lanes. We do not need our want toll lanes in San Clemente. Thank you for your support.
43	Toll Roads/ Express Lanes	Hello. I received this call to be on the Town hall and I wanted to thank you very much for this, it was very, very interesting and I loved the live conference and it was very informative. And I also hope that you can forward my view to the TCA. I'm in south county, San Clemente, 34 years now, and I want to express that I am for the toll road. We desperately need the toll road through San Clemente, I am against widening the freeway anymore, they are wide enough, and we don't need them any wider. Because it was just miserable listening to all the construction for the past four years, but now that it's winding down, it's getting much better. But I wanted to tell you, thank you very much for this conference, it was awesome, I loved it! I've often wanted to attend some of your meetings and also the TCA's meeting, but they're never in a convenient spot for us here in South County. I think you're all doing an amazing job! I've been raised in Orange County, Costa Mesa area since I was 6 years old, and I'm now 61 and it has changed tremendously. And it's wonderful how everything is turning out. I've worked in two local building departments so I've seen the construction of the residential and commercial with no roads being built and it always frustrated me that nothing, everything was getting approved for housing and commercial without the roads. So we do need to concentrate on the roads. Please forward to the TCA that many of us, in San Clemente, are for the toll roads. We do want it. The ones that don't want it are the people that have newly moved here. But the ones that have been here forever know what we go through on a daily basis. And now, currently, on the weekends its dead-stopped through San Clemente both ways, and worse in the summer. And it's only going to get worse. But I do want to thank you also if it's you that reduced the train horns that go through San Clemente. I've noticed a huge difference when I sleep and I don't hear those blaring horns and I've noticed it, well, at the beach. But it's just awesome, I think you guys are all doing a great job and I really love this live-forum town hall conference call. It was my first, and I just love it. I wish there'd be more. Thank you very much, thanks for all your hard work, you're doing an amazing job for Orange County. But just don't forget about us in South County, we're still Orange County. Thank you again, alright.
44	Toll Roads/ Express Lanes	Changing the fast lane to three per car will not help there would be less cars using it. Putting a time on it might help and letting it be open to all the rest of the time would make traffic flow faster
45	Toll Roads/ Express Lanes	I think that building an additional freeway into San Clemente would be really useful considering I go to San Clemente quite frequently.
46	Toll Roads/ Express Lanes	I believe expanding the freeway will be a helpful future investment for communities and save drivers money.

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47	Toll Roads/ Express Lanes	I have family in South County and Oceanside and I think that expansion of the freeways down there would be a good use of resources, making transportation more efficient.	
48	Toll Roads/ Express Lanes	As a member of Millennial's for Social Economic Justice, transportation planning is both critical for our families and future economic opportunities. Growing up in Irvine and attending college at UCSD, I am accustomed to the traffic conditions in South County. I appreciate OCTA's effort on improving the I-5, but we need more. Connecting the 241 to the I-5 is the type of project that signifies boldness, leadership, and empathy for our younger generation. I urge you to move forward with the project and connect the 241 with the I-5 to provide an alternate route of transportation.	
49	Toll Roads/ Express Lanes	I think that we need to improve the freeways because people need places to get that they need to get to. I think we need to invest in the freeways. One example is the freeway to San Clemente. We need to expand the San Clemente freeway. You can do it.	
50	Toll Roads/ Express Lanes	I was wondering if you guys had ever considered time management of the freeway. Perhaps it could be trucks on at specific times, maybe not during rush hours. Maybe later in the evening. Or if you set a time incentive in the express or toll lanes, where if someone didn't get on the freeway at six o'clock, from work but decided that they could hold off 'till six forty-five, perhaps they could get on the toll-road for free. So maybe some type of monetary incentive. I just know coming on the freeway going in and out of traffic, people now use the lanes, the express lanes or the toll lanes to get around traffic. And they dart in and then they dart back out, after they've gone past a few of the slower cars. So anyways, that is my suggestion. Thank you.	
51	Toll Roads/ Express Lanes	Changing the fast lane to three per car will not help there would be less cars using it. Putting a time on it might help and letting it be open to all the rest of the time would make traffic flow faster	
General			
52	General	The City of Orange would like to thank OCTA for the opportunity review the LRTP. While the city has no comments on the proposed plan, the city is excited to work with OCTA on future specific projects shown in the LRTP that affect the City of Orange.	Thank you for your comments.
53	General	I support the OCTA efforts to improve transportation in South OC.	
54	General	I'm 73. I'll be dead by 2040. Please please please please do something NOW so I don't have to drive in our horrible OC traffic for the rest of my life.	
55	General	In dealing with Metro (LA), Parking seem to be the big issue. mainly at boarding sight.	
56	General	Thank you!	
57	General	I am interested in expanded transportation services for seniors.	
58	General	I am concerned about the increased traffic noise and pollution on Bake Parkway. There are about 3 blocks of homes that back up to this parkway and it has become unbearable. No one even uses their backyards because of the noise. Also fuel particulates are carcinogens. The homeowners that are impacted would like to see something done to mitigate this problem such as a 12 ft wall with some sort of soundproofing. Please consider this when making your long range plans. I notice that this has been done in other locations in our city where traffic noise exceeded decibels allowed. This is the case on Bake parkway. Thank you for your kind consideration.	
59	General	Providing affordable, eco friendly, public transportation needs to be the focus of the project. We need to embrace talented people with experience and vision to attain these goals. Cost effective and attainable need to be the part of the formula of the project.	
Highways			
60	Highways	The improvements proposed for the 91 corridor are great to read about, but this absolutely cannot wait until 2040. I support moving these projects to the top priority.	The 2018 LRTP prioritizes implementation of projects and programs consistent with the Next 10 Plan. This includes the OC Go Freeway Program and coordinating with Orange County's 34 cities and the County of Orange on implementation of the Master Plan of Arterial Highways. Additional projects from completed and
61	Highways	Yes, I have two suggestions for better traffic management. Maybe stricter driving law if a person has too many driving violations maybe their driver's license can be suspended and therefore it would lead to less car congestion. I've seen a lot of driving violations within the last, I would say four years, and no regard for straight law. Also, maybe if the bus fair can be lowered. I did ride the bus and I took a look at my finances and found that the bus transportation and car transportation turn out to level out each other, and to be the same. So maybe if the fair could be a little bit lowered, that would motivate some people to not use their own car. Maybe.	

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62	Highways	Yes, we desperately... not much was talked about North Orange County, and we desperately need Connor Canyon Road opened up that meets the 57 freeway. There's too much congestion on our side streets, only having Lambert, Imperial to get on the 57 freeway. Also, there's so many people going to Carbon Canyon that it also backs up on Lambert. There needs to be some other transportation modes to get them through the Canyon; ridesharing or something else because it's a nightmare, and more houses are being built, and have been built and it's not getting any easier. Thank you.	publicly vetted studies can also be considered for the Trend 2040 scenario if they align with the LRTP goals and can be afforded within forecasted revenues. Specific design options for each project will be considered through the project development process, which includes public review opportunities. Additionally, studies of system needs, regional coordination opportunities, and considerations of system management options will be conducted, as indicated in the Short-Term Action Plan.
63	Highways	Good afternoon, I am not sure if this is the appropriate place to present perspectives and ideas, but wanted to give it a try. I am a chief appraiser at a real estate appraisal management company and have spent many a day on the freeways over the years. I have become very interested in infrastructure projects over the years, to include freeway projects. So I wanted to be able to provide an opinion on a few of the projects identified in the LRTP, and one that is not. So below are a few of my thoughts. I am not sure if they will assist, but I do believe that they represent valid concerns. 1. I am a bit concerned about the I5 - 405 to 55 project. There are two options remaining, 2A and 2B. I am a strong supporter of 2A. The main reason why is based on the I5 approach to the 55 Frwy. In 2A, the full approach would have 7 GP lanes, 4 GP lanes (and 1 CP lane) for I5 North, and 3 GP lanes for N and S 55 Frwy. The 2B option maintains the current 6 GP lanes, which is woefully inadequate and doesn't correct the current issue of merging NB on ramps from Red Hill Ave and Newport Ave. To me, it would be totally misguided to spend millions of dollars on Option 2B, and not correct the bottleneck that currently exists because of insufficient Aux/GP lanes from Red Hill Ave to the 55 merge. I strongly support Option 2A and believe it is the best way to move forward by providing the best future capacity for OC drivers. I do not want to have freeways that are similar to those in LA County, with inadequate shoulders and lane widths. 2. With regard to the El Toro Rd Interchange project. There are multiple options that have been provided as options for this project. The only concern that I have for this project involves those that maintain the NB El Toro Rd to the NB I5 Frwy loop ramp. Currently, that loop ramp is a minor choke point today as the right hand lanes slow down at that on ramp location. This is because that loop ramp does not create an Aux/GP lane, but merges directly into an existing GP lane. Today the number of NB GP lanes to the South of this location is less than what will be when the additional lanes are added for Project C, the I5 project from SR 73 to El Toro Rd. So if the loop ramp is not changed an made to create a 6th lane, then the chokepoint will only increase. My opinion is that this needs to be included in any/all of the interchange plans moving forward. This may be the plan already as a new SB El Toro to NB I5 Frwy ramp is part of each option moving forward, with that on ramp creating a 7th lane/AUX lane, connecting to the existing partial AUX lane for the Lake Forest off ramp.	
64	Highways	That should allow for the NB El Toro to NB I5 Frwy loop on ramp to "create"/"use" the 6th GP lane that is currently created by the current SB El Toro Rd to NB I5 on ramp. The full plans for each of the options have not been released, so my concerns for this project may already be addressed in the plans yet to be released. It is just not apparent in what has been released so far. 3. The draft LRTP mentions "Freeway Chokepoints", and I wanted to present an opinion on a current freeway chokepoint near South County. With the recently completed addition of the freeway project that added 1 HOV lane from Avenida Pico to Coast Hwy provided necessary relief to drivers in that section of the County. However, it has provided insight into a specific chokepoint on the I5 NB from Camino de Estrella to Camino Capistrano. This area of the NB I5 slows down, especially on weekends and rush hour periods. This is due in most part to having 2 on ramps, at Camino Las Ramblas and at Stonehill Dr, without adequate Aux/GP lanes. To cure this chokepoint, additional lane(s) should be added. The best solution would be to add a GP/Aux lane from the Stonehill Dr on ramp to the Ortega Hwy off ramp. The traffic always opens at/near the Camino Capistrano off ramp. A second option may be to have the partial Aux lane that currently exists at the Stonehill Dr on ramp extended all the way to the Camino Capistrano off ramp. I do not believe that would provide as much relief as a full GP lane as mentioned above. I imagine that a more in depth study is warranted, but I wanted to provide a perspective on that section of the NB I5 Frwy. Most likely you are already aware of this slow point on the freeway. Thank you so much for allowing me to provide these comments/perspectives. I apologize if this is the wrong forum for this small presentation. Please notify me if this is forwarded to the proper departments.	
	Land Use Planning		
65	Land Use Planning	Stop developers from Building thousands of high-rise condominiums with no consideration for transportation. Typical example Irvine, Chino Hills	The 2018 LRTP highlights that there are currently about 650,000 daily work commutes into Orange County, and that this is expected to increase by about 25 percent by 2040. The LRTP tries to
66	Land Use Planning	The best transportation plan is a good land use plan that encourages, and provides data to support, the zoning to build dense housing and commercial development around transit. OCTA can also find ways to encourage new housing to be constructed on land that it currently owns.	

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67	Land Use Planning	<p>This growth results in more travel demand, and congestion will worsen without improvements. However, there are limited opportunities to expand roadways and highways without acquiring new right-of-way. Other factors, such as the cost of owning, parking, and maintaining a vehicle, and the availability of transit options and the competitiveness of transit travel time compared to driving, also affect how people choose to travel." The lack of enough local housing assumed by the LRTP is not inevitable, because the county and city governments can encourage and zone for the construction of large amounts of new housing near and around transit hubs. Sprawl is not inevitable, and there is a need to reduce vehicle miles travelled (VMT), especially for single occupant vehicle trips. Simply put, there needs to be more housing built closer to jobs and transit in Orange County. The Regional Housing Needs Assessment numbers for Orange County need to be stated and discussed as part this discussion in the LRTP, along with state and local policies for increasing housing production such as density bonus law, accessory dwelling units, affordability incentives, etc. The taxpayer cost to subsidize the construction affordable housing close to jobs and transit within Orange County would be less than adding more freeway lanes, especially when factoring in the pollution, fuel use, congestion and wasted time caused by long commutes. High Cost of Housing, pg. 110- "A lack of accessible and affordable housing forces many individuals who are employed in Orange County to live in surrounding counties. While Trend 2040 proposes a multi-modal investment strategy that maintains 2015 conditions despite growing travel demand – thereby improving job accessibility compared to the 2040 No Build scenario – more can be done. One strategy included in Trend 2040 is the use of priced-managed lanes to improve travel conditions for intercounty trips, especially if coordinated with neighboring counties and ridesharing programs. Realistically, however, local land use decisions likely create the best opportunities to reduce projected inter-county travel growth, and OCTA has limited influence over these decisions. It is possible that locating employment and housing closer to Metrolink stations and transit hubs, and developing higher- density and more affordable housing within the county, will help moderate if not eliminate this long-standing Orange County issue." OCTA can promote local land use more favorable to transit by performing studies and modelling of development future scenarios of higher densities around transit hubs, showing the impacts to transit ridership and traffic of these different scenarios. The best transportation plan is a good land use plan that encourages, and provides data to support, the zoning to build dense housing and commercial development around transit. OCTA can also find ways to encourage new housing to be constructed on land that it currently owns. There are many examples of transit agencies around the country who offer their land for reduced prices or leasing as part of for affordable housing development next to transit stops.</p>	<p>accommodate this travel demand to support Orange County's economy, but also recognizes that additional housing within Orange County could help to reduce the number of work commutes from surrounding areas. OCTA is coordinating with local land use agencies to explore opportunities and strategies that help to reduce vehicle miles traveled. These ongoing coordination efforts are captured in the Short-Term Action Plan, as well as OCTA's own studies to evaluate development opportunities at OCTA facilities that may improve transportation/land use connectivity. Additionally, OCTA will participate in the development of the Southern California Association of Government's 2020 Regional Transportation Plan/Sustainable Communities Strategy that will identify regional strategies for reducing vehicle miles traveled.</p>
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68	Land Use Planning	<p>In the Challenging Emissions Standards (pg. 69), new statewide standards designed to reduce vehicle miles travelled are described as an obstacle to progress.." Senate Bill 743 (SB 743), for which rulemaking is still in development, changes how transportation impacts are measured, removing focus on individual vehicle delay. The new rules are expedited to have a significant impact on land use and transportation planning. Thanks to early action and acceleration of the OC Go Freeway Program, there are only a few remaining freeway projects that could be hindered, but future long range plan scenarios beyond OC Go projects will most likely be impacted." Perhaps it is a good thing that some future freeway projects will be impacted and hindered under SB 743, because non-freeway alternatives need to be encouraged. The OC Transit Vision document (pg. 8-8) provides a different, more far-sighted perspective on SB 743: "Another, more recent effort by the state to promote TOD through changes to CEQA processes is Senate Bill 743, which will soon require transportation impacts to be analyzed using vehicle miles traveled rather than vehicular level of service. This change will benefit developments in walkable, transit-oriented locations generating fewer impacts, and will encourage use of transportation demand management strategies." The OC Transit Vision's chapter 8 on Transit-Supportive Design and Policies, lays out an excellent use for transit-oriented development in Orange County, defining transit-supportive land use on pg. 8-7 as: Transit-Supportive Land Use When considering the relationship between transit, buildings, and neighborhoods, it is useful to think in terms of the "6 Ds". Each of these is essential to building transit-friendly environments: Destinations: Land uses should be grouped together to form busy destinations, and destinations should be in locations that are easily accessible to transit. Distance: Origins and destinations should be relatively close together and connected by direct paths. Density: Putting more residents and workers or students close to transit increases the number of transit riders. Diversity: A mixture of land uses enables walkable, transit-friendly environments. Design: Architecture built around pedestrians is architecture that also supports transit. Adding interest to the streetscape is key to creating pedestrian-friendly places. Demand Management: Strategies to reduce driving are important to successful transit. There is a common misconception that density is the cause of street traffic congestion. However the worst environmentally-damaging congestion is caused by low-density, single-family neighborhoods where you need your car to do everything. A greater mix of uses, with a wider variety of businesses, around key transit hubs, will also shift passenger trips from auto to rail. Having different types of businesses within walking distance of each other allows combining trips through walking, even if someone drives and parks in the neighborhood. Orange County's future will be one of more dense residential development around train stations in Fullerton, Buena Park, Placentia, Anaheim, Orange, Santa Ana and Irvine. This will include more dense development in areas previously have low-density development patterns, including high-rises taller than any buildings previously built in these cities. The county needs future housing to be developed in urban cores that are already developed. There is much potential in Orange County for infill development of multi-use, multi-story buildings that include residential, in blocks that were previously only commercial or industrial use. The stations of Irvine and Anaheim are both examples of train stations surrounded by existing commercial and industrial development , with residential buildings a relatively long walk from the station.</p>
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69	Land Use Planning, Met	Infill development around such stations could become catalysts to renew employment opportunities in previously exclusively commercial and industrial neighborhoods, reinforcing economic development. A uniquely Orange County urbanism will embrace the fact that the county is poly-centric, with a network of dense cores of distinct cities, linked together by transit corridors. Designing in a Changing World, pg. 16- "...policies that enhance land use diversity and connectivity with active transportation facilities and transit services" needs to be clearly described by the LRTP. Orange County Planning Activities, pgs. 18 and 137 - "Sustainable Transportation Strategies- Coordination with partner agencies on implementation of sustainability strategies." "Joint Development Studies- Evaluate opportunities for joint developments at OCTA transit terminals to improve transit facilities and connectivity with employment/housing." A big part of this would be coordinating with city governments on encouraging dense development and zoning around transit. Regional Passenger Rail / LOSSAN & Metrolink Additional Service and Capacity: Metrolink rail transit, pgs. 40-41: On Metrolink's three lines that run through Orange County, rail ridership has increased from 3.8 million 2008 to nearly 4.6 million in 2015. This compares favorably to a marked decline in OCTA bus ridership down from 67.9 million in 2006 to 46.6 million in 2015, a drop of 31% (pgs. 36-37). Metrolink rail is thus a shining example of mass transit that works in Orange County. On the Amtrak Surfliner, which passes through Orange County, total annual ridership has increased to nearly 3 million per year, up from 2.6 million in 2010. To increase ridership, the Southern California Regional Rail Authority (Metrolink) must start offering more frequent service, including "reverse" direction trains that go in the opposite direction as traditional rush hour service to and from Downtown Los Angeles. There also needs to be "off-peak" trains added during mid-day and late nights. More frequent service will also result in better utilization of Metrolink's rolling stock. OCTA needs to encourage Metrolink to look for ways to greatly increase the frequency of service, and add more trains. The capacity of the existing tracks, shared with freight, is constrained. Therefore, OCTA needs support investment in increase track capacity in any way possible. p. 13- Measure M Project R- Metrolink capital investments to support service expansion from 54 to 86 weekday trains, as well as station improvements. OCTA and the Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Corridor Agency needs to work with Metrolink, BNSF and California High Speed Rail Authority to increase the service expansion to a number greater than 86 weekday passenger trains. OCTA also needs to commit greater funding for this effort, as part of the inter-agency collaboration described on pg. 74. California High Speed Rail Authority is also heavily involved in improving rail infrastructure along LOSSAN in Orange County, yet is not mentioned once in the LRTP document.	
	Commuter Rail		
70	Commuter Rail	I am interested in more Metrolink hours and expansion of service.	OCTA is the Managing Agency for the Los Angeles - San Diego - San Luis Obispo (LOSSAN) Rail Corridor Agency, a joint-powers authority that is responsible for administrative and oversight of Pacific Surfliner service along the 351-mile coastal rail corridor. As the managing agency, OCTA coordinates with the Southern California Regional Rail Authority (Metrolink), the San Diego's COASTER commuter rail service, Amtrak, and freight rail agencies. OCTA is also part of the Metrolink joint-powers authority, which administers Metrolink commuter rail operations within Orange, Los Angeles, Riverside, San Bernardino, and Ventura Counties. Through coordination with the LOSSAN Rail Corridor Agency and Metrolink, OCTA is supporting efforts to enhance commuter
71	Commuter Rail	I ride the Metrolink daily from Tustin to Downtown LA and back. While there is a wide range of options for traveling downtown in the morning, there are very few trains in the evening - the last Metrolink leaves at 6:40, and later Amtrak trains do not stop at Tustin. A Metrolink train leaving downtown in the 7:00 or 8:00 PM hour would greatly expand the versatility of the commuter rail as many businesses operate on 10-7 core hours. I would also like to see an expansion of service to and from Los Angeles on weekends, especially a late train (11:00 PM?) to make it easier for Orange County residents to attend events in the city.	
72	Commuter Rail	Local cities collect data when they implement permit parking zones. This data can be used to start up city based shuttles to local shopping entertainment, and grocery stores. This allows funding from four services; OCTA, local city, businesses and commuters. From Corona to the other side of the mountain have a highway just for motorcycle. This might be the perfect compromise to build a highway and stay below environmental impact. For Metrolink service, increase service mean that return shuttles from LA will leave later then 4pm. Having a return train so early defeats the purpose of Metrolink.	
73	Commuter Rail	My question has to do with the Metrolink and Coaster train. I had heard in the last few years, I can't nail down exactly but it's been a while, that there was going to be a coordination of the schedules between Metrolink and the Coaster in Oceanside so that you can take one train to Oceanside and get on the next without having to wait for several hours to do. I go down to San Diego frequently and I have found that has not happened in any way, shape, or form, and there is no way you can go down there and back coordinating the two trains. The only other option is Amtrak, but from Irvine to San Diego and back its 54 dollars round-trip and that's a bit expensive. So what I end up having to do is I drive down to Oceanside and take the Coaster down and can't even take Metrolink.	

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74	Commuter Rail	<p>I just want to echo the other callers who said thank you so much for doing this, this is really an amazing opportunity to hear what was going on. I have two questions, I'm so happy to hear that Metrolink is going to be expanding by 60% and I was wondering what the timetable was and I'm interested in more evening trains returning from Los Angeles to San Clemente. It's very hard to work in LA during the week, and make a 6:40, and when I work during the weekend, I can't make a 4:40 and it forces me to drive. And I hate that, so I'm looking for ways to take the train more, and I'm curious when the evening trains might be added. And because I live in San Clemente, I'm wondering if it could stop at the pier just a little bit more often than on the weekends. I walk past the pier to get to North Station, so what would be a little bit more than a quarter of a mile for me becomes like a mile and three quarters, something like that. So I'm wondering if you could add more stops there. But again I want to thank you so much for doing this.</p>	<p>and intercity rail services, as indicated in the 2018 LRTP Trend 2040 project list. Additionally, the LRTP's Short-Term Action Plan identifies OCTA's continued coordination activities with local jurisdictions to improve connectivity between rail stations and surrounding destinations, which may include land use planning and/or connecting first/last mile services.</p>
75	Commuter Rail	<p>Transit Use: Pg. 15: The transportation system performance summary metrics show only 165,000 to 174,000 transit trips daily in 2040, compared to 149,000 in the base year of 2015. At present, only 2% of daily commutes in Orange County are by public transportation. The LRTP assumes this percentage will barely increase, if at all, by the year 2040. OCTA must explore all ways to increase the amount of transit ridership, and push forward the projects described in the OC Transit Vision. With transit-oriented development around rail stations and major bus corridors, the amount of transit use could be an order of magnitude greater. The most effective, and economically valuable, bus and passenger rail systems have significant concentrations of jobs, housing, retail, public services and amenities clustered around the stations and corridors they travel. The neighborhoods around these stations must also be walkable. Pedestrian-friendly neighborhood amenities around the train station would include new pedestrian-only walkways, to minimize interaction of pedestrians and automobiles. Other West Coast metropolitan areas with a far greater percentage of transit use than Orange County offer an interesting comparison. The Seattle metropolitan area has a population similar to Orange County (slightly more than 3 million), but has over 700,000 weekday transit trips compared to less than 150,000 for Orange County. The Vancouver metropolitan area, which has a smaller population of 2.5 million yet has embraced strong TOD policies over the past several decades, has nearly over 1.2 million weekday transit trips. In the Portland metropolitan area, the regional transit agency TriMet serves a population of 1.6 million, or roughly half that of Orange County. However, TriMet's average weekday ridership of over 300,000 is double that of OCTA. Housing and Transit Oriented Development (TOD): Employment, pg. 24- "Most Orange County residents both live and work within the county (58 percent). However, about 657,000 people live elsewhere and commute into Orange County to work, compared with about 490,000 residents who commute to work outside of Orange County. This means there is a greater inflow of people coming to Orange County to work – which impacts travel on our network of highways and roads. The greatest flow of traffic is between Los Angeles and Orange counties (flowing nearly evenly into and out of Orange County), while most of the work trips from the Inland Empire and San Diego are commuters traveling into Orange County." This justifies increased Metrolink service, and other transit, connecting other counties to OC. Pg. 51- The 'population changes' map shows little increased population in city centers and around key rail stations. A scenario of far greater population and employment density around Metrolink stations should be modeled. 2040, If Work Stopped Today, pg. 54- "The trend of insufficient local housing is also expected to continue, resulting in more people living in neighboring counties and commuting to work in Orange County. Without additional improvements to our transportation system, traffic congestion will increase, travelers will experience deteriorating levels of service on highways and roadways, and costs to motorists will rise." High Cost of Housing, pg. 62 - "by 2040, Orange County's population will increase by 10 percent, employment by 17 percent, and the current housing shortage is projected to continue." Limited Land for System Expansion, pg. 63- "These comparatively high housing costs, coupled with the fact that Orange County is a major employment center, force many would-be residents to live outside of Orange County and commute in for work. As a result, inbound commutes from other counties are projected to increase 25 percent by 2040.</p>	

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76	Commuter Rail	<p>These include faster service (up to 125 miles per hour on Orange County lines), more frequent service (starting with 30-minute local and hourly express service between Los Angeles and San Diego, with stops in Santa Ana and Laguna Niguel/Mission Viejo, by 2022), electrification (as far south as Laguna Niguel/Mission Viejo), and greater multimodal integration. - The California High Speed Rail Authority plans to extend high-speed rail service from San Francisco to the Anaheim Regional Transportation Intermodal Center (ARTIC) by 2029, with a possible station in Fullerton. A blended approach calls for high-speed trains to share the LOSSAN corridor with Amtrak and Metrolink. Toward that end, interim improvements include grade-separation of seven crossings in Orange County, benefiting all three operators. Consistent with the Metrolink and state plans, the LOSSAN corridor would be electrified north of Anaheim. - The OCTA Nonmotorized Metrolink Accessibility Strategy recommended a range of pedestrian and bicycle access improvements within Metrolink station areas. It also recommended countywide/systemwide access enhancements including a consolidated bike locker program. Currently, all of the above plans remain largely unfunded. As the local managing agency for the LOSSAN Rail Corridor Agency (and owner of more than 40 miles of the Orange County railroad), OCTA has an important role to play in advocating for funding. The agency can also move forward to partner with cities on projects including access improvements and grade separations. Laguna Niguel to San Juan Capistrano Passing Siding Project, pg. 143: It is commendable that OCTA, in coordination with Metrolink and the cities of Laguna Niguel and San Juan Capistrano, is adding 1.8 miles of new passing siding railroad track between the Laguna Niguel/Mission Viejo Metrolink Station and Trabuco Creek in San Juan Capistrano. The passing siding track will run adjacent to the existing track, connecting to it at each end, which will allow trains traveling in opposite directions to pass each other without stopping. The project will reduce delays, increase safety and provide more reliable rail service. This project should be expedited if possible, and more sidings and double track should be constructed southward to San Onofre and Camp Pendleton. Grade Separation Projects, OC Bridges, pg. 76: The, Raymond and State College grade separation projects, are excellent projects already providing benefits to Orange County. These improvements increase overall capacity and provide greater separation between passenger and freight trains, allowing more reliable passenger and freight operations.</p>
77	Commuter Rail	<p>The line could be also electrified with overhead catenary infrastructure powering all-electric locomotives. Interstate 5 Corridor BRT: Interstate 5 Corridor, pg. 143 – Freeway BRT between Fullerton Park-and-Ride and Mission Viejo/Laguna Niguel Metrolink Station Why not just invest in LOSSAN upgrades to improve Metrolink and Amtrak service along this corridor, instead of the expense of adding BRT lanes to the I-5 freeway? More frequent train service along this existing rail corridor would add more passenger capacity than BRT. 2028 Olympics: Regional Planning Activities, pg. 19 and 138- "Coordinate with Metro on preparations for the 2028 Olympics" An important consideration for mass transit and commuter rail in Orange County is the 2028 Olympics. Anaheim, Fullerton and several other locations in county hosted events during the 1984 Olympics, and should do so again for the 2028 games. The region's transportation infrastructure needs to be built up to global standards to handle the large numbers of visitors from around the world. Metrolink upgrades including electrification, as well as new transit lines in Orange County, need to be completed before the 2028 Olympics. Goods Movement: Despite the large volumes of freight is moved within and through Orange County, there is very little mention of goods movement in the LRTP draft. The brief mention in Regional Planning Activities, Trade Corridors/Goods Movement (pg. 137) seems to pass this responsibility to other regional agencies: "Coordinate primarily through SCAG and Metro to plan for projected growth in regional goods movement." Critical east-west routes in Orange County connecting the Ports of LA and Long Beach to the rest of the country include the 91 freeway and the BNSF San Bernardino Subdivision (part of LOSSAN and the BNSF Southern Transcon main line between LA and Chicago). In fact, a significant fraction of the nation's trade with Asia is carried by trucks and trains along this east-west corridor through northern Orange County. Similarly, a significant fraction of U.S.-Mexico trade moves through the county on Interstate 5. Efficient goods movement is of course vital to manufacturing, warehousing, logistics and countless other industries located in Orange County. A disproportionate amount of highway congestion, roadway wear, and air pollution is caused by heavy trucks.</p>

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78	Commuter Rail	<p>A focus of the state of California's investments in passenger rail is to improve upon the 'LOSSAN' corridor between San Luis Obispo and San Diego via Los Angeles. LOSSAN is used by both the Metrolink commuter rail and Amtrak's Surfliner, which is the second-busiest Amtrak route in the country after the Northeast Corridor between Washington, D.C. and Boston. CalTrans and BNSF have been working on the state-funded \$160 million, 17-mile triple-tracking project between Soto Junction (near Downtown LA) and Fullerton since the late 1990s. Presently the corridor is triple-tracked the entire 25 miles between LA and Fullerton, with the exception of the Rosecrans-Marquardt road crossing in Santa Fe Springs (LA County) which still has two tracks. This crossing will be upgraded to three or more tracks once a grade separation project is finished in 2022. While the Rosecrans-Marquardt grade separation project is in LA County, it is vital for improved rail service in Orange County. The tracks between LA and Fullerton are owned by BNSF and shared by passenger (≈ 50 trains per day) and freight (≈ 60 trains a day). The Southern California Optimized Rail Expansion (SCORE) program includes construction of a fourth track between Los Angeles and Fullerton, and a third track between Fullerton and San Bernardino by 2028. OCTA needs to support SCORE program in any way possible. Part of the SCORE program is the Fullerton Junction Interlocking Project, which did not get SB1 funding in this first round. With a total project cost- \$130,000,000, Caltrans applied for \$75,000,000. BNSF Railway Company would carry out the work. OCTA needs to support, and perhaps help fund, the Fullerton Junction Interlocking Project. OCTA needs to do whatever it can to help fund and expedite the rail infrastructure and service improvements described in the OC Transit Vision, pgs. 6-10 to 6-12: A number of entities are planning improvements to the LOSSAN corridor and the remaining Metrolink corridors in Orange County... Highlights of these efforts include the following: - OCTA is partnering with the cities of Santa Ana and Anaheim to grade-separate one rail crossing in each city (at 17th Street and at Ball Road). -The LOSSAN Corridorwide Strategic Implementation Plan calls for Orange County service to nearly double by 2030 to 124 daily trains (88 commuter and 36 Surfliner). Some commuter trains would extend from Los Angeles to San Diego. Trains that now terminate at Union Station near downtown Los Angeles would continue north to Santa Clarita and Antelope Valley. - The Metrolink Integrated Service and Capital Plan (with Discussion on Electrification), released in November 2017, calls for a series of improvements to be completed by 2028, when Southern California will host the Summer Olympic Games.... Foremost among these would be electrification of segments including the LOSSAN corridor north of Irvine, allowing service in that segment to increase to every 15 minutes during peak periods. Trains would operate every 30 minutes peak and hourly off-peak on the 91/Perris Valley and Inland Empire-Orange County lines. Changes would also be made in the interim, starting with improved schedule coordination in 2018 to support better connections between trains and buses. The California State Rail Plan calls for changes to intercity rail lines throughout the state by 2040.</p>	
	Multi-Modal		
79	Multi-Modal	<p>Suggestions: 1. Look into replacing stop signs and some signals with roundabouts. (There are several pros and cons to this.) Teaching people how to properly use these is a tough issue. 2. Work with the developers and school district to locate schools closer to their students. Try to bring back walking or bike riding to school and reduce traffic. 3. Improve mass transit in the area. Look into adding more buses (or vans) that run early morning until late night. Maybe an Uber-like van service can get people around town with less traffic. 4. Look into making Bake into a short freeway connecting the 5 to the 241.</p>	<p>The 2018 LRTP Short-Term Action Plan identifies a number of activities to improve multimodal options for Orange County travelers, including development of the OC Active plan, study of transportation demand management opportunities, as well as vanpool and park-and-ride services. Additionally, OCTA will continue coordinating with local jurisdictions on roadway improvements.</p>
80	Multi-Modal	<p>I would like to see more public transportation options, ride sharing incentives, and more people required in carpool lanes (3). I would like to see less single driver exemptions in the carpool lane and less pay-to-ride options, like toll lanes or roads. I believe incentives would be much more effective and entice more drivers to use them than paid options.</p>	
81	Multi-Modal	<p>We definitely need to push harder towards bike share programs and ride share programs.</p>	
	Transit		
82	Transit	<p>Earlier start times on the 60 going westbound to connect with the 57 northbound on 17th and Bristol more school trippers. Thankful for the at drivers on the 60 and 57 making early morning into work on time.</p>	<p>The 2018 LRTP identifies an "evolving transit market" as one of the key transportation challenges facing Orange County. To address declines in transit ridership experienced over the past several years, OCTA is implementing the</p>
83	Transit	<p>You guys need to have another LRTP info meeting in SOUTH ORANGE COUNTY. We will NOT drive all of the way to Orange. Please schedule one in Laguna Niguel or Mission Viejo to cover south county. 2 words for you: LIGHT RAIL. We need a light rail system that integrates all south Orange County communities because I-5 is never going to be able to handle the load.</p>	

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84	Transit	<p>A light rail or rapid elevated /subway line should be studied for the corridors listed below on pg. 143. Beach Boulevard Corridor- High-quality transit between Fullerton Park-and-Ride and Downtown Huntington Beach Bristol & State College Corridor- High-quality transit between Brea Mall and Downtown Santa Ana 17th/Westminster & Bristol Corridor – High-quality transit between the Goldenwest Transportation Center and the University of California, Irvine Main Corridor- High-quality transit between Anaheim Regional Transportation Intermodal Center and the South Coast Plaza Park-and-Ride Extension of LA Metro Light Rail Lines to Orange County: Short-Term regional planning activities mentioned the following possible future rail transit connections with LA Metro light rail system, pg. 138: "Continue dialogue with Metro and appropriate agencies to identify impacts to, and opportunities for, connectivity with Orange County's transportation network." Extension of LA Metro Light Rail, West Santa Ana Branch/Pacific Electric Right-of- Way- LA Metro Rail is planning to extend the existing Gold light rail line into Artesia via the abandoned Pacific Electric West Santa Ana branch right-of-way, which continues all the way to Santa Ana. This light rail line should be further expanded into Orange County, to connect to the OC Streetcar in Garden Grove as well as the Harbor Boulevard rapid transit line. This project would be an excellent inter-jurisdictional cooperation with a wide regional benefit, and act as a compliment to Metrolink service between Los Angeles and Orange counties. Extension of LA Metro Light Rail, LA Metro Gold Line Eastern Extension Phase 2- "Continue dialogue with Metro and appropriate agencies to identify impacts to, and opportunities for, connectivity with Orange County's transportation network." This line should continue east from Whittier to La Habra and Brea , utilizing the historic Pacific Electric right-of-way now owned by Union Pacific. A connection south from La Habra to west Fullerton is also possible, along the existing railroad right-of-way. The map of OC Loop bikeway on pg. 74 shows the Union Pacific track through La Habra and Brea being converted into a bike path. The bike path development along this corridor should not preclude future light rail development along the corridor. This corridor should be made available for a double-tracked light rail line, with the bike path on the side. Extension of LA Metro Light Rail, LOSSAN/Green Line Connection- "Participate in SCAG's effort to identify impacts to, and opportunities for connectivity. Metro is the lead agency for planning, constructing, and operating major transit capital investments in Los Angeles County such as this connection" The Green Line light rail extension to the Santa Fe Springs/Norwalk Metrolink station is entirely within Los Angeles County, but will greatly benefit Orange County residents who could more easily access the LA Metro Green system including LAX. Union Pacific Patata Industrial Lead to Anaheim: Union Pacific's Patata Industrial Lead freight rail line, paralleling Interstate 5 through Buena Park and Anaheim, should be studied for passenger train service. Such service could share the tracks with freight trains, as Metrolink does now. Trains would run from Downtown LA direct to Disneyland and Downtown Anaheim.</p>	<p>OC Bus 360 program, that focuses limited transit resources in areas that have the highest demand for transit. The LRTP also identifies transit enhancements along 11 corridors identified in the OC Transit Vision. In coordination with partner agencies along each corridor, OCTA will lead studies, as indicated in the Short-Term Action Plan, to identify specific needs and analyze options including rail and rubber-tire technologies. The LRTP also discusses introduction of OC Flex on-demand shuttle services as pilot projects which may help to provide transit options to areas in Orange County that do not have convenient access to fixed-route bus services. If successful, OC Flex may expand to additional areas within Orange County.</p>
85	Transit	I didn't see any mention of bringing back the CenterLine Project, which the city of Irvine killed off 15-years ago. How about reintroducing it again?	
86	Transit	I was wondering if the OC Streetcar can be extended to the LA County Line for a cross-platform transfer to West Santa Ana LRT branch being constructed by LA Metro	
87	Transit	Hi, I just wanted to thank you for every single project and plan that you guys have in place to get around Orange County better, I love that. I'm a native Orange County resident, I've been here all my life and I don't want to move. But I was noticing, however, that in other cities, and I know that we're not built in an L-shape, everyone else has a loop, but I know that you have inherited this car-driven environment and I know you're doing the best you can. But I just want to know, all these band-aids that we're putting on; are we ever going to build something like an "L" like in Chicago? I know I live in La Habra where no one's going to come service me, ever. But I know if I can get to Fullerton Transportation Center, that I can get on an "L" anytime and I can just go and go and go. Just have it be above ground, have it be all around Orange County were you just ride in this big-ol' "L" until you get to where you're going. That would be neat. Okay, thank you!	
88	Transit	1. Bus service to LAX from Irvine transportation Center along with long term parking 2. Metro link service from LA to South Orange County later in the evening. I could use it after seeing a show downtown LA.	
89	Transit	How will this defeat the environment? We should expand trains and more availability for trains and buses. Expand the use of bikes!	

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90	Transit	<p>The 2018 California State Rail Plan calls for substantial electrification of much of the state's passenger rail network. Orange County Light Rail and Rapid Transit Projects: The below projects listed on pg. 143 are also described also as Transit Opportunity Corridor Lines in the OC Transit Vision (pgs. 5-12 to 5-15): Harbor Boulevard Corridor Rail Transit Line- North Harbor Corridor – High-quality transit between Cal State Fullerton and the Santa Ana Regional Transportation Center South Harbor Corridor – High-quality transit between 17th/Westminster and Hoag Hospital Newport Beach A rapid transit line along the Harbor Boulevard corridor is long overdue for Orange County. One of our most important transportation arteries, improved transit service would benefit communities and businesses by promoting economic development and new housing around the line's stations. It is disappointing that OCTA recently decided not to proceed with rail rapid transit options for the Harbor Boulevard Corridor. This project needs to be revived. The Rapid Streetcar option was recommended by the final draft of OCTA's Central Harbor Boulevard Transit Corridor Study (December 2017). While this would be a vast improvement over existing bus service, OCTA needs to study an elevated rail rapid transit option for the Harbor Boulevard corridor. Elevated rail transit is far faster than rail vehicles at street level, and avoids traffic impacts entirely, greatly improving on-time performance. In order to be competitive with driving, rail transit must be fast and not have to wait for auto traffic to pass at intersections. Successful examples in North America of elevated rapid transit include Miami's Metrorail and Vancouver's SkyTrain. A subway option should also be studied, as future tunneling technologies could help bring down costs of underground rail line construction. The Harbor corridor rail transit line should eventually continue south to the South Coast Plaza and John Wayne Airport, more or less route of the OC CenterLine concept that was proposed in the late 1990s. Fullerton and Anaheim will be served by California High Speed Rail service, making these two cities a natural feeder for a rapid transit line originating at the Fullerton Transportation Center. Many tourists could take the Metrolink, Amtrak, or California High Speed Rail train to Fullerton or Anaheim, and then take the rail transit to Disneyland. Anaheim Regional Connector- This proposal, connecting from Anaheim Regional Transportation Intermodal Center (ARTIC) to the Anaheim Resort along Katella, needs to be revived. This line should be integrate a light rail line or rapid elevated /subway line should be studied for the Anaheim Regional Connector. Fullerton College Connector- This proposed light rail project between Downtown Fullerton and California State University-Fullerton needs to be revived, and integrated into Harbor Boulevard Light Rail if possible.</p>
91	Transit	<p>Hi, I'm requesting more [information] about services for disabled people. I'm in a wheelchair and I ride the buses, as well as I am an Access customer. And as the bus services that are contracted here in Irvine where I live, that is, the amount of no-go areas for Access in this area type of bus services. I know you carefully mandated too... and your hands are tied as to where Access can go, but my question is, what are your plans for more service for disabled people in light of all the contracts of the bus services? Because I participated years ago when you shut down a few lines and at the time you had said you were able to [give away a lot so disabled people can?].</p>
92	Transit	<p>I missed, I had a doctor appointment at, 2:00 OCTA got me there. Then at 7pm, music chorus, OCTA got me there. Since I am disabled, I have a need, my need is transportation. My input: a. cross routes, just not often enough b. you greet us at the front door. 1- My concern is to exit is appropriate at the same door. Stop let us off before you board anymore. Exception to the rule: wheel chair. Which ever door has the lift. This is my biggest concern. 2- no phone calls. 2- no smoking at the bench. This "experience" matters I do recall 1) too many people without seats, 2)noise level outrageous. I have seen these things change for the better. My last thought respect for the one in control after all he is our transportation.</p>
93	Transit	<p>Hi there. A couple of things.. 1) there are too many homeless and transients blocking the seats at the Fullerton Transportation Center Terminal! They have their bags all over the seats, and many of us have to either stand or find seats too far away! ... I don't want to be bothered, so please FINALLY do something about this OK? ... 2) We have to wait too long for the 143 La Habra going North, (1 hour and 15 minutes) sometimes! Can't they divert one of the 43 North Court Buses all the way to two (2) lights past IMPERIAL where they turn West? That would cut at least 1/2 an hour off our waiting period, and those 43 Buses often have nobody on them anyway!</p>
94	Transit	<p>I would like bus service to LAX from Orange County. I know you had one from Irvine Transportation Center which I used but now it has been discontinued.</p>
95	Transit	<p>Don't see a plan for Electric Buses in the plan. We need to get off LNG and CNG ASAP to cut CO2. Also need smaller corridor buses off major roads.</p>

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96	Transit	SoCalGas recommends that the draft LRTP include mention of near-zero natural gas buses in addition to zero-emission electric buses as solutions for helping reduce greenhouse gas emissions from the transportation sector. SoCalGas collaborated with Cummings-Westport to develop a 0.2 g NOx/bhp-hr natural gas engine that is commercially available and currently being deployed. This engine substantially reduces emissions from operation compared to regular diesel engines and should be included for mention in the draft LRTP. Thank you.	
97	Transit	Having more routes	
98	Transit	Improve & Expand Bus Service Within the O.C. & Into L.A. County, & Plan to Expand the Proposed Street Car into Cerritos (L.A. County) when Metro is Building the Santa Ana Line.	
99	Transit	There is no bus service to the anticipated new center being built on Commerce Centre Dr. near Bake Parkway. It will house a "Performing Arts Center", "Sr. Center", and "Police Department". How are the residents supposed to get there?	
100	Transit	How is OCTA going to insert some socioeconomic equity in its transit system? As in, promoting more frequent bus service in communities of color like Santa Ana? As well as providing dedicated bike lane infrastructure in communities that use them for communities rather than for recreation.	
	Technology		
101	Technology	<p>On the OCTA website on signal synchronization (https://www.octa.net/Projects-and-Programs/All-Projects/Streets-Projects/Signal-Synchronization/), they say that "Orange County's population is expected to increase 13 percent by 2035, and that means more drivers on our roadways". Neither of those statements is completely true. The U.S. Census estimate for July 1, 2017, was 3,190,400 (https://www.census.gov/quickfacts/fact/table/orange-county-california/PST045217). The Cal State Fullerton estimate for July 2035, is 3,431,390 (http://www.fullerton.edu/cdr/OCFF.pdf). The TCA has used CSUF population data in their own handouts, so I'm sure OCTA is familiar with the data, and uses it themselves. That's an increase of only 7.6%, just over half OCTA's number. Increased population does not necessarily mean "more drivers on the roadways". Many factors contribute to changes in vehicle-miles, and the effects of these factors are themselves variable. From 2005 to 2013 the U.S. population increased by about 7%, but during the same time period the total vehicle-miles in the U.S. remained essentially constant. For example, if OCTA provides more public transportation, which they claim they are doing, that will contribute to fewer drivers on the roadways.</p> <p>The survey also has questions in the "Have you stopped beating your wife?" category. The question presupposes conditions that are not necessarily true, which makes any answer meaningless. Another OCTA question is "Autonomous vehicles will make travel easier for many people which could lead to an increase in the number of car trips and congestion on local streets. Would you support a mileage-based fee to help manage growth in trips and congestion? " First they say it could lead to an increase in the number of car trips, then make the assumption that it does, and then require a response based on an assumption that is not necessarily true. It appears that OCTA makes the assumption that autonomous vehicles will have the same number of passengers per vehicle as at present. It is more likely that there will be ride-sharing using autonomous publicly-available minibuses, with no set routes, picking up and dropping off passengers on demand. In this case there will be fewer vehicles on the road. The minibuses might be operated by a public entity (e.g., OCTA) or a private enterprise.</p> <p>Section 4 Destinations, is a bit odd. OCTA provides six categories of destination: Home, Work, School, Entertainment, Health Care, and Recreation. It's a fair assumption that most people visit the supermarket more often than they visit the family physician, so why was Shopping not one of the categories? Maybe the OCTA personnel who generated this survey didn't want to know about that subject, because shopping is moving progressively online, and that results in people driving less.</p>	<p>The 2018 LRTP includes the continued implementation, maintenance, and improvements to a countywide network of synchronized signals. Signal synchronization is a proven technology that has realized significant benefits to travel speeds and delay reductions within Orange County. In addition to this type of system management technology, several other technologies and services that do not have historic trends are included as part of the Innovation and Policy scenarios. These scenarios are included to explore and discuss the type of impacts some of the more prominent innovations and policies being discussed today might have on the transportation system. The purpose is to highlight the need for OCTA to monitor the development of these influencing factors and to engage when appropriate. This is reflected in the Short-Term Action Plan, and as these and other emerging factors develop, they will likely take a more prominent role in future LRTPs.</p>

OCTA LRTP COMMENTS MATRIX

September 2018

102	Technology	Your website discusses signal synchronization as if it's new technology. It was used at least 50 years ago in the UK on the A4 between London Heathrow and Central London. Its usage may be much older than that. Artificial Intelligence (AI) is in development, with much of the work being done at Carnegie-Mellon University, and tested in Pittsburgh. They have also been tested in Milton Keynes in the UK. Eventually, signals controlled by AI over a larger region (e.g. a city), will allow platoons of vehicles to travel without interruption through the city. This will provide a large increase in surface street capacity. A significant percentage of traffic on limited-access roads is actually local traffic, and this will no longer need to use freeways or toll roads. There are many other technologies that will increase road capacity, such as adaptive cruise control (ACC), which will be on every car sold in the U.S. within the next few years. Concentrate on increasing capacity, not on building new roads. In particular, don't more toll roads or managed toll lanes.
103	Technology	The online OCTA Survey defines it as "Match the green light time for a series of intersections to enable the maximum number of vehicles to pass through and reduce stops and delays". Provided that most of the traffic flow is in one direction over a given period (morning or afternoon rush hour, for example), the OCTA Survey definition is not the best approach, because it encourages cars to drive as fast as possible before the signals turn red. Along a given stretch of road the signals should be sequenced so that a car driving below the speed limit will pass though green lights for the longest distance possible. When the traffic flow changes direction at a different time of day, then the signals are automatically re-sequenced accordingly. The Intercounty Commuting Patterns map on page 24 shows a clear imbalance between OC and San Bernardino County, Riverside County and San Diego County, suggesting that there is dominant flow in one direction in the morning, and the opposite direction in the afternoon. Signal sequencing was done on many roads in the UK into and out of London sixty years ago. OCTA appears to be just getting around to a very simple, and not very efficient or safe, form of synchronization. Chapter 5, Designing in a Changing World, provides a brief summary of the application of new technology, but the authors seem to go out of their way to imply that technology will increase traffic rather than reduce it. For example, on page 121 the authors state "Also, if autonomous vehicles are incorporated into TNC (transportation network companies, such Uber and Lyft) and goods movement fleets, the removal of labor expenses would reduce the cost of providing services. Similarly, reduced labor costs with autonomous buses and heavy trucks could allow for increases in service levels." The implication here is that there will be more vehicles on the road. But if TNCs include ride-sharing, and more people ride buses, that would mean fewer vehicles overall on the road. But the authors don't want to take the logic that far. Similarly they state that "Introduction of autonomous vehicles will result in 'zero-passenger' trips if vehicles are traveling to pick up a passenger, park, or make a delivery".
104	Technology	OCTA should also encourage the deployment of electric trucks. The OC Goods Movement Study recommendations is mentioned on pg. 135, but when was this study last updated? Recommendations from this study should be provided in the LRTP. Short-haul freight rail between San Pedro Bay and the Inland Empire, currently under study by the Ports of Los Angeles and Long Beach, would reduce truck traffic on Interstate 91. To reduce air pollution alongside freight rail tracks and rail yards, electrification of freight rail must also be studied. Electric Vehicles: It is commendable that OCTA will support electric vehicle charging infrastructure at Metrolink stations and OCTA facilities (pg. 111). However, OCTA needs to find ways to support charging stations at many other locations both public and private. Zero-emissions vehicles are briefly mentioned in the New Technologies section on pg. 117, but given the same amount of space as very far-fetched ideas such as Hyperloops and flying cars. Zero-emissions, presumably electric, buses are mentioned only very briefly on pgs. 69, 111 and 117. There should much more discussion of electric buses, including a discussion of different types and electric bus deployments at other transit agencies worldwide. The City of Anaheim already is planning to purchase electric buses, and OCTA as a whole should do the same.
105	Technology	It seems to me that far too little attention is given to "Emerging Technology", specifically Autonomous Vehicles and Connected Vehicles. Rather than spending billions on adding freeway lanes, the same capacity increases could be potentially realized at a small fraction of the cost by - for example - dedicating a lane to Connected Vehicles that would travel at greater speeds with minimal separation (potentially even in narrower lanes). 2 - 3 times as many vehicles could be accommodated in the same space as typical vehicles. The cost savings would be enormous, and the technology is not too far off (and hopefully regulations are not far behind).

OCTA LRTP COMMENTS MATRIX

September 2018

106	Technology	<p>I took the OCTA survey a few days ago. It appears that from this survey the public can learn more about OCTA's interests than OCTA might learn about the public's interests.</p> <p>The first thing to learn is that OCTA's application of new technology and ideas is firmly set in the 1960s. In "Section 2 Improvements", we are asked to rank eight items, only two of which involve technology that wasn't available sixty years ago. "Signal synchronization" was being done in the UK around 1962. As one example, it was used on the A4 road from London Heathrow into Central London. Using progressive synchronization during morning rush hour, you could drive from Heathrow towards the center of London and the traffic lights would be green all the way (https://en.wikipedia.org/wiki/Traffic_light_control_and_coordination). Waves of cars would sweep into London provided that they all kept at a speed of about 50 mph. Progressive synchronization was reversed in the afternoon. The Improvements section defines signals synchronization as "Match the green light time for a series of intersections to enable the maximum number of vehicles to pass through and reduce stops and delays". That is not the best way to do it, because it encourages drivers to speed to get through as many green lights as possible before they all turn red.</p> <p>In the same section there is an option "Expand technology use", defined as "Implement technological advancements to improve traffic", but there is no mention of what those technologies might be, whereas another option "Adding tolled express lanes" is specific. As a reference point, the draft Long Range Transportation Plan (LRTP) makes only one mention of adaptive cruise control (ACC) and that is in the Autonomous Vehicles section (page 120). Is it considered by OCTA in traffic planning and capacity requirements? There's no mention that it is considered, even though it can increase freeway capacity by over 60%. How about the application of artificial intelligence (AI) to traffic signals? OCTA makes no mention of any application of AI in the survey, nor indeed in the LRTP, and when I asked an OCTA representative about it, I was told that it was not being considered for planning purposes. Area-wide traffic signal coordination is already used in several cities (e.g., New York, Toronto, Sydney, Melbourne, Adelaide).The application of AI to such systems could make them much more efficient. There is a wave of new technology that will transform personal transportation, yet from the survey OCTA seems only vaguely aware of its existence.</p>
107	Technology	<p>We must change the way we think about transportation. The fact is with the growth we have experienced and will continue to experience we will never 'build' our way to less traffic. We have too many people driving too many cars. This will not change no matter how many lanes or toll roads or HOV lanes are build. We must change our expectations about traffic congestion and our behaviors that support driving rather than other means of transportation (seems every new bank / fast food restaurant / coffee house/ drug store etc. are built with a drive through. A school with 600 kids has 600 cars dropping them off and picking them up. A high school with 1000 students has 800 cars driving to and from school...etc.). We can not build our way to 'good' traffic. We need to be smart. We need to use technology to help with flow patterns, speeds, lane controls.</p>
108	Technology	<p>Long Range transportation planning needs to consider SMART technology and stop spending taxpayer money on any concept of managed lanes.</p>

OCTA LRTP COMMENTS MATRIX

September 2018

109	Technology	<p>The probability of zero-passenger trips being of significant distance is small. With a reasonable geographic density of autonomous vehicles, the zero-passenger distance for the vehicle to drive to pick up a passenger will be short, and after it has dropped the passengers off there will be a similarly short distance to pick up the next customer. In the same chapter, another example of trying to find reasons why not to adopt new technology is "Also, while autonomous vehicles may open new mobility options for populations that could not previously use automobiles, such as seniors or the disabled, the resulting impact could be more vehicles on the road and therefore increased congestion." The scenario of streets getting clogged with newly-mobile disabled people seems somewhat farfetched. Closer to reality is that at present a carer has to drive over to the home of the disabled person to pick them up, take them to wherever they want to go, bring them home again, and then the carer drives home. In the future the disabled person will go directly to their destination, then home again. That means less traffic on the roads. The desire to minimize the benefits of new technology is also exemplified in the section on telecommuting:</p> <p>"Telecommuting (in other words, working remotely) is gaining popularity nationally, and the same is true in Orange County. In fact, six percent of Orange County workers over age 16 report that they telecommuted in 2016 – more than those who walk, bike, or take public transportation to work combined. However, the benefits of telecommuting are not clear-cut. On one hand, telecommuting has the potential to remove cars from Orange County roadways during peak travel times, thereby decreasing congestion. On the other hand, people who do not drive to an office during rush hour may still run errands or make other additional trips. Also, the ability to telecommute may allow people to live farther from their work, resulting in longer commutes if they do commute to the office. Regardless, as technology continues to improve communication and information-sharing capabilities, it is likely the use of telecommuting will continue to grow in Orange County and elsewhere." The expression "on one hand..." and "on the other hand..." should imply equality of value, but sometimes it's used to promote something that is simply not true ("On one hand, scientists say the world is spherical, but on the other hand, many people say the world is flat").</p>
110	Technology	<p>The benefits of telecommuting in reducing rush hour traffic are overwhelming, but the authors claim "the benefits of telecommuting are not clear cut". The words "artificial intelligence" (AI) don't appear anywhere in Chapter 5 (nor in the rest of the LRTP), which is a bit odd, seeing that AI will be behind most of the improvements in transportation, from traffic signal control to ride sharing. A slightly more advanced form of signal control is to use cameras or other detectors to determine the approach of vehicles from a much further distance as compared with what is done at present, which is only about 5 vehicle lengths. Relatively simple AI in the signal controller figures out how to sequence the signals so that traffic doesn't have to stop, or at least the stoppage time is minimized. On a more advanced system of synchronization, AI will determine vehicle location and speed over a geographic region (possibly a city) so that waves of cars will be controlled remotely with each wave passing through an intersection without having to stop. This would be similar to two columns of dancers intersecting at right-angles with both columns moving at a constant speed, each dancer representing a wave (maybe 5 - 50 cars). Thus AI will be performing a real-time choreography of waves of cars. The origin and destination of each vehicle will be known to the AI system, so that when cars turn at an intersection, they may leave one wave, and join another. This involves very little infrastructure, because the roads and signals are already in place. The authors of the report seem aware of the benefits of new technology, but are doing their best to minimize it rather than embrace it. They should spend a bit more time in Silicon Valley (or Silicon Beach) and see where technology is taking us.</p>

DESIGNING TOMORROW

2018 LONG-RANGE TRANSPORTATION PLAN
PUBLIC OUTREACH REPORT, SEPTEMBER 2018



ORANGE COUNTY TRANSPORTATION AUTHORITY

**2018 Long-Range Transportation Plan
Short-Term Action Plan**

Activity	Description
Orange County Planning Activities	
Coordination with Local Partner Agencies	Continue dialogue with local jurisdictions, Caltrans District 12, TCA, local transit operators, and other local agencies as needed to further intra-county connectivity.
South Orange County Mobility	Identify multi-modal transportation needs and opportunities in South Orange County.
Corridor Studies & Improvements	Conduct studies evaluating the feasibility of multi-modal corridor enhancements.
OC Transit Vision Feasibility Studies	Study options to improve transit service and connectivity along corridors identified through the OC Transit Vision.
Transit Support Services	Establish a long-term plan for Orange County transit supportive services, such as OC Flex, Vanpools, and Park & Rides.
Managed Lane Studies	Identify operational enhancements to the HOV network and criteria for potential expansion of priced managed lanes.
Freeway Chokepoints	Develop long-term freeway chokepoint improvement strategies, assuming OC Go is fully implemented.
Signal Synchronization	Support local initiatives to maintain and modernize signal synchronization corridors countywide.
Transportation Demand Management (TDM)	Study opportunities for new or expanded TDM projects.
Active Transportation Investments	Continue evaluating Orange County's Active Transportation needs, develop long-term plans, and implement programs that address data collection, data management, and safety education.
Sustainable Transportation Strategies	Coordination with partner agencies on implementation of sustainability strategies.
Joint Development Studies	Evaluate opportunities for joint developments at OCTA transit terminals to improve transit facilities and connectivity with employment/housing.
Asset Management	Monitor maintenance needs for existing and new facilities and equipment. Update fleet plans to address zero-emission bus requirements.
Adaptation Planning	Study infrastructure needs and develop recommendations.
Traffic Model Update	Update Orange County Traffic Analysis Model to incorporate latest socioeconomic data.
Regional Planning Activities	
Coordination with Regional Partner Agencies	Continue dialogue with SCAG, SANDAG, County Transportation Commissions, SCAQMD, Caltrans, and other regional agencies as needed to further inter-county connectivity.

**2018 Long-Range Transportation Plan
Short-Term Action Plan**

Activity	Description
Regional Planning Activities (continued)	
Trade Corridors/Goods Movement	Coordinate primarily through SCAG and Metro to plan for projected growth in regional goods movement.
2020 RTP/SCS	Participate in the development of the 2020 RTP/SCS and initiate dialogue with SCAG and local jurisdictions.
2028 Olympics	Coordinate with Metro on preparations for the 2028 Olympics.
Metro Countywide ExpressLanes Strategic Plan	Continue dialogue with Metro and appropriate agencies to identify impacts to, and opportunities for, connectivity with Orange County's transportation network.
San Diego's I-5 HOT Lane Project	Continue dialogue with SANDAG and appropriate agencies to identify impacts to, and opportunities for, connectivity with Orange County's transportation network.
West Santa Ana Branch/Pacific Electric Right-of-Way	Continue dialogue with Metro and appropriate agencies to identify impacts to, and opportunities for, connectivity with Orange County's transportation network.
Gold Line Eastern Extension – Phase 2	Continue dialogue with Metro and appropriate agencies to identify impacts to, and opportunities for, connectivity with Orange County's transportation network.
LOSSAN/Green Line Connection	Participate in SCAG's effort to identify impacts to and opportunities for connectivity. Metro is the lead agency for planning, constructing, and operating major transit capital investments in Los Angeles County such as this connection.
Emerging Issues	
Monitor New Technology	Monitor developing technologies and their potential impacts on transportation (e.g., autonomous vehicles, alternative fuels, and smart phone applications).
Connected Infrastructure Needs Assessment	Study infrastructure needs and identify opportunities to implement and/or complement emerging transportation technologies.
State and Federal Regulation	Monitor State and federal legislation/regulations.
State and Federal Funding	Identify strategies and opportunities to access and leverage State and federal funding.
Transportation Outreach and Education	
Active Transportation Safety	Seek opportunities to enhance public outreach and education related to active transportation safety.
Transit Use and Trip Planning	Explore new approaches to increase use of modes other than single occupant vehicles, including enhanced transit and active transportation facilities, public education, and incentives.

Acronyms

Caltrans - California Department of Transportation	OCTA - Orange County Transportation Authority
HOT - High-Occupancy Toll	RTP/SCS - Regional Transportation Plan and Sustainable Communities Strategy
HOV - High-Occupancy Vehicle	SANDAG - San Diego Association of Governments
I-5 - Interstate 5	SCAG - Southern California Association of Governments
LOSSAN - Los Angeles - San Diego - San Luis Obispo Rail Corridor Agency	SCAQMD - South Coast Air Quality Management District
Metro - Los Angeles County Metropolitan Transportation Authority	TCA - Transportation Corridor Agencies



DESIGNING TOMORROW

FINAL

2018 LONG-RANGE TRANSPORTATION PLAN

Impacts of Growth

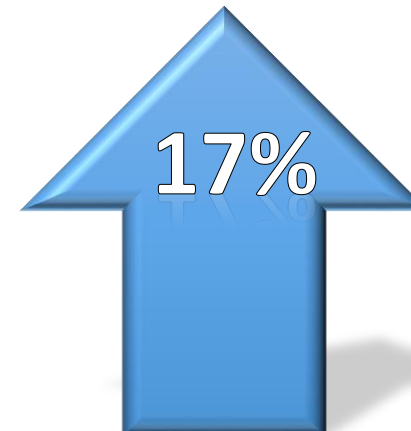
Metrics (daily)	2015 Base Year	2040 No Build	% Change
Total hours of delay from congestion	330,619	547,996	66%
Delay as a percent of travel time	15.2%	21.4%	41%
Transit trips	149,000	165,000	11%
Freeways – AM peak average speed (mph)	38.3	36.2	-5%
Arterials – AM peak average speed (mph)	25.7	24.3	-5%



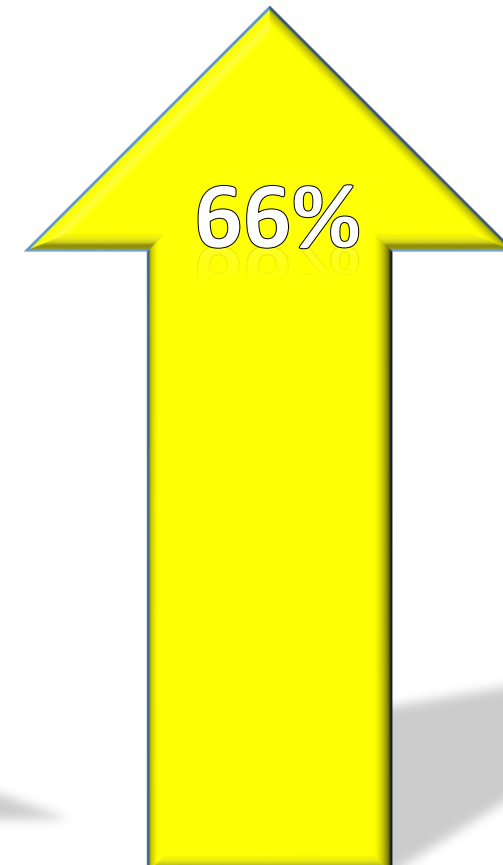
Population



Housing



Employment



Congestion Delay

Public Outreach – Phase One

- 11,000+ public survey responses
- Engagement with OCTA stakeholders:
 - Citizens Advisory Committee
 - Special Needs Advisory Committee
 - Diverse Community Leaders Committee
 - Teen Council
- Elected Officials Workshops
- Transportation Planning Directors Forums
- OCTA Board/Committee presentations
- OCTA Board Workshop: Managed Lanes
- Thought-leader interviews
- Focus group interviews
- Engagement with partner agencies and interest groups

Keep OC Moving

- Congestion relief on streets and freeways

Expand Transit Options

- Growing interest in expanded transit options

Be Innovative

- Monitor and engage in development of technology

Draft Results

Trend 2040 nearly matches 2015 conditions

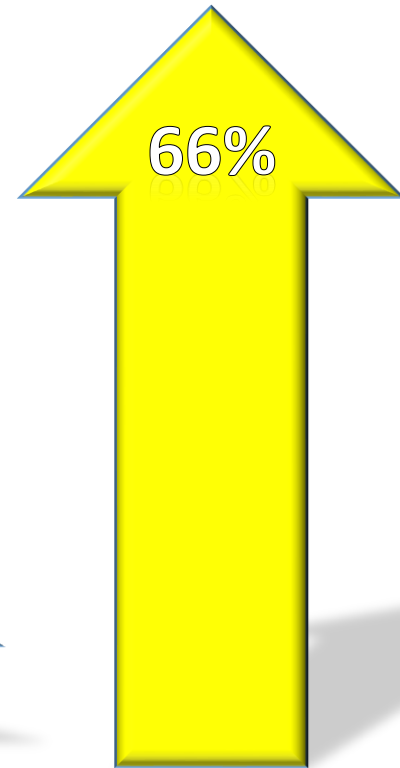
- Despite over 1.7 million daily trips added

Metrics (daily)	2015 Base Year	2040 No Build	Draft Trend 2040*
Total hours of delay from congestion	330,619	547,996	380,736
Delay as a percent of travel time	15.2%	21.4%	15.5%
Transit trips	149,000	165,000	174,000
Freeways – AM peak average speed (mph)	38.3	36.2	39.5
Arterials – AM peak average speed (mph)	25.7	24.3	25.8

*Trend 2040 assumes managed lanes are operated as tolled Express Lanes by 2040



**Congestion Delay
(Draft Trend 2040
vs 2015 Base Year)**



**Congestion Delay
(2040 No Build
vs 2015 Base Year)**

Public Outreach – Phase Two

- Public survey (1,230 respondents)
- Quantitative survey (2,525 respondents)
- Telephone town hall (956 callers participated for at least five minutes)
- Comment cards/online commenting (110 comments received)
- Comment letters (eight letters received)
- Public open house
- Social media campaign
- Pop-up events (seven events)
- Engagement video
- Art and photo contest

Keep OC Moving

- Relieve congestion on streets and freeways

Expand Transit Options

- Explore opportunities for new transit services

No “Silver Bullet”

- Invest in improvements across all modes to relieve congestion

LRTP Refinements

- Additional data
 - PM peak period performance data
 - Protected lands and coastal zones map
- Clarifications
 - Roles and responsibilities of partner agencies
 - Scenario assumptions
 - Project development processes
 - Minor corrections to maps
- Refinements to project list and Short-Term Action Plan
 - Reference to intercity (Amtrak) rail service plans added
 - State Route 55/Meats Avenue interchange – moved to conceptual list
 - Adaptation planning added to Short-Term Action Plan
 - Traffic Model Update added to Short-Term Action Plan

Results Remain Consistent

Metrics (daily)	2015 Base Year	2040 No Build	Draft Trend 2040*	Final Trend 2040*
Total hours of delay from congestion	330,619	547,996	380,736	378,138
Delay as a percent of travel time	15.2%	21.4%	15.5%	15.4%
Transit trips	149,000	165,000	174,000	174,000
Freeways - AM peak average speed (mph)	38.3	36.2	39.5	39.7
Arterials - AM peak average speed (mph)	25.7	24.3	25.8	25.9

*Trend 2040 assumes managed lanes are operated as tolled Express Lanes by 2040

Short-Term Action Plan

Orange County Planning Activities

Coordination with Local Agencies
 South Orange County Mobility Study
 Corridor Studies and Improvements
 OC Transit Vision Feasibility Studies
 Transit Support Services
 Managed Lane Studies
 Freeway Chokepoints
 Signal Synchronization
 Transportation Demand Management
 Active Transportation Investments
 Sustainable Transportation Strategies
 Joint Development Studies
 Asset Management
 Adaptation Planning
 Traffic Model Update

Regional Planning Activities

Coordination with Regional Agencies
 Trade Corridors/Goods Movement
 2020 RTP/SCS
 2028 Olympics
 Metro Countywide Express Lanes Strategic Plan
 San Diego's I-5 Toll Lane Project
 West Santa Ana Branch/ Pacific Electric ROW
 Gold Line Eastern Extension – Phase 2
 LOSSAN/Green Line Connection

I-5 – Interstate 5
 LOSSAN – Los Angeles-San Diego-San Luis Obispo Rail Corridor
 ROW – Right-of-Way
 RTP/SCS – Regional Transportation Plan/Sustainability Communities Strategy

Emerging Issues

Monitor New Technology
 Connected Infrastructure Needs Assessment
 State and Federal Regulation
 State and Federal Funding

Transportation Outreach and Education

Active Transportation Safety
 Transit Use and Trip Planning

Next Steps

Submit 2018 LRTP project list for 2020 RTP/SCS

Participate in development of the 2020 RTP/SCS

Proceed with:

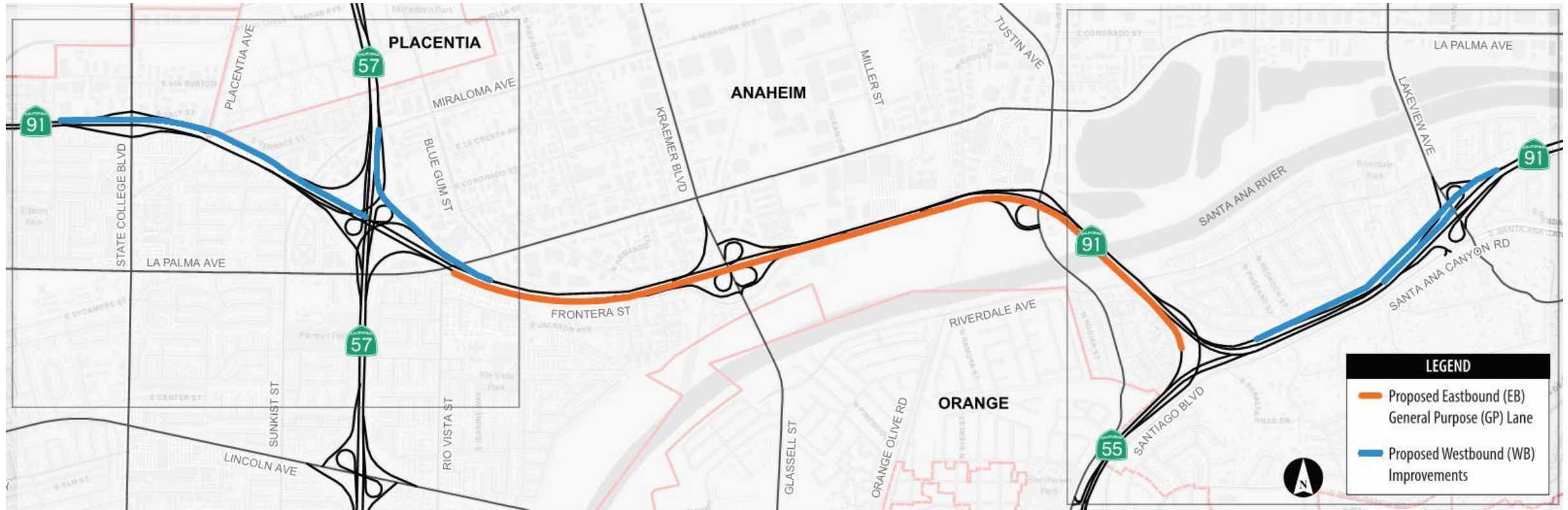
- Project development & implementation
- Short-Term Action Plan elements

2020 – Begin development of 2022 LRTP



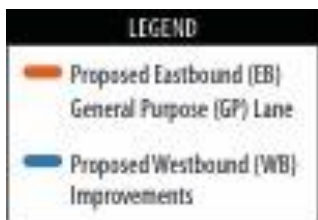
Update on State Route 91 Improvement Project from State Route 57 to State Route 55

Project Limits

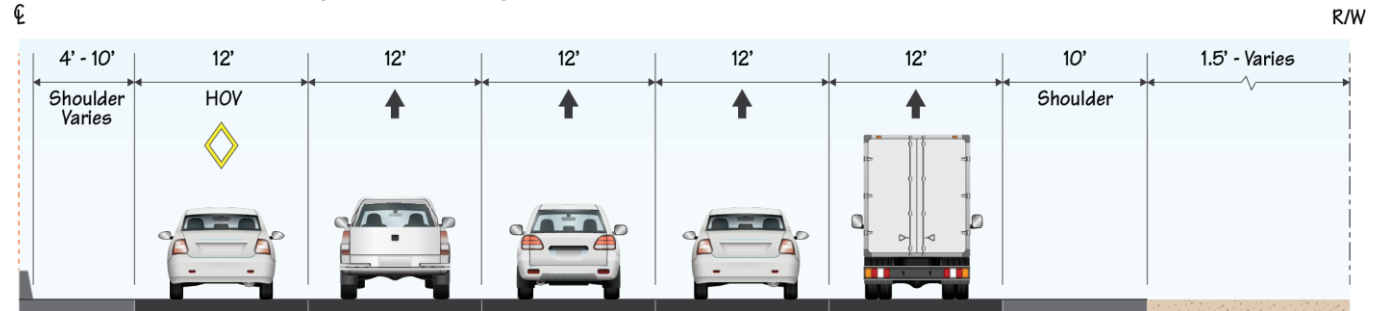


Area of Improvements

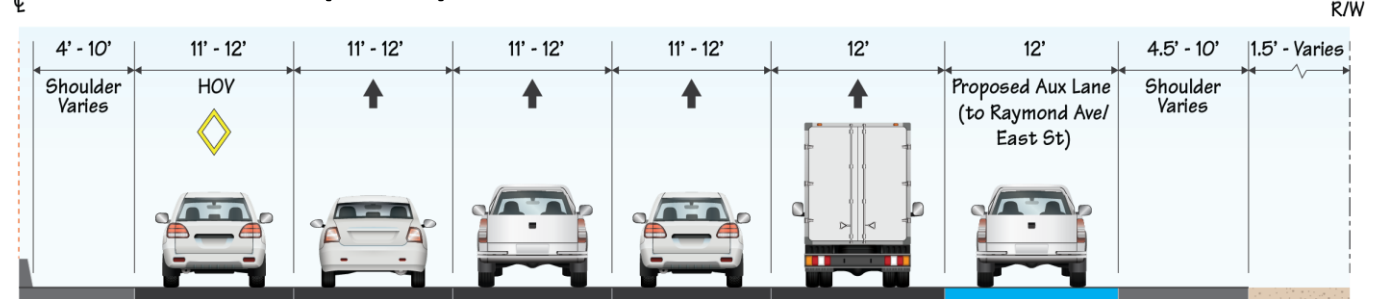
State Route 91 (SR-91)/State Route 57 (SR-57) Interchange



Alternative 1 (No Build)



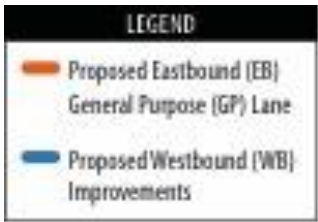
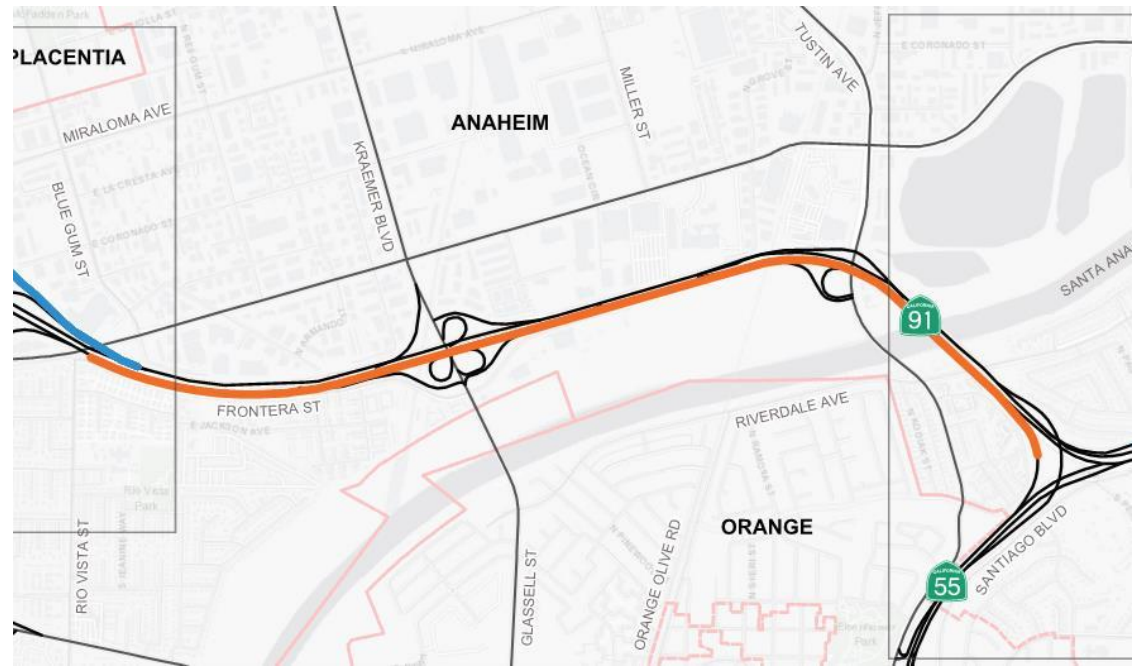
Alternative 2 (Build)



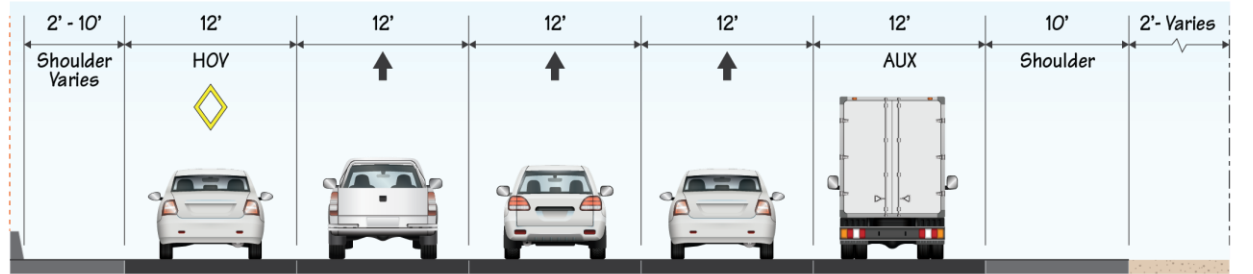
- Improve weaving from WB SR-91 to northbound and southbound (SB) SR-57
- Add an auxiliary lane from SR-57 to Raymond Avenue/East Street

Area of Improvements

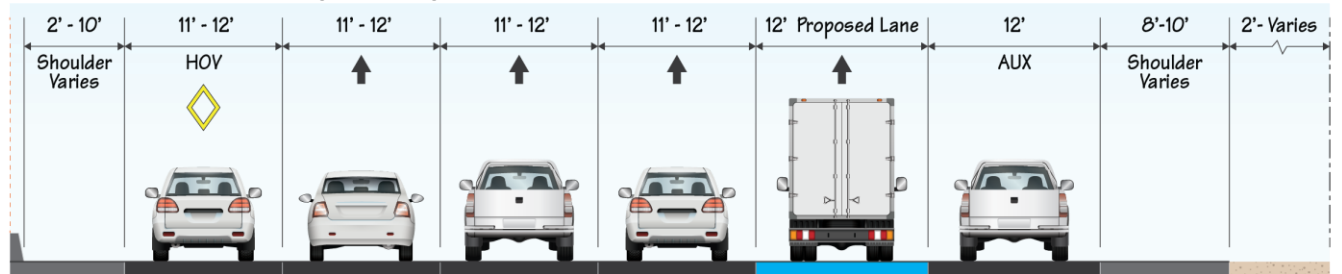
Between SR-57 and SR-55



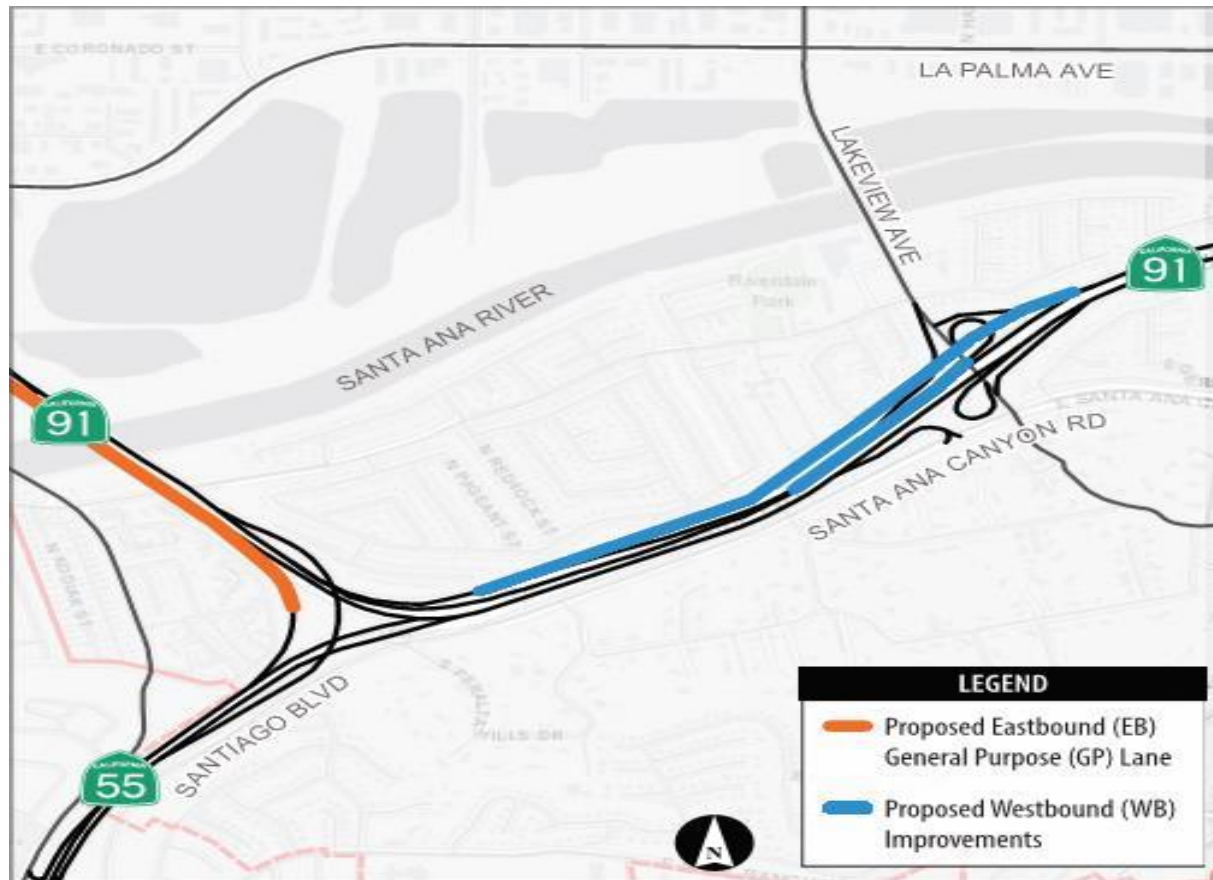
Alternative 1 (No Build)



Alternative 2 (Build)



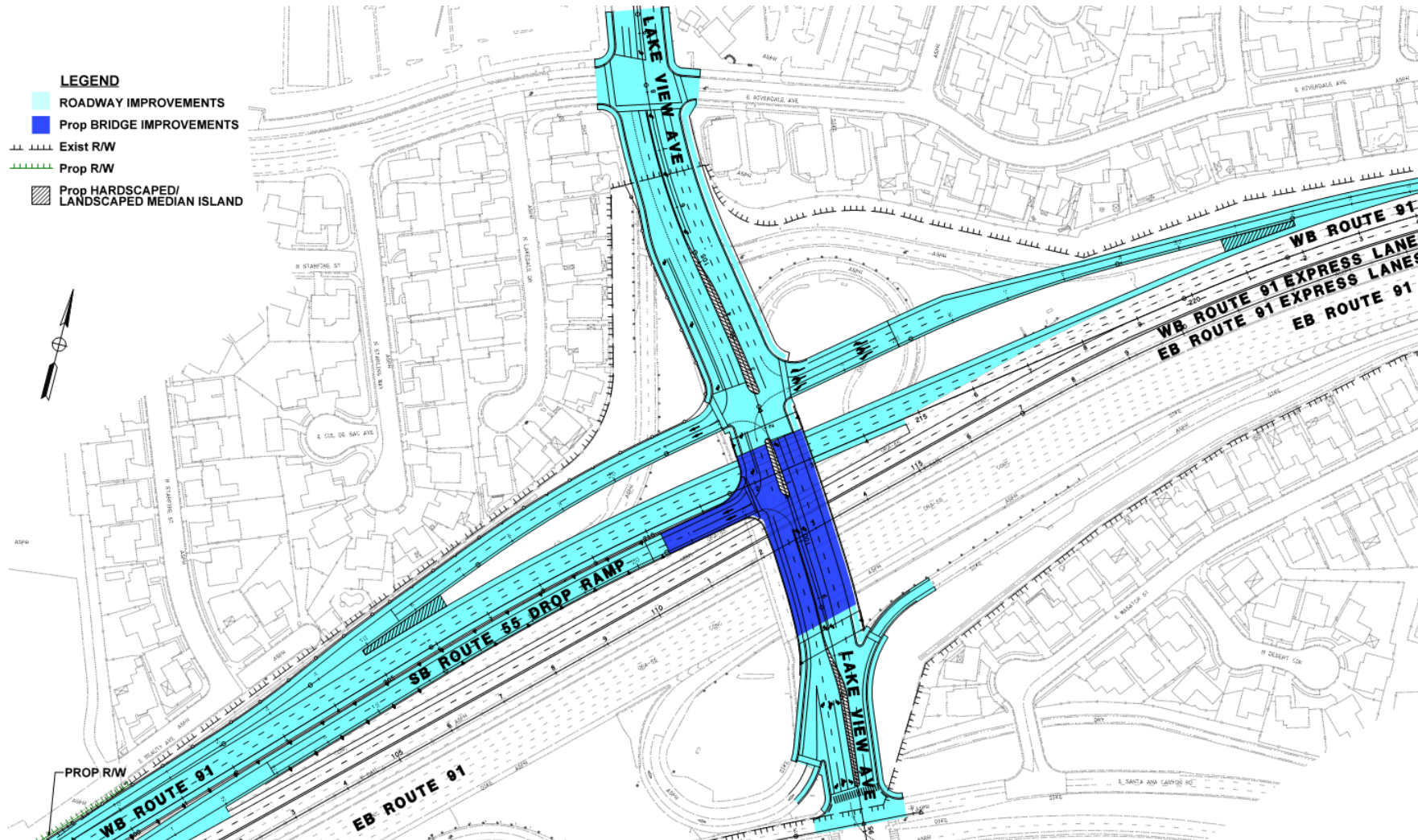
SR-91/Lakeview Avenue Interchange



- Realign WB on-ramp to direct traffic to WB SR-91
- Add a new on-ramp from the Lakeview Bridge connecting directly to SB SR-55
- Barrier separate WB SR-91 from SB SR-55

Area of Improvements

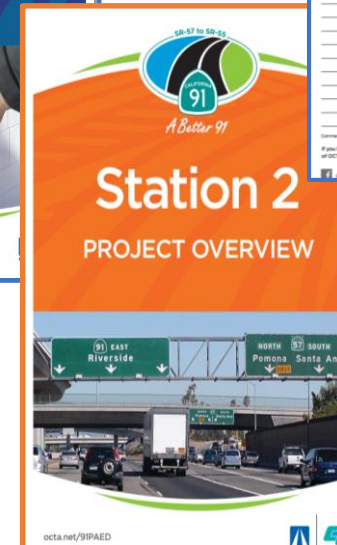
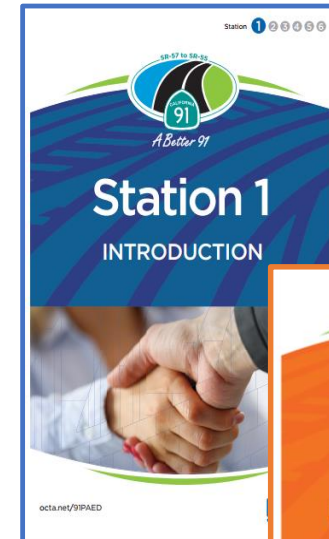
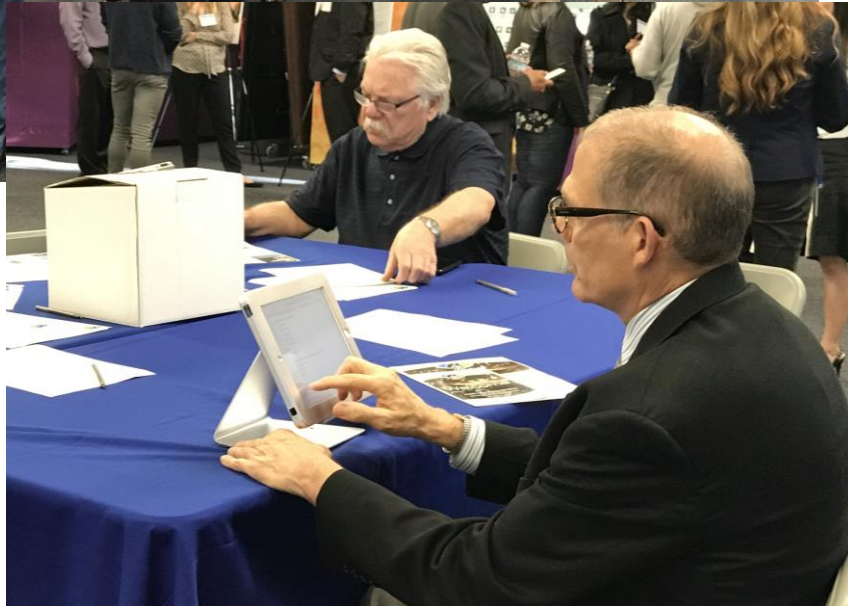
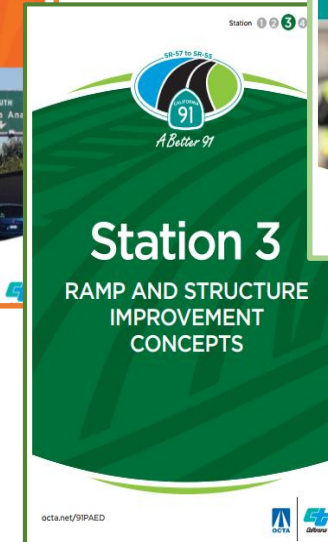
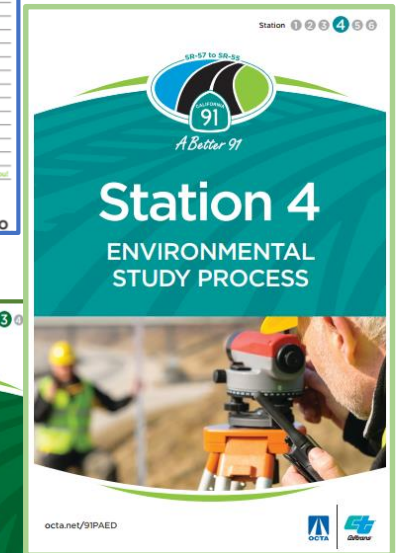
SR-91/Lakeview Avenue Interchange




Design Year Approximate Average Daily Traffic Volumes			
SR-91	Existing	Alternative 1 (No Build)	Alternative 2
WB	100,000	107,000	112,000
EB	91,000	102,000	108,000
Total	191,000	209,000	220,000

Opening Year SR-91 Freeway Mainline Travel Times (minutes)				
SR-91 Peak Hour		Existing	Alternative 1 (No Build)	Alternative 2
WB	AM	20	25	20
	PM	18	29	25
EB	AM	10	18	12
	PM	14	24	16

Public Meeting, Noticing, and Outreach

A "COMMENT CARD" for a "Public Information Open House - March 14, 2018". It includes fields for "Name", "Organization / Business Name", and "Comments". There are also checkboxes for "How did you hear about this meeting?" with options: "Direct", "Down the road", "Down the street", "Down the hill", "Down the river". The card is titled "COMMENT CARD" and "Public Information Open House - March 14, 2018". It also has a "Thank You!" message and logos for OCTA and OC GO.

Environmental Phase Schedule

	2014	2015	2016	2017	2018	2019
Environmental Phase						
Public Information Meeting			March 14, 2018	★		
Draft Project Report and Environmental Document (30-day review)		Mid November – Mid December 2018			■	
Public Hearing (Open House Format)			December 5, 2018	★		
Incorporate public comments		Late December 2018 – Early 2019			■	
Preferred Alternative Selection				Early 2019		■
Final Environmental Document				Complete Mid 2019		■